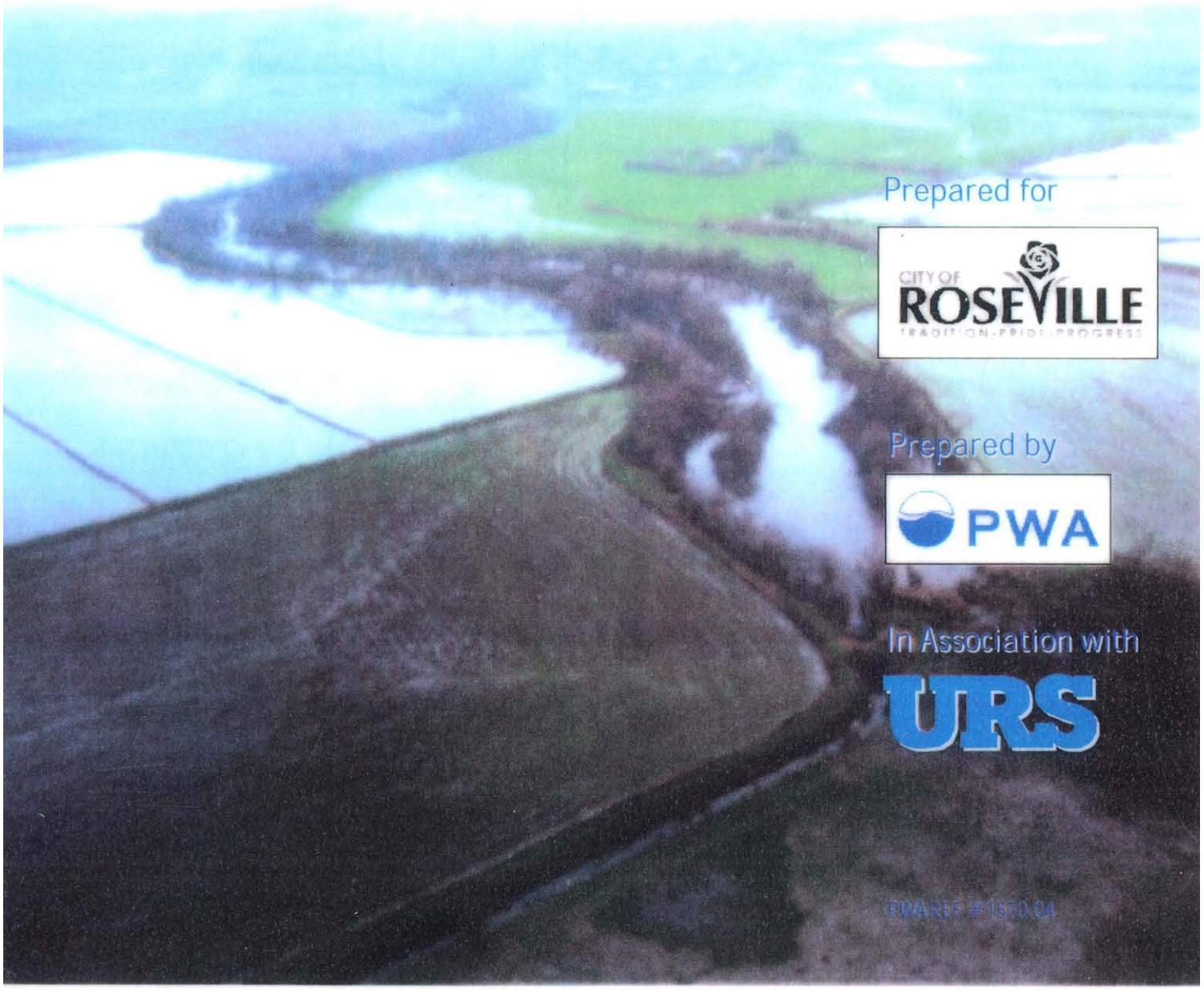
Reason Farms Retention Basin
Final Conceptual Design Report

May 24, 2002



Prepared for

CITY OF ROSEVILLE
TRADITION • PRIDE • PROGRESS

Prepared by

PWA

In Association with

URS

PWA REF. # 1570.04

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Prepared for

The City of Roseville, California

Prepared by

Philip Williams & Associates, Ltd.

with

URS Corporation

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Services provided pursuant to this Agreement are intended solely for the use and benefit of the City of Roseville, California.

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1. INTRODUCTION

1.1 BACKGROUND

The City of Roseville is interested in constructing a retention basin to alleviate potential downstream flooding that could be caused by entitled projects and future projects within the City of Roseville (City) or in portions of South Placer County covered by the 1997 Memorandum of Understanding (MOU) between the City and the County of Placer (County). The City engaged URS Corporation (URS), in association with Philip Williams & Associates (PWA), to assist with identification of an appropriate site location, development of a conceptual design, and obtaining environmental clearance for a retention basin to be located west of the Roseville city limits.

In the past several years, Sutter County has exerted pressure on the City of Roseville, the City of Rocklin and Placer County to provide solutions to mitigate increased runoff volume resulting from 100-year frequency storms after development (Civil Solutions, 2000a). This study builds upon the Pleasant Grove Watershed Mitigation Fee, City of Roseville report by Civil Solutions and the hypothetical 8-day, 100-year event used in that report. Use of this hypothetical event led to a settlement between the City of Lincoln and Sutter County regarding the development of the Del Web Lincoln Hills project. This hypothetical event was developed by normalizing observed precipitation at the City of Roseville Water Treatment Plant for the worst 8 days of the mid-February 1986 flood event to the 8-day, 100-year frequency amounts specified in the Placer County Stormwater Management Manual (SWMM). In other words, the observed precipitation amounts were adjusted (Civil Solutions, 2000a) so that their sum would equal the precipitation amount specified in the SWMM.

The conceptual design was developed as an iterative process and builds upon the findings discussed in the Screening Level Evaluation of Alternative Site Locations for the City of Roseville Retention Basin, March 8, 2002 (URS/PWA, 2002). Three alternative sites were investigated in that document. Concepts for retention storage were subsequently investigated at two of the alternative sites: the Reason Farms site and the Curry Creek site. Appendix A contains memoranda that describe these alternative concepts. The conceptual design presented in this report is specific to the Reason Farms site. Figures illustrating the conceptual design are included on Sheets 1 through 7 at the end of this report.

1.2 OVERVIEW

The Reason Farms site is located along Pleasant Grove Creek in southwestern Placer County approximately 2.4 miles west of the city limits of Roseville. The Pleasant Grove Creek watershed is a subbasin within the 292-square-mile Cross Canal Watershed. Other major subbasins of the Cross Canal watershed include Coon Creek, Markham Ravine, Auburn Ravine and Curry Creek.

The Pleasant Grove Creek watershed totals approximately 44.6 square miles and ranges in elevation from approximately 300 feet near the Town of Loomis to 45 feet near Sutter County (Wood-Rodgers, 2001a).

In addition to the main branch of Pleasant Grove Creek, the North Branch of Pleasant Grove Creek also flows through the Reason Farms site, as does an unnamed tributary, referred to in this report as Northern Tributary Two.

The project site includes Reason Farms and an adjacent parcel. Reason Farms is an irregularly shaped 1,329-acre rectangular parcel, with northwestern and southeastern fingers jutting out from the rectangle. The adjacent parcel is comprised of approximately 420 acres that lie adjacent to and immediately west of Reason Farms. The conceptual design would utilize approximately 170 acres of the adjacent parcel. The total land area needed for the project would therefore be approximately 1,500 acres. Future references to the project site or Reason Farms refer to the total 1,500-acre area that would be needed to implement the conceptual design. The northernmost portion of the project site abuts Sunset Boulevard West, and the southernmost boundary of the site lies along Phillip Road as shown on Sheet 1. The site is currently used for rice farming.

1.3 OBJECTIVES

The proposed project is intended to provide retention storage to alleviate potential downstream flooding that could be caused by entitled projects and future projects within the City or within other areas in south Placer County. Specific goals identified by the City include:

1. To provide retention storage for some or all of the incremental increase in runoff volume resulting from the City's currently entitled and future development projects that generate runoff flowing through Sutter County.
2. To provide retention storage for the West Roseville Specific Plan and the remainder of the MOU area and the Northwest Rocklin Annexation Area.
3. To provide retention storage for the City of Roseville Pleasant Grove Creek Wastewater Treatment Plant.
4. To meet the above objectives in a manner consistent and compatible with other goals and policies of the City of Roseville's General Plan, the Placer County General Plan, the Placer Legacy Project and the Wildlife Agencies.
5. To provide opportunities for open space and passive recreation adjacent to City boundaries.
6. To provide a low maintenance facility with a minimal amount of construction (excavation and/or fill placement).
7. To minimize the number of property owners who could be negatively affected by project implementation (property acquisition and construction)

2. PROPOSED PROJECT

2.1 OVERVIEW

The proposed project would be a retention facility designed to provide retention storage of 2,530 acre-feet, while preserving and enhancing open space characteristics. It would provide future opportunities for other uses such as enhancement of riparian, wetland and upland habitats and passive recreation (pedestrian and bicycle trails, etc.) that could be constructed by the City or others. The City could retain ownership or ultimately convey ownership to a conservancy agency or another third party.

The project would be comprised of two basins, one located north of Pleasant Grove Creek and the second located south of the creek. On nearly all occasions, the basins would appear as open fields. A small stream would flow through the North Basin during the wet season, and about once annually, a small stream would flow through the South Basin. When flooding is imminent in Sutter County (perhaps once every fifteen to thirty years), the basin outlets would be closed and water would accumulate and be held in the basins for a period of days. When the threat of flooding in Sutter County recedes, the basins would then be allowed to drain dry. Each basin would have certain typical features such as embankments, low-flow channels and outlet structures. The basins and typical features are described in the following sections of this chapter and are shown on Sheets 1 through 7. The purpose of the project is to retain storm water runoff during episodes of imminent flooding in Sutter County. Such occurrences may turn out to be rather rare, which means that these basins would be free flowing most of the time.

2.2 NORTH BASIN

The North Basin would have a surface area of approximately 171 acres. It would be located north of Pleasant Grove Creek and offset about 100 feet from the ordinary high water (OHW) level of the creek or 70 feet from the top of the bank, whichever provides the greatest offset from the top of the bank. The basin would receive water from Northern Tributary Two, a tributary to Pleasant Grove Creek that originates to the east of Reason Farms. Water entering the basin from Northern Tributary Two would be conveyed through the basin to the basin outlet structure by a low-flow channel. The low-flow channel would be constructed by excavation.

A man-made ditch at the eastern boundary of the site currently intercepts Northern Tributary Two flows. This ditch is currently incising along approximately 500 feet of its length. The North Basin embankment would cross this ditch, and with construction of the new low-flow channel, flows within Northern Tributary Two would no longer follow the existing ditch and the ditch would dry out. The existing ditch would be abandoned and filled. Northern Tributary Two would be reconstructed to approximate its former location prior to its realignment for rice farming.

An earthen embankment approximately 11,900 feet in length would be constructed by placing and compacting soil materials generated during excavation of the low-flow channel. The embankment would

follow the alignment shown on Sheet 1. Construction of the embankment would require about 261,000 cubic yards of compacted fill (243,000 cubic yards of structural fill plus 18,000 cubic yards of foundation fill).

The basin would have an outlet structure constructed of reinforced concrete that would be designed to regulate the storage of water in the basin. The structure would have wing walls at its ends that provide a transition between the embankment fill and the outlet structure. The structure would measure approximately 100 feet from wing wall to wing wall. A wall would be constructed between the wing walls. The wall would be about 13 feet in height and would be used to mount four sluice gates, each measuring 6 feet by 6 feet. The sluice gates would be automatically operated and would normally be in the open position. The features of the basin are described in more detail in Section 2.4.

The North Basin would have a maximum storage capacity of approximately 680 acre-feet. Flows in excess of the storage capacity of the basin would flow over the outlet structure wall, which would act as a weir and as the principal spillway of the basin. The top of the weir would be at elevation 75 feet.

The basin would have an emergency spillway to convey excess water from very large storms. The crest of the emergency spillway would be at elevation 77.2 feet. The emergency spillway crest length would be approximately 250 feet. Assuming the basin is filled to capacity (elevation 75 feet) and the gates are closed, the outlet structure in combination with the emergency spillway would convey the 1,000-year, 24-hour storm while providing a minimum of 1.5 feet of freeboard between the calculated water surface elevation and the top of the embankment.

2.3 SOUTH BASIN

The South Basin would have a surface area of approximately 348 acres. It would be located south of Pleasant Grove Creek and offset about 100 feet from the ordinary high water level of the creek or 70 feet from the top of bank, whichever provides the greatest offset from the top of the bank. To fill the basin, water would be diverted from Pleasant Grove Creek into a bypass channel excavated into the existing south bank floodplain. The bottom of the bypass channel would have a low-flow channel to assist with positive drainage through the system, and would convey water through the bypass channel to an inlet control structure, then through the basin and outlet structure and back into Pleasant Grove Creek.

An earthen embankment approximately 17,300 feet in length would be constructed by placing and compacting soil materials generated during excavation of the bypass channel. The embankment would follow the alignment shown on Sheet 1. Construction of the embankment would require about 500,000 cubic yards of compacted fill (475,000 cubic yards of structural fill plus 25,000 cubic yards of foundation fill).

The South Basin would have both an inlet and an outlet structure. The structures would be constructed of reinforced concrete and would be designed to regulate the storage of water in the basin. Wing walls at the

ends of the structures would provide a transition between the structures and the adjacent ground. The structures would measure approximately 35 feet from wing wall to wing wall. A wall would be constructed between the wing walls. On the inlet structure, the wall would be about 11 feet high; for the outlet structure the wall would be about 15 feet high. Three sluice gates, each measuring 6 feet by 6 feet, would be mounted on the inlet structure wall, and two sluice gates, each measuring 4 feet by 4 feet, would be mounted on the outlet structure wall. All of the gates would be automatically operated and would normally be in the open position. The features of the basin are described in more detail in Section 2.4.

When storing water, the basin would have a capacity of approximately 1,850 acre-feet. Flows in excess of the storage capacity of the basin would flow over the outlet structure wall, which would act as a weir and as the principal spillway of the basin. The top of both the inlet and outlet weirs would be at elevation 76.5 feet.

2.4 TYPICAL FEATURES

2.4.1 Basin Excavation

Excavation would be conducted along the alignment of the low-flow channel in the North Basin and along the alignment of the bypass channel in the South Basin. Scrapers and excavators would most likely perform the excavation. Excavated material would be used as fill to construct the embankments that will provide the water storage. Final grading along the low-flow and bypass channels and along the embankments would most likely be performed with graders and bulldozers.

2.4.2 Embankments

Embankments would be constructed to develop the storage volume of each basin and to provide freeboard above the calculated high water level. The embankments would have side slopes that vary from approximately 3H:1V (3 feet of horizontal distance for each 1 foot of elevation change) to approximately 5H:1V. The variable side slopes would provide a less uniform surface that would tend to be less distinct visually. The embankment top width would vary from a minimum of 12 feet to a maximum of about 20 feet. The variable top width would also provide a less uniform surface that would tend to be less distinct visually. The variable top width and side slopes would be designed to accommodate a gravel maintenance road, which could be developed as a portion of a future recreational trail system.

The embankments would vary in height from zero feet where the embankments tie into the existing ground surface to a maximum of about 20 feet near the outlet structures. On average, the South Basin embankment would be on the order of 10 feet high, and the North Basin embankment would be on the order of 8 feet high. Profiles of the embankments for the South and North basins are shown on Sheets 2 and 3, respectively.

The embankments would be constructed of material excavated from the low-flow and bypass channels. Typical cross-sections for the low-flow and bypass channels are shown on Sheet 4. Excavated material would be placed and compacted in 6- to 12-inch lifts, most likely using a sheepsfoot compactor. It is anticipated that a key trench may be required along the embankment where water is impounded but not along embankments that merely provide freeboard above the outlet structure weir elevations. After completion of final grading, all disturbed areas would be hydroseeded.

2.4.3 Inlet Structure

One inlet structure is proposed, as shown on Sheet 5. The structure would be located approximately 2,800 feet from the eastern boundary of the Reason Farms site on the bypass channel. The structure would regulate flows entering the South Basin. When water in Pleasant Grove Creek reaches an elevation of about 68 feet, water would flow through the bypass channel and towards the inlet structure.

The structure would have three gates with inverts at elevation 66 feet. Each gate would provide an opening measuring 6 feet by 6 feet. The gates would be made of steel and would have automatic actuators (electrically powered motors to open and close the gates). The gates would be mounted on a concrete wall measuring approximately 11 feet in height and 35 feet in length. The top of the wall would be at elevation 76.5 feet. The wall would terminate at wing walls that would provide a transition between the structure and the adjacent ground.

The inlet structure would have a concrete floor to facilitate the removal of debris and/or sediments. The finished surface of the floor would be at an elevation of about 66 feet. The upstream and downstream edges of the floor would have a cutoff wall and footing extending about 6 feet (elevation 60 feet) beneath the finished grade of the floor.

The gate would be in a normally open position to allow free exchange of water between Pleasant Grove Creek and the bypass channel. The signal to operate the gate would be transmitted from the City's flood warning operations center by telemetry. The inlet structure gates would automatically close when the basin reached its design capacity (elevation 76.5 feet) or when level sensors indicate that water levels in Pleasant Grove Creek are receding.

2.4.4 Outlet Structures

Two outlet structures are proposed: one for the North Basin and one for the South Basin. The structures would be located as shown on Sheet 1, adjacent to and offset 100 feet from Pleasant Grove Creek. The structures would be oriented to direct flows back into open channels that would join with Pleasant Grove Creek. The open channels would be oriented so that the discharged flows gently merge with the flows in Pleasant Grove Creek. The design of the outlet structures is shown on Sheets 5 and 6.

The outlet structure on the North Basin would have four gates. Each gate would provide an opening measuring 6 feet by 6 feet. The gates would be made of steel, have automatic actuators, and be mounted on a concrete wall measuring approximately 13 feet in height and 100 feet in length. For the North Basin, the top of the wall would be at elevation 75 feet. The wall would terminate at wing walls that would provide a transition between the structure and the adjacent ground.

The outlet structure on the South Basin would have two gates and be similar to the South Basin inlet structure. Each gate would provide an opening measuring 4 feet by 4 feet. The gates would be made of steel and would have automatic actuators. The gates would be mounted on a concrete wall measuring approximately 15 feet in height and 35 feet in length. For the South Basin, the top of the wall would be at elevation 76.5 feet. The wall would terminate at wing walls that would provide a transition between the structure and the adjacent ground.

Each outlet structure would have a concrete floor and wing walls at elevation 62 feet. The upstream and downstream edges of the floor would have a cutoff wall and footing extending beneath the finished grade of the floor about 6 feet (elevation 56 feet). On the downstream side of each outlet structure concrete thrust blocks would be poured integral to the floor. The thrust blocks would assist with energy dissipation during high-flow events. The energy dissipating section of the floor would be recessed approximately 4 feet below elevation 62 feet (about elevation 58 feet). The thrust blocks would be covered in soil and gravel to provide a more natural channel bottom that would transition to an open channel on the downstream side of the structure. On the upstream side of the structure, the floor would not be recessed but would have a low-flow channel formed into its surface. The low-flow channel would be approximately 1 foot deep.

The signal to open or close the outlet structure gates of both basins would be transmitted from the City's flood warning operations center to the gate actuator by telemetry. The gate would be in a normally open position to allow free exchange of water between basins and Pleasant Grove Creek. During flood events, when the storage of water is needed, the gates would automatically close. The gates could then reopen if necessary to maintain sufficient freeboard in the basins. When floodwaters on the Sacramento River recede, the gates would be opened to allow the basins to drain completely by gravity.

2.4.5 Emergency Spillway

The conceptual design incorporates an emergency spillway for the North Basin. The emergency spillway would provide an additional spillway capacity such that the 24-hour, 1,000year storm could pass through the basin while the outlet gates were closed and still maintain at least 1.5 feet of freeboard to the top of the embankment. The emergency spillway would begin to flow at an elevation of 77.2 feet. The spillway would be lined with grass. It would operate as a broad-crested weir measuring 250 feet in length. The spillway would discharge overland to Pleasant Grove Creek.

2.4.6 Low-Flow Channel

Both the North Basin and the South Basin would have low-flow channels to provide positive drainage through the basin. Typical sections of the bypass and low-flow channels are shown on Sheet 4. On the North Basin, the low-flow channel would follow the approximate alignment of the historic natural channel. The low-flow channel would have a bottom width of about 10 feet and side slopes of 3H:1V; it would meander within the bottom of a wide (± 400-foot) swale. The swale would be excavated as a flat terrace approximately 3 to 6 feet below the existing ground surface as shown on Sheet 4. The edges of the swale would be sloped at 5H:1V to tie into the existing ground surface.

For the South Basin, a bypass channel would be excavated from the eastern boundary of the site beginning on the southern bank of Pleasant Grove Creek. The bypass would extend generally westward through the southern portion of the site to the southern basin inlet and through the basin to its outlet structure. The bypass channel would be roughly trapezoidal and have a bottom width of 35 feet and side slopes of 5H:1V that tie into the existing ground surface. A low-flow channel would gently meander in the bottom of the bypass channel. The low-flow channel would also be roughly trapezoidal, have a bottom width of about 5 feet and side slopes of 3H:1V that tie into the bottom of the bypass channel. The intent of the low-flow channel would be to reduce the potential for fish to become stranded in the bypass as waters drained from the bypass channel into Pleasant Grove Creek.

The entrance to the bypass channel at Pleasant Grove Creek would be armored to prevent erosion and slope failure. This would be accomplished with a revetment of interlocking concrete blocks. The revetment would be anchored in a toe trench located along its upstream edge. The toe trench would extend down to an elevation approximating the elevation of the flow line in Pleasant Grove Creek. After installation, the interlocking concrete blocks would be covered with soil and hydroseeded.

During the final design process, the geometry (width, depth and longitudinal slope) of the low-flow channel dimensions would be refined, to the extent practicable, so that the channel would convey sediments through the basin (the amount of sediment entering the basin would equal the amount of sediment leaving the basin).

After completion of final grading, all disturbed areas would be hydroseeded.

2.4.7 Access Roads

Access roadways would provide maintenance vehicle access between public roads and the inlet and outlet structures. The roadways would have an aggregate surface. The roadway section would most likely consist of approximately 8 inches of compacted aggregate base rock placed on a subgrade of compacted earth. The access roads would extend along the top of the embankments as shown on Sheet 1.

2.5 ENVIRONMENTAL PROTECTION MEASURES

The project was designed with the goal of using the existing topography to minimize disruption of the riparian zones and other non-agricultural features of the site. The use of existing topography would also minimize the amount of wetland impacts and reduction of wildlife habitat values. In addition, the project was designed to accommodate opportunities for other uses at the site that could be constructed in the future by the City or others, as separate projects. These opportunities include habitat enhancement, restoration, and recreation. Opportunities for future use are mentioned briefly in the following sections and are described in more detail in Section 2.8; however, they are not formally part of this project. The proposed Reason Farms project would preserve and restore riparian habitats, preserve freshwater marsh, preserve vernal pools, create seasonal wetlands and waterfowl habitat, preserve oak woodlands, and create regional habitat linkages, as detailed in the following sections.

2.5.1 Riparian Habitat/Freshwater Marsh

A corridor of high-quality riparian forest and freshwater marsh borders Pleasant Grove Creek within the Reason Farms site. The proposed project would preserve these habitats except for small encroachments at the inlet and outlet structures associated with the retention basins. The inlet structure for the bypass channel would be located in low-density riparian forest at the eastern boundary of the project site. The outlet structures would join Pleasant Grove Creek downstream of the highest quality riparian forest in the central part of the project site. To further protect riparian habitat along Pleasant Grove Creek, embankment structures would be set back approximately 100 feet from the ordinary high water mark or 70 feet from the top of the bank, whichever provides the greater distance from the top of the bank. Within this setback area, there would be an opportunity for restoration of riparian habitat.

The design of the North and South basins would also result in the creation of riparian wetland habitat. New riparian wetlands would be created along the bypass channel in the South Basin and Northern Tributary Two would be restored to a more natural and sinuous stream course with an adjacent floodplain. Northern Tributary Two is currently channelized with little riparian vegetation. The new low-flow channel would be longer and the floodplain would be expanded, which would increase the area of the riparian wetlands.

A 9-acre freshwater marsh is located between the North Branch of Pleasant Grove Creek and the North Basin embankment, within the project site. Construction of the North Basin would avoid and preserve this freshwater marsh. The 9-acre marsh is located between the North Branch Pleasant Grove Creek and the North Basin embankment, on the project site.

2.5.2 Vernal Pools

Approximately 105 acres of low-density vernal pools and associated grasslands currently exist in the northwestern section of the project site. The project would exclude any development on that section of

the project site, thereby preserving that area of vernal pools and grassland. There is the potential in the future for enhancement of the vernal pools and grassland in the northwest portion of the site by others.

2.5.3 Winter Waterfowl Habitat

The proposed North and South basins would be constructed in areas where rice is currently cultivated. The rice fields could be converted to seasonal wetlands after the construction of the retention basins. The constructed basins and adjacent fields would continue to seasonally pond water and provide some winter waterfowl habitat due to the heavy clay content of the soils and retention of normal stormwater runoff. Therefore, some degree of winter waterfowl habitat will be preserved as part of the project.

2.5.4 Oak Woodlands

Valley oaks, cottonwoods, and willows dominate the riparian forest corridor. Preservation of the riparian forest, as described above, would also preserve the associated oak woodlands. Trees that are removed as a result of the bypass channel and inlet/outlet structures would be replaced on site according to the City of Roseville Tree Ordinance. In addition, oaks would colonize the area between the existing levee and the new embankment if that area is no longer under cultivation.

2.5.5 Habitat Linkages

It is likely that wildlife currently use the habitats at Reason Farms to disperse throughout the regional landscape. The Reason Farms project would preserve the existing open space on the project site. No urban or residential development would occur as part of the project. Preservation of Reason Farms habitats would preserve and enhance this link between existing open space and vernal pool complexes east and west of the site.

The possibility exists for future projects that could enhance or restore natural habitat to several other parts of the project site, especially native grasslands and/or vernal pools in the far northwest and southeast corners and along the Pleasant Grove Creek riparian corridor in the setback area between the proposed embankment and the top of the stream bank.

2.6 MAINTENANCE

The inlet and outlet structures and the North and South basins would be maintained facilities. Maintenance activities for the inlet and outlet structures would include periodic inspection of the structures and gates, operation of the gates, lubrication of the gates and gate actuators, testing of sensors and switches, and periodic installation of replacement parts. Maintenance of the basins would include periodic inspections of the embankments, periodic inspections of the low-flow channels, the bypass and swale, and periodic inspection of the main branch of Pleasant Grove Creek through the Reason Farms site. The objectives of these periodic inspections would be to assess the integrity and condition of the

embankments, low-flow channels, bypass channel, and swale, and to identify and implement repairs as needed. Maintenance activities could also include removal of accumulated sediments near inlet and outlet structures or from within the basins themselves, if the sediment accumulation was to interfere with the operation or flow and storage capacity of the inlet or outlet structures or the basins.

Although it is the intent of the design that removal of vegetation would not be necessary, on occasion, depending upon the plant communities that establish within the low-flow channels and basin bottom, it may be necessary and desirable to remove vegetation. Conditions that would warrant removal of vegetation could include, but would not necessarily be limited to, establishment of non-native plants (such as arundo) that could diminish riparian and wetland habitat values or prevent the conveyance of water through the basins, development of conditions that could be considered a fire hazard to adjacent properties, or intrusion of vegetation on access roads or trails.

2.7 CONSTRUCTION

2.7.1 Construction Methods

This section discusses basic construction methods for the retention basins and their structural components. Construction of the North and South basins would be accomplished primarily through excavation and fill placement. Material excavated from the low-flow/bypass channels would be used as fill material for construction of the embankments. In addition to grading activities, other construction activities for project implementation would include construction of concrete structures, revegetation, and sediment and erosion control.

Prior to commencing construction, sensitive habitat areas such as creeks, wetlands, and vernal pools both within and adjacent to the work area would be enclosed in construction or silt fences to prohibit access. Construction methods for the major project elements are discussed in more detail below.

2.7.1.1 Basin Excavation

The main excavation activity for construction of the North and South basins would be excavation of the low-flow and bypass channels. Excavation would be conducted along the alignment of the low-flow channel in the North Basin and along the alignment of the bypass channel in the South Basin. Prior to excavating, the area of excavation would be cleared of existing vegetation. Topsoil may be salvaged and stockpiled for later use.

Given the scale of the excavation (approximately 679,000 cubic yards), mass grading would likely be performed using scrapers or other large grading equipment. The scrapers would also transport excavated material to the new embankment alignment for use as fill material. Fine grading along the low-flow and bypass channels, and as needed at other location within the basins, would most likely be performed with graders and bulldozers. Water trucks would be used for dust control during excavation.

Limited excavation would also be performed adjacent to Pleasant Grove Creek to connect the inlet and outlet structures with the main creek channel. This excavation would be performed during the summer low-flow period to minimize impacts to the creek. If required to complete the work near Pleasant Grove Creek, check dams could be installed, upstream and downstream of the work area, and submersible pumps used to direct water past the work area. Sediment control measures for work within and near the creek are discussed below.

2.7.1.2 Embankments

Embankments would be constructed using material excavated from the low-flow and bypass channels. Prior to fill placement, the subgrade of the embankments would be prepared by clearing the area of vegetation and removing and stockpiling topsoil. In addition, where a key trench is required, the subgrade would be excavated to the required dimensions, the bottom of the trench would be compacted, and excavated material placed back into the trench and compacted in lifts. Due to the smaller dimensions of the key trench, excavation of the trench would likely be performed using excavators or small-scale scrapers. Compaction would be performed using a sheepsfoot compactor or other mechanical compaction equipment.

For embankment construction, excavated material would be placed in 6- to 12-inch lifts, using either scrapers or bulldozers. Each lift of fill would be compacted using a sheepsfoot compactor. Water trucks would be used for dust control and for managing the soil moisture content during backfill and compaction activities.

2.7.1.3 Inlet and Outlet Structures

The inlet and outlet structures would be cast-in-place reinforced concrete structures. The outlet structures would have their foundations embedded in undisturbed soil. The structures would be backfilled to create a firm and water-resistant seal with the adjacent embankment. To ensure proper lateral support, the embankments would likely be constructed first at outlet structure locations, and then excavated to allow construction of the structures.

The reinforced concrete structures would be formed and poured. Bottom slabs and walls could be poured in contact with adjacent soil. Preparation work prior to concrete pouring would include constructing forms and assembling reinforcing steel. It is likely that forming and pouring concrete would happen in sequential stages beginning with foundations and ending with above-ground walls. The prefabricated sluice gates would be set and cast in the concrete walls.

2.7.1.4 Access Roads

Access roadways would be constructed along the top of the embankments by placing and compacting aggregate base rock. Base rock would be delivered to the site in dump trucks and most likely be spread by graders and bulldozers and compacted with mechanical compaction equipment. The compacted aggregate base rock would be placed on a subgrade of compacted earth.

2.7.1.5 Erosion and Sediment Control

Erosion- and sediment-control measures would be implemented throughout construction. In general, erosion (source) control would be emphasized over the trapping of sediment once erosion had occurred.

As grading activities are completed, disturbed areas would be hydroseeded for erosion control. Additional measures, such as straw mulch or biodegradable erosion control fabric, may be applied to embankments slopes and along low-flow/bypass channels, which may be more susceptible to erosion.

No construction equipment would be allowed within Pleasant Grove Creek (below top of bank), except as needed for channel excavation at inlet/outlet structures. Silt fences would be installed at the top of creek banks within the construction area to trap sediment, as well as to discourage entry by personnel and equipment. Limited excavation would be performed in Pleasant Grove Creek to excavate connector channels to inlet and outlet structures. Check dams, constructed of drain rock or other suitable material, may be installed within Pleasant Grove Creek for sediment trapping, assuming creek flows are minimal. Depending on creek flow and groundwater conditions, floating silt curtains may also be used to enclose the excavation area.

Depending on flow conditions, temporary check dams or sediment basins may also be installed in the new low-flow and/or bypass channels to reduce flow velocities and trap sediment.

2.7.2 Construction Equipment and Workforce

The types of construction equipment needed for performance of the work are described in Section 2.7.1. The total number of equipment and personnel on the site at one time would depend upon the construction schedule and phasing. The largest construction workforce would be on site if both basins were constructed in one construction season. For this scenario, it is assumed that channel excavation, embankment construction and inlet/outlet structure installation would be performed concurrently, at different locations on the site.

For grading activities, up to approximately 45 to 50 workers may be on site, comprised of the superintendent, foremen, inspectors, equipment operators, grade checkers and laborers. Up to 30 to 35 pieces of heavy construction equipment may be on site at one time. The number and types of grading equipment at the peak of grading activities is estimated as follows: 10 to 15 scrapers, 4 compactors, 6 bulldozers, 2 excavators, 2 graders, and 4 water trucks.

For construction of concrete structures, it is assumed that the structures would be built one at a time. An additional 15 workers may be on site for structure installation, including a foreman, laborers, electricians, carpenters, inspectors, truck drivers and equipment operators. Heavy equipment for construction of the structures would include concrete mixers, trucks for materials delivery (forms, reinforcing steel, gates, etc.) and lifts or other equipment for offloading and storing materials. The highest level of traffic would

likely occur during concrete pours, when approximately 10 to 15 concrete mixers per day may be delivering concrete to the site.

If the retention basins were constructed in one phase, construction traffic to the South Basin would travel along Baseline Road, Fiddyment Road and then Phillip Road to the southern site entrance. If the retention basins were constructed in two phases, construction traffic to the South Basin would occur along the route described above. Construction traffic to the North Basin would primarily occur along Fiddyment Road, Sunset Boulevard West and then along an existing access easement that extends from Sunset Boulevard West to the project site. Construction equipment would be stored during the construction period within the project area in construction staging yards. These construction staging yards would also include contractor parking facilities. Construction staging areas would most likely be located in close proximity to existing roads, but in any case, would avoid all sensitive habitat areas described above.

2.7.3 Construction Phasing

The project would likely be constructed in two phases. If constructed in one phase, all work would be accomplished as a single construction project, with most, if not all work, completed in a single construction season. If constructed in two phases, each basin would be constructed as an individual construction project. In the two-phase scenario, the first phase would be the South Basin and the second phase would be the North Basin. Phases 1 and 2 could be constructed concurrently by separate contractors, or could be separated in time by one or more construction seasons, depending upon available funding.

The general sequence of construction would be deconstruction of existing facilities, channel excavation, embankment construction and inlet/outlet structure installation; however, these three activities could be performed concurrently at different locations on the site. If construction of both basins were phased over more than one season, temporary drainage control measures would be implemented to ensure proper drainage on and through the sites during storm events.

2.8 OPPORTUNITIES FOR FUTURE USES

The project area would be rezoned as public open space and would accommodate opportunities for other uses at the site that could be constructed in the future by the City or others as separate projects. The opportunities, although discussed herein, are not part of this project. These include habitat enhancement and restoration projects, recreation through the development of recreational trails, and potentially a portion of a future Placer Parkway. These opportunities are discussed in the following sections and illustrated on Sheet 7.

2.8.1 Habitat Enhancement and Restoration

Areas within the project site could be subjected to habitat enhancement and restoration, likely by the City or others seeking to provide mitigation for adverse impacts to biological resources associated with other development projects. Candidate areas include enhancement of the riparian corridor along Pleasant Grove Creek, enhancement of the vernal pools and grassland in the northwest portion of the site, creation of seasonal wetlands within the basin areas or outside of them, and creation of vernal pools outside of the basin areas where conditions allow.

2.8.2 Opportunity for Future Passive Recreation and Trailways

To preserve the remaining riparian vegetation, wetland areas and stream environment of Pleasant Grove Creek within the project area, a setback of 100 feet would be established from the ordinary high water mark of the creek (or 70 feet from the top of bank, whichever provides the greatest offset from the top of bank) as part of the proposed project. The development of the riparian buffer could provide passive recreation opportunities such as nature watching and bird watching.

Passive recreational trails could be integrated into the embankments created from the basin excavation. The trails could be designed in a slightly undulating form, varying in elevation following the top of the embankment grade to approximately –10 feet vertically below, in some locations. Depending upon its use (pedestrian or bike), the trail width would vary. For pedestrian trails, the width would vary from 4 to 8 feet depending on available flat area adjacent to the trail alignment. For bike use, the trail would likely conform to the City's standard 10-foot-wide paved section with 2-foot shoulders. In some cases the trail could be the same path as the maintenance vehicle access road. Pedestrian paths could have either an aggregate base (along the maintenance vehicle access road), or in other areas a compacted soil surface covered with a bark or other natural ground covers. The trails would utilize existing access areas where feasible. Areas adjacent to the trail would be hydroseeded to provide visual interest and erosion control, reducing the amount of maintenance needed over the life of the project.

The placement of recreational trails could follow the embankment, providing some access opportunities directly adjacent to the creek. The trail could be placed to avoid sensitive habitats and to limit interference with restoration efforts. Trails should be limited along the north side of Pleasant Grove Creek to maintain existing habitat values by reducing disturbance of breeding and foraging wildlife. Rest areas with visual interest could be created at key overlooks along the creek. Potential overlook locations have been chosen based on scenic attributes along the riparian corridor. In some cases these view point/rest areas would be adjacent to the outlet structures and could be integrated into the final design. The location of the trail and viewpoints are flexible and can be adjusted to provide adequate separation from important habitat areas. The final location of the trail would be determined based on existing conditions, community desires and cost constraints specific to the project. Establishing goals for implementing the recreation trail and placement guidelines would be encouraged in the future.

3. BASIS OF DESIGN

3.1 HYDROLOGY

The hydrology of the Pleasant Grove Creek and Curry Creek watersheds is most recently described in the Master Drainage Study for the Fiddyment/Westpark Properties prepared by Wood-Rodgers and dated November 2001. For the purposes of this study, we have used the hydrologic modeling and mapping presented in that study. The applicable land use assumption is the condition associated with full build out of the respective watersheds according to current City and County General Plans. Some modification of the Wood-Rodgers model was required to evaluate the impact of an 8-day, 100-year storm event. Major pertinent points related to the methods of evaluating hydrology are described below:

- The HEC-1 models of Pleasant Grove Creek watershed (a portion of the Cross Canal Watershed) were used to estimate 2-year, 10-year, 25-year, 50-year and 100-year, 24-hour duration storm hydrographs and the 100-year, 8-day duration storm hydrograph (flow rates and volumes) at key locations in and near the project site.
- The hydrologic models were adapted from HEC-1 models developed by Wood-Rodgers for the Fiddyment/Westpark Master Drainage Study (Wood-Rodgers, 2001a).
- To make this model suitable for specific analysis of the conceptual design, the structure of the model in the vicinity of Reason Farms was altered to provide hydrographs applicable to the main branch of Pleasant Grove Creek as it flows through the Reason Farms site and to provide hydrographs applicable to Northern Tributary Two as it flows through the Reason Farms site.

The land use parameters in the models represent the "full build-out" condition in the watershed, and include detention basins proposed for the West Roseville Specific Plan area as defined in the Fiddyment/Westpark Master Drainage Study (Wood-Rodgers, 2001a).

The report "Summary Retention Volume Analysis for Memorandum of Understanding Transition Area" by Wood-Rodgers, Inc., dated November 2001, presents an estimate of the runoff storage volume requirements for the land uses proposed by the West Roseville Specific Plan and the remainder of the Memorandum of Understanding (MOU) area. The Wood-Rodgers estimate builds upon the May 5, 2000 report by Civil Solutions entitled "Pleasant Grove Watershed Mitigation Fee", Revised May 18, 2000.

Table 1 summarizes the retention volume estimates associated with development within the City of Roseville, the proposed West Roseville Specific Plan, and the remainder of the the MOU area. A complete discussion of the derivation of the values in the table is provided in the source documents (Civil Solutions, 2000a and 2000b; and Wood-Rodgers, 2001b). In addition, the proposed project would provide retention storage for the City of Rocklin Annexation area and the Pleasant Grove Wastewater Treatment Plant. In total, the conceptual design would provide 2,530 acre-feet of retention storage as summarized in Table 1.

Table 1. Summary of Retention Volume Estimates

Area Description	Retention Volume Estimate (acre-feet)
WSRP and MOU Area[1]	661.6[2]
Roseville Energy Facility	20[1]
Pleasant Grove WWTP	207[3]
Northwest Rocklin Annexation Area	180[4]
Subtotal	**1,068.6**
Existing and Entitled development[5]	1,461.2
Total	**2,529.8**

Notes:

1. The proposed West Roseville Specific Plan Area (WRSP) and the "Transition Area" west of Roseville city limits, the subject of a Memorandum of Understanding (MOU) between the City of Roseville and Placer County regarding its future development.
2. Reference: Wood-Rodgers (2001b).
3. 24-hour Wet Weather Flow (peak factor of 2.5) effluent storage for potential plant capacity of 27 mgd.
4. Storage requirement per Northwest Rocklin Annexation Area, Draft EIR (EIP, 2001).
5. Existing and entitled development within the City of Roseville as presented by Civil Solutions (2000b).

Appendix B includes the input and output of the various HEC-1 models used to describe the hydrologic conditions applicable to evaluation of the conceptual design. The HEC-1 output in Appendix B includes the subbasin outflow hydrographs that were used as boundary conditions for the hydraulic modeling and design described in Section 3.2. Table 2 provides the calculated peak flow rates from these boundary condition hydrographs. Additional details concerning how these were applied in the hydraulic modeling can be found in Section 3.2.

Table 2. Peak Flows from HEC-1 Subbasin Outflow Hydrographs

Location	24-hour Duration Storm (cfs[1])					8-day Duration Storm (cfs)
	Return Frequency					Return Frequency
	2-year	10-year	25-year	50-year	100-year	100-year
PGC[2] at U/S[3] (East) Boundary of Site	1,957	4,112	5,570	6,662	7,583	10,195
NT2[4] Just Upstream of Confluence w/PGC	640	1,296	1,646	1,930	2,146	2,468
Inflow of Local Subbasin Runoff to PGC btw[5] NT2 and NB	185	605	918	1,178	1,447	1,027
Inflow of Local Subbasin Runoff to PGC btw NT2 and NB	24	79	131	172	221	200
NB[6] Just Upstream of Confluence w/PGC	268	896	1,378	1,739	2,108	2,326

Notes:

1. cfs = cubic feet per second
2. PGC = Pleasant Grove Creek
3. U/S = upstream
4. NT2 = Northern Tributary Two
5. btw = between
6. NB = North Branch Pleasant Grove Creek

3.2 HYDRAULICS

Hydraulic models were developed for both existing and post-project conditions to evaluate the functionality of the project, and its effects relative to the existing hydraulic conditions. Originally, it was the intent of the design team to use the HECRAS Version 3.01 model in the unsteady mode to perform this evaluation. However, technical difficulties applying the unsteady version of this model prevented the achievement of satisfactory results with this approach.

The flow of water through the basins is dependent upon the water level in Pleasant Grove Creek. This is true for both the South and North basins. In the case of the South Basin, the stage (elevation) of Pleasant Grove Creek influences flow into and out of the basin. For the North Basin, the stage in Pleasant Grove Creek influences flow out of the basin. The stage increases as the flood wave passes into the site and decreases as flood waters recede. The hydraulics of the South Basin are further complicated in that the level of stored water in the basin also influences the rate at which water can enter the basin. Because of this complex setting, the design team decided that a fully hydrodynamic approach was necessary to satisfactorily analyze the design. Therefore, the design analysis mainly utilized the Danish Hydraulic Institute MIKE 11 computer model. The HECRAS model was used only to generate steady state water surface profiles through the North Basin outlet structure during the 1,000-year, 24-hour storm (Section 3.2.2 below).

Cross-section geometry and friction factors originally developed for the HECRAS model were converted to MIKE 11 format. The flow path networks were set up to represent the main branch of Pleasant Grove Creek, Northern Tributary Two, and for the post-project version, the bypass channel through the South Basin. For the South Basin, the model simulates a split flow condition at the entrance to the bypass channel, two parallel channels (Pleasant Grove Creek and the South Basin bypass channel) and the South Basin outlet structure. Gated weirs represent both the inlet and outlet structures. The resulting outflow from the basin is then combined with flows in the main channel of Pleasant Grove Creek.

For the North Basin, the model simulates a channel with an inline gated weir. The flood wave of Northern Tributary Two is routed through the channel and through the basin outlet structure. The resulting discharge from the basin is then combined with the flows in the main channel of Pleasant Grove Creek.

The MIKE 11 model has specified boundary conditions. These include inflow hydrographs and the downstream tail water condition. The inflow hydrographs and methods used to generate them are discussed in Section 3.1 above. The MIKE 11 model includes inflow hydrographs that represent flows in Pleasant Grove Creek to the east of the Reason Farms site, flows from the West Roseville Specific Plan area, flows in Northern Tributary Two to the east of the Reason Farms site, and flows in the North Branch of Pleasant Grove Creek. For downstream boundary conditions, the model calculates the normal depth within the downstream channel beginning approximately three miles west of the Reason Farms, in Sutter County. The same boundary conditions were used for the existing and post-project condition models, and represent full build-out conditions within the Pleasant Grove Creek Watershed. Appendix C contains a table that cross references the input hydrograph locations with the corresponding HEC-1 sub-basins and MIKE 11 boundary condition locations.

Tables 3 through 6 present the calculated peak flow rates, flood elevations, velocities, and shear stresses for various frequency events from both the existing condition and post-project condition MIKE 11 models. Appendix C includes the hydraulic model schematics for the existing and post-project conditions and various hydrographs representing the range of design storms considered at the inlet and outlet structures, along Pleasant Grove Creek upstream and downstream of the project site, and for Northern Tributary Two upstream of the project site.

3.2.1 Pleasant Grove Creek Main Channel

The MIKE 11 models were used to prepare flood profiles to compare existing conditions (with full build-out flows) to conditions that would exist (new embankments parallel to the creek) if the conceptual design were constructed. Appendix C includes a profile plot that compares these two conditions and illustrates that construction of the embankments would not cause a meaningful change in flood elevations upstream of the project.

The Manning's n values (friction factors) used to represent the main channel (banks and bed) of Pleasant Grove Creek range from 0.05 to 0.09. For floodplain areas, Manning's n values range from 0.055 to 0.07.

3.2.2 North Basin, Outlet Structure and Emergency Spillway

The North Basin and outlet structure was analyzed using the MIKE 11 model (unsteady state) and the HECRAS model (steady state). The outlet structure was modeled as a sharp crested gated weir with four 6-foot-square gates and a weir elevation of 75 feet. The invert of the gates was set at elevation 62 feet.

Manning's n values of 0.05 and 0.045 were used for the low-flow channel and swale, respectively. These represent moderately dense vegetative cover that would be develop in these areas due to relatively wet hydrologic conditions.

For the MIKE 11 model the inflow hydrograph for Northern Tributary Two was routed through the basin and outlet structure. According the model results, the four gates allow flows to pass through the structure relatively unimpeded. A slight backwater would occur during the 10-year event. Water would accumulate in the basin for events greater than the 10-year event. The hydraulics of the gates is represented by the orifice equation with an orifice coefficient of 0.60.

MIKE 11 computer simulations of a range of flow rates (2-year through 100-year, 24-hour duration storm) were made for the normal operation of the basin with the gates in the open position. The model was also run for the 100-year, 8-day event, also with gates open. Tables 3 through 6 present peak flow, stage, velocity, and shear stress at key points in and near the North Basin for the various storm events. Appendix C contains complete flow hydrographs at the outlet of the basin for the same set of storms. In addition, a simulation was performed for the 100-year, 24-hour duration storm with the gates in the closed

Table 3. Calculated Existing and Post-Project Conditions Maximum Flow Rates at Selected Locations

Location	Map Index Number[1]	24-hour Duration Storm of Return Frequency										8-day Duration Storm of Return Frequency	
		2-years		10-years		25-years		50-years		100-years		100-years	
		Max Flow Rate (cfs^2)		Max Flow Rate (cfs^2)		Max Flow Rate (cfs^2)		Max Flow Rate (cfs^2)		Max Flow Rate (cfs^2)		Max Flow Rate (cfs^2)	
		Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition
PGC[3] 600 ft U/S[4] of Site	1	1,873	1,905	3,919	3,938	5,277	5,307	6,301	6,372	7,135	7,215	9,939	10,050
PGC 300 ft U/S of Site	2	1,871	1,903	3,909	3,933	5,246	5,279	6,277	6,344	7,110	7,187	9,922	10,037
PGC at East Boundary of Site	3	1,870	1,905	3,903	3,950	5,237	5,350	6,268	6,341	7,101	7,174	9,913	10,267
PGC at U/S End of North Basin Levee	4	1,868	1,894	3,820	3,825	5,172	5,050	6,227	6,171	7,060	7,016	9,885	9,970
PGC at U/S End of South Basin Levee	5	1,861	1,312	3,763	2,682	5,144	3,785	6,209	5,631	7,046	5,631	9,873	8,750
South Basin Inlet Structure – Gates	6		572		1,099		1,224		1,250		1,261		1,100
South Basin Inlet Structure - Spillway	6		0		0		32		64		89		181
PGC in Slackwater Area U/S of NT2[5]	7	1,823	1,289	3,721	2,664	5,097	3,755	6,170	4,803	7,016	5,586	9,917	8,720
PGC Just U/S of NT2 Confluence	8		1,284		2,662		3,751		4,791		5,574		8,715
NT2 Entering the Site	9	566	638	1,161	1,288	1,481	1,637	1,744	1,922	1,944	2,136	2,247	2,427
NT2 within North Basin	10	557	620	1,148	1,258	1,465	1,596	1,728	1,871	1,921	2,074	2,237	2,263

Table 3. (continued) Calculated Existing and Post-Project Conditions Maximum Flow Rates at Selected Locations

Location	Map Index Number [1]	24-hour Duration Storm of Return Frequency										8-day Duration Storm of Return Frequency	
		2-years		10-years		25-years		50-years		100-years		100-years	
		Max Flow Rate (cfs[2])		Max Flow Rate (cfs[2])		Max Flow Rate (cfs[2])		Max Flow Rate (cfs[2])		Max Flow Rate (cfs[2])		Max Flow Rate (cfs[2])	
		Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition
North Basin Outlet Structure - Spillway	11		0		0		0		0		0		0
North Basin Outlet Structure – Gates	11		570		926		1,016		1,110		1,194		1,555
PGC Just D/S[6] of NT2 Confluence	12	2,328	1,842	4,732	3,577	6,228	4,654	7,239	5,652	7,809	6,363	11,808	9,575
PGC btw[7] NT2 and NB[8] Confluences	13	2,326	1,839	4,731	3,576	6,225	4,651	7,236	5,650	7,808	6,356	11,793	9,572
PGC Just U/S of NB Confluence	14	2,321	1,834	4,726	3,572	6,216	4,644	7,236	5,642	7,793	6,348	11,782	9,572
PGC Just D/S of NB Confluence	15	2,402	1,921	4,875	3,728	6,404	4,825	7,449	5,848	8,020	6,573	12,026	9,786
South Basin Outlet Structure - Spillway	16		0		0		0		0		0		426
South Basin Outlet Structure - Gates	16		392		552		561		563		564		0[9]
PGC Just D/S of South Basin Outlet	17	2,585	2,489	5,065	4,507	6,614	5,642	7,661	6,659	8,645	7,375	12,150	10,318
PGC at West Boundary of Site	18	2,546	2,452	4,979	4,450	6,509	5,557	7,606	6,556	8,503	7,243	12,080	10,255

Notes:

1. Map index numbers are keyed to maps in Appendix C.
2. cfs = cubic feet per second
3. PGC = Pleasant Grove Creek
4. U/S = upstream
5. NT2 = Northern Tributary Two
6. D/S = downstream
7. btw = between
8. NB = North Branch Pleasant Grove Creek
9. Gates in the closed position

Table 4. Calculated Existing and Post-Project Conditions Maximum Water Surface Elevations at Selected Locations

Location	Map Index Number [1]	24-hour Duration Storm of Return Frequency										8-day Duration Storm of Return Frequency	
		2-years		10-years		25-years		50-years		100-years		100-years	
		Max WSEL[2] (ft)[3]		Max WSEL[2] (ft)[3]		Max WSEL[2] (ft)[3]		Max WSEL[2] (ft)[3]		Max WSEL[2] (ft)[3]		Max WSEL[2] (ft)[3]	
		Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition
PGC[4] 600 ft U/S[5] of Site	1	75.76	74.77	79.09	78.08	80.11	79.34	80.71	79.97	81.09	80.36	82.19	81.29
PGC 300 ft U/S of Site	2	75.56	74.31	78.86	77.64	79.86	78.84	80.48	79.44	80.88	79.81	81.99	80.80
PGC at East Boundary of Site	3	75.26	73.72	78.54	77.10	79.47	78.23	80.07	78.72	80.44	79.03	81.48	79.86
PGC at U/S End of North Basin Levee	4	71.61	70.45	74.33	73.10	75.44	74.19	76.27	74.94	76.82	75.46	78.41	77.48
PGC at U/S End of South Basin Levee	5	69.66	68.67	72.45	71.14	73.81	72.43	74.69	73.47	75.24	74.15	76.88	76.54
South Basin Inlet Structure	6		71.58		74.59		75.23		75.43		75.56		77.41
PGC in Slackwater Area U/S of NT2[6]	7	68.31	67.41	71.09	69.88	72.28	71.03	73.01	71.95	73.38	72.53	74.52	74.68
PGC Just U/S of NT2 Confluence	8		67.22		69.65		70.75		71.62		72.17		74.23
NT2 Entering the Site	9	77.45	75.26	78.07	75.93	78.32	76.13	78.48	76.25	78.59	76.34	78.75	76.44
NT2 within North Basin	10	76.39	72.50	76.88	73.32	77.06	73.63	77.19	73.88	77.28	74.06	77.40	74.99

Table 4. (continued) Calculated Existing and Post-Project Conditions Maximum Water Surface Elevations at Selected Locations

Location	Map Index Number [1]	24-hour Duration Storm of Return Frequency										8-day Duration Storm of Return Frequency	
		2-years		10-years		25-years		50-years		100-years		100-years	
		Max WSEL[2] (ft)[3]		Max WSEL[2] (ft)[3]		Max WSEL[2] (ft)[3]		Max WSEL[2] (ft)[3]		Max WSEL[2] (ft)[3]		Max WSEL[2] (ft)[3]	
		Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition
North Basin Outlet Structure – U/S	11		67.53		70.35		71.44		72.29		72.73		74.92
North Basin Outlet Structure – D/S[7]	11		67.19		69.61		70.70		71.56		72.10		74.15
PGC Just D/S of NT2 Confluence	12	67.80	67.11	70.51	69.50	71.64	70.57	72.32	71.41	72.67	71.94	73.65	73.93
PGC btw[8] NT2 and NB[9] Confluences	13	67.70	67.02	70.37	69.38	71.48	70.44	72.14	71.27	72.49	71.78	73.46	73.73
PGC Just U/S of NB Confluence	14	67.30	66.68	69.81	68.93	70.79	69.90	71.37	70.67	71.68	71.15	72.58	72.92
PGC Just D/S of NB Confluence	15	67.07	66.49	69.47	68.65	70.35	69.58	70.89	70.31	71.17	70.75	72.03	72.40
South Basin Outlet Structure	16		69.73		73.49		73.73		73.79		73.83		77.36[10]
PGC Just D/S of South Basin Outlet	17	63.99	63.85	65.98	65.63	66.78	66.29	67.28	66.82	67.68	67.16	68.99	68.37
PGC at West Boundary of Site	18	53.04	53.08	54.23	54.14	54.77	54.57	55.13	54.93	55.40	55.17	56.42	56.12

Notes:

1. Map index numbers are keyed to maps in Appendix C.
2. WSEL = calculated water surface elevation
3. ft = feet
4. PGC = Pleasant Grove Creek
5. U/S = upstream
6. NT2 = Northern Tributary Two
7. D/S = downstream
8. btw = between
9. NB = North Branch Pleasant Grove Creek
10. Gates in closed position

Table 5. Calculated Existing and Post-Project Conditions Maximum Velocities at Selected Locations

Location	Map Index Number [1]	24-hour Duration Storm of Return Frequency										8-day Duration Storm of Return Frequency	
		2-years		10-years		25-years		50-years		100-years		100-years	
		Max Velocity (ft/s) [2]		Max Velocity (ft/s) [2]		Max Velocity (ft/s) [2]		Max Velocity (ft/s) [2]		Max Velocity (ft/s) [2]		Max Velocity (ft/s) [2]	
		Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition
PGC[3] 600 ft U/S[4] of Site	1	2.49	3.07	2.58	3.35	2.59	3.40	2.59	3.43	2.58	3.42	2.67	3.35
PGC 300 ft U/S of Site	2	1.56	2.01	1.67	2.27	1.69	2.40	1.69	2.42	1.69	2.44	1.72	2.38
PGC at East Boundary of Site	3	1.75	2.35	1.88	2.59	1.94	2.73	1.95	2.79	1.96	2.81	2.02	2.76
PGC at U/S End of North Basin Levee	4	3.03	2.57	3.98	3.54	4.11	3.82	4.15	3.86	4.26	3.88	4.51	3.87
PGC at U/S End of South Basin Levee	5	1.40	1.27	1.50	1.41	1.56	1.43	1.64	1.53	1.72	1.60	1.98	1.80
South Basin Inlet Structure – Gates	6		1.75		2.30		2.37		2.37		2.31		1.92
PGC in Slackwater Area U/S of NT2[5]	7	1.17	0.94	1.52	1.27	1.80	1.53	2.01	1.76	2.20	1.92	2.70	2.34
PGC Just U/S of NT2 Confluence	8		0.66		0.94		1.15		1.34		1.47		1.89
NT2 Entering the Site	9	0.60	2.53	0.76	2.52	0.84	2.53	0.90	2.52	0.94	2.53	1.01	2.53
NT2 within North Basin	10	2.23	2.50	2.23	2.57	2.23	2.82	2.23	3.00	2.23	3.13	2.25	2.97

Table 5. (continued) Calculated Existing and Post-Project Conditions Maximum Velocities at Selected Locations

Location	Map Index Number [1]	24-hour Duration Storm of Return Frequency										8-day Duration Storm of Return Frequency	
		2-years		10-years		25-years		50-years		100-years		100-years	
		Max Velocity (ft/s) [2]		Max Velocity (ft/s) [2]		Max Velocity (ft/s) [2]		Max Velocity (ft/s) [2]		Max Velocity (ft/s) [2]		Max Velocity (ft/s) [2]	
		Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition
North Basin Outlet Structure - Spillway	11		0.00		0.00		0.00		0.00		0.00		0.00
North Basin Outlet Structure – Gates	11		4.81		6.43		7.07		7.69		8.28		10.79
PGC Just D/S[6] of NT2 Confluence	12	1.30	1.14	1.93	1.62	2.28	1.89	2.49	2.11	2.61	2.27	2.86	2.73
PGC btw[7] NT2 and NB[8] Confluences	13	1.02	0.90	1.47	1.25	1.73	1.44	1.88	1.60	1.96	1.71	2.13	2.09
PGC Just U/S of NB Confluence	14	1.39	1.23	2.00	1.69	2.36	1.95	2.58	2.14	2.70	2.25	2.94	2.71
PGC Just D/S of NB Confluence	15	1.23	1.08	1.80	1.53	2.15	1.76	2.36	1.97	2.47	2.09	2.70	2.53
South Basin Outlet Structure - Spillway	16		0.00		0.00		0.00		0.00		0.00		5.70
South Basin Outlet Structure - Gates	16		12.53		17.26		17.53		17.59		17.63		0.00[9]
PGC Just D/S of South Basin Outlet	17	3.57	3.57	3.63	3.65	3.61	3.62	3.59	3.59	3.60	3.58	3.71	3.70
PGC at West Boundary of Site	18	1.62	1.54	1.63	1.55	1.74	1.58	1.82	1.66	1.89	1.72	2.11	1.91

Notes:

1. Map index numbers are keyed to maps in Appendix C.
2. ft/s = feet/second
3. PGC = Pleasant Grove Creek
4. U/S = upstream
5. NT2 = Northern Tributary Two
6. D/S = downstream
7. btw = between
8. NB = North Branch Pleasant Grove Creek
9. Gates in closed position

Table 6. Calculated Existing and Post-Project Conditions Maximum Shear Stress at Selected Locations

Location	Map Index Number [1]	24-hour Duration Storm of Return Frequency										8-day Duration Storm of Return Frequency	
		2-years		10-years		25-years		50-years		100-years		100-years	
		Max Shear Stress (lb/sq-ft) [2]		Max Shear Stress (lb/sq-ft) [2]		Max Shear Stress (lb/sq-ft) [2]		Max Shear Stress (lb/sq-ft) [2]		Max Shear Stress (lb/sq-ft) [2]		Max Shear Stress (lb/sq-ft) [2]	
		Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition
PGC[3] 600 ft U/S[4] of Site	1	0.28	0.53	0.29	0.60	0.29	0.62	0.29	0.63	0.29	0.63	0.31	0.60
PGC 300 ft U/S of Site	2	0.35	0.58	0.38	0.71	0.39	0.77	0.39	0.79	0.39	0.80	0.40	0.76
PGC at East Boundary of Site	3	0.54	0.50	0.60	0.57	0.61	0.59	0.61	0.59	0.61	0.59	0.79	0.59
PGC at U/S End of North Basin Levee	4	1.34	1.02	2.09	1.72	2.21	1.94	2.23	1.98	2.24	1.99	2.39	1.99
PGC at U/S End of South Basin Levee	5	0.27	0.24	0.28	0.27	0.27	0.26	0.29	0.26	0.31	0.28	0.40	0.34
South Basin Inlet Structure	6		0.15		0.22		0.23		0.23		0.21		0.14
PGC in Slackwater Area U/S of NT2[5]	7	0.23	0.15	0.33	0.22	0.44	0.31	0.54	0.39	0.63	0.46	0.92	0.63
PGC Just U/S of NT2 Confluence	8		0.07		0.12		0.17		0.21		0.25		0.38
NT2 Entering the Site	9	0.02	0.35	0.04	0.35	0.04	0.35	0.05	0.35	0.05	0.35	0.06	0.35
NT2 within North Basin	10	0.20	0.34	0.20	0.36	0.20	0.39	0.20	0.41	0.20	0.43	0.20	0.37

Table 6. (continued) Calculated Existing and Post-Project Conditions Maximum Shear Stress at Selected Locations

Location	Map Index Number [1]	24-hour Duration Storm of Return Frequency										8-day Duration Storm of Return Frequency	
		2-years		10-years		25-years		50-years		100-years		100-years	
		Max Shear Stress (1b/sq-ft) [2]		Max Shear Stress (1b/sq-ft) [2]		Max Shear Stress (1b/sq-ft) [2]		Max Shear Stress (1b/sq-ft) [2]		Max Shear Stress (1b/sq-ft) [2]		Max Shear Stress (1b/sq-ft) [2]	
		Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition	Existing Condition	Post-Project Condition
North Basin Outlet Structure	11		0.38		0.38		0.38		0.38		0.37		0.38
PGC Just D/S[6] of NT2 Confluence	12	0.16	0.13	0.31	0.22	0.42	0.28	0.49	0.34	0.53	0.38	0.62	0.52
PGC btw[7] NT2 and NB[8] Confluences	13	0.15	0.12	0.29	0.21	0.38	0.27	0.45	0.33	0.48	0.37	0.56	0.54
PGC Just U/S of NB Confluence	14	0.24	0.18	0.46	0.34	0.63	0.43	0.74	0.52	0.80	0.57	0.94	0.81
PGC Just D/S of NB Confluence	15	0.19	0.15	0.39	0.29	0.54	0.37	0.65	0.46	0.71	0.51	0.83	0.73
South Basin Outlet Structure	16		0.08		0.08		0.08		0.09		0.09		0.01[9]
PGC Just D/S of South Basin Outlet	17	0.91	0.96	0.97	1.03	0.94	1.00	0.93	0.98	0.94	0.97	1.00	1.06
PGC at West Boundary of Site	18	0.27	0.27	0.28	0.28	0.32	0.31	0.34	0.33	0.36	0.34	0.43	0.40

Notes:

1. Map index numbers are keyed to maps in Appendix C.
2. lb/sq-ft = pounds/square foot
3. PGC = Pleasant Grove Creek
4. U/S = upstream
5. NT2 = Northern Tributary Two
6. D/S = downstream
7. btw = between
8. NB = North Branch Pleasant Grove Creek
9. Gates in closed position

position. In this case, the maximum water level in the basin would reach elevation 76.2 feet, assuming that the gates were closed at the beginning of the event. The emergency spillway crest was then set at 1 foot above this maximum stage, or 77.2 feet.

Finally, the 24-hour, 1,000-year storm was simulated for the gates in both the open and closed positions. This simulation was performed using the steady-state HECRAS model instead of the unsteady MIKE 11 model because 1,000-year hydrographs were not available from the Wood-Rodgers study or supported by the Placer County precipitation distribution program. Instead, the peak 24-hour, 1,000-year peak flow in Northern Tributary Two was estimated by logarithmic extrapolation from the peaks of smaller storms and used in the steady-state model. A plot showing this extrapolation is included in Appendix B.

A profile plot of the output is included in Appendix C and illustrates that the 24-hour, 1,000-year storm could pass through the primary spillway with the gates open. However, if the gates were closed and the basin was full to elevation 75 feet, the 24-hour, 1,000-year storm would cause water to pass through the emergency spillway. With this configuration, approximately 72 percent of the flow would pass through the primary spillway and approximately 28 percent of the flow would pass through the emergency spillway. An emergency spillway with crest at 77.2 feet elevation would need to be about 250 feet long to provide at least 1.5 feet of freeboard.

Based on the analysis performed, the North Basin would need to be operated with the gates in the normally open position. During flood events, when the storage of water is needed, the gates would automatically close. The gates could then reopen when the water level in the basin exceeded an elevation of 75 feet, to allow water to pass more freely through the basin until the water level receded to elevation 75 feet, the maximum storage volume of the basin.

3.2.3 South Basin, Inlet and Outlet Structures

The South Basin is different from the North Basin in that it is not located directly on a stream course but to the side, in a floodplain area. The South Basin and inlet and outlet structure were analyzed using the MIKE 11 model (unsteady state).

The model simulates the diversion of water from Pleasant Grove Creek to the South Basin bypass channel. The inlet structure was modeled as a sharp-crested gated weir with three 6-foot-square gates. The gates are analyzed as orifices with an orifice coefficient of 0.60 and an invert elevation of 66 feet.

Manning's n values of 0.05 and 0.045 were used for the bypass channel and basin bottom, respectively. These represent moderately dense vegetative cover that would be develop in these areas due to relatively wet hydrologic conditions.

The bypass channel inlet would allow 1-year to 2-year event flows or larger to enter the channel. A range of storm events (2-year through 100-year, 24-hour duration storm) was analyzed using MIKE 11 for the normal operation of the basin with both the inlet and outlet gates in the open position. The 100-year, 8-day storm was also modeled with the inlet gates open but the outlet gates closed. Tables 3 through 6

present peak flow, stage, velocity, and shear stress at key points in and near the South Basin for the various storm events.

3.2.4 Limitations

The results of the hydraulic modeling presented above are based on an uncalibrated model. The existing stream does not have a gage on it and information on observed high water marks has not been developed. During the final design, an attempt should be made to calibrate the model to observed high water marks for a given event, using flow estimates from a suitable surrogate gauged watershed, or from collected data from high-flow events on Pleasant Grove Creek and their corresponding water surface elevations.

3.3 GEOMORPHOLOGY

Geomorphic reconnaissance of the Pleasant Grove Creek watershed and the Reason Farms site was undertaken during late December 2001 and early January 2002. Geomorphic conditions and processes are discussed in the report titled Screening Level Evaluation of Alternative Site Locations for the City of Roseville Retention Basin, dated March 8, 2002 (URS/PWA, 2002).

Field sediment sampling was carried out during the winter of 2001 and 2002. Particle size analysis was performed on six bed material bulk samples, four of which were in Northern Tributary Two. The samples were grab samples, collected by hand upstream of the site, as well as at depositional zones at the site. The particle size distribution was analyzed by hydrometer measurements at Cooper Testing Laboratories, Petaluma, California. Sample 1 with a median grain-size diameter of 0.6 mm was chosen as the representative distribution for Pleasant Grove Creek. Due to the large variation in grain-size distribution of Northern Tributary Two, two samples were used to represent the particle sizes. Sample 3 and Sample 5, with median grain-sizes of 0.12 and 0.3 mm, respectively, were used in the sediment transport calculations. Summary statistics for the gradation of the samples are included in Table 7 below, organized by sample number. The complete particle size distribution report is provided in Appendix D.

Sediment transport and deposition potential of the channels for the proposed embankment setback location of 100 feet were evaluated. Appendix D includes a PWA memorandum dated May 23, 2002, that provides a comparison of the hydraulic and sediment transport properties, as well as a qualitative assessment of potential impacts to channel morphology associated with the proposed 100-foot embankment setback.

A sediment transport capacity analysis was performed to determine the quantity of sediments that could accumulate in the retention basins. For this purpose, Pleasant Grove Creek and Northern Tributary Two were examined at selected cross-sections upstream of the site.

Table 7. Pleasant Grove Creek and Northern Tributary Two Particle Size Analysis

Sample Ref. No.	Location	Description	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
1	PGC[1], U/S[2]	Gray-brown well-graded sand with silt	2.4	88.6	1.9	7.1
6	PGC, middle reach	Brown silty sand	0.4	51	18.1	30.5
2	NT2[2], U/S	Brown sandy silt	-	47.4	26.8	25.8
3	NT2, middle reach	Brown silty sand	0.6	60.9	16.3	22.2
4	NT2, knickpoint zone	Light brown silty sand	1.2	82.7	7.4	8.7
5	NT2, U/S of confluence	Light brown silty sand	-	85.3	6.8	7.9

Notes:
1 PGC = Pleasant Grove Creek
2 U/S = upstream
3 NT2 = Northern Tributary Two

For Pleasant Grove Creek, cross-section STA 1350, just upstream of the Reason Farms Site boundary, was used as the supply reach (see Figure 1 in Appendix D). To determine the sediment capacity of the supply reach, two total load equations, namely the Ackers and White (1973) and Brownlie (1981) equations, as presented in Julien (1998) and Chadwick and Morfett (1998), were used.

The sediment concentration in the supply reach was determined by coupling the median (D_{50}) grain size with hourly reach averaged hydraulic output (flow, velocity, energy slope and hydraulic radius) from the MIKE 11 model. The sediment concentration was assumed to be constant all through the water column. The results of the analysis are given in Table 8.

Similarly, for Northern Tributary Two, cross-section STA 1989 upstream of the site was chosen as the supply reach. In the existing condition, this reach is a backwater zone caused by the low gradient of the channel at the site and by the two sharp turns in the channel alignment at the eastern site boundary. However, in the project conditions, with the channel restored, the supply reach is a free-flowing reach. The same analytic methods to determine sediment supply, as discussed for Pleasant Grove Creek (above) were applied for Northern Tributary Two.

A separate approach was required to evaluate the sediment deposition in the South and North basins. The South Basin would be located within a complex network of inflows and outflows to and from the south floodplain. Flows pass through the bypass channel as well as over the banks to the floodplain. Flows in the bypass channel primarily would enter the South Basin through the basin inlet structure. Excess flow on the floodplain would reenter the main channel of Pleasant Grove Creek. The sediment concentration in the supply reach was used to estimate the volume of sediment entering the basin. The total sediment load entering the South Basin during the 100-year, 8-day event would be approximately 1.3 acre-foot (Table 8). This would be about 0.07 percent of the total basin volume.

The North Basin would be an on-line basin. To simplify the analysis, the basin was assumed to be a sediment trap with an efficiency of 100 percent; the basin would capture all sediment supplied by the upstream reach during the 100-year, 8-day event. Table 8 illustrates a range of results from 1.5 acre-feet to about 31 acre-feet for both median grain sizes. However, Ackers and White's method tends to overestimate the concentration and sediment transport of fine and very fine sands (Julien, 1998). A more reasonable upper end result would be given by Brownlie. Therefore, a sediment load of between 1.6 and 11 acre-feet would represent approximately 0.2 percent to 1.7 percent of the total basin volume.

Table 8. Estimated Sediment Volume

Location	Sediment Mass (kg[1])		Sediment Volume (ac-ft)[2]	
	Ackers & White	Brownlie	Ackers & White	Brownlie
NT2[3], STA 1989				
D_{50}=0.12 mm	104,823,572	37,317,975	32.1	11.4
D_{50}=0.3 mm	5,056,596	19,339,319	1.6	5.9
PGC[4], STA 1350				
D_{50}=0.6 mm	139,482,562	141,778,314	42.7	43.4
Deposition in the South Basin[5]	4,315,698	4,399,741	1.32	1.35

Notes:

1. kg = kilograms; ac-ft = acre-feet
2. The density of the sediment is assumed to be 2,650 kg/m^3
3. NT2 = Northern Tributary Two
4. PGC = Pleasant Grove Creek
5. Sediment supplied to the basin by flows passing through the inlet structures and over the spillway.

The sediment transport calculations for both basins, as well as the Pleasant Grove Creek supply reach are provided in electronic form in Appendix D.

4. CONCEPTUAL DESIGN CONSTRUCTION COST ESTIMATE

Table 9 presents an estimate of construction costs for the conceptual design in 2002 dollars. Because the design is at the conceptual stage, several assumptions were made regarding components of the project that would be designed in subsequent design phases. These assumptions are included as footnotes to Table 9. Also, a 20 percent contingency has been included to cover the construction costs for project components that may not be detailed at this stage of the project. The unit prices used in the construction cost estimate are based on costs for similar projects, engineering judgment, and input from a local grading contractor. The unit prices and quantity estimates presented in Table 9 will be refined in subsequent phases of the project, as the detailed design is developed.

Appendix A includes a memorandum dated March 20, 2002 that details the probable range of total project costs for six alternative design concepts.

Table 9 does not include costs associated with implementing opportunities for other uses such as enhanced restoration planting, recreational trails, demolition of existing structures on the site, and remediation and/or disposal of contaminated soils, if any.

Table 9. Conceptual Design Construction and Project Cost Estimate

Item	Description	Unit	Low Unit Price	High Unit Price	South Basin			North Basin			Total		
					Quantity	Low Estimated Cost	High Estimated Cost	Quantity	Low Estimated Cost	High Estimated Cost	Quantity	Low Estimated Cost	High Estimated Cost
	CONSTRUCTION COSTS												
1	Mobilization (8%)					$201,000	$377,000		$159,000	$304,000		$360,000	$681,000
2	Clearing & Grubbing	acre	$500	$2000	69	$35,000	$138,000	74	$37,000	$148,000	143	$72,000	$286,000
3	Channel Excavation	cubic yards	$1.25	$2	474,500	$593,000	$949,000	243,000	$304,000	$486,000	717,500	$897,000	$1,435,000
4	Embankment - Structural Fill[1]	cubic yards	$2	$4	474,500	$949,000	$1,898,000	243,000	$486,000	$972,000	717,500	$1,435,000	$2,870,000
5	Embankment Foundation[2]	linear feet	$4	$8	13,400	$54,000	$107,000	9,420	$38,000	$75,000	22,820	$92,000	$182,000
6	Topsoil Removal and Replacement[3]	cubic yards	$3	$5	36,800	$110,000	$184,000	39,400	$118,000	$197,000	76,200	$228,000	$381,000
7	Inlet Structure[4]	cubic yards	$400	$700	360	$144,000	$252,000	N/A	-	-	360	$144,000	$252,000
8	Outlet Structure[4]	cubic yards	$400	$700	630	$252,000	$441,000	1,100	$440,000	$770,000	1,730	$692,000	$1,211,00
9	Emergency Spillway	lump sum	-	-	N/A	-	-	1	$100,000	$200,000	1	$100,000	$200,000
10	4-Foot Gates	each	$25,000	$40,000	2	$50,000	$80,000	N/A	-	-	2	$50,000	$80,000
11	6-Foot Gates	each	$35,000	$50,000	3	$105,000	$150,000	4	$140,000	$200,000	7	$245,000	$350,000
12	Electrical Controls/Telemetry[5]	lump sum	-	-	1	$67,000	$167,000	1	$33,000	$83,000	2	$100,000	$250,000
13	Replacement Planting[6]	lump sum	-	-	1	$17,000	$33,000	1	$8,000	$17,000	2	$25,000	$50,000
14	Low Flow Channel Revegetation[7]	acre	$20	$50	N/A	-	-	6,000	$120,000	$300,000	6,000	$120,000	$300,000
15	Erosion Control Seeding[8]	acre	$1,000	$3,000	69	$69,000	$207,000	74	$74,000	$222,000	143	$143,000	$429,000
16	Access Road[9]	linear feet	$10	$15	7,100	$71,000	$107,000	8,900	$89,000	$134,000	16,000	$160,000	$241,000
	Contingency (20%)					$543,000	$1,018,000		$429,000	$822,000		$972,000	$1,840,000
	Estimated Construction Cost Subtotal					**$3,260,000**	**$6,108,000**		**$2,575,000**	**$4,930,000**		**$5,835,000**	**$11,038,000**
	OTHER PROJECT COSTS												
17	Concept Design and CEQA Docs	lump sum	$768,000	$768,000							1	$768,000	$768,000
18	Engineering Design[10]	lump sum	$350,000	$600,000							1	$350,000	$600,000
19	Permitting[11]	lump sum	$75,000	$200,000							1	$75,000	$200,000
20	Construction Admin/Oversight (10%)	lump sum									1	$580,000	$1,100,000
21	Operations and Maintenance[12]	lump sum	$500,000	$1,000,000							1	$500,000	$1,000,000
22	Monitoring	lump sum	$25,000	$50,000							1	$25,000	$50,000
23	Reason Farms – Property Purchase[13]	acre	$6500	$6500							1300	$8,450,000	$8,450,000
24	Adjacent Property Purchase[14]	acre	$5,000[15]	$5,000[15]							420	$2,100,000	$2,100,000
34	Mitigation Costs[16]	acre	$25,000	$75,000							23	$575,000	$1,725,000
	Estimated Other Project Costs Subtotal											**$13,723,000**	**$16,293,000**
	TOTAL ESTIMATED PROJECT COSTS[17]											**$19,558,000**	**$27,331,000**

Table 9. Conceptual Design Construction and Project Cost Estimate

Notes:

1. The volume of embankment structural fill was calculated assuming that half of the embankment length is 20 feet wide with 3H:1V side slopes and the remaining half is 12 feet wide with 5H:1V side slopes.
2. The embankment foundation is a keyway trench 14 feet wide and 3 feet deep and is only applicable to those portions of the embankment that would normally impound water. The keyway trench is not provided in embankment areas that only provide freeboard.
3. Topsoil Removal and Replacement includes removal and stockpiling of upper 4 inches of existing topsoil, and replacement and fine-grading on all disturbed areas.
4. Preliminary estimate of the volume of concrete based on the conceptual dimension of the structure; some dimensions will change as the structure design is advanced beyond the conceptual stage.
5. This is a place holder cost for electrical service, telemetry and instrumentation for gate controls. Engineering studies for these facilities have not yet been performed.
6. Replacement planting for riparian vegetation impacts related to construction of the inlet and outlet structures only.
7. Revegetation of the new low flow channel in the North Basin – Willow planting (stakes and/or matting).
8. Revegetation of all disturbed areas (new embankment and excavated areas) with erosion control seed mix (hydroseeding).
9. Assumes that the road along top of embankment would average 16 feet wide, with an 8-inch-thick aggregate base surface.
10. Survey, geotechnical, structural, electrical, grading and revegetation design.
11. Preliminary estimate for permitting coordination with COE, USFWS, CDFG, NMFS, and DSOD.
12. This is a place holder cost for long-term operations and maintenance.
13. The cost of sale or deconstruction of existing facilities will be negotiated into the land acquisition agreement.
14. Approximate costs for purchase of offsite property inundated by the North and South Basins.
15. Approximate value; final cost will vary.
16. Approximate costs for mitigation of impacts to sensitive habitat or protected species.
17. Does not include costs for future public access, trails or scenic look-out points. Also does not include potential offsets from sale of unused area.

5. REFERENCES

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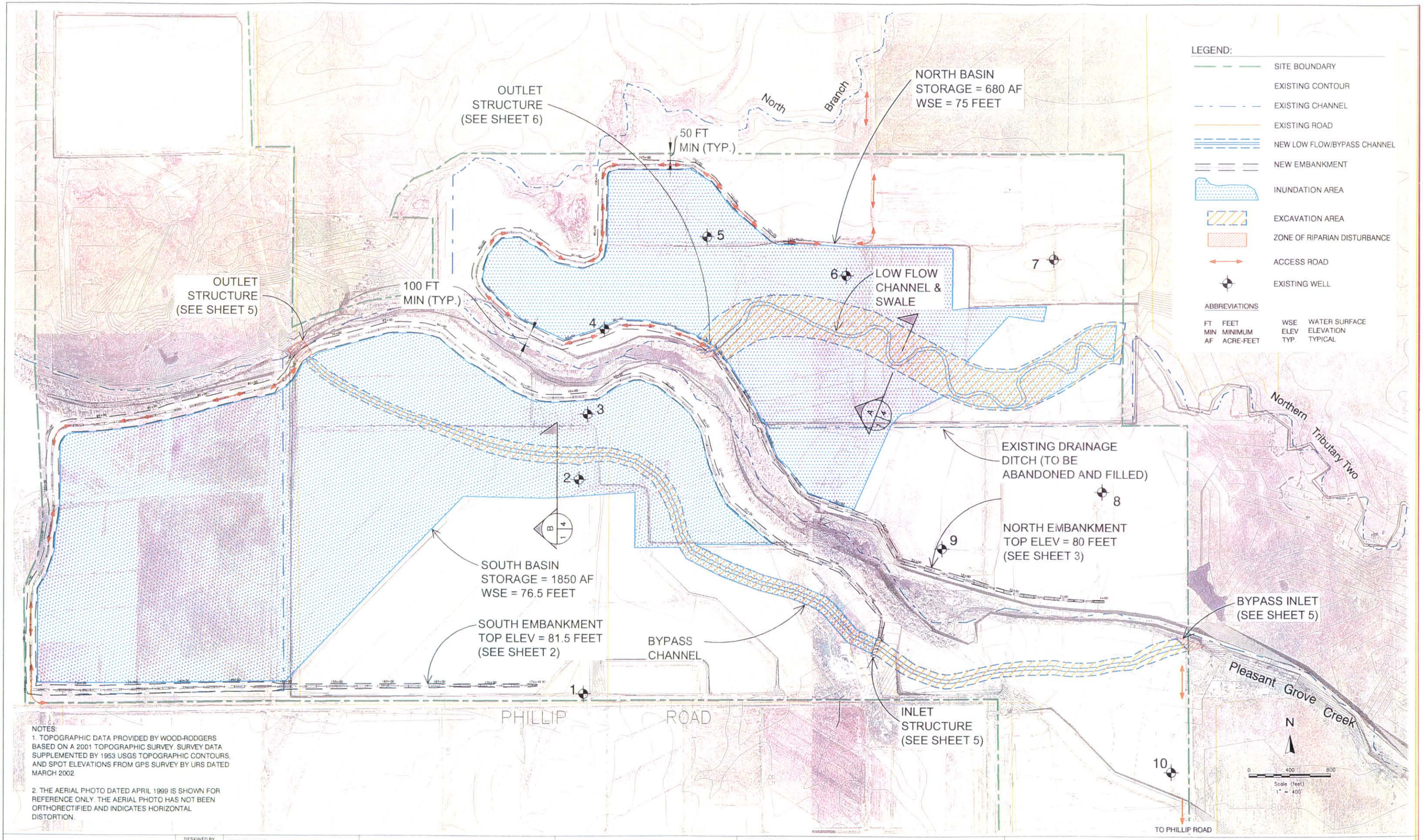
6. LIST OF PREPARERS

This report was prepared by the following PWA staff:

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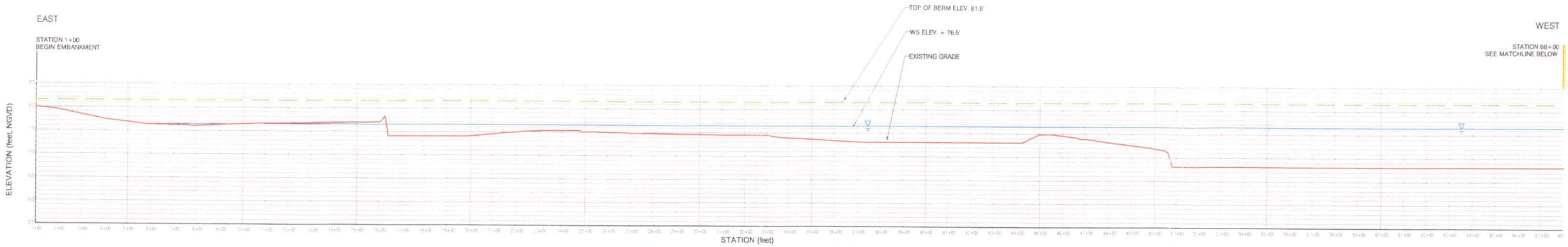
NOTES:
1. TOPOGRAPHIC DATA PROVIDED BY WOOD-RODGERS BASED ON A 2001 TOPOGRAPHIC SURVEY. SURVEY DATA SUPPLEMENTED BY 1953 USGS TOPOGRAPHIC CONTOURS, AND SPOT ELEVATIONS FROM GPS SURVEY BY URS DATED MARCH 2002.

2. THE AERIAL PHOTO DATED APRIL 1999 IS SHOWN FOR REFERENCE ONLY. THE AERIAL PHOTO HAS NOT BEEN ORTHORECTIFIED AND INDICATES HORIZONTAL DISTORTION.

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NO.	DATE	BY	DESCRIPTION	DRAWN BY			DATE	Retention Basin Study	PWA	PHILLIP WILLIAMS & ASSOCIATES, LTD. 720 CALIFORNIA STREET, SUITE 800 SAN FRANCISCO, CALIFORNIA 94108-2404 PHONE (415) 262-2300 FAX (415) 262-2303	Plan View
				CHECKED BY		APPROVED			IN COOPERATION WITH: URS	URS Corporation 221 MAIN STREET, SUITE 800 SAN FRANCISCO, CALIFORNIA 94105 PHONE (415) 896-5858 FAX (415) 882-9281	
				IN CHARGE			DATE				

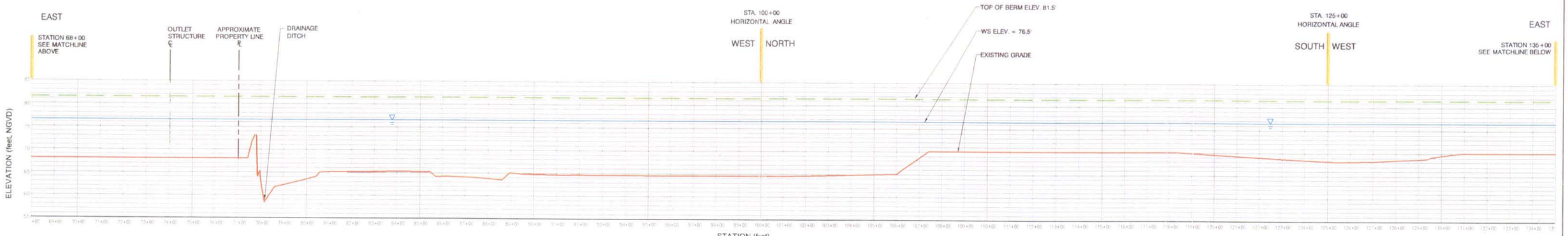
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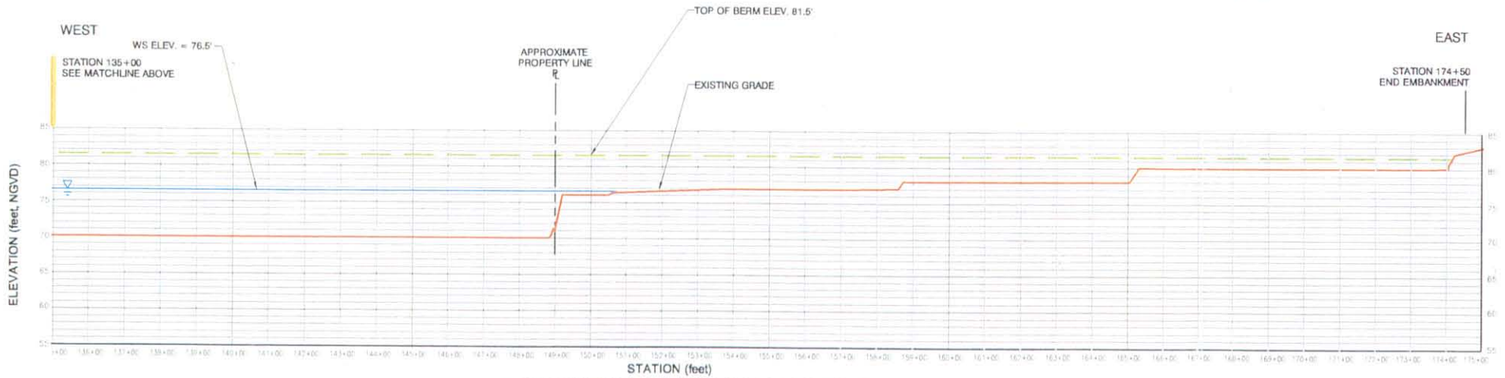
SOUTH EMBANKMENT PROFILE

HORIZONTAL SCALE: 1"=200'
VERTICAL EXAGGERATION = 20X



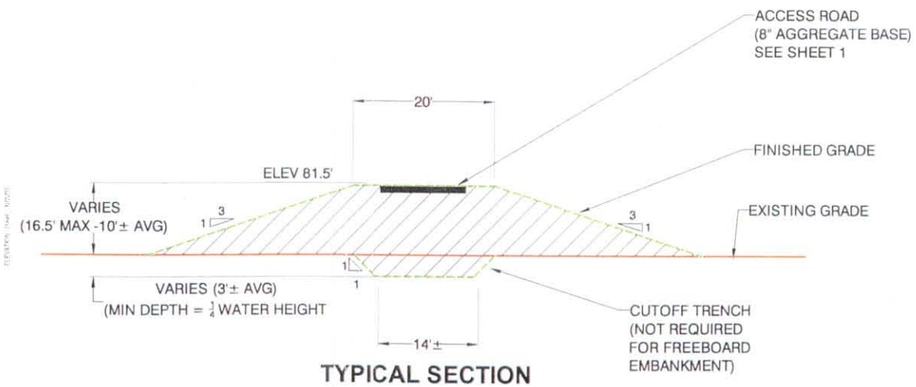
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VERTICAL EXAGGERATION = 20X



SOUTH EMBANKMENT PROFILE

HORIZONTAL SCALE: 1"=200'
VERTICAL EXAGGERATION = 20X



TYPICAL SECTION SOUTH EMBANKMENT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

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CERTIFICATIONS

APPROVED _____ DATE _____

APPROVED _____ DATE _____

City of Roseville
Retention Basin Study

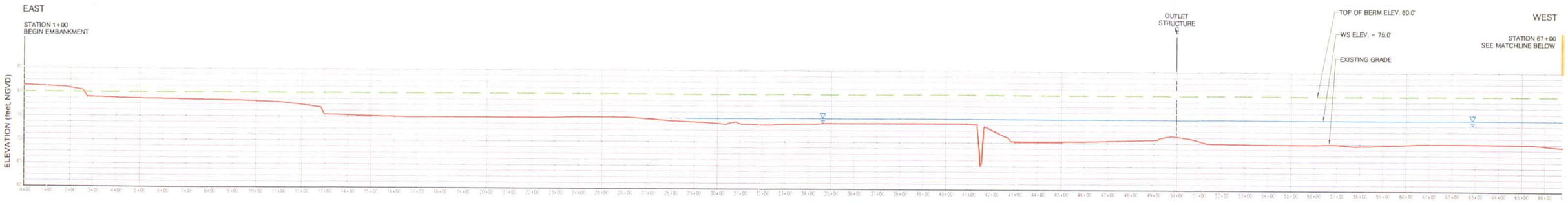
PREPARED BY:
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PHILIP WILLIAMS & ASSOCIATES, LTD.
720 CALIFORNIA STREET, SUITE 600
SAN FRANCISCO, CALIFORNIA 94108-2404
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IN COOPERATION WITH:
URS
URS Corporation
221 MAIN STREET, SUITE 600
SAN FRANCISCO, CALIFORNIA 94105
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Reason Farms - Conceptual Design
South Embankment Profile

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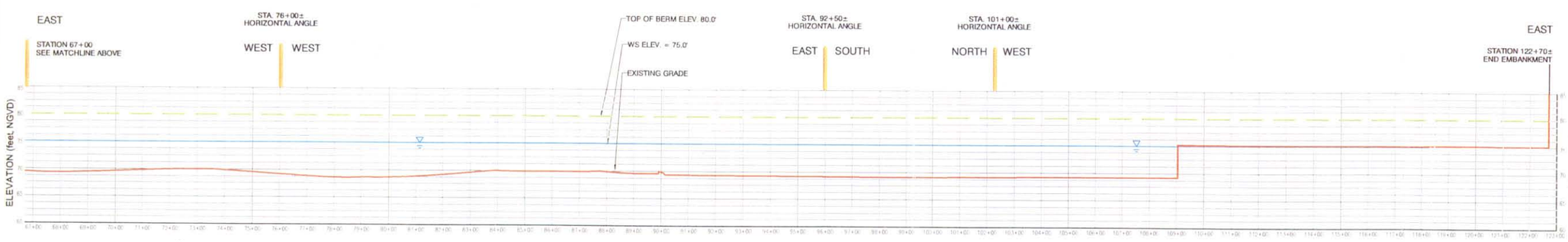
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STATION (feet)

NORTH EMBANKMENT PROFILE

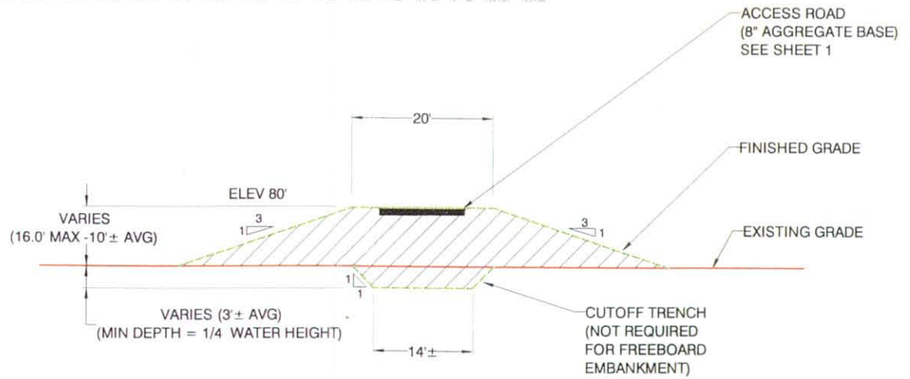
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STATION (feet)

NORTH EMBANKMENT PROFILE

HORIZONTAL SCALE: 1"=200'
VERTICAL EXAGGERATION = 20X



TYPICAL SECTION
NORTH EMBANKMENT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BY
DRAWN BY
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IN CHARGE

CERTIFICATIONS:

APPROVED _____ DATE _____

APPROVED _____ DATE _____

City of Roseville

Retention Basin Study

PREPARED BY:

PWA

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IN COOPERATION WITH:

URS

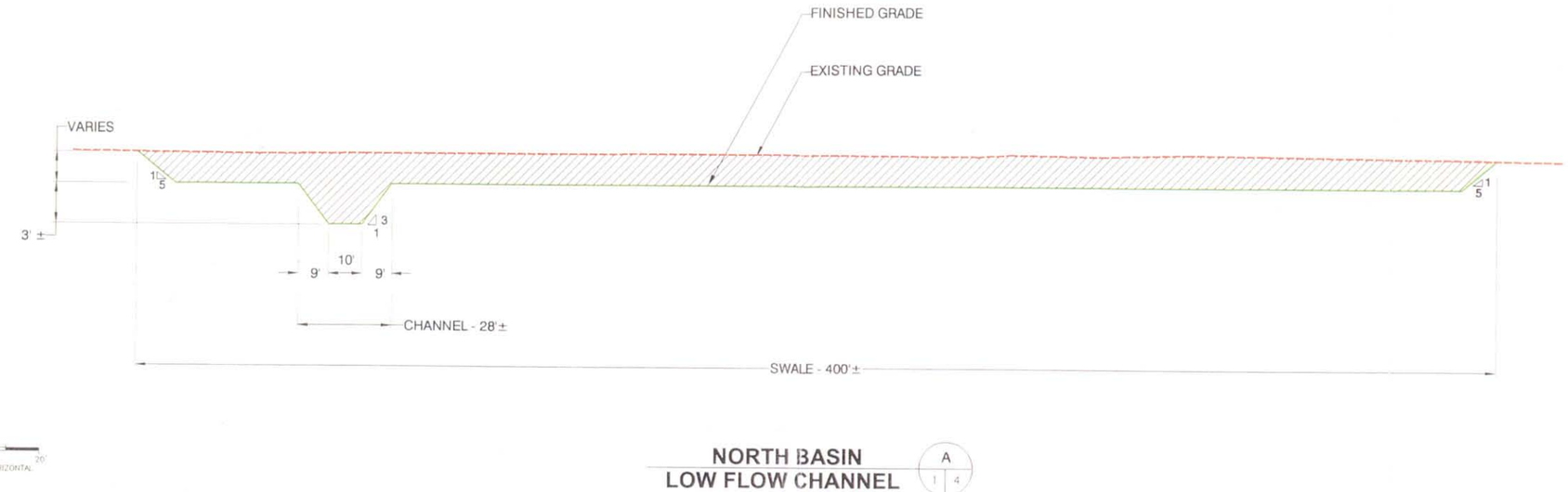
URS Corporation
221 MAIN STREET, SUITE 600
SAN FRANCISCO, CALIFORNIA 94105
PHONE (415) 896-5858, FAX (415) 882-9261

Reason Farms - Conceptual Design

North Embankment Profile

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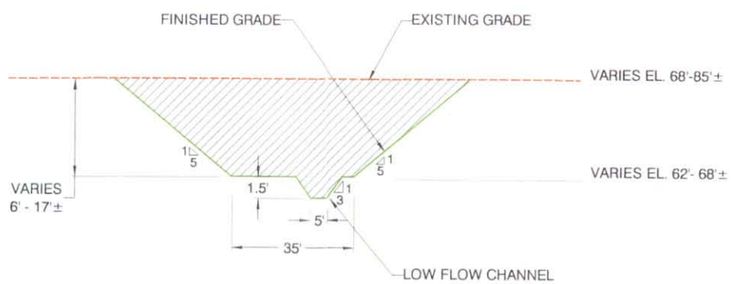
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NORTH BASIN
LOW FLOW CHANNEL

A
1 | 4

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4x Vertical Exaggeration



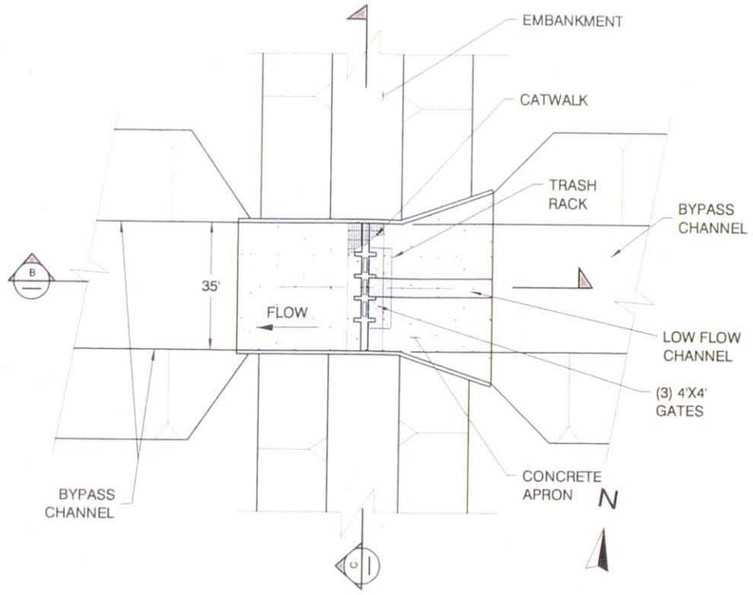
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BYPASS CHANNEL

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1 | 4

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4x Vertical Exaggeration

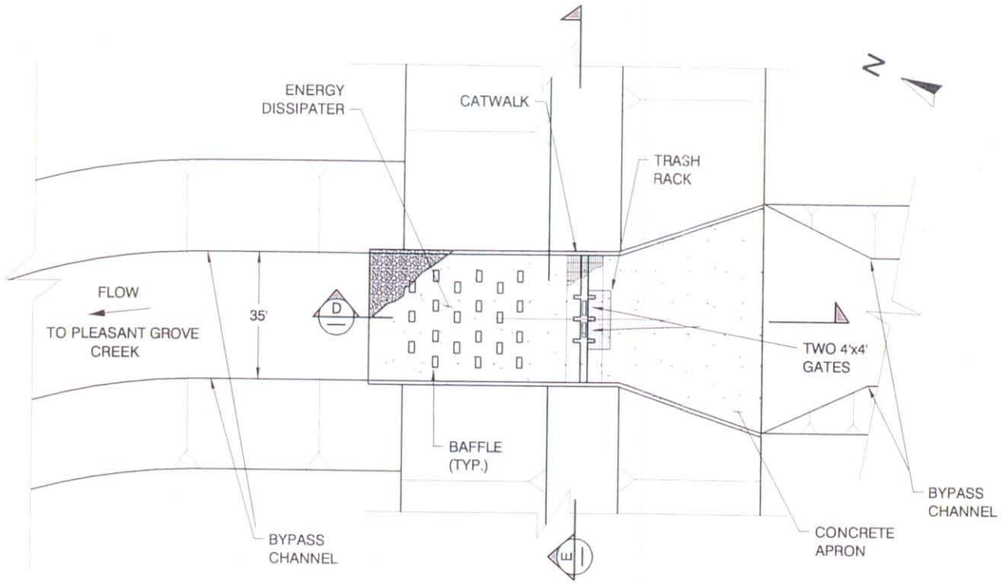
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NO.	DATE	BY	DESCRIPTION	DRAWN BY			DATE	Retention Basin Study	IN COOPERATION WITH: URS	URS Corporation 221 MAIN STREET, SUITE 800 SAN FRANCISCO, CALIFORNIA 94105 PHONE (415) 896-5858, FAX (415) 882-9281		DATUM	SCALE	CONTOUR INTERVAL	DATE	JOB NO.	SHEET	OF
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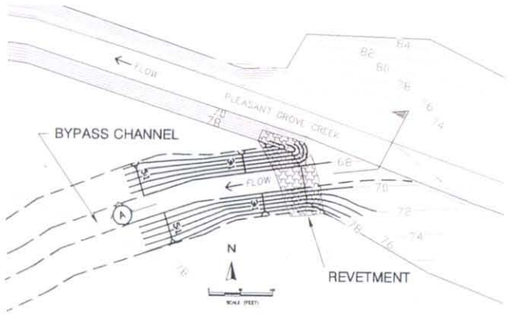
SOUTH BASIN INLET PLAN

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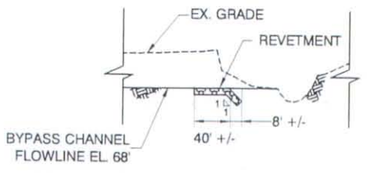
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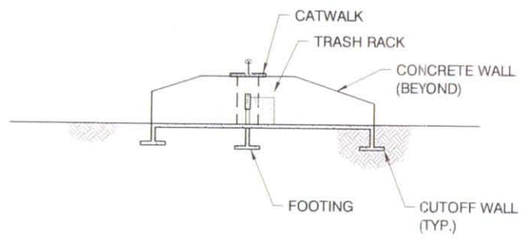
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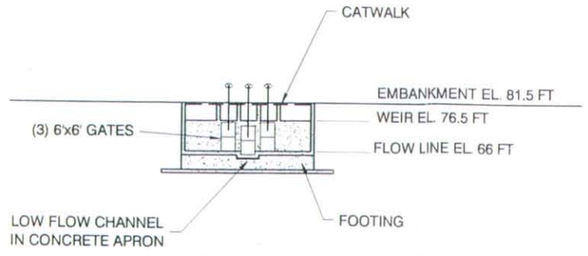
BYPASS INLET PROFILE A

N.T.S.



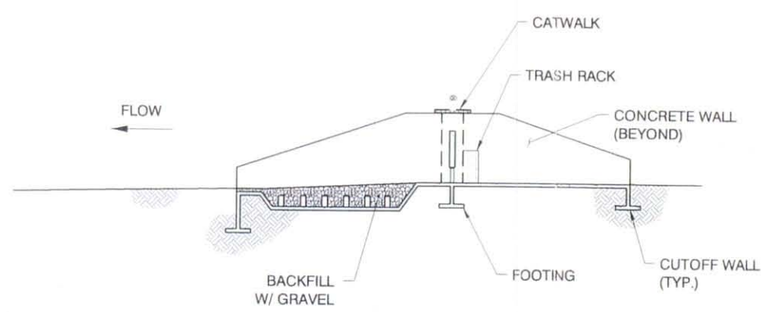
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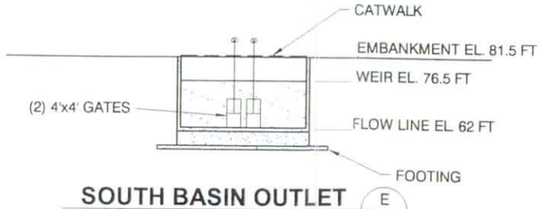
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SOUTH BASIN OUTLET PROFILE D

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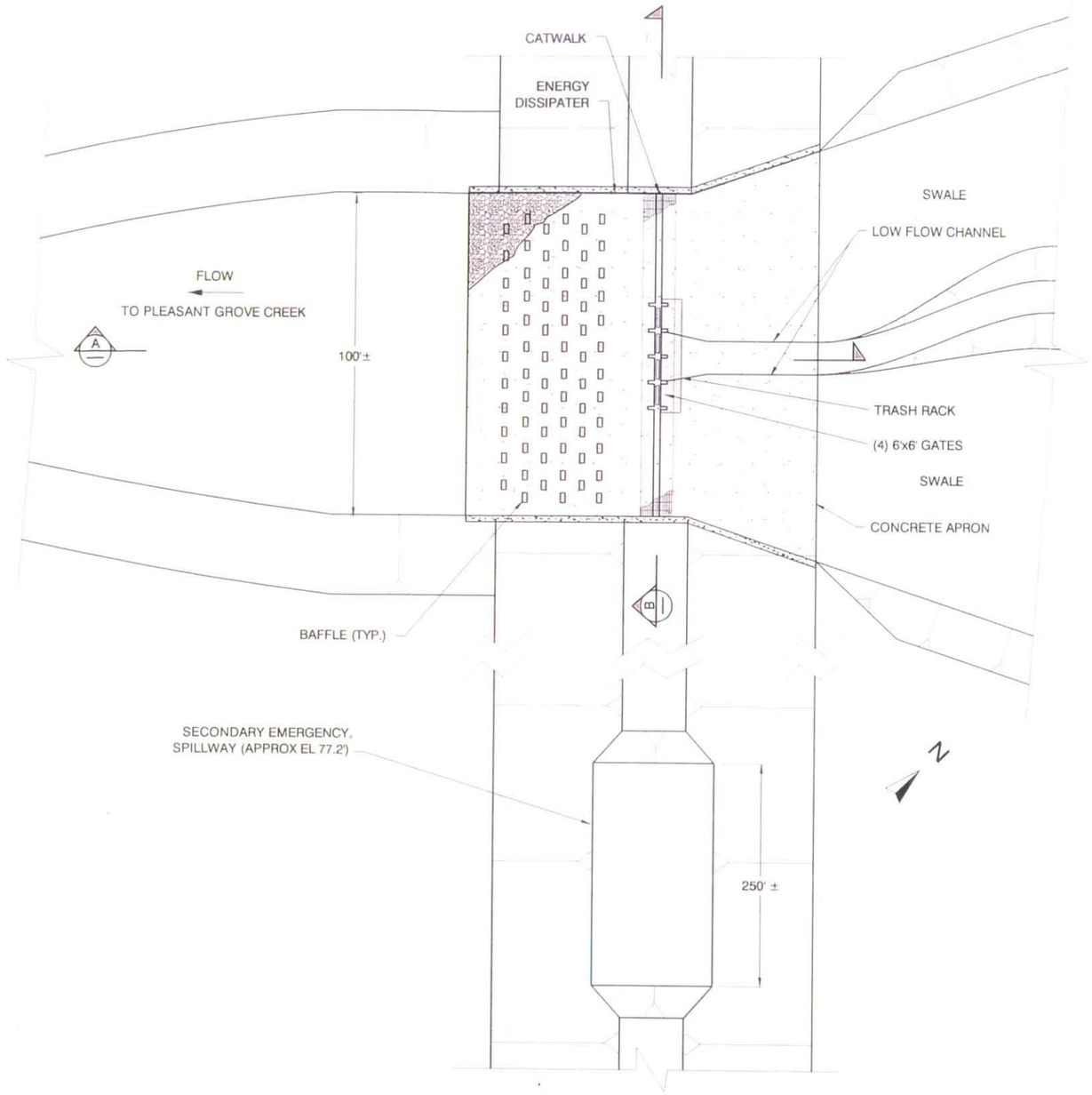
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NO.	DATE	BY	DESCRIPTION	DRAWN BY			DATE	Retention Basin Study	IN COOPERATION WITH: URS — URS Corporation 221 MAIN STREET, SUITE 800 SAN FRANCISCO, CALIFORNIA 94105 PHONE (415) 896-5858, FAX (415) 882-9261	South Basin - Inlet and Outlet Structure
				CHECKED BY		APPROVED				
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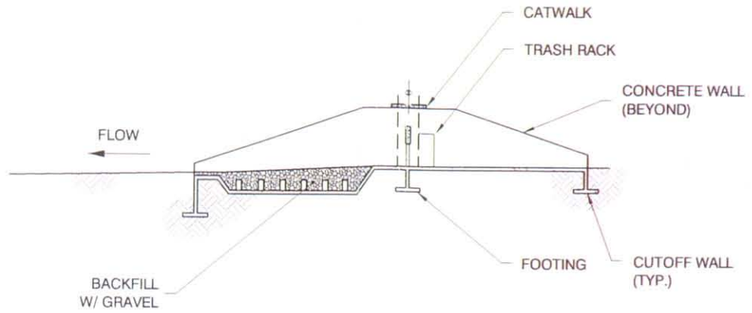
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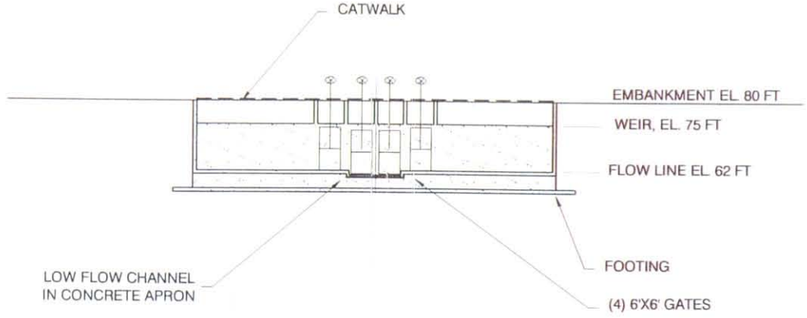
NORTH BASIN OUTLET PLAN

N.T.S



NORTH BASIN OUTLET PROFILE (A)

N.T.S



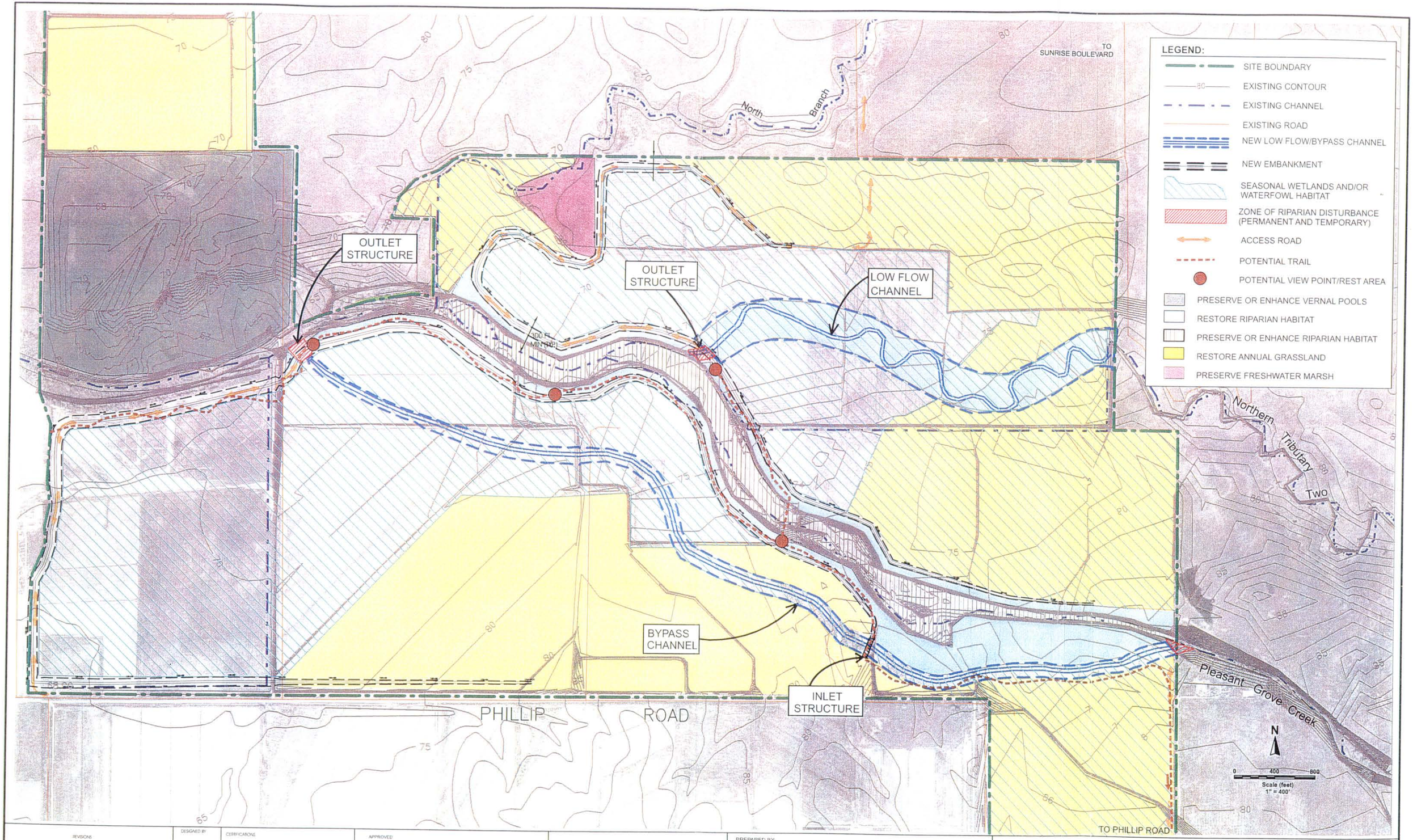
NORTH BASIN OUTLET SECTION (B)

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NO.	DATE	BY	DESCRIPTION	DRAWN BY		APPROVED	DATE	Retention Basin Study	IN COOPERATION WITH: URS — URS Corporation 221 MAIN STREET, SUITE 600 SAN FRANCISCO, CALIFORNIA 94105 PHONE (415) 896-5858 FAX (415) 882-9261	North Basin - Outlet Structure
				CHECKED BY						
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REVISIONS				DESIGNED BY	CERTIFICATIONS	APPROVED		City of Roseville	PREPARED BY: PWA	PHILIP WILLIAMS & ASSOCIATES, LTD. 720 CALIFORNIA STREET, SUITE 600 SAN FRANCISCO, CALIFORNIA 94108-2404 PHONE (415) 262-2300 FAX (415) 262-2303	Reason Farms - Conceptual Design Opportunities for Other Uses						
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				IN CHARGE			DATE										

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APPENDIX A

APPENDIX A
Alternative Conceptual Designs

This appendix contains:

- PWA Memorandum dated February 20, 2002, which examines embankment alternatives for the Reason Farms and Curry Creek sites.
- PWA Memorandum dated March 20, 2002, which presents six conceptual design alternatives for the Reason Farms site.

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CONSULTANTS IN HYDROLOGY
928 Second Street, Suite 300, Sacramento, CA 95814
TEL 916.444.9407 FAX 916.444.9417
e-mail sfo@pwa-ltd.com

MEMORANDUM

DATE: February 20, 2002

TO: Raul Cervantes, City of Roseville
Garth Gaylord, City of Roseville
Denise Heick, URS Corporation

VIA FAX: 916-774-5379; 415-882-9261

FROM: Mike Thomas, Ann Borgonovo AcB

RE: Conceptual Design for Embankment Alternatives
Reason Farms Detention Basin, City of Roseville
PWA Ref. #: 1570.03

This memorandum provides updated quantity estimates for storage retention on the Reason Farms and Alternative 2 (Curry Creek) sites. For both sites, we examined construction of an embankment across the channel to capture the flow most efficiently, per your request. The information contained herein is a refinement of the rough calculations presented in our February 7, 2002 meeting.

For the Reason Farms site, we assumed an embankment would be constructed across North Tributary Two, just upstream of the confluence with Pleasant Grove Creek (Figure 1). For Alternative 2, we assumed the embankment would cross Curry Creek, downstream of the confluence near the west property boundary (Figure 2). We have refined the assumed dimensions for the embankment based on published guidelines. Estimated dimensions for the embankment are as follows:

- Top width = 20 feet[1]
- Freeboard = 5 feet[2]
- Side slopes = 3:1 (horizontal: vertical)

---

1. Minimum top width is 13 feet ("Design of Small Dams", 1974, page 270.) Use 20 feet width for access road and future maintenance.
2. Freeboard = 3 feet x 1.5 ~ 5 feet ("Design of Small Dams", 1974, page 274.)

The approximate water surface elevation needed to achieve the requisite 2250 acre feet of storage was first estimated. The elevation of the embankment was then established as the water surface elevation plus 5 feet of freeboard. We estimated the volume of retention storage, and the fill volume for the embankment, using digital terrain modeling (DTM). The storage volume was estimated as the difference between existing grade and the assumed water surface elevation, plus the excavation volume resulting from construction of the embankment. For Alternative 2, historic contours provided by USGS were used to estimate existing grade. Estimated parameters for retention basins on the Reason Farms and Alternative 2 sites using embankments are as follows:

	Reason Farms	Alternative 2
Approximate Embankment Parameters		
Elevation (feet NGVD)	84	83.5
Length (feet)	13,000	8,600
Fill Volume (cubic yards)	281,000	170,000
Approximate Storage Volume		
Water surface elevation (feet NGVD)	79	78.5
Volume below water surface (acre feet)	2010	2030
Excavation volume for embankment (acre feet)	180	110
Total Volume (acre feet)	**2190**	**2140**

As a next step in the project, we are evaluating up to three alternatives for developing storage on the Reason Farms site. The general approach for embankment construction described herein will be used as one of the alternatives. We understand that you are also considering whether to further evaluate development potential for the Alternative 2 site. We will submit a proposal for performing this work under separate cover next week.

Please call us at (415) 262-2300 if you have any questions regarding the information above.

N.T.S.

REAGON FARMS

EMBANKMENT

STORAGE AREA

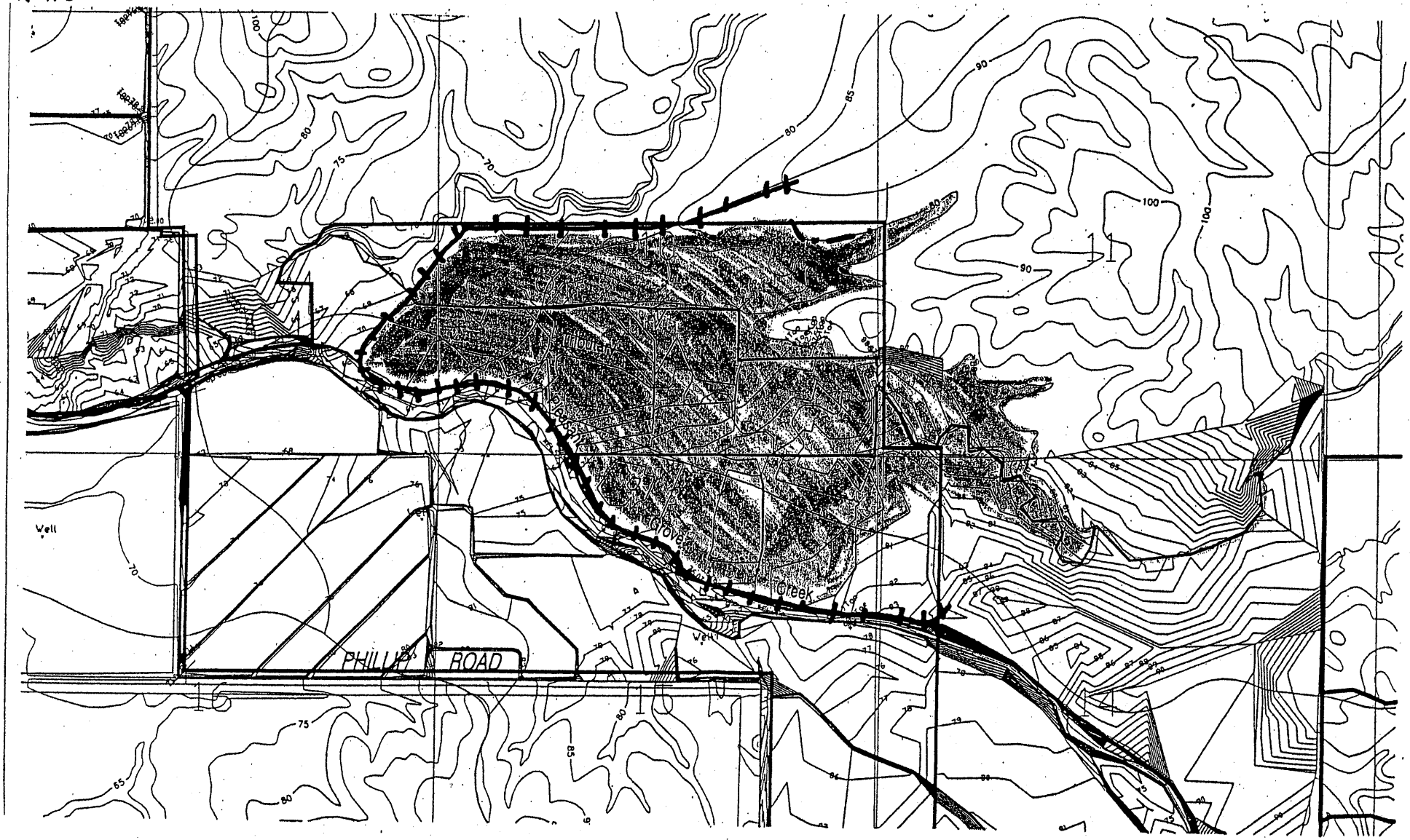


FIGURE 1

N.T.S.

EMBANKMENT

STORAGE AREA

ALTERNATIVE 2

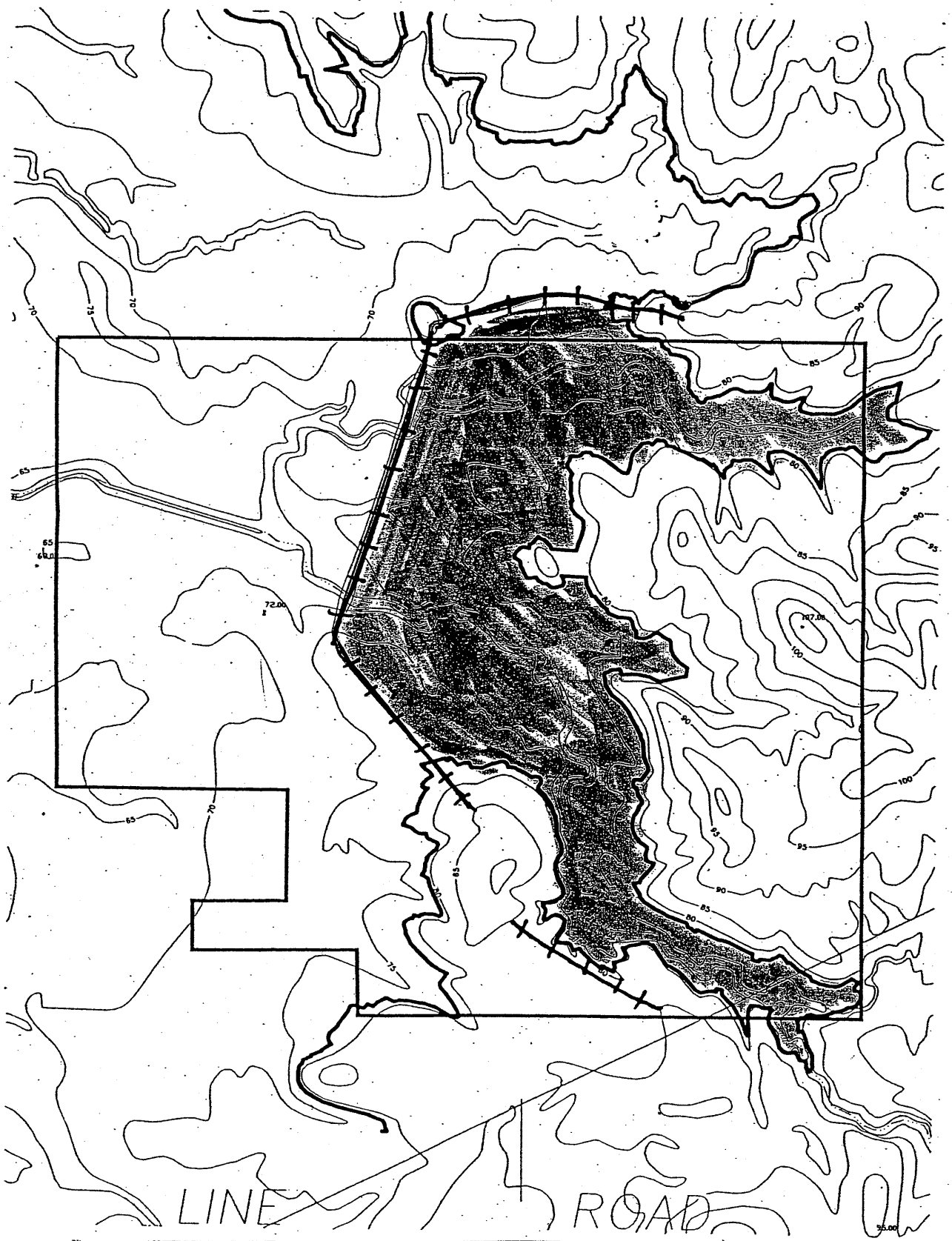


FIGURE 2

PWA
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MEMORANDUM (REVISED)

DATE: March 20, 2002

TO: Raul Cervantes, City of Roseville
Garth Gaylord, City of Roseville
Denise Heick, URS Corporation

FROM: Mike Thomas, Ann Borgonovo

RE: Conceptual Design Alternatives for Reason Farms
Reason Farms Detention Basin, City of Roseville
PWA Ref. #: 1570.03

This memorandum presents six conceptual design alternatives for developing 2250 acre-feet of retention storage on the Reason Farms site. We have presented the basic approach to the design alternatives, followed by a summary of their biological and recreational opportunities. We understand that City of Roseville (the City) will select one of these alternatives for development of the conceptual design. To assist with this selection, we have included a preliminary discussion of potential costs for the six alternatives.

Development of Alternatives

During the site screening process, we looked at developing storage potential primarily by excavating below existing grade, without building embankments. Based on preliminary screening estimates, the required excavation volume for this scenario would be approximately 5 to 6 million cubic yards (3100 to 3700 acre feet). We have developed six alternatives for onsite storage that use constructed embankments to reduce the required excavation volume. The following guidance was used to direct development of the alternatives:

- Minimize the volume of required earthwork
- Maximize the area used for storage
- Loosen the site boundary constraint (storage outside of the current site boundaries may be permissible)

These six alternatives involve a combination of soil excavation and embankment construction on the north and south sides of Pleasant Grove Creek. In general, storage basins were located in the lower lying areas on both sides of the creek. On the south side, we assumed flow would be diverted from Pleasant Grove Creek via a bypass channel. On the north side, we assumed that flow would be captured on-line from Northern Tributary 2. The basins to the north and south of Pleasant Grove Creek are referred to herein as the North Basin and South Basin, respectively.

Alternatives A and B involve developing storage primarily through embankment construction. It was assumed that excavation would be limited to the volume needed for embankment construction (balanced cut and fill). Alternative A involves storage only on the north side of the creek, while Alternative B includes basins on both sides. For both alternatives, a portion of the North Basin was allowed to extend offsite.

Alternative C was developed to limit the boundary of the North and South Basins to be within the Reason Farms site. This alternative would involve embankment construction, plus additional excavation to develop the requisite storage volume.

For Alternatives D, E and F we examined using the low-lying property west of the Reason Farm site (south of Pleasant Grove Creek) for additional storage for the South Basin. The additional storage provided by the South Basin would be used to offset the required size of the North Basin. These three alternatives would require purchase of approximately 170 acres of offsite property.

For Alternatives D and E, we assumed the water surface in the South Basin would be similar to Alternatives B and C. For Alternative D, the water surface of the North Basin could be lowered by 3 to 4 feet to reduce the extent of offsite inundation. For Alternative E, we assumed that the North Basin would be limited to the Reason Farms site, so no offsite inundation would occur. Additional excavation would be required for Alternative E to develop the requisite 2250 acre-feet of storage.

Alternative F is similar to Alternatives D and E, except that the water surface in the South Basin would be approximately 1.5 feet higher than the other alternatives. Alternative F appears to be preferable to Alternatives D and E, as it provides 2250 acre-feet of storage, without requiring offsite inundation to the north or additional excavation. Achieving the desired water surface elevation (76.5 feet) in the South Basin appears to be possible, but needs to be confirmed through more detailed hydraulic analysis.

Alternatives A through F are shown in plan view in the attached figures. The basic parameters for Alternatives A through F are summarized in Table 1 below.

Table 1 – Summary of Conceptual Design Alternatives

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F
North Basin						
Water surface elev (ft)	79.8	78.8	75	76.1	75	75
Area (ac)	420	390	130	190	130	130
Storage Volume (af)	2250	1825	1100	950	650	500
Earthwork Volume (cy)	432,000	394,000	1,183,000	277,000	452,000	210,000
Soil Disposal (cy)	-	-	973,000	-	242,000	-
South Basin						
Water surface elev (ft)	-	75	75	75	75	76.5
Area (ac)	-	130	130	280	280	285
Storage Volume (af)	-	425	1150	1300	1600	1750
Earthwork Volume (cy)	-	205,000	1,376,000	379,000	879,000	442,000
Soil Disposal (cy)	-	-	1,171,000	-	500,000	-
Total						
Storage Volume (af)	2250	2250	2250	2250	2250	2250
Area (ac)	420	520	260	470	410	415
Earthwork Volume (cy)	432,000	394,000	2,559,000	656,000	1,331,000	652,000
Soil Disposal (cy)	-	-	2,144,000	-	742,000	-

ac = acre
af = acre feet
cy = cubic yards
ft = feet

The storage volume was estimated as the difference between existing grade and the assumed water surface elevation, plus the excavation volume resulting from construction of the embankment.

Embankments

Each alternative involves construction of earthen embankments. Embankments were assumed to be set back from Pleasant Grove Creek either 300 feet from the toe of bank (approximately ordinary high water [OHW]), or 50 feet from the top of bank, whichever is greater. In most cases, the 300-foot set back governed.

Estimated dimensions for the embankment were based on the following assumptions from published guidelines:

- Top width = 20 feet[1]
- Freeboard = 5 feet[2]
- Side slopes = 3:1 (horizontal: vertical)

Steep side slopes (3:1) were assumed for comparison of the three alternatives. For the conceptual design, it is likely that the embankment will have varied side slopes (flatter than 3:1) to make it appear less engineered, and to provide future potential for a recreational trail (see below).

Outlet Structures

All the alternatives require outlet structures to regulate the flow of water from the retention basin(s). All alternatives include a North Basin that would require an outlet control structure. Alternatives B through F also include a South Basin that would require both inlet and outlet control structures. For this stage of the conceptual design analysis, the following assumptions were applied to the outlet structure:

- The outlet structure would be a mechanical gate in a normally open position providing capacity to convey the 100-year flows relatively unimpeded, thereby maintaining the existing flow rate and peak timing.
- The maximum velocity at the downstream end of the control structure would be a maximum of 6 feet per second (ft/s).
- The maximum velocity at the structure gate would be a maximum of 15 ft/s.
- The approach (contraction) would be at a ratio of 3:1.
- The exit (expansion) would be at a ratio of 4:1.
- The structure would be reinforced concrete walls and floor.
- Walls would have a footing and be integral to the floor.
- Footings would be 5 feet below grade.
- A cut-off wall would be provided at the downstream and upstream faces of the structure.

The 100-year flow rate for Northern Tributary 2 is about 2,200 cubic feet per second (cfs). This flow would join the main branch of Pleasant Grove Creek at a depth of about 10 feet. Therefore, at a maximum velocity of 6 ft/s, the discharge from the basin would be approximately 60 cfs per foot of outlet structure width and the total width of the outlet would be roughly 40 feet at its downstream end. At the structure gate, the depth would still be about 10 feet but the velocity would be about 15 ft/s, therefore the gate would need to be about 15 feet wide.

1. Minimum top width is 13 feet ("Design of Small Dams", 1974, page 270.) Use 20 feet width for access road and future maintenance.
2. Freeboard = 3 feet x 1.5 ~ 5 feet ("Design of Small Dams", 1974, page 274.)

The assumptions above were made to assist with preliminary costs for the six alternatives. These assumptions will be refined during development of the conceptual design.

Low Flow Channel

Both basins would include a low flow channel to convey flows from the basin inlet to the outlet structure. For the South Basin, the low flow channel would be an excavated swale from the diversion structure to outlet (see "bypass channel" on attached figures). For the North Basin, we have assumed that the low flow channel would be excavated along the historic alignment of Northern Tributary 2. For both basins, the volume of excavation for the low channel would be balanced with the required volume of fill for the embankment.

For the North Basin, the existing drainage ditch could remain as the low flow channel, as an alternative to excavating a new channel. If the existing ditch were used, earthwork costs would remain roughly the same, because excavation would still be required at another location to generate fill for the embankment. Furthermore, if the existing channel remained, significant structural stabilization would be required at the downstream reach, which is currently experiencing severe erosion (see Appendix B of the Preliminary Findings report). Costs for stabilization for the approximately 600-foot downstream reach are estimated to range from approximately $300,000 to $600,000 (based on $500 to $1000 per linear foot). We anticipate that costs associated with a new low flow channel (revegetation, bed rejuvenation, localized stabilization, etc.) could be less than that required for stabilizing the existing channel.

Identification of Opportunities

Potential biological and recreation opportunities were identified for the six alternatives. Each alternative has similar opportunities, as discussed in more detail below.

Biological Opportunities

The following potential biological opportunities were identified and apply to all three alternatives, unless noted otherwise.

- Preserve and/or enhance riparian habitat along Pleasant Grove Creek.
- Restore Northern Tributary 2 (on the north side of Pleasant Grove Creek) to its natural channel alignment.

- Restore riparian vegetation to Northern Tributary 2.
- Create riparian habitat in the new bypass channel, on the south side of Pleasant Grove Creek (Alternatives B through F only).
- Preserve and/or restore the vernal pools in the southern half of the northwestern parcel of the site.
- Restore annual grasslands in several locations on the site, including the northern half of the northwestern parcel and the southeastern corner of the site.
- Restore some areas of oak woodlands to the southeastern corner of the site.
- Retain areas not converted to retention basin, or otherwise protected, as winter waterfowl habitat.
- Create an overall more "natural" and less linear landscape than exists currently.
- Retain open space.
- Create upland linkages and landscape connectivity between vernal pool complexes to the east and west of the project site.

Recreational Opportunities

The primary recreational opportunities for the six alternatives would occur along Pleasant Grove Creek. A buffer zone would be maintained along the creek edge varying from approximately 100 to 300 ft to preserve the riparian habitat. The embankments for the retention basins could be designed to incorporate trailways and view point rest stops. By creating a controlled trailway through the site, passive and active recreational uses could coexist along with the restored habitat. These eco-recreation concepts would allow for maximum use of the buffer zone areas and encourage the design to be sensitive to the natural conditions of the site. Implementation of this concept could be accomplished by promoting citizen involvement and increasing the recreational linkages.

The Reason Farm site could provide a future connection to the City's existing trail system providing an opportunity to transverse the site along Pleasant Grove Creek from east to west. This would set-up the potential for future linkages from both the east and west sides of the site. Development of the eco-recreation trailways adjacent to Pleasant Grove Creek would provide the public with better opportunities to interact with aquatic resources. This aspect of the design is twofold: the buffer zone would increase site utilization through the introduction of multi-use corridor and creek, and riparian habitat would be protected from the negative impacts of urban development. In the long term, the acquisition of additional creek corridors may permit expansion of the eco-recreation trailway system. This would effectively create

a series of liner parklands along the creek. However, these would depend on future acquisition of large tracts of land along Pleasant Grove Creek which could be difficult in the future due to the high cost of land in the area.

Offsite Impacts

As discussed above, Alternatives A, B and D would require that a portion of the North Basin be offsite, east of the Reason Farms property. This would result in occasional flooding just east of the site, in the vicinity of Northern Tributary 2. It was assumed that, any offsite flooding (except that which would be contained within the channel), would impact the existing vernal pool complex just east of the site.

An estimate of the offsite area of inundation was prepared in an attempt to roughly quantify the relative cost of adverse impacts to existing vernal pools. Relative costs were based on the following assumptions:

- Offsite area of inundation would be purchased for $10,000 per acre.
- The entire offsite area of inundation would directly impact existing vernal pools.
- In addition, that area within 250 feet of the offsite inundation area would indirectly impact adjacent vernal pools.
- A 3:1 mitigation ratio would be required for (directly and indirectly) impacted vernal pools.
- The mitigation obligation would be satisfied by either purchasing offsite land for preservation, or purchasing credits from a mitigation bank.
- Costs for mitigation would range from $25,000 to $75,000 per acre. The low cost estimate of $25,000 per acre is for offsite preservation, and assumes $10,000/acre for land acquisition, plus $15,000/acre for deed restrictions and long-term monitoring and maintenance. The cost for purchase of credits from a mitigation bank is estimated to range from $35,000 to $75,000 per acre.

Note that a key unknown factor for evaluating vernal impacts is the relative density of the vernal pools impacted, compared to vernal pools to be preserved as mitigation. For simplicity, we have assumed that onsite and offsite complexes would have similar densities. Actual densities would likely be different. Potential costs for mitigating vernal pools impacts are summarized in Table 2.

Relative Cost Analysis

To assist with selection of alternative design concepts, we have tabulated preliminary estimates of costs for the six alternatives (Table 2). For cost comparison, we have provided high and low estimates of unit prices for each major item. Costs and quantities provided in Table 2 are order of magnitude estimates to

allow relative comparison of costs for the six alternatives. The approximate range of unit prices presented herein will be refined at the conceptual design stage. To develop preliminary costs at this stage of the conceptual design several assumptions were made, as footnoted in Table 2.

Alternatives D, E and F also include purchase of the 170-acre western property at an assumed cost of $10,000 per acre. In addition, it may be possible to offset project expense through sale of unused portions of the site, valued at $6,500 to $10,000 per acre in this cost estimate. The potential project cost offset from the sale of property is included at the bottom of Table 2.

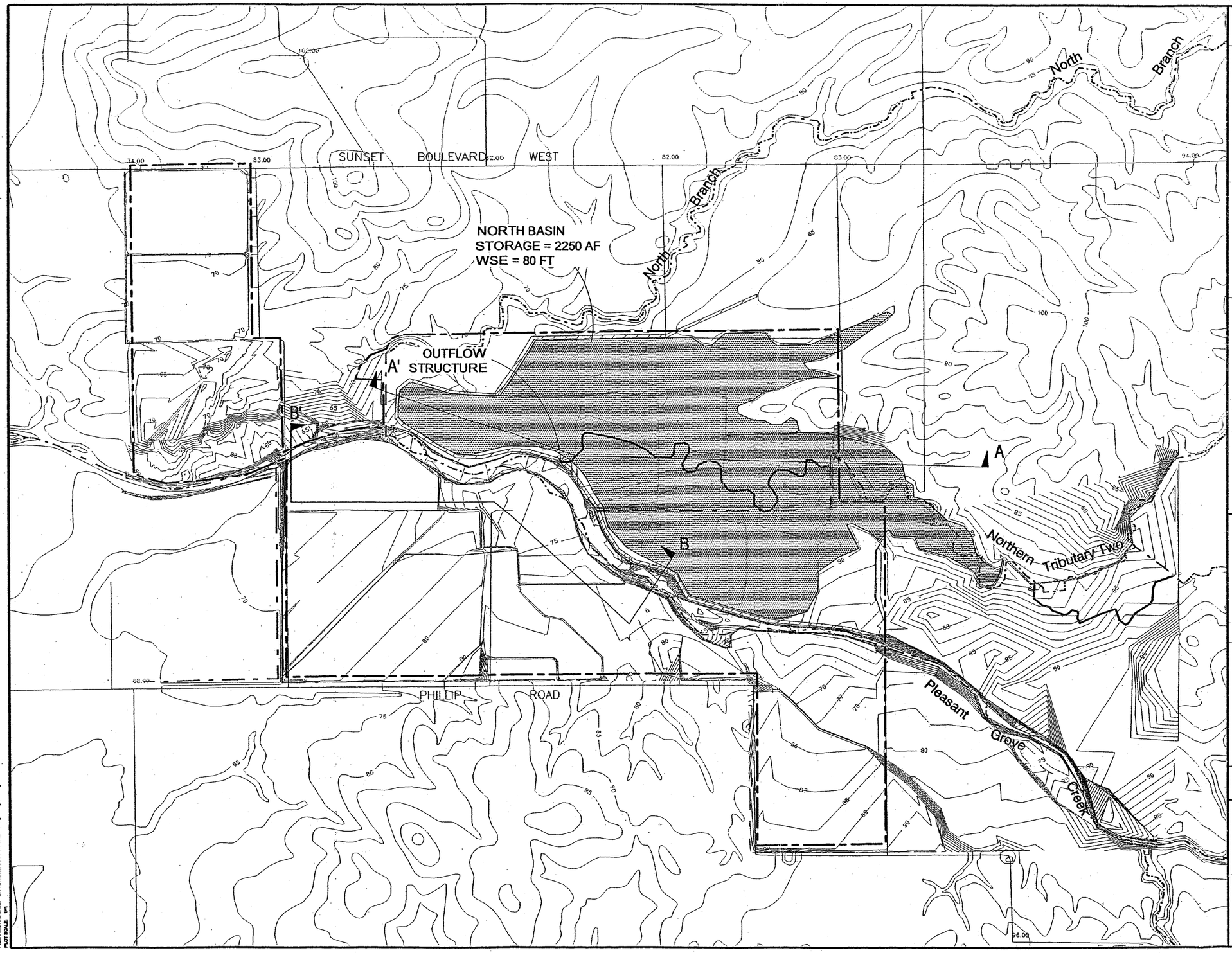
Looking at construction costs only, alternatives in order of increasing costs are as follows: A, B, D, F, E and C. However, total costs vary significantly because of costs for vernal pool mitigation and offsite property purchase. For total relative costs, alternatives in order of increasing costs are: F, D, E, C, B and A (almost a reverse of construction costs), with Alternatives D & E and A & B bearing nearly identical costs respectively. If cost offsets are realized from the sale of unused portions of the site, the cost relationships between the alternatives vary from the two comparisons listed above.

Table 2.
Preliminary Estimate of Probable Costs[1]
Conceptual Design Alternatives for Reason Farms Retention Basin
PWA Ref # 1570.03

Item	Description	Low Unit Price	High Unit Price	Unit	Alternative A Quantity	Alternative A Low Estimated Cost	Alternative A High Estimated Cost	Alternative B Quantity	Alternative B Low Estimated Cost	Alternative B High Estimated Cost	Alternative C Quantity	Alternative C Low Estimated Cost	Alternative C High Estimated Cost	Alternative D Quantity	Alternative D Low Estimated Cost	Alternative D High Estimated Cost	Alternative E Quantity	Alternative E Low Estimated Cost	Alternative E High Estimated Cost	Alternative F Quantity	Alternative F Low Estimated Cost	Alternative F High Estimated Cost
Construction Costs																						
1	Mobilization (8%)	$117,000	$1,116,000	lump sum	1	$172,000	$340,000	1	$258,000	$499,000		$655,000	$1,116,000	1	$297,000	$573,000	1	$430,000	$781,000	1	$313,000	$601,000
2	Clearing & Grubbing	$500	$2,000	acre	80	$40,000	$160,000	110	$55,000	$220,000		$0	$0	125	$63,000	$250,000	120	$60,000	$240,000	120	$60,000	$240,000
3	Excavation	$1.25	$2.00	cubic yards	368,000	$460,000	$736,000	486,000	$608,000	$972,000	2,559,000	$3,199,000	$5,118,000	627,000	$784,000	$1,254,000	1,324,000	$1,655,000	$2,648,000	652,000	$815,000	$1,304,000
4	Embankment - structural fill	$2.00	$4.00	cubic yards	368,000	$736,000	$1,472,000	486,000	$972,000	$1,944,000	408,000	$816,000	$1,632,000	627,000	$1,254,000	$2,508,000	582,000	$1,164,000	$2,328,000	652,000	$1,304,000	$2,608,000
5	Embankment foundation[2]	$4	$8	linear feet	15,000	$60,000	$120,000	26,200	$105,000	$210,000	22,900	$92,000	$183,000	29,200	$117,000	$234,000	27,500	$110,000	$220,000	28,350	$113,000	$227,000
6	Onsite hauling & disposal	$1	$2	cubic yards	0	$0	$0	0	$0	$0	2,151,000	$2,689,000	$4,302,000	0	$0	$0	742,000	$928,000	$1,484,000	0	$0	$0
7	Outlet Structure - North Basin[3]	$400	$700	cubic yards	705	$282,000	$494,000	670	$268,000	$469,000	530	$212,000	$371,000	570	$228,000	$399,000	530	$212,000	$371,000	530	$212,000	$371,000
8	Inlet Structure - South Basin[3]	$400	$700	cubic yards	0	$0	$0	500	$200,000	$350,000	500	$200,000	$350,000	500	$200,000	$350,000	500	$200,000	$350,000	700	$280,000	$490,000
9	Outlet Structure - South Basin[3]	$400	$700	cubic yards	0	$0	$0	500	$200,000	$350,000	500	$200,000	$350,000	500	$200,000	$350,000	500	$200,000	$350,000	700	$280,000	$490,000
10	Spillway - North Basin	$100,000	$200,000	lump sum	1	$100,000	$200,000	1	$100,000	$200,000	1	$100,000	$200,000	1	$100,000	$200,000	1	$100,000	$200,000	1	$100,000	$200,000
11	Spillway - South Basin	$100,000	$200,000	lump sum	0	$0	$0	1	$100,000	$200,000	1	$100,000	$200,000	1	$100,000	$200,000	1	$100,000	$200,000	1	$100,000	$200,000
12	Electrical Controls/Telemetry[4]	$100,000	$250,000	lump sum	1	$100,000	$250,000	1	$100,000	$250,000	1	$100,000	$250,000	1	$100,000	$250,000	1	$100,000	$250,000	1	$100,000	$250,000
13	Replacement Planting[5]	$25,000	$50,000	lump sum	1	$25,000	$50,000	1	$25,000	$50,000	1	$25,000	$50,000	1	$25,000	$50,000	1	$25,000	$50,000	1	$25,000	$50,000
14	Low Flow Channel Revegetation[6]	$20	$50	linear feet	6,000	$120,000	$300,000	6000	$120,000	$300,000	6,000	$120,000	$300,000	6,000	$120,000	$300,000	6,000	$120,000	$300,000	6,000	$120,000	$300,000
15	Erosion Control Seeding [7]	$1,000	$3,000	acre	80	$80,000	$240,000	110	$110,000	$330,000	100	$100,000	$300,000	125	$125,000	$375,000	120	$120,000	$360,000	120	$120,000	$360,000
16	Access Road[8]	$10	$15	linear feet	15,000	$150,000	$225,000	26,200	$262,000	$393,000	22,900	$229,000	$344,000	29,200	$292,000	$438,000	27,500	$275,000	$413,000	28,350	$284,000	$425,000
	Contingency (20%)					$465,000	$917,400	1	$696,600	$1,347,400	1	$1,767,400	$3,013,200	1	$801,000	$1,546,200	1	$1,159,800	$2,109,000	1	$845,200	$1,623,200
	Subtotal Construction Costs					$2,790,000	$5,504,400		$4,179,600	$8,084,400		$10,604,400	$18,079,200		$4,806,000	$9,277,200		$6,958,800	$12,654,000		$5,071,200	$9,739,200
Other Project Costs																						
17	Engineering Design[9]	$350,000	$600,000	lump sum	1	$350,000	$600,000	1	$350,000	$600,000	1	$350,000	$600,000	1	$350,000	$600,000	1	$350,000	$600,000	1	$350,000	$600,000
18	Permitting[10]	$75,000	$200,000	lump sum	1	$75,000	$200,000	1	$75,000	$200,000	1	$75,000	$200,000	1	$75,000	$200,000	1	$75,000	$200,000	1	$75,000	$200,000
19	Construction Admin/Oversight (10%)			lump sum	1	$280,000	$550,000	1	$420,000	$810,000	1	$1,060,000	$1,810,000	1	$480,000	$930,000	1	$700,000	$1,270,000	1	$510,000	$970,000
20	Operations & Maintenance[11]	$500,000	$1,000,000	lump sum	1	$500,000	$1,000,000	1	$500,000	$1,000,000	1	$500,000	$1,000,000	1	$500,000	$1,000,000	1	$500,000	$1,000,000	1	$500,000	$1,000,000
21	Monitoring	$25,000	$50,000	lump sum	1	$25,000	$50,000	1	$25,000	$50,000	1	$25,000	$50,000	1	$25,000	$50,000	1	$25,000	$50,000	1	$25,000	$50,000
22	Reason Farms - Property Purchase	$6,500	$6,500	acres	1300	$8,450,000	$8,450,000	1300	$8,450,000	$8,450,000	1300	$8,450,000	$8,450,000	1300	$8,450,000	$8,450,000	1300	$8,450,000	$8,450,000	1300	$8,450,000	$8,450,000
23	Offsite Property Purchase[12]	$10,000	$10,000	acres	70	$700,000	$700,000	50	$500,000	$500,000	0	$0	$0	181	$1,810,000	$1,810,000	170	$1,700,000	$1,700,000	170	$1,700,000	$1,700,000
24	Mitigation Costs[13]	$25,000	$75,000	acres																		
	Direct Impacts				199	$4,975,000	$14,925,000	145	$3,625,000	$10,875,000	0	$0	$0	32	$800,000	$2,400,000	0	$0	$0	0	$0	$0
	Indirect Impacts				193	$4,825,000	$14,475,000	162	$4,050,000	$12,150,000	23	$575,000	$1,725,000	81	$2,025,000	$6,075,000	23	$575,000	$1,725,000	23	$575,000	$1,725,000
Total Project Cost[14]						$22,970,000	$46,454,400		$22,174,600	$42,719,400		$21,639,400	$31,914,200		$19,321,000	$30,792,200		$19,333,800	$27,649,000		$17,256,200	$24,434,200
Potential Project Cost Offsets																						
25	Sale of Unused Area	($6,500)	($10,000)	acre	728	($4,732,000)	($7,280,000)	435	($2,828,000)	($4,350,000)	318	($2,067,000)	($3,180,000)	517	($3,361,000)	($5,170,000)	433	($2,815,000)	($4,330,000)	661	($4,297,000)	($6,610,000)
Project Costs If Offsets Are Realized						$18,238,000	$39,174,400		$19,346,600	$38,369,400		$19,572,400	$28,734,200		$15,960,000	$25,622,200		$16,518,800	$23,319,000		$12,959,200	$17,824,200

Notes:

1. The cost estimates presented herein are preliminary and preceed development of the Conceptual Design plans. After development of the Conceptual Design Plans for the selected Alternative, the cost estimate will be revised and refined
2. Assumes excavation and compaction of 3-foot deep cutoff trench.
3. Estimated cost based on estimated volume of concrete structure. Includes costs for mechanical gate.
4. Placeholder costs for electrical services and telemetry for inlet and outlet gates, and remote sensor in Cross Canal.
5. Includes replacement planting for existing vegetation removed in the vicinity of the inlet and outlet structures.
6. Revegetation of new low flow channel for the North Basin. Assumes willow planting (stakes and/or matting) along approximately 1000 feet of the channel length at $100 to $300/linear foot. Costs for excavation of the new channel are included under Item 1 and seeding is included under Item 8.
7. Includes hydroseeding of all disturbed areas (new embankment and excavated areas) with erosion control seed mix.
8. Assumes 16-foot wide road along top of embankment, with 8-inch aggregate base surface.
9. Assumed to include survey, geotechnical, structural, electrical, grading and revegetation design.
10. Preliminary estimate for permitting cooridination with COE, CDFG, NMFS and DSOD
11. Placeholder costs for longterm operations and maintenance.
12. Approximate costs for purchase of offsite property inundated by the North and South Basins.
13. Approximate costs for mitigation of direct and indirect impacts to offsite vernal pools.
14. Does not include costs for public access, trails or scenic look-out points. These opportunities for other uses would add approximately $150,000 to the costs presented above.



LEGEND

- Site Boundary
- Existing Channel
- New Channel
- Existing Contour
- Proposed Contour
- Storage Basin
- Embankment

N

0 1500 3000

Scale (feet)
1" = 750'

Alternative A

REASON FARMS

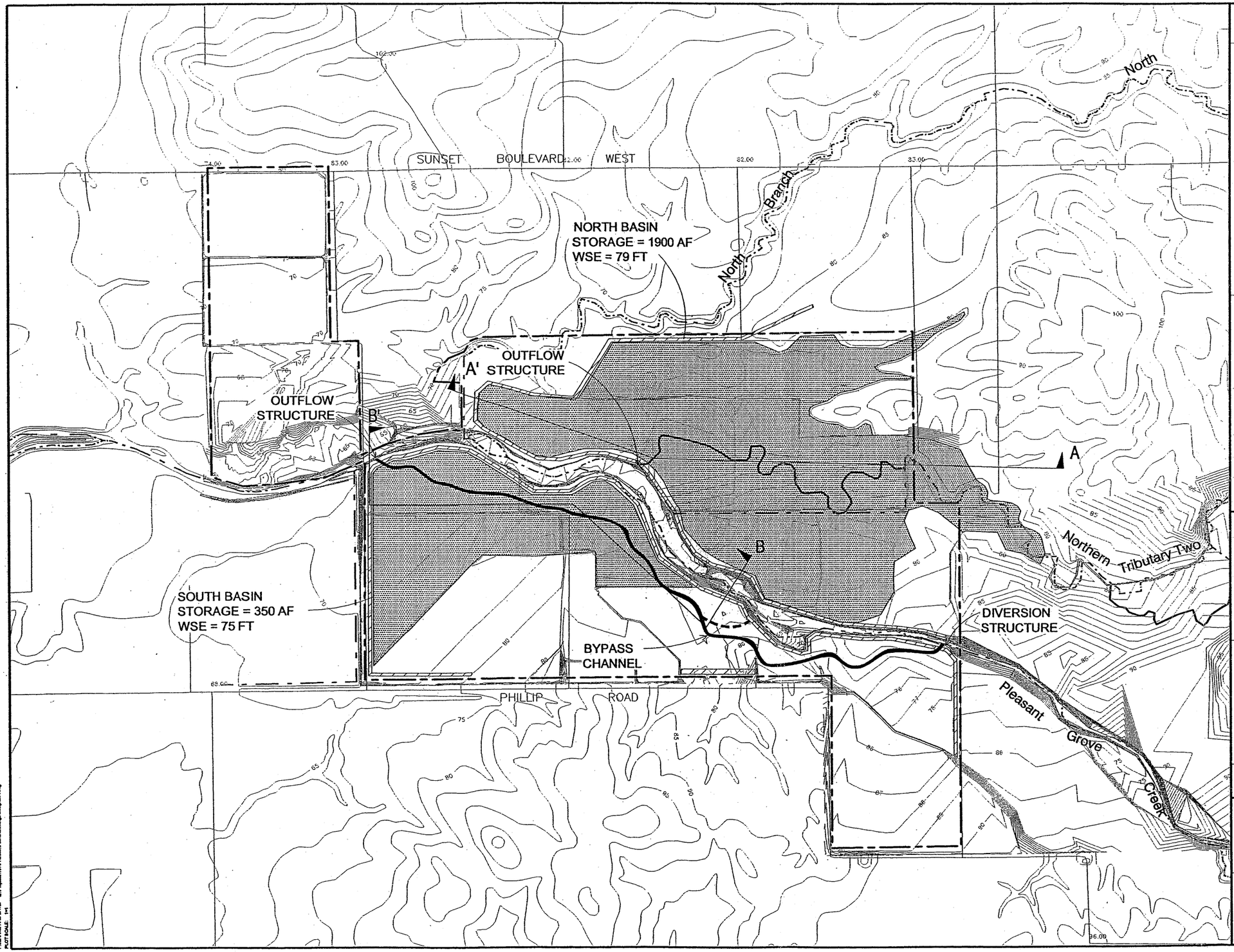
Conceptual Design and EIR
Reason Farms Retention Basin
Roseville, Califonia

PWA Ref#: 1570.01 March 05, 2002

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PLOT SCALE 1=1



LEGEND

- Site Boundary
- Existing Channel
- New Channel
- Existing Contour
- Proposed Contour
- Storage Basin
- Embankment

N

0 1500 3000

Scale (feet)
1" = 750'

Alternative B

REASON FARMS

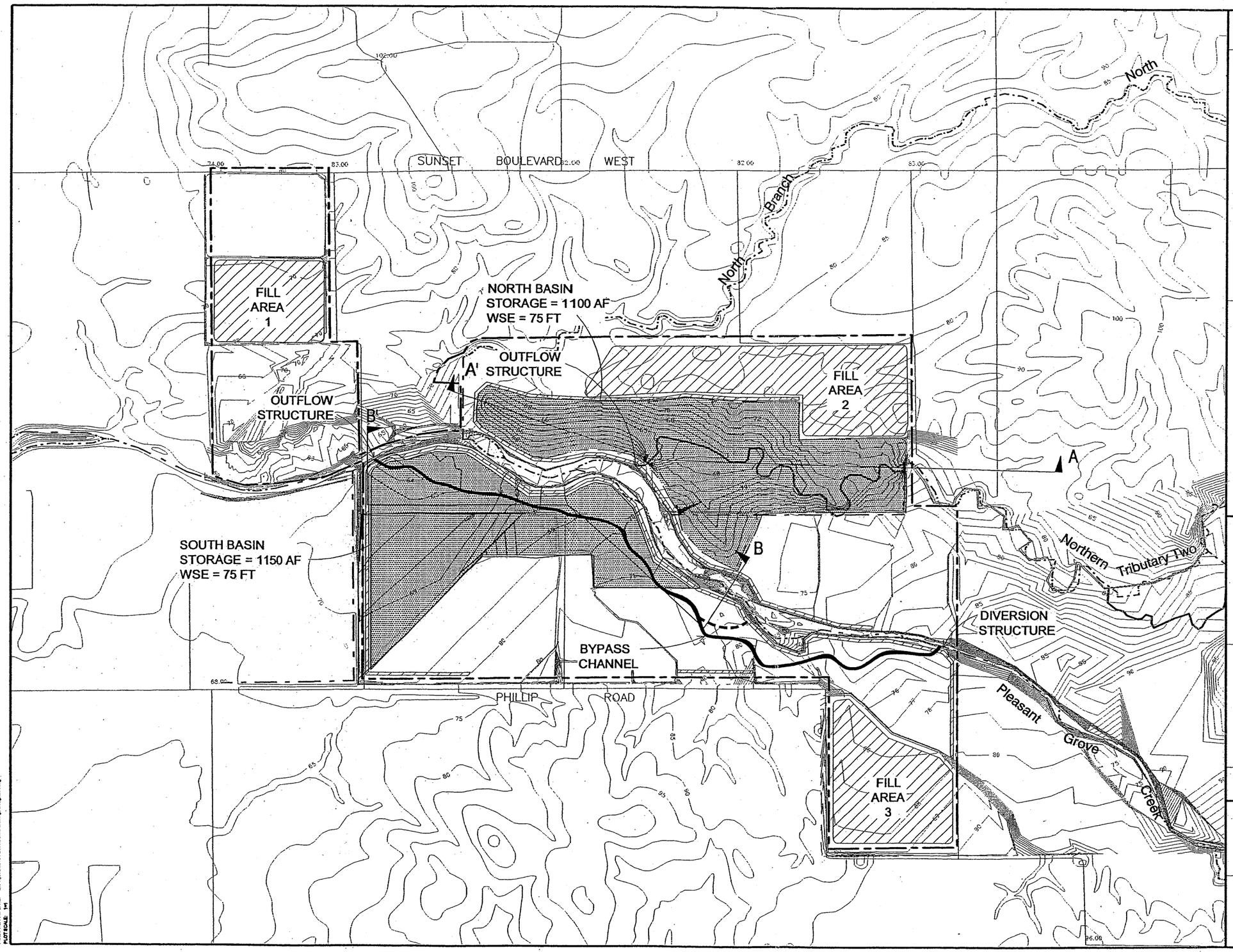
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URS

PWA

FILENAME AND DATE: G:\Projects\1570 Reason Farms\Drawings\Daily\EIR.dwg
PLOT SCALE: 1=1



LEGEND

- Site Boundary
- Existing Channel
- New Channel
- Existing Contour
- Proposed Contour
- Storage Basin
- Embankment

N

0 1500 3000

Scale (feet)
1" = 750'

Alternative C

REASON FARMS

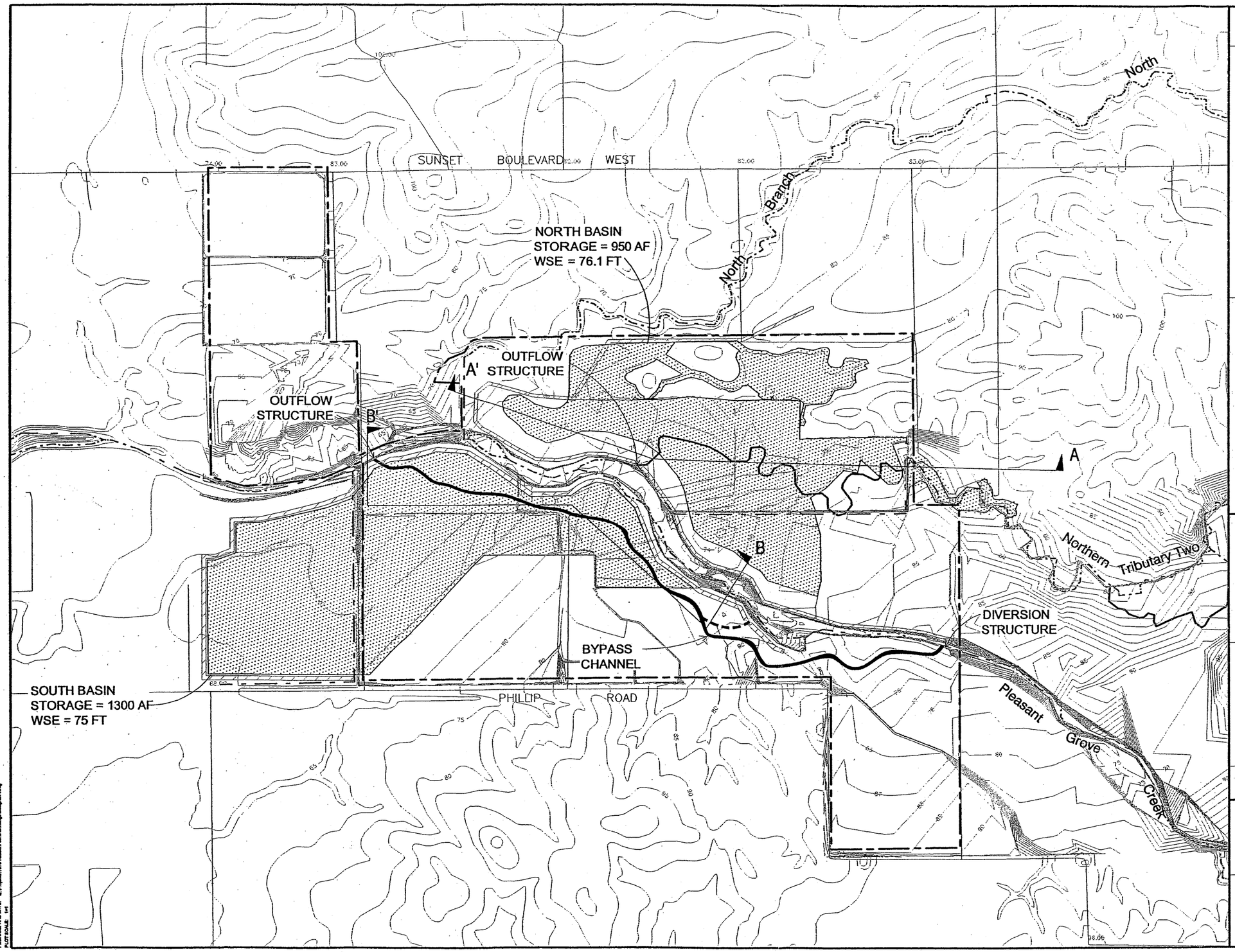
Conceptual Design and EIR
Reason Farms Retention Basin
Roseville, Califonia

PWA Ref#: 1570.01 March 05, 2002

URS

PWA

FILENAME AND DATE: G:\Projects\1570 Reason Farms\Graphics\Design\EIR.dwg
PLOT SCALE: 1=1



LEGEND

- Site Boundary
- Existing Channel
- New Channel
- Existing Contour
- Proposed Contour
- Storage Basin
- Embankment

N

0 1500 3000

Scale (feet)
1" = 750'

Alternative D

REASON FARMS

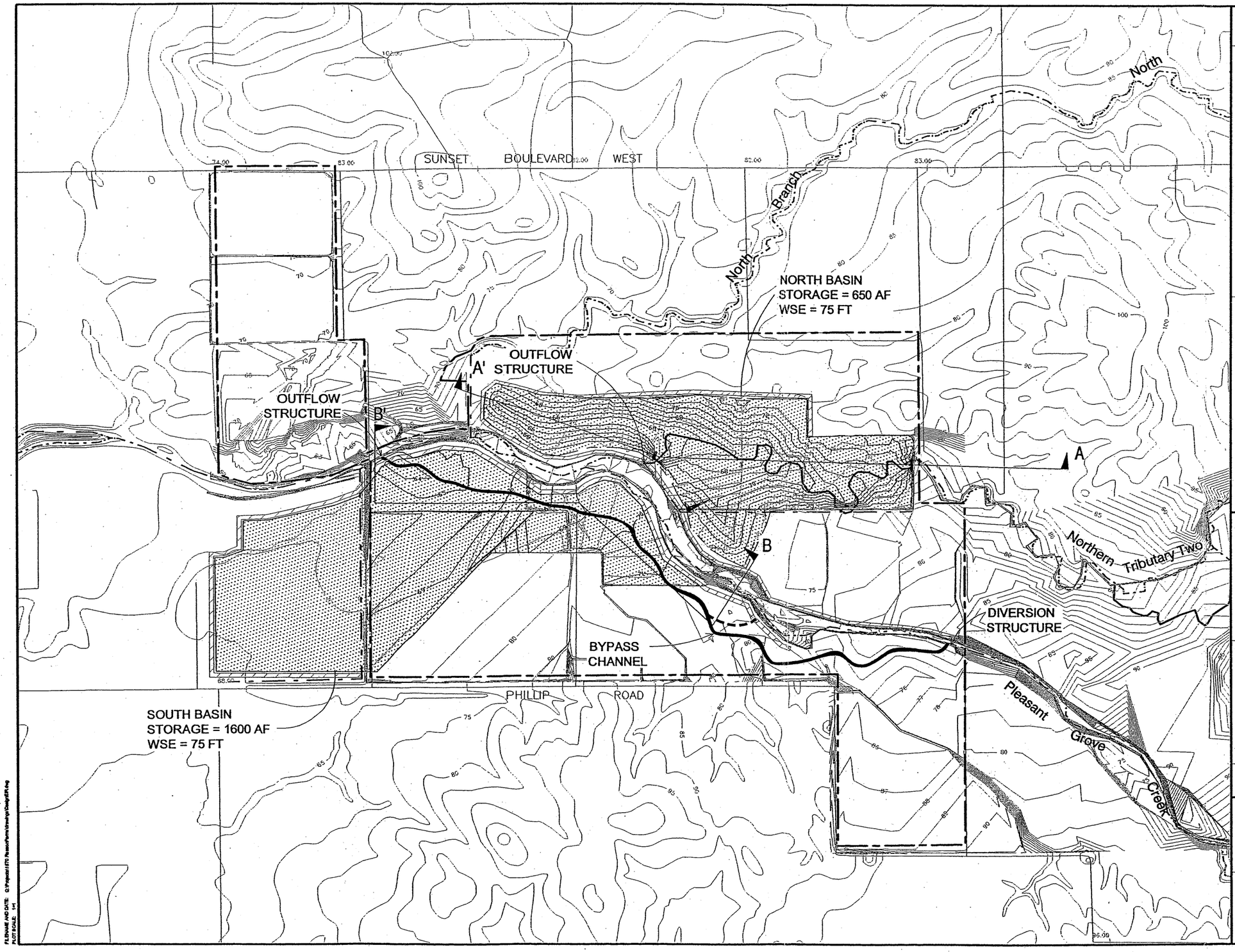
Conceptual Design and EIR
Reason Farms Retention Basin
Roseville, Califonia

PWA Ref#: 1570.01 March 14, 2002

URS

PWA

FILENAME AND DATE: G:\Projects\1570 ReasonFarms\Hydrology\Design\EIR.dwg
PLOT SCALE: 1=1



LEGEND

- Site Boundary
- Existing Channel
- New Channel
- Existing Contour (85)
- Proposed Contour (70)
- Storage Basin
- Embankment

N

0 1500 3000

Scale (feet)
1" = 750'

Alternative E

REASON FARMS

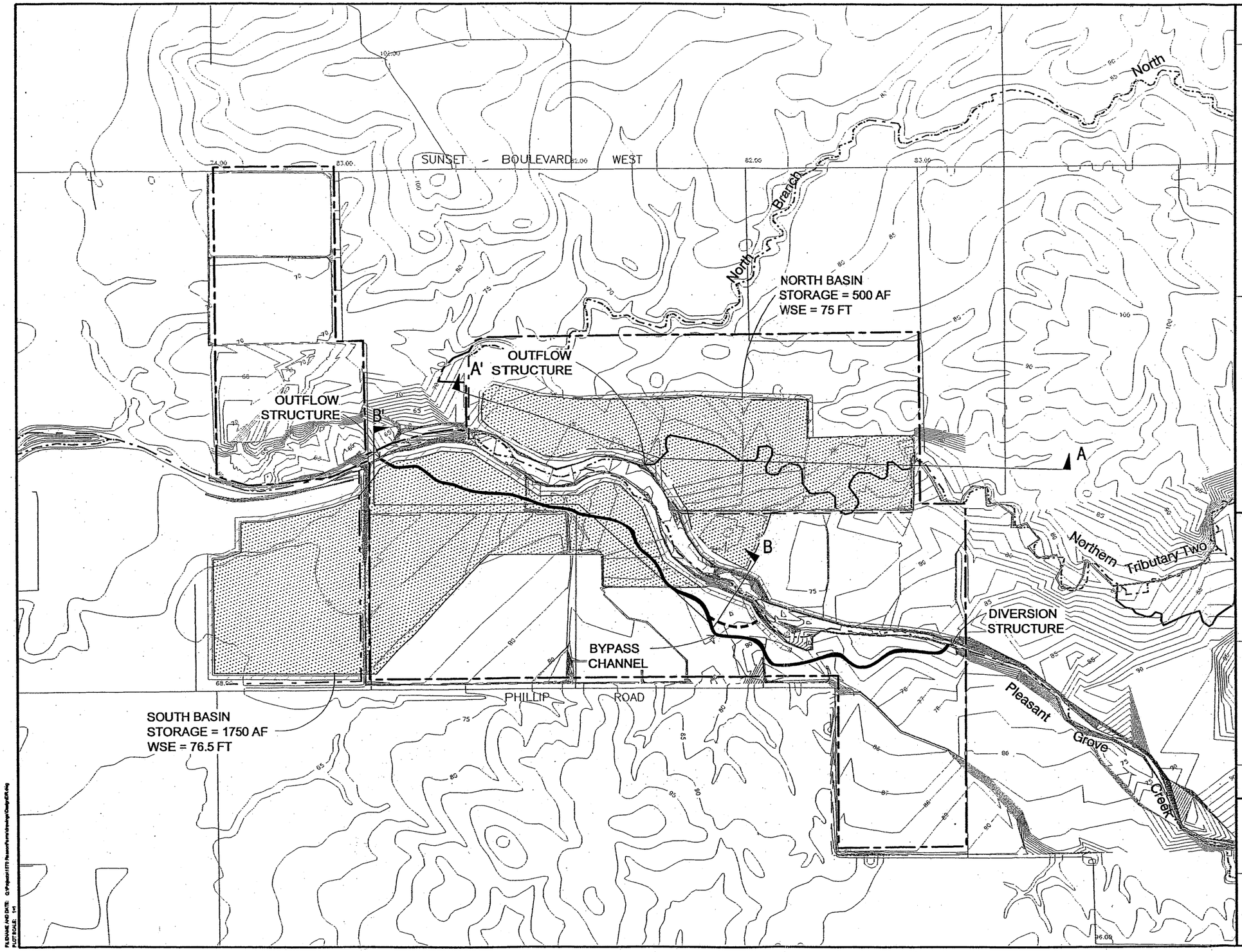
Conceptual Design and EIR
Reason Farms Retention Basin
Roseville, Califonia

PWA Ref#: 1570.01 March 14, 2002

URS

PWA

FILENAME AND DATE: Q:\Projects\570 Reason\Farms\drawings\Design\EIR.dwg
PLOT SCALE: 1=1



LEGEND

- Site Boundary
- Existing Channel
- New Channel
- Existing Contour
- Proposed Contour
- Storage Basin
- Embankment

N

0 1500 3000

Scale (feet)
1" = 750'

Alternative F

REASON FARMS

Conceptual Design and EIR
Reason Farms Retention Basin
Roseville, Califonia

PWA Ref#: 1570.01 March 14, 2002

URS

PWA

FILENAME AND PATH: G:\Projects\1570 Reason Farms\drawings\Design\EIR.dwg
PLOT SCALE: 1=1

APPENDIX B

APPENDIX B
Hydrologic Modeling

This appendix contains:

- The complete HEC-1 input for the Pleasant Grove Creek Watershed with the 2-year, 24-hour event (ultimate build out condition) precipitation records.
- The HEC-1 precipitation input for the 10-year, 25-year, 50-year, and 100-year, 24-hour event precipitation records.
- The HEC-1 precipitation input for the 100-year, 8-day event (precipitation records divided into three storm events).
- The HEC-1 output hydrographs for the 2-year, 10-year, 25-year, 50-year, and 100-year, 24-hour events used for hydrodynamic modeling (i.e., hydrographs PL10+, PL10C1, PL10E, PL11, PL10B+).
- The HEC-1 output hydrographs for the 100-year, 8-day event (storms 1-3) used for hydrodynamic modeling.
- Flood frequency curve for PL10+ (North Basin) showing logarithmic extrapolation to peak 24-hour, 1,000-year flow rate.

```
1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *              JUN  1998                *
 *           VERSION 4.1                 *
 *                                       *
 *  RUN DATE   25MAR02  TIME  18:04:28   *
 *                                       *
 *****************************************
```

```
**************************************
*                                    *
*   U.S. ARMY CORPS OF ENGINEERS     *
*   HYDROLOGIC ENGINEERING CENTER    *
*        609 SECOND STREET           *
*      DAVIS, CALIFORNIA 95616       *
*          (916) 756-1104            *
*                                    *
**************************************
```

```
X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X              X         X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX         XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1 HEC-1 INPUT PAGE 1

```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

                * PDP Vers 1.6 8/13/94
                * /C I=FDEV1.DAT O=FDEV4.DA4 R=2 A=60 C=PL10D
                * Input File Name = FDEV1.DAT
                * PDP Cloudburst Centering Option ON
                * Center at PL10D
                * Angle =  60 deg fr North
   1            ID   CROSS CANAL WATERSHED MODEL
   2            ID   Existing (1989) Conditions
   3            ID   Original by CH2M Hill 1991
   4            ID   Modified by Placer County Flood Control District 1992
   5            ID      - modified-puls routing changed to muskingum-cunge
   6            ID      - storm centering PI and PB added
   7            ID
   8            ID   Modified by OMNI-MEANS May 1996 for Sunset West Hydrology & Hydraulics Study
   9            ID      - Model truncated to include only Pleasant Grove Creek Drainage Basin
  10            ID      - Kinematic wave models have been inserted for all sheds located
  11            ID        on the Sunset West site.
  12            ID      - Some off-site sheds required modification to allow for insertion of
  13            ID        kinematic wave models.  Snyder unit hydrograph parameters were
  14            ID        modified accordingly.  Sheds which have been modified are
  15            ID        designated *MODIFIED* on the KK record.
  16            ID      - 10/30/96 MODEL MODIFIED TO KINEMATIC WAVE AND MUSKINGUM-CUNGE BY PCPCWD
  17            ID      - 2/18/97 Modified model to include Mackay & Somps (NCRSP) previous submit
  18            ID     - 6/14/00 Percent Impervious and detention locations match CH2MHill model for
  19            ID       comparison.
  20            ID     - Includes existing detention basins within basins 1.PL1A;2.PL1D;3.PL2D;4.PL3
  21            ID       5.PL4A
  22            ID     - 6/26/00; Revise models to include Fiddyment Ranch
  23            ID     - 10/01; Revise basin model to include Westpark & updated Fiddyment Landuse p
  24            ID    Landuse:  Offsite - Developed ;  Westpark & Fiddyment Ranch - Developed
  25            ID    Only ACE regional basin use in this analysis
  26            ID    File Name:Pdev1.dat
                *DIAGRAM
  27            IT       5 15OCT00     100     600
  28            IO       0

  29            KK     PL1A PLEASANT GROVE CREEK
  30            BA     0.66
  31            PB
                * pi
                *
                *  Placer Design Precipitation -  depths in inches
                *  Return period in years     2   Time interval in minutes     5
                *  Elevation in feet        400   W of Crest
                *  Duration in minutes     1500   Maximum depth at   750 minutes
                *  Cloudburst 1-hr Factor  0.23
                *
  32            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
  33            PI   0.003   0.003   0.003   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  34            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  35            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  36            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  37            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  38            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  39            PI   0.004   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
```

1 HEC-1 INPUT PAGE 2

```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  40            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
  41            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
  42            PI   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007
  43            PI   0.007   0.007   0.007   0.007   0.008   0.008   0.009   0.009   0.009   0.009
  44            PI   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.010
  45            PI   0.010   0.010   0.012   0.012   0.012   0.012   0.012   0.012   0.020   0.019
  46            PI   0.018   0.017   0.016   0.014   0.013   0.012   0.010   0.008   0.006   0.003
  47            PI   0.005   0.007   0.009   0.011   0.012   0.014   0.015   0.016   0.017   0.018
  48            PI   0.019   0.020   0.012   0.012   0.012   0.012   0.012   0.012   0.010   0.010
  49            PI   0.010   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009
```

```
 50   PI   0.009   0.009   0.009   0.009   0.008   0.008   0.007   0.007   0.007   0.007
 51   PI   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.006
 52   PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
 53   PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
 54   PI   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.004
 55   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 56   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 57   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 58   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 59   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 60   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.003   0.003   0.003
 61   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 62   BF    1.98
 63   LU      0     .06       0       0     .06     100
 64   UK    350     .02      .4      97
 65   UK    300     .02     .11       3
 66   RD    800     .18     .05     .07    TRAP       5      10
 67   RD   1500     .04     .05      .2    TRAP       5      10
 68   RD   4000    .028     .05            TRAP       5      10

 69   KK    RCH1 ROUTE FROM PL1A TO PL1B
      * RS     1    FLOW      -1
 70   RD
 71   RC   0.05    0.05    0.05    3600   0.011    1000
 72   RX      0       0     350     363     368     381     731     731
 73   RY   1020    1000     995   988.5   988.5     995    1000    1020
      *
      * Detention storage basin upstream of Pebble Beach Drive
      * Basin updated to provide more storage and attenuation 7/97
      * KK  STOR      (Whitney Oaks Development)
      * KM    Detention Storage upstream of pebble Beach Road - rev'd 9/25/96
      * KO     1
      * RS   1    FLOW      -1
      * larger basin 1 -  increase areas by 1.5
      * decrease Q by 20 %
      * SA     0    0.03    0.14    0.17    0.29    0.41    0.54    0.69    1.36      2.
      * SA   2.4    2.52    2.64     5.2     6.5     7.7    11.2
      * SE   226     228     229     230     231     232     233     234     235       2
      * SE   237     238     239     240     241     242     246
      * SQ     0      60      86      96     128     168     192     224     248       2
      * SQ   280     292     308     324     352     384     408
      *
```



```
LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 74   KK    PL1B PLEASANT GROVE CREEK
 75   BA    0.86
 76   PB
      * pi
      *
      *  Placer Design Precipitation -  depths in inches
      *  Return period in years     2   Time interval in minutes     5
      *  Elevation in feet        175   W of Crest
      *  Duration in minutes     1500   Maximum depth at   750 minutes
      *  Cloudburst 1-hr Factor  0.23
      *
 77   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 78   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 79   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 80   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 81   PI   0.003   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 82   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 83   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 84   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
 85   PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
 86   PI   0.005   0.005   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
 87   PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
 88   PI   0.006   0.006   0.006   0.007   0.008   0.008   0.008   0.008   0.008   0.008
 89   PI   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009   0.009
 90   PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.019   0.018
 91   PI   0.017   0.016   0.015   0.014   0.013   0.011   0.010   0.008   0.006   0.002
 92   PI   0.005   0.007   0.009   0.011   0.012   0.013   0.014   0.015   0.016   0.017
 93   PI   0.018   0.019   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
 94   PI   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008
 95   PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
 96   PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
 97   PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.005   0.005   0.005
 98   PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
 99   PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
100   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
101   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
102   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.003
103   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
104   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
105   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
106   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
107   BF    2.58
108   LU      0     .06       0       0     .06     100
109   UK    350     .03      .4      86
110   UK    300     .02     .11      14
111   RD    500     .15     .05    .043    TRAP       0      10
112   RD   1100    .011     .05     .17    TRAP       5      10
113   RD   5300    .028     .05            TRAP       5      10
```



```
LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

114   KK    DTN
115   RS       1    FLOW      -1
      * RD
116   SV       0       1       5      15      35      60     130     250     500
117   SE     100     102     104     106     108     110     114     120     130
118   SL     102    1000     0.6     0.5
119   SS     129    1000     2.8     1.5
```

```
120          KK   PL1B+ COMBINE HYDROGRAPHS
121          HC       2
             *

122          KK    PL1C PLEASANT GROVE CREEK
123          BA     0.9
124          PB
             * PI
             *
             *  Placer Design Precipitation -  depths in inches
             *  Return period in years     2   Time interval in minutes     5
             *  Elevation in feet        300   W of Crest
             *  Duration in minutes     1500   Maximum depth at   750 minutes
             *  Cloudburst 1-hr Factor  0.24
             *
125          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
126          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
127          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004
128          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
129          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
130          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
131          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
132          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
133          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
134          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
135          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.007   0.007   0.007   0.007
136          PI   0.007   0.007   0.007   0.007   0.008   0.008   0.008   0.008   0.008   0.008
137          PI   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009
138          PI   0.009   0.010   0.012   0.012   0.012   0.012   0.012   0.012   0.019   0.018
139          PI   0.017   0.016   0.015   0.014   0.013   0.012   0.010   0.009   0.007   0.003
140          PI   0.005   0.008   0.010   0.011   0.013   0.014   0.015   0.016   0.017   0.018
141          PI   0.019   0.019   0.012   0.012   0.012   0.012   0.012   0.012   0.010   0.009
142          PI   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009
143          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.007   0.007   0.007   0.007
144          PI   0.007   0.007   0.007   0.006   0.006   0.006   0.006   0.006   0.006   0.006
145          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
146          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.005
147          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
148          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
149          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
150          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
151          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
152          PI   0.004   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003
153          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
154          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
155          BF     2.7
1                                        HEC-1 INPUT                                    PAGE  5

LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

156          LU       0     .06       0       0     .06     100
157          UK     350     .03      .4      98
158          UK     300     .02     .11       2
159          RD    2000     .05    .063     .04    TRAP       0      10
160          RD    3200     .02    .016     .17    TRAP       5      10
             *   Route PL1A & PL1B through PL1C (PL1C+)
161          RD                                                        YES
162          RC     .05      .05     .05    3200    .009    1000
163          RX       0        0     400     413     423     431     831     831
164          RY    1020     1000     995   988.5   988.5     995    1000    1020
             *

165          KK    PL1D PLEASANT GROVE CREEK
166          BA    2.51
167          PB
             * PI
             *
             *  Placer Design Precipitation -  depths in inches
             *  Return period in years     2   Time interval in minutes     5
             *  Elevation in feet        250   W of Crest
             *  Duration in minutes     1500   Maximum depth at   750 minutes
             *  Cloudburst 1-hr Factor  0.23
             *
168          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
169          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
170          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
171          PI   0.003   0.003   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
172          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
173          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
174          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
175          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
176          PI   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006   0.006   0.006
177          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
178          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.007
179          PI   0.007   0.007   0.007   0.007   0.008   0.008   0.008   0.008   0.008   0.008
180          PI   0.008   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009
181          PI   0.009   0.009   0.011   0.011   0.012   0.012   0.012   0.012   0.019   0.018
182          PI   0.017   0.016   0.015   0.014   0.013   0.012   0.010   0.008   0.006   0.003
183          PI   0.005   0.007   0.009   0.011   0.012   0.013   0.015   0.016   0.017   0.018
184          PI   0.018   0.019   0.012   0.012   0.012   0.012   0.011   0.011   0.009   0.009
185          PI   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0.008
186          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.007   0.007   0.007   0.007
187          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
188          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
189          PI   0.006   0.006   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005
190          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
191          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
192          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
193          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
194          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.003   0.003
195          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
196          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
197          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
198          BF    7.53
199          LU       0     .06     100       0     .06       0
1                                        HEC-1 INPUT                                    PAGE  6
```

```
LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 200      UK     250     .03     .11      51
 201      UK     300    .067      .4      49
 202      RD    1300     .12     .05      .4    TRAP      10      10
 203      RD    7000    .032     .05     1.0    TRAP      10      10
          *   Route PL1C through PL1D (PL1D+)
 204      RD                                                    YES
 205      RC    0.05    0.05    0.05   10000  0.0025    1000
 206      RX       0       0     400     413     423     436     836     836
 207      RY    1020    1000     995   988.5   988.5     995    1000    1020
          *

 208      KK     DTN
 209      RS       1    FLOW      -1
          * RD
 210      SV       0       1       5      15      35      60     130     250     500
 211      SE     100     102     104     106     108     110     114     120     130
 212      SL     102    1000     0.6     0.5
 213      SS     129    1000     2.8     1.5
          *   Ace Detention Structure located at Sunset Blvd.-West Oaks Intx.
          *
 214      KK     SUN
 215      RS       1    FLOW      -1
 216      SV       0       1       3       7      14      25      41      58      77      99
 217      SV     121     148     176     211     250
 218      SE     126     130     131     132     133     134     135     136     137     138
 219      SE     140     141     142     143     144
 220      SQ       0      71     131     202     282     371     467     571     681     798
 221      SQ     920    1048    1182    1321    1523    1597
 222      SE     126     128     129     130     131     132     133     134     135     136
 223      SE     137     138     139     140     141     142
          *
          *   Begin modifications to Pleasant Grove Basin PL2 Snyder unit hydrograph
          *   parameters to account for changes to sheds located off the Sunset West
          *   site.
          *

 224      KK    PL2A
 225      BA   0.180
 226      PB
          * PI
          *
          *  Placer Design Precipitation -  depths in inches
          *  Return period in years     2   Time interval in minutes     5
          *  Elevation in feet        225   W of Crest
          *  Duration in minutes     1500   Maximum depth at    750 minutes
          *  Cloudburst 1-hr Factor  0.26
          *
 227      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 228      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 229      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 230      PI   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004   0.004
 231      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 232      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 233      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 234      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1                                      HEC-1 INPUT                                          PAGE  7
LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 235      PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
 236      PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
 237      PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
 238      PI   0.007   0.007   0.007   0.007   0.008   0.008   0.008   0.008   0.008   0.008
 239      PI   0.008   0.008   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009
 240      PI   0.009   0.009   0.011   0.011   0.011   0.012   0.012   0.012   0.018   0.018
 241      PI   0.017   0.016   0.015   0.014   0.013   0.012   0.011   0.009   0.007   0.003
 242      PI   0.006   0.008   0.010   0.012   0.013   0.014   0.015   0.016   0.017   0.017
 243      PI   0.018   0.019   0.012   0.012   0.012   0.011   0.011   0.011   0.009   0.009
 244      PI   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008
 245      PI   0.008   0.008   0.008   0.008   0.008   0.008   0.007   0.007   0.007   0.006
 246      PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
 247      PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
 248      PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
 249      PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 250      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 251      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 252      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 253      PI   0.004   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003
 254      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 255      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 256      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 257      BF    0.54
 258      LU       0     .06     100       0     .06       0
 259      UK     300     .02     .11      46
 260      UK     350     .02      .4      54
 261      RD     700    .028     .05     .03    TRAP       0      10
 262      RD    1500     .05     .05            TRAP       5      10
          *

 263      KK     DTN
 264      RS       1    FLOW      -1
          * RD
 265      SV       0       1       5      15      35      60     130     250     500
 266      SE     100     102     104     106     108     110     114     120     130
 267      SL     102    1000     0.6     0.5
 268      SS     129    1000     2.8     1.5
          *

 269      KK   PL2A+ COMBINE HYDROGRAPHS
 270      HC       2
          *

 271      KK     RCH4  ROUTE FROM PL2A TO PL2D
          *  RS   1   FLOW  -1
```

```
          272  RD
          273  RC     .05     .05     .05    2330   .0026    1000
          274  RX       0       0     400     413     423     436     836     836
          275  RY    1020    1000     995   988.5   988.5     995    1000    1020
               *
1                                        HEC-1 INPUT                                        PAGE  8

          LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


          276  KK    PL2B
          277  BA    0.15
          278  PB
               * PI
               *
               *  Placer Design Precipitation -  depths in inches
               *  Return period in years     2   Time interval in minutes     5
               *  Elevation in feet        250   W of Crest
               *  Duration in minutes     1500   Maximum depth at   750 minutes
               *  Cloudburst 1-hr Factor  0.23
               *
          279  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          280  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          281  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          282  PI   0.003   0.003   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          283  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          284  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          285  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          286  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
          287  PI   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006   0.006   0.006
          288  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          289  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.007
          290  PI   0.007   0.007   0.007   0.007   0.008   0.008   0.008   0.008   0.008   0.008
          291  PI   0.008   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009
          292  PI   0.009   0.009   0.011   0.012   0.012   0.012   0.012   0.012   0.019   0.018
          293  PI   0.017   0.016   0.015   0.014   0.013   0.011   0.010   0.008   0.006   0.002
          294  PI   0.005   0.007   0.009   0.011   0.012   0.013   0.014   0.016   0.017   0.018
          295  PI   0.018   0.019   0.012   0.012   0.012   0.012   0.011   0.011   0.009   0.009
          296  PI   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0.008
          297  PI   0.008   0.008   0.008   0.008   0.008   0.008   0.007   0.007   0.007   0.007
          298  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          299  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          300  PI   0.006   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005
          301  PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          302  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          303  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          304  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          305  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.003   0.003
          306  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          307  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          308  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          309  BF    0.45
          310  LU       0     .06     100       0     .06       0
          311  UK     300     .02     .11      50
          312  UK     350     .02      .4      50
          313  RD     800    .025     .05     .03    TRAP       0      10
          314  RD    1800    .028     .05            TRAP       0      10
               *
               *   Insert kinematic wave for shed 2D-1 and route previous hydro.
               *
1                                        HEC-1 INPUT                                        PAGE  9

          LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


          315  KK    PL2C
          316  BA   0.240
          317  PB
               * PI
               *
               *  Placer Design Precipitation -  depths in inches
               *  Return period in years     2   Time interval in minutes     5
               *  Elevation in feet        250   W of Crest
               *  Duration in minutes     1500   Maximum depth at   750 minutes
               *  Cloudburst 1-hr Factor  0.23
               *
          318  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          319  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          320  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          321  PI   0.003   0.003   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          322  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          323  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          324  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          325  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
          326  PI   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006   0.006   0.006
          327  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          328  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.007
          329  PI   0.007   0.007   0.007   0.007   0.008   0.008   0.008   0.008   0.008   0.008
          330  PI   0.008   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009
          331  PI   0.009   0.009   0.011   0.012   0.012   0.012   0.012   0.012   0.019   0.018
          332  PI   0.017   0.016   0.015   0.014   0.013   0.011   0.010   0.008   0.006   0.002
          333  PI   0.005   0.007   0.009   0.011   0.012   0.013   0.014   0.016   0.017   0.018
          334  PI   0.018   0.019   0.012   0.012   0.012   0.012   0.011   0.011   0.009   0.009
          335  PI   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0.008
          336  PI   0.008   0.008   0.008   0.008   0.008   0.008   0.007   0.007   0.007   0.007
          337  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          338  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          339  PI   0.006   0.006   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005
          340  PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          341  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          342  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          343  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          344  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.003   0.003
          345  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          346  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          347  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          348  BF    0.72
```

```
          LU       0      .06     100       0      .06       0
          UK     300      .02     .11      42
          UK     350      .02      .4      58
          RD     100      .03     .05     .01    TRAP       0       10
          RD    1100      .03     .05            TRAP       0       10
          *
1                                        HEC-1 INPUT                                        PAGE 10

        LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

          KK   PL2C+   COMBINE HYDROGRAPHS
          HC       2
          *

          KK     DTN
          RS       1    FLOW      -1
          * RD
          SV       0       1       5      15      35      60     130     250     500
          SE     100     102     104     106     108     110     114     120     130
          SL     102    1000      .6      .5
          SS     129    1000     2.8     1.5
          *

          KK    RCH5 ROUTE FROM PL2C TO PL2D
          * RS   1   FLOW  -1
          RD
          RC      .05     .05     .05   12000   .0042    1000
          RX       0       0     350     360     365     375     725     725
          RY    1020    1000     995     990     990     995    1000    1020
          *

          KK     PL2D  PLEASANT GROVE CREEK
          BA      .87
          PB
          * PI
          *
          *  Placer Design Precipitation -  depths in inches
          *  Return period in years      2   Time interval in minutes     5
          *  Elevation in feet         150   W of Crest
          *  Duration in minutes      1500   Maximum depth at   750 minutes
          *  Cloudburst 1-hr Factor  0.25
          *
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
          PI   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006   0.006   0.006
          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
          PI   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009   0.009
          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.018   0.017
          PI   0.017   0.016   0.015   0.014   0.013   0.012   0.010   0.009   0.007   0.003
          PI   0.005   0.008   0.010   0.011   0.012   0.013   0.014   0.015   0.016   0.017
          PI   0.018   0.019   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
          PI   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008
          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          PI   0.006   0.006   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005
          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1                                        HEC-1 INPUT                                        PAGE 11

        LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          BF
          LU       0    0.06       0       0     .11     100
          UK     300     .03      .4      95
          UK     350     .03     .11       5
          RD    1400     .03     .05     .02    TRAP       0       20
          RD    5500    .028     .05            TRAP       5       20
          *

          KK   PL2D+
          HC       3
          *
          * KKSUNWST SUNSET WEST DEVELOPMENT DETENTION BASIN A LOCATED UPSTREAM OF LONETRE
          * KM        Two 12' x 8' RCB culverts - Revised 6/3/98
          * KM        Final grading plan (1% park/1% basin)
          * RS     1     FLOW      -1
          * SV     0     .024     .079     .168     .604     1.49     3.16     5.93    18.30    44.
          * SV 87.20   150.90
          * SE 112.4      113    113.5      114      115      116      117      118      120     1
          * SE   124      126
          * SQ     0       75      150      300      450      600      900     1200     1500    16
          * SQ  1800     2250
          * SE 112.4   113.55   114.24   115.32   116.23   117.04   118.47   119.75   120.92   121.
          * SE122.02   123.55
          *

          KK    PL2E
          BA    0.13
          PB
          * PI
          *
```

```
                * Placer Design Precipitation -  depths in inches
                * Return period in years     2   Time interval in minutes     5
                * Elevation in feet        285   W of Crest
                * Duration in minutes     1500   Maximum depth at   750 minutes
                * Cloudburst 1-hr Factor  0.26
                *
  411           PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
  412           PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
  413           PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004
  414           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  415           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  416           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  417           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  418           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
  419           PI   0.005   0.005   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
  420           PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
  421           PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.007   0.007   0.007
1                                              HEC-1 INPUT                                        PAGE 12

 LINE           ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  422           PI   0.007   0.007   0.007   0.007   0.008   0.008   0.008   0.008   0.008   0.008
  423           PI   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009
  424           PI   0.009   0.010   0.011   0.012   0.012   0.012   0.012   0.012   0.019   0.018
  425           PI   0.017   0.016   0.015   0.015   0.013   0.012   0.011   0.009   0.007   0.004
  426           PI   0.006   0.008   0.010   0.012   0.013   0.014   0.015   0.016   0.017   0.018
  427           PI   0.018   0.019   0.012   0.012   0.012   0.012   0.012   0.011   0.010   0.009
  428           PI   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.008
  429           PI   0.008   0.008   0.008   0.008   0.008   0.008   0.007   0.007   0.007   0.007
  430           PI   0.007   0.007   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
  431           PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
  432           PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.005   0.005   0.005
  433           PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  434           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  435           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  436           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  437           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  438           PI   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
  439           PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
  440           PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
  441           BF    0.39
  442           LU       0     .06       0
  443           UK     600     .08      .4     100
  444           RD    1200     .03     .05     .05    TRAP        0      10
  445           RD    1800    .053     .05            TRAP        5      10
                *

  446           KK    PL2F
  447           BA     0.1
  448           PB
                * PI
                *
                * Placer Design Precipitation -  depths in inches
                * Return period in years     2   Time interval in minutes     5
                * Elevation in feet        300   W of Crest
                * Duration in minutes     1500   Maximum depth at   750 minutes
                * Cloudburst 1-hr Factor  0.25
                *
  449           PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
  450           PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
  451           PI   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004
  452           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  453           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  454           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  455           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  456           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
  457           PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
  458           PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
  459           PI   0.006   0.006   0.006   0.006   0.006   0.006   0.007   0.007   0.007   0.007
  460           PI   0.007   0.007   0.007   0.007   0.008   0.008   0.008   0.008   0.008   0.008
  461           PI   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009
  462           PI   0.009   0.010   0.012   0.012   0.012   0.012   0.012   0.012   0.019   0.018
  463           PI   0.017   0.016   0.015   0.014   0.013   0.012   0.011   0.009   0.007   0.003
  464           PI   0.006   0.008   0.010   0.012   0.013   0.014   0.015   0.016   0.017   0.018
  465           PI   0.018   0.019   0.012   0.012   0.012   0.012   0.012   0.012   0.010   0.009
  466           PI   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009
1                                              HEC-1 INPUT                                        PAGE 13

 LINE           ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

  467           PI   0.008   0.008   0.008   0.008   0.008   0.008   0.007   0.007   0.007   0.007
  468           PI   0.007   0.007   0.007   0.006   0.006   0.006   0.006   0.006   0.006   0.006
  469           PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
  470           PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.005
  471           PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  472           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  473           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  474           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  475           PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
  476           PI   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003
  477           PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
  478           PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
  479           BF     0.3
  480           LU       0     .06       0
  481           UK     600    .058      .4     100
  482           RD    1300    .031     .05     .05    TRAP        0      10
  483           RD    1200     .04     .05            TRAP        5      10
                *

  484           KK    PL2P+ COMBINE HYDROGRAPHS
  485           HC        2
                *
                *  Begin revisions to Cross Canal Watershed Model for Fiddyment-Westpark Develop
                *

  486           KK     DTN
  487           RS       1    FLOW      -1
```

```
                * RD
488             SV      0       1       5      15      35      60     130     250     500
489             SE    100     102     104     106     108     110     114     120     130
490             SL    102    1000     0.6     0.5
491             SS    129    1000     2.8     1.5
                *

492             KK    PL2G MODIFIED PL2G
493             BA    1.07
494             PB
                * PI
                *
                *  Placer Design Precipitation -  depths in inches
                *  Return period in years     2   Time interval in minutes     5
                *  Elevation in feet        175   W of Crest
                *  Duration in minutes     1500   Maximum depth at   750 minutes
                *  Cloudburst 1-hr Factor  0.27
                *
495             PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
496             PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
497             PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
498             PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
499             PI   0.003   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
500             PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
501             PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
502             PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
503             PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
504             PI   0.005   0.005   0.005   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1                                          HEC-1 INPUT                                        PAGE 14

LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

505             PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
506             PI   0.006   0.006   0.006   0.007   0.008   0.008   0.008   0.008   0.008   0.008
507             PI   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009   0.009
508             PI   0.009   0.009   0.011   0.011   0.011   0.011   0.012   0.012   0.018   0.017
509             PI   0.017   0.016   0.015   0.014   0.014   0.012   0.011   0.010   0.008   0.004
510             PI   0.006   0.009   0.011   0.012   0.013   0.014   0.015   0.016   0.016   0.017
511             PI   0.018   0.018   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
512             PI   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008
513             PI   0.008   0.008   0.008   0.008   0.008   0.008   0.007   0.006   0.006   0.006
514             PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
515             PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.005   0.005   0.005
516             PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
517             PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
518             PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
519             PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
520             PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.003
521             PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
522             PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
523             PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
524             PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
525             BF    3.21
526             LU       0     .06     100       0     .06       0
527             UK     300     .04     .11      67
528             UK     350     .04      .4      33
529             RD    1500     .05     .05     .05    TRAP       0      10
530             RD    3000    .025     .05     .27    TRAP       5      10
                *   Combine Hydrographs for PL2G+ and PL2F+
531             RD                                                        YES
532             RC    0.05    0.05    0.05   11500  0.0065    1000
533             RI       0       0     300     310     315     325     625     625
534             RY    1020    1000     995     990     990     995    1000    1020

535             KK     DTN
536             RS       1    FLOW      -1
                * RD
537             SV       0       1       5      15      35      60     130     250     500
538             SE     100     102     104     106     108     110     114     120     130
539             SL     102    1000     0.6     0.5
540             SS     129    1000     2.8     1.5
                *
                * KK PL2D+
                * HC     2
                *

541             KK    RCH7  ROUTE FROM PL2D TO PL2H
542             RD
543             RC     .05     .05     .05    3000   .0023    1000
544             RI       0       0     350     363     373     386     736     736
545             RY    1020    1000     995   988.5   988.5     995    1000    1020
                *
1                                          HEC-1 INPUT                                        PAGE 15

LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10


546             KK    PL2H   PLEASANT GROVE CREEK
547             BA    0.25
548             PB
                * PI
                *
                *  Placer Design Precipitation -  depths in inches
                *  Return period in years     2   Time interval in minutes     5
                *  Elevation in feet        125   W of Crest
                *  Duration in minutes     1500   Maximum depth at   750 minutes
                *  Cloudburst 1-hr Factor  0.28
                *
549             PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
550             PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
551             PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
552             PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
553             PI   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004
554             PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
555             PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
556             PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
557             PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
```

```
558  PI   0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.006  0.006  0.006
559  PI   0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
560  PI   0.006  0.006  0.006  0.006  0.008  0.008  0.008  0.008  0.008  0.008
561  PI   0.008  0.008  0.008  0.008  0.008  0.009  0.009  0.009  0.009  0.009
562  PI   0.009  0.009  0.011  0.011  0.011  0.011  0.011  0.012  0.018  0.017
563  PI   0.017  0.016  0.015  0.015  0.014  0.013  0.012  0.010  0.009  0.005
564  PI   0.007  0.010  0.011  0.012  0.013  0.014  0.015  0.016  0.016  0.017
565  PI   0.017  0.018  0.011  0.011  0.011  0.011  0.011  0.011  0.009  0.009
566  PI   0.009  0.009  0.009  0.009  0.009  0.008  0.008  0.008  0.008  0.008
567  PI   0.008  0.008  0.008  0.008  0.008  0.008  0.006  0.006  0.006  0.006
568  PI   0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
569  PI   0.006  0.006  0.006  0.005  0.005  0.005  0.005  0.005  0.005  0.005
570  PI   0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005
571  PI   0.005  0.005  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
572  PI   0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
573  PI   0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
574  PI   0.004  0.004  0.004  0.003  0.003  0.003  0.003  0.003  0.003  0.003
575  PI   0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
576  PI   0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
577  PI   0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
578  PI   0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
579  BF    .75
580  LU      0    .06      0      0    .06      0
581  UK    300    .01     .4     31
582  UK    350    .015    .11    69
583  RD    300    .005    .05    .05  TRAP     2     10
584  RD   1300    .005    .05         TRAP     5     10
     *
     *
```



```
LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

585  KK    DTN
586  RS      1   FLOW     -1
     * RD
587  SV      0      1      5     15     35     60    130    250    500
588  SE    100    102    104    106    108    110    114    120    130
589  SL    102   1000    0.6    0.5
590  SS    129   1000    2.8    1.5
     *

591  KK  PL2H+ COMBINE HYDROGRAPHS AT HIGHWAY 65
592  HC      3
     *

593  KK    PL3
594  KM
595  BA   0.58
596  PB
     * PI
     *
     *  Placer Design Precipitation -  depths in inches
     *  Return period in years     2   Time interval in minutes     5
     *  Elevation in feet        225   W of Crest
     *  Duration in minutes     1500   Maximum depth at   750 minutes
     *  Cloudburst 1-hr Factor  0.22
     *
597  PI   0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
598  PI   0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
599  PI   0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
600  PI   0.003  0.003  0.003  0.003  0.003  0.004  0.004  0.004  0.004  0.004
601  PI   0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
602  PI   0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
603  PI   0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
604  PI   0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.005  0.005
605  PI   0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.006  0.006
606  PI   0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
607  PI   0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
608  PI   0.006  0.007  0.007  0.007  0.008  0.008  0.008  0.008  0.008  0.008
609  PI   0.008  0.008  0.009  0.009  0.009  0.009  0.009  0.009  0.009  0.009
610  PI   0.009  0.009  0.011  0.011  0.011  0.012  0.012  0.012  0.019  0.018
611  PI   0.017  0.016  0.015  0.014  0.012  0.011  0.010  0.008  0.006  0.002
612  PI   0.004  0.007  0.009  0.010  0.012  0.013  0.014  0.015  0.016  0.017
613  PI   0.018  0.019  0.012  0.012  0.012  0.011  0.011  0.011  0.009  0.009
614  PI   0.009  0.009  0.009  0.009  0.009  0.009  0.009  0.008  0.008  0.008
615  PI   0.008  0.008  0.008  0.008  0.008  0.008  0.007  0.007  0.007  0.006
616  PI   0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
617  PI   0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
618  PI   0.006  0.006  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005
619  PI   0.005  0.005  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
620  PI   0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
621  PI   0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
622  PI   0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
623  PI   0.004  0.004  0.004  0.004  0.004  0.003  0.003  0.003  0.003  0.003
624  PI   0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
625  PI   0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
```



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LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

626  PI   0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
627  BF    1.74
628  LU      0    .06    100      0    .06      0
629  UK    300     .4     .3     22
630  UK    350    .03    .15     78
631  RD    600    .05   .015     .4  TRAP     2      5
632  RD   1300   .012   .050    .19  TRAP     2      5
633  RD   5000   .009   .050         TRAP     5      5

634  KK    DTN
635  KO      1      1
636  KM      ROUTE THROUGH "5 STAR" DETENTION BASIN LOCATED SOUTH OF CHURCH PROPERTY
637  RS      1   FLOW      0
638  SV      0   2.42  14.18  15.95
639  SE    188    192    200    201
```

```
SQ       0      20      40      60     130     230     400     660     900
SE     188   189.2     190   190.6   192.7   194.7   197.5   200.1   200.5
*

KK    PL4A PLEASANT GROVE CREEK
BA    0.35
PB
* PI
*
*  Placer Design Precipitation -  depths in inches
*  Return period in years      2   Time interval in minutes     5
*  Elevation in feet         200   W of Crest
*  Duration in minutes      1500   Maximum depth at   750 minutes
*  Cloudburst 1-hr Factor  0.22
*
PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004
PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
PI   0.006   0.006   0.007   0.007   0.008   0.008   0.008   0.008   0.008   0.008
PI   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009   0.009   0.009
PI   0.009   0.009   0.011   0.011   0.011   0.011   0.012   0.012   0.019   0.018
PI   0.017   0.016   0.015   0.014   0.012   0.011   0.009   0.008   0.006   0.002
PI   0.004   0.007   0.009   0.010   0.012   0.013   0.014   0.015   0.016   0.017
PI   0.018   0.019   0.012   0.012   0.011   0.011   0.011   0.011   0.009   0.009
PI   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008
PI   0.008   0.008   0.008   0.008   0.008   0.008   0.007   0.006   0.006   0.006
PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.005
PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1                              HEC-1 INPUT                                  PAGE 18

LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
PI   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
*
BF    1.05
LU      0     .06     100       0     .06       0
UK    300     .05     .11       7
UK    350     .20      .4      93
RD    400    .038     .05     .02    TRAP       0      10
RD   1600     .04     .05     .09    TRAP       5      10
*   ROUTE FROM PL3 TO PL4A (PL4A+)
RD                                                        YES
RC  0.045    0.05   0.045    4600  0.0043    1000
RX      0       0     300     310     315     325     625     625
RY   1020    1000     995     990     990     995    1000    1020
*

KK   DBL72
KO       1       1
KM        ROUTE FLOWS THRU DBL 72" CULVERTS @ HWY 65
RS       1    FLOW       0
SA       0    .018    .153    .448   1.053   1.827   2.943   4.274   5.690   7.156
SA   8.804   10.70  12.241  14.433  16.345
SE   161.3     162     163     164     165     166     167     168     169     170
SE     171     172     173     174     175
SQ       0      50     100     200     400     600     800    1000    1200    1400
SE   161.3  163.06   163.8  164.88  166.82  168.65  171.08  174.44  181.24  187.66
*

KK    PL4B PLEASANT GROVE CREEK
BA    0.73
PB
* PI
*
*  Placer Design Precipitation -  depths in inches
*  Return period in years      2   Time interval in minutes     5
*  Elevation in feet         175   W of Crest
*  Duration in minutes      1500   Maximum depth at   750 minutes
*  Cloudburst 1-hr Factor  0.23
*
PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
PI   0.003   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
PI   0.005   0.005   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
PI   0.006   0.006   0.006   0.007   0.008   0.008   0.008   0.008   0.008   0.008
PI   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009   0.009
1                              HEC-1 INPUT                                  PAGE 19

LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.019   0.018
PI   0.017   0.016   0.015   0.014   0.012   0.011   0.010   0.008   0.006   0.002
PI   0.004   0.007   0.009   0.010   0.012   0.013   0.014   0.015   0.016   0.017
PI   0.018   0.019   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
```

```
715          PI   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008
716          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
717          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
718          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.005   0.005   0.005
719          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
720          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
721          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
722          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
723          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.003
724          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
725          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
726          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
727          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
             *
728          BF    2.19
729          LU       0     .06     100       0     .06       0
730          UK     300    .033     .11      62
731          UK     350     .03      .4      38
732          RD     500     .03     .05    .018    TRAP       0      10
733          RD    1500    .035     .05      .1    TRAP       5      10
             *   RCH9 ROUTE FROM PL4A TO PL4B
734          RD                                                      YES
735          RC   0.045   0.045   0.045    8000  0.0046    1000
736          RX       0       0     300     310     317     327     627     627
737          RY    1020    1000     995     990     990     995    1000    1020
             *
             * KKREROUT
             * KO     1       1
             * KM     ROUTE THE COMBINED FLOW FROM PG1-3 AND PG 1-4 THROUGH THE LOWER HALF
             * KM     OF PG1-4 USING SINGLE STEP FLOW\STORAGE RATING.
             * RS     1     FLOW       0
             * SV  1.45     2.41    4.07    7.63   11.71   16.86   23.90   84.34  156.97
             * SQ    50      100     200     400     600     800    1000    1400    1800
             *

738          KK   2-7x6
739          KO       1       1
740          KM         ROUTE THROUGH NATURAL DETENTION U.S. OF 65 DUE TO A 2-7'x 6' RCBC S/65
741          RS       1     FLOW       0
             * SV       0    1.67    5.58   15.66   38.02   75.94
             * SE   123.8     128     130     132     134     136
             * SQ       0      50     100     200     400     600     800
             * SE   123.8   125.1   125.8   127.0   128.8   130.5   134.2
             *
742          SV       0    .088    .364    .976   2.014   3.579    5.89   9.536  15.466  24.561
743          SV   37.42  54.051
744          SE   123.6     125     126     127     128     129     130     131     132     133
745          SE     134     135
746          SQ       0      50     100     200     400     600     800    1000
747          SE   123.6  124.97  125.65  126.72  128.44  129.87  131.49  133.81
             *
```



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LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

748          KK    PL4C
749          BA    0.72
750          PB
             * PI
             *
             *  Placer Design Precipitation -  depths in inches
             *  Return period in years     2   Time interval in minutes     5
             *  Elevation in feet        200   W of Crest
             *  Duration in minutes     1500   Maximum depth at   750 minutes
             *  Cloudburst 1-hr Factor  0.23
             *
751          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
752          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
753          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
754          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004
755          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
756          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
757          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
758          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
759          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
760          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
761          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
762          PI   0.006   0.006   0.007   0.007   0.008   0.008   0.008   0.008   0.008   0.008
763          PI   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009   0.009   0.009
764          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.012   0.012   0.019   0.018
765          PI   0.017   0.016   0.015   0.014   0.013   0.011   0.010   0.008   0.006   0.002
766          PI   0.005   0.007   0.009   0.011   0.012   0.013   0.014   0.015   0.016   0.017
767          PI   0.018   0.019   0.012   0.012   0.011   0.011   0.011   0.011   0.009   0.009
768          PI   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008
769          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.007   0.007   0.006   0.006
770          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
771          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.005
772          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
773          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
774          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
775          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
776          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
777          PI   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
778          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
779          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
780          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
             *
781          BF    2.16
782          LU       0     .06     100       0     .06       0
783          UK     100     .02     .11      .2
784          UK     500     .02      .4    99.8
785          RD     600    .042     .05     .11    TRAP       0      10
786          RD    1800    .016     .05     .54    TRAP       0      10
787          RD    4500    .017     .05            TRAP       5      10
             *
```

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LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 788      KK   PL4C+ COMBINE HYDROGRAPHS
 789      HC       2
          *
          * Rocklin-Roseville Border Line
          * Blue Oaks Intx.
          * Proposed 6'x 8' Conc. Box Culvert
          * End of Highlands Reserve Project
          *
          * KK BOCLV    Blue Oaks Culvert Crossing 2-6'x 8' Boxes
          * KM          Two 6' wide x 8' Tall Box Culverts
          * RS     1    FLOW      -1
          * SV     0     .82    1.81    3.21    6.59    8.65    10.6    13.6    16.9    20
          * SV    25    29.3      34
          * SE   115     116     117     118     119     120     121     122     123     1
          * SE   125     126     127
          * SQ     0       5      25      50     500     680     800     925    1037    11
          * SQ  1250    1350    1450
          *
          * KK NORTH INPUT ACTUAL DESIGN
          * RS     1    FLOW      -1
          * SV     0       1       5      15      35      60     130     250     500
          * SE   100     102     104     106     108     110     114     120     130
          * SL   102    1000     0.6     0.5
          * SS   129    1000     2.8     1.5
          *

 790      KK    PL4D
 791      BA      .4
 792      PB
          * PI
          *
          *  Placer Design Precipitation -  depths in inches
          *  Return period in years     2   Time interval in minutes     5
          *  Elevation in feet        135   W of Crest
          *  Duration in minutes     1500   Maximum depth at   750 minutes
          *  Cloudburst 1-hr Factor  0.25
          *
 793      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 794      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 795      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 796      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 797      PI   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004   0.004
 798      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 799      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 800      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
 801      PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
 802      PI   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006   0.006
 803      PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
 804      PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
 805      PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
 806      PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
 807      PI   0.017   0.016   0.015   0.014   0.013   0.012   0.010   0.009   0.007   0.003
 808      PI   0.005   0.008   0.010   0.011   0.012   0.013   0.014   0.015   0.016   0.017
 809      PI   0.018   0.019   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009

1                                    HEC-1 INPUT                                    PAGE 22

LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

 810      PI   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008
 811      PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
 812      PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
 813      PI   0.006   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005
 814      PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
 815      PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 816      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 817      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 818      PI   0.004   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003
 819      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 820      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 821      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 822      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 823      BF     1.2
 824      LU       0     .06     100       0     .06       0
 825      UK     300     .03     .11      16
 826      UK     350     .03      .4      84
 827      RD    1500     .01     .05      .1    TRAP       5      10
 828      RD    4000    .004     .05            TRAP      10      10
          *

 829      KK   PL4D+ COMBINE HYDROGRAPHS
 830      HC       2
          *

 831      KK    PL4E  MODIFIED PL4E TO INCLUDE ONLY AREA WEST OF HWY 65
 832      BA    0.56
 833      PB
          * PI
          *
          *  Placer Design Precipitation -  depths in inches
          *  Return period in years     2   Time interval in minutes     5
          *  Elevation in feet        135   W of Crest
          *  Duration in minutes     1500   Maximum depth at   750 minutes
          *  Cloudburst 1-hr Factor  0.24
          *
 834      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 835      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 836      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 837      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
 838      PI   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004   0.004
 839      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 840      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
 841      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
 842      PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
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843   PI   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006   0.006
844   PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
845   PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
846   PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
847   PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
848   PI   0.017   0.016   0.015   0.014   0.013   0.012   0.010   0.009   0.007   0.003
849   PI   0.005   0.008   0.009   0.011   0.012   0.013   0.014   0.015   0.016   0.017
850   PI   0.018   0.019   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
851   PI   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008
852   PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
```



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LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

853   PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
854   PI   0.006   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005
855   PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
856   PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
857   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
858   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
859   PI   0.004   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003
860   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
861   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
862   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
863   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
864   BF    1.68
865   LU       0     .06     100       0     .06       0
866   UK     300     .03     .11      66
867   UK     350     .03      .4      34
868   RD    1500     .01     .05      .1    TRAP       5      10
869   RD    9000    .004     .05           TRAP       5      10
      *
      *  RCH11 ROUTE FROM PL4D THROUGH PL4E (PL4E+)
      *

870   KK  R4D-4E
871   RD
872   RC   0.045     .05   0.045    3800  0.0028
873   RX       0       0     300     310     317     327     627     627
874   RY    1020    1000     995     990     990     995    1000    1020
      *

875   KK   PL4E+
876   HC       2
      *

877   KK   CLV B  RATING CURVE FOR EXISTING CULVERTS AT HWY 65
878   KM   Two 10' wide x 5' tall RCB culverts.
879   RS       1    FLOW      -1
880   SV       0    .001    .042    .083    .124    .162    .719    1.27    2.29    3.31
881   SV    3.96    4.61    5.42    6.23    8.09    9.94   24.95   50.41
882   SE   102.9     103   103.1   103.3   103.6     104     105     106     107     108
883   SE   108.5     109   109.5     110   110.5     111     113     115
884   SQ       0      90     180     360     600     900    1080    1260    1440    1620
885   SQ    1800
886   SE   102.9  103.98  105.05  106.25  107.63  109.38  110.57  111.91  113.44  115.17
887   SE  117.10
      *
      *   Combining Pleasant Grove Creek with PGC tributary west of HWY 65 @ R/R
      *

888   KK    PL4+ COMBINE HYDROGRAPHS
889   HC       2
      *
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LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

890   KK    PL5A
891   BA    0.41
892   PB
      * PI
      *
      *  Placer Design Precipitation -  depths in inches
      *  Return period in years     2   Time interval in minutes     5
      *  Elevation in feet        115   W of Crest
      *  Duration in minutes     1500   Maximum depth at   750 minutes
      *  Cloudburst 1-hr Factor  0.29
      *
893   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
894   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
895   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
896   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
897   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004
898   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
899   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
900   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
901   PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
902   PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
903   PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
904   PI   0.006   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008
905   PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
906   PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.017   0.017
907   PI   0.016   0.016   0.015   0.015   0.014   0.013   0.012   0.011   0.009   0.005
908   PI   0.008   0.010   0.012   0.013   0.014   0.014   0.015   0.016   0.016   0.017
909   PI   0.017   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
910   PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
911   PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
912   PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
913   PI   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
914   PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
915   PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
916   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
917   PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
918   PI   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
919   PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
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          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          BF    1.23
          LU       0     .06     100       0     .06       0
          UK     300     .03     .11      68
          UK     350    .025      .4      32
          RD     500     .03     .05     .08    TRAP       0      10
          RD    1500     .01     .05     .08    TRAP       5      10
          *   RT4-5A     RCH12 ROUTE FROM PL4 TO PL5A
          RD                                                    YES
          RC     .05     .05     .05    5000  0.0011
          RX       0       0     300     316     328     344     644     644
          RY    1020    1000     995     987     987     995    1000    1020
          *
1                                   HEC-1 INPUT                                 PAGE 25

     LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

          KK     DTN
          RS       1    FLOW       1
          SV       0       1       5      15      35      60     130     250     500
          SE     100     102     104     106     108     110     114     120     130
          SL     102    1000     0.6     0.5
          SS     129    1000     2.8     0.5
          *

          KK    PL5B
          BA    0.52
          PB
          * PI
          *
          *  Placer Design Precipitation -  depths in inches
          *  Return period in years      2   Time interval in minutes     5
          *  Elevation in feet         175   W of Crest
          *  Duration in minutes      1500   Maximum depth at   750 minutes
          *  Cloudburst 1-hr Factor   0.29
          *
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
          PI   0.005   0.005   0.005   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          PI   0.006   0.006   0.006   0.007   0.008   0.008   0.008   0.008   0.008   0.008
          PI   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009   0.009
          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.012   0.012   0.018   0.017
          PI   0.017   0.016   0.015   0.015   0.014   0.013   0.012   0.011   0.009   0.005
          PI   0.008   0.010   0.011   0.013   0.014   0.014   0.015   0.016   0.016   0.017
          PI   0.017   0.018   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
          PI   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008
          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.007   0.006   0.006   0.006
          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.005   0.005   0.005
          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          BF    1.56
          LU       0     .06       0       0     .06     100
          UK     350    .035      .4      79
          UK     300    .025     .11      21
          RD     500     .04     .05     .05
1                                   HEC-1 INPUT                                 PAGE 26

     LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

          RD    1000    .045     .05     .15    TRAP      10      10
          RD    5500    .011     .05            TRAP      10      10
          *

          KK    PL5C
          BA    1.64
          PB
          * PI
          *
          *  Placer Design Precipitation -  depths in inches
          *  Return period in years      2   Time interval in minutes     5
          *  Elevation in feet         125   W of Crest
          *  Duration in minutes      1500   Maximum depth at   750 minutes
          *  Cloudburst 1-hr Factor   0.35
          *
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.017   0.017
```

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996   PI   0.016   0.016   0.016   0.016   0.015   0.015   0.014   0.013   0.012   0.009
997   PI   0.011   0.013   0.014   0.014   0.015   0.015   0.016   0.016   0.016   0.017
998   PI   0.017   0.017   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
999   PI   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008
1000  PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1001  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1002  PI   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1003  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1004  PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1005  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1006  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1007  PI   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1008  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1009  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1010  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1011  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1012  BF   4.92
1013  LU      0     .06     100       0     .06       0
1014  UK    300    .017     .11      61
1015  UK    350     .02      .4      39
1016  RD   2000    .015     .05     .33    TRAP       5      10
      *   RCH13 ROUTE FROM PL5B TO PL5C
1017  RD                                                      YES
1018  RC   0.05    0.05    0.05   12000  0.0028    1000
1019  RX      0       0     300     310     317     327     627     627
1020  RY   1020    1000     995     990     990     995    1000    1020
      *
```

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LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.....10

1021  KK     DTN
1022  RS       1    FLOW      -1
1023  SV       0       1       5      15      35      60     130     250     500
1024  SE     100     102     104     106     108     110     114     120     130
1025  SL     102    1000     0.6     0.5
1026  SS     129    1000     2.8     1.5

1027  KK   PL5C+ COMBINE HYDROGRAPHS
1028  HC       2

1029  KK   RCH14 ROUTE FROM PL5A TO PL5F
      *
1030  RD
1031  RC   0.045     .05   0.045    1800   0.002    1000
1032  RX       0       0     300     316     336     352     652     652
1033  RY    1020    1000     995     987     987     995    1000    1020
      *

1034  KK    PL5D
1035  BA    0.18
1036  PB
      * PI
      *
      *  Placer Design Precipitation -  depths in inches
      *  Return period in years      2   Time interval in minutes     5
      *  Elevation in feet         125   W of Crest
      *  Duration in minutes      1500   Maximum depth at   750 minutes
      *  Cloudburst 1-hr Factor  0.25
      *
1037  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1038  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1039  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1040  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1041  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004
1042  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1043  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1044  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1045  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1046  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
1047  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1048  PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1049  PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1050  PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
1051  PI   0.017   0.016   0.015   0.014   0.013   0.012   0.011   0.009   0.007   0.003
1052  PI   0.006   0.008   0.010   0.011   0.012   0.014   0.014   0.015   0.016   0.017
1053  PI   0.018   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1054  PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
1055  PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1056  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1057  PI   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1058  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1059  PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1060  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1061  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
```

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LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.....10

1062  PI   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1063  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1064  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1065  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1066  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1067  BF    0.54
1068  LU       0     .06     100       0     .06       0
1069  UK     300    .017     .11      70
1070  UK     350     .02      .4      30
1071  RD     500     .03     .05    .045    TRAP       5      10
1072  RD    2500    .006     .05            TRAP      10      10
      *

1073  KK    PL5E
1074  BA     0.3
1075  PB
      * PI
```

```
                *
                *  Placer Design Precipitation -  depths in inches
                *  Return period in years     2   Time interval in minutes     5
                *  Elevation in feet        135   W of Crest
                *  Duration in minutes     1500   Maximum depth at   750 minutes
                *  Cloudburst 1-hr Factor  0.24
                *
1076            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1077            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1078            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1079            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1080            PI   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004   0.004
1081            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1082            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1083            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1084            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1085            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006   0.006
1086            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1087            PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1088            PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1089            PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
1090            PI   0.017   0.016   0.015   0.014   0.013   0.012   0.010   0.009   0.007   0.003
1091            PI   0.005   0.008   0.010   0.011   0.012   0.013   0.014   0.015   0.016   0.017
1092            PI   0.018   0.019   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1093            PI   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008
1094            PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1095            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1096            PI   0.006   0.006   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005
1097            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1098            PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1099            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1100            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1101            PI   0.004   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003
1102            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1103            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1104            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1105            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1106            BF     0.9
1                                        HEC-1 INPUT                                        PAGE 29

LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1107            LU       0     .06     100       0     .06       0
1108            UK     300    .042     .11      70
1109            UK     350     .04      .4      30
1110            RD    1000    .015     .05    .075    TRAP       0      10
1111            RD    4500   .0056     .05            TRAP       5      10

1112            KK   PL5E+ COMBINE HYDROGRAPHS
1113            HC       2
                *

1114            KK    PL5F PLEASANT GROVE CREEK
1115            BA    0.46
1116            PB
                * PI
                *
                *  Placer Design Precipitation -  depths in inches
                *  Return period in years     2   Time interval in minutes     5
                *  Elevation in feet        115   W of Crest
                *  Duration in minutes     1500   Maximum depth at   750 minutes
                *  Cloudburst 1-hr Factor  0.28
                *
1117            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1118            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1119            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1120            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1121            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004
1122            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1123            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1124            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1125            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1126            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
1127            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1128            PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1129            PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1130            PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.018   0.017
1131            PI   0.016   0.016   0.015   0.014   0.014   0.013   0.012   0.010   0.009   0.005
1132            PI   0.007   0.010   0.011   0.012   0.013   0.014   0.015   0.016   0.016   0.017
1133            PI   0.017   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1134            PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
1135            PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1136            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1137            PI   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1138            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1139            PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1140            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1141            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1142            PI   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1143            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1144            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1145            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1146            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1147            BF    1.38
1148            LU       0     .06       0       0     .06     100
1149            UK     300    .025     .04      38
1150            UK     350    .025     .11      62
1                                        HEC-1 INPUT                                        PAGE 30

LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1151            RD     500     .02     .05     .07    TRAP       5      10
1152            RD    1700    .015     .05     .28    TRAP       5      10
                *   Route from PL5E to PL5F
1153            RD                                                        YES
1154            RC     .05     .05     .05    6000  0.0056    1000
1155            RX       0       0     300     310     315     325     625     625
```

```
1156          RY    1020    1000     995     990     990     995    1000    1020
1157          KK   PL5F+ COMBINE HYDROGRAPHS
1158          HC       2
              *
1159          KK    PL5G PLEASANT GROVE CREEK (TOTAL=1126.4ac/Revise w/F.M.=1089.3 ac.)
1160          BA    1.70
1161          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years     2   Time interval in minutes     5
              *  Elevation in feet        115   W of Crest
              *  Duration in minutes     1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.34
              *
1162          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1163          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1164          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1165          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1166          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004
1167          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1168          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1169          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1170          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1171          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
1172          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1173          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1174          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1175          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.017   0.017
1176          PI   0.016   0.016   0.016   0.015   0.015   0.014   0.014   0.013   0.011   0.008
1177          PI   0.010   0.012   0.013   0.014   0.014   0.015   0.015   0.016   0.016   0.017
1178          PI   0.017   0.017   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1179          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
1180          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006
1181          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1182          PI   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1183          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1184          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1185          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1186          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1187          PI   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1188          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1189          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1190          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1191          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1192          BF    5.28
1193          LU       0     .06     100       0     .06       0
1                                    HEC-1 INPUT                                        PAGE 31

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1194          UK     250    .025     .11      18
1195          UK     300    .018      .4      82
1196          RD    1000    .015     .05     .18    TRAP       5       10
1197          RD    4000   .0075     .05     .44    TRAP      10       10
              *   RCH16 ROUTE FROM PL5F TO PL5G (PL5G+)
1198          RD                                                        YES
1199          RC     .05     .05     .05    9000  0.0011    1000
1200          RX       0       0     300     316     346     362     662     662
1201          RY    1020    1000     995     987     987     995    1000    1020

1202          KK     DTN
1203          RS       1    FLOW      -1
1204          SV       0       1       5      15      35      60     130     250     500
1205          SE     100     102     104     106     108     110     114     120     130
1206          SL     102    1000     0.6     0.5
1207          SS     129    1000     2.8     1.5
              *
1208          KK  FIDY5G    FIDDYMENT RANCH FUTURE DEVELOPMENT WITHIN SHED PL5G (37.1ac/%IMP.=35
              *
1209          BA    .058
1210          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years     2   Time interval in minutes     5
              *  Elevation in feet        115   W of Crest
              *  Duration in minutes     1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.34
              *
1211          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1212          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1213          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1214          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1215          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004
1216          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1217          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1218          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1219          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1220          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
1221          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1222          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1223          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1224          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.017   0.017
1225          PI   0.016   0.016   0.016   0.015   0.015   0.014   0.014   0.013   0.011   0.008
1226          PI   0.010   0.012   0.013   0.014   0.014   0.015   0.015   0.016   0.016   0.017
1227          PI   0.017   0.017   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1228          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
1229          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006
1230          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1231          PI   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1232          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1233          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1234          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
```

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1235          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1                                    HEC-1 INPUT                                          PAGE 32

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1236          PI   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1237          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1238          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1239          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1240          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1241          BF    1.00
1242          LU       0     .06     100       0     .06       0
1243          UK     250    .025     .11      36
1244          UK     300    .018      .4      64
1245          RD     500    .015     .05     .01    TRAP       2      10
1246          RD    1200   .0075     .05             TRAP       5      10
              *

1247          KK   PL5G+   Combine
1248          HC       2
              *

1249          KK   PL6A
1250          BA    1.37
1251          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years      2   Time interval in minutes     5
              *  Elevation in feet         200   W of Crest
              *  Duration in minutes      1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor   0.22
              *
1252          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1253          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1254          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1255          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004
1256          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1257          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1258          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1259          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1260          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1261          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1262          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1263          PI   0.006   0.006   0.007   0.007   0.008   0.008   0.008   0.008   0.008   0.008
1264          PI   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009   0.009   0.009
1265          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.012   0.012   0.019   0.018
1266          PI   0.017   0.016   0.015   0.013   0.012   0.011   0.009   0.007   0.005   0.002
1267          PI   0.004   0.006   0.008   0.010   0.012   0.013   0.014   0.015   0.016   0.017
1268          PI   0.018   0.019   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1269          PI   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008
1270          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.007   0.006   0.006   0.006
1271          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1272          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.005
1273          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1274          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1275          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1276          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1277          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1278          PI   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1                                    HEC-1 INPUT                                          PAGE 33

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1279          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1280          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1281          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1282          BF    4.11
1283          LU       0     .06     100       0     .06       0
1284          UK     300    .022     .11      62
1285          UK     350     .02      .4      38
1286          RD     500     .03     .05    .069    TRAP       0      10
1287          RD    2300   .0065     .05     .34    TRAP       0      10
1288          RD    4300    .004     .05             TRAP       5      10
              *

1289          KK     DTN
1290          RS       1    FLOW      -1
1291          SV       0       1       5      15      35      60     130     250     500
1292          SE     100     102     104     106     108     110     114     120     130
1293          SL     102    1000     0.6     0.5
1294          SS     129    1000     2.8     1.5
              *

1295          KK    PL6C
1296          BA     .44
1297          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years      2   Time interval in minutes     5
              *  Elevation in feet         150   W of Crest
              *  Duration in minutes      1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor   0.22
              *
1298          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1299          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1300          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1301          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1302          PI   0.003   0.003   0.003   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1303          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1304          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1305          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1306          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1307          PI   0.005   0.005   0.005   0.005   0.006   0.006   0.006   0.006   0.006   0.006
1308          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1309          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
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1310          PI   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009   0.009
1311          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.019   0.018
1312          PI   0.017   0.016   0.015   0.014   0.012   0.011   0.009   0.008   0.006   0.002
1313          PI   0.004   0.007   0.009   0.010   0.012   0.013   0.014   0.015   0.016   0.017
1314          PI   0.018   0.019   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1315          PI   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008
1316          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1317          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1318          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.005   0.005   0.005   0.005
1319          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1320          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1321          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1                                        HEC-1 INPUT                                        PAGE 34

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1322          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1323          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.003   0.003   0.003   0.003
1324          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1325          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1326          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1327          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1328          BF    1.32
1329          LU      0     .06     100       0     .06       0
1330          UK    300     .02     .11      28
1331          UK    350     .02      .4      72
1332          RD    300    .015     .05     .05    TRAP       0      10
1333          RD   2300     .01     .05     .15    TRAP       5      10
              *    RCH17 ROUTE FROM PL6A TO PL6C
1334          RD                                                      YES
1335          RC   0.05    0.05    0.05    .6500  0.0054    1000
1336          RX      0       0     300     310     322     332     632     632
1337          RY   1020    1000     995     990     990     995    1000    1020
              *

1338          KK     DTN
1339          RS       1    FLOW      -1
1340          SV       0       1       5      15      35      60     130     250     500
1341          SE     100     102     104     106     108     110     114     120     130
1342          SL     102    1000     0.6     0.5
1343          SS     129    1000     2.8     1.5
              *

1344          KK    PL6B PLEASANT GROVE CREEK SOUTH BRANCH
1345          BA    1.54
1346          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years      2   Time interval in minutes     5
              *  Elevation in feet         165   W of Crest
              *  Duration in minutes      1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor   0.22
              *
1347          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1348          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1349          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1350          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1351          PI   0.003   0.003   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1352          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1353          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1354          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1355          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1356          PI   0.005   0.005   0.005   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1357          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1358          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1359          PI   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009   0.009
1360          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.019   0.018
1361          PI   0.017   0.016   0.015   0.013   0.012   0.011   0.009   0.007   0.005   0.002
1362          PI   0.004   0.006   0.008   0.010   0.011   0.013   0.014   0.015   0.016   0.017
1363          PI   0.018   0.019   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1                                        HEC-1 INPUT                                        PAGE 35

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1364          PI   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008
1365          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1366          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1367          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.005   0.005   0.005   0.005
1368          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1369          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1370          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1371          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1372          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.003   0.003
1373          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1374          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1375          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1376          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1377          BF    4.62
1378          LU      0     .06     100       0     .06       0
1379          UK    250    .015     .11      25
1380          UK    300    .015      .4      75
1381          RD   2500    .006     .05     .08    TRAP       0      10
1382          RD   3000    .005     .05      .3    TRAP       5      10
1383          RD   4500   .0044     .05            TRAP      10      10
              *

1384          KK   PL6C+
1385          HC      2
              *

1386          KK    PL7A PLEASANT GROVE CREEK SOUTH BRANCH
1387          BA    0.91
1388          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
```

```
                *  Return period in years     2   Time interval in minutes     5
                *  Elevation in feet        125   W of Crest
                *  Duration in minutes     1500   Maximum depth at   750 minutes
                *  Cloudburst 1-hr Factor  0.23
                *
1389            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1390            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1391            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1392            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1393            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004
1394            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1395            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1396            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1397            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1398            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
1399            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1400            PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1401            PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1402            PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
1403            PI   0.017   0.016   0.015   0.014   0.012   0.011   0.010   0.008   0.006   0.002
1404            PI   0.005   0.007   0.009   0.010   0.012   0.013   0.014   0.015   0.016   0.017
1405            PI   0.018   0.019   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1406            PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
1                                          HEC-1 INPUT                                        PAGE 36

LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1407            PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1408            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1409            PI   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1410            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1411            PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1412            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1413            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1414            PI   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1415            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1416            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1417            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1418            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1419            BF    2.73
1420            LU       0     .06     100       0     .06       0
1421            UK     250     .05     .11      32
1422            UK     300     .05      .4      68
1423            RD    2200    .016     .10     .18    TRAP       5      10
                *   RCH18 ROUTE FROM PL6C TO PL7A
1424            RD                                                          YES
1425            RC     .05     .05     .05    9200  0.0018    1000
1426            RX       0       0     400     414     429     443     843     843
1427            RY    1020    1000     995     988     988     995    1000    1020
                *

1428            KK     DTN
1429            RS       1    FLOW      -1
1430            SV       0       1       5      15      35      60     130     250     500
1431            SE     100     102     104     106     108     110     114     120     130
1432            SL     102    1000     0.6     0.5
1433            SS     129    1000     2.8     1.5
                *

1434            KK   PL7B
1435            BA   0.79
1436            PB
                * PI
                *
                *  Placer Design Precipitation - depths in inches
                *  Return period in years     2   Time interval in minutes     5
                *  Elevation in feet        135   W of Crest
                *  Duration in minutes     1500   Maximum depth at   750 minutes
                *  Cloudburst 1-hr Factor  0.24
                *
1437            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1438            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1439            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1440            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1441            PI   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004   0.004
1442            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1443            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1444            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1445            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1446            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006   0.006
1447            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1448            PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1                                          HEC-1 INPUT                                        PAGE 37

LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1449            PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1450            PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
1451            PI   0.017   0.016   0.015   0.014   0.013   0.011   0.010   0.008   0.006   0.003
1452            PI   0.005   0.007   0.009   0.011   0.012   0.013   0.014   0.015   0.016   0.017
1453            PI   0.018   0.019   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1454            PI   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008
1455            PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1456            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1457            PI   0.006   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005
1458            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1459            PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1460            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1461            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1462            PI   0.004   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003
1463            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1464            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1465            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1466            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1467            BF    2.37
1468            LU       0     .06     100       0     .06       0
1469            UK     250     .02     .11      63
```

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1470          UK     300     .02      .4      37
1471          RD    1000    .015     .05     .04    TRAP       0      10
1472          RD    2500    .008     .05      .2    TRAP       5      10
1473          RD    5500   .0036     .05            TRAP      10      10
              *

1474          KK     DTN
1475          RS       1    FLOW      -1
1476          SV       0       1       5      15      35      60     130     250     500
1477          SE     100     102     104     106     108     110     114     120     130
1478          SL     102    1000     0.6     0.5
1479          SS     129    1000     2.8     1.5
              *

1480          KK   PL7B+ COMBINE HYDROGRAPHS
1481          HC       2
              *

1482          KK    PL7C PLEASANT GROVE CREEK SOUTH BRANCH (800 ac; Modified Watershed)
1483          BA    1.25
1484          PB
--            * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years      2   Time interval in minutes     5
              *  Elevation in feet         120   W of Crest
              *  Duration in minutes      1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor   0.27
              *
1485          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1486          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1487          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1488          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1489          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004
1                                          HEC-1 INPUT                                          PAGE 38

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1490          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1491          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1492          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1493          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1494          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
1495          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1496          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1497          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1498          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
1499          PI   0.017   0.016   0.015   0.014   0.013   0.012   0.011   0.010   0.008   0.004
1500          PI   0.007   0.009   0.011   0.012   0.013   0.014   0.015   0.015   0.016   0.017
1501          PI   0.017   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1502          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
1503          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1504          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1505          PI   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1506          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1507          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1508          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1509          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1510          PI   0.004   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003
1511          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1512          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1513          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1514          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1515          BF    3.75
1516          LU       0     .06     100       0     .06       0
1517          UK     250    .016     .11      35
1518          UK     300    .016      .4      65
1519          RD     600    .025     .05    .063    TRAP       0      10
1520          RD    3000     .01     .05     .31    TRAP       5      10
              *   RCH19 ROUTE FROM PL7B TO PL7C (PL7C+)
1521          RD                                                        YES
1522          RC     .05     .05     .05   12000  0.0021    1000
1523          RX       0       0     400     414     429     443     843     843
1524          RY    1020    1000     995     988     988     995    1000    1020
              *

1525          KK  FIDY7C FIDDYMENT RANCH Future DEVELOPMENT WITHIN SHED PL7C (26.9 ac/%IMP.= 26.
              *
1526          BA    .042
1527          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years      2   Time interval in minutes     5
              *  Elevation in feet         120   W of Crest
              *  Duration in minutes      1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor   0.27
              *
1528          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1529          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1530          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1531          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1532          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004
1                                          HEC-1 INPUT                                          PAGE 39

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1533          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1534          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1535          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1536          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1537          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
1538          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1539          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1540          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1541          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
1542          PI   0.017   0.016   0.015   0.014   0.013   0.012   0.011   0.010   0.008   0.004
```

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1543          PI   0.007   0.009   0.011   0.012   0.013   0.014   0.015   0.015   0.016   0.017
1544          PI   0.017   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1545          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
1546          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1547          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1548          PI   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1549          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1550          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1551          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1552          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1553          PI   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1554          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1555          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1556          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1557          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1558          BF    1.00
1559          LU       0     .06     100       0     .06       0
1560          UK     150    .016     .11      27
1561          UK     300    .016      .4      73
1562          RD     500    .025     .05     .01    TRAP       0      10
1563          RD     800    .01      .05             TRAP       5      10
              *

1564          KK   PL7C+    COMBINE
1565          HC       2
              *

1566          KK     DTN
1567          RS       1    FLOW      -1
1568          SV       0       1       5      15      35      60     130     250     500
1569          SE     100     102     104     106     108     110     114     120     130
1570          SL     102    1000     0.6     0.5
1571          SS     129    1000     2.8     1.5
              *

1572          KK   PL@SB COMBINE HYDROGRAPHS (PLEASANT GROVE CREEK @ SOUTH BRANCH)
1573          HC       2
              *
              * ZW A=PGC PL@SB C=FLOW F=100YR DEV
              *
1                                        HEC-1 INPUT                                    PAGE 40

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1574          KK   RCH20 ROUTE FROM PL7 THROUGH FD10A1 - PLEASANT GROVE CREEK
              *              RS      1    FLOW      -1
1575          RD
1576          RC     .05     .05     .05    3600   0.002    1000
1577          RX       0       0     400     420     450     470     870     870
1578          RY    1020    1000     995     985     985     995    1000    1020
              *

1579          KK    PL8A
1580          BA    1.19
1581          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years     2   Time interval in minutes     5
              *  Elevation in feet        135   W of Crest
              *  Duration in minutes     1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.22
              *
1582          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1583          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1584          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1585          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1586          PI   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004   0.004
1587          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1588          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1589          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1590          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1591          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006   0.006
1592          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1593          PI   0.006   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008
1594          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1595          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.019   0.018
1596          PI   0.017   0.016   0.015   0.013   0.012   0.011   0.009   0.008   0.006   0.002
1597          PI   0.004   0.007   0.009   0.010   0.012   0.013   0.014   0.015   0.016   0.017
1598          PI   0.018   0.019   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1599          PI   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008
1600          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1601          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1602          PI   0.006   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005
1603          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1604          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1605          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1606          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1607          PI   0.004   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003
1608          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1609          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1610          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1611          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1612          BF    3.57
1613          LU       0     .06     100       0     .06       0
1614          UK     250    .025     .11      28
1615          UK     350    .025      .4      72
1616          RD     700    .014     .05     .06    TRAP       0      10
1                                        HEC-1 INPUT                                    PAGE 41

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1617          RD    4000   .0055     .05     .30    TRAP       5      10
1618          RD    5500    .002     .05             TRAP      10      10
              *
```

```
1619          KK     DTN
1620          RS       1    FLOW      -1
1621          SV       0       1       5      15      35      60     130     250     500
1622          SE     100     102     104     106     108     110     114     120     130
1623          SL     102    1000     0.6     0.5
1624          SS     129    1000     2.8     1.5
              *

1625          KK    RCH21 ROUTE FROM PL8A TO PL8C - KASEBURG CREEK (PGC TRIBUTARY)
              *             RS      1    FLOW      -1
1626          RD
1627          RC    0.05    0.05    0.05    8500  0.0026    1000
1628          RX       0       0     300     312     322     334     634     634
1629          RY    1020    1000     995     989     989     995    1000    1020
              *

1630          KK    PL8B
1631          BA    0.58
1632          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years      2   Time interval in minutes      5
              *  Elevation in feet         145   W of Crest
              *  Duration in minutes      1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.22
              *
1633          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1634          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1635          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1636          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1637          PI   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004   0.004   0.004
1638          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1639          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1640          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1641          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1642          PI   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006   0.006   0.006
1643          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1644          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1645          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1646          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.019   0.018
1647          PI   0.017   0.016   0.015   0.013   0.012   0.011   0.009   0.008   0.006   0.002
1648          PI   0.004   0.007   0.009   0.010   0.012   0.013   0.014   0.015   0.016   0.017
1649          PI   0.018   0.019   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1650          PI   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008
1651          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1652          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1653          PI   0.006   0.006   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005
1654          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1655          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1656          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1                                          HEC-1 INPUT                                        PAGE 42

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1657          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1658          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.003   0.003   0.003   0.003
1659          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1660          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1661          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1662          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1663          BF    1.74
1664          LU       0     .06       0       0     .06     100
1665          UK     250    .005      .4      68
1666          UK     350    .005     .11      32
1667          RD     500    .005     .05     .05    TRAP       0      10
1668          RD    1800    .005     .05     .25    TRAP       5      10
1669          RD    4000   .0063     .05             TRAP      10      10

1670          KK     DTN
1671          RS       1    FLOW      -1
1672          SV       0       1       5      15      35      60     130     250     500
1673          SE     100     102     104     106     108     110     114     120     130
1674          SL     102    1000     0.6     0.5
1675          SS     129    1000     2.8     1.5
              *

1676          KK    PL8C PLEASANT GROVE CREEK TRIBUTARY - KASEBURG CREEK
1677          BA     1.0
1678          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years      2   Time interval in minutes      5
              *  Elevation in feet         125   W of Crest
              *  Duration in minutes      1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.23
              *
1679          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1680          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1681          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1682          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1683          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004
1684          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1685          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1686          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1687          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1688          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
1689          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1690          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1691          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1692          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
1693          PI   0.017   0.016   0.015   0.014   0.013   0.011   0.010   0.008   0.006   0.003
1694          PI   0.005   0.007   0.009   0.011   0.012   0.013   0.014   0.015   0.016   0.017
1695          PI   0.018   0.019   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1696          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
1697          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
```

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1698          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1699          PI   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1700          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1                                      HEC-1 INPUT                                        PAGE 43

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1701          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1702          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1703          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1704          PI   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1705          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1706          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1707          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1708          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1709          BF       3
1710          LU       0     .06       0       0     .06     100
1711          UK     300    .017      .4      96
1712          UK     250    .015     .11       4
1713          RD    1000     .01     .05     .05    TRAP       0      10
1714          RD    4300    .003     .05     .25    TRAP       5      10
              *   RCH22 ROUTE FROM PL8B TO PL8C
1715          RD                                                      YES
1716          RC    0.05    0.05    0.05    6000  0.0025    1000
1717          RX       0       0     300     312     322     334     634     634
1718          RY    1020    1000     995     989     989     995    1000    1020
              *

1719          KK     DTN
1720          RS       1    FLOW      -1
1721          SV       0       1       5      15      35      60     130     250     500
1722          SE     100     102     104     106     108     110     114     120     130
1723          SL     102    1000     0.6     0.5
1724          SS     129    1000     2.8     1.5
              *

1725          KK    PL8C COMBINE HYDROGRAPHS
1726          HC       2
              *

1727          KK    PL8E KASEBURG CREEK - PLEASANT GROVE CREEK TRIBUTARY
1728          KM    Original Shed Area = .53 Sq.Mi;Revise to .66 sq.mi. with Del Webb sheds)
1729          BA    0.66
1730          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years     2   Time interval in minutes     5
              *  Elevation in feet        125   W of Crest
              *  Duration in minutes     1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.25
              *
1731          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1732          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1733          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1734          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1735          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004
1736          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1737          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1738          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1739          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1740          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
1                                      HEC-1 INPUT                                        PAGE 44

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1741          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1742          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1743          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1744          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
1745          PI   0.017   0.016   0.015   0.014   0.013   0.012   0.011   0.009   0.007   0.003
1746          PI   0.006   0.008   0.010   0.011   0.012   0.014   0.014   0.015   0.016   0.017
1747          PI   0.018   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1748          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
1749          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1750          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1751          PI   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1752          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1753          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1754          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1755          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1756          PI   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1757          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1758          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1759          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1760          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1761          BF    1.59
1762          LU       0     .06       0       0     .06     100
1763          UK     350    .008      .4      98
1764          UK     250    .008     .11       2
1765          RD    1000     .01     .05    .053    TRAP       0      10
1766          RD    3200    .003     .05    .13     TRAP       5      10
              *   ROUTE FROM PL8C TO PL8E
1767          RD                                                      YES
1768          RC    0.05    0.05    0.05    4000  0.0018    1000
1769          RX       0       0     300     312     324     336     636     636
1770          RY    1020    1000     995     989     989     995    1000    1020
              *

1771          KK    PL8D
1772          BA    0.35
1773          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years     2   Time interval in minutes     5
              *  Elevation in feet        125   W of Crest
```

```
                *  Duration in minutes     1500   Maximum depth at   750 minutes
                *  Cloudburst 1-hr Factor  0.25
                *
1774            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1775            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1776            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1777            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1778            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004
1779            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1780            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1781            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1782            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1783            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
1784            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1                                          HEC-1 INPUT                                        PAGE 45
                LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1785            PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1786            PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1787            PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
1788            PI   0.017   0.016   0.015   0.014   0.013   0.012   0.010   0.009   0.007   0.003
1789            PI   0.005   0.008   0.010   0.011   0.012   0.013   0.014   0.015   0.016   0.017
1790            PI   0.018   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1791            PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
1792            PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1793            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1794            PI   0.006   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1795            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1796            PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1797            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1798            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1799            PI   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1800            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1801            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1802            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1803            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1804            BF   1.05
1805            LU     0      .06     100      0      .06      0
1806            UK   250     .015     .11     28
1807            UK   300     .016     .4      72
1808            RD   900     .011     .05     .035   TRAP     0      10
1809            RD   3000    .0056    .05             TRAP     5      10

1810            KK     DTN
1811            RS     1     FLOW      -1
1812            SV     0      1        5       15      35      60     130     250     500
1813            SE   100     102      104     106     108     110     114     120     130
1814            SL   102     1000     0.6     0.5
1815            SS   129     1000     2.8     1.5
                *

1816            KK   RCH24 ROUTE FROM PL8D TO PL8E
                *            RS     1    FLOW      -1
1817            RD
1818            RC   0.05    0.05    0.05    3800   0.0042   1000
1819            RX     0       0      300     312     327     339     639     639
1820            RY   1020    1000     995     989     989     995    1000    1020
                *

1821            KK   PL8E+ COMBINE HYDROGRAPHS
1822            HC     2
                *

1823            KK    PL8F KASEBURG CREEK-PGC TRIBUTARY (Total=230.4ac./Revised for Fiddyment=223.
1824            BA    .349
1825            PB
                * PI
                *
                *  Placer Design Precipitation -  depths in inches
                *  Return period in years      2   Time interval in minutes     5
                *  Elevation in feet         115   W of Crest
                *  Duration in minutes     1500   Maximum depth at   750 minutes
                *  Cloudburst 1-hr Factor  0.27
                *
1                                          HEC-1 INPUT                                        PAGE 46
                LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1826            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1827            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1828            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1829            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1830            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004
1831            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1832            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1833            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1834            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1835            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
1836            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1837            PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1838            PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1839            PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
1840            PI   0.016   0.016   0.015   0.014   0.013   0.013   0.011   0.010   0.008   0.004
1841            PI   0.007   0.009   0.011   0.012   0.013   0.014   0.015   0.015   0.016   0.017
1842            PI   0.017   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1843            PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
1844            PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1845            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1846            PI   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1847            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1848            PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1849            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1850            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1851            PI   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1852            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1853            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
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1854  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1855  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1856  BF    1.08
1857  LU       0     .06       0       0     .06     100
1858  UK     350    .016      .4      72
1859  UK     250    .015     .11      28
1860  RD    1500    .013     .05    .036    TRAP       0      10
1861  RD    2200    .009     .05    .09     TRAP       5      10
      *   ROUTE FROM PL8E TO PL8F (PL8F+)
1862  RD                                                      YES
1863  RC    0.05    0.05    0.05    4200  0.0012    1000
1864  RX       0       0     500     512     532     544    1044    1044
1865  RY    1020    1000     995     989     989     995    1000    1020
      *

1866  KK  FIDY8F Fiddyment Property Total = 7.0 ac.
1867  BA    .011
1868  PB
      * PI
      *
      *  Placer Design Precipitation -  depths in inches
      *  Return period in years     2   Time interval in minutes     5
      *  Elevation in feet        115   W of Crest
      *  Duration in minutes     1500   Maximum depth at   750 minutes
      *  Cloudburst 1-hr Factor  0.27
      *
1869  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1                                HEC-1 INPUT                                    PAGE 47

LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1870  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1871  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1872  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1873  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004
1874  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1875  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1876  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1877  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1878  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
1879  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1880  PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1881  PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1882  PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
1883  PI   0.016   0.016   0.015   0.014   0.013   0.013   0.011   0.010   0.008   0.004
1884  PI   0.007   0.009   0.011   0.012   0.013   0.014   0.015   0.015   0.016   0.017
1885  PI   0.017   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1886  PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
1887  PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1888  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1889  PI   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1890  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1891  PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1892  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1893  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1894  PI   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1895  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1896  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1897  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1898  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1899  BF    1.08
1900  LU       0     .06       0       0     .06     100
1901  UK     250    .016      .4      60
1902  UK     200    .015     .11      40
1903  RD     250    .013     .05    .005    TRAP       0      10
1904  RD     500    .009     .05            TRAP       5      10
      *

1905  KK   PL8F+    COMBINE DEVELOPMENT
1906  HC       2
      *
      *   ROUTE FROM PL8F THROUGH PL9B

1907  KK  RT8F-9A
1908  RD
1909  RC    0.05    0.05    0.05    5500   0.002    1000
1910  RX       0       0     500     512     532     544    1044    1044
1911  RY    1020    1000     995     989     989     995    1000    1020
      *

1912  KK  FIDY9A FIDDYMENT PROPERTY within KASSBURG CREEK WATERSHED(TOTAL=174.5 AC)
      *
      *
1913  BA   0.273
1914  PB
      * PI
      *
      *  Placer Design Precipitation -  depths in inches
      *  Return period in years     2   Time interval in minutes     5
      *  Elevation in feet        115   W of Crest
      *  Duration in minutes     1500   Maximum depth at   750 minutes
      *  Cloudburst 1-hr Factor  0.30
      *
1                                HEC-1 INPUT                                    PAGE 48

LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1915  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1916  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1917  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1918  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1919  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004
1920  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1921  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1922  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1923  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1924  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
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1925          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1926          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1927          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1928          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.017   0.017
1929          PI   0.016   0.016   0.015   0.015   0.014   0.013   0.012   0.011   0.009   0.006
1930          PI   0.008   0.010   0.012   0.013   0.014   0.014   0.015   0.016   0.016   0.017
1931          PI   0.017   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1932          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
1933          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1934          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1935          PI   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1936          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1937          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1938          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1939          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1940          PI   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1941          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1942          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1943          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1944          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1945          BF   2.16
1946          LU     0     .06     100       0     .06       0
1947          UK   250     .015    .11      23
1948          UK   300     .015    .4       77
1949          RD   1000    .005    .05      .05   TRAP        0      10
1950          RD   5500    .003    .05             TRAP        5      10
              *
1951          KK  CMB9A+    COMBINE DEVELOPMENT
1952          HC      2
              *
              * ZW A=KASBERG TRIB 9A+ C=FLOW F=100YR DEV
              *
1953          KK     PL9 KASEBURG CREEK - PGC TRIBUTARY (TOTAL=460.8 AC/REVISED w/FID.=269.0)
1954          BA    0.42
1955          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years      2   Time interval in minutes     5
              *  Elevation in feet         115   W of Crest
              *  Duration in minutes      1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor   0.30
              *
1                                        HEC-1 INPUT                                        PAGE 49

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1956          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1957          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1958          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1959          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1960          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004
1961          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1962          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1963          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
1964          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1965          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
1966          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1967          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
1968          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
1969          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.017   0.017
1970          PI   0.016   0.016   0.015   0.015   0.014   0.013   0.012   0.011   0.009   0.006
1971          PI   0.008   0.010   0.012   0.013   0.014   0.014   0.015   0.016   0.016   0.017
1972          PI   0.017   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
1973          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
1974          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
1975          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
1976          PI   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1977          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1978          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1979          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1980          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
1981          PI   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1982          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1983          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1984          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1985          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1986          BF   2.16
1987          LU     0     .06       0       0     .06     100
1988          UK   300     .015     .4      80
1989          UK   350     .015     .11     20
1990          RD   3700    .0067    .05     .1    TRAP        0      10
1991          RD   5000    .003     .05     .18   TRAP        5      10
              *   RCH26 ROUTE FROM PL9 THROUGH FIDY9B
1992          RD
1993          RC    .05     .05     .05    2000  0.0021    1000
1994          RX     0       0      500     512    532     544    1044    1044
1995          RY  1020    1000     995     989    989     995    1000    1020
              *
1996          KK  FIDY9B FIDDYMENT PROPERTY within KASEBURG CREEK WATERSHED(TOTAL=23.9 AC)
              *
1997          BA   .0373
1998          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years      2   Time interval in minutes     5
              *  Elevation in feet         115   W of Crest
              *  Duration in minutes      1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor   0.30
              *
1                                        HEC-1 INPUT                                        PAGE 50

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
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1999          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2000          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2001          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2002          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2003          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004
2004          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2005          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2006          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2007          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2008          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
2009          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2010          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
2011          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
2012          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.017   0.017
2013          PI   0.016   0.016   0.015   0.015   0.014   0.013   0.012   0.011   0.009   0.006
2014          PI   0.008   0.010   0.012   0.013   0.014   0.014   0.015   0.016   0.016   0.017
2015          PI   0.017   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
2016          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
2017          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
2018          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2019          PI   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2020          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2021          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2022          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2023          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2024          PI   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2025          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2026          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2027          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2028          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2029          BF    2.16
2030          LU       0     .06     100       0     .06       0
2031          UK     350    .015     .11      23
2032          UK     450    .015      .4      77
2033          RD    1000    .005     .05     .05    TRAP       0      10
2034          RD    2500    .003     .05             TRAP       5      10
              *
2035          KK  CMB9B+    COMBINE DEVELOPMENT
2036          HC       2
              *
              * ZW A=KASEBERG TRIB 9B+ C=FLOW F=100YR DEV
              *
2037          KK    PL9+ COMBINE HYDROGRAPHS
2038          HC       2
              *
2039          KK  PL10A1 PL10A Shed;Exist Del Webb site(Roseville)(Total=608 ac./Rev.w/Piddyment
2040          BA   0.214
2041          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years     2   Time interval in minutes     5
              *  Elevation in feet        100   W of Crest
              *  Duration in minutes     1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.39
              *
1                                    HEC-1 INPUT                                    PAGE 51

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

2042          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2043          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2044          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2045          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2046          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004
2047          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2048          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2049          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2050          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2051          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
2052          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2053          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
2054          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
2055          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.016   0.016
2056          PI   0.016   0.016   0.016   0.016   0.016   0.016   0.015   0.015   0.014   0.013
2057          PI   0.014   0.015   0.015   0.015   0.016   0.016   0.016   0.016   0.016   0.016
2058          PI   0.016   0.016   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
2059          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
2060          PI   0.008   0.008   0.008   0.008   0.008   0.007   0.006   0.006   0.006   0.006
2061          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2062          PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2063          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2064          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2065          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2066          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2067          PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2068          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2069          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2070          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2071          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2072          BP    2.85
2073          LU       0     .06       0       0     .06     100
2074          UK     350    .025      .4      60
2075          UK     300    .025     .11      40
2076          RD     800    .006     .05    .095    TRAP       0      10
2077          RD    3000    .007     .05             TRAP       5      10
              *
              *    ROUTE FROM PL10A THROUGH FDY10A1

2078          KK  10A-A1
2079          RD
2080          RC     .05     .05     .05    2500  0.0021    1000
2081          RX       0       0     500     512     532     544    1044    1044
```

```
2082          RY    1020    1000     995     989     989     995    1000    1020
              *

2083          KK  FD10A1 Fiddyment Property (Total=219.1 ac.)
2084          BA   0.342
2085          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years     2   Time interval in minutes     5
              *  Elevation in feet        100   W of Crest
              *  Duration in minutes     1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.39
              *
1                                        HEC-1 INPUT                                        PAGE 52

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

2086          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2087          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2088          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2089          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2090          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004
2091          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2092          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2093          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2094          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2095          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
2096          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2097          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
2098          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
2099          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.016   0.016
2100          PI   0.016   0.016   0.016   0.016   0.016   0.016   0.015   0.015   0.014   0.013
2101          PI   0.014   0.015   0.015   0.015   0.016   0.016   0.016   0.016   0.016   0.016
2102          PI   0.016   0.016   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
2103          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
2104          PI   0.008   0.008   0.008   0.008   0.008   0.007   0.006   0.006   0.006   0.006
2105          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2106          PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2107          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2108          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2109          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2110          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2111          PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2112          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2113          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2114          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2115          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2116          BF    2.85
2117          LU       0     .06     100       0     .06       0
2118          UK     250    .025     .11      40
2119          UK     300    .025      .4      60
2120          RD    2500    .006     .05    .095    TRAP       0      10
2121          RD    3500    .007     .05           TRAP       5      10
              *

2122          KK   PG@KS
2123          HC       4
              *
              * ZW A=PGC PL@KS C=FLOW F=100YR DEV
              *

2124          KK  K-10B+    ROUTE FROM KASEBURG TO PL10B+
2125          RD
2126          RC     .05     .05     .05    4000  0.0011    1000
2127          RX       0       0     600     620     655     675    1275    1275
2128          RY    1020    1000     990     980     980     990    1000    1020
              *
1                                        HEC-1 INPUT                                        PAGE 53

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

2129          KK  FD10A2 Fiddyment Property (Total=237.2 ac.)
2130          BA   0.371
2131          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years     2   Time interval in minutes     5
              *  Elevation in feet        100   W of Crest
              *  Duration in minutes     1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.39
              *
2132          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2133          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2134          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2135          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2136          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004
2137          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2138          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2139          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2140          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2141          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
2142          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2143          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
2144          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
2145          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.016   0.016
2146          PI   0.016   0.016   0.016   0.016   0.016   0.016   0.015   0.015   0.014   0.013
2147          PI   0.014   0.015   0.015   0.015   0.016   0.016   0.016   0.016   0.016   0.016
2148          PI   0.016   0.016   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
2149          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
2150          PI   0.008   0.008   0.008   0.008   0.008   0.007   0.006   0.006   0.006   0.006
2151          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2152          PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2153          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2154          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
```

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2155          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2156          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2157          PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2158          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2159          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2160          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2161          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2162          BF    2.85
2163          LU       0     .06     100       0     .06       0
2164          UK     250    .025     .11      20
2165          UK     300    .025      .4      80
2166          RD    2500    .006     .05    .095    TRAP       0      10
2167          RD    3500    .007     .05            TRAP       5      10
              *
1                                        HEC-1 INPUT                                        PAGE 54

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.....10

2168          KK  FD10A+    COMBINE AT WEST PROPERTY LINE
2169          HC       2
              *
2170          KK  PL10A2 PGC SHED (TOTAL SHED=608 AC;REVISED OFFSITE 14.6 AC)
2171          BA  0.0228
2172          PB
2173          BF    2.85
2174          LU       0     .06       0       0     .06     100
2175          UK     250    .016      .4      60
2176          UK     200    .016     .11      40
2177          RD     500    .007     .05            TRAP       2      10
              *
2178          KK     WP1
2179          KM   WESTPARK PROPERTY (126.0 AC)
2180          PB
              * pi
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years      2   Time interval in minutes      5
              *  Elevation in feet         100   W of Crest
              *  Duration in minutes      1500   Maximum depth at    750 minutes
              *  Cloudburst 1-hr Factor   0.29
              *
2181          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2182          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2183          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2184          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2185          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004
2186          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2187          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2188          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2189          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2190          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
2191          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2192          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
2193          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009
2194          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.017   0.017
2195          PI   0.016   0.016   0.015   0.015   0.014   0.013   0.012   0.011   0.009   0.005
2196          PI   0.008   0.010   0.011   0.012   0.013   0.014   0.015   0.016   0.016   0.017
2197          PI   0.017   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
2198          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
2199          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
2200          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2201          PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2202          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2203          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2204          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2205          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2206          PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2207          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2208          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2209          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1                                        HEC-1 INPUT                                        PAGE 55

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.....10

2210          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2211          BA   0.198
2212          LU    0.00    0.12     100    0.00    0.06       0
2213          UK     200   0.008    0.11      49
2214          UK     300    .016     .40      51
2215          RD     450  0.0070   0.018     .02    TRAP     0.0       1
2216          RD     600  0.0020   0.020     .05    TRAP     2.0       2
2217          RD    1300  0.0020   0.020            TRAP     2.0       2
              *
              * KK PR1.2
              * KM Pipe flow area PA1 through PA2 to node PG3
              * RD  1300  0.0020   0.020            TRAP     2.0       2
              *
2218          KK     WP2
2219          KM    WESTPARK PROPERTY (72.3AC)
2220          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years      2   Time interval in minutes      5
              *  Elevation in feet         100   W of Crest
              *  Duration in minutes      1500   Maximum depth at    750 minutes
              *  Cloudburst 1-hr Factor   0.29
              *
2221          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2222          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2223          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2224          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2225          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004
```

```
2226  PI  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
2227  PI  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
2228  PI  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.005  0.005
2229  PI  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005
2230  PI  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.006  0.006
2231  PI  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
2232  PI  0.006  0.006  0.006  0.006  0.008  0.008  0.008  0.008  0.008  0.008
2233  PI  0.008  0.008  0.008  0.008  0.008  0.008  0.009  0.009  0.009  0.009
2234  PI  0.009  0.009  0.011  0.011  0.011  0.011  0.011  0.011  0.017  0.017
2235  PI  0.016  0.016  0.015  0.015  0.014  0.013  0.012  0.011  0.009  0.005
2236  PI  0.008  0.010  0.011  0.012  0.013  0.014  0.015  0.016  0.016  0.017
2237  PI  0.017  0.018  0.011  0.011  0.011  0.011  0.011  0.011  0.009  0.009
2238  PI  0.009  0.009  0.009  0.009  0.008  0.008  0.008  0.008  0.008  0.008
2239  PI  0.008  0.008  0.008  0.008  0.008  0.008  0.006  0.006  0.006  0.006
2240  PI  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
2241  PI  0.006  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005
2242  PI  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005
2243  PI  0.005  0.005  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
2244  PI  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
2245  PI  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
2246  PI  0.004  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
2247  PI  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
2248  PI  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
2249  PI  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
2250  PI  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
1                              HEC-1 INPUT                                PAGE 56

LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

2251  BA  0.113
2252  LU   0.00    0.07     100    0.00    0.06       0
2253  UK    200  0.0080    0.11      45
2254  UK    300    .016     .40      55
2255  RD    450  0.0070   0.018     .05    TRAP     0.0       1
2256  RD   1000  0.0020   0.020            TRAP     2.0       2
      *

2257  KK  PR2.3
2258  KM  Pipe flow area PA2
2259  RD   1000  0.0020   0.020            TRAP     2.0       2
      *

2260  KK  CB1-2
2261  KM  node combines area 1 & area 2
2262  HC     2
      *

2263  KK  PR2.4
2264  KM  Route through area 3 to node PG4
2265  RD   2200  0.0020   0.020            TRAP     2.0       2
      *

2266  KK    WP3
2267  KM    WESTPARK PROPERTY (60.8AC)
2268  PB
      * PI
      *
      *  Placer Design Precipitation -  depths in inches
      *  Return period in years     2   Time interval in minutes     5
      *  Elevation in feet        100   W of Crest
      *  Duration in minutes     1500   Maximum depth at   750 minutes
      *  Cloudburst 1-hr Factor  0.29
      *
2269  PI  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
2270  PI  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
2271  PI  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
2272  PI  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
2273  PI  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.004
2274  PI  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
2275  PI  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
2276  PI  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.005  0.005
2277  PI  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005
2278  PI  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.006  0.006
2279  PI  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
2280  PI  0.006  0.006  0.006  0.006  0.008  0.008  0.008  0.008  0.008  0.008
2281  PI  0.008  0.008  0.008  0.008  0.008  0.008  0.009  0.009  0.009  0.009
2282  PI  0.009  0.009  0.011  0.011  0.011  0.011  0.011  0.011  0.017  0.017
2283  PI  0.016  0.016  0.015  0.015  0.014  0.013  0.012  0.011  0.009  0.005
2284  PI  0.008  0.010  0.011  0.012  0.013  0.014  0.015  0.016  0.016  0.017
2285  PI  0.017  0.018  0.011  0.011  0.011  0.011  0.011  0.011  0.009  0.009
2286  PI  0.009  0.009  0.009  0.009  0.008  0.008  0.008  0.008  0.008  0.008
2287  PI  0.008  0.008  0.008  0.008  0.008  0.008  0.006  0.006  0.006  0.006
2288  PI  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
2289  PI  0.006  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005
1                              HEC-1 INPUT                                PAGE 57

LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

2290  PI  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005
2291  PI  0.005  0.005  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
2292  PI  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
2293  PI  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004  0.004
2294  PI  0.004  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
2295  PI  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
2296  PI  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
2297  PI  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
2298  PI  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003  0.003
2299  BA  0.095
2300  LU   0.00    0.07     100    0.00    0.06       0
2301  UK    200  0.0080    0.11      25
2302  UK    300    .016     .40      75
2303  RD    450  0.0070   0.018     .05    TRAP     0.0       1
2304  RD    700  0.0020   0.020            TRAP     2.0       2
      *

2305  KK  PR3.3
2306  KM  Pipe flow area 3 route upstream node
```

```
2307          RD    2200  0.0020   0.020            TRAP     2.0       2
              *

2308          KK     PG4
2309          KM   combines node PG3 and area PA3
2310          HC       2
              *

2311          KK  RT-10B ROUTE UPPER(PL10B)(Westpark Dev.)THROUGH FIDDYMENT PROPERTY
2312          RD
2313          RC     .05     .05     .05    8000  0.0011    1000
2314          RX       0       0     600     620     655     675    1275    1275
2315          RY    1020    1000     990     980     980     990    1000    1020
              *

2316          KK  FDY10B FIDDYMENT PROPERTY WITHIN SHED PL10B (196.4 AC)
              *
2317          BA   0.307
2318          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years     2   Time interval in minutes     5
              *  Elevation in feet        100   W of Crest
              *  Duration in minutes     1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.29
              *
2319          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2320          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2321          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2322          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2323          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004
2324          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2325          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2326          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2327          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1                                        HEC-1 INPUT                                        PAGE 58

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

2328          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
2329          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2330          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
2331          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009
2332          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.017   0.017
2333          PI   0.016   0.016   0.015   0.015   0.014   0.013   0.012   0.011   0.009   0.005
2334          PI   0.008   0.010   0.011   0.012   0.013   0.014   0.015   0.016   0.016   0.017
2335          PI   0.017   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
2336          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
2337          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006
2338          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2339          PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2340          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2341          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2342          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2343          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2344          PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2345          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2346          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2347          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2348          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2349          BF    2.85
2350          LU       0     .06     100       0     .06       0
2351          UK     200    .016     .11      28
2352          UK     250    .015      .4      72
2353          RD    2000     .01     .05    .095    TRAP       0      10
2354          RD    3000    .005     .05     .10    TRAP       5      10
2355          RD    4000    .003     .05            TRAP      10      10
              *

2356          KK  CMB10B
2357          HC       2
              *

2358          KK  R-10B2    ROUTE THROUGH LOWER PL10B PROPERTY
2359          RD
2360          RC     .05     .05     .05    8000  0.0011    1000
2361          RX       0       0     600     620     655     675    1275    1275
2362          RY    1020    1000     990     980     980     990    1000    1020
              *

2363          KK  PL10B2 PGC SHED (TOTAL SHED=608 AC;REVISED W/FIDDYMENT PROPERTY=86.4 AC)
              *
2364          BA   0.135
2365          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years     2   Time interval in minutes     5
              *  Elevation in feet        100   W of Crest
              *  Duration in minutes     1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.29
              *
2366          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2367          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1                                        HEC-1 INPUT                                        PAGE 59

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

2368          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2369          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2370          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004
2371          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2372          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2373          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2374          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2375          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
```

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2376  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2377  PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
2378  PI   0.008   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009
2379  PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.017   0.017
2380  PI   0.016   0.016   0.015   0.015   0.014   0.013   0.012   0.011   0.009   0.005
2381  PI   0.008   0.010   0.011   0.012   0.013   0.014   0.015   0.016   0.016   0.017
2382  PI   0.017   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
2383  PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
2384  PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
2385  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2386  PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2387  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2388  PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2389  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2390  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2391  PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2392  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2393  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2394  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2395  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2396  BF   2.85
2397  LU      0     .06       0       0     .06     100
2398  UK    350    .016      .4      71
2399  UK    300    .016     .11      29
2400  RD   2500    .007     .05     .05    TRAP       2      10
2401  RD   4500    .005     .05             TRAP       5      10
      *
2402  KK  FD10B+
2403  HC       2
      *
      * ZW A=PGC TRIB. FD@10B+ C=FLOW F=100YR DEV
      *
2404  KK  PL10B+
2405  HC       3
      *
      * ZW A=MAIN PGC PL10B+ C=FLOW F=100YR DEV
      *
2406  KK   RT10C    ROUTE from PL10B+ to PL10C
2407  RD
2408  RC     .05     .05     .05   12000  0.0011    1000
2409  RX       0       0     600     620     655     675    1275    1275
2410  RY    1020    1000     990     980     980     990    1000    1020
      *
```



```
LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.......10

2411  KK  PDY10C Fiddyment Property (TOTAL Shed = 65.5 ac.)
      *
2412  BA   .1023
2413  PB
      * PI
      *
      *  Placer Design Precipitation -  depths in inches
      *  Return period in years     2   Time interval in minutes     5
      *  Elevation in feet         85   W of Crest
      *  Duration in minutes     1500   Maximum depth at   750 minutes
      *  Cloudburst 1-hr Factor  0.45
      *
2414  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2415  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2416  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2417  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2418  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2419  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2420  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2421  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2422  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2423  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006
2424  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2425  PI   0.006   0.006   0.006   0.006   0.007   0.008   0.008   0.008   0.008   0.008
2426  PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
2427  PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.016   0.016
2428  PI   0.016   0.016   0.016   0.016   0.017   0.017   0.017   0.017   0.018   0.019
2429  PI   0.018   0.017   0.017   0.017   0.017   0.016   0.016   0.016   0.016   0.016
2430  PI   0.016   0.016   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
2431  PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
2432  PI   0.008   0.008   0.008   0.008   0.008   0.007   0.007   0.006   0.006   0.006
2433  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2434  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2435  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2436  PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2437  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2438  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.003
2439  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2440  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2441  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2442  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2443  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2444  BF   5.82
2445  LU      0     .06     100       0     .06       0
2446  UK    200    .016     .11      35
2447  UK    350    .015      .4      65
2448  RD    600     .01     .05     .05    TRAP       0      10
2449  RD   2000   .0092     .05             TRAP       5      10
      *
```



```
LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.......10

2450  KK  RT-10C    ROUTE UPPER FDY10C THROUGH PL10C
2451  RD
```

```
2452  RC     .05     .05     .05   12000  0.0011    1000
2453  RX       0       0     600     620     655     675    1275    1275
2454  RY    1020    1000     990     980     980     990    1000    1020
      *
      * insert HEC-1 analysis (Westpark)
      *

2455  KK    WWTP
2456  KM    CITY OF ROSEVILLE SITE (WWTP)(23.9 AC ONSITE;52.4 AC OFFSITE)
2457  PB
      * pi
      *
      *  Placer Design Precipitation -  depths in inches
      *  Return period in years     2   Time interval in minutes     5
      *  Elevation in feet        100   W of Crest
      *  Duration in minutes     1500   Maximum depth at   750 minutes
      *  Cloudburst 1-hr Factor  0.29
      *
2458  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2459  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2460  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2461  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2462  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004
2463  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2464  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2465  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2466  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2467  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
2468  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2469  PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
2470  PI   0.008   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009
2471  PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.017   0.017
2472  PI   0.016   0.016   0.015   0.015   0.014   0.013   0.012   0.011   0.009   0.005
2473  PI   0.008   0.010   0.011   0.012   0.013   0.014   0.015   0.016   0.016   0.017
2474  PI   0.017   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
2475  PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
2476  PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
2477  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2478  PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2479  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2480  PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2481  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2482  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2483  PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2484  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2485  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2486  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2487  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2488  BA   .1192
2489  LU    0.00    0.06       0    0.00    0.06     100
2490  UK     300   0.020   0.350      45
2491  UK     200   0.020   0.110      55
1                                HEC-1 INPUT                                 PAGE 62

LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

2492  RD     500  0.0050   0.024     .05    TRAP     3.0       2
2493  RD    1600  0.0030   0.024            TRAP     3.0       2
      *

2494  KK     WP4
2495  KM     Westpark Development
2496  PB
      * pi
      *
      *  Placer Design Precipitation -  depths in inches
      *  Return period in years     2   Time interval in minutes     5
      *  Elevation in feet        100   W of Crest
      *  Duration in minutes     1500   Maximum depth at   750 minutes
      *  Cloudburst 1-hr Factor  0.45
      *
2497  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2498  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2499  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2500  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2501  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004
2502  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2503  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2504  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2505  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2506  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
2507  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2508  PI   0.006   0.006   0.006   0.006   0.007   0.008   0.008   0.008   0.008   0.008
2509  PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
2510  PI   0.009   0.009   0.011   0.011   0.011   0.011   0.012   0.012   0.016   0.016
2511  PI   0.016   0.016   0.016   0.016   0.017   0.017   0.017   0.017   0.018   0.019
2512  PI   0.018   0.017   0.017   0.017   0.017   0.017   0.016   0.016   0.016   0.016
2513  PI   0.016   0.016   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
2514  PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
2515  PI   0.008   0.008   0.008   0.008   0.008   0.007   0.006   0.006   0.006   0.006
2516  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2517  PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2518  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2519  PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2520  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2521  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2522  PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2523  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2524  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2525  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2526  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2527  BA   .1075
2528  LU    0.00    0.06       0    0.00    0.06     100
2529  UK     300   0.020   0.350      36
2530  UK     200   0.020   0.110      64
2531  RD     500  0.0020   0.024     .05    TRAP     3.0       2
2532  RD    2050  0.0020   0.024            TRAP     3.0       2
```

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                *
1                                        HEC-1 INPUT                                        PAGE 63

          LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

          2533      KK  CBTP-4
          2534      HC       2
                    *
          2535      KK   PR6.5
          2536      KM   Channelized flow Area PA4
          2537      RD     700  0.0020   0.024            TRAP     3.0       2
                    *
          2538      KK     WP5
          2539      KM    Westpark On-Site (33.9 ac. On-site)
          2540      PB
                    * PI
                    *
                    *  Placer Design Precipitation -  depths in inches
                    *  Return period in years     2   Time interval in minutes     5
                    *  Elevation in feet        100   W of Crest
                    *  Duration in minutes     1500   Maximum depth at   750 minutes
                    *  Cloudburst 1-hr Factor  0.45
                    *
          2541      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2542      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2543      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2544      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2545      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004
          2546      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          2547      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          2548      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
          2549      PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
          2550      PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
          2551      PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          2552      PI   0.006   0.006   0.006   0.006   0.007   0.008   0.008   0.008   0.008   0.008
          2553      PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
          2554      PI   0.009   0.009   0.011   0.011   0.011   0.011   0.012   0.012   0.016   0.016
          2555      PI   0.016   0.016   0.016   0.016   0.017   0.017   0.017   0.017   0.018   0.019
          2556      PI   0.018   0.017   0.017   0.017   0.017   0.017   0.016   0.016   0.016   0.016
          2557      PI   0.016   0.016   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
          2558      PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
          2559      PI   0.008   0.008   0.008   0.008   0.008   0.007   0.006   0.006   0.006   0.006
          2560      PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          2561      PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
          2562      PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
          2563      PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          2564      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          2565      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          2566      PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2567      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2568      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2569      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2570      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2571      BA   .0530
          2572      LU    0.00    0.06       0    0.00    0.06     100
          2573      UK     300  0.0100   0.350      47
          2574      UK     200  0.0100   0.110      53
1                                        HEC-1 INPUT                                        PAGE 64

          LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

          2575      RD     700  0.0020   0.024    .015    TRAP     1.0       2
          2576      RD    1000  0.0020   0.024            TRAP     3.0       2
                    *
          2577      KK     WP5A
          2578      KM     Westpark Cond.(31.1 ac. On-site)
          2579      PB
                    * PI
                    *
                    *  Placer Design Precipitation -  depths in inches
                    *  Return period in years     2   Time interval in minutes     5
                    *  Elevation in feet        100   W of Crest
                    *  Duration in minutes     1500   Maximum depth at   750 minutes
                    *  Cloudburst 1-hr Factor  0.45
                    *
          2580      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2581      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2582      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2583      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2584      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004
          2585      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          2586      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          2587      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
          2588      PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
          2589      PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
          2590      PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          2591      PI   0.006   0.006   0.006   0.006   0.007   0.008   0.008   0.008   0.008   0.008
          2592      PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
          2593      PI   0.009   0.009   0.011   0.011   0.011   0.011   0.012   0.012   0.016   0.016
          2594      PI   0.016   0.016   0.016   0.016   0.017   0.017   0.017   0.017   0.018   0.019
          2595      PI   0.018   0.017   0.017   0.017   0.017   0.017   0.016   0.016   0.016   0.016
          2596      PI   0.016   0.016   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
          2597      PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
          2598      PI   0.008   0.008   0.008   0.008   0.008   0.007   0.006   0.006   0.006   0.006
          2599      PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
          2600      PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
          2601      PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
          2602      PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          2603      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          2604      PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
          2605      PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2606      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
          2607      PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
```

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2608          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2609          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2610          BA   .0486
2611          LU    0.00    0.06       0    0.00    0.06     100
2612          UK     300  0.0100   0.400      42
2613          UK     200  0.0100   0.110      58
2614          RD     700  0.0020   0.024            TRAP     3.0       2
              *
1                                        HEC-1 INPUT                                        PAGE 65

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.....10


2615          KK    C-12
2616          KM   combines PA4 and PA5
2617          HC       3
              *

2618          KK   RT-WP    ROUTE UPPER Westpark THROUGH PL10C
2619          RD
2620          RC     .05     .05     .05   11000  0.0011    1000
2621          RX       0       0     600     620     655     675    1275    1275
2622          RY    1020    1000     990     980     980     990    1000    1020
              *

2623          KK   PL10C PLEASANT GROVE CREEK SHED
2624          KM   (TOTAL = 1241.6 AC.;Revised w/Fiddyment & Westpark = 966.0 ac.)
2625          BA   1.509
2626          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years     2   Time interval in minutes     5
              *  Elevation in feet         85   W of Crest
              *  Duration in minutes     1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.45
              *
2627          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2628          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2629          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2630          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2631          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2632          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2633          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2634          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2635          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2636          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006
2637          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2638          PI   0.006   0.006   0.006   0.006   0.007   0.008   0.008   0.008   0.008   0.008
2639          PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
2640          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.016   0.016
2641          PI   0.016   0.016   0.016   0.016   0.017   0.017   0.017   0.017   0.018   0.019
2642          PI   0.018   0.017   0.017   0.017   0.017   0.016   0.016   0.016   0.016   0.016
2643          PI   0.016   0.016   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
2644          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
2645          PI   0.008   0.008   0.008   0.008   0.007   0.007   0.006   0.006   0.006   0.006
2646          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2647          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2648          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2649          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2650          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2651          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.003
2652          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2653          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2654          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2655          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2656          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1                                        HEC-1 INPUT                                        PAGE 66

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.....10

2657          BF    5.82
2658          LU       0     .06       0       0     .06     100
2659          UK     300     .016     .4      95
2660          UK     350     .015    .11       5
2661          RD     600      .01    .05     .19    TRAP       0      10
2662          RD    3800    .0092    .05            TRAP       5      10
              *


2663          KK  PL10C1
2664          HC       3
              *


2665          KK  PL10C+
2666          HC       2
              *


2667          KK   OFST1
2668          KM   28.0ac. Off-site crossing Fiddyment Rd.
2669          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years     2   Time interval in minutes     5
              *  Elevation in feet        115   W of Crest
              *  Duration in minutes     1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.34
              *
2670          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2671          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2672          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2673          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2674          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004
2675          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2676          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2677          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2678          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
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2679  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006   0.006
2680  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2681  PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
2682  PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.009
2683  PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.017   0.017
2684  PI   0.016   0.016   0.016   0.015   0.015   0.014   0.014   0.013   0.011   0.008
2685  PI   0.010   0.012   0.013   0.014   0.014   0.015   0.015   0.016   0.016   0.017
2686  PI   0.017   0.017   0.012   0.011   0.011   0.011   0.011   0.011   0.009   0.009
2687  PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
2688  PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
2689  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2690  PI   0.006   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2691  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2692  PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2693  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2694  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2695  PI   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2696  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2697  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
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LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

2698  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2699  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2700  BA   .0438
2701  LU    0.00    0.06       0    0.00    0.06     100
2702  UK     300  0.0100   0.400      70
2703  UK     200  0.0100   0.110      30
2704  RD     400  0.0020   0.024            TRAP     3.0       2
      *

2705  KK   RT-D2    ROUTE offsite through F10D2
2706  RD
2707  RC     .05     .05     .05    2700  0.0011    1000
2708  RX       0       0     600     620     655     675    1275    1275
2709  RY    1020    1000     990     980     980     990    1000    1020
      *

2710  KK   F10D2 FIDDYMENT PROPERTY (133.6 AC)
2711  BA   .2088
2712  PB
      * PI
      *
      *  Placer Design Precipitation -  depths in inches
      *  Return period in years     2   Time interval in minutes     5
      *  Elevation in feet        100   W of Crest
      *  Duration in minutes     1500   Maximum depth at   750 minutes
      *  Cloudburst 1-hr Factor  1.00
      *
2713  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2714  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2715  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2716  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2717  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004
2718  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2719  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2720  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2721  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2722  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
2723  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2724  PI   0.006   0.006   0.007   0.007   0.007   0.007   0.007   0.007   0.008   0.008
2725  PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.010
2726  PI   0.010   0.010   0.010   0.011   0.011   0.011   0.012   0.012   0.014   0.015
2727  PI   0.016   0.017   0.018   0.019   0.020   0.023   0.026   0.030   0.041   0.131
2728  PI   0.060   0.034   0.027   0.024   0.021   0.019   0.018   0.017   0.016   0.015
2729  PI   0.015   0.014   0.012   0.012   0.011   0.011   0.010   0.010   0.010   0.010
2730  PI   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008
2731  PI   0.008   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.006   0.006
2732  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2733  PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2734  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2735  PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2736  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2737  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2738  PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2739  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2740  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
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LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

2741  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2742  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2743  LU       0     .06     100       0     .06       0
2744  UK     200    .015     .11      41
2745  UK     250    .015      .4      59
2746  RD     500    .003     .05     .35    TRAP       5      10
2747  RD    2200    .002     .05            TRAP      10      10
      *

2748  KK   F10D3 FIDDYMENT PROPERTY (15.3 AC)
2749  BA   .0239
2750  PB
      * PI
      *
      *  Placer Design Precipitation -  depths in inches
      *  Return period in years     2   Time interval in minutes     5
      *  Elevation in feet        100   W of Crest
      *  Duration in minutes     1500   Maximum depth at   750 minutes
      *  Cloudburst 1-hr Factor  1.00
      *
2751  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2752  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2753  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2754  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2755  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004
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2756  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2757  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2758  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2759  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2760  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
2761  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2762  PI   0.006   0.006   0.007   0.007   0.007   0.007   0.007   0.007   0.008   0.008
2763  PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.010
2764  PI   0.010   0.010   0.010   0.011   0.011   0.011   0.012   0.012   0.014   0.015
2765  PI   0.016   0.017   0.018   0.019   0.020   0.023   0.026   0.030   0.041   0.131
2766  PI   0.060   0.034   0.027   0.024   0.021   0.019   0.018   0.017   0.016   0.015
2767  PI   0.015   0.014   0.012   0.012   0.011   0.011   0.010   0.010   0.010   0.010
2768  PI   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008
2769  PI   0.008   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.006   0.006
2770  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2771  PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2772  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2773  PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2774  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2775  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2776  PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2777  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2778  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2779  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2780  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2781  LU       0     .06     100       0     .06       0
2782  UK     200    .015     .11      40
2783  UK     200    .015      .4      60
2784  RD     500    .003     .05            TRAP       5      10
      *
1                                    HEC-1 INPUT                                 PAGE 69

LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


2785  KK  CMB-D2
2786  HC       3
      *

2787  KK   RT-D3    ROUTE through PL10D2
2788  RD
2789  RC     .05     .05     .05     6000  0.0011    1000
2790  RX       0       0     600      620     655     675    1275    1275
2791  RY    1020    1000     990      980     980     990    1000    1020
      *
      * ZW A=FID PGC TRIB FD10D C=FLOW F=100YR DEV
      *

2792  KK  PL10D2 PGC(TOTAL SHED AREA=3596.8 AC;Revised w/Fiddyment Property =1613 ac)
2793  BA   2.520
2794  PB
      * PI
      *
      *  Placer Design Precipitation -  depths in inches
      *  Return period in years     2   Time interval in minutes     5
      *  Elevation in feet        100   W of Crest
      *  Duration in minutes     1500   Maximum depth at   750 minutes
      *  Cloudburst 1-hr Factor  1.00
      *
2795  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2796  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2797  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2798  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2799  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004
2800  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2801  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2802  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2803  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2804  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
2805  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2806  PI   0.006   0.006   0.007   0.007   0.007   0.007   0.007   0.007   0.008   0.008
2807  PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.010
2808  PI   0.010   0.010   0.010   0.011   0.011   0.011   0.012   0.012   0.014   0.015
2809  PI   0.016   0.017   0.018   0.019   0.020   0.023   0.026   0.030   0.041   0.131
2810  PI   0.060   0.034   0.027   0.024   0.021   0.019   0.018   0.017   0.016   0.015
2811  PI   0.015   0.014   0.012   0.012   0.011   0.011   0.010   0.010   0.010   0.010
2812  PI   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008
2813  PI   0.008   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.006   0.006
2814  PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2815  PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2816  PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2817  PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2818  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2819  PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2820  PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2821  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2822  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2823  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2824  PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1                                    HEC-1 INPUT                                 PAGE 70

LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


2825  BP   16.86
2826  LU       0     .06       0       0     .06     100
2827  UK     350     .01      .4      95
2828  UK     300     .01     .11       5
2829  RD    1500    .005     .05     .56    TRAP       0      10
2830  RD    3200    .003     .05     1.4    TRAP       5      10
2831  RD   16000    .002     .05            TRAP      10      10
      *

2832  KK   F10D1 FIDDYMENT PROPERTY
2833  BA   .7558
2834  PB
      * PI
      *
```

```
                * Placer Design Precipitation -  depths in inches
                * Return period in years     2   Time interval in minutes     5
                * Elevation in feet        100   W of Crest
                * Duration in minutes     1500   Maximum depth at   750 minutes
                * Cloudburst 1-hr Factor  1.00
                *
2835            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2836            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2837            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2838            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2839            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004
2840            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2841            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2842            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2843            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2844            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
2845            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2846            PI   0.006   0.006   0.007   0.007   0.007   0.007   0.007   0.007   0.008   0.008
2847            PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.010
2848            PI   0.010   0.010   0.010   0.011   0.011   0.011   0.012   0.012   0.014   0.015
2849            PI   0.016   0.017   0.018   0.019   0.020   0.023   0.026   0.030   0.041   0.131
2850            PI   0.060   0.034   0.027   0.024   0.021   0.019   0.018   0.017   0.016   0.015
2851            PI   0.015   0.014   0.012   0.012   0.011   0.011   0.010   0.010   0.010   0.010
2852            PI   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008
2853            PI   0.008   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.006   0.006
2854            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2855            PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2856            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2857            PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2858            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2859            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2860            PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2861            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2862            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2863            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2864            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2865            LU      0     .06     100       0     .06       0
2866            UK    200    .015     .11      35
2867            UK    250    .015      .4      65
2868            RD   1500    .003     .05     .20    TRAP       5      10
2869            RD   4000    .002     .05             TRAP      10      10
                *
1                                        HEC-1 INPUT                                    PAGE 71

LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

2870            KK  FD10D+          FIDDYMENT NORTHWEST PROPERTY CORNER
2871            HC       3
                *
                * ZW A=PGC TRIB. FD10D+ C=FLOW F=100YR DEV
                *
2872            KK   RT10D     ROUTE UPPER FID10D THROUGH PL10D
2873            RD
2874            RC     .05      .05      .05    15000  0.0011     1000
2875            RX       0        0      600      620     655      675     1275     1275
2876            RY    1020     1000      990      980     980      990     1000     1020
                *
2877            KK  PL10D1 PGC(TOTAL SHED AREA=3596.8 AC;Revised w/Fiddyment Property =1323.1 ac)
2878            BA   2.067
2879            PB
                * PI
                *
                *  Placer Design Precipitation -  depths in inches
                *  Return period in years     2   Time interval in minutes     5
                *  Elevation in feet        100   W of Crest
                *  Duration in minutes     1500   Maximum depth at   750 minutes
                *  Cloudburst 1-hr Factor  1.00
                *
2880            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2881            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2882            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2883            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2884            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.004   0.004
2885            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2886            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2887            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2888            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2889            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006   0.006
2890            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2891            PI   0.006   0.006   0.007   0.007   0.007   0.007   0.007   0.007   0.008   0.008
2892            PI   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009   0.010
2893            PI   0.010   0.010   0.010   0.011   0.011   0.011   0.012   0.012   0.014   0.015
2894            PI   0.016   0.017   0.018   0.019   0.020   0.023   0.026   0.030   0.041   0.131
2895            PI   0.060   0.034   0.027   0.024   0.021   0.019   0.018   0.017   0.016   0.015
2896            PI   0.015   0.014   0.012   0.012   0.011   0.011   0.010   0.010   0.010   0.010
2897            PI   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008
2898            PI   0.008   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.006   0.006
2899            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2900            PI   0.006   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2901            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2902            PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2903            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2904            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2905            PI   0.004   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2906            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2907            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2908            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2909            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1                                        HEC-1 INPUT                                    PAGE 72

LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

2910            BF   16.86
2911            LU      0     .06       0       0     .06     100
```

```
2912          UK     350     .01      .4      95
2913          UK     300     .01     .11       5
2914          RD    1000    .005     .05     .56    TRAP       0      10
2915          RD    2200    .003     .05     1.4    TRAP       5      10
2916          RD   10500    .002     .05            TRAP      10      10
              *

2917          KK   PL10+ COMBINE FIDDYMENT PROPERTY WITHIN PL10D
2918          HC       2
              *
              * ZW A=PGC TRIB. FD@10+ C=FLOW F=100YR DEV
              *

2919          KK  PL10D+ COMBINE HYDROGRAPHS
2920          HC       2
              *
              * ZW A=MAIN PGC FD@10D+ C=FLOW F=100YR DEV
              *

2921          KK  R10D-E   ROUTE FROM PL10D TO PL10E
2922          RD
2923          RC    .045    .045    .045    3200  0.0011    1000
2924          RX       0       0     600     620     655     675    1275    1275
2925          RY    1020    1000     990     980     980     990    1000    1020
              *

2926          KK   PL10E PLEASANT GROVE CREEK
2927          BA    0.35
2928          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years      2   Time interval in minutes     5
              *  Elevation in feet          75   W of Crest
              *  Duration in minutes      1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.32
              *
2929          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2930          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2931          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2932          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2933          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2934          PI   0.003   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2935          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2936          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2937          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2938          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2939          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2940          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
2941          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009
2942          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.017   0.017
2943          PI   0.016   0.016   0.015   0.015   0.014   0.014   0.013   0.012   0.010   0.007
2944          PI   0.009   0.011   0.012   0.013   0.014   0.015   0.015   0.016   0.016   0.016
1                                        HEC-1 INPUT                                          PAGE 73

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

2945          PI   0.017   0.017   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
2946          PI   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008   0.008
2947          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
2948          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.005
2949          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2950          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2951          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2952          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2953          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.003   0.003
2954          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2955          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2956          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2957          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2958          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2959          BF    1.05
2960          LU       0     .06       0       0     .06     100
2961          UK     350     .01      .4      95
2962          UK     300     .01     .11       5
2963          RD    1500   .0067     .05    .035    TRAP       0      10
2964          RD    2400    .005     .05            TRAP       5      10
              *

2965          KK  PL10B+
2966          HC       2
              *
              * ZW A=MAIN PGC FD@10B+ C=FLOW F=100YR DEV
              *

2967          KK    PL11 PLEASANT GROVE CREEK TRIBUTARY
2968          BA    3.97
2969          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years      2   Time interval in minutes     5
              *  Elevation in feet          90   W of Crest
              *  Duration in minutes      1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.35
              *
2970          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2971          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2972          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2973          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2974          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2975          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2976          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2977          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
2978          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2979          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.006
2980          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
```

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2981          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
2982          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009   0.009
2983          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.012   0.017   0.016
2984          PI   0.016   0.016   0.016   0.015   0.015   0.015   0.014   0.013   0.012   0.010
2985          PI   0.011   0.013   0.014   0.014   0.015   0.015   0.016   0.016   0.016   0.016
1                                          HEC-1 INPUT                                        PAGE 74

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

2986          PI   0.017   0.017   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
2987          PI   0.009   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008
2988          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
2989          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
2990          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2991          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
2992          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2993          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2994          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
2995          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2996          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2997          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2998          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
2999          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3000          BF   11.91
3001          LU      0     .06       0       0     .06     100
3002          UK    350    .015      .4      95
3003          UK    300     .02     .11       5
3004          RD   1500    .013     .04      .4    TRAP       0      10
3005          RD   4300    .005     .04     1.0    TRAP       5      10
3006          RD  16600    .002     .04            TRAP       5      10
              *

3007          KK   PL11+ COMBINE HYDROGRAPHS
3008          HC       2
              *

3009          KK  R11-12   ROUTE FROM PL11 TO PL12 (PL12+)
3010          RD
3011          RC     .04     .04     .04    7800  0.0013
3012          RX       0       0    1200    1224    1242    1266    2466    2466
3013          RY    1020    1000     995     983     983     995    1000    1020
              *

3014          KK    PL12 PLEASANT GROVE CREEK
3015          BA    1.67
3016          PB
              * PI
              *
              *  Placer Design Precipitation -  depths in inches
              *  Return period in years     2   Time interval in minutes     5
              *  Elevation in feet         65   W of Crest
              *  Duration in minutes     1500   Maximum depth at   750 minutes
              *  Cloudburst 1-hr Factor  0.27
              *
3017          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3018          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3019          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3020          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3021          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3022          PI   0.003   0.003   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
3023          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
3024          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
3025          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
3026          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
1                                          HEC-1 INPUT                                        PAGE 75

LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

3027          PI   0.005   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
3028          PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
3029          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009
3030          PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
3031          PI   0.016   0.016   0.015   0.014   0.013   0.012   0.011   0.010   0.008   0.004
3032          PI   0.006   0.009   0.010   0.012   0.013   0.014   0.014   0.015   0.016   0.017
3033          PI   0.017   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
3034          PI   0.009   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008   0.008
3035          PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
3036          PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.005
3037          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
3038          PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
3039          PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
3040          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
3041          PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.003   0.003   0.003
3042          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3043          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3044          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3045          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3046          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3047          BF   5.01
3048          LU      0     .06       0       0     .06     100
3049          UK    350     .01      .4      95
3050          UK    300     .01     .11       5
3051          RD   1000    .015     .04     .17    TRAP       5      10
3052          RD   5500    .005     .04            TRAP      10      10
              *

3053          KK   PL12+
3054          HC       2
              *
              *   RCH31 ROUTE FROM PL12 TO PL13 (PL13+)
              *

3055          KK  R12-13
3056          RD
3057          RC     .04     .04     .04    9500   0.001    1000
3058          RX       0       0    1200    1224    1244    1268    2468    2468
3059          RY    1020    1000     995     983     983     995    1000    1020
```

```
                *
3060            KK    PL13 PLEASANT GROVE CREEK
3061            BA    1.93
3062            PB
                * PI
                *
                *  Placer Design Precipitation -  depths in inches
                *  Return period in years      2   Time interval in minutes     5
                *  Elevation in feet          50   W of Crest
                *  Duration in minutes      1500   Maximum depth at   750 minutes
                *  Cloudburst 1-hr Factor  0.24
                *
3063            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3064            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3065            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
1                                        HEC-1 INPUT                                        PAGE 76

LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

3066            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3067            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3068            PI   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004   0.004   0.004
3069            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
3070            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
3071            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
3072            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
3073            PI   0.005   0.005   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.006
3074            PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
3075            PI   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.009   0.009   0.009
3076            PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
3077            PI   0.016   0.015   0.014   0.013   0.012   0.011   0.010   0.008   0.006   0.003
3078            PI   0.005   0.007   0.009   0.011   0.012   0.013   0.014   0.015   0.016   0.017
3079            PI   0.018   0.018   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
3080            PI   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008
3081            PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
3082            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.005   0.005   0.005
3083            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
3084            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
3085            PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
3086            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
3087            PI   0.004   0.004   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003
3088            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3089            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3090            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3091            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3092            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3093            BF   5.79
3094            LU      0     .06       0       0     .06     100
3095            UK    350    .015      .4      95
3096            UK    300    .015     .11       5
3097            RD   3000    .003     .04     .19    TRAP       0      10
3098            RD   5500    .002     .04     .48    TRAP       5      10
3099            RD   9500    .002     .04            TRAP      10      10
                *

3100            KK   PL13+
3101            HC      2
                *

3102            KK  R13-14
3103            RD
3104            RC    .04     .04     .04    9000   0.001
3105            RX      0       0    1200    1224    1244    1268    2468    2468
3106            RY   1020    1000     995     983     983     995    1000    1020
                *

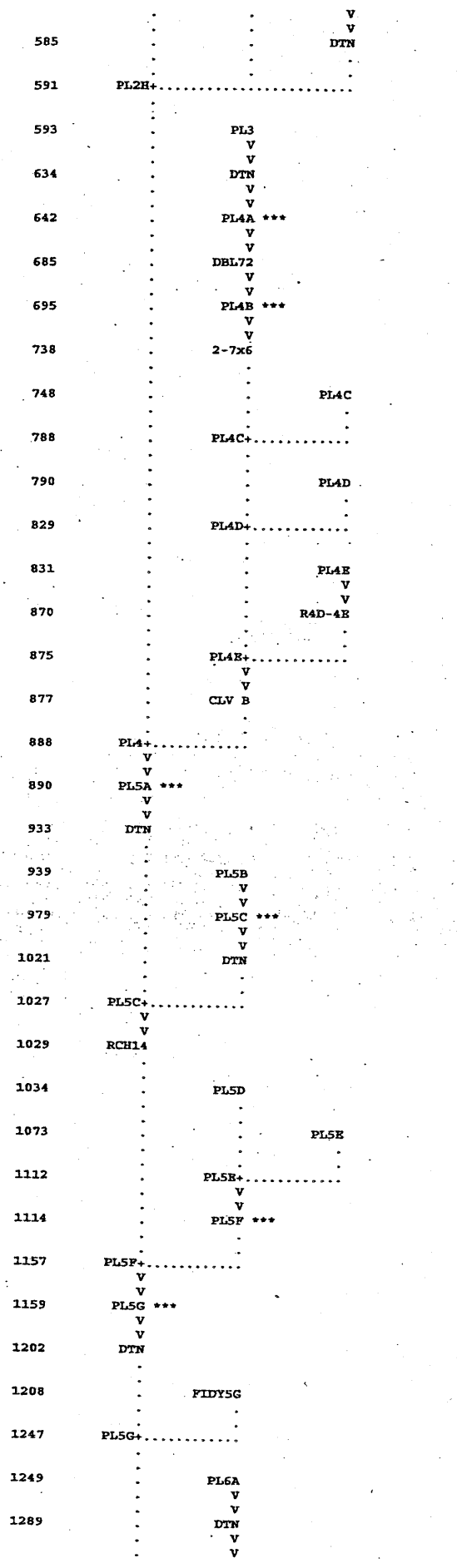
3107            KK    PL14 PLEASANT GROVE CREEK
3108            BA    1.66
3109            PB
                * PI
                *
                *  Placer Design Precipitation -  depths in inches
                *  Return period in years      2   Time interval in minutes     5
                *  Elevation in feet          40   W of Crest
                *  Duration in minutes      1500   Maximum depth at   750 minutes
                *  Cloudburst 1-hr Factor  0.22
                *
1                                        HEC-1 INPUT                                        PAGE 77

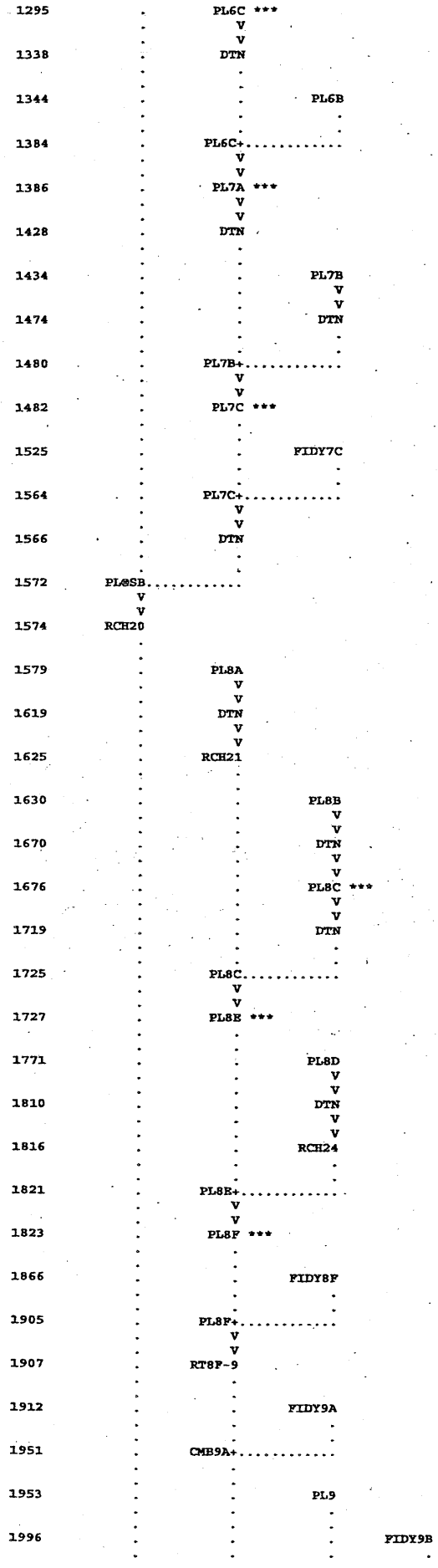
LINE            ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

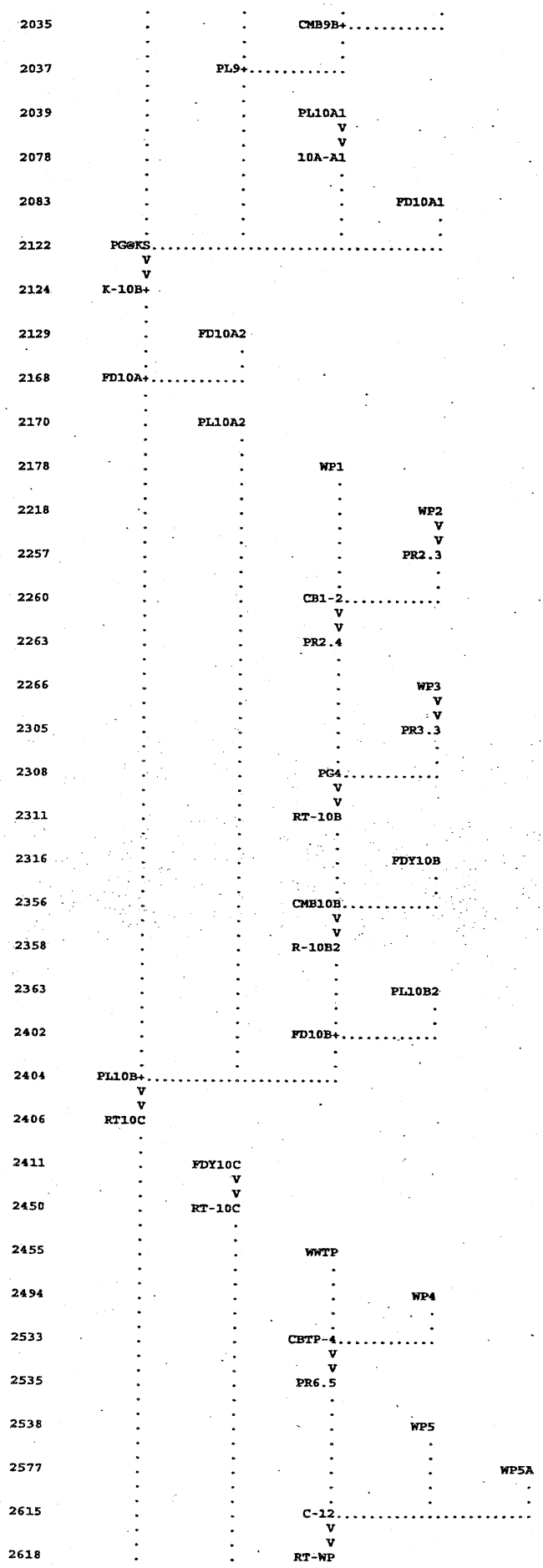
3110            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3111            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3112            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3113            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3114            PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3115            PI   0.003   0.003   0.003   0.003   0.003   0.004   0.004   0.004   0.004   0.004
3116            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
3117            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.005   0.005
3118            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
3119            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
3120            PI   0.005   0.005   0.005   0.006   0.006   0.006   0.006   0.006   0.006   0.006
3121            PI   0.006   0.006   0.006   0.006   0.008   0.008   0.008   0.008   0.008   0.008
3122            PI   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.009   0.009
3123            PI   0.009   0.009   0.011   0.011   0.011   0.011   0.011   0.011   0.018   0.017
3124            PI   0.016   0.015   0.014   0.013   0.012   0.011   0.009   0.008   0.006   0.002
3125            PI   0.004   0.007   0.008   0.010   0.011   0.013   0.014   0.015   0.016   0.017
3126            PI   0.018   0.019   0.011   0.011   0.011   0.011   0.011   0.011   0.009   0.009
3127            PI   0.009   0.009   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008
3128            PI   0.008   0.008   0.008   0.008   0.008   0.008   0.006   0.006   0.006   0.006
3129            PI   0.006   0.006   0.006   0.006   0.006   0.006   0.006   0.005   0.005   0.005
3130            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
3131            PI   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005   0.005
3132            PI   0.005   0.005   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
3133            PI   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004   0.004
3134            PI   0.004   0.004   0.004   0.004   0.003   0.003   0.003   0.003   0.003   0.003
```

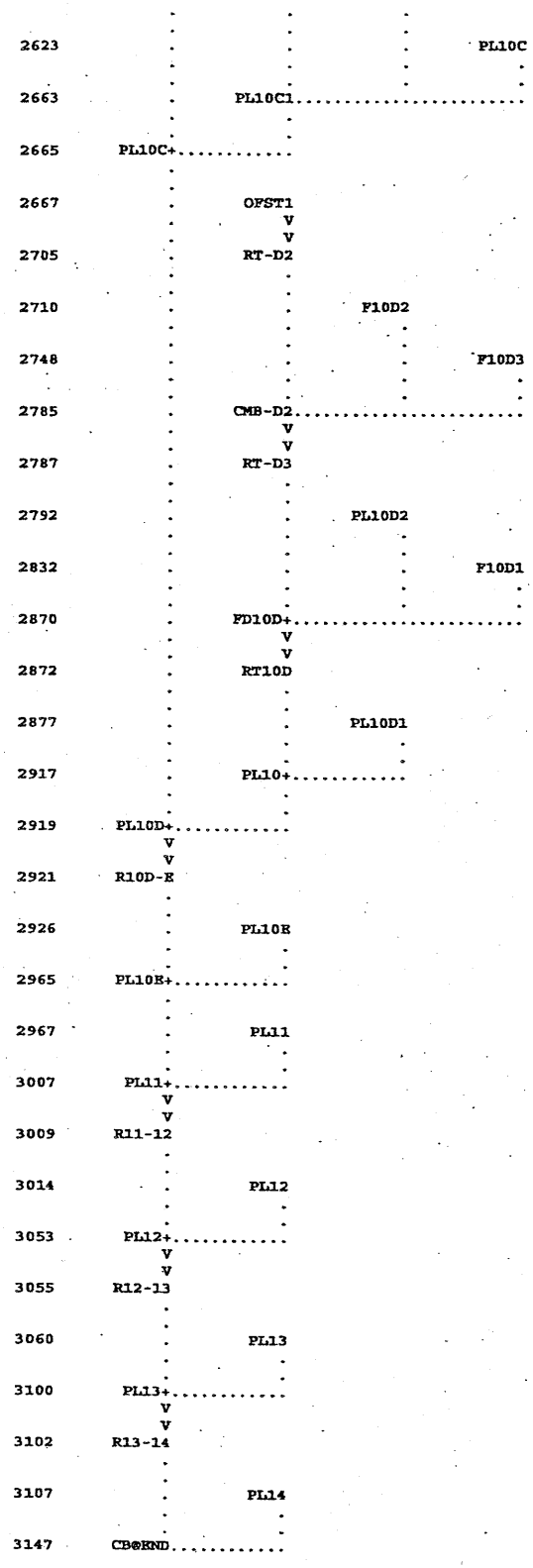
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3135          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3136          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3137          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3138          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3139          PI   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003   0.003
3140          BF    4.98
3141          LU       0     .06       0       0     .06     100
3142          UK     350     .02      .4      95
3143          UK     300    .015     .11       5
3144          RD    1500    .005     .04     .15    TRAP       5      10
3145          RD    4000    .003     .04     .35    TRAP      10      10
3146          RD    8000    .002     .04            TRAP      10      10
              *
3147          KK   CB@END
3148          HC       2
              *
3149          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (---->) DIVERSION OR PUMP FLOW
   NO.      (.) CONNECTOR        (<----) RETURN OF DIVERTED OR PUMPED FLOW

    29        PL1A
               V
               V
    69        RCH1
               .
               .
    74         .         PL1B
               .           V
               .           V
   114         .          DTN
               .           .
               .           .
   120        PL1B+.............
               V
               V
   122        PL1C ***
               V
               V
   165        PL1D ***
               V
               V
   208         DTN
               V
               V
   214         SUN
               .
               .
   224         .         PL2A
               .           V
               .           V
   263         .          DTN
               .           .
               .           .
   269        PL2A+.............
               V
               V
   271        RCH4
               .
               .
   276         .         PL2B
               .           .
               .           .
   315         .           .         PL2C
               .           .           .
               .           .           .
   354         .         PL2C+.............
               .           V
               .           V
   356         .          DTN
               .           V
               .           V
   362         .         RCH5
               .           .
               .           .
   367         .           .         PL2D
               .           .           .
               .           .           .
   406        PL2D+.........................
               .
               .
   408         .         PL2E
               .           .
               .           .
   446         .           .         PL2F
               .           .           .
               .           .           .
   484         .         PL2F+.............
               .           V
               .           V
   486         .          DTN
               .           V
               .           V
   492         .         PL2G ***
               .           V
               .           V
   535         .          DTN
               .           V
               .           V
   541         .         RCH7
               .           ~
               .           .
   546         .           .         PL2H
```


585
591
593
634
642
685
695
738
748
788
790
829
831
870
875
877
888
890
933
939
979
1021
1027
1029
1034
1073
1112
1114
1157
1159
1202
1208
1247
1249
1289
PL2H+
PL3
DTN
PL4A ***
DBL72
PL4B ***
2-7x6
PL4C
PL4C+
PL4D
PL4D+
PL4E
R4D-4E
PL4E+
CLV B
PL4+
PL5A ***
DTN
PL5B
PL5C ***
DTN
PL5C+
RCH14
PL5D
PL5E
PL5E+
PL5F ***
PL5F+
PL5G ***
DTN
FIDY5G
PL5G+
PL6A
DTN


1295
PL6C ***
1338
DTN
1344
PL6B
1384
PL6C+
1386
PL7A ***
1428
DTN
1434
PL7B
1474
DTN
1480
PL7B+
1482
PL7C ***
1525
FIDY7C
1564
PL7C+
1566
DTN
1572
PL@SB
1574
RCH20
1579
PL8A
1619
DTN
1625
RCH21
1630
PL8B
1670
DTN
1676
PL8C ***
1719
DTN
1725
PL8C
1727
PL8E ***
1771
PL8D
1810
DTN
1816
RCH24
1821
PL8E+
1823
PL8F ***
1866
FIDY8F
1905
PL8F+
1907
RT8F-9
1912
FIDY9A
1951
CMB9A+
1953
PL9
1996
FIDY9B


2035
CMB9B+
2037
PL9+
2039
PL10A1
2078
10A-A1
2083
FD10A1
2122
PG@KS
2124
K-10B+
2129
FD10A2
2168
FD10A+
2170
PL10A2
2178
WP1
2218
WP2
2257
PR2.3
2260
CB1-2
2263
PR2.4
2266
WP3
2305
PR3.3
2308
PG4
2311
RT-10B
2316
FDY10B
2356
CMB10B
2358
R-10B2
2363
PL10B2
2402
FD10B+
2404
PL10B+
2406
RT10C
2411
FDY10C
2450
RT-10C
2455
WWTP
2494
WP4
2533
CBTP-4
2535
PR6.5
2538
WP5
2577
WP5A
2615
C-12
2618
RT-WP



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

PIcards.txt

Precipitation Input for 10-, 25-, 50-, and 100-year, 24-hour events and 100-year, 8-day event

(Input data for storm events are identical except for precipitation data. Therefore, the 2-year, 24-hour is shown in its entirety, while only the precipitation input is shown for the remaining storm events)

****

****

10-year, 24-hour event (5 minute time step):

```
PI 0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.006
PI 0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
PI 0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
PI 0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
PI 0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
PI 0.006  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007
PI 0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007
PI 0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.008  0.009  0.009
PI 0.009  0.009  0.009  0.010  0.010  0.010  0.010  0.010  0.010  0.010
PI 0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.011
PI 0.011  0.011  0.011  0.011  0.011  0.011  0.011  0.011  0.011  0.011
PI 0.011  0.012  0.012  0.012  0.012  0.012  0.013  0.013  0.013  0.013
PI 0.013  0.013  0.013  0.014  0.014  0.014  0.014  0.014  0.015  0.015
PI 0.015  0.015  0.018  0.018  0.018  0.018  0.019  0.019  0.026  0.026
PI 0.026  0.026  0.025  0.025  0.025  0.025  0.025  0.024  0.024  0.022
PI 0.023  0.024  0.025  0.025  0.025  0.025  0.025  0.025  0.026  0.026
PI 0.026  0.026  0.019  0.019  0.018  0.018  0.018  0.017  0.015  0.015
PI 0.015  0.014  0.014  0.014  0.014  0.014  0.013  0.013  0.013  0.013
PI 0.013  0.013  0.013  0.013  0.012  0.012  0.012  0.012  0.012  0.011
PI 0.011  0.011  0.011  0.011  0.011  0.011  0.011  0.011  0.011  0.011
PI 0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010
PI 0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.009  0.009  0.009
PI 0.009  0.009  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007
PI 0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007
PI 0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.006  0.006
PI 0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
PI 0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
PI 0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
PI 0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
PI 0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005  0.005
```

****

25-year, 24-hour event (5 minute time step):

```
PI 0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
PI 0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
PI 0.006  0.006  0.006  0.006  0.006  0.006  0.007  0.007  0.007  0.007
PI 0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007
PI 0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007
PI 0.007  0.007  0.007  0.007  0.007  0.007  0.008  0.008  0.008  0.008
PI 0.008  0.008  0.008  0.008  0.008  0.008  0.008  0.008  0.008  0.008
PI 0.008  0.008  0.008  0.008  0.008  0.008  0.008  0.009  0.011  0.011
PI 0.011  0.011  0.011  0.011  0.011  0.012  0.012  0.012  0.012  0.012
PI 0.012  0.012  0.012  0.012  0.012  0.012  0.012  0.012  0.013  0.013
PI 0.013  0.013  0.013  0.013  0.013  0.013  0.013  0.013  0.014  0.014
PI 0.014  0.014  0.014  0.014  0.014  0.014  0.014  0.014  0.015  0.015
PI 0.015  0.015  0.015  0.016  0.016  0.016  0.016  0.017  0.017  0.017
PI 0.018  0.018  0.020  0.020  0.021  0.021  0.022  0.022  0.029  0.030
PI 0.030  0.031  0.031  0.032  0.033  0.034  0.036  0.038  0.042  0.058
PI 0.046  0.040  0.037  0.035  0.034  0.033  0.032  0.031  0.030  0.030
PI 0.029  0.029  0.022  0.021  0.021  0.020  0.020  0.019  0.018  0.018
PI 0.017  0.017  0.017  0.016  0.016  0.016  0.016  0.015  0.015  0.015
PI 0.015  0.015  0.014  0.014  0.014  0.014  0.014  0.014  0.014  0.014
PI 0.014  0.014  0.013  0.013  0.013  0.013  0.013  0.013  0.013  0.013
PI 0.013  0.013  0.012  0.012  0.012  0.012  0.012  0.012  0.012  0.012
PI 0.012  0.012  0.012  0.012  0.012  0.011  0.011  0.011  0.011  0.011
PI 0.011  0.011  0.009  0.008  0.008  0.008  0.008  0.008  0.008  0.008
PI 0.008  0.008  0.008  0.008  0.008  0.008  0.008  0.008  0.008  0.008
PI 0.008  0.008  0.008  0.007  0.007  0.007  0.007  0.007  0.007  0.007
PI 0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007
PI 0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007
PI 0.007  0.007  0.007  0.006  0.006  0.006  0.006  0.006  0.006  0.006
PI 0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
PI 0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006  0.006
```

****

50-year, 24-hour event (5 minute time step):

```
PI 0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007
PI 0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007
PI 0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007
PI 0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.007  0.008
PI 0.008  0.008  0.008  0.008  0.008  0.008  0.008  0.008  0.008  0.008
PI 0.008  0.008  0.008  0.008  0.008  0.008  0.008  0.008  0.008  0.008
PI 0.008  0.008  0.009  0.009  0.009  0.009  0.009  0.009  0.009  0.009
PI 0.009  0.009  0.009  0.009  0.009  0.009  0.009  0.009  0.012  0.012
PI 0.012  0.012  0.013  0.013  0.013  0.013  0.013  0.013  0.013  0.013
PI 0.013  0.013  0.013  0.013  0.014  0.014  0.014  0.014  0.014  0.014
PI 0.014  0.014  0.014  0.015  0.015  0.015  0.015  0.015  0.015  0.015
PI 0.016  0.016  0.016  0.016  0.016  0.016  0.016  0.017  0.017  0.017
PI 0.017  0.017  0.018  0.018  0.018  0.019  0.019  0.019  0.020  0.020
PI 0.020  0.021  0.022  0.023  0.024  0.024  0.025  0.026  0.031  0.032
PI 0.033  0.034  0.035  0.036  0.038  0.040  0.043  0.047  0.055  0.094
PI 0.063  0.051  0.045  0.042  0.039  0.037  0.036  0.034  0.033  0.033
PI 0.032  0.031  0.025  0.024  0.024  0.023  0.023  0.022  0.021  0.020
PI 0.020  0.019  0.019  0.019  0.018  0.018  0.018  0.018  0.017  0.017
PI 0.017  0.017  0.016  0.016  0.016  0.016  0.016  0.016  0.016  0.015
PI 0.015  0.015  0.015  0.015  0.015  0.015  0.014  0.014  0.014  0.014
PI 0.014  0.014  0.014  0.014  0.014  0.013  0.013  0.013  0.013  0.013
PI 0.013  0.013  0.013  0.013  0.013  0.013  0.013  0.012  0.012  0.012
```

PIcards.txt

```
PI 0.012   0.012   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009
PI 0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0.008   0.008
PI 0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008
PI 0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008
PI 0.008   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007
PI 0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007
PI 0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007
PI 0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007   0.007
```

****

100-year, 24-hour event (5 minute time step):

```
PI 0.008   0.008   0.008   0.008   0.008   0.008   0.007   0.007   0.007   0.007
PI 0.007   0.007   0.007   0.007   0.008   0.008   0.008   0.008   0.008   0.008
PI 0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008
PI 0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008
PI 0.008   0.008   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009
PI 0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009
PI 0.009   0.009   0.010   0.010   0.010   0.010   0.010   0.010   0.010   0.010
PI 0.010   0.010   0.010   0.010   0.010   0.010   0.010   0.011   0.016   0.016
PI 0.016   0.016   0.016   0.017   0.017   0.017   0.017   0.017   0.017   0.017
PI 0.017   0.017   0.017   0.017   0.017   0.018   0.018   0.018   0.018   0.018
PI 0.018   0.018   0.018   0.018   0.019   0.019   0.019   0.019   0.019   0.019
PI 0.019   0.019   0.020   0.020   0.012   0.012   0.012   0.012   0.013   0.013
PI 0.013   0.013   0.014   0.014   0.014   0.015   0.015   0.016   0.016   0.016
PI 0.017   0.017   0.024   0.025   0.026   0.026   0.027   0.028   0.034   0.035
PI 0.036   0.037   0.039   0.041   0.044   0.047   0.052   0.059   0.073   0.153
PI 0.087   0.064   0.055   0.049   0.045   0.042   0.040   0.038   0.037   0.035
PI 0.034   0.033   0.028   0.027   0.026   0.025   0.025   0.024   0.017   0.017
PI 0.016   0.016   0.015   0.015   0.015   0.014   0.014   0.014   0.013   0.013
PI 0.013   0.013   0.012   0.012   0.012   0.012   0.020   0.020   0.019   0.019
PI 0.019   0.019   0.019   0.019   0.019   0.018   0.018   0.018   0.018   0.018
PI 0.018   0.018   0.018   0.018   0.018   0.017   0.017   0.017   0.017   0.017
PI 0.017   0.017   0.017   0.017   0.017   0.017   0.017   0.016   0.016   0.016
PI 0.016   0.016   0.011   0.010   0.010   0.010   0.010   0.010   0.010   0.010
PI 0.010   0.010   0.010   0.010   0.010   0.010   0.010   0.010   0.009   0.009
PI 0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009
PI 0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.009   0.008   0.008
PI 0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008
PI 0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008   0.008
PI 0.008   0.008   0.008   0.008   0.008   0.008   0.007   0.007   0.007   0.007
PI 0.007   0.007   0.007   0.007   0.008   0.008   0.008   0.008   0.008   0.008
```

****

****

Storm 1, 8-day, 100-year event (1 hour time step):

```
PI     0    0.05     0.1    0.07    0.02    0.01    0.02    0.01       0       0
PI     0    0.02    0.06    0.04    0.13    0.05    0.06    0.08    0.06     0.2
PI  0.02    0.03    0.02    0.02       0    0.01    0.02    0.02       0       0
PI     0       0       0       0       0       0       0       0       0       0
PI     0       0    0.02    0.12    0.03    0.03       0       0       0       0
PI     0       0    0.05    0.04    0.01       0    0.05    0.02    0.03    0.02
PI  0.15    0.03       0    0.01       0       0    0.01    0.02    0.01    0.01
PI  0.01    0.02    0.01    0.12     0.5    0.01       0    0.07    0.04    0.03
PI  0.15    0.02    0.03    0.01    0.06    0.02    0.02    0.02    0.02       0
PI  0.02    0.04    0.01    0.01       0       0
```

****

Storm 2, 8-day, 100-year event (1 hour time step):

```
PI     0       0       0    0.05    0.03    0.02    0.04    0.02       0       0
PI     0    0.03    0.03     0.1    0.08    0.09    0.08    0.25     0.2    0.08
PI  0.06    0.05    0.05    0.01    0.07    0.05    0.01    0.02    0.03    0.02
PI   0.1    0.19    0.11    0.04    0.26     0.2    0.04    0.01       0     0.1
PI  0.07    0.11    0.12    0.15     0.1    0.25    0.01    0.04       0       0
PI  0.01    0.02       0       0       0
```

****

Storm 3, 8-day, 100-year event (1 hour time step):

```
PI     0    0.01    0.01    0.01    0.01    0.08    0.01       0       0    1.15
PI  0.15    0.15    0.25     0.8       1     0.2    0.13    0.05    0.01       0
PI     0       0       0    0.01    0.01       0    0.01
```

2-year, 24 hour hydrographs: PL10+, PL10C1, PL10E, PL11, PL10B+

*** *

*** *

```
           ***************
           *             *
2917 KK    *    PL10+    *     COMBINE FIDDYMENT PROPERTY WITHIN PL10D
           *             *
           ***************

2918 HC          HYDROGRAPH COMBINATION
                      ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                    ***
```

****

HYDROGRAPH AT STATION PL10+
SUM OF 2 HYDROGRAPHS

****

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
15	OCT	0100	1	68.	15	OCT	1330	151	114.	16	OCT	0200	301	90.	16	OCT	1430	451	68.
15	OCT	0105	2	68.	15	OCT	1335	152	123.	16	OCT	0205	302	89.	16	OCT	1435	452	68.
15	OCT	0110	3	68.	15	OCT	1340	153	136.	16	OCT	0210	303	88.	16	OCT	1440	453	68.
15	OCT	0115	4	68.	15	OCT	1345	154	151.	16	OCT	0215	304	88.	16	OCT	1445	454	68.
15	OCT	0120	5	68.	15	OCT	1350	155	170.	16	OCT	0220	305	88.	16	OCT	1450	455	68.
15	OCT	0125	6	68.	15	OCT	1355	156	190.	16	OCT	0225	306	87.	16	OCT	1455	456	68.
15	OCT	0130	7	68.	15	OCT	1400	157	212.	16	OCT	0230	307	87.	16	OCT	1500	457	68.
15	OCT	0135	8	68.	15	OCT	1405	158	235.	16	OCT	0235	308	86.	16	OCT	1505	458	68.
15	OCT	0140	9	68.	15	OCT	1410	159	258.	16	OCT	0240	309	86.	16	OCT	1510	459	68.
15	OCT	0145	10	68.	15	OCT	1415	160	282.	16	OCT	0245	310	85.	16	OCT	1515	460	68.
15	OCT	0150	11	68.	15	OCT	1420	161	306.	16	OCT	0250	311	85.	16	OCT	1520	461	68.
15	OCT	0155	12	68.	15	OCT	1425	162	329.	16	OCT	0255	312	85.	16	OCT	1525	462	68.
15	OCT	0200	13	68.	15	OCT	1430	163	352.	16	OCT	0300	313	84.	16	OCT	1530	463	68.
15	OCT	0205	14	68.	15	OCT	1435	164	373.	16	OCT	0305	314	84.	16	OCT	1535	464	68.
15	OCT	0210	15	68.	15	OCT	1440	165	392.	16	OCT	0310	315	83.	16	OCT	1540	465	68.
15	OCT	0215	16	68.	15	OCT	1445	166	409.	16	OCT	0315	316	83.	16	OCT	1545	466	68.
15	OCT	0220	17	68.	15	OCT	1450	167	425.	16	OCT	0320	317	83.	16	OCT	1550	467	68.
15	OCT	0225	18	68.	15	OCT	1455	168	439.	16	OCT	0325	318	82.	16	OCT	1555	468	68.
15	OCT	0230	19	68.	15	OCT	1500	169	455.	16	OCT	0330	319	82.	16	OCT	1600	469	68.
15	OCT	0235	20	68.	15	OCT	1505	170	470.	16	OCT	0335	320	82.	16	OCT	1605	470	68.
15	OCT	0240	21	68.	15	OCT	1510	171	487.	16	OCT	0340	321	82.	16	OCT	1610	471	68.
15	OCT	0245	22	68.	15	OCT	1515	172	505.	16	OCT	0345	322	81.	16	OCT	1615	472	68.
15	OCT	0250	23	68.	15	OCT	1520	173	524.	16	OCT	0350	323	81.	16	OCT	1620	473	68.
15	OCT	0255	24	68.	15	OCT	1525	174	542.	16	OCT	0355	324	81.	16	OCT	1625	474	68.
15	OCT	0300	25	68.	15	OCT	1530	175	560.	16	OCT	0400	325	81.	16	OCT	1630	475	68.
15	OCT	0305	26	68.	15	OCT	1535	176	576.	16	OCT	0405	326	80.	16	OCT	1635	476	68.
15	OCT	0310	27	68.	15	OCT	1540	177	591.	16	OCT	0410	327	80.	16	OCT	1640	477	68.
15	OCT	0315	28	68.	15	OCT	1545	178	604.	16	OCT	0415	328	80.	16	OCT	1645	478	68.
15	OCT	0320	29	68.	15	OCT	1550	179	614.	16	OCT	0420	329	80.	16	OCT	1650	479	68.
15	OCT	0325	30	68.	15	OCT	1555	180	623.	16	OCT	0425	330	79.	16	OCT	1655	480	68.
15	OCT	0330	31	68.	15	OCT	1600	181	630.	16	OCT	0430	331	79.	16	OCT	1700	481	68.
15	OCT	0335	32	68.	15	OCT	1605	182	635.	16	OCT	0435	332	79.	16	OCT	1705	482	68.
15	OCT	0340	33	68.	15	OCT	1610	183	639.	16	OCT	0440	333	79.	16	OCT	1710	483	68.
15	OCT	0345	34	68.	15	OCT	1615	184	640.	16	OCT	0445	334	79.	16	OCT	1715	484	68.
15	OCT	0350	35	68.	15	OCT	1620	185	640.	16	OCT	0450	335	78.	16	OCT	1720	485	68.
15	OCT	0355	36	68.	15	OCT	1625	186	638.	16	OCT	0455	336	78.	16	OCT	1725	486	68.
15	OCT	0400	37	68.	15	OCT	1630	187	634.	16	OCT	0500	337	78.	16	OCT	1730	487	68.
15	OCT	0405	38	68.	15	OCT	1635	188	630.	16	OCT	0505	338	78.	16	OCT	1735	488	68.
15	OCT	0410	39	68.	15	OCT	1640	189	624.	16	OCT	0510	339	78.	16	OCT	1740	489	68.
15	OCT	0415	40	69.	15	OCT	1645	190	616.	16	OCT	0515	340	77.	16	OCT	1745	490	68.
15	OCT	0420	41	69.	15	OCT	1650	191	608.	16	OCT	0520	341	77.	16	OCT	1750	491	68.
15	OCT	0425	42	69.	15	OCT	1655	192	598.	16	OCT	0525	342	77.	16	OCT	1755	492	68.
15	OCT	0430	43	69.	15	OCT	1700	193	588.	16	OCT	0530	343	77.	16	OCT	1800	493	68.
15	OCT	0435	44	69.	15	OCT	1705	194	577.	16	OCT	0535	344	77.	16	OCT	1805	494	68.
15	OCT	0440	45	69.	15	OCT	1710	195	566.	16	OCT	0540	345	76.	16	OCT	1810	495	68.
15	OCT	0445	46	69.	15	OCT	1715	196	553.	16	OCT	0545	346	76.	16	OCT	1815	496	68.
15	OCT	0450	47	69.	15	OCT	1720	197	541.	16	OCT	0550	347	76.	16	OCT	1820	497	68.
15	OCT	0455	48	69.	15	OCT	1725	198	528.	16	OCT	0555	348	76.	16	OCT	1825	498	68.
15	OCT	0500	49	69.	15	OCT	1730	199	515.	16	OCT	0600	349	76.	16	OCT	1830	499	68.
15	OCT	0505	50	69.	15	OCT	1735	200	502.	16	OCT	0605	350	75.	16	OCT	1835	500	68.
15	OCT	0510	51	69.	15	OCT	1740	201	490.	16	OCT	0610	351	75.	16	OCT	1840	501	68.
15	OCT	0515	52	69.	15	OCT	1745	202	477.	16	OCT	0615	352	75.	16	OCT	1845	502	68.
15	OCT	0520	53	69.	15	OCT	1750	203	464.	16	OCT	0620	353	75.	16	OCT	1850	503	68.
15	OCT	0525	54	69.	15	OCT	1755	204	452.	16	OCT	0625	354	75.	16	OCT	1855	504	68.
15	OCT	0530	55	70.	15	OCT	1800	205	439.	16	OCT	0630	355	74.	16	OCT	1900	505	68.
15	OCT	0535	56	70.	15	OCT	1805	206	427.	16	OCT	0635	356	74.	16	OCT	1905	506	68.
15	OCT	0540	57	70.	15	OCT	1810	207	415.	16	OCT	0640	357	74.	16	OCT	1910	507	68.
15	OCT	0545	58	70.	15	OCT	1815	208	404.	16	OCT	0645	358	74.	16	OCT	1915	508	68.
15	OCT	0550	59	70.	15	OCT	1820	209	392.	16	OCT	0650	359	74.	16	OCT	1920	509	68.
15	OCT	0555	60	70.	15	OCT	1825	210	381.	16	OCT	0655	360	74.	16	OCT	1925	510	68.
15	OCT	0600	61	70.	15	OCT	1830	211	371.	16	OCT	0700	361	73.	16	OCT	1930	511	68.
15	OCT	0605	62	70.	15	OCT	1835	212	360.	16	OCT	0705	362	73.	16	OCT	1935	512	68.
15	OCT	0610	63	71.	15	OCT	1840	213	350.	16	OCT	0710	363	73.	16	OCT	1940	513	68.
15	OCT	0615	64	71.	15	OCT	1845	214	341.	16	OCT	0715	364	73.	16	OCT	1945	514	68.
15	OCT	0620	65	71.	15	OCT	1850	215	331.	16	OCT	0720	365	73.	16	OCT	1950	515	68.
15	OCT	0625	66	71.	15	OCT	1855	216	322.	16	OCT	0725	366	73.	16	OCT	1955	516	68.
15	OCT	0630	67	71.	15	OCT	1900	217	314.	16	OCT	0730	367	72.	16	OCT	2000	517	68.
15	OCT	0635	68	71.	15	OCT	1905	218	305.	16	OCT	0735	368	72.	16	OCT	2005	518	68.
15	OCT	0640	69	71.	15	OCT	1910	219	297.	16	OCT	0740	369	72.	16	OCT	2010	519	68.
15	OCT	0645	70	72.	15	OCT	1915	220	290.	16	OCT	0745	370	72.	16	OCT	2015	520	68.
15	OCT	0650	71	72.	15	OCT	1920	221	282.	16	OCT	0750	371	72.	16	OCT	2020	521	68.
15	OCT	0655	72	72.	15	OCT	1925	222	275.	16	OCT	0755	372	72.	16	OCT	2025	522	68.
15	OCT	0700	73	72.	15	OCT	1930	223	269.	16	OCT	0800	373	72.	16	OCT	2030	523	68.
15	OCT	0705	74	72.	15	OCT	1935	224	262.	16	OCT	0805	374	71.	16	OCT	2035	524	68.

15 OCT 0710	75	72.	*	15 OCT 1940	225	256.	*	16 OCT 0810	375	71.	*	16 OCT 2040	525	68.
15 OCT 0715	76	72.	*	15 OCT 1945	226	250.	*	16 OCT 0815	376	71.	*	16 OCT 2045	526	68.
15 OCT 0720	77	73.	*	15 OCT 1950	227	244.	*	16 OCT 0820	377	71.	*	16 OCT 2050	527	68.
15 OCT 0725	78	73.	*	15 OCT 1955	228	238.	*	16 OCT 0825	378	71.	*	16 OCT 2055	528	68.
15 OCT 0730	79	73.	*	15 OCT 2000	229	233.	*	16 OCT 0830	379	71.	*	16 OCT 2100	529	68.
15 OCT 0735	80	73.	*	15 OCT 2005	230	227.	*	16 OCT 0835	380	71.	*	16 OCT 2105	530	68.
15 OCT 0740	81	73.	*	15 OCT 2010	231	222.	*	16 OCT 0840	381	71.	*	16 OCT 2110	531	68.
15 OCT 0745	82	73.	*	15 OCT 2015	232	217.	*	16 OCT 0845	382	71.	*	16 OCT 2115	532	68.
15 OCT 0750	83	73.	*	15 OCT 2020	233	212.	*	16 OCT 0850	383	70.	*	16 OCT 2120	533	68.
15 OCT 0755	84	73.	*	15 OCT 2025	234	208.	*	16 OCT 0855	384	70.	*	16 OCT 2125	534	68.
15 OCT 0800	85	73.	*	15 OCT 2030	235	203.	*	16 OCT 0900	385	70.	*	16 OCT 2130	535	68.
15 OCT 0805	86	74.	*	15 OCT 2035	236	199.	*	16 OCT 0905	386	70.	*	16 OCT 2135	536	68.
15 OCT 0810	87	74.	*	15 OCT 2040	237	195.	*	16 OCT 0910	387	70.	*	16 OCT 2140	537	68.
15 OCT 0815	88	74.	*	15 OCT 2045	238	191.	*	16 OCT 0915	388	70.	*	16 OCT 2145	538	68.
15 OCT 0820	89	74.	*	15 OCT 2050	239	187.	*	16 OCT 0920	389	70.	*	16 OCT 2150	539	68.
15 OCT 0825	90	74.	*	15 OCT 2055	240	183.	*	16 OCT 0925	390	70.	*	16 OCT 2155	540	68.
15 OCT 0830	91	74.	*	15 OCT 2100	241	179.	*	16 OCT 0930	391	70.	*	16 OCT 2200	541	68.
15 OCT 0835	92	74.	*	15 OCT 2105	242	176.	*	16 OCT 0935	392	70.	*	16 OCT 2205	542	68.
15 OCT 0840	93	74.	*	15 OCT 2110	243	172.	*	16 OCT 0940	393	70.	*	16 OCT 2210	543	68.
15 OCT 0845	94	74.	*	15 OCT 2115	244	169.	*	16 OCT 0945	394	70.	*	16 OCT 2215	544	68.
15 OCT 0850	95	75.	*	15 OCT 2120	245	166.	*	16 OCT 0950	395	69.	*	16 OCT 2220	545	68.
15 OCT 0855	96	75.	*	15 OCT 2125	246	163.	*	16 OCT 0955	396	69.	*	16 OCT 2225	546	68.
15 OCT 0900	97	75.	*	15 OCT 2130	247	160.	*	16 OCT 1000	397	69.	*	16 OCT 2230	547	68.
15 OCT 0905	98	75.	*	15 OCT 2135	248	157.	*	16 OCT 1005	398	69.	*	16 OCT 2235	548	68.
15 OCT 0910	99	75.	*	15 OCT 2140	249	155.	*	16 OCT 1010	399	69.	*	16 OCT 2240	549	68.
15 OCT 0915	100	75.	*	15 OCT 2145	250	152.	*	16 OCT 1015	400	69.	*	16 OCT 2245	550	68.
15 OCT 0920	101	75.	*	15 OCT 2150	251	150.	*	16 OCT 1020	401	69.	*	16 OCT 2250	551	68.
15 OCT 0925	102	75.	*	15 OCT 2155	252	147.	*	16 OCT 1025	402	69.	*	16 OCT 2255	552	68.
15 OCT 0930	103	76.	*	15 OCT 2200	253	145.	*	16 OCT 1030	403	69.	*	16 OCT 2300	553	68.
15 OCT 0935	104	76.	*	15 OCT 2205	254	143.	*	16 OCT 1035	404	69.	*	16 OCT 2305	554	68.
15 OCT 0940	105	76.	*	15 OCT 2210	255	141.	*	16 OCT 1040	405	69.	*	16 OCT 2310	555	68.
15 OCT 0945	106	76.	*	15 OCT 2215	256	139.	*	16 OCT 1045	406	69.	*	16 OCT 2315	556	68.
15 OCT 0950	107	76.	*	15 OCT 2220	257	137.	*	16 OCT 1050	407	69.	*	16 OCT 2320	557	68.
15 OCT 0955	108	76.	*	15 OCT 2225	258	135.	*	16 OCT 1055	408	69.	*	16 OCT 2325	558	68.
15 OCT 1000	109	76.	*	15 OCT 2230	259	133.	*	16 OCT 1100	409	69.	*	16 OCT 2330	559	68.
15 OCT 1005	110	76.	*	15 OCT 2235	260	132.	*	16 OCT 1105	410	69.	*	16 OCT 2335	560	68.
15 OCT 1010	111	77.	*	15 OCT 2240	261	130.	*	16 OCT 1110	411	69.	*	16 OCT 2340	561	68.
15 OCT 1015	112	77.	*	15 OCT 2245	262	128.	*	16 OCT 1115	412	69.	*	16 OCT 2345	562	68.
15 OCT 1020	113	77.	*	15 OCT 2250	263	127.	*	16 OCT 1120	413	69.	*	16 OCT 2350	563	68.
15 OCT 1025	114	77.	*	15 OCT 2255	264	125.	*	16 OCT 1125	414	69.	*	16 OCT 2355	564	68.
15 OCT 1030	115	77.	*	15 OCT 2300	265	124.	*	16 OCT 1130	415	69.	*	17 OCT 0000	565	68.
15 OCT 1035	116	77.	*	15 OCT 2305	266	122.	*	16 OCT 1135	416	69.	*	17 OCT 0005	566	68.
15 OCT 1040	117	77.	*	15 OCT 2310	267	121.	*	16 OCT 1140	417	69.	*	17 OCT 0010	567	68.
15 OCT 1045	118	77.	*	15 OCT 2315	268	119.	*	16 OCT 1145	418	69.	*	17 OCT 0015	568	68.
15 OCT 1050	119	78.	*	15 OCT 2320	269	118.	*	16 OCT 1150	419	69.	*	17 OCT 0020	569	68.
15 OCT 1055	120	78.	*	15 OCT 2325	270	117.	*	16 OCT 1155	420	69.	*	17 OCT 0025	570	68.
15 OCT 1100	121	78.	*	15 OCT 2330	271	115.	*	16 OCT 1200	421	69.	*	17 OCT 0030	571	68.
15 OCT 1105	122	78.	*	15 OCT 2335	272	114.	*	16 OCT 1205	422	69.	*	17 OCT 0035	572	68.
15 OCT 1110	123	78.	*	15 OCT 2340	273	113.	*	16 OCT 1210	423	68.	*	17 OCT 0040	573	68.
15 OCT 1115	124	78.	*	15 OCT 2345	274	112.	*	16 OCT 1215	424	68.	*	17 OCT 0045	574	68.
15 OCT 1120	125	79.	*	15 OCT 2350	275	110.	*	16 OCT 1220	425	68.	*	17 OCT 0050	575	68.
15 OCT 1125	126	79.	*	15 OCT 2355	276	109.	*	16 OCT 1225	426	68.	*	17 OCT 0055	576	68.
15 OCT 1130	127	79.	*	16 OCT 0000	277	108.	*	16 OCT 1230	427	68.	*	17 OCT 0100	577	68.
15 OCT 1135	128	79.	*	16 OCT 0005	278	107.	*	16 OCT 1235	428	68.	*	17 OCT 0105	578	68.
15 OCT 1140	129	80.	*	16 OCT 0010	279	106.	*	16 OCT 1240	429	68.	*	17 OCT 0110	579	68.
15 OCT 1145	130	80.	*	16 OCT 0015	280	105.	*	16 OCT 1245	430	68.	*	17 OCT 0115	580	68.
15 OCT 1150	131	80.	*	16 OCT 0020	281	104.	*	16 OCT 1250	431	68.	*	17 OCT 0120	581	68.
15 OCT 1155	132	81.	*	16 OCT 0025	282	103.	*	16 OCT 1255	432	68.	*	17 OCT 0125	582	68.
15 OCT 1200	133	81.	*	16 OCT 0030	283	102.	*	16 OCT 1300	433	68.	*	17 OCT 0130	583	68.
15 OCT 1205	134	82.	*	16 OCT 0035	284	101.	*	16 OCT 1305	434	68.	*	17 OCT 0135	584	68.
15 OCT 1210	135	82.	*	16 OCT 0040	285	101.	*	16 OCT 1310	435	68.	*	17 OCT 0140	585	68.
15 OCT 1215	136	83.	*	16 OCT 0045	286	100.	*	16 OCT 1315	436	68.	*	17 OCT 0145	586	68.
15 OCT 1220	137	83.	*	16 OCT 0050	287	99.	*	16 OCT 1320	437	68.	*	17 OCT 0150	587	68.
15 OCT 1225	138	84.	*	16 OCT 0055	288	98.	*	16 OCT 1325	438	68.	*	17 OCT 0155	588	68.
15 OCT 1230	139	85.	*	16 OCT 0100	289	97.	*	16 OCT 1330	439	68.	*	17 OCT 0200	589	68.
15 OCT 1235	140	86.	*	16 OCT 0105	290	96.	*	16 OCT 1335	440	68.	*	17 OCT 0205	590	68.
15 OCT 1240	141	87.	*	16 OCT 0110	291	96.	*	16 OCT 1340	441	68.	*	17 OCT 0210	591	68.
15 OCT 1245	142	88.	*	16 OCT 0115	292	95.	*	16 OCT 1345	442	68.	*	17 OCT 0215	592	68.
15 OCT 1250	143	89.	*	16 OCT 0120	293	94.	*	16 OCT 1350	443	68.	*	17 OCT 0220	593	68.
15 OCT 1255	144	91.	*	16 OCT 0125	294	94.	*	16 OCT 1355	444	68.	*	17 OCT 0225	594	68.
15 OCT 1300	145	93.	*	16 OCT 0130	295	93.	*	16 OCT 1400	445	68.	*	17 OCT 0230	595	68.
15 OCT 1305	146	95.	*	16 OCT 0135	296	92.	*	16 OCT 1405	446	68.	*	17 OCT 0235	596	68.
15 OCT 1310	147	97.	*	16 OCT 0140	297	92.	*	16 OCT 1410	447	68.	*	17 OCT 0240	597	68.
15 OCT 1315	148	100.	*	16 OCT 0145	298	91.	*	16 OCT 1415	448	68.	*	17 OCT 0245	598	68.
15 OCT 1320	149	103.	*	16 OCT 0150	299	91.	*	16 OCT 1420	449	68.	*	17 OCT 0250	599	68.
15 OCT 1325	150	108.	*	16 OCT 0155	300	90.	*	16 OCT 1425	450	68.	*	17 OCT 0255	600	68.
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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)				
		(CFS)			
+ 640.	15.25	447.	187.	125.	125.
		(INCHES)	.740	1.236	1.727	1.727
		(AC-FT)	222.	371.	518.	518.

CUMULATIVE AREA = 5.62 SQ MI

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              *             *
2663 KK       *    PL10C1   *
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2664 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION PL10C1
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
15	OCT	0100	1	35.	15	OCT	1330	151	139.	16	OCT	0200	301	45.	16	OCT	1430	451	35.
15	OCT	0105	2	35.	15	OCT	1335	152	146.	16	OCT	0205	302	44.	16	OCT	1435	452	35.
15	OCT	0110	3	35.	15	OCT	1340	153	152.	16	OCT	0210	303	44.	16	OCT	1440	453	35.
15	OCT	0115	4	35.	15	OCT	1345	154	158.	16	OCT	0215	304	44.	16	OCT	1445	454	35.
15	OCT	0120	5	35.	15	OCT	1350	155	163.	16	OCT	0220	305	44.	16	OCT	1450	455	35.
15	OCT	0125	6	35.	15	OCT	1355	156	167.	16	OCT	0225	306	44.	16	OCT	1455	456	35.
15	OCT	0130	7	35.	15	OCT	1400	157	171.	16	OCT	0230	307	44.	16	OCT	1500	457	35.
15	OCT	0135	8	35.	15	OCT	1405	158	175.	16	OCT	0235	308	44.	16	OCT	1505	458	35.
15	OCT	0140	9	35.	15	OCT	1410	159	178.	16	OCT	0240	309	43.	16	OCT	1510	459	35.
15	OCT	0145	10	35.	15	OCT	1415	160	180.	16	OCT	0245	310	43.	16	OCT	1515	460	35.
15	OCT	0150	11	35.	15	OCT	1420	161	182.	16	OCT	0250	311	43.	16	OCT	1520	461	35.
15	OCT	0155	12	35.	15	OCT	1425	162	184.	16	OCT	0255	312	43.	16	OCT	1525	462	35.
15	OCT	0200	13	35.	15	OCT	1430	163	185.	16	OCT	0300	313	43.	16	OCT	1530	463	35.
15	OCT	0205	14	35.	15	OCT	1435	164	185.	16	OCT	0305	314	43.	16	OCT	1535	464	35.
15	OCT	0210	15	35.	15	OCT	1440	165	184.	16	OCT	0310	315	42.	16	OCT	1540	465	35.
15	OCT	0215	16	35.	15	OCT	1445	166	182.	16	OCT	0315	316	42.	16	OCT	1545	466	35.
15	OCT	0220	17	35.	15	OCT	1450	167	179.	16	OCT	0320	317	42.	16	OCT	1550	467	35.
15	OCT	0225	18	35.	15	OCT	1455	168	176.	16	OCT	0325	318	42.	16	OCT	1555	468	35.
15	OCT	0230	19	35.	15	OCT	1500	169	172.	16	OCT	0330	319	42.	16	OCT	1600	469	35.
15	OCT	0235	20	36.	15	OCT	1505	170	169.	16	OCT	0335	320	42.	16	OCT	1605	470	35.
15	OCT	0240	21	36.	15	OCT	1510	171	166.	16	OCT	0340	321	42.	16	OCT	1610	471	35.
15	OCT	0245	22	36.	15	OCT	1515	172	162.	16	OCT	0345	322	42.	16	OCT	1615	472	35.
15	OCT	0250	23	36.	15	OCT	1520	173	159.	16	OCT	0350	323	42.	16	OCT	1620	473	35.
15	OCT	0255	24	36.	15	OCT	1525	174	155.	16	OCT	0355	324	42.	16	OCT	1625	474	35.
15	OCT	0300	25	36.	15	OCT	1530	175	152.	16	OCT	0400	325	41.	16	OCT	1630	475	35.
15	OCT	0305	26	36.	15	OCT	1535	176	149.	16	OCT	0405	326	41.	16	OCT	1635	476	35.
15	OCT	0310	27	36.	15	OCT	1540	177	146.	16	OCT	0410	327	41.	16	OCT	1640	477	35.
15	OCT	0315	28	36.	15	OCT	1545	178	144.	16	OCT	0415	328	41.	16	OCT	1645	478	35.
15	OCT	0320	29	36.	15	OCT	1550	179	141.	16	OCT	0420	329	41.	16	OCT	1650	479	35.
15	OCT	0325	30	36.	15	OCT	1555	180	138.	16	OCT	0425	330	41.	16	OCT	1655	480	35.
15	OCT	0330	31	36.	15	OCT	1600	181	136.	16	OCT	0430	331	41.	16	OCT	1700	481	35.
15	OCT	0335	32	36.	15	OCT	1605	182	134.	16	OCT	0435	332	41.	16	OCT	1705	482	35.
15	OCT	0340	33	36.	15	OCT	1610	183	132.	16	OCT	0440	333	41.	16	OCT	1710	483	35.
15	OCT	0345	34	36.	15	OCT	1615	184	130.	16	OCT	0445	334	41.	16	OCT	1715	484	35.
15	OCT	0350	35	36.	15	OCT	1620	185	128.	16	OCT	0450	335	41.	16	OCT	1720	485	35.
15	OCT	0355	36	36.	15	OCT	1625	186	126.	16	OCT	0455	336	41.	16	OCT	1725	486	35.
15	OCT	0400	37	36.	15	OCT	1630	187	124.	16	OCT	0500	337	41.	16	OCT	1730	487	35.
15	OCT	0405	38	36.	15	OCT	1635	188	122.	16	OCT	0505	338	41.	16	OCT	1735	488	35.
15	OCT	0410	39	36.	15	OCT	1640	189	120.	16	OCT	0510	339	40.	16	OCT	1740	489	35.
15	OCT	0415	40	36.	15	OCT	1645	190	117.	16	OCT	0515	340	40.	16	OCT	1745	490	35.
15	OCT	0420	41	36.	15	OCT	1650	191	115.	16	OCT	0520	341	40.	16	OCT	1750	491	35.
15	OCT	0425	42	37.	15	OCT	1655	192	113.	16	OCT	0525	342	40.	16	OCT	1755	492	35.
15	OCT	0430	43	37.	15	OCT	1700	193	111.	16	OCT	0530	343	40.	16	OCT	1800	493	35.
15	OCT	0435	44	37.	15	OCT	1705	194	109.	16	OCT	0535	344	40.	16	OCT	1805	494	35.
15	OCT	0440	45	37.	15	OCT	1710	195	107.	16	OCT	0540	345	40.	16	OCT	1810	495	35.
15	OCT	0445	46	37.	15	OCT	1715	196	105.	16	OCT	0545	346	40.	16	OCT	1815	496	35.
15	OCT	0450	47	37.	15	OCT	1720	197	103.	16	OCT	0550	347	40.	16	OCT	1820	497	35.
15	OCT	0455	48	37.	15	OCT	1725	198	102.	16	OCT	0555	348	39.	16	OCT	1825	498	35.
15	OCT	0500	49	37.	15	OCT	1730	199	100.	16	OCT	0600	349	39.	16	OCT	1830	499	35.
15	OCT	0505	50	37.	15	OCT	1735	200	98.	16	OCT	0605	350	39.	16	OCT	1835	500	35.
15	OCT	0510	51	37.	15	OCT	1740	201	97.	16	OCT	0610	351	39.	16	OCT	1840	501	35.
15	OCT	0515	52	37.	15	OCT	1745	202	96.	16	OCT	0615	352	39.	16	OCT	1845	502	35.
15	OCT	0520	53	38.	15	OCT	1750	203	94.	16	OCT	0620	353	39.	16	OCT	1850	503	35.
15	OCT	0525	54	38.	15	OCT	1755	204	93.	16	OCT	0625	354	39.	16	OCT	1855	504	35.
15	OCT	0530	55	38.	15	OCT	1800	205	91.	16	OCT	0630	355	39.	16	OCT	1900	505	35.
15	OCT	0535	56	38.	15	OCT	1805	206	90.	16	OCT	0635	356	38.	16	OCT	1905	506	35.
15	OCT	0540	57	38.	15	OCT	1810	207	88.	16	OCT	0640	357	38.	16	OCT	1910	507	35.
15	OCT	0545	58	38.	15	OCT	1815	208	87.	16	OCT	0645	358	38.	16	OCT	1915	508	35.
15	OCT	0550	59	38.	15	OCT	1820	209	86.	16	OCT	0650	359	38.	16	OCT	1920	509	35.
15	OCT	0555	60	39.	15	OCT	1825	210	85.	16	OCT	0655	360	38.	16	OCT	1925	510	35.
15	OCT	0600	61	39.	15	OCT	1830	211	83.	16	OCT	0700	361	38.	16	OCT	1930	511	35.
15	OCT	0605	62	39.	15	OCT	1835	212	82.	16	OCT	0705	362	38.	16	OCT	1935	512	35.
15	OCT	0610	63	39.	15	OCT	1840	213	81.	16	OCT	0710	363	38.	16	OCT	1940	513	35.
15	OCT	0615	64	39.	15	OCT	1845	214	80.	16	OCT	0715	364	38.	16	OCT	1945	514	35.
15	OCT	0620	65	40.	15	OCT	1850	215	79.	16	OCT	0720	365	37.	16	OCT	1950	515	35.
15	OCT	0625	66	40.	15	OCT	1855	216	78.	16	OCT	0725	366	37.	16	OCT	1955	516	35.
15	OCT	0630	67	40.	15	OCT	1900	217	77.	16	OCT	0730	367	37.	16	OCT	2000	517	35.
15	OCT	0635	68	40.	15	OCT	1905	218	77.	16	OCT	0735	368	37.	16	OCT	2005	518	35.
15	OCT	0640	69	40.	15	OCT	1910	219	76.	16	OCT	0740	369	37.	16	OCT	2010	519	35.
15	OCT	0645	70	40.	15	OCT	1915	220	75.	16	OCT	0745	370	37.	16	OCT	2015	520	35.
15	OCT	0650	71	40.	15	OCT	1920	221	74.	16	OCT	0750	371	37.	16	OCT	2020	521	35.
15	OCT	0655	72	40.	15	OCT	1925	222	73.	16	OCT	0755	372	37.	16	OCT	2025	522	35.
15	OCT	0700	73	40.	15	OCT	1930	223	73.	16	OCT	0800	373	37.	16	OCT	2030	523	35.
15	OCT	0705	74	41.	15	OCT	1935	224	72.	16	OCT	0805	374	37.	16	OCT	2035	524	35.
15	OCT	0710	75	41.	15	OCT	1940	225	71.	16	OCT	0810	375	37.	16	OCT	2040	525	35.
15	OCT	0715	76	41.	15	OCT	1945	226	70.	16	OCT	0815	376	36.	16	OCT	2045	526	35.
15	OCT	0720	77	41.	15	OCT	1950	227	70.	16	OCT	0820	377	36.	16	OCT	2050	527	35.
15	OCT	0725	78	41.	15	OCT	1955	228	69.	16	OCT	0825	378	36.	16	OCT	2055	528	35.
15	OCT	0730	79	41.	15	OCT	2000	229	68.	16	OCT	0830	379	36.	16	OCT	2100	529	35.
15	OCT	0735	80	41.	15	OCT	2005	230	68.	16	OCT	0835	380	36.	16	OCT	2105	530	35.
15	OCT	0740	81	41.	15	OCT	2010	231	67.	16	OCT	0840	381	36.	16	OCT	2110	531	35.
15	OCT	0745	82	41.	15	OCT	2015	232	66.	16	OCT	0845	382	36.	16	OCT	2115	532	35.
15	OCT	0750	83	41.	15	OCT	2020	233	66.	16	OCT	0850	383	36.	16	OCT	2120	533	35.
15	OCT	0755	84	41.	15	OCT	2025	234	65.	16	OCT	0855	384	36.	16	OCT	2125	534	35.
15	OCT	0800	85	41.	15	OCT	2030	235	64.	16	OCT	0900	385	36.	16	OCT	2130	535	35.
15	OCT	0805	86	41.	15	OCT	2035	236	64.	16	OCT	0905	386	36.	16	OCT	2135	536	35.
15	OCT	0810	87	42.	15	OCT	2040	237	63.	16	OCT	0910	387	36.	16	OCT	2140	537	35.
15	OCT	0815	88	42.	15	OCT	2045	238	62.	16	OCT	0915	388	36.	16	OCT	2145	538	35.
15	OCT	0820	89	42.	15	OCT	2050	239	62.	16	OCT	0920	389	36.	16	OCT	2150	539	35.
15	OCT	0825	90	42.	15	OCT	2055	240	61.	16	OCT	0925	390	36.	16	OCT	2155	540	35.
15	OCT	0830	91	42.	15	OCT	2100	241	61.	16	OCT	0930	391	36.	16	OCT	2200	541	35.
15	OCT	0835	92	42.	15	OCT	2105	242	60.	16	OCT	0935	392	36.	16	OCT	2205	542	35.
15	OCT	0840	93	42.	15	OCT	2110	243	60.	16	OCT	0940	393	36.	16	OCT	2210	543	35.
15	OCT	0845	94	42.	15	OCT	2115	244	59.	16	OCT	0945	394	36.	16	OCT	2215	544	35.
15	OCT	0850	95	42.	15	OCT	2120	245	59.	16	OCT	0950	395	36.	16	OCT	2220	545	35.
15	OCT	0855	96	42.	15	OCT	2125	246	58.	16	OCT	0955	396	36.	16	OCT	2225	546	35.
15	OCT	0900	97	43.	15	OCT	2130	247	58.	16	OCT	1000	397	36.	16	OCT	2230	547	35.
15	OCT	0905	98	43.	15	OCT	2135	248	57.	16	OCT	1005	398	35.	16	OCT	2235	548	35.
15	OCT	0910	99	43.	15	OCT	2140	249	57.	16	OCT	1010	399	35.	16	OCT	2240	549	35.
15	OCT	0915	100	43.	15	OCT	2145	250	57.	16	OCT	1015	400	35.	16	OCT	2245	550	35.

15	OCT	0920	101	43.	*	15	OCT	2150	251	56.	*	16	OCT	1020	401	35.	*	16	OCT	2250	551	35.
15	OCT	0925	102	43.	*	15	OCT	2155	252	56.	*	16	OCT	1025	402	35.	*	16	OCT	2255	552	35.
15	OCT	0930	103	43.	*	15	OCT	2200	253	55.	*	16	OCT	1030	403	35.	*	16	OCT	2300	553	35.
15	OCT	0935	104	43.	*	15	OCT	2205	254	55.	*	16	OCT	1035	404	35.	*	16	OCT	2305	554	35.
15	OCT	0940	105	43.	*	15	OCT	2210	255	55.	*	16	OCT	1040	405	35.	*	16	OCT	2310	555	35.
15	OCT	0945	106	44.	*	15	OCT	2215	256	54.	*	16	OCT	1045	406	35.	*	16	OCT	2315	556	35.
15	OCT	0950	107	44.	*	15	OCT	2220	257	54.	*	16	OCT	1050	407	35.	*	16	OCT	2320	557	35.
15	OCT	0955	108	44.	*	15	OCT	2225	258	53.	*	16	OCT	1055	408	35.	*	16	OCT	2325	558	35.
15	OCT	1000	109	44.	*	15	OCT	2230	259	53.	*	16	OCT	1100	409	35.	*	16	OCT	2330	559	35.
15	OCT	1005	110	44.	*	15	OCT	2235	260	53.	*	16	OCT	1105	410	35.	*	16	OCT	2335	560	35.
15	OCT	1010	111	44.	*	15	OCT	2240	261	52.	*	16	OCT	1110	411	35.	*	16	OCT	2340	561	35.
15	OCT	1015	112	44.	*	15	OCT	2245	262	52.	*	16	OCT	1115	412	35.	*	16	OCT	2345	562	35.
15	OCT	1020	113	45.	*	15	OCT	2250	263	52.	*	16	OCT	1120	413	35.	*	16	OCT	2350	563	35.
15	OCT	1025	114	45.	*	15	OCT	2255	264	51.	*	16	OCT	1125	414	35.	*	16	OCT	2355	564	35.
15	OCT	1030	115	45.	*	15	OCT	2300	265	51.	*	16	OCT	1130	415	35.	*	17	OCT	0000	565	35.
15	OCT	1035	116	45.	*	15	OCT	2305	266	51.	*	16	OCT	1135	416	35.	*	17	OCT	0005	566	35.
15	OCT	1040	117	45.	*	15	OCT	2310	267	51.	*	16	OCT	1140	417	35.	*	17	OCT	0010	567	35.
15	OCT	1045	118	46.	*	15	OCT	2315	268	50.	*	16	OCT	1145	418	35.	*	17	OCT	0015	568	35.
15	OCT	1050	119	46.	*	15	OCT	2320	269	50.	*	16	OCT	1150	419	35.	*	17	OCT	0020	569	35.
15	OCT	1055	120	46.	*	15	OCT	2325	270	50.	*	16	OCT	1155	420	35.	*	17	OCT	0025	570	35.
15	OCT	1100	121	47.	*	15	OCT	2330	271	50.	*	16	OCT	1200	421	35.	*	17	OCT	0030	571	35.
15	OCT	1105	122	47.	*	15	OCT	2335	272	49.	*	16	OCT	1205	422	35.	*	17	OCT	0035	572	35.
15	OCT	1110	123	48.	*	15	OCT	2340	273	49.	*	16	OCT	1210	423	35.	*	17	OCT	0040	573	35.
15	OCT	1115	124	48.	*	15	OCT	2345	274	49.	*	16	OCT	1215	424	35.	*	17	OCT	0045	574	35.
15	OCT	1120	125	49.	*	15	OCT	2350	275	49.	*	16	OCT	1220	425	35.	*	17	OCT	0050	575	35.
15	OCT	1125	126	50.	*	15	OCT	2355	276	48.	*	16	OCT	1225	426	35.	*	17	OCT	0055	576	35.
15	OCT	1130	127	51.	*	16	OCT	0000	277	48.	*	16	OCT	1230	427	35.	*	17	OCT	0100	577	35.
15	OCT	1135	128	51.	*	16	OCT	0005	278	48.	*	16	OCT	1235	428	35.	*	17	OCT	0105	578	35.
15	OCT	1140	129	52.	*	16	OCT	0010	279	48.	*	16	OCT	1240	429	35.	*	17	OCT	0110	579	35.
15	OCT	1145	130	53.	*	16	OCT	0015	280	48.	*	16	OCT	1245	430	35.	*	17	OCT	0115	580	35.
15	OCT	1150	131	55.	*	16	OCT	0020	281	47.	*	16	OCT	1250	431	35.	*	17	OCT	0120	581	35.
15	OCT	1155	132	56.	*	16	OCT	0025	282	47.	*	16	OCT	1255	432	35.	*	17	OCT	0125	582	35.
15	OCT	1200	133	57.	*	16	OCT	0030	283	47.	*	16	OCT	1300	433	35.	*	17	OCT	0130	583	35.
15	OCT	1205	134	58.	*	16	OCT	0035	284	47.	*	16	OCT	1305	434	35.	*	17	OCT	0135	584	35.
15	OCT	1210	135	60.	*	16	OCT	0040	285	47.	*	16	OCT	1310	435	35.	*	17	OCT	0140	585	35.
15	OCT	1215	136	62.	*	16	OCT	0045	286	47.	*	16	OCT	1315	436	35.	*	17	OCT	0145	586	35.
15	OCT	1220	137	64.	*	16	OCT	0050	287	46.	*	16	OCT	1320	437	35.	*	17	OCT	0150	587	35.
15	OCT	1225	138	66.	*	16	OCT	0055	288	46.	*	16	OCT	1325	438	35.	*	17	OCT	0155	588	35.
15	OCT	1230	139	69.	*	16	OCT	0100	289	46.	*	16	OCT	1330	439	35.	*	17	OCT	0200	589	35.
15	OCT	1235	140	72.	*	16	OCT	0105	290	46.	*	16	OCT	1335	440	35.	*	17	OCT	0205	590	35.
15	OCT	1240	141	75.	*	16	OCT	0110	291	46.	*	16	OCT	1340	441	35.	*	17	OCT	0210	591	35.
15	OCT	1245	142	80.	*	16	OCT	0115	292	46.	*	16	OCT	1345	442	35.	*	17	OCT	0215	592	35.
15	OCT	1250	143	85.	*	16	OCT	0120	293	46.	*	16	OCT	1350	443	35.	*	17	OCT	0220	593	35.
15	OCT	1255	144	90.	*	16	OCT	0125	294	45.	*	16	OCT	1355	444	35.	*	17	OCT	0225	594	35.
15	OCT	1300	145	96.	*	16	OCT	0130	295	45.	*	16	OCT	1400	445	35.	*	17	OCT	0230	595	35.
15	OCT	1305	146	103.	*	16	OCT	0135	296	45.	*	16	OCT	1405	446	35.	*	17	OCT	0235	596	35.
15	OCT	1310	147	110.	*	16	OCT	0140	297	45.	*	16	OCT	1410	447	35.	*	17	OCT	0240	597	35.
15	OCT	1315	148	117.	*	16	OCT	0145	298	45.	*	16	OCT	1415	448	35.	*	17	OCT	0245	598	35.
15	OCT	1320	149	124.	*	16	OCT	0150	299	45.	*	16	OCT	1420	449	35.	*	17	OCT	0250	599	35.
15	OCT	1325	150	132.	*	16	OCT	0155	300	45.	*	16	OCT	1425	450	35.	*	17	OCT	0255	600	35.
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 185.	13.58		130.	69.	52.	52.
		(INCHES)	.623	1.332	2.069	2.069
		(AC-FT)	64.	138.	214.	214.

CUMULATIVE AREA = 1.94 SQ MI

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          *            *
2926 KK   *    PL10E   *    PLEASANT GROVE CREEK
          *            *
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SUBBASIN RUNOFF DATA

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2927 BA          SUBBASIN CHARACTERISTICS
                      TAREA         .35  SUBBASIN AREA

2959 BF          BASE FLOW CHARACTERISTICS
                      STRTQ        1.05  INITIAL FLOW
                      QRCSN         .00  BEGIN BASE FLOW RECESSION
                      RTIOR     1.00000  RECESSION CONSTANT
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HYDROGRAPH AT STATION PL10E

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q		DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
15	OCT	0100	1	.00	.00	.00	1.	*	16	OCT	0200	301	.00	.00	.00	2.
15	OCT	0105	2	.00	.00	.00	1.	*	16	OCT	0205	302	.00	.00	.00	2.
15	OCT	0110	3	.00	.00	.00	1.	*	16	OCT	0210	303	.00	.00	.00	2.
15	OCT	0115	4	.00	.00	.00	1.	*	16	OCT	0215	304	.00	.00	.00	2.
15	OCT	0120	5	.00	.00	.00	1.	*	16	OCT	0220	305	.00	.00	.00	2.
15	OCT	0125	6	.00	.00	.00	1.	*	16	OCT	0225	306	.00	.00	.00	2.
15	OCT	0130	7	.00	.00	.00	1.	*	16	OCT	0230	307	.00	.00	.00	2.
15	OCT	0135	8	.00	.00	.00	1.	*	16	OCT	0235	308	.00	.00	.00	2.
15	OCT	0140	9	.00	.00	.00	1.	*	16	OCT	0240	309	.00	.00	.00	2.
15	OCT	0145	10	.00	.00	.00	1.	*	16	OCT	0245	310	.00	.00	.00	2.
15	OCT	0150	11	.00	.00	.00	1.	*	16	OCT	0250	311	.00	.00	.00	2.
15	OCT	0155	12	.00	.00	.00	1.	*	16	OCT	0255	312	.00	.00	.00	2.

15	OCT	0200	13	.00	.00	.00	1.	*	16	OCT	0300	313	.00	.00	.00	2.
15	OCT	0205	14	.00	.00	.00	1.	*	16	OCT	0305	314	.00	.00	.00	2.
15	OCT	0210	15	.00	.00	.00	1.	*	16	OCT	0310	315	.00	.00	.00	2.
15	OCT	0215	16	.00	.00	.00	1.	*	16	OCT	0315	316	.00	.00	.00	2.
15	OCT	0220	17	.00	.00	.00	1.	*	16	OCT	0320	317	.00	.00	.00	2.
15	OCT	0225	18	.00	.00	.00	1.	*	16	OCT	0325	318	.00	.00	.00	1.
15	OCT	0230	19	.00	.00	.00	1.	*	16	OCT	0330	319	.00	.00	.00	1.
15	OCT	0235	20	.00	.00	.00	1.	*	16	OCT	0335	320	.00	.00	.00	1.
15	OCT	0240	21	.00	.00	.00	1.	*	16	OCT	0340	321	.00	.00	.00	1.
15	OCT	0245	22	.00	.00	.00	1.	*	16	OCT	0345	322	.00	.00	.00	1.
15	OCT	0250	23	.00	.00	.00	1.	*	16	OCT	0350	323	.00	.00	.00	1.
15	OCT	0255	24	.00	.00	.00	1.	*	16	OCT	0355	324	.00	.00	.00	1.
15	OCT	0300	25	.00	.00	.00	1.	*	16	OCT	0400	325	.00	.00	.00	1.
15	OCT	0305	26	.00	.00	.00	1.	*	16	OCT	0405	326	.00	.00	.00	1.
15	OCT	0310	27	.00	.00	.00	1.	*	16	OCT	0410	327	.00	.00	.00	1.
15	OCT	0315	28	.00	.00	.00	1.	*	16	OCT	0415	328	.00	.00	.00	1.
15	OCT	0320	29	.00	.00	.00	1.	*	16	OCT	0420	329	.00	.00	.00	1.
15	OCT	0325	30	.00	.00	.00	1.	*	16	OCT	0425	330	.00	.00	.00	1.
15	OCT	0330	31	.00	.00	.00	1.	*	16	OCT	0430	331	.00	.00	.00	1.
15	OCT	0335	32	.00	.00	.00	1.	*	16	OCT	0435	332	.00	.00	.00	1.
15	OCT	0340	33	.00	.00	.00	1.	*	16	OCT	0440	333	.00	.00	.00	1.
15	OCT	0345	34	.00	.00	.00	1.	*	16	OCT	0445	334	.00	.00	.00	1.
15	OCT	0350	35	.00	.00	.00	1.	*	16	OCT	0450	335	.00	.00	.00	1.
15	OCT	0355	36	.00	.00	.00	1.	*	16	OCT	0455	336	.00	.00	.00	1.
15	OCT	0400	37	.00	.00	.00	1.	*	16	OCT	0500	337	.00	.00	.00	1.
15	OCT	0405	38	.00	.00	.00	1.	*	16	OCT	0505	338	.00	.00	.00	1.
15	OCT	0410	39	.00	.00	.00	1.	*	16	OCT	0510	339	.00	.00	.00	1.
15	OCT	0415	40	.00	.00	.00	1.	*	16	OCT	0515	340	.00	.00	.00	1.
15	OCT	0420	41	.00	.00	.00	1.	*	16	OCT	0520	341	.00	.00	.00	1.
15	OCT	0425	42	.00	.00	.00	1.	*	16	OCT	0525	342	.00	.00	.00	1.
15	OCT	0430	43	.00	.00	.00	1.	*	16	OCT	0530	343	.00	.00	.00	1.
15	OCT	0435	44	.00	.00	.00	1.	*	16	OCT	0535	344	.00	.00	.00	1.
15	OCT	0440	45	.00	.00	.00	1.	*	16	OCT	0540	345	.00	.00	.00	1.
15	OCT	0445	46	.00	.00	.00	1.	*	16	OCT	0545	346	.00	.00	.00	1.
15	OCT	0450	47	.00	.00	.00	1.	*	16	OCT	0550	347	.00	.00	.00	1.
15	OCT	0455	48	.00	.00	.00	1.	*	16	OCT	0555	348	.00	.00	.00	1.
15	OCT	0500	49	.00	.00	.00	1.	*	16	OCT	0600	349	.00	.00	.00	1.
15	OCT	0505	50	.00	.00	.00	1.	*	16	OCT	0605	350	.00	.00	.00	1.
15	OCT	0510	51	.00	.00	.00	1.	*	16	OCT	0610	351	.00	.00	.00	1.
15	OCT	0515	52	.00	.00	.00	1.	*	16	OCT	0615	352	.00	.00	.00	1.
15	OCT	0520	53	.00	.00	.00	1.	*	16	OCT	0620	353	.00	.00	.00	1.
15	OCT	0525	54	.00	.00	.00	1.	*	16	OCT	0625	354	.00	.00	.00	1.
15	OCT	0530	55	.00	.00	.00	1.	*	16	OCT	0630	355	.00	.00	.00	1.
15	OCT	0535	56	.00	.00	.00	1.	*	16	OCT	0635	356	.00	.00	.00	1.
15	OCT	0540	57	.00	.00	.00	1.	*	16	OCT	0640	357	.00	.00	.00	1.
15	OCT	0545	58	.00	.00	.00	1.	*	16	OCT	0645	358	.00	.00	.00	1.
15	OCT	0550	59	.00	.00	.00	1.	*	16	OCT	0650	359	.00	.00	.00	1.
15	OCT	0555	60	.00	.00	.00	1.	*	16	OCT	0655	360	.00	.00	.00	1.
15	OCT	0600	61	.00	.00	.00	1.	*	16	OCT	0700	361	.00	.00	.00	1.
15	OCT	0605	62	.00	.00	.00	1.	*	16	OCT	0705	362	.00	.00	.00	1.
15	OCT	0610	63	.00	.00	.00	1.	*	16	OCT	0710	363	.00	.00	.00	1.
15	OCT	0615	64	.00	.00	.00	1.	*	16	OCT	0715	364	.00	.00	.00	1.
15	OCT	0620	65	.00	.00	.00	1.	*	16	OCT	0720	365	.00	.00	.00	1.
15	OCT	0625	66	.00	.00	.00	1.	*	16	OCT	0725	366	.00	.00	.00	1.
15	OCT	0630	67	.00	.00	.00	1.	*	16	OCT	0730	367	.00	.00	.00	1.
15	OCT	0635	68	.00	.00	.00	1.	*	16	OCT	0735	368	.00	.00	.00	1.
15	OCT	0640	69	.00	.00	.00	1.	*	16	OCT	0740	369	.00	.00	.00	1.
15	OCT	0645	70	.00	.00	.00	1.	*	16	OCT	0745	370	.00	.00	.00	1.
15	OCT	0650	71	.00	.00	.00	1.	*	16	OCT	0750	371	.00	.00	.00	1.
15	OCT	0655	72	.00	.00	.00	1.	*	16	OCT	0755	372	.00	.00	.00	1.
15	OCT	0700	73	.00	.00	.00	1.	*	16	OCT	0800	373	.00	.00	.00	1.
15	OCT	0705	74	.00	.00	.00	1.	*	16	OCT	0805	374	.00	.00	.00	1.
15	OCT	0710	75	.00	.00	.00	1.	*	16	OCT	0810	375	.00	.00	.00	1.
15	OCT	0715	76	.00	.00	.00	1.	*	16	OCT	0815	376	.00	.00	.00	1.
15	OCT	0720	77	.00	.00	.00	1.	*	16	OCT	0820	377	.00	.00	.00	1.
15	OCT	0725	78	.00	.00	.00	1.	*	16	OCT	0825	378	.00	.00	.00	1.
15	OCT	0730	79	.00	.00	.00	1.	*	16	OCT	0830	379	.00	.00	.00	1.
15	OCT	0735	80	.00	.00	.00	1.	*	16	OCT	0835	380	.00	.00	.00	1.
15	OCT	0740	81	.00	.00	.00	1.	*	16	OCT	0840	381	.00	.00	.00	1.
15	OCT	0745	82	.00	.00	.00	1.	*	16	OCT	0845	382	.00	.00	.00	1.
15	OCT	0750	83	.00	.00	.00	2.	*	16	OCT	0850	383	.00	.00	.00	1.
15	OCT	0755	84	.00	.00	.00	2.	*	16	OCT	0855	384	.00	.00	.00	1.
15	OCT	0800	85	.00	.00	.00	2.	*	16	OCT	0900	385	.00	.00	.00	1.
15	OCT	0805	86	.00	.00	.00	2.	*	16	OCT	0905	386	.00	.00	.00	1.
15	OCT	0810	87	.00	.00	.00	2.	*	16	OCT	0910	387	.00	.00	.00	1.
15	OCT	0815	88	.00	.00	.00	2.	*	16	OCT	0915	388	.00	.00	.00	1.
15	OCT	0820	89	.00	.00	.00	2.	*	16	OCT	0920	389	.00	.00	.00	1.
15	OCT	0825	90	.00	.00	.00	2.	*	16	OCT	0925	390	.00	.00	.00	1.
15	OCT	0830	91	.00	.00	.00	2.	*	16	OCT	0930	391	.00	.00	.00	1.
15	OCT	0835	92	.00	.00	.00	2.	*	16	OCT	0935	392	.00	.00	.00	1.
15	OCT	0840	93	.00	.00	.00	2.	*	16	OCT	0940	393	.00	.00	.00	1.
15	OCT	0845	94	.00	.00	.00	2.	*	16	OCT	0945	394	.00	.00	.00	1.
15	OCT	0850	95	.00	.00	.00	2.	*	16	OCT	0950	395	.00	.00	.00	1.
15	OCT	0855	96	.00	.00	.00	2.	*	16	OCT	0955	396	.00	.00	.00	1.
15	OCT	0900	97	.00	.00	.00	2.	*	16	OCT	1000	397	.00	.00	.00	1.
15	OCT	0905	98	.00	.00	.00	2.	*	16	OCT	1005	398	.00	.00	.00	1.
15	OCT	0910	99	.00	.00	.00	2.	*	16	OCT	1010	399	.00	.00	.00	1.
15	OCT	0915	100	.00	.00	.00	2.	*	16	OCT	1015	400	.00	.00	.00	1.
15	OCT	0920	101	.00	.00	.00	2.	*	16	OCT	1020	401	.00	.00	.00	1.
15	OCT	0925	102	.01	.00	.00	2.	*	16	OCT	1025	402	.00	.00	.00	1.
15	OCT	0930	103	.01	.00	.00	2.	*	16	OCT	1030	403	.00	.00	.00	1.
15	OCT	0935	104	.01	.00	.00	2.	*	16	OCT	1035	404	.00	.00	.00	1.
15	OCT	0940	105	.01	.00	.00	2.	*	16	OCT	1040	405	.00	.00	.00	1.
15	OCT	0945	106	.01	.00	.00	2.	*	16	OCT	1045	406	.00	.00	.00	1.
15	OCT	0950	107	.01	.00	.00	2.	*	16	OCT	1050	407	.00	.00	.00	1.
15	OCT	0955	108	.01	.00	.00	2.	*	16	OCT	1055	408	.00	.00	.00	1.
15	OCT	1000	109	.01	.00	.00	2.	*	16	OCT	1100	409	.00	.00	.00	1.
15	OCT	1005	110	.01	.00	.00	2.	*	16	OCT	1105	410	.00	.00	.00	1.
15	OCT	1010	111	.01	.00	.00	2.	*	16	OCT	1110	411	.00	.00	.00	1.
15	OCT	1015	112	.01	.00	.00	2.	*	16	OCT	1115	412	.00	.00	.00	1.
15	OCT	1020	113	.01	.00	.00	2.	*	16	OCT	1120	413	.00	.00	.00	1.
15	OCT	1025	114	.01	.00	.00	2.	*	16	OCT	1125	414	.00	.00	.00	1.
15	OCT	1030	115	.01	.00	.00	2.	*	16	OCT	1130	415	.00	.00	.00	1.
15	OCT	1035	116	.01	.00	.00	2.	*	16	OCT	1135	416	.00	.00	.00	1.
15	OCT	1040	117	.01	.00	.00	2.	*	16	OCT	1140	417	.00	.00	.00	1.
15	OCT	1045	118	.01	.00	.00	2.	*	16	OCT	1145	418	.00	.00	.00	1.
15	OCT	1050	119	.01	.00	.00	2.	*	16	OCT	1150	419	.00	.00	.00	1.

15	OCT	1055	120	.01	.00	.00	2.	*	16	OCT	1155	420	.00	.00	.00	1.
15	OCT	1100	121	.01	.00	.00	2.	*	16	OCT	1200	421	.00	.00	.00	1.
15	OCT	1105	122	.01	.00	.00	2.	*	16	OCT	1205	422	.00	.00	.00	1.
15	OCT	1110	123	.01	.00	.00	2.	*	16	OCT	1210	423	.00	.00	.00	1.
15	OCT	1115	124	.01	.00	.00	2.	*	16	OCT	1215	424	.00	.00	.00	1.
15	OCT	1120	125	.01	.00	.00	2.	*	16	OCT	1220	425	.00	.00	.00	1.
15	OCT	1125	126	.01	.00	.00	2.	*	16	OCT	1225	426	.00	.00	.00	1.
15	OCT	1130	127	.01	.00	.00	2.	*	16	OCT	1230	427	.00	.00	.00	1.
15	OCT	1135	128	.01	.00	.00	2.	*	16	OCT	1235	428	.00	.00	.00	1.
15	OCT	1140	129	.01	.00	.00	2.	*	16	OCT	1240	429	.00	.00	.00	1.
15	OCT	1145	130	.01	.00	.00	3.	*	16	OCT	1245	430	.00	.00	.00	1.
15	OCT	1150	131	.01	.00	.00	3.	*	16	OCT	1250	431	.00	.00	.00	1.
15	OCT	1155	132	.01	.00	.00	3.	*	16	OCT	1255	432	.00	.00	.00	1.
15	OCT	1200	133	.01	.00	.00	3.	*	16	OCT	1300	433	.00	.00	.00	1.
15	OCT	1205	134	.01	.00	.01	3.	*	16	OCT	1305	434	.00	.00	.00	1.
15	OCT	1210	135	.01	.00	.01	3.	*	16	OCT	1310	435	.00	.00	.00	1.
15	OCT	1215	136	.01	.00	.01	4.	*	16	OCT	1315	436	.00	.00	.00	1.
15	OCT	1220	137	.01	.00	.01	4.	*	16	OCT	1320	437	.00	.00	.00	1.
15	OCT	1225	138	.01	.00	.01	4.	*	16	OCT	1325	438	.00	.00	.00	1.
15	OCT	1230	139	.01	.00	.01	4.	*	16	OCT	1330	439	.00	.00	.00	1.
15	OCT	1235	140	.02	.00	.01	5.	*	16	OCT	1335	440	.00	.00	.00	1.
15	OCT	1240	141	.02	.00	.01	5.	*	16	OCT	1340	441	.00	.00	.00	1.
15	OCT	1245	142	.02	.00	.01	5.	*	16	OCT	1345	442	.00	.00	.00	1.
15	OCT	1250	143	.02	.00	.01	6.	*	16	OCT	1350	443	.00	.00	.00	1.
15	OCT	1255	144	.01	.00	.01	7.	*	16	OCT	1355	444	.00	.00	.00	1.
15	OCT	1300	145	.01	.00	.01	7.	*	16	OCT	1400	445	.00	.00	.00	1.
15	OCT	1305	146	.01	.00	.01	8.	*	16	OCT	1405	446	.00	.00	.00	1.
15	OCT	1310	147	.01	.00	.01	9.	*	16	OCT	1410	447	.00	.00	.00	1.
15	OCT	1315	148	.01	.00	.01	10.	*	16	OCT	1415	448	.00	.00	.00	1.
15	OCT	1320	149	.01	.00	.01	11.	*	16	OCT	1420	449	.00	.00	.00	1.
15	OCT	1325	150	.01	.00	.01	12.	*	16	OCT	1425	450	.00	.00	.00	1.
15	OCT	1330	151	.01	.00	.00	13.	*	16	OCT	1430	451	.00	.00	.00	1.
15	OCT	1335	152	.01	.00	.00	13.	*	16	OCT	1435	452	.00	.00	.00	1.
15	OCT	1340	153	.01	.00	.01	14.	*	16	OCT	1440	453	.00	.00	.00	1.
15	OCT	1345	154	.01	.00	.01	14.	*	16	OCT	1445	454	.00	.00	.00	1.
15	OCT	1350	155	.01	.00	.01	15.	*	16	OCT	1450	455	.00	.00	.00	1.
15	OCT	1355	156	.01	.00	.01	15.	*	16	OCT	1455	456	.00	.00	.00	1.
15	OCT	1400	157	.01	.00	.01	16.	*	16	OCT	1500	457	.00	.00	.00	1.
15	OCT	1405	158	.01	.00	.01	17.	*	16	OCT	1505	458	.00	.00	.00	1.
15	OCT	1410	159	.02	.00	.01	18.	*	16	OCT	1510	459	.00	.00	.00	1.
15	OCT	1415	160	.02	.00	.01	18.	*	16	OCT	1515	460	.00	.00	.00	1.
15	OCT	1420	161	.02	.00	.01	19.	*	16	OCT	1520	461	.00	.00	.00	1.
15	OCT	1425	162	.02	.00	.01	20.	*	16	OCT	1525	462	.00	.00	.00	1.
15	OCT	1430	163	.02	.00	.01	21.	*	16	OCT	1530	463	.00	.00	.00	1.
15	OCT	1435	164	.01	.00	.01	22.	*	16	OCT	1535	464	.00	.00	.00	1.
15	OCT	1440	165	.01	.00	.01	23.	*	16	OCT	1540	465	.00	.00	.00	1.
15	OCT	1445	166	.01	.00	.01	23.	*	16	OCT	1545	466	.00	.00	.00	1.
15	OCT	1450	167	.01	.00	.01	24.	*	16	OCT	1550	467	.00	.00	.00	1.
15	OCT	1455	168	.01	.00	.01	24.	*	16	OCT	1555	468	.00	.00	.00	1.
15	OCT	1500	169	.01	.00	.01	24.	*	16	OCT	1600	469	.00	.00	.00	1.
15	OCT	1505	170	.01	.00	.00	24.	*	16	OCT	1605	470	.00	.00	.00	1.
15	OCT	1510	171	.01	.00	.00	24.	*	16	OCT	1610	471	.00	.00	.00	1.
15	OCT	1515	172	.01	.00	.00	23.	*	16	OCT	1615	472	.00	.00	.00	1.
15	OCT	1520	173	.01	.00	.00	23.	*	16	OCT	1620	473	.00	.00	.00	1.
15	OCT	1525	174	.01	.00	.00	23.	*	16	OCT	1625	474	.00	.00	.00	1.
15	OCT	1530	175	.01	.00	.00	22.	*	16	OCT	1630	475	.00	.00	.00	1.
15	OCT	1535	176	.01	.00	.00	22.	*	16	OCT	1635	476	.00	.00	.00	1.
15	OCT	1540	177	.01	.00	.00	21.	*	16	OCT	1640	477	.00	.00	.00	1.
15	OCT	1545	178	.01	.00	.00	21.	*	16	OCT	1645	478	.00	.00	.00	1.
15	OCT	1550	179	.01	.00	.00	20.	*	16	OCT	1650	479	.00	.00	.00	1.
15	OCT	1555	180	.01	.00	.00	20.	*	16	OCT	1655	480	.00	.00	.00	1.
15	OCT	1600	181	.01	.00	.00	19.	*	16	OCT	1700	481	.00	.00	.00	1.
15	OCT	1605	182	.01	.00	.00	19.	*	16	OCT	1705	482	.00	.00	.00	1.
15	OCT	1610	183	.01	.00	.00	18.	*	16	OCT	1710	483	.00	.00	.00	1.
15	OCT	1615	184	.01	.00	.00	18.	*	16	OCT	1715	484	.00	.00	.00	1.
15	OCT	1620	185	.01	.00	.00	17.	*	16	OCT	1720	485	.00	.00	.00	1.
15	OCT	1625	186	.01	.00	.00	17.	*	16	OCT	1725	486	.00	.00	.00	1.
15	OCT	1630	187	.01	.00	.00	17.	*	16	OCT	1730	487	.00	.00	.00	1.
15	OCT	1635	188	.01	.00	.00	16.	*	16	OCT	1735	488	.00	.00	.00	1.
15	OCT	1640	189	.01	.00	.00	16.	*	16	OCT	1740	489	.00	.00	.00	1.
15	OCT	1645	190	.01	.00	.00	15.	*	16	OCT	1745	490	.00	.00	.00	1.
15	OCT	1650	191	.01	.00	.00	15.	*	16	OCT	1750	491	.00	.00	.00	1.
15	OCT	1655	192	.01	.00	.00	15.	*	16	OCT	1755	492	.00	.00	.00	1.
15	OCT	1700	193	.01	.00	.00	14.	*	16	OCT	1800	493	.00	.00	.00	1.
15	OCT	1705	194	.01	.00	.00	14.	*	16	OCT	1805	494	.00	.00	.00	1.
15	OCT	1710	195	.01	.00	.00	13.	*	16	OCT	1810	495	.00	.00	.00	1.
15	OCT	1715	196	.01	.00	.00	13.	*	16	OCT	1815	496	.00	.00	.00	1.
15	OCT	1720	197	.01	.00	.00	12.	*	16	OCT	1820	497	.00	.00	.00	1.
15	OCT	1725	198	.01	.00	.00	12.	*	16	OCT	1825	498	.00	.00	.00	1.
15	OCT	1730	199	.01	.00	.00	12.	*	16	OCT	1830	499	.00	.00	.00	1.
15	OCT	1735	200	.01	.00	.00	11.	*	16	OCT	1835	500	.00	.00	.00	1.
15	OCT	1740	201	.00	.00	.00	11.	*	16	OCT	1840	501	.00	.00	.00	1.
15	OCT	1745	202	.00	.00	.00	11.	*	16	OCT	1845	502	.00	.00	.00	1.
15	OCT	1750	203	.00	.00	.00	10.	*	16	OCT	1850	503	.00	.00	.00	1.
15	OCT	1755	204	.00	.00	.00	10.	*	16	OCT	1855	504	.00	.00	.00	1.
15	OCT	1800	205	.00	.00	.00	10.	*	16	OCT	1900	505	.00	.00	.00	1.
15	OCT	1805	206	.00	.00	.00	9.	*	16	OCT	1905	506	.00	.00	.00	1.
15	OCT	1810	207	.00	.00	.00	9.	*	16	OCT	1910	507	.00	.00	.00	1.
15	OCT	1815	208	.00	.00	.00	9.	*	16	OCT	1915	508	.00	.00	.00	1.
15	OCT	1820	209	.00	.00	.00	8.	*	16	OCT	1920	509	.00	.00	.00	1.
15	OCT	1825	210	.00	.00	.00	8.	*	16	OCT	1925	510	.00	.00	.00	1.
15	OCT	1830	211	.00	.00	.00	8.	*	16	OCT	1930	511	.00	.00	.00	1.
15	OCT	1835	212	.00	.00	.00	7.	*	16	OCT	1935	512	.00	.00	.00	1.
15	OCT	1840	213	.00	.00	.00	7.	*	16	OCT	1940	513	.00	.00	.00	1.
15	OCT	1845	214	.00	.00	.00	7.	*	16	OCT	1945	514	.00	.00	.00	1.
15	OCT	1850	215	.00	.00	.00	7.	*	16	OCT	1950	515	.00	.00	.00	1.
15	OCT	1855	216	.00	.00	.00	7.	*	16	OCT	1955	516	.00	.00	.00	1.
15	OCT	1900	217	.00	.00	.00	6.	*	16	OCT	2000	517	.00	.00	.00	1.
15	OCT	1905	218	.00	.00	.00	6.	*	16	OCT	2005	518	.00	.00	.00	1.
15	OCT	1910	219	.00	.00	.00	6.	*	16	OCT	2010	519	.00	.00	.00	1.
15	OCT	1915	220	.00	.00	.00	6.	*	16	OCT	2015	520	.00	.00	.00	1.
15	OCT	1920	221	.00	.00	.00	6.	*	16	OCT	2020	521	.00	.00	.00	1.
15	OCT	1925	222	.00	.00	.00	6.	*	16	OCT	2025	522	.00	.00	.00	1.
15	OCT	1930	223	.00	.00	.00	5.	*	16	OCT	2030	523	.00	.00	.00	1.
15	OCT	1935	224	.00	.00	.00	5.	*	16	OCT	2035	524	.00	.00	.00	1.
15	OCT	1940	225	.00	.00	.00	5.	*	16	OCT	2040	525	.00	.00	.00	1.
15	OCT	1945	226	.00	.00	.00	5.	*	16	OCT	2045	526	.00	.00	.00	1.

15	OCT	1950	227	.00	.00	.00	5.	*	16	OCT	2050	527	.00	.00	.00	1.
15	OCT	1955	228	.00	.00	.00	5.	*	16	OCT	2055	528	.00	.00	.00	1.
15	OCT	2000	229	.00	.00	.00	5.	*	16	OCT	2100	529	.00	.00	.00	1.
15	OCT	2005	230	.00	.00	.00	5.	*	16	OCT	2105	530	.00	.00	.00	1.
15	OCT	2010	231	.00	.00	.00	4.	*	16	OCT	2110	531	.00	.00	.00	1.
15	OCT	2015	232	.00	.00	.00	4.	*	16	OCT	2115	532	.00	.00	.00	1.
15	OCT	2020	233	.00	.00	.00	4.	*	16	OCT	2120	533	.00	.00	.00	1.
15	OCT	2025	234	.00	.00	.00	4.	*	16	OCT	2125	534	.00	.00	.00	1.
15	OCT	2030	235	.00	.00	.00	4.	*	16	OCT	2130	535	.00	.00	.00	1.
15	OCT	2035	236	.00	.00	.00	4.	*	16	OCT	2135	536	.00	.00	.00	1.
15	OCT	2040	237	.00	.00	.00	4.	*	16	OCT	2140	537	.00	.00	.00	1.
15	OCT	2045	238	.00	.00	.00	4.	*	16	OCT	2145	538	.00	.00	.00	1.
15	OCT	2050	239	.00	.00	.00	4.	*	16	OCT	2150	539	.00	.00	.00	1.
15	OCT	2055	240	.00	.00	.00	4.	*	16	OCT	2155	540	.00	.00	.00	1.
15	OCT	2100	241	.00	.00	.00	4.	*	16	OCT	2200	541	.00	.00	.00	1.
15	OCT	2105	242	.00	.00	.00	3.	*	16	OCT	2205	542	.00	.00	.00	1.
15	OCT	2110	243	.00	.00	.00	3.	*	16	OCT	2210	543	.00	.00	.00	1.
15	OCT	2115	244	.00	.00	.00	3.	*	16	OCT	2215	544	.00	.00	.00	1.
15	OCT	2120	245	.00	.00	.00	3.	*	16	OCT	2220	545	.00	.00	.00	1.
15	OCT	2125	246	.00	.00	.00	3.	*	16	OCT	2225	546	.00	.00	.00	1.
15	OCT	2130	247	.00	.00	.00	3.	*	16	OCT	2230	547	.00	.00	.00	1.
15	OCT	2135	248	.00	.00	.00	3.	*	16	OCT	2235	548	.00	.00	.00	1.
15	OCT	2140	249	.00	.00	.00	3.	*	16	OCT	2240	549	.00	.00	.00	1.
15	OCT	2145	250	.00	.00	.00	3.	*	16	OCT	2245	550	.00	.00	.00	1.
15	OCT	2150	251	.00	.00	.00	3.	*	16	OCT	2250	551	.00	.00	.00	1.
15	OCT	2155	252	.00	.00	.00	3.	*	16	OCT	2255	552	.00	.00	.00	1.
15	OCT	2200	253	.00	.00	.00	3.	*	16	OCT	2300	553	.00	.00	.00	1.
15	OCT	2205	254	.00	.00	.00	3.	*	16	OCT	2305	554	.00	.00	.00	1.
15	OCT	2210	255	.00	.00	.00	3.	*	16	OCT	2310	555	.00	.00	.00	1.
15	OCT	2215	256	.00	.00	.00	3.	*	16	OCT	2315	556	.00	.00	.00	1.
15	OCT	2220	257	.00	.00	.00	3.	*	16	OCT	2320	557	.00	.00	.00	1.
15	OCT	2225	258	.00	.00	.00	3.	*	16	OCT	2325	558	.00	.00	.00	1.
15	OCT	2230	259	.00	.00	.00	3.	*	16	OCT	2330	559	.00	.00	.00	1.
15	OCT	2235	260	.00	.00	.00	3.	*	16	OCT	2335	560	.00	.00	.00	1.
15	OCT	2240	261	.00	.00	.00	3.	*	16	OCT	2340	561	.00	.00	.00	1.
15	OCT	2245	262	.00	.00	.00	3.	*	16	OCT	2345	562	.00	.00	.00	1.
15	OCT	2250	263	.00	.00	.00	3.	*	16	OCT	2350	563	.00	.00	.00	1.
15	OCT	2255	264	.00	.00	.00	2.	*	16	OCT	2355	564	.00	.00	.00	1.
15	OCT	2300	265	.00	.00	.00	2.	*	17	OCT	0000	565	.00	.00	.00	1.
15	OCT	2305	266	.00	.00	.00	2.	*	17	OCT	0005	566	.00	.00	.00	1.
15	OCT	2310	267	.00	.00	.00	2.	*	17	OCT	0010	567	.00	.00	.00	1.
15	OCT	2315	268	.00	.00	.00	2.	*	17	OCT	0015	568	.00	.00	.00	1.
15	OCT	2320	269	.00	.00	.00	2.	*	17	OCT	0020	569	.00	.00	.00	1.
15	OCT	2325	270	.00	.00	.00	2.	*	17	OCT	0025	570	.00	.00	.00	1.
15	OCT	2330	271	.00	.00	.00	2.	*	17	OCT	0030	571	.00	.00	.00	1.
15	OCT	2335	272	.00	.00	.00	2.	*	17	OCT	0035	572	.00	.00	.00	1.
15	OCT	2340	273	.00	.00	.00	2.	*	17	OCT	0040	573	.00	.00	.00	1.
15	OCT	2345	274	.00	.00	.00	2.	*	17	OCT	0045	574	.00	.00	.00	1.
15	OCT	2350	275	.00	.00	.00	2.	*	17	OCT	0050	575	.00	.00	.00	1.
15	OCT	2355	276	.00	.00	.00	2.	*	17	OCT	0055	576	.00	.00	.00	1.
16	OCT	0000	277	.00	.00	.00	2.	*	17	OCT	0100	577	.00	.00	.00	1.
16	OCT	0005	278	.00	.00	.00	2.	*	17	OCT	0105	578	.00	.00	.00	1.
16	OCT	0010	279	.00	.00	.00	2.	*	17	OCT	0110	579	.00	.00	.00	1.
16	OCT	0015	280	.00	.00	.00	2.	*	17	OCT	0115	580	.00	.00	.00	1.
16	OCT	0020	281	.00	.00	.00	2.	*	17	OCT	0120	581	.00	.00	.00	1.
16	OCT	0025	282	.00	.00	.00	2.	*	17	OCT	0125	582	.00	.00	.00	1.
16	OCT	0030	283	.00	.00	.00	2.	*	17	OCT	0130	583	.00	.00	.00	1.
16	OCT	0035	284	.00	.00	.00	2.	*	17	OCT	0135	584	.00	.00	.00	1.
16	OCT	0040	285	.00	.00	.00	2.	*	17	OCT	0140	585	.00	.00	.00	1.
16	OCT	0045	286	.00	.00	.00	2.	*	17	OCT	0145	586	.00	.00	.00	1.
16	OCT	0050	287	.00	.00	.00	2.	*	17	OCT	0150	587	.00	.00	.00	1.
16	OCT	0055	288	.00	.00	.00	2.	*	17	OCT	0155	588	.00	.00	.00	1.
16	OCT	0100	289	.00	.00	.00	2.	*	17	OCT	0200	589	.00	.00	.00	1.
16	OCT	0105	290	.00	.00	.00	2.	*	17	OCT	0205	590	.00	.00	.00	1.
16	OCT	0110	291	.00	.00	.00	2.	*	17	OCT	0210	591	.00	.00	.00	1.
16	OCT	0115	292	.00	.00	.00	2.	*	17	OCT	0215	592	.00	.00	.00	1.
16	OCT	0120	293	.00	.00	.00	2.	*	17	OCT	0220	593	.00	.00	.00	1.
16	OCT	0125	294	.00	.00	.00	2.	*	17	OCT	0225	594	.00	.00	.00	1.
16	OCT	0130	295	.00	.00	.00	2.	*	17	OCT	0230	595	.00	.00	.00	1.
16	OCT	0135	296	.00	.00	.00	2.	*	17	OCT	0235	596	.00	.00	.00	1.
16	OCT	0140	297	.00	.00	.00	2.	*	17	OCT	0240	597	.00	.00	.00	1.
16	OCT	0145	298	.00	.00	.00	2.	*	17	OCT	0245	598	.00	.00	.00	1.
16	OCT	0150	299	.00	.00	.00	2.	*	17	OCT	0250	599	.00	.00	.00	1.
16	OCT	0155	300	.00	.00	.00	2.	*	17	OCT	0255	600	.00	.00	.00	1.
								*								

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TOTAL RAINFALL = 1.68, TOTAL LOSS = 1.18, TOTAL EXCESS = .50

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 24.	14.00		15.	6.	3.	3.
		(INCHES)	.403	.589	.717	.717
		(AC-FT)	8.	11.	13.	13.

CUMULATIVE AREA = .35 SQ MI

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          *             *
2967 KK   *     PL11    *     PLEASANT GROVE CREEK TRIBUTARY
          *             *
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   SUBBASIN RUNOFF DATA

2968 BA      SUBBASIN CHARACTERISTICS
                TAREA        3.97  SUBBASIN AREA

3000 BF      BASE FLOW CHARACTERISTICS
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STRTQ	11.91	INITIAL FLOW
QRCSN	.00	BEGIN BASE FLOW RECESSION
RTIOR	1.00000	RECESSION CONSTANT

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HYDROGRAPH AT STATION PL11

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
15	OCT	0100	1	.00	.00	.00	12.	*	16	OCT	0200	301	.00	.00	.00	19.
15	OCT	0105	2	.00	.00	.00	12.	*	16	OCT	0205	302	.00	.00	.00	19.
15	OCT	0110	3	.00	.00	.00	12.	*	16	OCT	0210	303	.00	.00	.00	19.
15	OCT	0115	4	.00	.00	.00	12.	*	16	OCT	0215	304	.00	.00	.00	19.
15	OCT	0120	5	.00	.00	.00	12.	*	16	OCT	0220	305	.00	.00	.00	19.
15	OCT	0125	6	.00	.00	.00	12.	*	16	OCT	0225	306	.00	.00	.00	18.
15	OCT	0130	7	.00	.00	.00	12.	*	16	OCT	0230	307	.00	.00	.00	18.
15	OCT	0135	8	.00	.00	.00	12.	*	16	OCT	0235	308	.00	.00	.00	18.
15	OCT	0140	9	.00	.00	.00	12.	*	16	OCT	0240	309	.00	.00	.00	18.
15	OCT	0145	10	.00	.00	.00	12.	*	16	OCT	0245	310	.00	.00	.00	18.
15	OCT	0150	11	.00	.00	.00	12.	*	16	OCT	0250	311	.00	.00	.00	18.
15	OCT	0155	12	.00	.00	.00	12.	*	16	OCT	0255	312	.00	.00	.00	18.
15	OCT	0200	13	.00	.00	.00	12.	*	16	OCT	0300	313	.00	.00	.00	18.
15	OCT	0205	14	.00	.00	.00	12.	*	16	OCT	0305	314	.00	.00	.00	18.
15	OCT	0210	15	.00	.00	.00	12.	*	16	OCT	0310	315	.00	.00	.00	17.
15	OCT	0215	16	.00	.00	.00	12.	*	16	OCT	0315	316	.00	.00	.00	17.
15	OCT	0220	17	.00	.00	.00	12.	*	16	OCT	0320	317	.00	.00	.00	17.
15	OCT	0225	18	.00	.00	.00	12.	*	16	OCT	0325	318	.00	.00	.00	17.
15	OCT	0230	19	.00	.00	.00	12.	*	16	OCT	0330	319	.00	.00	.00	17.
15	OCT	0235	20	.00	.00	.00	12.	*	16	OCT	0335	320	.00	.00	.00	17.
15	OCT	0240	21	.00	.00	.00	12.	*	16	OCT	0340	321	.00	.00	.00	17.
15	OCT	0245	22	.00	.00	.00	12.	*	16	OCT	0345	322	.00	.00	.00	16.
15	OCT	0250	23	.00	.00	.00	12.	*	16	OCT	0350	323	.00	.00	.00	16.
15	OCT	0255	24	.00	.00	.00	12.	*	16	OCT	0355	324	.00	.00	.00	16.
15	OCT	0300	25	.00	.00	.00	12.	*	16	OCT	0400	325	.00	.00	.00	16.
15	OCT	0305	26	.00	.00	.00	12.	*	16	OCT	0405	326	.00	.00	.00	16.
15	OCT	0310	27	.00	.00	.00	12.	*	16	OCT	0410	327	.00	.00	.00	16.
15	OCT	0315	28	.00	.00	.00	12.	*	16	OCT	0415	328	.00	.00	.00	16.
15	OCT	0320	29	.00	.00	.00	12.	*	16	OCT	0420	329	.00	.00	.00	16.
15	OCT	0325	30	.00	.00	.00	12.	*	16	OCT	0425	330	.00	.00	.00	15.
15	OCT	0330	31	.00	.00	.00	13.	*	16	OCT	0430	331	.00	.00	.00	15.
15	OCT	0335	32	.00	.00	.00	13.	*	16	OCT	0435	332	.00	.00	.00	15.
15	OCT	0340	33	.00	.00	.00	13.	*	16	OCT	0440	333	.00	.00	.00	15.
15	OCT	0345	34	.00	.00	.00	13.	*	16	OCT	0445	334	.00	.00	.00	15.
15	OCT	0350	35	.00	.00	.00	13.	*	16	OCT	0450	335	.00	.00	.00	15.
15	OCT	0355	36	.00	.00	.00	13.	*	16	OCT	0455	336	.00	.00	.00	15.
15	OCT	0400	37	.00	.00	.00	13.	*	16	OCT	0500	337	.00	.00	.00	15.
15	OCT	0405	38	.00	.00	.00	13.	*	16	OCT	0505	338	.00	.00	.00	14.
15	OCT	0410	39	.00	.00	.00	13.	*	16	OCT	0510	339	.00	.00	.00	14.
15	OCT	0415	40	.00	.00	.00	13.	*	16	OCT	0515	340	.00	.00	.00	14.
15	OCT	0420	41	.00	.00	.00	13.	*	16	OCT	0520	341	.00	.00	.00	14.
15	OCT	0425	42	.00	.00	.00	13.	*	16	OCT	0525	342	.00	.00	.00	14.
15	OCT	0430	43	.00	.00	.00	13.	*	16	OCT	0530	343	.00	.00	.00	14.
15	OCT	0435	44	.00	.00	.00	13.	*	16	OCT	0535	344	.00	.00	.00	14.
15	OCT	0440	45	.00	.00	.00	13.	*	16	OCT	0540	345	.00	.00	.00	14.
15	OCT	0445	46	.00	.00	.00	14.	*	16	OCT	0545	346	.00	.00	.00	14.
15	OCT	0450	47	.00	.00	.00	14.	*	16	OCT	0550	347	.00	.00	.00	14.
15	OCT	0455	48	.00	.00	.00	14.	*	16	OCT	0555	348	.00	.00	.00	13.
15	OCT	0500	49	.00	.00	.00	14.	*	16	OCT	0600	349	.00	.00	.00	13.
15	OCT	0505	50	.00	.00	.00	14.	*	16	OCT	0605	350	.00	.00	.00	13.
15	OCT	0510	51	.00	.00	.00	14.	*	16	OCT	0610	351	.00	.00	.00	13.
15	OCT	0515	52	.00	.00	.00	14.	*	16	OCT	0615	352	.00	.00	.00	13.
15	OCT	0520	53	.00	.00	.00	14.	*	16	OCT	0620	353	.00	.00	.00	13.
15	OCT	0525	54	.00	.00	.00	14.	*	16	OCT	0625	354	.00	.00	.00	13.
15	OCT	0530	55	.00	.00	.00	14.	*	16	OCT	0630	355	.00	.00	.00	13.
15	OCT	0535	56	.00	.00	.00	14.	*	16	OCT	0635	356	.00	.00	.00	13.
15	OCT	0540	57	.00	.00	.00	14.	*	16	OCT	0640	357	.00	.00	.00	13.
15	OCT	0545	58	.00	.00	.00	14.	*	16	OCT	0645	358	.00	.00	.00	13.
15	OCT	0550	59	.00	.00	.00	14.	*	16	OCT	0650	359	.00	.00	.00	13.
15	OCT	0555	60	.00	.00	.00	14.	*	16	OCT	0655	360	.00	.00	.00	13.
15	OCT	0600	61	.00	.00	.00	14.	*	16	OCT	0700	361	.00	.00	.00	13.
15	OCT	0605	62	.00	.00	.00	14.	*	16	OCT	0705	362	.00	.00	.00	13.
15	OCT	0610	63	.00	.00	.00	15.	*	16	OCT	0710	363	.00	.00	.00	13.
15	OCT	0615	64	.00	.00	.00	15.	*	16	OCT	0715	364	.00	.00	.00	13.
15	OCT	0620	65	.00	.00	.00	15.	*	16	OCT	0720	365	.00	.00	.00	13.
15	OCT	0625	66	.00	.00	.00	15.	*	16	OCT	0725	366	.00	.00	.00	13.
15	OCT	0630	67	.00	.00	.00	15.	*	16	OCT	0730	367	.00	.00	.00	13.
15	OCT	0635	68	.00	.00	.00	15.	*	16	OCT	0735	368	.00	.00	.00	13.
15	OCT	0640	69	.00	.00	.00	15.	*	16	OCT	0740	369	.00	.00	.00	13.
15	OCT	0645	70	.00	.00	.00	15.	*	16	OCT	0745	370	.00	.00	.00	13.
15	OCT	0650	71	.00	.00	.00	15.	*	16	OCT	0750	371	.00	.00	.00	13.
15	OCT	0655	72	.00	.00	.00	15.	*	16	OCT	0755	372	.00	.00	.00	13.
15	OCT	0700	73	.00	.00	.00	15.	*	16	OCT	0800	373	.00	.00	.00	13.
15	OCT	0705	74	.00	.00	.00	15.	*	16	OCT	0805	374	.00	.00	.00	12.
15	OCT	0710	75	.00	.00	.00	15.	*	16	OCT	0810	375	.00	.00	.00	12.
15	OCT	0715	76	.00	.00	.00	15.	*	16	OCT	0815	376	.00	.00	.00	12.
15	OCT	0720	77	.00	.00	.00	15.	*	16	OCT	0820	377	.00	.00	.00	12.
15	OCT	0725	78	.00	.00	.00	15.	*	16	OCT	0825	378	.00	.00	.00	12.
15	OCT	0730	79	.00	.00	.00	15.	*	16	OCT	0830	379	.00	.00	.00	12.
15	OCT	0735	80	.00	.00	.00	15.	*	16	OCT	0835	380	.00	.00	.00	12.
15	OCT	0740	81	.00	.00	.00	15.	*	16	OCT	0840	381	.00	.00	.00	12.
15	OCT	0745	82	.00	.00	.00	15.	*	16	OCT	0845	382	.00	.00	.00	12.
15	OCT	0750	83	.00	.00	.00	15.	*	16	OCT	0850	383	.00	.00	.00	12.
15	OCT	0755	84	.00	.00	.00	15.	*	16	OCT	0855	384	.00	.00	.00	12.
15	OCT	0800	85	.00	.00	.00	15.	*	16	OCT	0900	385	.00	.00	.00	12.
15	OCT	0805	86	.00	.00	.00	15.	*	16	OCT	0905	386	.00	.00	.00	12.
15	OCT	0810	87	.00	.00	.00	15.	*	16	OCT	0910	387	.00	.00	.00	12.
15	OCT	0815	88	.00	.00	.00	15.	*	16	OCT	0915	388	.00	.00	.00	12.
15	OCT	0820	89	.00	.00	.00	15.	*	16	OCT	0920	389	.00	.00	.00	12.
15	OCT	0825	90	.00	.00	.00	15.	*	16	OCT	0925	390	.00	.00	.00	12.
15	OCT	0830	91	.00	.00	.00	15.	*	16	OCT	0930	391	.00	.00	.00	12.
15	OCT	0835	92	.00	.00	.00	16.	*	16	OCT	0935	392	.00	.00	.00	12.
15	OCT	0840	93	.00	.00	.00	16.	*	16	OCT	0940	393	.00	.00	.00	12.
15	OCT	0845	94	.00	.00	.00	16.	*	16	OCT	0945	394	.00	.00	.00	12.

15	OCT	0850	95	.00	.00	.00	16.	*	16	OCT	0950	395	.00	.00	.00	12.
15	OCT	0855	96	.00	.00	.00	16.	*	16	OCT	0955	396	.00	.00	.00	12.
15	OCT	0900	97	.00	.00	.00	16.	*	16	OCT	1000	397	.00	.00	.00	12.
15	OCT	0905	98	.00	.00	.00	16.	*	16	OCT	1005	398	.00	.00	.00	12.
15	OCT	0910	99	.00	.00	.00	16.	*	16	OCT	1010	399	.00	.00	.00	12.
15	OCT	0915	100	.00	.00	.00	16.	*	16	OCT	1015	400	.00	.00	.00	12.
15	OCT	0920	101	.01	.00	.00	16.	*	16	OCT	1020	401	.00	.00	.00	12.
15	OCT	0925	102	.01	.00	.00	16.	*	16	OCT	1025	402	.00	.00	.00	12.
15	OCT	0930	103	.01	.00	.00	16.	*	16	OCT	1030	403	.00	.00	.00	12.
15	OCT	0935	104	.01	.00	.00	16.	*	16	OCT	1035	404	.00	.00	.00	12.
15	OCT	0940	105	.01	.00	.00	16.	*	16	OCT	1040	405	.00	.00	.00	12.
15	OCT	0945	106	.01	.00	.00	16.	*	16	OCT	1045	406	.00	.00	.00	12.
15	OCT	0950	107	.01	.00	.00	16.	*	16	OCT	1050	407	.00	.00	.00	12.
15	OCT	0955	108	.01	.00	.00	16.	*	16	OCT	1055	408	.00	.00	.00	12.
15	OCT	1000	109	.01	.00	.00	16.	*	16	OCT	1100	409	.00	.00	.00	12.
15	OCT	1005	110	.01	.00	.00	16.	*	16	OCT	1105	410	.00	.00	.00	12.
15	OCT	1010	111	.01	.00	.00	16.	*	16	OCT	1110	411	.00	.00	.00	12.
15	OCT	1015	112	.01	.00	.00	16.	*	16	OCT	1115	412	.00	.00	.00	12.
15	OCT	1020	113	.01	.00	.00	17.	*	16	OCT	1120	413	.00	.00	.00	12.
15	OCT	1025	114	.01	.00	.00	17.	*	16	OCT	1125	414	.00	.00	.00	12.
15	OCT	1030	115	.01	.00	.00	17.	*	16	OCT	1130	415	.00	.00	.00	12.
15	OCT	1035	116	.01	.00	.00	17.	*	16	OCT	1135	416	.00	.00	.00	12.
15	OCT	1040	117	.01	.00	.00	17.	*	16	OCT	1140	417	.00	.00	.00	12.
15	OCT	1045	118	.01	.00	.00	17.	*	16	OCT	1145	418	.00	.00	.00	12.
15	OCT	1050	119	.01	.00	.00	17.	*	16	OCT	1150	419	.00	.00	.00	12.
15	OCT	1055	120	.01	.00	.00	17.	*	16	OCT	1155	420	.00	.00	.00	12.
15	OCT	1100	121	.01	.00	.00	17.	*	16	OCT	1200	421	.00	.00	.00	12.
15	OCT	1105	122	.01	.00	.00	17.	*	16	OCT	1205	422	.00	.00	.00	12.
15	OCT	1110	123	.01	.00	.00	18.	*	16	OCT	1210	423	.00	.00	.00	12.
15	OCT	1115	124	.01	.00	.00	18.	*	16	OCT	1215	424	.00	.00	.00	12.
15	OCT	1120	125	.01	.00	.00	18.	*	16	OCT	1220	425	.00	.00	.00	12.
15	OCT	1125	126	.01	.00	.00	18.	*	16	OCT	1225	426	.00	.00	.00	12.
15	OCT	1130	127	.01	.00	.00	19.	*	16	OCT	1230	427	.00	.00	.00	12.
15	OCT	1135	128	.01	.00	.00	19.	*	16	OCT	1235	428	.00	.00	.00	12.
15	OCT	1140	129	.01	.00	.00	19.	*	16	OCT	1240	429	.00	.00	.00	12.
15	OCT	1145	130	.01	.00	.00	20.	*	16	OCT	1245	430	.00	.00	.00	12.
15	OCT	1150	131	.01	.00	.00	20.	*	16	OCT	1250	431	.00	.00	.00	12.
15	OCT	1155	132	.01	.00	.00	21.	*	16	OCT	1255	432	.00	.00	.00	12.
15	OCT	1200	133	.01	.00	.00	21.	*	16	OCT	1300	433	.00	.00	.00	12.
15	OCT	1205	134	.01	.00	.01	22.	*	16	OCT	1305	434	.00	.00	.00	12.
15	OCT	1210	135	.01	.00	.01	23.	*	16	OCT	1310	435	.00	.00	.00	12.
15	OCT	1215	136	.01	.00	.01	24.	*	16	OCT	1315	436	.00	.00	.00	12.
15	OCT	1220	137	.01	.00	.01	24.	*	16	OCT	1320	437	.00	.00	.00	12.
15	OCT	1225	138	.01	.00	.01	25.	*	16	OCT	1325	438	.00	.00	.00	12.
15	OCT	1230	139	.01	.00	.01	27.	*	16	OCT	1330	439	.00	.00	.00	12.
15	OCT	1235	140	.02	.00	.01	28.	*	16	OCT	1335	440	.00	.00	.00	12.
15	OCT	1240	141	.02	.00	.01	30.	*	16	OCT	1340	441	.00	.00	.00	12.
15	OCT	1245	142	.02	.00	.01	31.	*	16	OCT	1345	442	.00	.00	.00	12.
15	OCT	1250	143	.02	.00	.01	33.	*	16	OCT	1350	443	.00	.00	.00	12.
15	OCT	1255	144	.02	.00	.01	36.	*	16	OCT	1355	444	.00	.00	.00	12.
15	OCT	1300	145	.01	.00	.01	39.	*	16	OCT	1400	445	.00	.00	.00	12.
15	OCT	1305	146	.01	.00	.01	42.	*	16	OCT	1405	446	.00	.00	.00	12.
15	OCT	1310	147	.01	.00	.01	46.	*	16	OCT	1410	447	.00	.00	.00	12.
15	OCT	1315	148	.01	.00	.01	51.	*	16	OCT	1415	448	.00	.00	.00	12.
15	OCT	1320	149	.01	.00	.01	56.	*	16	OCT	1420	449	.00	.00	.00	12.
15	OCT	1325	150	.01	.00	.01	61.	*	16	OCT	1425	450	.00	.00	.00	12.
15	OCT	1330	151	.01	.00	.01	68.	*	16	OCT	1430	451	.00	.00	.00	12.
15	OCT	1335	152	.01	.00	.01	74.	*	16	OCT	1435	452	.00	.00	.00	12.
15	OCT	1340	153	.01	.00	.01	82.	*	16	OCT	1440	453	.00	.00	.00	12.
15	OCT	1345	154	.01	.00	.01	89.	*	16	OCT	1445	454	.00	.00	.00	12.
15	OCT	1350	155	.01	.00	.01	97.	*	16	OCT	1450	455	.00	.00	.00	12.
15	OCT	1355	156	.01	.00	.01	106.	*	16	OCT	1455	456	.00	.00	.00	12.
15	OCT	1400	157	.01	.00	.01	115.	*	16	OCT	1500	457	.00	.00	.00	12.
15	OCT	1405	158	.02	.00	.01	124.	*	16	OCT	1505	458	.00	.00	.00	12.
15	OCT	1410	159	.02	.00	.01	134.	*	16	OCT	1510	459	.00	.00	.00	12.
15	OCT	1415	160	.02	.00	.01	144.	*	16	OCT	1515	460	.00	.00	.00	12.
15	OCT	1420	161	.02	.00	.01	155.	*	16	OCT	1520	461	.00	.00	.00	12.
15	OCT	1425	162	.02	.00	.01	166.	*	16	OCT	1525	462	.00	.00	.00	12.
15	OCT	1430	163	.02	.00	.01	177.	*	16	OCT	1530	463	.00	.00	.00	12.
15	OCT	1435	164	.01	.00	.01	188.	*	16	OCT	1535	464	.00	.00	.00	12.
15	OCT	1440	165	.01	.00	.01	199.	*	16	OCT	1540	465	.00	.00	.00	12.
15	OCT	1445	166	.01	.00	.01	210.	*	16	OCT	1545	466	.00	.00	.00	12.
15	OCT	1450	167	.01	.00	.01	220.	*	16	OCT	1550	467	.00	.00	.00	12.
15	OCT	1455	168	.01	.00	.01	229.	*	16	OCT	1555	468	.00	.00	.00	12.
15	OCT	1500	169	.01	.00	.01	238.	*	16	OCT	1600	469	.00	.00	.00	12.
15	OCT	1505	170	.01	.00	.00	245.	*	16	OCT	1605	470	.00	.00	.00	12.
15	OCT	1510	171	.01	.00	.00	251.	*	16	OCT	1610	471	.00	.00	.00	12.
15	OCT	1515	172	.01	.00	.00	257.	*	16	OCT	1615	472	.00	.00	.00	12.
15	OCT	1520	173	.01	.00	.00	261.	*	16	OCT	1620	473	.00	.00	.00	12.
15	OCT	1525	174	.01	.00	.00	264.	*	16	OCT	1625	474	.00	.00	.00	12.
15	OCT	1530	175	.01	.00	.00	266.	*	16	OCT	1630	475	.00	.00	.00	12.
15	OCT	1535	176	.01	.00	.00	267.	*	16	OCT	1635	476	.00	.00	.00	12.
15	OCT	1540	177	.01	.00	.00	268.	*	16	OCT	1640	477	.00	.00	.00	12.
15	OCT	1545	178	.01	.00	.00	267.	*	16	OCT	1645	478	.00	.00	.00	12.
15	OCT	1550	179	.01	.00	.00	266.	*	16	OCT	1650	479	.00	.00	.00	12.
15	OCT	1555	180	.01	.00	.00	264.	*	16	OCT	1655	480	.00	.00	.00	12.
15	OCT	1600	181	.01	.00	.00	262.	*	16	OCT	1700	481	.00	.00	.00	12.
15	OCT	1605	182	.01	.00	.00	259.	*	16	OCT	1705	482	.00	.00	.00	12.
15	OCT	1610	183	.01	.00	.00	255.	*	16	OCT	1710	483	.00	.00	.00	12.
15	OCT	1615	184	.01	.00	.00	251.	*	16	OCT	1715	484	.00	.00	.00	12.
15	OCT	1620	185	.01	.00	.00	247.	*	16	OCT	1720	485	.00	.00	.00	12.
15	OCT	1625	186	.01	.00	.00	242.	*	16	OCT	1725	486	.00	.00	.00	12.
15	OCT	1630	187	.01	.00	.00	238.	*	16	OCT	1730	487	.00	.00	.00	12.
15	OCT	1635	188	.01	.00	.00	233.	*	16	OCT	1735	488	.00	.00	.00	12.
15	OCT	1640	189	.01	.00	.00	227.	*	16	OCT	1740	489	.00	.00	.00	12.
15	OCT	1645	190	.01	.00	.00	222.	*	16	OCT	1745	490	.00	.00	.00	12.
15	OCT	1650	191	.01	.00	.00	217.	*	16	OCT	1750	491	.00	.00	.00	12.
15	OCT	1655	192	.01	.00	.00	211.	*	16	OCT	1755	492	.00	.00	.00	12.
15	OCT	1700	193	.01	.00	.00	206.	*	16	OCT	1800	493	.00	.00	.00	12.
15	OCT	1705	194	.01	.00	.00	200.	*	16	OCT	1805	494	.00	.00	.00	12.
15	OCT	1710	195	.01	.00	.00	195.	*	16	OCT	1810	495	.00	.00	.00	12.
15	OCT	1715	196	.01	.00	.00	190.	*	16	OCT	1815	496	.00	.00	.00	12.
15	OCT	1720	197	.01	.00	.00	184.	*	16	OCT	1820	497	.00	.00	.00	12.
15	OCT	1725	198	.01	.00	.00	179.	*	16	OCT	1825	498	.00	.00	.00	12.
15	OCT	1730	199	.01	.00	.00	174.	*	16	OCT	1830	499	.00	.00	.00	12.
15	OCT	1735	200	.01	.00	.00	169.	*	16	OCT	1835	500	.00	.00	.00	12.
15	OCT	1740	201	.01	.00	.00	164.	*	16	OCT	1840	501	.00	.00	.00	12.

15	OCT	1745	202	.00	.00	.00	159.	*	16	OCT	1845	502	.00	.00	.00	12.
15	OCT	1750	203	.00	.00	.00	154.	*	16	OCT	1850	503	.00	.00	.00	12.
15	OCT	1755	204	.00	.00	.00	150.	*	16	OCT	1855	504	.00	.00	.00	12.
15	OCT	1800	205	.00	.00	.00	145.	*	16	OCT	1900	505	.00	.00	.00	12.
15	OCT	1805	206	.00	.00	.00	141.	*	16	OCT	1905	506	.00	.00	.00	12.
15	OCT	1810	207	.00	.00	.00	137.	*	16	OCT	1910	507	.00	.00	.00	12.
15	OCT	1815	208	.00	.00	.00	133.	*	16	OCT	1915	508	.00	.00	.00	12.
15	OCT	1820	209	.00	.00	.00	129.	*	16	OCT	1920	509	.00	.00	.00	12.
15	OCT	1825	210	.00	.00	.00	125.	*	16	OCT	1925	510	.00	.00	.00	12.
15	OCT	1830	211	.00	.00	.00	121.	*	16	OCT	1930	511	.00	.00	.00	12.
15	OCT	1835	212	.00	.00	.00	117.	*	16	OCT	1935	512	.00	.00	.00	12.
15	OCT	1840	213	.00	.00	.00	114.	*	16	OCT	1940	513	.00	.00	.00	12.
15	OCT	1845	214	.00	.00	.00	110.	*	16	OCT	1945	514	.00	.00	.00	12.
15	OCT	1850	215	.00	.00	.00	107.	*	16	OCT	1950	515	.00	.00	.00	12.
15	OCT	1855	216	.00	.00	.00	104.	*	16	OCT	1955	516	.00	.00	.00	12.
15	OCT	1900	217	.00	.00	.00	101.	*	16	OCT	2000	517	.00	.00	.00	12.
15	OCT	1905	218	.00	.00	.00	97.	*	16	OCT	2005	518	.00	.00	.00	12.
15	OCT	1910	219	.00	.00	.00	95.	*	16	OCT	2010	519	.00	.00	.00	12.
15	OCT	1915	220	.00	.00	.00	92.	*	16	OCT	2015	520	.00	.00	.00	12.
15	OCT	1920	221	.00	.00	.00	89.	*	16	OCT	2020	521	.00	.00	.00	12.
15	OCT	1925	222	.00	.00	.00	86.	*	16	OCT	2025	522	.00	.00	.00	12.
15	OCT	1930	223	.00	.00	.00	84.	*	16	OCT	2030	523	.00	.00	.00	12.
15	OCT	1935	224	.00	.00	.00	81.	*	16	OCT	2035	524	.00	.00	.00	12.
15	OCT	1940	225	.00	.00	.00	79.	*	16	OCT	2040	525	.00	.00	.00	12.
15	OCT	1945	226	.00	.00	.00	77.	*	16	OCT	2045	526	.00	.00	.00	12.
15	OCT	1950	227	.00	.00	.00	75.	*	16	OCT	2050	527	.00	.00	.00	12.
15	OCT	1955	228	.00	.00	.00	73.	*	16	OCT	2055	528	.00	.00	.00	12.
15	OCT	2000	229	.00	.00	.00	70.	*	16	OCT	2100	529	.00	.00	.00	12.
15	OCT	2005	230	.00	.00	.00	69.	*	16	OCT	2105	530	.00	.00	.00	12.
15	OCT	2010	231	.00	.00	.00	67.	*	16	OCT	2110	531	.00	.00	.00	12.
15	OCT	2015	232	.00	.00	.00	65.	*	16	OCT	2115	532	.00	.00	.00	12.
15	OCT	2020	233	.00	.00	.00	63.	*	16	OCT	2120	533	.00	.00	.00	12.
15	OCT	2025	234	.00	.00	.00	61.	*	16	OCT	2125	534	.00	.00	.00	12.
15	OCT	2030	235	.00	.00	.00	60.	*	16	OCT	2130	535	.00	.00	.00	12.
15	OCT	2035	236	.00	.00	.00	58.	*	16	OCT	2135	536	.00	.00	.00	12.
15	OCT	2040	237	.00	.00	.00	57.	*	16	OCT	2140	537	.00	.00	.00	12.
15	OCT	2045	238	.00	.00	.00	55.	*	16	OCT	2145	538	.00	.00	.00	12.
15	OCT	2050	239	.00	.00	.00	54.	*	16	OCT	2150	539	.00	.00	.00	12.
15	OCT	2055	240	.00	.00	.00	53.	*	16	OCT	2155	540	.00	.00	.00	12.
15	OCT	2100	241	.00	.00	.00	51.	*	16	OCT	2200	541	.00	.00	.00	12.
15	OCT	2105	242	.00	.00	.00	50.	*	16	OCT	2205	542	.00	.00	.00	12.
15	OCT	2110	243	.00	.00	.00	49.	*	16	OCT	2210	543	.00	.00	.00	12.
15	OCT	2115	244	.00	.00	.00	48.	*	16	OCT	2215	544	.00	.00	.00	12.
15	OCT	2120	245	.00	.00	.00	47.	*	16	OCT	2220	545	.00	.00	.00	12.
15	OCT	2125	246	.00	.00	.00	46.	*	16	OCT	2225	546	.00	.00	.00	12.
15	OCT	2130	247	.00	.00	.00	44.	*	16	OCT	2230	547	.00	.00	.00	12.
15	OCT	2135	248	.00	.00	.00	43.	*	16	OCT	2235	548	.00	.00	.00	12.
15	OCT	2140	249	.00	.00	.00	43.	*	16	OCT	2240	549	.00	.00	.00	12.
15	OCT	2145	250	.00	.00	.00	42.	*	16	OCT	2245	550	.00	.00	.00	12.
15	OCT	2150	251	.00	.00	.00	41.	*	16	OCT	2250	551	.00	.00	.00	12.
15	OCT	2155	252	.00	.00	.00	40.	*	16	OCT	2255	552	.00	.00	.00	12.
15	OCT	2200	253	.00	.00	.00	39.	*	16	OCT	2300	553	.00	.00	.00	12.
15	OCT	2205	254	.00	.00	.00	38.	*	16	OCT	2305	554	.00	.00	.00	12.
15	OCT	2210	255	.00	.00	.00	37.	*	16	OCT	2310	555	.00	.00	.00	12.
15	OCT	2215	256	.00	.00	.00	37.	*	16	OCT	2315	556	.00	.00	.00	12.
15	OCT	2220	257	.00	.00	.00	36.	*	16	OCT	2320	557	.00	.00	.00	12.
15	OCT	2225	258	.00	.00	.00	35.	*	16	OCT	2325	558	.00	.00	.00	12.
15	OCT	2230	259	.00	.00	.00	35.	*	16	OCT	2330	559	.00	.00	.00	12.
15	OCT	2235	260	.00	.00	.00	34.	*	16	OCT	2335	560	.00	.00	.00	12.
15	OCT	2240	261	.00	.00	.00	33.	*	16	OCT	2340	561	.00	.00	.00	12.
15	OCT	2245	262	.00	.00	.00	33.	*	16	OCT	2345	562	.00	.00	.00	12.
15	OCT	2250	263	.00	.00	.00	32.	*	16	OCT	2350	563	.00	.00	.00	12.
15	OCT	2255	264	.00	.00	.00	31.	*	16	OCT	2355	564	.00	.00	.00	12.
15	OCT	2300	265	.00	.00	.00	31.	*	17	OCT	0000	565	.00	.00	.00	12.
15	OCT	2305	266	.00	.00	.00	30.	*	17	OCT	0005	566	.00	.00	.00	12.
15	OCT	2310	267	.00	.00	.00	30.	*	17	OCT	0010	567	.00	.00	.00	12.
15	OCT	2315	268	.00	.00	.00	29.	*	17	OCT	0015	568	.00	.00	.00	12.
15	OCT	2320	269	.00	.00	.00	29.	*	17	OCT	0020	569	.00	.00	.00	12.
15	OCT	2325	270	.00	.00	.00	28.	*	17	OCT	0025	570	.00	.00	.00	12.
15	OCT	2330	271	.00	.00	.00	28.	*	17	OCT	0030	571	.00	.00	.00	12.
15	OCT	2335	272	.00	.00	.00	27.	*	17	OCT	0035	572	.00	.00	.00	12.
15	OCT	2340	273	.00	.00	.00	27.	*	17	OCT	0040	573	.00	.00	.00	12.
15	OCT	2345	274	.00	.00	.00	26.	*	17	OCT	0045	574	.00	.00	.00	12.
15	OCT	2350	275	.00	.00	.00	26.	*	17	OCT	0050	575	.00	.00	.00	12.
15	OCT	2355	276	.00	.00	.00	26.	*	17	OCT	0055	576	.00	.00	.00	12.
16	OCT	0000	277	.00	.00	.00	25.	*	17	OCT	0100	577	.00	.00	.00	12.
16	OCT	0005	278	.00	.00	.00	25.	*	17	OCT	0105	578	.00	.00	.00	12.
16	OCT	0010	279	.00	.00	.00	24.	*	17	OCT	0110	579	.00	.00	.00	12.
16	OCT	0015	280	.00	.00	.00	24.	*	17	OCT	0115	580	.00	.00	.00	12.
16	OCT	0020	281	.00	.00	.00	24.	*	17	OCT	0120	581	.00	.00	.00	12.
16	OCT	0025	282	.00	.00	.00	23.	*	17	OCT	0125	582	.00	.00	.00	12.
16	OCT	0030	283	.00	.00	.00	23.	*	17	OCT	0130	583	.00	.00	.00	12.
16	OCT	0035	284	.00	.00	.00	23.	*	17	OCT	0135	584	.00	.00	.00	12.
16	OCT	0040	285	.00	.00	.00	22.	*	17	OCT	0140	585	.00	.00	.00	12.
16	OCT	0045	286	.00	.00	.00	22.	*	17	OCT	0145	586	.00	.00	.00	12.
16	OCT	0050	287	.00	.00	.00	22.	*	17	OCT	0150	587	.00	.00	.00	12.
16	OCT	0055	288	.00	.00	.00	22.	*	17	OCT	0155	588	.00	.00	.00	12.
16	OCT	0100	289	.00	.00	.00	21.	*	17	OCT	0200	589	.00	.00	.00	12.
16	OCT	0105	290	.00	.00	.00	21.	*	17	OCT	0205	590	.00	.00	.00	12.
16	OCT	0110	291	.00	.00	.00	21.	*	17	OCT	0210	591	.00	.00	.00	12.
16	OCT	0115	292	.00	.00	.00	21.	*	17	OCT	0215	592	.00	.00	.00	12.
16	OCT	0120	293	.00	.00	.00	21.	*	17	OCT	0220	593	.00	.00	.00	12.
16	OCT	0125	294	.00	.00	.00	20.	*	17	OCT	0225	594	.00	.00	.00	12.
16	OCT	0130	295	.00	.00	.00	20.	*	17	OCT	0230	595	.00	.00	.00	12.
16	OCT	0135	296	.00	.00	.00	20.	*	17	OCT	0235	596	.00	.00	.00	12.
16	OCT	0140	297	.00	.00	.00	20.	*	17	OCT	0240	597	.00	.00	.00	12.
16	OCT	0145	298	.00	.00	.00	20.	*	17	OCT	0245	598	.00	.00	.00	12.
16	OCT	0150	299	.00	.00	.00	19.	*	17	OCT	0250	599	.00	.00	.00	12.
16	OCT	0155	300	.00	.00	.00	19.	*	17	OCT	0255	600	.00	.00	.00	12.

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TOTAL RAINFALL = 1.70, TOTAL LOSS = 1.18, TOTAL EXCESS = .52

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				
		6-HR	24-HR	72-HR	49.92-HR	
+ (CFS)	(HR)					

		(CFS)				
+	268.	14.67	177.	64.	37.	37.
		(INCHRS)	.415	.595	.719	.719
		(AC-FT)	88.	126.	152.	152.

CUMULATIVE AREA = 3.97 SQ MI

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          *            *
2404 KK   *   PL10B+     *
          *            *
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2405 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION PL10B+
SUM OF 3 HYDROGRAPHS

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DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
15	OCT	0100	1	108.	15	OCT	1330	151	807.	16	OCT	0200	301	425.	16	OCT	1430	451	116.
15	OCT	0105	2	108.	15	OCT	1335	152	840.	16	OCT	0205	302	423.	16	OCT	1435	452	116.
15	OCT	0110	3	108.	15	OCT	1340	153	875.	16	OCT	0210	303	420.	16	OCT	1440	453	116.
15	OCT	0115	4	108.	15	OCT	1345	154	912.	16	OCT	0215	304	417.	16	OCT	1445	454	116.
15	OCT	0120	5	108.	15	OCT	1350	155	951.	16	OCT	0220	305	415.	16	OCT	1450	455	116.
15	OCT	0125	6	108.	15	OCT	1355	156	992.	16	OCT	0225	306	412.	16	OCT	1455	456	116.
15	OCT	0130	7	108.	15	OCT	1400	157	1035.	16	OCT	0230	307	410.	16	OCT	1500	457	116.
15	OCT	0135	8	108.	15	OCT	1405	158	1079.	16	OCT	0235	308	407.	16	OCT	1505	458	116.
15	OCT	0140	9	108.	15	OCT	1410	159	1125.	16	OCT	0240	309	405.	16	OCT	1510	459	116.
15	OCT	0145	10	108.	15	OCT	1415	160	1172.	16	OCT	0245	310	402.	16	OCT	1515	460	116.
15	OCT	0150	11	108.	15	OCT	1420	161	1219.	16	OCT	0250	311	399.	16	OCT	1520	461	116.
15	OCT	0155	12	108.	15	OCT	1425	162	1267.	16	OCT	0255	312	397.	16	OCT	1525	462	116.
15	OCT	0200	13	108.	15	OCT	1430	163	1316.	16	OCT	0300	313	394.	16	OCT	1530	463	116.
15	OCT	0205	14	108.	15	OCT	1435	164	1364.	16	OCT	0305	314	391.	16	OCT	1535	464	116.
15	OCT	0210	15	108.	15	OCT	1440	165	1413.	16	OCT	0310	315	388.	16	OCT	1540	465	116.
15	OCT	0215	16	109.	15	OCT	1445	166	1461.	16	OCT	0315	316	386.	16	OCT	1545	466	115.
15	OCT	0220	17	109.	15	OCT	1450	167	1508.	16	OCT	0320	317	383.	16	OCT	1550	467	115.
15	OCT	0225	18	109.	15	OCT	1455	168	1555.	16	OCT	0325	318	380.	16	OCT	1555	468	115.
15	OCT	0230	19	109.	15	OCT	1500	169	1600.	16	OCT	0330	319	377.	16	OCT	1600	469	115.
15	OCT	0235	20	109.	15	OCT	1505	170	1643.	16	OCT	0335	320	374.	16	OCT	1605	470	115.
15	OCT	0240	21	110.	15	OCT	1510	171	1684.	16	OCT	0340	321	370.	16	OCT	1610	471	115.
15	OCT	0245	22	110.	15	OCT	1515	172	1723.	16	OCT	0345	322	367.	16	OCT	1615	472	115.
15	OCT	0250	23	110.	15	OCT	1520	173	1760.	16	OCT	0350	323	364.	16	OCT	1620	473	115.
15	OCT	0255	24	111.	15	OCT	1525	174	1793.	16	OCT	0355	324	361.	16	OCT	1625	474	115.
15	OCT	0300	25	111.	15	OCT	1530	175	1824.	16	OCT	0400	325	357.	16	OCT	1630	475	115.
15	OCT	0305	26	112.	15	OCT	1535	176	1851.	16	OCT	0405	326	354.	16	OCT	1635	476	115.
15	OCT	0310	27	113.	15	OCT	1540	177	1875.	16	OCT	0410	327	350.	16	OCT	1640	477	115.
15	OCT	0315	28	113.	15	OCT	1545	178	1895.	16	OCT	0415	328	347.	16	OCT	1645	478	115.
15	OCT	0320	29	114.	15	OCT	1550	179	1913.	16	OCT	0420	329	343.	16	OCT	1650	479	115.
15	OCT	0325	30	115.	15	OCT	1555	180	1927.	16	OCT	0425	330	340.	16	OCT	1655	480	115.
15	OCT	0330	31	116.	15	OCT	1600	181	1938.	16	OCT	0430	331	336.	16	OCT	1700	481	115.
15	OCT	0335	32	116.	15	OCT	1605	182	1946.	16	OCT	0435	332	332.	16	OCT	1705	482	115.
15	OCT	0340	33	117.	15	OCT	1610	183	1952.	16	OCT	0440	333	329.	16	OCT	1710	483	115.
15	OCT	0345	34	118.	15	OCT	1615	184	1955.	16	OCT	0445	334	325.	16	OCT	1715	484	115.
15	OCT	0350	35	119.	15	OCT	1620	185	1957.	16	OCT	0450	335	321.	16	OCT	1720	485	115.
15	OCT	0355	36	120.	15	OCT	1625	186	1957.	16	OCT	0455	336	317.	16	OCT	1725	486	115.
15	OCT	0400	37	121.	15	OCT	1630	187	1955.	16	OCT	0500	337	313.	16	OCT	1730	487	115.
15	OCT	0405	38	123.	15	OCT	1635	188	1952.	16	OCT	0505	338	309.	16	OCT	1735	488	115.
15	OCT	0410	39	124.	15	OCT	1640	189	1948.	16	OCT	0510	339	305.	16	OCT	1740	489	115.
15	OCT	0415	40	125.	15	OCT	1645	190	1942.	16	OCT	0515	340	301.	16	OCT	1745	490	115.
15	OCT	0420	41	127.	15	OCT	1650	191	1935.	16	OCT	0520	341	297.	16	OCT	1750	491	115.
15	OCT	0425	42	128.	15	OCT	1655	192	1927.	16	OCT	0525	342	294.	16	OCT	1755	492	115.
15	OCT	0430	43	130.	15	OCT	1700	193	1917.	16	OCT	0530	343	290.	16	OCT	1800	493	115.
15	OCT	0435	44	132.	15	OCT	1705	194	1905.	16	OCT	0535	344	286.	16	OCT	1805	494	115.
15	OCT	0440	45	134.	15	OCT	1710	195	1891.	16	OCT	0540	345	282.	16	OCT	1810	495	115.
15	OCT	0445	46	137.	15	OCT	1715	196	1875.	16	OCT	0545	346	278.	16	OCT	1815	496	115.
15	OCT	0450	47	139.	15	OCT	1720	197	1857.	16	OCT	0550	347	274.	16	OCT	1820	497	115.
15	OCT	0455	48	142.	15	OCT	1725	198	1838.	16	OCT	0555	348	270.	16	OCT	1825	498	115.
15	OCT	0500	49	145.	15	OCT	1730	199	1817.	16	OCT	0600	349	266.	16	OCT	1830	499	115.
15	OCT	0505	50	149.	15	OCT	1735	200	1794.	16	OCT	0605	350	262.	16	OCT	1835	500	115.
15	OCT	0510	51	152.	15	OCT	1740	201	1771.	16	OCT	0610	351	258.	16	OCT	1840	501	115.
15	OCT	0515	52	156.	15	OCT	1745	202	1746.	16	OCT	0615	352	254.	16	OCT	1845	502	115.
15	OCT	0520	53	161.	15	OCT	1750	203	1720.	16	OCT	0620	353	251.	16	OCT	1850	503	115.
15	OCT	0525	54	165.	15	OCT	1755	204	1693.	16	OCT	0625	354	247.	16	OCT	1855	504	115.
15	OCT	0530	55	170.	15	OCT	1800	205	1666.	16	OCT	0630	355	243.	16	OCT	1900	505	115.
15	OCT	0535	56	175.	15	OCT	1805	206	1638.	16	OCT	0635	356	240.	16	OCT	1905	506	115.
15	OCT	0540	57	180.	15	OCT	1810	207	1610.	16	OCT	0640	357	236.	16	OCT	1910	507	115.
15	OCT	0545	58	186.	15	OCT	1815	208	1582.	16	OCT	0645	358	233.	16	OCT	1915	508	115.
15	OCT	0550	59	191.	15	OCT	1820	209	1553.	16	OCT	0650	359	229.	16	OCT	1920	509	115.
15	OCT	0555	60	197.	15	OCT	1825	210	1525.	16	OCT	0655	360	226.	16	OCT	1925	510	114.
15	OCT	0600	61	202.	15	OCT	1830	211	1496.	16	OCT	0700	361	222.	16	OCT	1930	511	114.
15	OCT	0605	62	208.	15	OCT	1835	212	1467.	16	OCT	0705	362	219.	16	OCT	1935	512	114.
15	OCT	0610	63	214.	15	OCT	1840	213	1439.	16	OCT	0710	363	216.	16	OCT	1940	513	114.
15	OCT	0615	64	219.	15	OCT	1845	214	1411.	16	OCT	0715	364	213.	16	OCT	1945	514	114.
15	OCT	0620	65	225.	15	OCT	1850	215	1383.	16	OCT	0720	365	210.	16	OCT	1950	515	114.
15	OCT	0625	66	230.	15	OCT	1855	216	1356.	16	OCT	0725	366	207.	16	OCT	1955	516	114.
15	OCT	0630	67	236.	15	OCT	1900	217	1328.	16	OCT	0730	367	204.	16	OCT	2000	517	114.
15	OCT	0635	68	241.	15	OCT	1905	218	1302.	16	OCT	0735	368	201.	16	OCT	2005	518	114.
15	OCT	0640	69	246.	15	OCT	1910	219	1275.	16	OCT	0740	369	198.	16	OCT	2010	519	114.
15	OCT	0645	70	252.	15	OCT	1915	220	1249.	16	OCT	0745	370	195.	16	OCT	2015	520	114.
15	OCT	0650	71	258.	15	OCT	1920	221	1224.	16	OCT	0750	371	192.	16	OCT	2020	521	114.
15	OCT	0655	72	263.	15	OCT	1925	222	1199.	16	OCT	0755	372	190.	16	OCT	2025	522	114.
15	OCT	0700	73	269.	15	OCT	1930	223	1174.	16	OCT	0800	373	187.	16	OCT	2030	523	114.

15 OCT 0705	74	275.	*	15 OCT 1935	224	1150.	*	16 OCT 0805	374	184.	*	16 OCT 2035	524	114.					
15 OCT 0710	75	281.	*	15 OCT 1940	225	1127.	*	16 OCT 0810	375	182.	*	16 OCT 2040	525	114.					
15 OCT 0715	76	287.	*	15 OCT 1945	226	1104.	*	16 OCT 0815	376	179.	*	16 OCT 2045	526	114.					
15 OCT 0720	77	293.	*	15 OCT 1950	227	1082.	*	16 OCT 0820	377	177.	*	16 OCT 2050	527	114.					
15 OCT 0725	78	299.	*	15 OCT 1955	228	1061.	*	16 OCT 0825	378	175.	*	16 OCT 2055	528	114.					
15 OCT 0730	79	305.	*	15 OCT 2000	229	1040.	*	16 OCT 0830	379	172.	*	16 OCT 2100	529	114.					
15 OCT 0735	80	311.	*	15 OCT 2005	230	1019.	*	16 OCT 0835	380	170.	*	16 OCT 2105	530	114.					
15 OCT 0740	81	317.	*	15 OCT 2010	231	1000.	*	16 OCT 0840	381	168.	*	16 OCT 2110	531	114.					
15 OCT 0745	82	322.	*	15 OCT 2015	232	981.	*	16 OCT 0845	382	166.	*	16 OCT 2115	532	114.					
15 OCT 0750	83	327.	*	15 OCT 2020	233	962.	*	16 OCT 0850	383	163.	*	16 OCT 2120	533	114.					
15 OCT 0755	84	332.	*	15 OCT 2025	234	945.	*	16 OCT 0855	384	161.	*	16 OCT 2125	534	114.					
15 OCT 0800	85	336.	*	15 OCT 2030	235	928.	*	16 OCT 0900	385	159.	*	16 OCT 2130	535	114.					
15 OCT 0805	86	341.	*	15 OCT 2035	236	911.	*	16 OCT 0905	386	157.	*	16 OCT 2135	536	114.					
15 OCT 0810	87	345.	*	15 OCT 2040	237	895.	*	16 OCT 0910	387	156.	*	16 OCT 2140	537	114.					
15 OCT 0815	88	349.	*	15 OCT 2045	238	879.	*	16 OCT 0915	388	154.	*	16 OCT 2145	538	114.					
15 OCT 0820	89	352.	*	15 OCT 2050	239	864.	*	16 OCT 0920	389	152.	*	16 OCT 2150	539	114.					
15 OCT 0825	90	356.	*	15 OCT 2055	240	850.	*	16 OCT 0925	390	150.	*	16 OCT 2155	540	114.					
15 OCT 0830	91	360.	*	15 OCT 2100	241	836.	*	16 OCT 0930	391	149.	*	16 OCT 2200	541	114.					
15 OCT 0835	92	363.	*	15 OCT 2105	242	822.	*	16 OCT 0935	392	147.	*	16 OCT 2205	542	114.					
15 OCT 0840	93	367.	*	15 OCT 2110	243	809.	*	16 OCT 0940	393	145.	*	16 OCT 2210	543	114.					
15 OCT 0845	94	370.	*	15 OCT 2115	244	797.	*	16 OCT 0945	394	144.	*	16 OCT 2215	544	114.					
15 OCT 0850	95	373.	*	15 OCT 2120	245	784.	*	16 OCT 0950	395	143.	*	16 OCT 2220	545	114.					
15 OCT 0855	96	376.	*	15 OCT 2125	246	772.	*	16 OCT 0955	396	141.	*	16 OCT 2225	546	114.					
15 OCT 0900	97	379.	*	15 OCT 2130	247	760.	*	16 OCT 1000	397	140.	*	16 OCT 2230	547	114.					
15 OCT 0905	98	382.	*	15 OCT 2135	248	749.	*	16 OCT 1005	398	139.	*	16 OCT 2235	548	114.					
15 OCT 0910	99	385.	*	15 OCT 2140	249	738.	*	16 OCT 1010	399	137.	*	16 OCT 2240	549	114.					
15 OCT 0915	100	388.	*	15 OCT 2145	250	727.	*	16 OCT 1015	400	136.	*	16 OCT 2245	550	114.					
15 OCT 0920	101	391.	*	15 OCT 2150	251	716.	*	16 OCT 1020	401	135.	*	16 OCT 2250	551	114.					
15 OCT 0925	102	394.	*	15 OCT 2155	252	706.	*	16 OCT 1025	402	134.	*	16 OCT 2255	552	114.					
15 OCT 0930	103	396.	*	15 OCT 2200	253	696.	*	16 OCT 1030	403	133.	*	16 OCT 2300	553	114.					
15 OCT 0935	104	399.	*	15 OCT 2205	254	686.	*	16 OCT 1035	404	132.	*	16 OCT 2305	554	114.					
15 OCT 0940	105	402.	*	15 OCT 2210	255	676.	*	16 OCT 1040	405	131.	*	16 OCT 2310	555	114.					
15 OCT 0945	106	404.	*	15 OCT 2215	256	667.	*	16 OCT 1045	406	130.	*	16 OCT 2315	556	114.					
15 OCT 0950	107	407.	*	15 OCT 2220	257	658.	*	16 OCT 1050	407	130.	*	16 OCT 2320	557	114.					
15 OCT 0955	108	409.	*	15 OCT 2225	258	649.	*	16 OCT 1055	408	129.	*	16 OCT 2325	558	114.					
15 OCT 1000	109	412.	*	15 OCT 2230	259	640.	*	16 OCT 1100	409	128.	*	16 OCT 2330	559	114.					
15 OCT 1005	110	415.	*	15 OCT 2235	260	632.	*	16 OCT 1105	410	127.	*	16 OCT 2335	560	114.					
15 OCT 1010	111	417.	*	15 OCT 2240	261	624.	*	16 OCT 1110	411	127.	*	16 OCT 2340	561	114.					
15 OCT 1015	112	420.	*	15 OCT 2245	262	616.	*	16 OCT 1115	412	126.	*	16 OCT 2345	562	114.					
15 OCT 1020	113	423.	*	15 OCT 2250	263	608.	*	16 OCT 1120	413	125.	*	16 OCT 2350	563	114.					
15 OCT 1025	114	426.	*	15 OCT 2255	264	600.	*	16 OCT 1125	414	125.	*	16 OCT 2355	564	114.					
15 OCT 1030	115	429.	*	15 OCT 2300	265	593.	*	16 OCT 1130	415	124.	*	17 OCT 0000	565	114.					
15 OCT 1035	116	432.	*	15 OCT 2305	266	586.	*	16 OCT 1135	416	124.	*	17 OCT 0005	566	114.					
15 OCT 1040	117	436.	*	15 OCT 2310	267	579.	*	16 OCT 1140	417	123.	*	17 OCT 0010	567	114.					
15 OCT 1045	118	439.	*	15 OCT 2315	268	572.	*	16 OCT 1145	418	123.	*	17 OCT 0015	568	114.					
15 OCT 1050	119	443.	*	15 OCT 2320	269	565.	*	16 OCT 1150	419	122.	*	17 OCT 0020	569	114.					
15 OCT 1055	120	447.	*	15 OCT 2325	270	559.	*	16 OCT 1155	420	122.	*	17 OCT 0025	570	114.					
15 OCT 1100	121	451.	*	15 OCT 2330	271	552.	*	16 OCT 1200	421	122.	*	17 OCT 0030	571	114.					
15 OCT 1105	122	455.	*	15 OCT 2335	272	546.	*	16 OCT 1205	422	121.	*	17 OCT 0035	572	114.					
15 OCT 1110	123	459.	*	15 OCT 2340	273	540.	*	16 OCT 1210	423	121.	*	17 OCT 0040	573	114.					
15 OCT 1115	124	464.	*	15 OCT 2345	274	534.	*	16 OCT 1215	424	121.	*	17 OCT 0045	574	114.					
15 OCT 1120	125	469.	*	15 OCT 2350	275	529.	*	16 OCT 1220	425	120.	*	17 OCT 0050	575	114.					
15 OCT 1125	126	474.	*	15 OCT 2355	276	523.	*	16 OCT 1225	426	120.	*	17 OCT 0055	576	114.					
15 OCT 1130	127	480.	*	16 OCT 0000	277	518.	*	16 OCT 1230	427	120.	*	17 OCT 0100	577	114.					
15 OCT 1135	128	486.	*	16 OCT 0005	278	513.	*	16 OCT 1235	428	119.	*	17 OCT 0105	578	114.					
15 OCT 1140	129	492.	*	16 OCT 0010	279	507.	*	16 OCT 1240	429	119.	*	17 OCT 0110	579	114.					
15 OCT 1145	130	498.	*	16 OCT 0015	280	502.	*	16 OCT 1245	430	119.	*	17 OCT 0115	580	114.					
15 OCT 1150	131	505.	*	16 OCT 0020	281	498.	*	16 OCT 1250	431	119.	*	17 OCT 0120	581	114.					
15 OCT 1155	132	512.	*	16 OCT 0025	282	493.	*	16 OCT 1255	432	119.	*	17 OCT 0125	582	114.					
15 OCT 1200	133	520.	*	16 OCT 0030	283	488.	*	16 OCT 1300	433	118.	*	17 OCT 0130	583	114.					
15 OCT 1205	134	527.	*	16 OCT 0035	284	484.	*	16 OCT 1305	434	118.	*	17 OCT 0135	584	114.					
15 OCT 1210	135	536.	*	16 OCT 0040	285	480.	*	16 OCT 1310	435	118.	*	17 OCT 0140	585	114.					
15 OCT 1215	136	545.	*	16 OCT 0045	286	475.	*	16 OCT 1315	436	118.	*	17 OCT 0145	586	114.					
15 OCT 1220	137	554.	*	16 OCT 0050	287	471.	*	16 OCT 1320	437	118.	*	17 OCT 0150	587	114.					
15 OCT 1225	138	564.	*	16 OCT 0055	288	467.	*	16 OCT 1325	438	118.	*	17 OCT 0155	588	114.					
15 OCT 1230	139	575.	*	16 OCT 0100	289	464.	*	16 OCT 1330	439	117.	*	17 OCT 0200	589	114.					
15 OCT 1235	140	586.	*	16 OCT 0105	290	460.	*	16 OCT 1335	440	117.	*	17 OCT 0205	590	114.					
15 OCT 1240	141	599.	*	16 OCT 0110	291	456.	*	16 OCT 1340	441	117.	*	17 OCT 0210	591	114.					
15 OCT 1245	142	612.	*	16 OCT 0115	292	453.	*	16 OCT 1345	442	117.	*	17 OCT 0215	592	114.					
15 OCT 1250	143	627.	*	16 OCT 0120	293	449.	*	16 OCT 1350	443	117.	*	17 OCT 0220	593	114.					
15 OCT 1255	144	643.	*	16 OCT 0125	294	446.	*	16 OCT 1355	444	117.	*	17 OCT 0225	594	114.					
15 OCT 1300	145	660.	*	16 OCT 0130	295	443.	*	16 OCT 1400	445	117.	*	17 OCT 0230	595	114.					
15 OCT 1305	146	680.	*	16 OCT 0135	296	440.	*	16 OCT 1405	446	117.	*	17 OCT 0235	596	114.					
15 OCT 1310	147	701.	*	16 OCT 0140	297	437.	*	16 OCT 1410	447	117.	*	17 OCT 0240	597	114.					
15 OCT 1315	148	724.	*	16 OCT 0145	298	434.	*	16 OCT 1415	448	117.	*	17 OCT 0245	598	114.					
15 OCT 1320	149	750.	*	16 OCT 0150	299	431.	*	16 OCT 1420	449	116.	*	17 OCT 0250	599	114.					
15 OCT 1325	150	777.	*	16 OCT 0155	300	428.	*	16 OCT 1425	450	116.	*	17 OCT 0255	600	114.					
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1957.	15.33		1592.	767.	436.	436.
		(INCHES)	.501	.966	1.142	1.142
		(AC-FT)	789.	1521.	1799.	1799.

CUMULATIVE AREA = 29.54 SQ MI

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10-year, 24 hour hydrographs: PL10+, PL10C1, PL10E, PL11, PL10B+

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2917 KK PL10+ COMBINE FIDDYMENT PROPERTY WITHIN PL10D

2918 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION PL10+
SUM OF 2 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
15	OCT	0100	1	68.	15	OCT	1330	151	306.	16	OCT	0200	301	114.	16	OCT	1430	451	68.
15	OCT	0105	2	68.	15	OCT	1335	152	342.	16	OCT	0205	302	113.	16	OCT	1435	452	68.
15	OCT	0110	3	68.	15	OCT	1340	153	389.	16	OCT	0210	303	112.	16	OCT	1440	453	68.
15	OCT	0115	4	68.	15	OCT	1345	154	444.	16	OCT	0215	304	111.	16	OCT	1445	454	68.
15	OCT	0120	5	68.	15	OCT	1350	155	502.	16	OCT	0220	305	110.	16	OCT	1450	455	68.
15	OCT	0125	6	68.	15	OCT	1355	156	563.	16	OCT	0225	306	109.	16	OCT	1455	456	68.
15	OCT	0130	7	68.	15	OCT	1400	157	625.	16	OCT	0230	307	108.	16	OCT	1500	457	68.
15	OCT	0135	8	68.	15	OCT	1405	158	686.	16	OCT	0235	308	107.	16	OCT	1505	458	68.
15	OCT	0140	9	68.	15	OCT	1410	159	748.	16	OCT	0240	309	106.	16	OCT	1510	459	68.
15	OCT	0145	10	68.	15	OCT	1415	160	808.	16	OCT	0245	310	105.	16	OCT	1515	460	68.
15	OCT	0150	11	68.	15	OCT	1420	161	867.	16	OCT	0250	311	105.	16	OCT	1520	461	68.
15	OCT	0155	12	68.	15	OCT	1425	162	922.	16	OCT	0255	312	104.	16	OCT	1525	462	68.
15	OCT	0200	13	68.	15	OCT	1430	163	975.	16	OCT	0300	313	103.	16	OCT	1530	463	68.
15	OCT	0205	14	68.	15	OCT	1435	164	1024.	16	OCT	0305	314	102.	16	OCT	1535	464	68.
15	OCT	0210	15	68.	15	OCT	1440	165	1069.	16	OCT	0310	315	101.	16	OCT	1540	465	68.
15	OCT	0215	16	68.	15	OCT	1445	166	1112.	16	OCT	0315	316	100.	16	OCT	1545	466	68.
15	OCT	0220	17	68.	15	OCT	1450	167	1150.	16	OCT	0320	317	100.	16	OCT	1550	467	68.
15	OCT	0225	18	68.	15	OCT	1455	168	1184.	16	OCT	0325	318	99.	16	OCT	1555	468	68.
15	OCT	0230	19	68.	15	OCT	1500	169	1214.	16	OCT	0330	319	98.	16	OCT	1600	469	68.
15	OCT	0235	20	68.	15	OCT	1505	170	1240.	16	OCT	0335	320	97.	16	OCT	1605	470	68.
15	OCT	0240	21	68.	15	OCT	1510	171	1260.	16	OCT	0340	321	97.	16	OCT	1610	471	68.
15	OCT	0245	22	68.	15	OCT	1515	172	1276.	16	OCT	0345	322	96.	16	OCT	1615	472	68.
15	OCT	0250	23	68.	15	OCT	1520	173	1287.	16	OCT	0350	323	95.	16	OCT	1620	473	68.
15	OCT	0255	24	68.	15	OCT	1525	174	1294.	16	OCT	0355	324	95.	16	OCT	1625	474	68.
15	OCT	0300	25	68.	15	OCT	1530	175	1296.	16	OCT	0400	325	94.	16	OCT	1630	475	68.
15	OCT	0305	26	68.	15	OCT	1535	176	1294.	16	OCT	0405	326	93.	16	OCT	1635	476	68.
15	OCT	0310	27	68.	15	OCT	1540	177	1287.	16	OCT	0410	327	93.	16	OCT	1640	477	68.
15	OCT	0315	28	68.	15	OCT	1545	178	1277.	16	OCT	0415	328	92.	16	OCT	1645	478	68.
15	OCT	0320	29	68.	15	OCT	1550	179	1263.	16	OCT	0420	329	92.	16	OCT	1650	479	68.
15	OCT	0325	30	68.	15	OCT	1555	180	1246.	16	OCT	0425	330	91.	16	OCT	1655	480	68.
15	OCT	0330	31	69.	15	OCT	1600	181	1226.	16	OCT	0430	331	90.	16	OCT	1700	481	68.
15	OCT	0335	32	69.	15	OCT	1605	182	1203.	16	OCT	0435	332	90.	16	OCT	1705	482	68.
15	OCT	0340	33	69.	15	OCT	1610	183	1178.	16	OCT	0440	333	89.	16	OCT	1710	483	68.
15	OCT	0345	34	69.	15	OCT	1615	184	1152.	16	OCT	0445	334	89.	16	OCT	1715	484	68.
15	OCT	0350	35	69.	15	OCT	1620	185	1124.	16	OCT	0450	335	88.	16	OCT	1720	485	68.
15	OCT	0355	36	69.	15	OCT	1625	186	1095.	16	OCT	0455	336	88.	16	OCT	1725	486	68.
15	OCT	0400	37	69.	15	OCT	1630	187	1065.	16	OCT	0500	337	87.	16	OCT	1730	487	68.
15	OCT	0405	38	69.	15	OCT	1635	188	1034.	16	OCT	0505	338	87.	16	OCT	1735	488	68.
15	OCT	0410	39	69.	15	OCT	1640	189	1003.	16	OCT	0510	339	86.	16	OCT	1740	489	68.
15	OCT	0415	40	69.	15	OCT	1645	190	973.	16	OCT	0515	340	86.	16	OCT	1745	490	68.
15	OCT	0420	41	69.	15	OCT	1650	191	942.	16	OCT	0520	341	85.	16	OCT	1750	491	68.
15	OCT	0425	42	69.	15	OCT	1655	192	912.	16	OCT	0525	342	85.	16	OCT	1755	492	68.
15	OCT	0430	43	69.	15	OCT	1700	193	882.	16	OCT	0530	343	84.	16	OCT	1800	493	68.
15	OCT	0435	44	69.	15	OCT	1705	194	853.	16	OCT	0535	344	84.	16	OCT	1805	494	68.
15	OCT	0440	45	69.	15	OCT	1710	195	825.	16	OCT	0540	345	83.	16	OCT	1810	495	68.
15	OCT	0445	46	69.	15	OCT	1715	196	797.	16	OCT	0545	346	83.	16	OCT	1815	496	68.
15	OCT	0450	47	69.	15	OCT	1720	197	771.	16	OCT	0550	347	82.	16	OCT	1820	497	68.
15	OCT	0455	48	70.	15	OCT	1725	198	745.	16	OCT	0555	348	82.	16	OCT	1825	498	68.
15	OCT	0500	49	70.	15	OCT	1730	199	720.	16	OCT	0600	349	82.	16	OCT	1830	499	68.
15	OCT	0505	50	70.	15	OCT	1735	200	697.	16	OCT	0605	350	81.	16	OCT	1835	500	68.
15	OCT	0510	51	70.	15	OCT	1740	201	674.	16	OCT	0610	351	81.	16	OCT	1840	501	68.
15	OCT	0515	52	70.	15	OCT	1745	202	652.	16	OCT	0615	352	80.	16	OCT	1845	502	68.
15	OCT	0520	53	70.	15	OCT	1750	203	632.	16	OCT	0620	353	80.	16	OCT	1850	503	68.
15	OCT	0525	54	70.	15	OCT	1755	204	612.	16	OCT	0625	354	79.	16	OCT	1855	504	68.
15	OCT	0530	55	71.	15	OCT	1800	205	593.	16	OCT	0630	355	79.	16	OCT	1900	505	68.
15	OCT	0535	56	71.	15	OCT	1805	206	575.	16	OCT	0635	356	79.	16	OCT	1905	506	68.
15	OCT	0540	57	71.	15	OCT	1810	207	558.	16	OCT	0640	357	78.	16	OCT	1910	507	68.
15	OCT	0545	58	71.	15	OCT	1815	208	541.	16	OCT	0645	358	78.	16	OCT	1915	508	68.
15	OCT	0550	59	72.	15	OCT	1820	209	525.	16	OCT	0650	359	78.	16	OCT	1920	509	68.
15	OCT	0555	60	72.	15	OCT	1825	210	511.	16	OCT	0655	360	77.	16	OCT	1925	510	68.
15	OCT	0600	61	72.	15	OCT	1830	211	497.	16	OCT	0700	361	77.	16	OCT	1930	511	68.
15	OCT	0605	62	72.	15	OCT	1835	212	483.	16	OCT	0705	362	77.	16	OCT	1935	512	68.
15	OCT	0610	63	73.	15	OCT	1840	213	470.	16	OCT	0710	363	76.	16	OCT	1940	513	68.
15	OCT	0615	64	73.	15	OCT	1845	214	458.	16	OCT	0715	364	76.	16	OCT	1945	514	68.
15	OCT	0620	65	73.	15	OCT	1850	215	446.	16	OCT	0720	365	76.	16	OCT	1950	515	68.
15	OCT	0625	66	73.	15	OCT	1855	216	435.	16	OCT	0725	366	75.	16	OCT	1955	516	68.
15	OCT	0630	67	73.	15	OCT	1900	217	424.	16	OCT	0730	367	75.	16	OCT	2000	517	68.
15	OCT	0635	68	74.	15	OCT	1905	218	414.	16	OCT	0735	368	75.	16	OCT	2005	518	68.
15	OCT	0640	69	74.	15	OCT	1910	219	404.	16	OCT	0740	369	74.	16	OCT	2010	519	68.
15	OCT	0645	70	74.	15	OCT	1915	220	395.	16	OCT	0745	370	74.	16	OCT	2015	520	68.
15	OCT	0650	71	74.	15	OCT	1920	221	386.	16	OCT	0750	371	74.	16	OCT	2020	521	68.
15	OCT	0655	72	75.	15	OCT	1925	222	377.	16	OCT	0755	372	74.	16	OCT	2025	522	68.
15	OCT	0700	73	75.	15	OCT	1930	223	369.	16	OCT	0800	373	73.	16	OCT	2030	523	68.
15	OCT	0705	74	75.	15	OCT	1935	224	361.	16	OCT	0805	374	73.	16	OCT	2035	524	68.

15	OCT	0710	75	75.	*	15	OCT	1940	225	353.	*	16	OCT	0810	375	73.	*	16	OCT	2040	525	68.
15	OCT	0715	76	75.	*	15	OCT	1945	226	346.	*	16	OCT	0815	376	73.	*	16	OCT	2045	526	68.
15	OCT	0720	77	76.	*	15	OCT	1950	227	338.	*	16	OCT	0820	377	73.	*	16	OCT	2050	527	68.
15	OCT	0725	78	76.	*	15	OCT	1955	228	332.	*	16	OCT	0825	378	72.	*	16	OCT	2055	528	68.
15	OCT	0730	79	76.	*	15	OCT	2000	229	325.	*	16	OCT	0830	379	72.	*	16	OCT	2100	529	68.
15	OCT	0735	80	76.	*	15	OCT	2005	230	319.	*	16	OCT	0835	380	72.	*	16	OCT	2105	530	68.
15	OCT	0740	81	77.	*	15	OCT	2010	231	312.	*	16	OCT	0840	381	72.	*	16	OCT	2110	531	68.
15	OCT	0745	82	77.	*	15	OCT	2015	232	307.	*	16	OCT	0845	382	72.	*	16	OCT	2115	532	68.
15	OCT	0750	83	77.	*	15	OCT	2020	233	301.	*	16	OCT	0850	383	72.	*	16	OCT	2120	533	68.
15	OCT	0755	84	77.	*	15	OCT	2025	234	295.	*	16	OCT	0855	384	71.	*	16	OCT	2125	534	68.
15	OCT	0800	85	77.	*	15	OCT	2030	235	290.	*	16	OCT	0900	385	71.	*	16	OCT	2130	535	68.
15	OCT	0805	86	78.	*	15	OCT	2035	236	285.	*	16	OCT	0905	386	71.	*	16	OCT	2135	536	68.
15	OCT	0810	87	78.	*	15	OCT	2040	237	279.	*	16	OCT	0910	387	71.	*	16	OCT	2140	537	68.
15	OCT	0815	88	78.	*	15	OCT	2045	238	274.	*	16	OCT	0915	388	71.	*	16	OCT	2145	538	68.
15	OCT	0820	89	79.	*	15	OCT	2050	239	270.	*	16	OCT	0920	389	71.	*	16	OCT	2150	539	68.
15	OCT	0825	90	79.	*	15	OCT	2055	240	265.	*	16	OCT	0925	390	71.	*	16	OCT	2155	540	68.
15	OCT	0830	91	79.	*	15	OCT	2100	241	260.	*	16	OCT	0930	391	71.	*	16	OCT	2200	541	68.
15	OCT	0835	92	80.	*	15	OCT	2105	242	256.	*	16	OCT	0935	392	70.	*	16	OCT	2205	542	68.
15	OCT	0840	93	80.	*	15	OCT	2110	243	252.	*	16	OCT	0940	393	70.	*	16	OCT	2210	543	68.
15	OCT	0845	94	81.	*	15	OCT	2115	244	247.	*	16	OCT	0945	394	70.	*	16	OCT	2215	544	68.
15	OCT	0850	95	81.	*	15	OCT	2120	245	243.	*	16	OCT	0950	395	70.	*	16	OCT	2220	545	68.
15	OCT	0855	96	82.	*	15	OCT	2125	246	239.	*	16	OCT	0955	396	70.	*	16	OCT	2225	546	68.
15	OCT	0900	97	82.	*	15	OCT	2130	247	235.	*	16	OCT	1000	397	70.	*	16	OCT	2230	547	68.
15	OCT	0905	98	83.	*	15	OCT	2135	248	231.	*	16	OCT	1005	398	70.	*	16	OCT	2235	548	68.
15	OCT	0910	99	83.	*	15	OCT	2140	249	228.	*	16	OCT	1010	399	70.	*	16	OCT	2240	549	68.
15	OCT	0915	100	84.	*	15	OCT	2145	250	224.	*	16	OCT	1015	400	70.	*	16	OCT	2245	550	68.
15	OCT	0920	101	84.	*	15	OCT	2150	251	220.	*	16	OCT	1020	401	70.	*	16	OCT	2250	551	68.
15	OCT	0925	102	85.	*	15	OCT	2155	252	217.	*	16	OCT	1025	402	70.	*	16	OCT	2255	552	68.
15	OCT	0930	103	86.	*	15	OCT	2200	253	213.	*	16	OCT	1030	403	69.	*	16	OCT	2300	553	68.
15	OCT	0935	104	87.	*	15	OCT	2205	254	210.	*	16	OCT	1035	404	69.	*	16	OCT	2305	554	68.
15	OCT	0940	105	88.	*	15	OCT	2210	255	207.	*	16	OCT	1040	405	69.	*	16	OCT	2310	555	68.
15	OCT	0945	106	88.	*	15	OCT	2215	256	204.	*	16	OCT	1045	406	69.	*	16	OCT	2315	556	68.
15	OCT	0950	107	89.	*	15	OCT	2220	257	201.	*	16	OCT	1050	407	69.	*	16	OCT	2320	557	68.
15	OCT	0955	108	90.	*	15	OCT	2225	258	197.	*	16	OCT	1055	408	69.	*	16	OCT	2325	558	68.
15	OCT	1000	109	92.	*	15	OCT	2230	259	194.	*	16	OCT	1100	409	69.	*	16	OCT	2330	559	68.
15	OCT	1005	110	93.	*	15	OCT	2235	260	192.	*	16	OCT	1105	410	69.	*	16	OCT	2335	560	68.
15	OCT	1010	111	94.	*	15	OCT	2240	261	189.	*	16	OCT	1110	411	69.	*	16	OCT	2340	561	68.
15	OCT	1015	112	95.	*	15	OCT	2245	262	186.	*	16	OCT	1115	412	69.	*	16	OCT	2345	562	68.
15	OCT	1020	113	97.	*	15	OCT	2250	263	183.	*	16	OCT	1120	413	69.	*	16	OCT	2350	563	68.
15	OCT	1025	114	98.	*	15	OCT	2255	264	180.	*	16	OCT	1125	414	69.	*	16	OCT	2355	564	68.
15	OCT	1030	115	100.	*	15	OCT	2300	265	178.	*	16	OCT	1130	415	69.	*	17	OCT	0000	565	68.
15	OCT	1035	116	102.	*	15	OCT	2305	266	175.	*	16	OCT	1135	416	69.	*	17	OCT	0005	566	68.
15	OCT	1040	117	104.	*	15	OCT	2310	267	172.	*	16	OCT	1140	417	69.	*	17	OCT	0010	567	68.
15	OCT	1045	118	105.	*	15	OCT	2315	268	170.	*	16	OCT	1145	418	69.	*	17	OCT	0015	568	68.
15	OCT	1050	119	108.	*	15	OCT	2320	269	167.	*	16	OCT	1150	419	69.	*	17	OCT	0020	569	68.
15	OCT	1055	120	110.	*	15	OCT	2325	270	165.	*	16	OCT	1155	420	69.	*	17	OCT	0025	570	68.
15	OCT	1100	121	112.	*	15	OCT	2330	271	163.	*	16	OCT	1200	421	69.	*	17	OCT	0030	571	68.
15	OCT	1105	122	114.	*	15	OCT	2335	272	160.	*	16	OCT	1205	422	69.	*	17	OCT	0035	572	68.
15	OCT	1110	123	117.	*	15	OCT	2340	273	158.	*	16	OCT	1210	423	69.	*	17	OCT	0040	573	68.
15	OCT	1115	124	120.	*	15	OCT	2345	274	156.	*	16	OCT	1215	424	69.	*	17	OCT	0045	574	68.
15	OCT	1120	125	122.	*	15	OCT	2350	275	154.	*	16	OCT	1220	425	69.	*	17	OCT	0050	575	68.
15	OCT	1125	126	125.	*	15	OCT	2355	276	152.	*	16	OCT	1225	426	69.	*	17	OCT	0055	576	68.
15	OCT	1130	127	128.	*	16	OCT	0000	277	150.	*	16	OCT	1230	427	69.	*	17	OCT	0100	577	68.
15	OCT	1135	128	131.	*	16	OCT	0005	278	148.	*	16	OCT	1235	428	69.	*	17	OCT	0105	578	68.
15	OCT	1140	129	135.	*	16	OCT	0010	279	146.	*	16	OCT	1240	429	69.	*	17	OCT	0110	579	68.
15	OCT	1145	130	138.	*	16	OCT	0015	280	144.	*	16	OCT	1245	430	69.	*	17	OCT	0115	580	68.
15	OCT	1150	131	142.	*	16	OCT	0020	281	142.	*	16	OCT	1250	431	69.	*	17	OCT	0120	581	68.
15	OCT	1155	132	145.	*	16	OCT	0025	282	140.	*	16	OCT	1255	432	69.	*	17	OCT	0125	582	68.
15	OCT	1200	133	149.	*	16	OCT	0030	283	139.	*	16	OCT	1300	433	69.	*	17	OCT	0130	583	68.
15	OCT	1205	134	153.	*	16	OCT	0035	284	137.	*	16	OCT	1305	434	69.	*	17	OCT	0135	584	68.
15	OCT	1210	135	158.	*	16	OCT	0040	285	135.	*	16	OCT	1310	435	69.	*	17	OCT	0140	585	68.
15	OCT	1215	136	162.	*	16	OCT	0045	286	134.	*	16	OCT	1315	436	69.	*	17	OCT	0145	586	68.
15	OCT	1220	137	167.	*	16	OCT	0050	287	132.	*	16	OCT	1320	437	69.	*	17	OCT	0150	587	68.
15	OCT	1225	138	172.	*	16	OCT	0055	288	131.	*	16	OCT	1325	438	68.	*	17	OCT	0155	588	68.
15	OCT	1230	139	178.	*	16	OCT	0100	289	129.	*	16	OCT	1330	439	68.	*	17	OCT	0200	589	68.
15	OCT	1235	140	183.	*	16	OCT	0105	290	128.	*	16	OCT	1335	440	68.	*	17	OCT	0205	590	68.
15	OCT	1240	141	190.	*	16	OCT	0110	291	127.	*	16	OCT	1340	441	68.	*	17	OCT	0210	591	68.
15	OCT	1245	142	196.	*	16	OCT	0115	292	125.	*	16	OCT	1345	442	68.	*	17	OCT	0215	592	68.
15	OCT	1250	143	203.	*	16	OCT	0120	293	124.	*	16	OCT	1350	443	68.	*	17	OCT	0220	593	68.
15	OCT	1255	144	211.	*	16	OCT	0125	294	123.	*	16	OCT	1355	444	68.	*	17	OCT	0225	594	68.
15	OCT	1300	145	220.	*	16	OCT	0130	295	121.	*	16	OCT	1400	445	68.	*	17	OCT	0230	595	68.
15	OCT	1305	146	230.	*	16	OCT	0135	296	120.	*	16	OCT	1405	446	68.	*	17	OCT	0235	596	68.
15	OCT	1310	147	240.	*	16	OCT	0140	297	119.	*	16	OCT	1410	447	68.	*	17	OCT	0240	597	68.
15	OCT	1315	148	252.	*	16	OCT	0145	298	118.	*	16	OCT	1415	448	68.	*	17	OCT	0245	598	68.
15	OCT	1320	149	266.	*	16	OCT	0150	299	117.	*	16	OCT	1420	449	68.	*	17	OCT	0250	599	68.
15	OCT	1325	150	282.	*	16	OCT	0155	300	115.	*	16	OCT	1425	450	68.	*	17	OCT	0255	600	68.
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1296.	14.50		823.	312.	186.	186.
		(INCHES)	1.362	2.067	2.561	2.561
		(AC-FT)	408.	619.	767.	767.

CUMULATIVE AREA = 5.62 SQ MI

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HYDROGRAPH AT STATION PL10C1
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
15	OCT	0100	1	35.	15	OCT	1330	151	364.	16	OCT	0200	301	51.	16	OCT	1430	451	35.
15	OCT	0105	2	35.	15	OCT	1335	152	458.	16	OCT	0205	302	50.	16	OCT	1435	452	35.
15	OCT	0110	3	35.	15	OCT	1340	153	541.	16	OCT	0210	303	50.	16	OCT	1440	453	35.
15	OCT	0115	4	35.	15	OCT	1345	154	590.	16	OCT	0215	304	50.	16	OCT	1445	454	35.
15	OCT	0120	5	35.	15	OCT	1350	155	605.	16	OCT	0220	305	49.	16	OCT	1450	455	35.
15	OCT	0125	6	35.	15	OCT	1355	156	603.	16	OCT	0225	306	49.	16	OCT	1455	456	35.
15	OCT	0130	7	35.	15	OCT	1400	157	594.	16	OCT	0230	307	49.	16	OCT	1500	457	35.
15	OCT	0135	8	35.	15	OCT	1405	158	579.	16	OCT	0235	308	48.	16	OCT	1505	458	35.
15	OCT	0140	9	35.	15	OCT	1410	159	556.	16	OCT	0240	309	48.	16	OCT	1510	459	35.
15	OCT	0145	10	35.	15	OCT	1415	160	528.	16	OCT	0245	310	48.	16	OCT	1515	460	35.
15	OCT	0150	11	35.	15	OCT	1420	161	495.	16	OCT	0250	311	48.	16	OCT	1520	461	35.
15	OCT	0155	12	35.	15	OCT	1425	162	462.	16	OCT	0255	312	47.	16	OCT	1525	462	35.
15	OCT	0200	13	35.	15	OCT	1430	163	432.	16	OCT	0300	313	47.	16	OCT	1530	463	35.
15	OCT	0205	14	35.	15	OCT	1435	164	405.	16	OCT	0305	314	47.	16	OCT	1535	464	35.
15	OCT	0210	15	35.	15	OCT	1440	165	382.	16	OCT	0310	315	47.	16	OCT	1540	465	35.
15	OCT	0215	16	36.	15	OCT	1445	166	362.	16	OCT	0315	316	47.	16	OCT	1545	466	35.
15	OCT	0220	17	36.	15	OCT	1450	167	346.	16	OCT	0320	317	46.	16	OCT	1550	467	35.
15	OCT	0225	18	36.	15	OCT	1455	168	333.	16	OCT	0325	318	46.	16	OCT	1555	468	35.
15	OCT	0230	19	36.	15	OCT	1500	169	322.	16	OCT	0330	319	46.	16	OCT	1600	469	35.
15	OCT	0235	20	36.	15	OCT	1505	170	313.	16	OCT	0335	320	46.	16	OCT	1605	470	35.
15	OCT	0240	21	36.	15	OCT	1510	171	306.	16	OCT	0340	321	46.	16	OCT	1610	471	35.
15	OCT	0245	22	36.	15	OCT	1515	172	298.	16	OCT	0345	322	45.	16	OCT	1615	472	35.
15	OCT	0250	23	36.	15	OCT	1520	173	291.	16	OCT	0350	323	45.	16	OCT	1620	473	35.
15	OCT	0255	24	37.	15	OCT	1525	174	284.	16	OCT	0355	324	45.	16	OCT	1625	474	35.
15	OCT	0300	25	37.	15	OCT	1530	175	277.	16	OCT	0400	325	45.	16	OCT	1630	475	35.
15	OCT	0305	26	37.	15	OCT	1535	176	270.	16	OCT	0405	326	45.	16	OCT	1635	476	35.
15	OCT	0310	27	37.	15	OCT	1540	177	263.	16	OCT	0410	327	45.	16	OCT	1640	477	35.
15	OCT	0315	28	37.	15	OCT	1545	178	256.	16	OCT	0415	328	45.	16	OCT	1645	478	35.
15	OCT	0320	29	37.	15	OCT	1550	179	249.	16	OCT	0420	329	44.	16	OCT	1650	479	35.
15	OCT	0325	30	37.	15	OCT	1555	180	243.	16	OCT	0425	330	44.	16	OCT	1655	480	35.
15	OCT	0330	31	37.	15	OCT	1600	181	236.	16	OCT	0430	331	44.	16	OCT	1700	481	35.
15	OCT	0335	32	37.	15	OCT	1605	182	230.	16	OCT	0435	332	44.	16	OCT	1705	482	35.
15	OCT	0340	33	37.	15	OCT	1610	183	224.	16	OCT	0440	333	44.	16	OCT	1710	483	35.
15	OCT	0345	34	37.	15	OCT	1615	184	218.	16	OCT	0445	334	44.	16	OCT	1715	484	35.
15	OCT	0350	35	37.	15	OCT	1620	185	213.	16	OCT	0450	335	44.	16	OCT	1720	485	35.
15	OCT	0355	36	37.	15	OCT	1625	186	207.	16	OCT	0455	336	43.	16	OCT	1725	486	35.
15	OCT	0400	37	37.	15	OCT	1630	187	202.	16	OCT	0500	337	43.	16	OCT	1730	487	35.
15	OCT	0405	38	37.	15	OCT	1635	188	198.	16	OCT	0505	338	43.	16	OCT	1735	488	35.
15	OCT	0410	39	37.	15	OCT	1640	189	193.	16	OCT	0510	339	43.	16	OCT	1740	489	35.
15	OCT	0415	40	37.	15	OCT	1645	190	189.	16	OCT	0515	340	43.	16	OCT	1745	490	35.
15	OCT	0420	41	37.	15	OCT	1650	191	185.	16	OCT	0520	341	43.	16	OCT	1750	491	35.
15	OCT	0425	42	37.	15	OCT	1655	192	182.	16	OCT	0525	342	42.	16	OCT	1755	492	35.
15	OCT	0430	43	37.	15	OCT	1700	193	179.	16	OCT	0530	343	42.	16	OCT	1800	493	35.
15	OCT	0435	44	37.	15	OCT	1705	194	176.	16	OCT	0535	344	42.	16	OCT	1805	494	35.
15	OCT	0440	45	37.	15	OCT	1710	195	173.	16	OCT	0540	345	42.	16	OCT	1810	495	35.
15	OCT	0445	46	38.	15	OCT	1715	196	171.	16	OCT	0545	346	42.	16	OCT	1815	496	35.
15	OCT	0450	47	38.	15	OCT	1720	197	168.	16	OCT	0550	347	41.	16	OCT	1820	497	35.
15	OCT	0455	48	38.	15	OCT	1725	198	166.	16	OCT	0555	348	41.	16	OCT	1825	498	35.
15	OCT	0500	49	38.	15	OCT	1730	199	164.	16	OCT	0600	349	41.	16	OCT	1830	499	35.
15	OCT	0505	50	38.	15	OCT	1735	200	161.	16	OCT	0605	350	41.	16	OCT	1835	500	35.
15	OCT	0510	51	38.	15	OCT	1740	201	159.	16	OCT	0610	351	41.	16	OCT	1840	501	35.
15	OCT	0515	52	39.	15	OCT	1745	202	157.	16	OCT	0615	352	40.	16	OCT	1845	502	35.
15	OCT	0520	53	39.	15	OCT	1750	203	155.	16	OCT	0620	353	40.	16	OCT	1850	503	35.
15	OCT	0525	54	39.	15	OCT	1755	204	153.	16	OCT	0625	354	40.	16	OCT	1855	504	35.
15	OCT	0530	55	39.	15	OCT	1800	205	151.	16	OCT	0630	355	40.	16	OCT	1900	505	35.
15	OCT	0535	56	40.	15	OCT	1805	206	150.	16	OCT	0635	356	40.	16	OCT	1905	506	35.
15	OCT	0540	57	40.	15	OCT	1810	207	148.	16	OCT	0640	357	39.	16	OCT	1910	507	35.
15	OCT	0545	58	40.	15	OCT	1815	208	145.	16	OCT	0645	358	39.	16	OCT	1915	508	35.
15	OCT	0550	59	40.	15	OCT	1820	209	143.	16	OCT	0650	359	39.	16	OCT	1920	509	35.
15	OCT	0555	60	41.	15	OCT	1825	210	141.	16	OCT	0655	360	39.	16	OCT	1925	510	35.
15	OCT	0600	61	41.	15	OCT	1830	211	139.	16	OCT	0700	361	39.	16	OCT	1930	511	35.
15	OCT	0605	62	41.	15	OCT	1835	212	137.	16	OCT	0705	362	39.	16	OCT	1935	512	35.
15	OCT	0610	63	41.	15	OCT	1840	213	135.	16	OCT	0710	363	38.	16	OCT	1940	513	35.
15	OCT	0615	64	42.	15	OCT	1845	214	133.	16	OCT	0715	364	38.	16	OCT	1945	514	35.
15	OCT	0620	65	42.	15	OCT	1850	215	131.	16	OCT	0720	365	38.	16	OCT	1950	515	35.
15	OCT	0625	66	42.	15	OCT	1855	216	129.	16	OCT	0725	366	38.	16	OCT	1955	516	35.
15	OCT	0630	67	42.	15	OCT	1900	217	127.	16	OCT	0730	367	38.	16	OCT	2000	517	35.
15	OCT	0635	68	42.	15	OCT	1905	218	126.	16	OCT	0735	368	38.	16	OCT	2005	518	35.
15	OCT	0640	69	43.	15	OCT	1910	219	124.	16	OCT	0740	369	38.	16	OCT	2010	519	35.
15	OCT	0645	70	43.	15	OCT	1915	220	122.	16	OCT	0745	370	38.	16	OCT	2015	520	35.
15	OCT	0650	71	43.	15	OCT	1920	221	121.	16	OCT	0750	371	37.	16	OCT	2020	521	35.
15	OCT	0655	72	43.	15	OCT	1925	222	119.	16	OCT	0755	372	37.	16	OCT	2025	522	35.
15	OCT	0700	73	43.	15	OCT	1930	223	117.	16	OCT	0800	373	37.	16	OCT	2030	523	35.
15	OCT	0705	74	44.	15	OCT	1935	224	116.	16	OCT	0805	374	37.	16	OCT	2035	524	35.
15	OCT	0710	75	44.	15	OCT	1940	225	114.	16	OCT	0810	375	37.	16	OCT	2040	525	35.
15	OCT	0715	76	44.	15	OCT	1945	226	112.	16	OCT	0815	376	37.	16	OCT	2045	526	35.
15	OCT	0720	77	44.	15	OCT	1950	227	110.	16	OCT	0820	377	37.	16	OCT	2050	527	35.
15	OCT	0725	78	45.	15	OCT	1955	228	109.	16	OCT	0825	378	37.	16	OCT	2055	528	35.
15	OCT	0730	79	45.	15	OCT	2000	229	107.	16	OCT	0830	379	37.	16	OCT	2100	529	35.
15	OCT	0735	80	45.	15	OCT	2005	230	105.	16	OCT	0835	380	37.	16	OCT	2105	530	35.
15	OCT	0740	81	46.	15	OCT	2010	231	103.	16	OCT	0840	381	37.	16	OCT	2110	531	35.
15	OCT	0745	82	46.	15	OCT	2015	232	101.	16	OCT	0845	382	37.	16	OCT	2115	532	35.
15	OCT	0750	83	47.	15	OCT	2020	233	100.	16	OCT	0850	383	36.	16	OCT	2120	533	35.
15	OCT	0755	84	47.	15	OCT	2025	234	98.	16	OCT	0855	384	36.	16	OCT	2125	534	35.
15	OCT	0800	85	48.	15	OCT	2030	235	97.	16	OCT	0900	385	36.	16	OCT	2130	535	35.
15	OCT	0805	86	48.	15	OCT	2035	236	95.	16	OCT	0905	386	36.	16	OCT	2135	536	35.
15	OCT	0810	87	49.	15	OCT	2040	237	94.	16	OCT	0910	387	36.	16	OCT	2140	537	35.
15	OCT	0815	88	50.	15	OCT	2045	238	92.	16	OCT	0915	388	36.	16	OCT	2145	538	35.
15	OCT	0820	89	51.	15	OCT	2050	239	91.	16	OCT	0920	389	36.	16	OCT	2150	539	35.
15	OCT	0825	90	51.	15	OCT	2055	240	90.	16	OCT	0925	390	36.	16	OCT	2155	540	35.
15	OCT	0830	91	52.	15	OCT	2100	241	88.	16	OCT	0930	391	36.	16	OCT	2200	541	35.
15	OCT	0835	92	53.	15	OCT	2105	242	87.	16	OCT	0935	392	36.	16	OCT	2205	542	35.
15	OCT	0840	93	54.	15	OCT	2110	243	86.	16	OCT	0940	393	36.	16	OCT	2210	543	35.
15	OCT	0845	94	55.	15	OCT	2115	244	85.	16	OCT	0945	394	36.	16	OCT	2215	544	35.
15	OCT	0850	95	56.	15	OCT	2120	245	84.	16	OCT	0950	395	36.	16	OCT	2220	545	35.
15	OCT	0855	96	57.	15	OCT	2125	246	83.	16	OCT	0955	396	36.	16	OCT	2225	546	35.
15	OCT	0900	97	58.	15	OCT	2130	247	82.	16	OCT	1000	397	36.	16	OCT	2230	547	35.
15	OCT	0905	98	59.	15	OCT	2135	248	81.	16	OCT	1005	398	36.	16	OCT	2235	548	35.
15	OCT	0910	99	61.	15	OCT	2140	249	80.	16	OCT	1010	399	36.	16	OCT	2240	549	35.
15	OCT	0915	100	62.	15	OCT	2145	250	79.	16	OCT	1015	400	36.	16	OCT	2245	550	35.

15	OCT	0920	101	63.	*	15	OCT	2150	251	78.	*	16	OCT	1020	401	36.	*	16	OCT	2250	551	35.
15	OCT	0925	102	65.	*	15	OCT	2155	252	77.	*	16	OCT	1025	402	36.	*	16	OCT	2255	552	35.
15	OCT	0930	103	67.	*	15	OCT	2200	253	77.	*	16	OCT	1030	403	35.	*	16	OCT	2300	553	35.
15	OCT	0935	104	68.	*	15	OCT	2205	254	76.	*	16	OCT	1035	404	35.	*	16	OCT	2305	554	35.
15	OCT	0940	105	70.	*	15	OCT	2210	255	75.	*	16	OCT	1040	405	35.	*	16	OCT	2310	555	35.
15	OCT	0945	106	72.	*	15	OCT	2215	256	74.	*	16	OCT	1045	406	35.	*	16	OCT	2315	556	35.
15	OCT	0950	107	73.	*	15	OCT	2220	257	73.	*	16	OCT	1050	407	35.	*	16	OCT	2320	557	35.
15	OCT	0955	108	75.	*	15	OCT	2225	258	72.	*	16	OCT	1055	408	35.	*	16	OCT	2325	558	35.
15	OCT	1000	109	77.	*	15	OCT	2230	259	71.	*	16	OCT	1100	409	35.	*	16	OCT	2330	559	35.
15	OCT	1005	110	79.	*	15	OCT	2235	260	70.	*	16	OCT	1105	410	35.	*	16	OCT	2335	560	35.
15	OCT	1010	111	80.	*	15	OCT	2240	261	69.	*	16	OCT	1110	411	35.	*	16	OCT	2340	561	35.
15	OCT	1015	112	82.	*	15	OCT	2245	262	68.	*	16	OCT	1115	412	35.	*	16	OCT	2345	562	35.
15	OCT	1020	113	84.	*	15	OCT	2250	263	67.	*	16	OCT	1120	413	35.	*	16	OCT	2350	563	35.
15	OCT	1025	114	86.	*	15	OCT	2255	264	67.	*	16	OCT	1125	414	35.	*	16	OCT	2355	564	35.
15	OCT	1030	115	87.	*	15	OCT	2300	265	66.	*	16	OCT	1130	415	35.	*	17	OCT	0000	565	35.
15	OCT	1035	116	89.	*	15	OCT	2305	266	65.	*	16	OCT	1135	416	35.	*	17	OCT	0005	566	35.
15	OCT	1040	117	91.	*	15	OCT	2310	267	64.	*	16	OCT	1140	417	35.	*	17	OCT	0010	567	35.
15	OCT	1045	118	92.	*	15	OCT	2315	268	64.	*	16	OCT	1145	418	35.	*	17	OCT	0015	568	35.
15	OCT	1050	119	94.	*	15	OCT	2320	269	63.	*	16	OCT	1150	419	35.	*	17	OCT	0020	569	35.
15	OCT	1055	120	96.	*	15	OCT	2325	270	62.	*	16	OCT	1155	420	35.	*	17	OCT	0025	570	35.
15	OCT	1100	121	97.	*	15	OCT	2330	271	62.	*	16	OCT	1200	421	35.	*	17	OCT	0030	571	35.
15	OCT	1105	122	99.	*	15	OCT	2335	272	61.	*	16	OCT	1205	422	35.	*	17	OCT	0035	572	35.
15	OCT	1110	123	101.	*	15	OCT	2340	273	61.	*	16	OCT	1210	423	35.	*	17	OCT	0040	573	35.
15	OCT	1115	124	103.	*	15	OCT	2345	274	60.	*	16	OCT	1215	424	35.	*	17	OCT	0045	574	35.
15	OCT	1120	125	104.	*	15	OCT	2350	275	60.	*	16	OCT	1220	425	35.	*	17	OCT	0050	575	35.
15	OCT	1125	126	106.	*	15	OCT	2355	276	59.	*	16	OCT	1225	426	35.	*	17	OCT	0055	576	35.
15	OCT	1130	127	108.	*	16	OCT	0000	277	59.	*	16	OCT	1230	427	35.	*	17	OCT	0100	577	35.
15	OCT	1135	128	111.	*	16	OCT	0005	278	58.	*	16	OCT	1235	428	35.	*	17	OCT	0105	578	35.
15	OCT	1140	129	113.	*	16	OCT	0010	279	58.	*	16	OCT	1240	429	35.	*	17	OCT	0110	579	35.
15	OCT	1145	130	115.	*	16	OCT	0015	280	57.	*	16	OCT	1245	430	35.	*	17	OCT	0115	580	35.
15	OCT	1150	131	118.	*	16	OCT	0020	281	57.	*	16	OCT	1250	431	35.	*	17	OCT	0120	581	35.
15	OCT	1155	132	120.	*	16	OCT	0025	282	57.	*	16	OCT	1255	432	35.	*	17	OCT	0125	582	35.
15	OCT	1200	133	123.	*	16	OCT	0030	283	56.	*	16	OCT	1300	433	35.	*	17	OCT	0130	583	35.
15	OCT	1205	134	126.	*	16	OCT	0035	284	56.	*	16	OCT	1305	434	35.	*	17	OCT	0135	584	35.
15	OCT	1210	135	129.	*	16	OCT	0040	285	55.	*	16	OCT	1310	435	35.	*	17	OCT	0140	585	35.
15	OCT	1215	136	133.	*	16	OCT	0045	286	55.	*	16	OCT	1315	436	35.	*	17	OCT	0145	586	35.
15	OCT	1220	137	137.	*	16	OCT	0050	287	55.	*	16	OCT	1320	437	35.	*	17	OCT	0150	587	35.
15	OCT	1225	138	141.	*	16	OCT	0055	288	54.	*	16	OCT	1325	438	35.	*	17	OCT	0155	588	35.
15	OCT	1230	139	145.	*	16	OCT	0100	289	54.	*	16	OCT	1330	439	35.	*	17	OCT	0200	589	35.
15	OCT	1235	140	150.	*	16	OCT	0105	290	54.	*	16	OCT	1335	440	35.	*	17	OCT	0205	590	35.
15	OCT	1240	141	156.	*	16	OCT	0110	291	53.	*	16	OCT	1340	441	35.	*	17	OCT	0210	591	35.
15	OCT	1245	142	163.	*	16	OCT	0115	292	53.	*	16	OCT	1345	442	35.	*	17	OCT	0215	592	35.
15	OCT	1250	143	171.	*	16	OCT	0120	293	53.	*	16	OCT	1350	443	35.	*	17	OCT	0220	593	35.
15	OCT	1255	144	180.	*	16	OCT	0125	294	53.	*	16	OCT	1355	444	35.	*	17	OCT	0225	594	35.
15	OCT	1300	145	190.	*	16	OCT	0130	295	52.	*	16	OCT	1400	445	35.	*	17	OCT	0230	595	35.
15	OCT	1305	146	201.	*	16	OCT	0135	296	52.	*	16	OCT	1405	446	35.	*	17	OCT	0235	596	35.
15	OCT	1310	147	215.	*	16	OCT	0140	297	52.	*	16	OCT	1410	447	35.	*	17	OCT	0240	597	35.
15	OCT	1315	148	232.	*	16	OCT	0145	298	51.	*	16	OCT	1415	448	35.	*	17	OCT	0245	598	35.
15	OCT	1320	149	253.	*	16	OCT	0150	299	51.	*	16	OCT	1420	449	35.	*	17	OCT	0250	599	35.
15	OCT	1325	150	291.	*	16	OCT	0155	300	51.	*	16	OCT	1425	450	35.	*	17	OCT	0255	600	35.
					*						*						*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 605.	12.83		274.	121.	77.	77.
		(INCHES)	1.311	2.314	3.056	3.056
		(AC-FT)	136.	239.	316.	316.

CUMULATIVE AREA = 1.94 SQ MI

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2926 KK * PL10E * PLEASANT GROVE CREEK

SUBBASIN RUNOFF DATA

2927 BA SUBBASIN CHARACTERISTICS
TAREA .35 SUBBASIN AREA

2959 BF BASE FLOW CHARACTERISTICS
STRTQ 1.05 INITIAL FLOW
QRCSN .00 BEGIN BASE FLOW RECESSION
RTIOR 1.00000 RECESSION CONSTANT

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HYDROGRAPH AT STATION PL10E

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
								*								
15	OCT	0100	1	.00	.00	.00	1.	*	16	OCT	0200	301	.00	.00	.00	2.
15	OCT	0105	2	.00	.00	.00	1.	*	16	OCT	0205	302	.00	.00	.00	2.
15	OCT	0110	3	.00	.00	.00	1.	*	16	OCT	0210	303	.00	.00	.00	2.
15	OCT	0115	4	.00	.00	.00	1.	*	16	OCT	0215	304	.00	.00	.00	2.
15	OCT	0120	5	.00	.00	.00	1.	*	16	OCT	0220	305	.00	.00	.00	2.
15	OCT	0125	6	.00	.00	.00	1.	*	16	OCT	0225	306	.00	.00	.00	2.
15	OCT	0130	7	.00	.00	.00	1.	*	16	OCT	0230	307	.00	.00	.00	2.
15	OCT	0135	8	.01	.00	.00	1.	*	16	OCT	0235	308	.00	.00	.00	2.
15	OCT	0140	9	.00	.00	.00	1.	*	16	OCT	0240	309	.00	.00	.00	2.
15	OCT	0145	10	.00	.00	.00	1.	*	16	OCT	0245	310	.00	.00	.00	2.
15	OCT	0150	11	.00	.00	.00	1.	*	16	OCT	0250	311	.00	.00	.00	2.
15	OCT	0155	12	.00	.00	.00	1.	*	16	OCT	0255	312	.00	.00	.00	2.

15	OCT	0200	13	.00	.00	.00	1.	*	16	OCT	0300	313	.00	.00	.00	2.
15	OCT	0205	14	.00	.00	.00	1.	*	16	OCT	0305	314	.00	.00	.00	2.
15	OCT	0210	15	.00	.00	.00	1.	*	16	OCT	0310	315	.00	.00	.00	2.
15	OCT	0215	16	.01	.00	.00	1.	*	16	OCT	0315	316	.00	.00	.00	2.
15	OCT	0220	17	.01	.00	.00	1.	*	16	OCT	0320	317	.00	.00	.00	2.
15	OCT	0225	18	.01	.00	.00	1.	*	16	OCT	0325	318	.00	.00	.00	2.
15	OCT	0230	19	.01	.00	.00	1.	*	16	OCT	0330	319	.00	.00	.00	2.
15	OCT	0235	20	.01	.00	.00	1.	*	16	OCT	0335	320	.00	.00	.00	2.
15	OCT	0240	21	.01	.00	.00	1.	*	16	OCT	0340	321	.00	.00	.00	2.
15	OCT	0245	22	.01	.00	.00	1.	*	16	OCT	0345	322	.00	.00	.00	2.
15	OCT	0250	23	.01	.00	.00	1.	*	16	OCT	0350	323	.00	.00	.00	2.
15	OCT	0255	24	.01	.00	.00	1.	*	16	OCT	0355	324	.00	.00	.00	2.
15	OCT	0300	25	.01	.00	.00	1.	*	16	OCT	0400	325	.00	.00	.00	2.
15	OCT	0305	26	.01	.00	.00	1.	*	16	OCT	0405	326	.00	.00	.00	2.
15	OCT	0310	27	.01	.00	.00	1.	*	16	OCT	0410	327	.00	.00	.00	2.
15	OCT	0315	28	.00	.00	.00	1.	*	16	OCT	0415	328	.00	.00	.00	2.
15	OCT	0320	29	.00	.00	.00	1.	*	16	OCT	0420	329	.00	.00	.00	2.
15	OCT	0325	30	.00	.00	.00	1.	*	16	OCT	0425	330	.00	.00	.00	1.
15	OCT	0330	31	.00	.00	.00	1.	*	16	OCT	0430	331	.00	.00	.00	1.
15	OCT	0335	32	.00	.00	.00	1.	*	16	OCT	0435	332	.00	.00	.00	1.
15	OCT	0340	33	.00	.00	.00	1.	*	16	OCT	0440	333	.00	.00	.00	1.
15	OCT	0345	34	.00	.00	.00	1.	*	16	OCT	0445	334	.00	.00	.00	1.
15	OCT	0350	35	.00	.00	.00	1.	*	16	OCT	0450	335	.00	.00	.00	1.
15	OCT	0355	36	.00	.00	.00	1.	*	16	OCT	0455	336	.00	.00	.00	1.
15	OCT	0400	37	.00	.00	.00	1.	*	16	OCT	0500	337	.00	.00	.00	1.
15	OCT	0405	38	.00	.00	.00	1.	*	16	OCT	0505	338	.00	.00	.00	1.
15	OCT	0410	39	.00	.00	.00	1.	*	16	OCT	0510	339	.00	.00	.00	1.
15	OCT	0415	40	.00	.00	.00	1.	*	16	OCT	0515	340	.00	.00	.00	1.
15	OCT	0420	41	.00	.00	.00	1.	*	16	OCT	0520	341	.00	.00	.00	1.
15	OCT	0425	42	.00	.00	.00	1.	*	16	OCT	0525	342	.00	.00	.00	1.
15	OCT	0430	43	.00	.00	.00	1.	*	16	OCT	0530	343	.00	.00	.00	1.
15	OCT	0435	44	.00	.00	.00	1.	*	16	OCT	0535	344	.00	.00	.00	1.
15	OCT	0440	45	.00	.00	.00	1.	*	16	OCT	0540	345	.00	.00	.00	1.
15	OCT	0445	46	.00	.00	.00	1.	*	16	OCT	0545	346	.00	.00	.00	1.
15	OCT	0450	47	.00	.00	.00	1.	*	16	OCT	0550	347	.00	.00	.00	1.
15	OCT	0455	48	.00	.00	.00	1.	*	16	OCT	0555	348	.00	.00	.00	1.
15	OCT	0500	49	.00	.00	.00	1.	*	16	OCT	0600	349	.00	.00	.00	1.
15	OCT	0505	50	.00	.00	.00	1.	*	16	OCT	0605	350	.00	.00	.00	1.
15	OCT	0510	51	.00	.00	.00	1.	*	16	OCT	0610	351	.00	.00	.00	1.
15	OCT	0515	52	.01	.00	.00	1.	*	16	OCT	0615	352	.00	.00	.00	1.
15	OCT	0520	53	.01	.00	.00	1.	*	16	OCT	0620	353	.00	.00	.00	1.
15	OCT	0525	54	.01	.00	.00	1.	*	16	OCT	0625	354	.00	.00	.00	1.
15	OCT	0530	55	.01	.00	.00	2.	*	16	OCT	0630	355	.00	.00	.00	1.
15	OCT	0535	56	.01	.00	.00	2.	*	16	OCT	0635	356	.00	.00	.00	1.
15	OCT	0540	57	.01	.00	.00	2.	*	16	OCT	0640	357	.00	.00	.00	1.
15	OCT	0545	58	.01	.00	.00	2.	*	16	OCT	0645	358	.00	.00	.00	1.
15	OCT	0550	59	.01	.00	.00	2.	*	16	OCT	0650	359	.00	.00	.00	1.
15	OCT	0555	60	.01	.00	.00	2.	*	16	OCT	0655	360	.00	.00	.00	1.
15	OCT	0600	61	.01	.00	.00	2.	*	16	OCT	0700	361	.00	.00	.00	1.
15	OCT	0605	62	.01	.00	.00	2.	*	16	OCT	0705	362	.00	.00	.00	1.
15	OCT	0610	63	.01	.00	.00	2.	*	16	OCT	0710	363	.00	.00	.00	1.
15	OCT	0615	64	.01	.00	.00	2.	*	16	OCT	0715	364	.00	.00	.00	1.
15	OCT	0620	65	.01	.00	.00	2.	*	16	OCT	0720	365	.00	.00	.00	1.
15	OCT	0625	66	.01	.00	.00	2.	*	16	OCT	0725	366	.00	.00	.00	1.
15	OCT	0630	67	.01	.00	.00	2.	*	16	OCT	0730	367	.00	.00	.00	1.
15	OCT	0635	68	.01	.00	.00	2.	*	16	OCT	0735	368	.00	.00	.00	1.
15	OCT	0640	69	.01	.00	.00	2.	*	16	OCT	0740	369	.00	.00	.00	1.
15	OCT	0645	70	.01	.00	.00	2.	*	16	OCT	0745	370	.00	.00	.00	1.
15	OCT	0650	71	.01	.00	.00	2.	*	16	OCT	0750	371	.00	.00	.00	1.
15	OCT	0655	72	.01	.00	.00	2.	*	16	OCT	0755	372	.00	.00	.00	1.
15	OCT	0700	73	.01	.00	.00	2.	*	16	OCT	0800	373	.00	.00	.00	1.
15	OCT	0705	74	.01	.00	.00	2.	*	16	OCT	0805	374	.00	.00	.00	1.
15	OCT	0710	75	.01	.00	.00	2.	*	16	OCT	0810	375	.00	.00	.00	1.
15	OCT	0715	76	.01	.00	.00	2.	*	16	OCT	0815	376	.00	.00	.00	1.
15	OCT	0720	77	.01	.00	.00	2.	*	16	OCT	0820	377	.00	.00	.00	1.
15	OCT	0725	78	.01	.00	.00	2.	*	16	OCT	0825	378	.00	.00	.00	1.
15	OCT	0730	79	.01	.00	.00	2.	*	16	OCT	0830	379	.00	.00	.00	1.
15	OCT	0735	80	.01	.00	.00	2.	*	16	OCT	0835	380	.00	.00	.00	1.
15	OCT	0740	81	.01	.00	.00	2.	*	16	OCT	0840	381	.00	.00	.00	1.
15	OCT	0745	82	.01	.00	.00	2.	*	16	OCT	0845	382	.00	.00	.00	1.
15	OCT	0750	83	.01	.00	.00	2.	*	16	OCT	0850	383	.00	.00	.00	1.
15	OCT	0755	84	.01	.00	.00	2.	*	16	OCT	0855	384	.00	.00	.00	1.
15	OCT	0800	85	.01	.00	.00	2.	*	16	OCT	0900	385	.00	.00	.00	1.
15	OCT	0805	86	.01	.00	.00	2.	*	16	OCT	0905	386	.00	.00	.00	1.
15	OCT	0810	87	.01	.00	.00	2.	*	16	OCT	0910	387	.00	.00	.00	1.
15	OCT	0815	88	.01	.00	.00	2.	*	16	OCT	0915	388	.00	.00	.00	1.
15	OCT	0820	89	.01	.00	.00	2.	*	16	OCT	0920	389	.00	.00	.00	1.
15	OCT	0825	90	.01	.00	.00	2.	*	16	OCT	0925	390	.00	.00	.00	1.
15	OCT	0830	91	.01	.00	.00	3.	*	16	OCT	0930	391	.00	.00	.00	1.
15	OCT	0835	92	.01	.00	.00	3.	*	16	OCT	0935	392	.00	.00	.00	1.
15	OCT	0840	93	.01	.00	.00	3.	*	16	OCT	0940	393	.00	.00	.00	1.
15	OCT	0845	94	.01	.00	.00	3.	*	16	OCT	0945	394	.00	.00	.00	1.
15	OCT	0850	95	.01	.00	.00	3.	*	16	OCT	0950	395	.00	.00	.00	1.
15	OCT	0855	96	.01	.00	.00	3.	*	16	OCT	0955	396	.00	.00	.00	1.
15	OCT	0900	97	.01	.00	.00	3.	*	16	OCT	1000	397	.00	.00	.00	1.
15	OCT	0905	98	.01	.00	.00	3.	*	16	OCT	1005	398	.00	.00	.00	1.
15	OCT	0910	99	.01	.00	.00	4.	*	16	OCT	1010	399	.00	.00	.00	1.
15	OCT	0915	100	.01	.00	.00	4.	*	16	OCT	1015	400	.00	.00	.00	1.
15	OCT	0920	101	.01	.00	.00	4.	*	16	OCT	1020	401	.00	.00	.00	1.
15	OCT	0925	102	.01	.00	.00	4.	*	16	OCT	1025	402	.00	.00	.00	1.
15	OCT	0930	103	.01	.00	.00	4.	*	16	OCT	1030	403	.00	.00	.00	1.
15	OCT	0935	104	.01	.00	.00	4.	*	16	OCT	1035	404	.00	.00	.00	1.
15	OCT	0940	105	.01	.00	.00	5.	*	16	OCT	1040	405	.00	.00	.00	1.
15	OCT	0945	106	.01	.00	.00	5.	*	16	OCT	1045	406	.00	.00	.00	1.
15	OCT	0950	107	.01	.00	.00	5.	*	16	OCT	1050	407	.00	.00	.00	1.
15	OCT	0955	108	.01	.00	.00	5.	*	16	OCT	1055	408	.00	.00	.00	1.
15	OCT	1000	109	.01	.00	.01	6.	*	16	OCT	1100	409	.00	.00	.00	1.
15	OCT	1005	110	.01	.00	.01	6.	*	16	OCT	1105	410	.00	.00	.00	1.
15	OCT	1010	111	.01	.00	.01	6.	*	16	OCT	1110	411	.00	.00	.00	1.
15	OCT	1015	112	.01	.00	.01	7.	*	16	OCT	1115	412	.00	.00	.00	1.
15	OCT	1020	113	.01	.00	.01	7.	*	16	OCT	1120	413	.00	.00	.00	1.
15	OCT	1025	114	.01	.00	.01	7.	*	16	OCT	1125	414	.00	.00	.00	1.
15	OCT	1030	115	.01	.00	.01	8.	*	16	OCT	1130	415	.00	.00	.00	1.
15	OCT	1035	116	.01	.00	.01	8.	*	16	OCT	1135	416	.00	.00	.00	1.
15	OCT	1040	117	.01	.00	.01	8.	*	16	OCT	1140	417	.00	.00	.00	1.
15	OCT	1045	118	.01	.00	.01	9.	*	16	OCT	1145	418	.00	.00	.00	1.
15	OCT	1050	119	.01	.00	.01	9.	*	16	OCT	1150	419	.00	.00	.00	1.

15	OCT	1055	120	.01	.00	.01	10.	*	16	OCT	1155	420	.00	.00	.00	1.
15	OCT	1100	121	.01	.00	.01	10.	*	16	OCT	1200	421	.00	.00	.00	1.
15	OCT	1105	122	.01	.00	.01	11.	*	16	OCT	1205	422	.00	.00	.00	1.
15	OCT	1110	123	.01	.00	.01	11.	*	16	OCT	1210	423	.00	.00	.00	1.
15	OCT	1115	124	.01	.00	.01	12.	*	16	OCT	1215	424	.00	.00	.00	1.
15	OCT	1120	125	.01	.00	.01	12.	*	16	OCT	1220	425	.00	.00	.00	1.
15	OCT	1125	126	.01	.00	.01	13.	*	16	OCT	1225	426	.00	.00	.00	1.
15	OCT	1130	127	.01	.00	.01	13.	*	16	OCT	1230	427	.00	.00	.00	1.
15	OCT	1135	128	.01	.00	.01	14.	*	16	OCT	1235	428	.00	.00	.00	1.
15	OCT	1140	129	.01	.00	.01	14.	*	16	OCT	1240	429	.00	.00	.00	1.
15	OCT	1145	130	.01	.00	.01	14.	*	16	OCT	1245	430	.00	.00	.00	1.
15	OCT	1150	131	.01	.00	.01	15.	*	16	OCT	1250	431	.00	.00	.00	1.
15	OCT	1155	132	.01	.00	.01	15.	*	16	OCT	1255	432	.00	.00	.00	1.
15	OCT	1200	133	.01	.00	.01	16.	*	16	OCT	1300	433	.00	.00	.00	1.
15	OCT	1205	134	.01	.00	.01	16.	*	16	OCT	1305	434	.00	.00	.00	1.
15	OCT	1210	135	.02	.00	.01	17.	*	16	OCT	1310	435	.00	.00	.00	1.
15	OCT	1215	136	.02	.00	.01	18.	*	16	OCT	1315	436	.00	.00	.00	1.
15	OCT	1220	137	.02	.00	.01	18.	*	16	OCT	1320	437	.00	.00	.00	1.
15	OCT	1225	138	.02	.00	.01	19.	*	16	OCT	1325	438	.00	.00	.00	1.
15	OCT	1230	139	.02	.00	.01	20.	*	16	OCT	1330	439	.00	.00	.00	1.
15	OCT	1235	140	.02	.00	.02	20.	*	16	OCT	1335	440	.00	.00	.00	1.
15	OCT	1240	141	.02	.00	.02	21.	*	16	OCT	1340	441	.00	.00	.00	1.
15	OCT	1245	142	.02	.00	.02	22.	*	16	OCT	1345	442	.00	.00	.00	1.
15	OCT	1250	143	.02	.00	.02	23.	*	16	OCT	1350	443	.00	.00	.00	1.
15	OCT	1255	144	.02	.00	.02	25.	*	16	OCT	1355	444	.00	.00	.00	1.
15	OCT	1300	145	.03	.00	.02	26.	*	16	OCT	1400	445	.00	.00	.00	1.
15	OCT	1305	146	.03	.00	.02	28.	*	16	OCT	1405	446	.00	.00	.00	1.
15	OCT	1310	147	.03	.00	.03	30.	*	16	OCT	1410	447	.00	.00	.00	1.
15	OCT	1315	148	.03	.00	.03	32.	*	16	OCT	1415	448	.00	.00	.00	1.
15	OCT	1320	149	.04	.00	.03	35.	*	16	OCT	1420	449	.00	.00	.00	1.
15	OCT	1325	150	.04	.00	.04	38.	*	16	OCT	1425	450	.00	.00	.00	1.
15	OCT	1330	151	.09	.00	.09	42.	*	16	OCT	1430	451	.00	.00	.00	1.
15	OCT	1335	152	.05	.00	.05	48.	*	16	OCT	1435	452	.00	.00	.00	1.
15	OCT	1340	153	.04	.00	.04	55.	*	16	OCT	1440	453	.00	.00	.00	1.
15	OCT	1345	154	.03	.00	.03	62.	*	16	OCT	1445	454	.00	.00	.00	1.
15	OCT	1350	155	.03	.00	.03	69.	*	16	OCT	1450	455	.00	.00	.00	1.
15	OCT	1355	156	.03	.00	.02	74.	*	16	OCT	1455	456	.00	.00	.00	1.
15	OCT	1400	157	.03	.00	.02	77.	*	16	OCT	1500	457	.00	.00	.00	1.
15	OCT	1405	158	.02	.00	.02	79.	*	16	OCT	1505	458	.00	.00	.00	1.
15	OCT	1410	159	.02	.00	.02	79.	*	16	OCT	1510	459	.00	.00	.00	1.
15	OCT	1415	160	.02	.00	.02	79.	*	16	OCT	1515	460	.00	.00	.00	1.
15	OCT	1420	161	.02	.00	.02	79.	*	16	OCT	1520	461	.00	.00	.00	1.
15	OCT	1425	162	.02	.00	.02	78.	*	16	OCT	1525	462	.00	.00	.00	1.
15	OCT	1430	163	.02	.00	.02	77.	*	16	OCT	1530	463	.00	.00	.00	1.
15	OCT	1435	164	.02	.00	.01	76.	*	16	OCT	1535	464	.00	.00	.00	1.
15	OCT	1440	165	.02	.00	.01	74.	*	16	OCT	1540	465	.00	.00	.00	1.
15	OCT	1445	166	.02	.00	.01	71.	*	16	OCT	1545	466	.00	.00	.00	1.
15	OCT	1450	167	.02	.00	.01	68.	*	16	OCT	1550	467	.00	.00	.00	1.
15	OCT	1455	168	.01	.00	.01	66.	*	16	OCT	1555	468	.00	.00	.00	1.
15	OCT	1500	169	.01	.00	.01	62.	*	16	OCT	1600	469	.00	.00	.00	1.
15	OCT	1505	170	.01	.00	.01	59.	*	16	OCT	1605	470	.00	.00	.00	1.
15	OCT	1510	171	.01	.00	.01	56.	*	16	OCT	1610	471	.00	.00	.00	1.
15	OCT	1515	172	.01	.00	.01	53.	*	16	OCT	1615	472	.00	.00	.00	1.
15	OCT	1520	173	.01	.00	.01	51.	*	16	OCT	1620	473	.00	.00	.00	1.
15	OCT	1525	174	.01	.00	.01	48.	*	16	OCT	1625	474	.00	.00	.00	1.
15	OCT	1530	175	.01	.00	.01	46.	*	16	OCT	1630	475	.00	.00	.00	1.
15	OCT	1535	176	.01	.00	.01	44.	*	16	OCT	1635	476	.00	.00	.00	1.
15	OCT	1540	177	.01	.00	.01	42.	*	16	OCT	1640	477	.00	.00	.00	1.
15	OCT	1545	178	.01	.00	.01	40.	*	16	OCT	1645	478	.00	.00	.00	1.
15	OCT	1550	179	.01	.00	.01	38.	*	16	OCT	1650	479	.00	.00	.00	1.
15	OCT	1555	180	.01	.00	.01	36.	*	16	OCT	1655	480	.00	.00	.00	1.
15	OCT	1600	181	.01	.00	.01	35.	*	16	OCT	1700	481	.00	.00	.00	1.
15	OCT	1605	182	.01	.00	.01	33.	*	16	OCT	1705	482	.00	.00	.00	1.
15	OCT	1610	183	.01	.00	.01	32.	*	16	OCT	1710	483	.00	.00	.00	1.
15	OCT	1615	184	.01	.00	.01	31.	*	16	OCT	1715	484	.00	.00	.00	1.
15	OCT	1620	185	.01	.00	.01	30.	*	16	OCT	1720	485	.00	.00	.00	1.
15	OCT	1625	186	.01	.00	.01	29.	*	16	OCT	1725	486	.00	.00	.00	1.
15	OCT	1630	187	.01	.00	.01	28.	*	16	OCT	1730	487	.00	.00	.00	1.
15	OCT	1635	188	.01	.00	.01	27.	*	16	OCT	1735	488	.00	.00	.00	1.
15	OCT	1640	189	.01	.00	.01	26.	*	16	OCT	1740	489	.00	.00	.00	1.
15	OCT	1645	190	.01	.00	.01	25.	*	16	OCT	1745	490	.00	.00	.00	1.
15	OCT	1650	191	.01	.00	.01	24.	*	16	OCT	1750	491	.00	.00	.00	1.
15	OCT	1655	192	.01	.00	.01	24.	*	16	OCT	1755	492	.00	.00	.00	1.
15	OCT	1700	193	.01	.00	.01	23.	*	16	OCT	1800	493	.00	.00	.00	1.
15	OCT	1705	194	.01	.00	.00	22.	*	16	OCT	1805	494	.00	.00	.00	1.
15	OCT	1710	195	.01	.00	.00	22.	*	16	OCT	1810	495	.00	.00	.00	1.
15	OCT	1715	196	.01	.00	.00	21.	*	16	OCT	1815	496	.00	.00	.00	1.
15	OCT	1720	197	.01	.00	.00	21.	*	16	OCT	1820	497	.00	.00	.00	1.
15	OCT	1725	198	.01	.00	.00	20.	*	16	OCT	1825	498	.00	.00	.00	1.
15	OCT	1730	199	.01	.00	.00	19.	*	16	OCT	1830	499	.00	.00	.00	1.
15	OCT	1735	200	.01	.00	.00	19.	*	16	OCT	1835	500	.00	.00	.00	1.
15	OCT	1740	201	.01	.00	.00	19.	*	16	OCT	1840	501	.00	.00	.00	1.
15	OCT	1745	202	.01	.00	.00	18.	*	16	OCT	1845	502	.00	.00	.00	1.
15	OCT	1750	203	.01	.00	.00	18.	*	16	OCT	1850	503	.00	.00	.00	1.
15	OCT	1755	204	.01	.00	.00	17.	*	16	OCT	1855	504	.00	.00	.00	1.
15	OCT	1800	205	.01	.00	.00	17.	*	16	OCT	1900	505	.00	.00	.00	1.
15	OCT	1805	206	.01	.00	.00	17.	*	16	OCT	1905	506	.00	.00	.00	1.
15	OCT	1810	207	.01	.00	.00	16.	*	16	OCT	1910	507	.00	.00	.00	1.
15	OCT	1815	208	.01	.00	.00	16.	*	16	OCT	1915	508	.00	.00	.00	1.
15	OCT	1820	209	.01	.00	.00	16.	*	16	OCT	1920	509	.00	.00	.00	1.
15	OCT	1825	210	.01	.00	.00	15.	*	16	OCT	1925	510	.00	.00	.00	1.
15	OCT	1830	211	.01	.00	.00	15.	*	16	OCT	1930	511	.00	.00	.00	1.
15	OCT	1835	212	.01	.00	.00	15.	*	16	OCT	1935	512	.00	.00	.00	1.
15	OCT	1840	213	.01	.00	.00	14.	*	16	OCT	1940	513	.00	.00	.00	1.
15	OCT	1845	214	.01	.00	.00	14.	*	16	OCT	1945	514	.00	.00	.00	1.
15	OCT	1850	215	.01	.00	.00	14.	*	16	OCT	1950	515	.00	.00	.00	1.
15	OCT	1855	216	.01	.00	.00	14.	*	16	OCT	1955	516	.00	.00	.00	1.
15	OCT	1900	217	.01	.00	.00	13.	*	16	OCT	2000	517	.00	.00	.00	1.
15	OCT	1905	218	.01	.00	.00	13.	*	16	OCT	2005	518	.00	.00	.00	1.
15	OCT	1910	219	.01	.00	.00	13.	*	16	OCT	2010	519	.00	.00	.00	1.
15	OCT	1915	220	.01	.00	.00	13.	*	16	OCT	2015	520	.00	.00	.00	1.
15	OCT	1920	221	.01	.00	.00	13.	*	16	OCT	2020	521	.00	.00	.00	1.
15	OCT	1925	222	.01	.00	.00	12.	*	16	OCT	2025	522	.00	.00	.00	1.
15	OCT	1930	223	.01	.00	.00	12.	*	16	OCT	2030	523	.00	.00	.00	1.
15	OCT	1935	224	.01	.00	.00	12.	*	16	OCT	2035	524	.00	.00	.00	1.
15	OCT	1940	225	.01	.00	.00	12.	*	16	OCT	2040	525	.00	.00	.00	1.
15	OCT	1945	226	.01	.00	.00	12.	*	16	OCT	2045	526	.00	.00	.00	1.

15	OCT	1950	227	.01	.00	.00	11.	*	16	OCT	2050	527	.00	.00	.00	1.
15	OCT	1955	228	.01	.00	.00	11.	*	16	OCT	2055	528	.00	.00	.00	1.
15	OCT	2000	229	.01	.00	.00	11.	*	16	OCT	2100	529	.00	.00	.00	1.
15	OCT	2005	230	.01	.00	.00	11.	*	16	OCT	2105	530	.00	.00	.00	1.
15	OCT	2010	231	.01	.00	.00	10.	*	16	OCT	2110	531	.00	.00	.00	1.
15	OCT	2015	232	.01	.00	.00	10.	*	16	OCT	2115	532	.00	.00	.00	1.
15	OCT	2020	233	.01	.00	.00	10.	*	16	OCT	2120	533	.00	.00	.00	1.
15	OCT	2025	234	.01	.00	.00	10.	*	16	OCT	2125	534	.00	.00	.00	1.
15	OCT	2030	235	.01	.00	.00	9.	*	16	OCT	2130	535	.00	.00	.00	1.
15	OCT	2035	236	.01	.00	.00	9.	*	16	OCT	2135	536	.00	.00	.00	1.
15	OCT	2040	237	.01	.00	.00	9.	*	16	OCT	2140	537	.00	.00	.00	1.
15	OCT	2045	238	.01	.00	.00	9.	*	16	OCT	2145	538	.00	.00	.00	1.
15	OCT	2050	239	.01	.00	.00	8.	*	16	OCT	2150	539	.00	.00	.00	1.
15	OCT	2055	240	.01	.00	.00	8.	*	16	OCT	2155	540	.00	.00	.00	1.
15	OCT	2100	241	.01	.00	.00	8.	*	16	OCT	2200	541	.00	.00	.00	1.
15	OCT	2105	242	.01	.00	.00	8.	*	16	OCT	2205	542	.00	.00	.00	1.
15	OCT	2110	243	.01	.00	.00	8.	*	16	OCT	2210	543	.00	.00	.00	1.
15	OCT	2115	244	.01	.00	.00	8.	*	16	OCT	2215	544	.00	.00	.00	1.
15	OCT	2120	245	.01	.00	.00	7.	*	16	OCT	2220	545	.00	.00	.00	1.
15	OCT	2125	246	.01	.00	.00	7.	*	16	OCT	2225	546	.00	.00	.00	1.
15	OCT	2130	247	.01	.00	.00	7.	*	16	OCT	2230	547	.00	.00	.00	1.
15	OCT	2135	248	.01	.00	.00	7.	*	16	OCT	2235	548	.00	.00	.00	1.
15	OCT	2140	249	.01	.00	.00	7.	*	16	OCT	2240	549	.00	.00	.00	1.
15	OCT	2145	250	.01	.00	.00	7.	*	16	OCT	2245	550	.00	.00	.00	1.
15	OCT	2150	251	.01	.00	.00	7.	*	16	OCT	2250	551	.00	.00	.00	1.
15	OCT	2155	252	.01	.00	.00	7.	*	16	OCT	2255	552	.00	.00	.00	1.
15	OCT	2200	253	.01	.00	.00	6.	*	16	OCT	2300	553	.00	.00	.00	1.
15	OCT	2205	254	.01	.00	.00	6.	*	16	OCT	2305	554	.00	.00	.00	1.
15	OCT	2210	255	.01	.00	.00	6.	*	16	OCT	2310	555	.00	.00	.00	1.
15	OCT	2215	256	.01	.00	.00	6.	*	16	OCT	2315	556	.00	.00	.00	1.
15	OCT	2220	257	.01	.00	.00	6.	*	16	OCT	2320	557	.00	.00	.00	1.
15	OCT	2225	258	.01	.00	.00	6.	*	16	OCT	2325	558	.00	.00	.00	1.
15	OCT	2230	259	.01	.00	.00	6.	*	16	OCT	2330	559	.00	.00	.00	1.
15	OCT	2235	260	.01	.00	.00	5.	*	16	OCT	2335	560	.00	.00	.00	1.
15	OCT	2240	261	.01	.00	.00	5.	*	16	OCT	2340	561	.00	.00	.00	1.
15	OCT	2245	262	.01	.00	.00	5.	*	16	OCT	2345	562	.00	.00	.00	1.
15	OCT	2250	263	.01	.00	.00	5.	*	16	OCT	2350	563	.00	.00	.00	1.
15	OCT	2255	264	.01	.00	.00	5.	*	16	OCT	2355	564	.00	.00	.00	1.
15	OCT	2300	265	.01	.00	.00	5.	*	17	OCT	0000	565	.00	.00	.00	1.
15	OCT	2305	266	.01	.00	.00	5.	*	17	OCT	0005	566	.00	.00	.00	1.
15	OCT	2310	267	.01	.00	.00	5.	*	17	OCT	0010	567	.00	.00	.00	1.
15	OCT	2315	268	.01	.00	.00	4.	*	17	OCT	0015	568	.00	.00	.00	1.
15	OCT	2320	269	.01	.00	.00	4.	*	17	OCT	0020	569	.00	.00	.00	1.
15	OCT	2325	270	.01	.00	.00	4.	*	17	OCT	0025	570	.00	.00	.00	1.
15	OCT	2330	271	.01	.00	.00	4.	*	17	OCT	0030	571	.00	.00	.00	1.
15	OCT	2335	272	.01	.00	.00	4.	*	17	OCT	0035	572	.00	.00	.00	1.
15	OCT	2340	273	.01	.00	.00	4.	*	17	OCT	0040	573	.00	.00	.00	1.
15	OCT	2345	274	.01	.00	.00	4.	*	17	OCT	0045	574	.00	.00	.00	1.
15	OCT	2350	275	.01	.00	.00	4.	*	17	OCT	0050	575	.00	.00	.00	1.
15	OCT	2355	276	.01	.00	.00	4.	*	17	OCT	0055	576	.00	.00	.00	1.
16	OCT	0000	277	.01	.00	.00	4.	*	17	OCT	0100	577	.00	.00	.00	1.
16	OCT	0005	278	.01	.00	.00	4.	*	17	OCT	0105	578	.00	.00	.00	1.
16	OCT	0010	279	.01	.00	.00	3.	*	17	OCT	0110	579	.00	.00	.00	1.
16	OCT	0015	280	.01	.00	.00	3.	*	17	OCT	0115	580	.00	.00	.00	1.
16	OCT	0020	281	.01	.00	.00	3.	*	17	OCT	0120	581	.00	.00	.00	1.
16	OCT	0025	282	.01	.00	.00	3.	*	17	OCT	0125	582	.00	.00	.00	1.
16	OCT	0030	283	.01	.00	.00	3.	*	17	OCT	0130	583	.00	.00	.00	1.
16	OCT	0035	284	.01	.00	.00	3.	*	17	OCT	0135	584	.00	.00	.00	1.
16	OCT	0040	285	.01	.00	.00	3.	*	17	OCT	0140	585	.00	.00	.00	1.
16	OCT	0045	286	.01	.00	.00	3.	*	17	OCT	0145	586	.00	.00	.00	1.
16	OCT	0050	287	.01	.00	.00	3.	*	17	OCT	0150	587	.00	.00	.00	1.
16	OCT	0055	288	.01	.00	.00	3.	*	17	OCT	0155	588	.00	.00	.00	1.
16	OCT	0100	289	.01	.00	.00	3.	*	17	OCT	0200	589	.00	.00	.00	1.
16	OCT	0105	290	.01	.00	.00	3.	*	17	OCT	0205	590	.00	.00	.00	1.
16	OCT	0110	291	.01	.00	.00	3.	*	17	OCT	0210	591	.00	.00	.00	1.
16	OCT	0115	292	.01	.00	.00	3.	*	17	OCT	0215	592	.00	.00	.00	1.
16	OCT	0120	293	.01	.00	.00	3.	*	17	OCT	0220	593	.00	.00	.00	1.
16	OCT	0125	294	.01	.00	.00	3.	*	17	OCT	0225	594	.00	.00	.00	1.
16	OCT	0130	295	.01	.00	.00	3.	*	17	OCT	0230	595	.00	.00	.00	1.
16	OCT	0135	296	.00	.00	.00	3.	*	17	OCT	0235	596	.00	.00	.00	1.
16	OCT	0140	297	.00	.00	.00	3.	*	17	OCT	0240	597	.00	.00	.00	1.
16	OCT	0145	298	.00	.00	.00	3.	*	17	OCT	0245	598	.00	.00	.00	1.
16	OCT	0150	299	.00	.00	.00	3.	*	17	OCT	0250	599	.00	.00	.00	1.
16	OCT	0155	300	.00	.00	.00	3.	*	17	OCT	0255	600	.00	.00	.00	1.

****

TOTAL RAINFALL = 2.83, TOTAL LOSS = 1.41, TOTAL EXCESS = 1.42

	PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
				6-HR	24-HR	72-HR	49.92-HR
+	(CFS)	(HR)					
			(CFS)				
+	79.	13.25		39.	14.	7.	7.
			(INCHES)	1.046	1.479	1.611	1.611
			(AC-FT)	20.	28.	30.	30.

CUMULATIVE AREA = .35 SQ MI

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          *             *
2967 KK   *      PL11   *      PLEASANT GROVE CREEK TRIBUTARY
          *             *
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             SUBBASIN RUNOFF DATA

2968 BA         SUBBASIN CHARACTERISTICS
                      TAREA         3.97  SUBBASIN AREA

3000 BF         BASE FLOW CHARACTERISTICS
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STRTQ	11.91	INITIAL FLOW
QRCSN	.00	BEGIN BASE FLOW RECRSSION
RTIOR	1.00000	RECESSION CONSTANT

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HYDROGRAPH AT STATION PL11

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
15	OCT	0100	1	.00	.00	.00	12.
15	OCT	0105	2	.00	.00	.00	12.
15	OCT	0110	3	.00	.00	.00	12.
15	OCT	0115	4	.00	.00	.00	12.
15	OCT	0120	5	.00	.00	.00	12.
15	OCT	0125	6	.00	.00	.00	12.
15	OCT	0130	7	.00	.00	.00	12.
15	OCT	0135	8	.01	.00	.00	12.
15	OCT	0140	9	.00	.00	.00	12.
15	OCT	0145	10	.00	.00	.00	12.
15	OCT	0150	11	.00	.00	.00	12.
15	OCT	0155	12	.00	.00	.00	12.
15	OCT	0200	13	.00	.00	.00	12.
15	OCT	0205	14	.00	.00	.00	12.
15	OCT	0210	15	.00	.00	.00	12.
15	OCT	0215	16	.01	.00	.00	12.
15	OCT	0220	17	.01	.00	.00	12.
15	OCT	0225	18	.01	.00	.00	12.
15	OCT	0230	19	.01	.00	.00	12.
15	OCT	0235	20	.01	.00	.00	12.
15	OCT	0240	21	.01	.00	.00	12.
15	OCT	0245	22	.01	.00	.00	12.
15	OCT	0250	23	.01	.00	.00	12.
15	OCT	0255	24	.01	.00	.00	12.
15	OCT	0300	25	.01	.00	.00	12.
15	OCT	0305	26	.01	.00	.00	13.
15	OCT	0310	27	.01	.00	.00	13.
15	OCT	0315	28	.00	.00	.00	13.
15	OCT	0320	29	.00	.00	.00	13.
15	OCT	0325	30	.00	.00	.00	13.
15	OCT	0330	31	.00	.00	.00	13.
15	OCT	0335	32	.00	.00	.00	13.
15	OCT	0340	33	.00	.00	.00	13.
15	OCT	0345	34	.00	.00	.00	13.
15	OCT	0350	35	.00	.00	.00	13.
15	OCT	0355	36	.00	.00	.00	13.
15	OCT	0400	37	.00	.00	.00	14.
15	OCT	0405	38	.00	.00	.00	14.
15	OCT	0410	39	.00	.00	.00	14.
15	OCT	0415	40	.00	.00	.00	14.
15	OCT	0420	41	.00	.00	.00	14.
15	OCT	0425	42	.00	.00	.00	14.
15	OCT	0430	43	.00	.00	.00	14.
15	OCT	0435	44	.00	.00	.00	14.
15	OCT	0440	45	.00	.00	.00	14.
15	OCT	0445	46	.00	.00	.00	14.
15	OCT	0450	47	.00	.00	.00	14.
15	OCT	0455	48	.00	.00	.00	14.
15	OCT	0500	49	.00	.00	.00	14.
15	OCT	0505	50	.01	.00	.00	14.
15	OCT	0510	51	.01	.00	.00	14.
15	OCT	0515	52	.01	.00	.00	14.
15	OCT	0520	53	.01	.00	.00	14.
15	OCT	0525	54	.01	.00	.00	14.
15	OCT	0530	55	.01	.00	.00	14.
15	OCT	0535	56	.01	.00	.00	14.
15	OCT	0540	57	.01	.00	.00	14.
15	OCT	0545	58	.01	.00	.00	14.
15	OCT	0550	59	.01	.00	.00	14.
15	OCT	0555	60	.01	.00	.00	14.
15	OCT	0600	61	.01	.00	.00	14.
15	OCT	0605	62	.01	.00	.00	15.
15	OCT	0610	63	.01	.00	.00	15.
15	OCT	0615	64	.01	.00	.00	15.
15	OCT	0620	65	.01	.00	.00	15.
15	OCT	0625	66	.01	.00	.00	15.
15	OCT	0630	67	.01	.00	.00	15.
15	OCT	0635	68	.01	.00	.00	15.
15	OCT	0640	69	.01	.00	.00	15.
15	OCT	0645	70	.01	.00	.00	15.
15	OCT	0650	71	.01	.00	.00	15.
15	OCT	0655	72	.01	.00	.00	15.
15	OCT	0700	73	.01	.00	.00	15.
15	OCT	0705	74	.01	.00	.00	15.
15	OCT	0710	75	.01	.00	.00	15.
15	OCT	0715	76	.01	.00	.00	15.
15	OCT	0720	77	.01	.00	.00	16.
15	OCT	0725	78	.01	.00	.00	16.
15	OCT	0730	79	.01	.00	.00	16.
15	OCT	0735	80	.01	.00	.00	16.
15	OCT	0740	81	.01	.00	.00	16.
15	OCT	0745	82	.01	.00	.00	16.
15	OCT	0750	83	.01	.00	.00	17.
15	OCT	0755	84	.01	.00	.00	17.
15	OCT	0800	85	.01	.00	.00	17.
15	OCT	0805	86	.01	.00	.00	17.
15	OCT	0810	87	.01	.00	.00	18.
15	OCT	0815	88	.01	.00	.00	18.
15	OCT	0820	89	.01	.00	.00	18.
15	OCT	0825	90	.01	.00	.00	19.
15	OCT	0830	91	.01	.00	.00	19.
15	OCT	0835	92	.01	.00	.00	20.
15	OCT	0840	93	.01	.00	.00	20.
15	OCT	0845	94	.01	.00	.00	21.
16	OCT	0200	301	.00	.00	.00	25.
16	OCT	0205	302	.00	.00	.00	25.
16	OCT	0210	303	.00	.00	.00	24.
16	OCT	0215	304	.00	.00	.00	24.
16	OCT	0220	305	.00	.00	.00	24.
16	OCT	0225	306	.00	.00	.00	23.
16	OCT	0230	307	.00	.00	.00	23.
16	OCT	0235	308	.00	.00	.00	22.
16	OCT	0240	309	.00	.00	.00	22.
16	OCT	0245	310	.00	.00	.00	22.
16	OCT	0250	311	.00	.00	.00	21.
16	OCT	0255	312	.00	.00	.00	21.
16	OCT	0300	313	.00	.00	.00	21.
16	OCT	0305	314	.00	.00	.00	20.
16	OCT	0310	315	.00	.00	.00	20.
16	OCT	0315	316	.00	.00	.00	20.
16	OCT	0320	317	.00	.00	.00	19.
16	OCT	0325	318	.00	.00	.00	19.
16	OCT	0330	319	.00	.00	.00	19.
16	OCT	0335	320	.00	.00	.00	18.
16	OCT	0340	321	.00	.00	.00	18.
16	OCT	0345	322	.00	.00	.00	18.
16	OCT	0350	323	.00	.00	.00	18.
16	OCT	0355	324	.00	.00	.00	17.
16	OCT	0400	325	.00	.00	.00	17.
16	OCT	0405	326	.00	.00	.00	17.
16	OCT	0410	327	.00	.00	.00	16.
16	OCT	0415	328	.00	.00	.00	16.
16	OCT	0420	329	.00	.00	.00	16.
16	OCT	0425	330	.00	.00	.00	16.
16	OCT	0430	331	.00	.00	.00	16.
16	OCT	0435	332	.00	.00	.00	15.
16	OCT	0440	333	.00	.00	.00	15.
16	OCT	0445	334	.00	.00	.00	15.
16	OCT	0450	335	.00	.00	.00	15.
16	OCT	0455	336	.00	.00	.00	15.
16	OCT	0500	337	.00	.00	.00	14.
16	OCT	0505	338	.00	.00	.00	14.
16	OCT	0510	339	.00	.00	.00	14.
16	OCT	0515	340	.00	.00	.00	14.
16	OCT	0520	341	.00	.00	.00	14.
16	OCT	0525	342	.00	.00	.00	14.
16	OCT	0530	343	.00	.00	.00	14.
16	OCT	0535	344	.00	.00	.00	14.
16	OCT	0540	345	.00	.00	.00	14.
16	OCT	0545	346	.00	.00	.00	14.
16	OCT	0550	347	.00	.00	.00	14.
16	OCT	0555	348	.00	.00	.00	13.
16	OCT	0600	349	.00	.00	.00	13.
16	OCT	0605	350	.00	.00	.00	13.
16	OCT	0610	351	.00	.00	.00	13.
16	OCT	0615	352	.00	.00	.00	13.
16	OCT	0620	353	.00	.00	.00	13.
16	OCT	0625	354	.00	.00	.00	13.
16	OCT	0630	355	.00	.00	.00	13.
16	OCT	0635	356	.00	.00	.00	13.
16	OCT	0640	357	.00	.00	.00	13.
16	OCT	0645	358	.00	.00	.00	13.
16	OCT	0650	359	.00	.00	.00	13.
16	OCT	0655	360	.00	.00	.00	13.
16	OCT	0700	361	.00	.00	.00	13.
16	OCT	0705	362	.00	.00	.00	13.
16	OCT	0710	363	.00	.00	.00	13.
16	OCT	0715	364	.00	.00	.00	13.
16	OCT	0720	365	.00	.00	.00	13.
16	OCT	0725	366	.00	.00	.00	13.
16	OCT	0730	367	.00	.00	.00	13.
16	OCT	0735	368	.00	.00	.00	13.
16	OCT	0740	369	.00	.00	.00	13.
16	OCT	0745	370	.00	.00	.00	13.
16	OCT	0750	371	.00	.00	.00	13.
16	OCT	0755	372	.00	.00	.00	13.
16	OCT	0800	373	.00	.00	.00	13.
16	OCT	0805	374	.00	.00	.00	13.
16	OCT	0810	375	.00	.00	.00	13.
16	OCT	0815	376	.00	.00	.00	13.
16	OCT	0820	377	.00	.00	.00	13.
16	OCT	0825	378	.00	.00	.00	13.
16	OCT	0830	379	.00	.00	.00	13.
16	OCT	0835	380	.00	.00	.00	13.
16	OCT	0840	381	.00	.00	.00	13.
16	OCT	0845	382	.00	.00	.00	13.
16	OCT	0850	383	.00	.00	.00	13.
16	OCT	0855	384	.00	.00	.00	13.
16	OCT	0900	385	.00	.00	.00	12.
16	OCT	0905	386	.00	.00	.00	12.
16	OCT	0910	387	.00	.00	.00	12.
16	OCT	0915	388	.00	.00	.00	12.
16	OCT	0920	389	.00	.00	.00	12.
16	OCT	0925	390	.00	.00	.00	12.
16	OCT	0930	391	.00	.00	.00	12.
16	OCT	0935	392	.00	.00	.00	12.
16	OCT	0940	393	.00	.00	.00	12.
16	OCT	0945	394	.00	.00	.00	12.

15 OCT 0850	95	.01	.00	.00	22.	*	16 OCT 0950	395	.00	.00	.00	12.
15 OCT 0855	96	.01	.00	.00	22.	*	16 OCT 0955	396	.00	.00	.00	12.
15 OCT 0900	97	.01	.00	.00	23.	*	16 OCT 1000	397	.00	.00	.00	12.
15 OCT 0905	98	.01	.00	.00	24.	*	16 OCT 1005	398	.00	.00	.00	12.
15 OCT 0910	99	.01	.00	.00	25.	*	16 OCT 1010	399	.00	.00	.00	12.
15 OCT 0915	100	.01	.00	.00	26.	*	16 OCT 1015	400	.00	.00	.00	12.
15 OCT 0920	101	.01	.00	.00	27.	*	16 OCT 1020	401	.00	.00	.00	12.
15 OCT 0925	102	.01	.00	.00	28.	*	16 OCT 1025	402	.00	.00	.00	12.
15 OCT 0930	103	.01	.00	.00	30.	*	16 OCT 1030	403	.00	.00	.00	12.
15 OCT 0935	104	.01	.00	.00	31.	*	16 OCT 1035	404	.00	.00	.00	12.
15 OCT 0940	105	.01	.00	.00	33.	*	16 OCT 1040	405	.00	.00	.00	12.
15 OCT 0945	106	.01	.00	.00	34.	*	16 OCT 1045	406	.00	.00	.00	12.
15 OCT 0950	107	.01	.00	.00	36.	*	16 OCT 1050	407	.00	.00	.00	12.
15 OCT 0955	108	.01	.00	.01	38.	*	16 OCT 1055	408	.00	.00	.00	12.
15 OCT 1000	109	.01	.00	.01	40.	*	16 OCT 1100	409	.00	.00	.00	12.
15 OCT 1005	110	.01	.00	.01	42.	*	16 OCT 1105	410	.00	.00	.00	12.
15 OCT 1010	111	.01	.00	.01	45.	*	16 OCT 1110	411	.00	.00	.00	12.
15 OCT 1015	112	.01	.00	.01	47.	*	16 OCT 1115	412	.00	.00	.00	12.
15 OCT 1020	113	.01	.00	.01	50.	*	16 OCT 1120	413	.00	.00	.00	12.
15 OCT 1025	114	.01	.00	.01	52.	*	16 OCT 1125	414	.00	.00	.00	12.
15 OCT 1030	115	.01	.00	.01	55.	*	16 OCT 1130	415	.00	.00	.00	12.
15 OCT 1035	116	.01	.00	.01	58.	*	16 OCT 1135	416	.00	.00	.00	12.
15 OCT 1040	117	.01	.00	.01	62.	*	16 OCT 1140	417	.00	.00	.00	12.
15 OCT 1045	118	.01	.00	.01	65.	*	16 OCT 1145	418	.00	.00	.00	12.
15 OCT 1050	119	.01	.00	.01	68.	*	16 OCT 1150	419	.00	.00	.00	12.
15 OCT 1055	120	.01	.00	.01	72.	*	16 OCT 1155	420	.00	.00	.00	12.
15 OCT 1100	121	.01	.00	.01	75.	*	16 OCT 1200	421	.00	.00	.00	12.
15 OCT 1105	122	.01	.00	.01	79.	*	16 OCT 1205	422	.00	.00	.00	12.
15 OCT 1110	123	.01	.00	.01	83.	*	16 OCT 1210	423	.00	.00	.00	12.
15 OCT 1115	124	.01	.00	.01	87.	*	16 OCT 1215	424	.00	.00	.00	12.
15 OCT 1120	125	.01	.00	.01	91.	*	16 OCT 1220	425	.00	.00	.00	12.
15 OCT 1125	126	.01	.00	.01	96.	*	16 OCT 1225	426	.00	.00	.00	12.
15 OCT 1130	127	.01	.00	.01	100.	*	16 OCT 1230	427	.00	.00	.00	12.
15 OCT 1135	128	.01	.00	.01	105.	*	16 OCT 1235	428	.00	.00	.00	12.
15 OCT 1140	129	.01	.00	.01	109.	*	16 OCT 1240	429	.00	.00	.00	12.
15 OCT 1145	130	.01	.00	.01	114.	*	16 OCT 1245	430	.00	.00	.00	12.
15 OCT 1150	131	.01	.00	.01	119.	*	16 OCT 1250	431	.00	.00	.00	12.
15 OCT 1155	132	.01	.00	.01	124.	*	16 OCT 1255	432	.00	.00	.00	12.
15 OCT 1200	133	.01	.00	.01	129.	*	16 OCT 1300	433	.00	.00	.00	12.
15 OCT 1205	134	.01	.00	.01	134.	*	16 OCT 1305	434	.00	.00	.00	12.
15 OCT 1210	135	.02	.00	.01	139.	*	16 OCT 1310	435	.00	.00	.00	12.
15 OCT 1215	136	.02	.00	.01	144.	*	16 OCT 1315	436	.00	.00	.00	12.
15 OCT 1220	137	.02	.00	.01	150.	*	16 OCT 1320	437	.00	.00	.00	12.
15 OCT 1225	138	.02	.00	.01	156.	*	16 OCT 1325	438	.00	.00	.00	12.
15 OCT 1230	139	.02	.00	.01	162.	*	16 OCT 1330	439	.00	.00	.00	12.
15 OCT 1235	140	.02	.00	.02	168.	*	16 OCT 1335	440	.00	.00	.00	12.
15 OCT 1240	141	.02	.00	.02	175.	*	16 OCT 1340	441	.00	.00	.00	12.
15 OCT 1245	142	.02	.00	.02	183.	*	16 OCT 1345	442	.00	.00	.00	12.
15 OCT 1250	143	.02	.00	.02	191.	*	16 OCT 1350	443	.00	.00	.00	12.
15 OCT 1255	144	.02	.00	.02	200.	*	16 OCT 1355	444	.00	.00	.00	12.
15 OCT 1300	145	.03	.00	.02	209.	*	16 OCT 1400	445	.00	.00	.00	12.
15 OCT 1305	146	.03	.00	.02	220.	*	16 OCT 1405	446	.00	.00	.00	12.
15 OCT 1310	147	.03	.00	.03	232.	*	16 OCT 1410	447	.00	.00	.00	12.
15 OCT 1315	148	.03	.00	.03	246.	*	16 OCT 1415	448	.00	.00	.00	12.
15 OCT 1320	149	.04	.00	.03	261.	*	16 OCT 1420	449	.00	.00	.00	12.
15 OCT 1325	150	.05	.00	.05	279.	*	16 OCT 1425	450	.00	.00	.00	12.
15 OCT 1330	151	.12	.00	.11	303.	*	16 OCT 1430	451	.00	.00	.00	12.
15 OCT 1335	152	.06	.00	.06	333.	*	16 OCT 1435	452	.00	.00	.00	12.
15 OCT 1340	153	.04	.00	.04	371.	*	16 OCT 1440	453	.00	.00	.00	12.
15 OCT 1345	154	.04	.00	.03	416.	*	16 OCT 1445	454	.00	.00	.00	12.
15 OCT 1350	155	.03	.00	.03	465.	*	16 OCT 1450	455	.00	.00	.00	12.
15 OCT 1355	156	.03	.00	.02	517.	*	16 OCT 1455	456	.00	.00	.00	12.
15 OCT 1400	157	.03	.00	.02	570.	*	16 OCT 1500	457	.00	.00	.00	12.
15 OCT 1405	158	.03	.00	.02	622.	*	16 OCT 1505	458	.00	.00	.00	12.
15 OCT 1410	159	.02	.00	.02	672.	*	16 OCT 1510	459	.00	.00	.00	12.
15 OCT 1415	160	.02	.00	.02	720.	*	16 OCT 1515	460	.00	.00	.00	12.
15 OCT 1420	161	.02	.00	.02	764.	*	16 OCT 1520	461	.00	.00	.00	12.
15 OCT 1425	162	.02	.00	.02	804.	*	16 OCT 1525	462	.00	.00	.00	12.
15 OCT 1430	163	.02	.00	.02	837.	*	16 OCT 1530	463	.00	.00	.00	12.
15 OCT 1435	164	.02	.00	.01	864.	*	16 OCT 1535	464	.00	.00	.00	12.
15 OCT 1440	165	.02	.00	.01	883.	*	16 OCT 1540	465	.00	.00	.00	12.
15 OCT 1445	166	.02	.00	.01	894.	*	16 OCT 1545	466	.00	.00	.00	12.
15 OCT 1450	167	.02	.00	.01	896.	*	16 OCT 1550	467	.00	.00	.00	12.
15 OCT 1455	168	.01	.00	.01	891.	*	16 OCT 1555	468	.00	.00	.00	12.
15 OCT 1500	169	.01	.00	.01	878.	*	16 OCT 1600	469	.00	.00	.00	12.
15 OCT 1505	170	.01	.00	.01	860.	*	16 OCT 1605	470	.00	.00	.00	12.
15 OCT 1510	171	.01	.00	.01	837.	*	16 OCT 1610	471	.00	.00	.00	12.
15 OCT 1515	172	.01	.00	.01	811.	*	16 OCT 1615	472	.00	.00	.00	12.
15 OCT 1520	173	.01	.00	.01	782.	*	16 OCT 1620	473	.00	.00	.00	12.
15 OCT 1525	174	.01	.00	.01	752.	*	16 OCT 1625	474	.00	.00	.00	12.
15 OCT 1530	175	.01	.00	.01	722.	*	16 OCT 1630	475	.00	.00	.00	12.
15 OCT 1535	176	.01	.00	.01	691.	*	16 OCT 1635	476	.00	.00	.00	12.
15 OCT 1540	177	.01	.00	.01	660.	*	16 OCT 1640	477	.00	.00	.00	12.
15 OCT 1545	178	.01	.00	.01	631.	*	16 OCT 1645	478	.00	.00	.00	12.
15 OCT 1550	179	.01	.00	.01	602.	*	16 OCT 1650	479	.00	.00	.00	12.
15 OCT 1555	180	.01	.00	.01	575.	*	16 OCT 1655	480	.00	.00	.00	12.
15 OCT 1600	181	.01	.00	.01	549.	*	16 OCT 1700	481	.00	.00	.00	12.
15 OCT 1605	182	.01	.00	.01	524.	*	16 OCT 1705	482	.00	.00	.00	12.
15 OCT 1610	183	.01	.00	.01	501.	*	16 OCT 1710	483	.00	.00	.00	12.
15 OCT 1615	184	.01	.00	.01	479.	*	16 OCT 1715	484	.00	.00	.00	12.
15 OCT 1620	185	.01	.00	.01	458.	*	16 OCT 1720	485	.00	.00	.00	12.
15 OCT 1625	186	.01	.00	.01	438.	*	16 OCT 1725	486	.00	.00	.00	12.
15 OCT 1630	187	.01	.00	.01	420.	*	16 OCT 1730	487	.00	.00	.00	12.
15 OCT 1635	188	.01	.00	.01	403.	*	16 OCT 1735	488	.00	.00	.00	12.
15 OCT 1640	189	.01	.00	.01	387.	*	16 OCT 1740	489	.00	.00	.00	12.
15 OCT 1645	190	.01	.00	.01	372.	*	16 OCT 1745	490	.00	.00	.00	12.
15 OCT 1650	191	.01	.00	.01	359.	*	16 OCT 1750	491	.00	.00	.00	12.
15 OCT 1655	192	.01	.00	.01	345.	*	16 OCT 1755	492	.00	.00	.00	12.
15 OCT 1700	193	.01	.00	.01	333.	*	16 OCT 1800	493	.00	.00	.00	12.
15 OCT 1705	194	.01	.00	.01	322.	*	16 OCT 1805	494	.00	.00	.00	12.
15 OCT 1710	195	.01	.00	.00	311.	*	16 OCT 1810	495	.00	.00	.00	12.
15 OCT 1715	196	.01	.00	.00	301.	*	16 OCT 1815	496	.00	.00	.00	12.
15 OCT 1720	197	.01	.00	.00	291.	*	16 OCT 1820	497	.00	.00	.00	12.
15 OCT 1725	198	.01	.00	.00	282.	*	16 OCT 1825	498	.00	.00	.00	12.
15 OCT 1730	199	.01	.00	.00	273.	*	16 OCT 1830	499	.00	.00	.00	12.
15 OCT 1735	200	.01	.00	.00	265.	*	16 OCT 1835	500	.00	.00	.00	12.
15 OCT 1740	201	.01	.00	.00	258.	*	16 OCT 1840	501	.00	.00	.00	12.

15	OCT	1745	202	.01	.00	.00	250.	*	16	OCT	1845	502	.00	.00	.00	12.
15	OCT	1750	203	.01	.00	.00	243.	*	16	OCT	1850	503	.00	.00	.00	12.
15	OCT	1755	204	.01	.00	.00	237.	*	16	OCT	1855	504	.00	.00	.00	12.
15	OCT	1800	205	.01	.00	.00	230.	*	16	OCT	1900	505	.00	.00	.00	12.
15	OCT	1805	206	.01	.00	.00	225.	*	16	OCT	1905	506	.00	.00	.00	12.
15	OCT	1810	207	.01	.00	.00	219.	*	16	OCT	1910	507	.00	.00	.00	12.
15	OCT	1815	208	.01	.00	.00	213.	*	16	OCT	1915	508	.00	.00	.00	12.
15	OCT	1820	209	.01	.00	.00	208.	*	16	OCT	1920	509	.00	.00	.00	12.
15	OCT	1825	210	.01	.00	.00	203.	*	16	OCT	1925	510	.00	.00	.00	12.
15	OCT	1830	211	.01	.00	.00	199.	*	16	OCT	1930	511	.00	.00	.00	12.
15	OCT	1835	212	.01	.00	.00	194.	*	16	OCT	1935	512	.00	.00	.00	12.
15	OCT	1840	213	.01	.00	.00	190.	*	16	OCT	1940	513	.00	.00	.00	12.
15	OCT	1845	214	.01	.00	.00	185.	*	16	OCT	1945	514	.00	.00	.00	12.
15	OCT	1850	215	.01	.00	.00	181.	*	16	OCT	1950	515	.00	.00	.00	12.
15	OCT	1855	216	.01	.00	.00	177.	*	16	OCT	1955	516	.00	.00	.00	12.
15	OCT	1900	217	.01	.00	.00	173.	*	16	OCT	2000	517	.00	.00	.00	12.
15	OCT	1905	218	.01	.00	.00	170.	*	16	OCT	2005	518	.00	.00	.00	12.
15	OCT	1910	219	.01	.00	.00	166.	*	16	OCT	2010	519	.00	.00	.00	12.
15	OCT	1915	220	.01	.00	.00	163.	*	16	OCT	2015	520	.00	.00	.00	12.
15	OCT	1920	221	.01	.00	.00	160.	*	16	OCT	2020	521	.00	.00	.00	12.
15	OCT	1925	222	.01	.00	.00	156.	*	16	OCT	2025	522	.00	.00	.00	12.
15	OCT	1930	223	.01	.00	.00	153.	*	16	OCT	2030	523	.00	.00	.00	12.
15	OCT	1935	224	.01	.00	.00	150.	*	16	OCT	2035	524	.00	.00	.00	12.
15	OCT	1940	225	.01	.00	.00	148.	*	16	OCT	2040	525	.00	.00	.00	12.
15	OCT	1945	226	.01	.00	.00	145.	*	16	OCT	2045	526	.00	.00	.00	12.
15	OCT	1950	227	.01	.00	.00	142.	*	16	OCT	2050	527	.00	.00	.00	12.
15	OCT	1955	228	.01	.00	.00	139.	*	16	OCT	2055	528	.00	.00	.00	12.
15	OCT	2000	229	.01	.00	.00	137.	*	16	OCT	2100	529	.00	.00	.00	12.
15	OCT	2005	230	.01	.00	.00	134.	*	16	OCT	2105	530	.00	.00	.00	12.
15	OCT	2010	231	.01	.00	.00	132.	*	16	OCT	2110	531	.00	.00	.00	12.
15	OCT	2015	232	.01	.00	.00	129.	*	16	OCT	2115	532	.00	.00	.00	12.
15	OCT	2020	233	.01	.00	.00	126.	*	16	OCT	2120	533	.00	.00	.00	12.
15	OCT	2025	234	.01	.00	.00	124.	*	16	OCT	2125	534	.00	.00	.00	12.
15	OCT	2030	235	.01	.00	.00	121.	*	16	OCT	2130	535	.00	.00	.00	12.
15	OCT	2035	236	.01	.00	.00	119.	*	16	OCT	2135	536	.00	.00	.00	12.
15	OCT	2040	237	.01	.00	.00	116.	*	16	OCT	2140	537	.00	.00	.00	12.
15	OCT	2045	238	.01	.00	.00	114.	*	16	OCT	2145	538	.00	.00	.00	12.
15	OCT	2050	239	.01	.00	.00	111.	*	16	OCT	2150	539	.00	.00	.00	12.
15	OCT	2055	240	.01	.00	.00	109.	*	16	OCT	2155	540	.00	.00	.00	12.
15	OCT	2100	241	.01	.00	.00	107.	*	16	OCT	2200	541	.00	.00	.00	12.
15	OCT	2105	242	.01	.00	.00	104.	*	16	OCT	2205	542	.00	.00	.00	12.
15	OCT	2110	243	.01	.00	.00	102.	*	16	OCT	2210	543	.00	.00	.00	12.
15	OCT	2115	244	.01	.00	.00	100.	*	16	OCT	2215	544	.00	.00	.00	12.
15	OCT	2120	245	.01	.00	.00	98.	*	16	OCT	2220	545	.00	.00	.00	12.
15	OCT	2125	246	.01	.00	.00	95.	*	16	OCT	2225	546	.00	.00	.00	12.
15	OCT	2130	247	.01	.00	.00	93.	*	16	OCT	2230	547	.00	.00	.00	12.
15	OCT	2135	248	.01	.00	.00	91.	*	16	OCT	2235	548	.00	.00	.00	12.
15	OCT	2140	249	.01	.00	.00	89.	*	16	OCT	2240	549	.00	.00	.00	12.
15	OCT	2145	250	.01	.00	.00	87.	*	16	OCT	2245	550	.00	.00	.00	12.
15	OCT	2150	251	.01	.00	.00	85.	*	16	OCT	2250	551	.00	.00	.00	12.
15	OCT	2155	252	.01	.00	.00	83.	*	16	OCT	2255	552	.00	.00	.00	12.
15	OCT	2200	253	.01	.00	.00	81.	*	16	OCT	2300	553	.00	.00	.00	12.
15	OCT	2205	254	.01	.00	.00	79.	*	16	OCT	2305	554	.00	.00	.00	12.
15	OCT	2210	255	.01	.00	.00	77.	*	16	OCT	2310	555	.00	.00	.00	12.
15	OCT	2215	256	.01	.00	.00	75.	*	16	OCT	2315	556	.00	.00	.00	12.
15	OCT	2220	257	.01	.00	.00	73.	*	16	OCT	2320	557	.00	.00	.00	12.
15	OCT	2225	258	.01	.00	.00	71.	*	16	OCT	2325	558	.00	.00	.00	12.
15	OCT	2230	259	.01	.00	.00	69.	*	16	OCT	2330	559	.00	.00	.00	12.
15	OCT	2235	260	.01	.00	.00	68.	*	16	OCT	2335	560	.00	.00	.00	12.
15	OCT	2240	261	.01	.00	.00	66.	*	16	OCT	2340	561	.00	.00	.00	12.
15	OCT	2245	262	.01	.00	.00	64.	*	16	OCT	2345	562	.00	.00	.00	12.
15	OCT	2250	263	.01	.00	.00	62.	*	16	OCT	2350	563	.00	.00	.00	12.
15	OCT	2255	264	.01	.00	.00	61.	*	16	OCT	2355	564	.00	.00	.00	12.
15	OCT	2300	265	.01	.00	.00	59.	*	17	OCT	0000	565	.00	.00	.00	12.
15	OCT	2305	266	.01	.00	.00	58.	*	17	OCT	0005	566	.00	.00	.00	12.
15	OCT	2310	267	.01	.00	.00	56.	*	17	OCT	0010	567	.00	.00	.00	12.
15	OCT	2315	268	.01	.00	.00	55.	*	17	OCT	0015	568	.00	.00	.00	12.
15	OCT	2320	269	.01	.00	.00	53.	*	17	OCT	0020	569	.00	.00	.00	12.
15	OCT	2325	270	.01	.00	.00	52.	*	17	OCT	0025	570	.00	.00	.00	12.
15	OCT	2330	271	.01	.00	.00	51.	*	17	OCT	0030	571	.00	.00	.00	12.
15	OCT	2335	272	.01	.00	.00	49.	*	17	OCT	0035	572	.00	.00	.00	12.
15	OCT	2340	273	.01	.00	.00	48.	*	17	OCT	0040	573	.00	.00	.00	12.
15	OCT	2345	274	.01	.00	.00	47.	*	17	OCT	0045	574	.00	.00	.00	12.
15	OCT	2350	275	.01	.00	.00	45.	*	17	OCT	0050	575	.00	.00	.00	12.
15	OCT	2355	276	.01	.00	.00	44.	*	17	OCT	0055	576	.00	.00	.00	12.
16	OCT	0000	277	.01	.00	.00	43.	*	17	OCT	0100	577	.00	.00	.00	12.
16	OCT	0005	278	.01	.00	.00	42.	*	17	OCT	0105	578	.00	.00	.00	12.
16	OCT	0010	279	.01	.00	.00	41.	*	17	OCT	0110	579	.00	.00	.00	12.
16	OCT	0015	280	.01	.00	.00	40.	*	17	OCT	0115	580	.00	.00	.00	12.
16	OCT	0020	281	.01	.00	.00	39.	*	17	OCT	0120	581	.00	.00	.00	12.
16	OCT	0025	282	.01	.00	.00	38.	*	17	OCT	0125	582	.00	.00	.00	12.
16	OCT	0030	283	.01	.00	.00	37.	*	17	OCT	0130	583	.00	.00	.00	12.
16	OCT	0035	284	.01	.00	.00	36.	*	17	OCT	0135	584	.00	.00	.00	12.
16	OCT	0040	285	.01	.00	.00	35.	*	17	OCT	0140	585	.00	.00	.00	12.
16	OCT	0045	286	.01	.00	.00	34.	*	17	OCT	0145	586	.00	.00	.00	12.
16	OCT	0050	287	.01	.00	.00	33.	*	17	OCT	0150	587	.00	.00	.00	12.
16	OCT	0055	288	.01	.00	.00	32.	*	17	OCT	0155	588	.00	.00	.00	12.
16	OCT	0100	289	.01	.00	.00	32.	*	17	OCT	0200	589	.00	.00	.00	12.
16	OCT	0105	290	.01	.00	.00	31.	*	17	OCT	0205	590	.00	.00	.00	12.
16	OCT	0110	291	.01	.00	.00	30.	*	17	OCT	0210	591	.00	.00	.00	12.
16	OCT	0115	292	.01	.00	.00	30.	*	17	OCT	0215	592	.00	.00	.00	12.
16	OCT	0120	293	.01	.00	.00	29.	*	17	OCT	0220	593	.00	.00	.00	12.
16	OCT	0125	294	.01	.00	.00	28.	*	17	OCT	0225	594	.00	.00	.00	12.
16	OCT	0130	295	.01	.00	.00	28.	*	17	OCT	0230	595	.00	.00	.00	12.
16	OCT	0135	296	.00	.00	.00	27.	*	17	OCT	0235	596	.00	.00	.00	12.
16	OCT	0140	297	.00	.00	.00	27.	*	17	OCT	0240	597	.00	.00	.00	12.
16	OCT	0145	298	.00	.00	.00	26.	*	17	OCT	0245	598	.00	.00	.00	12.
16	OCT	0150	299	.00	.00	.00	26.	*	17	OCT	0250	599	.00	.00	.00	12.
16	OCT	0155	300	.00	.00	.00	26.	*	17	OCT	0255	600	.00	.00	.00	12.

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TOTAL RAINFALL = 2.90, TOTAL LOSS = 1.41, TOTAL EXCESS = 1.48

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				
		6-HR	24-HR	72-HR	49.92-HR	
+ (CFS)	(HR)					

		(CFS)					
+	896.	13.83		460.	158.	82.	82.
			(INCHES)	1.078	1.477	1.601	1.601
			(AC-FT)	228.	313.	339.	339.

CUMULATIVE AREA = 3.97 SQ MI

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2404 KK PL10B+

2405 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION PL10B+
SUM OF 3 HYDROGRAPHS

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DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
15	OCT	0100	1	108.	15	OCT	1330	151	2066.	16	OCT	0200	301	673.	16	OCT	1430	451	117.
15	OCT	0105	2	108.	15	OCT	1335	152	2155.	16	OCT	0205	302	667.	16	OCT	1435	452	117.
15	OCT	0110	3	108.	15	OCT	1340	153	2255.	16	OCT	0210	303	661.	16	OCT	1440	453	117.
15	OCT	0115	4	108.	15	OCT	1345	154	2365.	16	OCT	0215	304	655.	16	OCT	1445	454	117.
15	OCT	0120	5	108.	15	OCT	1350	155	2477.	16	OCT	0220	305	649.	16	OCT	1450	455	117.
15	OCT	0125	6	108.	15	OCT	1355	156	2586.	16	OCT	0225	306	643.	16	OCT	1455	456	117.
15	OCT	0130	7	108.	15	OCT	1400	157	2688.	16	OCT	0230	307	637.	16	OCT	1500	457	117.
15	OCT	0135	8	108.	15	OCT	1405	158	2783.	16	OCT	0235	308	631.	16	OCT	1505	458	117.
15	OCT	0140	9	108.	15	OCT	1410	159	2873.	16	OCT	0240	309	625.	16	OCT	1510	459	117.
15	OCT	0145	10	108.	15	OCT	1415	160	2958.	16	OCT	0245	310	619.	16	OCT	1515	460	117.
15	OCT	0150	11	108.	15	OCT	1420	161	3040.	16	OCT	0250	311	612.	16	OCT	1520	461	117.
15	OCT	0155	12	108.	15	OCT	1425	162	3122.	16	OCT	0255	312	606.	16	OCT	1525	462	116.
15	OCT	0200	13	109.	15	OCT	1430	163	3203.	16	OCT	0300	313	600.	16	OCT	1530	463	116.
15	OCT	0205	14	109.	15	OCT	1435	164	3281.	16	OCT	0305	314	593.	16	OCT	1535	464	116.
15	OCT	0210	15	109.	15	OCT	1440	165	3357.	16	OCT	0310	315	587.	16	OCT	1540	465	116.
15	OCT	0215	16	109.	15	OCT	1445	166	3431.	16	OCT	0315	316	580.	16	OCT	1545	466	116.
15	OCT	0220	17	110.	15	OCT	1450	167	3502.	16	OCT	0320	317	573.	16	OCT	1550	467	116.
15	OCT	0225	18	110.	15	OCT	1455	168	3570.	16	OCT	0325	318	567.	16	OCT	1555	468	116.
15	OCT	0230	19	111.	15	OCT	1500	169	3635.	16	OCT	0330	319	560.	16	OCT	1600	469	116.
15	OCT	0235	20	111.	15	OCT	1505	170	3696.	16	OCT	0335	320	553.	16	OCT	1605	470	116.
15	OCT	0240	21	112.	15	OCT	1510	171	3754.	16	OCT	0340	321	546.	16	OCT	1610	471	116.
15	OCT	0245	22	113.	15	OCT	1515	172	3809.	16	OCT	0345	322	539.	16	OCT	1615	472	116.
15	OCT	0250	23	114.	15	OCT	1520	173	3860.	16	OCT	0350	323	531.	16	OCT	1620	473	116.
15	OCT	0255	24	115.	15	OCT	1525	174	3907.	16	OCT	0355	324	524.	16	OCT	1625	474	116.
15	OCT	0300	25	116.	15	OCT	1530	175	3950.	16	OCT	0400	325	517.	16	OCT	1630	475	116.
15	OCT	0305	26	117.	15	OCT	1535	176	3989.	16	OCT	0405	326	509.	16	OCT	1635	476	116.
15	OCT	0310	27	118.	15	OCT	1540	177	4022.	16	OCT	0410	327	502.	16	OCT	1640	477	116.
15	OCT	0315	28	120.	15	OCT	1545	178	4051.	16	OCT	0415	328	494.	16	OCT	1645	478	116.
15	OCT	0320	29	121.	15	OCT	1550	179	4074.	16	OCT	0420	329	486.	16	OCT	1650	479	116.
15	OCT	0325	30	122.	15	OCT	1555	180	4091.	16	OCT	0425	330	479.	16	OCT	1655	480	116.
15	OCT	0330	31	124.	15	OCT	1600	181	4104.	16	OCT	0430	331	471.	16	OCT	1700	481	116.
15	OCT	0335	32	126.	15	OCT	1605	182	4110.	16	OCT	0435	332	463.	16	OCT	1705	482	115.
15	OCT	0340	33	128.	15	OCT	1610	183	4112.	16	OCT	0440	333	455.	16	OCT	1710	483	115.
15	OCT	0345	34	129.	15	OCT	1615	184	4108.	16	OCT	0445	334	447.	16	OCT	1715	484	115.
15	OCT	0350	35	131.	15	OCT	1620	185	4098.	16	OCT	0450	335	439.	16	OCT	1720	485	115.
15	OCT	0355	36	134.	15	OCT	1625	186	4084.	16	OCT	0455	336	431.	16	OCT	1725	486	115.
15	OCT	0400	37	136.	15	OCT	1630	187	4064.	16	OCT	0500	337	423.	16	OCT	1730	487	115.
15	OCT	0405	38	139.	15	OCT	1635	188	4040.	16	OCT	0505	338	415.	16	OCT	1735	488	115.
15	OCT	0410	39	142.	15	OCT	1640	189	4011.	16	OCT	0510	339	407.	16	OCT	1740	489	115.
15	OCT	0415	40	145.	15	OCT	1645	190	3977.	16	OCT	0515	340	400.	16	OCT	1745	490	115.
15	OCT	0420	41	149.	15	OCT	1650	191	3938.	16	OCT	0520	341	392.	16	OCT	1750	491	115.
15	OCT	0425	42	153.	15	OCT	1655	192	3895.	16	OCT	0525	342	384.	16	OCT	1755	492	115.
15	OCT	0430	43	158.	15	OCT	1700	193	3847.	16	OCT	0530	343	376.	16	OCT	1800	493	115.
15	OCT	0435	44	163.	15	OCT	1705	194	3796.	16	OCT	0535	344	369.	16	OCT	1805	494	115.
15	OCT	0440	45	170.	15	OCT	1710	195	3740.	16	OCT	0540	345	361.	16	OCT	1810	495	115.
15	OCT	0445	46	176.	15	OCT	1715	196	3682.	16	OCT	0545	346	354.	16	OCT	1815	496	115.
15	OCT	0450	47	184.	15	OCT	1720	197	3621.	16	OCT	0550	347	346.	16	OCT	1820	497	115.
15	OCT	0455	48	192.	15	OCT	1725	198	3558.	16	OCT	0555	348	339.	16	OCT	1825	498	115.
15	OCT	0500	49	201.	15	OCT	1730	199	3493.	16	OCT	0600	349	332.	16	OCT	1830	499	115.
15	OCT	0505	50	211.	15	OCT	1735	200	3426.	16	OCT	0605	350	325.	16	OCT	1835	500	115.
15	OCT	0510	51	221.	15	OCT	1740	201	3359.	16	OCT	0610	351	318.	16	OCT	1840	501	115.
15	OCT	0515	52	232.	15	OCT	1745	202	3291.	16	OCT	0615	352	311.	16	OCT	1845	502	115.
15	OCT	0520	53	243.	15	OCT	1750	203	3222.	16	OCT	0620	353	304.	16	OCT	1850	503	115.
15	OCT	0525	54	254.	15	OCT	1755	204	3153.	16	OCT	0625	354	297.	16	OCT	1855	504	115.
15	OCT	0530	55	266.	15	OCT	1800	205	3084.	16	OCT	0630	355	290.	16	OCT	1900	505	115.
15	OCT	0535	56	277.	15	OCT	1805	206	3013.	16	OCT	0635	356	283.	16	OCT	1905	506	115.
15	OCT	0540	57	288.	15	OCT	1810	207	2940.	16	OCT	0640	357	277.	16	OCT	1910	507	115.
15	OCT	0545	58	300.	15	OCT	1815	208	2865.	16	OCT	0645	358	271.	16	OCT	1915	508	115.
15	OCT	0550	59	311.	15	OCT	1820	209	2788.	16	OCT	0650	359	264.	16	OCT	1920	509	115.
15	OCT	0555	60	322.	15	OCT	1825	210	2712.	16	OCT	0655	360	258.	16	OCT	1925	510	115.
15	OCT	0600	61	333.	15	OCT	1830	211	2637.	16	OCT	0700	361	252.	16	OCT	1930	511	115.
15	OCT	0605	62	344.	15	OCT	1835	212	2563.	16	OCT	0705	362	247.	16	OCT	1935	512	115.
15	OCT	0610	63	355.	15	OCT	1840	213	2491.	16	OCT	0710	363	241.	16	OCT	1940	513	115.
15	OCT	0615	64	365.	15	OCT	1845	214	2422.	16	OCT	0715	364	235.	16	OCT	1945	514	115.
15	OCT	0620	65	376.	15	OCT	1850	215	2357.	16	OCT	0720	365	230.	16	OCT	1950	515	115.
15	OCT	0625	66	386.	15	OCT	1855	216	2297.	16	OCT	0725	366	225.	16	OCT	1955	516	115.
15	OCT	0630	67	395.	15	OCT	1900	217	2241.	16	OCT	0730	367	220.	16	OCT	2000	517	115.
15	OCT	0635	68	405.	15	OCT	1905	218	2189.	16	OCT	0735	368	215.	16	OCT	2005	518	115.
15	OCT	0640	69	414.	15	OCT	1910	219	2141.	16	OCT	0740	369	211.	16	OCT	2010	519	115.
15	OCT	0645	70	422.	15	OCT	1915	220	2096.	16	OCT	0745	370	206.	16	OCT	2015	520	115.
15	OCT	0650	71	430.	15	OCT	1920	221	2053.	16	OCT	0750	371	202.	16	OCT	2020	521	115.
15	OCT	0655	72	437.	15	OCT	1925	222	2013.	16	OCT	0755	372	198.	16	OCT	2025	522	115.
15	OCT	0700	73	445.	15	OCT	1930	223	1975.	16	OCT	0800	373	194.	16	OCT	2030	523	115.

15	OCT	0705	74	451.	*	15	OCT	1935	224	1939.	*	16	OCT	0805	374	190.	*	16	OCT	2035	524	115.	
15	OCT	0710	75	458.	*	15	OCT	1940	225	1905.	*	16	OCT	0810	375	187.	*	16	OCT	2040	525	115.	
15	OCT	0715	76	464.	*	15	OCT	1945	226	1872.	*	16	OCT	0815	376	184.	*	16	OCT	2045	526	115.	
15	OCT	0720	77	470.	*	15	OCT	1950	227	1840.	*	16	OCT	0820	377	180.	*	16	OCT	2050	527	115.	
15	OCT	0725	78	475.	*	15	OCT	1955	228	1809.	*	16	OCT	0825	378	177.	*	16	OCT	2055	528	114.	
15	OCT	0730	79	481.	*	15	OCT	2000	229	1780.	*	16	OCT	0830	379	174.	*	16	OCT	2100	529	114.	
15	OCT	0735	80	486.	*	15	OCT	2005	230	1751.	*	16	OCT	0835	380	171.	*	16	OCT	2105	530	114.	
15	OCT	0740	81	491.	*	15	OCT	2010	231	1723.	*	16	OCT	0840	381	169.	*	16	OCT	2110	531	114.	
15	OCT	0745	82	496.	*	15	OCT	2015	232	1695.	*	16	OCT	0845	382	166.	*	16	OCT	2115	532	114.	
15	OCT	0750	83	501.	*	15	OCT	2020	233	1669.	*	16	OCT	0850	383	164.	*	16	OCT	2120	533	114.	
15	OCT	0755	84	506.	*	15	OCT	2025	234	1643.	*	16	OCT	0855	384	161.	*	16	OCT	2125	534	114.	
15	OCT	0800	85	511.	*	15	OCT	2030	235	1617.	*	16	OCT	0900	385	159.	*	16	OCT	2130	535	114.	
15	OCT	0805	86	516.	*	15	OCT	2035	236	1592.	*	16	OCT	0905	386	157.	*	16	OCT	2135	536	114.	
15	OCT	0810	87	521.	*	15	OCT	2040	237	1568.	*	16	OCT	0910	387	155.	*	16	OCT	2140	537	114.	
15	OCT	0815	88	525.	*	15	OCT	2045	238	1544.	*	16	OCT	0915	388	153.	*	16	OCT	2145	538	114.	
15	OCT	0820	89	531.	*	15	OCT	2050	239	1521.	*	16	OCT	0920	389	151.	*	16	OCT	2150	539	114.	
15	OCT	0825	90	536.	*	15	OCT	2055	240	1498.	*	16	OCT	0925	390	149.	*	16	OCT	2155	540	114.	
15	OCT	0830	91	541.	*	15	OCT	2100	241	1475.	*	16	OCT	0930	391	148.	*	16	OCT	2200	541	114.	
15	OCT	0835	92	547.	*	15	OCT	2105	242	1453.	*	16	OCT	0935	392	146.	*	16	OCT	2205	542	114.	
15	OCT	0840	93	553.	*	15	OCT	2110	243	1431.	*	16	OCT	0940	393	145.	*	16	OCT	2210	543	114.	
15	OCT	0845	94	559.	*	15	OCT	2115	244	1410.	*	16	OCT	0945	394	143.	*	16	OCT	2215	544	114.	
15	OCT	0850	95	565.	*	15	OCT	2120	245	1389.	*	16	OCT	0950	395	142.	*	16	OCT	2220	545	114.	
15	OCT	0855	96	572.	*	15	OCT	2125	246	1368.	*	16	OCT	0955	396	140.	*	16	OCT	2225	546	114.	
15	OCT	0900	97	579.	*	15	OCT	2130	247	1348.	*	16	OCT	1000	397	139.	*	16	OCT	2230	547	114.	
15	OCT	0905	98	587.	*	15	OCT	2135	248	1328.	*	16	OCT	1005	398	138.	*	16	OCT	2235	548	114.	
15	OCT	0910	99	595.	*	15	OCT	2140	249	1309.	*	16	OCT	1010	399	137.	*	16	OCT	2240	549	114.	
15	OCT	0915	100	604.	*	15	OCT	2145	250	1290.	*	16	OCT	1015	400	136.	*	16	OCT	2245	550	114.	
15	OCT	0920	101	614.	*	15	OCT	2150	251	1271.	*	16	OCT	1020	401	135.	*	16	OCT	2250	551	114.	
15	OCT	0925	102	624.	*	15	OCT	2155	252	1252.	*	16	OCT	1025	402	134.	*	16	OCT	2255	552	114.	
15	OCT	0930	103	634.	*	15	OCT	2200	253	1234.	*	16	OCT	1030	403	133.	*	16	OCT	2300	553	114.	
15	OCT	0935	104	646.	*	15	OCT	2205	254	1216.	*	16	OCT	1035	404	132.	*	16	OCT	2305	554	114.	
15	OCT	0940	105	658.	*	15	OCT	2210	255	1198.	*	16	OCT	1040	405	132.	*	16	OCT	2310	555	114.	
15	OCT	0945	106	671.	*	15	OCT	2215	256	1180.	*	16	OCT	1045	406	131.	*	16	OCT	2315	556	114.	
15	OCT	0950	107	685.	*	15	OCT	2220	257	1163.	*	16	OCT	1050	407	130.	*	16	OCT	2320	557	114.	
15	OCT	0955	108	699.	*	15	OCT	2225	258	1146.	*	16	OCT	1055	408	129.	*	16	OCT	2325	558	114.	
15	OCT	1000	109	714.	*	15	OCT	2230	259	1129.	*	16	OCT	1100	409	129.	*	16	OCT	2330	559	114.	
15	OCT	1005	110	730.	*	15	OCT	2235	260	1112.	*	16	OCT	1105	410	128.	*	16	OCT	2335	560	114.	
15	OCT	1010	111	747.	*	15	OCT	2240	261	1096.	*	16	OCT	1110	411	128.	*	16	OCT	2340	561	114.	
15	OCT	1015	112	764.	*	15	OCT	2245	262	1079.	*	16	OCT	1115	412	127.	*	16	OCT	2345	562	114.	
15	OCT	1020	113	783.	*	15	OCT	2250	263	1063.	*	16	OCT	1120	413	126.	*	16	OCT	2350	563	114.	
15	OCT	1025	114	802.	*	15	OCT	2255	264	1048.	*	16	OCT	1125	414	126.	*	16	OCT	2355	564	114.	
15	OCT	1030	115	822.	*	15	OCT	2300	265	1032.	*	16	OCT	1130	415	125.	*	17	OCT	0000	565	114.	
15	OCT	1035	116	842.	*	15	OCT	2305	266	1017.	*	16	OCT	1135	416	125.	*	17	OCT	0005	566	114.	
15	OCT	1040	117	864.	*	15	OCT	2310	267	1002.	*	16	OCT	1140	417	125.	*	17	OCT	0010	567	114.	
15	OCT	1045	118	886.	*	15	OCT	2315	268	988.	*	16	OCT	1145	418	124.	*	17	OCT	0015	568	114.	
15	OCT	1050	119	909.	*	15	OCT	2320	269	974.	*	16	OCT	1150	419	124.	*	17	OCT	0020	569	114.	
15	OCT	1055	120	932.	*	15	OCT	2325	270	960.	*	16	OCT	1155	420	123.	*	17	OCT	0025	570	114.	
15	OCT	1100	121	956.	*	15	OCT	2330	271	946.	*	16	OCT	1200	421	123.	*	17	OCT	0030	571	114.	
15	OCT	1105	122	981.	*	15	OCT	2335	272	933.	*	16	OCT	1205	422	123.	*	17	OCT	0035	572	114.	
15	OCT	1110	123	1006.	*	15	OCT	2340	273	920.	*	16	OCT	1210	423	122.	*	17	OCT	0040	573	114.	
15	OCT	1115	124	1032.	*	15	OCT	2345	274	907.	*	16	OCT	1215	424	122.	*	17	OCT	0045	574	114.	
15	OCT	1120	125	1058.	*	15	OCT	2350	275	895.	*	16	OCT	1220	425	122.	*	17	OCT	0050	575	114.	
15	OCT	1125	126	1084.	*	15	OCT	2355	276	883.	*	16	OCT	1225	426	121.	*	17	OCT	0055	576	114.	
15	OCT	1130	127	1111.	*	16	OCT	0000	277	871.	*	16	OCT	1230	427	121.	*	17	OCT	0100	577	114.	
15	OCT	1135	128	1138.	*	16	OCT	0005	278	860.	*	16	OCT	1235	428	121.	*	17	OCT	0105	578	114.	
15	OCT	1140	129	1166.	*	16	OCT	0010	279	849.	*	16	OCT	1240	429	121.	*	17	OCT	0110	579	114.	
15	OCT	1145	130	1194.	*	16	OCT	0015	280	838.	*	16	OCT	1245	430	120.	*	17	OCT	0115	580	114.	
15	OCT	1150	131	1222.	*	16	OCT	0020	281	828.	*	16	OCT	1250	431	120.	*	17	OCT	0120	581	114.	
15	OCT	1155	132	1250.	*	16	OCT	0025	282	818.	*	16	OCT	1255	432	120.	*	17	OCT	0125	582	114.	
15	OCT	1200	133	1279.	*	16	OCT	0030	283	808.	*	16	OCT	1300	433	120.	*	17	OCT	0130	583	114.	
15	OCT	1205	134	1309.	*	16	OCT	0035	284	798.	*	16	OCT	1305	434	120.	*	17	OCT	0135	584	114.	
15	OCT	1210	135	1339.	*	16	OCT	0040	285	789.	*	16	OCT	1310	435	119.	*	17	OCT	0140	585	114.	
15	OCT	1215	136	1370.	*	16	OCT	0045	286	780.	*	16	OCT	1315	436	119.	*	17	OCT	0145	586	114.	
15	OCT	1220	137	1402.	*	16	OCT	0050	287	772.	*	16	OCT	1320	437	119.	*	17	OCT	0150	587	114.	
15	OCT	1225	138	1434.	*	16	OCT	0055	288	763.	*	16	OCT	1325	438	119.	*	17	OCT	0155	588	114.	
15	OCT	1230	139	1468.	*	16	OCT	0100	289	755.	*	16	OCT	1330	439	119.	*	17	OCT	0200	589	114.	
15	OCT	1235	140	1503.	*	16	OCT	0105	290	747.	*	16	OCT	1335	440	119.	*	17	OCT	0205	590	114.	
15	OCT	1240	141	1539.	*	16	OCT	0110	291	740.	*	16	OCT	1340	441	118.	*	17	OCT	0210	591	114.	
15	OCT	1245	142	1577.	*	16	OCT	0115	292	732.	*	16	OCT	1345	442	118.	*	17	OCT	0215	592	114.	
15	OCT	1250	143	1617.	*	16	OCT	0120	293	725.	*	16	OCT	1350	443	118.	*	17	OCT	0220	593	114.	
15	OCT	1255	144	1659.	*	16	OCT	0125	294	718.	*	16	OCT	1355	444	118.	*	17	OCT	0225	594	114.	
15	OCT	1300	145	1705.	*	16	OCT	0130	295	711.	*	16	OCT	1400	445	118.	*	17	OCT	0230	595	114.	
15	OCT	1305	146	1753.	*	16	OCT	0135	296	704.	*	16	OCT	1405	446	118.	*	17	OCT	0235	596	114.	
15	OCT	1310	147	1806.	*	16	OCT	0140	297	698.	*	16	OCT	1410	447	118.	*	17	OCT	0240	597	114.	
15	OCT	1315	148	1862.	*	16	OCT	0145	298	691.	*	16	OCT	1415	448	118.	*	17	OCT	0245	598	114.	
15	OCT	1320	149	1923.	*	16	OCT	0150	299	685.	*	16	OCT	1420	449	118.	*	17	OCT	0250	599	114.	
15	OCT	1325	150	1990.	*	16	OCT	0155	300	679.	*	16	OCT	1425	450	117.	*	17	OCT	0255	600	114.	
					*						*						*						

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)				
		(CFS)			
+ 4112.	15.17	3252.	1478.	782.	782.
		(INCHES) 1.024	1.861	2.049	2.049
		(AC-FT) 1613.	2931.	3228.	3228.

CUMULATIVE AREA = 29.54 SQ MI

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25-year, 24 hour hydrographs: PL10+, PL10C1, PL10E, PL11, PL10B+

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2917 KK PL10+ COMBINE FIDDYMENT PROPERTY WITHIN PL10D

2918 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION PL10+
SUM OF 2 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
15	OCT	0100	1	68.	15	OCT	1330	151	429.	16	OCT	0200	301	121.	16	OCT	1430	451	68.
15	OCT	0105	2	68.	15	OCT	1335	152	482.	16	OCT	0205	302	120.	16	OCT	1435	452	68.
15	OCT	0110	3	68.	15	OCT	1340	153	552.	16	OCT	0210	303	119.	16	OCT	1440	453	68.
15	OCT	0115	4	68.	15	OCT	1345	154	632.	16	OCT	0215	304	117.	16	OCT	1445	454	68.
15	OCT	0120	5	68.	15	OCT	1350	155	717.	16	OCT	0220	305	116.	16	OCT	1450	455	68.
15	OCT	0125	6	68.	15	OCT	1355	156	804.	16	OCT	0225	306	115.	16	OCT	1455	456	68.
15	OCT	0130	7	68.	15	OCT	1400	157	892.	16	OCT	0230	307	114.	16	OCT	1500	457	68.
15	OCT	0135	8	68.	15	OCT	1405	158	979.	16	OCT	0235	308	113.	16	OCT	1505	458	68.
15	OCT	0140	9	68.	15	OCT	1410	159	1064.	16	OCT	0240	309	112.	16	OCT	1510	459	68.
15	OCT	0145	10	68.	15	OCT	1415	160	1147.	16	OCT	0245	310	111.	16	OCT	1515	460	68.
15	OCT	0150	11	68.	15	OCT	1420	161	1224.	16	OCT	0250	311	109.	16	OCT	1520	461	68.
15	OCT	0155	12	68.	15	OCT	1425	162	1295.	16	OCT	0255	312	108.	16	OCT	1525	462	68.
15	OCT	0200	13	68.	15	OCT	1430	163	1359.	16	OCT	0300	313	107.	16	OCT	1530	463	68.
15	OCT	0205	14	68.	15	OCT	1435	164	1417.	16	OCT	0305	314	106.	16	OCT	1535	464	68.
15	OCT	0210	15	68.	15	OCT	1440	165	1468.	16	OCT	0310	315	105.	16	OCT	1540	465	68.
15	OCT	0215	16	68.	15	OCT	1445	166	1513.	16	OCT	0315	316	105.	16	OCT	1545	466	68.
15	OCT	0220	17	68.	15	OCT	1450	167	1551.	16	OCT	0320	317	104.	16	OCT	1550	467	68.
15	OCT	0225	18	68.	15	OCT	1455	168	1583.	16	OCT	0325	318	103.	16	OCT	1555	468	68.
15	OCT	0230	19	68.	15	OCT	1500	169	1608.	16	OCT	0330	319	102.	16	OCT	1600	469	68.
15	OCT	0235	20	68.	15	OCT	1505	170	1627.	16	OCT	0335	320	101.	16	OCT	1605	470	68.
15	OCT	0240	21	68.	15	OCT	1510	171	1640.	16	OCT	0340	321	100.	16	OCT	1610	471	68.
15	OCT	0245	22	68.	15	OCT	1515	172	1646.	16	OCT	0345	322	99.	16	OCT	1615	472	68.
15	OCT	0250	23	68.	15	OCT	1520	173	1646.	16	OCT	0350	323	98.	16	OCT	1620	473	68.
15	OCT	0255	24	68.	15	OCT	1525	174	1640.	16	OCT	0355	324	98.	16	OCT	1625	474	68.
15	OCT	0300	25	68.	15	OCT	1530	175	1629.	16	OCT	0400	325	97.	16	OCT	1630	475	68.
15	OCT	0305	26	68.	15	OCT	1535	176	1613.	16	OCT	0405	326	96.	16	OCT	1635	476	68.
15	OCT	0310	27	68.	15	OCT	1540	177	1592.	16	OCT	0410	327	96.	16	OCT	1640	477	68.
15	OCT	0315	28	68.	15	OCT	1545	178	1566.	16	OCT	0415	328	95.	16	OCT	1645	478	68.
15	OCT	0320	29	68.	15	OCT	1550	179	1537.	16	OCT	0420	329	94.	16	OCT	1650	479	68.
15	OCT	0325	30	68.	15	OCT	1555	180	1504.	16	OCT	0425	330	94.	16	OCT	1655	480	68.
15	OCT	0330	31	69.	15	OCT	1600	181	1469.	16	OCT	0430	331	93.	16	OCT	1700	481	68.
15	OCT	0335	32	69.	15	OCT	1605	182	1431.	16	OCT	0435	332	92.	16	OCT	1705	482	68.
15	OCT	0340	33	69.	15	OCT	1610	183	1392.	16	OCT	0440	333	92.	16	OCT	1710	483	68.
15	OCT	0345	34	69.	15	OCT	1615	184	1351.	16	OCT	0445	334	91.	16	OCT	1715	484	68.
15	OCT	0350	35	69.	15	OCT	1620	185	1310.	16	OCT	0450	335	90.	16	OCT	1720	485	68.
15	OCT	0355	36	69.	15	OCT	1625	186	1268.	16	OCT	0455	336	90.	16	OCT	1725	486	68.
15	OCT	0400	37	69.	15	OCT	1630	187	1226.	16	OCT	0500	337	89.	16	OCT	1730	487	68.
15	OCT	0405	38	69.	15	OCT	1635	188	1184.	16	OCT	0505	338	89.	16	OCT	1735	488	68.
15	OCT	0410	39	69.	15	OCT	1640	189	1143.	16	OCT	0510	339	88.	16	OCT	1740	489	68.
15	OCT	0415	40	69.	15	OCT	1645	190	1103.	16	OCT	0515	340	87.	16	OCT	1745	490	68.
15	OCT	0420	41	69.	15	OCT	1650	191	1063.	16	OCT	0520	341	87.	16	OCT	1750	491	68.
15	OCT	0425	42	69.	15	OCT	1655	192	1025.	16	OCT	0525	342	86.	16	OCT	1755	492	68.
15	OCT	0430	43	69.	15	OCT	1700	193	988.	16	OCT	0530	343	86.	16	OCT	1800	493	68.
15	OCT	0435	44	69.	15	OCT	1705	194	953.	16	OCT	0535	344	85.	16	OCT	1805	494	68.
15	OCT	0440	45	69.	15	OCT	1710	195	919.	16	OCT	0540	345	85.	16	OCT	1810	495	68.
15	OCT	0445	46	69.	15	OCT	1715	196	886.	16	OCT	0545	346	84.	16	OCT	1815	496	68.
15	OCT	0450	47	70.	15	OCT	1720	197	855.	16	OCT	0550	347	84.	16	OCT	1820	497	68.
15	OCT	0455	48	70.	15	OCT	1725	198	825.	16	OCT	0555	348	83.	16	OCT	1825	498	68.
15	OCT	0500	49	70.	15	OCT	1730	199	796.	16	OCT	0600	349	83.	16	OCT	1830	499	68.
15	OCT	0505	50	70.	15	OCT	1735	200	769.	16	OCT	0605	350	82.	16	OCT	1835	500	68.
15	OCT	0510	51	70.	15	OCT	1740	201	744.	16	OCT	0610	351	82.	16	OCT	1840	501	68.
15	OCT	0515	52	70.	15	OCT	1745	202	719.	16	OCT	0615	352	81.	16	OCT	1845	502	68.
15	OCT	0520	53	71.	15	OCT	1750	203	696.	16	OCT	0620	353	81.	16	OCT	1850	503	68.
15	OCT	0525	54	71.	15	OCT	1755	204	675.	16	OCT	0625	354	80.	16	OCT	1855	504	68.
15	OCT	0530	55	71.	15	OCT	1800	205	654.	16	OCT	0630	355	80.	16	OCT	1900	505	68.
15	OCT	0535	56	71.	15	OCT	1805	206	634.	16	OCT	0635	356	79.	16	OCT	1905	506	68.
15	OCT	0540	57	71.	15	OCT	1810	207	616.	16	OCT	0640	357	79.	16	OCT	1910	507	68.
15	OCT	0545	58	72.	15	OCT	1815	208	598.	16	OCT	0645	358	79.	16	OCT	1915	508	68.
15	OCT	0550	59	72.	15	OCT	1820	209	582.	16	OCT	0650	359	78.	16	OCT	1920	509	68.
15	OCT	0555	60	72.	15	OCT	1825	210	566.	16	OCT	0655	360	78.	16	OCT	1925	510	68.
15	OCT	0600	61	72.	15	OCT	1830	211	551.	16	OCT	0700	361	77.	16	OCT	1930	511	68.
15	OCT	0605	62	73.	15	OCT	1835	212	537.	16	OCT	0705	362	77.	16	OCT	1935	512	68.
15	OCT	0610	63	73.	15	OCT	1840	213	523.	16	OCT	0710	363	77.	16	OCT	1940	513	68.
15	OCT	0615	64	73.	15	OCT	1845	214	511.	16	OCT	0715	364	76.	16	OCT	1945	514	68.
15	OCT	0620	65	73.	15	OCT	1850	215	499.	16	OCT	0720	365	76.	16	OCT	1950	515	68.
15	OCT	0625	66	74.	15	OCT	1855	216	487.	16	OCT	0725	366	76.	16	OCT	1955	516	68.
15	OCT	0630	67	74.	15	OCT	1900	217	476.	16	OCT	0730	367	76.	16	OCT	2000	517	68.
15	OCT	0635	68	74.	15	OCT	1905	218	466.	16	OCT	0735	368	75.	16	OCT	2005	518	68.
15	OCT	0640	69	74.	15	OCT	1910	219	456.	16	OCT	0740	369	75.	16	OCT	2010	519	68.
15	OCT	0645	70	75.	15	OCT	1915	220	446.	16	OCT	0745	370	75.	16	OCT	2015	520	68.
15	OCT	0650	71	75.	15	OCT	1920	221	437.	16	OCT	0750	371	74.	16	OCT	2020	521	68.
15	OCT	0655	72	75.	15	OCT	1925	222	428.	16	OCT	0755	372	74.	16	OCT	2025	522	68.
15	OCT	0700	73	75.	15	OCT	1930	223	420.	16	OCT	0800	373	74.	16	OCT	2030	523	68.
15	OCT	0705	74	76.	15	OCT	1935	224	412.	16	OCT	0805	374	74.	16	OCT	2035	524	68.

15 OCT	0710	75	76.	*	15 OCT	1940	225	404.	*	16 OCT	0810	375	73.	*	16 OCT	2040	525	68.
15 OCT	0715	76	76.	*	15 OCT	1945	226	396.	*	16 OCT	0815	376	73.	*	16 OCT	2045	526	68.
15 OCT	0720	77	77.	*	15 OCT	1950	227	389.	*	16 OCT	0820	377	73.	*	16 OCT	2050	527	68.
15 OCT	0725	78	77.	*	15 OCT	1955	228	382.	*	16 OCT	0825	378	73.	*	16 OCT	2055	528	68.
15 OCT	0730	79	77.	*	15 OCT	2000	229	375.	*	16 OCT	0830	379	73.	*	16 OCT	2100	529	68.
15 OCT	0735	80	78.	*	15 OCT	2005	230	368.	*	16 OCT	0835	380	72.	*	16 OCT	2105	530	68.
15 OCT	0740	81	78.	*	15 OCT	2010	231	361.	*	16 OCT	0840	381	72.	*	16 OCT	2110	531	68.
15 OCT	0745	82	78.	*	15 OCT	2015	232	355.	*	16 OCT	0845	382	72.	*	16 OCT	2115	532	68.
15 OCT	0750	83	79.	*	15 OCT	2020	233	348.	*	16 OCT	0850	383	72.	*	16 OCT	2120	533	68.
15 OCT	0755	84	79.	*	15 OCT	2025	234	342.	*	16 OCT	0855	384	72.	*	16 OCT	2125	534	68.
15 OCT	0800	85	80.	*	15 OCT	2030	235	336.	*	16 OCT	0900	385	72.	*	16 OCT	2130	535	68.
15 OCT	0805	86	80.	*	15 OCT	2035	236	330.	*	16 OCT	0905	386	71.	*	16 OCT	2135	536	68.
15 OCT	0810	87	81.	*	15 OCT	2040	237	325.	*	16 OCT	0910	387	71.	*	16 OCT	2140	537	68.
15 OCT	0815	88	82.	*	15 OCT	2045	238	319.	*	16 OCT	0915	388	71.	*	16 OCT	2145	538	68.
15 OCT	0820	89	82.	*	15 OCT	2050	239	314.	*	16 OCT	0920	389	71.	*	16 OCT	2150	539	68.
15 OCT	0825	90	83.	*	15 OCT	2055	240	308.	*	16 OCT	0925	390	71.	*	16 OCT	2155	540	68.
15 OCT	0830	91	84.	*	15 OCT	2100	241	303.	*	16 OCT	0930	391	71.	*	16 OCT	2200	541	68.
15 OCT	0835	92	84.	*	15 OCT	2105	242	298.	*	16 OCT	0935	392	71.	*	16 OCT	2205	542	68.
15 OCT	0840	93	85.	*	15 OCT	2110	243	293.	*	16 OCT	0940	393	70.	*	16 OCT	2210	543	68.
15 OCT	0845	94	86.	*	15 OCT	2115	244	288.	*	16 OCT	0945	394	70.	*	16 OCT	2215	544	68.
15 OCT	0850	95	87.	*	15 OCT	2120	245	283.	*	16 OCT	0950	395	70.	*	16 OCT	2220	545	68.
15 OCT	0855	96	89.	*	15 OCT	2125	246	278.	*	16 OCT	0955	396	70.	*	16 OCT	2225	546	68.
15 OCT	0900	97	90.	*	15 OCT	2130	247	273.	*	16 OCT	1000	397	70.	*	16 OCT	2230	547	68.
15 OCT	0905	98	91.	*	15 OCT	2135	248	269.	*	16 OCT	1005	398	70.	*	16 OCT	2235	548	68.
15 OCT	0910	99	93.	*	15 OCT	2140	249	264.	*	16 OCT	1010	399	70.	*	16 OCT	2240	549	68.
15 OCT	0915	100	94.	*	15 OCT	2145	250	260.	*	16 OCT	1015	400	70.	*	16 OCT	2245	550	68.
15 OCT	0920	101	96.	*	15 OCT	2150	251	255.	*	16 OCT	1020	401	70.	*	16 OCT	2250	551	68.
15 OCT	0925	102	97.	*	15 OCT	2155	252	251.	*	16 OCT	1025	402	70.	*	16 OCT	2255	552	68.
15 OCT	0930	103	99.	*	15 OCT	2200	253	247.	*	16 OCT	1030	403	70.	*	16 OCT	2300	553	68.
15 OCT	0935	104	101.	*	15 OCT	2205	254	243.	*	16 OCT	1035	404	70.	*	16 OCT	2305	554	68.
15 OCT	0940	105	103.	*	15 OCT	2210	255	238.	*	16 OCT	1040	405	69.	*	16 OCT	2310	555	68.
15 OCT	0945	106	105.	*	15 OCT	2215	256	234.	*	16 OCT	1045	406	69.	*	16 OCT	2315	556	68.
15 OCT	0950	107	108.	*	15 OCT	2220	257	230.	*	16 OCT	1050	407	69.	*	16 OCT	2320	557	68.
15 OCT	0955	108	110.	*	15 OCT	2225	258	227.	*	16 OCT	1055	408	69.	*	16 OCT	2325	558	68.
15 OCT	1000	109	113.	*	15 OCT	2230	259	223.	*	16 OCT	1100	409	69.	*	16 OCT	2330	559	68.
15 OCT	1005	110	115.	*	15 OCT	2235	260	219.	*	16 OCT	1105	410	69.	*	16 OCT	2335	560	68.
15 OCT	1010	111	118.	*	15 OCT	2240	261	215.	*	16 OCT	1110	411	69.	*	16 OCT	2340	561	68.
15 OCT	1015	112	121.	*	15 OCT	2245	262	212.	*	16 OCT	1115	412	69.	*	16 OCT	2345	562	68.
15 OCT	1020	113	124.	*	15 OCT	2250	263	208.	*	16 OCT	1120	413	69.	*	16 OCT	2350	563	68.
15 OCT	1025	114	127.	*	15 OCT	2255	264	205.	*	16 OCT	1125	414	69.	*	16 OCT	2355	564	68.
15 OCT	1030	115	130.	*	15 OCT	2300	265	201.	*	16 OCT	1130	415	69.	*	17 OCT	0000	565	68.
15 OCT	1035	116	134.	*	15 OCT	2305	266	198.	*	16 OCT	1135	416	69.	*	17 OCT	0005	566	68.
15 OCT	1040	117	137.	*	15 OCT	2310	267	195.	*	16 OCT	1140	417	69.	*	17 OCT	0010	567	68.
15 OCT	1045	118	141.	*	15 OCT	2315	268	192.	*	16 OCT	1145	418	69.	*	17 OCT	0015	568	68.
15 OCT	1050	119	145.	*	15 OCT	2320	269	189.	*	16 OCT	1150	419	69.	*	17 OCT	0020	569	68.
15 OCT	1055	120	148.	*	15 OCT	2325	270	186.	*	16 OCT	1155	420	69.	*	17 OCT	0025	570	68.
15 OCT	1100	121	152.	*	15 OCT	2330	271	183.	*	16 OCT	1200	421	69.	*	17 OCT	0030	571	68.
15 OCT	1105	122	156.	*	15 OCT	2335	272	180.	*	16 OCT	1205	422	69.	*	17 OCT	0035	572	68.
15 OCT	1110	123	160.	*	15 OCT	2340	273	177.	*	16 OCT	1210	423	69.	*	17 OCT	0040	573	68.
15 OCT	1115	124	165.	*	15 OCT	2345	274	174.	*	16 OCT	1215	424	69.	*	17 OCT	0045	574	68.
15 OCT	1120	125	169.	*	15 OCT	2350	275	171.	*	16 OCT	1220	425	69.	*	17 OCT	0050	575	68.
15 OCT	1125	126	174.	*	15 OCT	2355	276	169.	*	16 OCT	1225	426	69.	*	17 OCT	0055	576	68.
15 OCT	1130	127	179.	*	16 OCT	0000	277	166.	*	16 OCT	1230	427	69.	*	17 OCT	0100	577	68.
15 OCT	1135	128	184.	*	16 OCT	0005	278	163.	*	16 OCT	1235	428	69.	*	17 OCT	0105	578	68.
15 OCT	1140	129	189.	*	16 OCT	0010	279	161.	*	16 OCT	1240	429	69.	*	17 OCT	0110	579	68.
15 OCT	1145	130	194.	*	16 OCT	0015	280	158.	*	16 OCT	1245	430	69.	*	17 OCT	0115	580	68.
15 OCT	1150	131	200.	*	16 OCT	0020	281	156.	*	16 OCT	1250	431	69.	*	17 OCT	0120	581	68.
15 OCT	1155	132	206.	*	16 OCT	0025	282	154.	*	16 OCT	1255	432	69.	*	17 OCT	0125	582	68.
15 OCT	1200	133	213.	*	16 OCT	0030	283	151.	*	16 OCT	1300	433	69.	*	17 OCT	0130	583	68.
15 OCT	1205	134	219.	*	16 OCT	0035	284	149.	*	16 OCT	1305	434	69.	*	17 OCT	0135	584	68.
15 OCT	1210	135	226.	*	16 OCT	0040	285	147.	*	16 OCT	1310	435	69.	*	17 OCT	0140	585	68.
15 OCT	1215	136	234.	*	16 OCT	0045	286	145.	*	16 OCT	1315	436	69.	*	17 OCT	0145	586	68.
15 OCT	1220	137	241.	*	16 OCT	0050	287	143.	*	16 OCT	1320	437	69.	*	17 OCT	0150	587	68.
15 OCT	1225	138	249.	*	16 OCT	0055	288	141.	*	16 OCT	1325	438	68.	*	17 OCT	0155	588	68.
15 OCT	1230	139	257.	*	16 OCT	0100	289	139.	*	16 OCT	1330	439	68.	*	17 OCT	0200	589	68.
15 OCT	1235	140	265.	*	16 OCT	0105	290	138.	*	16 OCT	1335	440	68.	*	17 OCT	0205	590	68.
15 OCT	1240	141	273.	*	16 OCT	0110	291	136.	*	16 OCT	1340	441	68.	*	17 OCT	0210	591	68.
15 OCT	1245	142	282.	*	16 OCT	0115	292	134.	*	16 OCT	1345	442	68.	*	17 OCT	0215	592	68.
15 OCT	1250	143	292.	*	16 OCT	0120	293	133.	*	16 OCT	1350	443	68.	*	17 OCT	0220	593	68.
15 OCT	1255	144	303.	*	16 OCT	0125	294	131.	*	16 OCT	1355	444	68.	*	17 OCT	0225	594	68.
15 OCT	1300	145	314.	*	16 OCT	0130	295	129.	*	16 OCT	1400	445	68.	*	17 OCT	0230	595	68.
15 OCT	1305	146	326.	*	16 OCT	0135	296	128.	*	16 OCT	1405	446	68.	*	17 OCT	0235	596	68.
15 OCT	1310	147	339.	*	16 OCT	0140	297	127.	*	16 OCT	1410	447	68.	*	17 OCT	0240	597	68.
15 OCT	1315	148	354.	*	16 OCT	0145	298	125.	*	16 OCT	1415	448	68.	*	17 OCT	0245	598	68.
15 OCT	1320	149	372.	*	16 OCT	0150	299	124.	*	16 OCT	1420	449	68.	*	17 OCT	0250	599	68.
15 OCT	1325	150	395.	*	16 OCT	0155	300	122.	*	16 OCT	1425	450	68.	*	17 OCT	0255	600	68.
				*					*					*				

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1646.	14.33		1008.	376.	217.	217.
		(INCHES)	1.669	2.491	2.986	2.986
		(AC-FT)	500.	747.	895.	895.

CUMULATIVE AREA = 5.62 SQ MI

*** *** *** *

HYDROGRAPH AT STATION PL10C1
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
15	OCT	0100	1	35.	15	OCT	1330	151	514.	16	OCT	0200	301	52.	16	OCT	1430	451	35.
15	OCT	0105	2	35.	15	OCT	1335	152	705.	16	OCT	0205	302	52.	16	OCT	1435	452	35.
15	OCT	0110	3	35.	15	OCT	1340	153	855.	16	OCT	0210	303	51.	16	OCT	1440	453	35.
15	OCT	0115	4	35.	15	OCT	1345	154	918.	16	OCT	0215	304	51.	16	OCT	1445	454	35.
15	OCT	0120	5	35.	15	OCT	1350	155	914.	16	OCT	0220	305	50.	16	OCT	1450	455	35.
15	OCT	0125	6	35.	15	OCT	1355	156	892.	16	OCT	0225	306	50.	16	OCT	1455	456	35.
15	OCT	0130	7	35.	15	OCT	1400	157	856.	16	OCT	0230	307	50.	16	OCT	1500	457	35.
15	OCT	0135	8	35.	15	OCT	1405	158	803.	16	OCT	0235	308	49.	16	OCT	1505	458	35.
15	OCT	0140	9	35.	15	OCT	1410	159	738.	16	OCT	0240	309	49.	16	OCT	1510	459	35.
15	OCT	0145	10	35.	15	OCT	1415	160	671.	16	OCT	0245	310	49.	16	OCT	1515	460	35.
15	OCT	0150	11	35.	15	OCT	1420	161	610.	16	OCT	0250	311	48.	16	OCT	1520	461	35.
15	OCT	0155	12	35.	15	OCT	1425	162	560.	16	OCT	0255	312	48.	16	OCT	1525	462	35.
15	OCT	0200	13	35.	15	OCT	1430	163	520.	16	OCT	0300	313	48.	16	OCT	1530	463	35.
15	OCT	0205	14	35.	15	OCT	1435	164	489.	16	OCT	0305	314	47.	16	OCT	1535	464	35.
15	OCT	0210	15	35.	15	OCT	1440	165	464.	16	OCT	0310	315	47.	16	OCT	1540	465	35.
15	OCT	0215	16	36.	15	OCT	1445	166	445.	16	OCT	0315	316	47.	16	OCT	1545	466	35.
15	OCT	0220	17	36.	15	OCT	1450	167	429.	16	OCT	0320	317	47.	16	OCT	1550	467	35.
15	OCT	0225	18	36.	15	OCT	1455	168	416.	16	OCT	0325	318	46.	16	OCT	1555	468	35.
15	OCT	0230	19	36.	15	OCT	1500	169	403.	16	OCT	0330	319	46.	16	OCT	1600	469	35.
15	OCT	0235	20	36.	15	OCT	1505	170	391.	16	OCT	0335	320	46.	16	OCT	1605	470	35.
15	OCT	0240	21	36.	15	OCT	1510	171	380.	16	OCT	0340	321	46.	16	OCT	1610	471	35.
15	OCT	0245	22	36.	15	OCT	1515	172	368.	16	OCT	0345	322	46.	16	OCT	1615	472	35.
15	OCT	0250	23	36.	15	OCT	1520	173	357.	16	OCT	0350	323	45.	16	OCT	1620	473	35.
15	OCT	0255	24	36.	15	OCT	1525	174	345.	16	OCT	0355	324	45.	16	OCT	1625	474	35.
15	OCT	0300	25	36.	15	OCT	1530	175	334.	16	OCT	0400	325	45.	16	OCT	1630	475	35.
15	OCT	0305	26	36.	15	OCT	1535	176	323.	16	OCT	0405	326	45.	16	OCT	1635	476	35.
15	OCT	0310	27	36.	15	OCT	1540	177	312.	16	OCT	0410	327	45.	16	OCT	1640	477	35.
15	OCT	0315	28	36.	15	OCT	1545	178	302.	16	OCT	0415	328	45.	16	OCT	1645	478	35.
15	OCT	0320	29	36.	15	OCT	1550	179	292.	16	OCT	0420	329	44.	16	OCT	1650	479	35.
15	OCT	0325	30	37.	15	OCT	1555	180	283.	16	OCT	0425	330	44.	16	OCT	1655	480	35.
15	OCT	0330	31	37.	15	OCT	1600	181	274.	16	OCT	0430	331	44.	16	OCT	1700	481	35.
15	OCT	0335	32	37.	15	OCT	1605	182	265.	16	OCT	0435	332	44.	16	OCT	1705	482	35.
15	OCT	0340	33	37.	15	OCT	1610	183	258.	16	OCT	0440	333	44.	16	OCT	1710	483	35.
15	OCT	0345	34	37.	15	OCT	1615	184	251.	16	OCT	0445	334	44.	16	OCT	1715	484	35.
15	OCT	0350	35	37.	15	OCT	1620	185	244.	16	OCT	0450	335	43.	16	OCT	1720	485	35.
15	OCT	0355	36	37.	15	OCT	1625	186	238.	16	OCT	0455	336	43.	16	OCT	1725	486	35.
15	OCT	0400	37	37.	15	OCT	1630	187	233.	16	OCT	0500	337	43.	16	OCT	1730	487	35.
15	OCT	0405	38	37.	15	OCT	1635	188	228.	16	OCT	0505	338	43.	16	OCT	1735	488	35.
15	OCT	0410	39	37.	15	OCT	1640	189	224.	16	OCT	0510	339	43.	16	OCT	1740	489	35.
15	OCT	0415	40	37.	15	OCT	1645	190	220.	16	OCT	0515	340	43.	16	OCT	1745	490	35.
15	OCT	0420	41	37.	15	OCT	1650	191	217.	16	OCT	0520	341	42.	16	OCT	1750	491	35.
15	OCT	0425	42	37.	15	OCT	1655	192	214.	16	OCT	0525	342	42.	16	OCT	1755	492	35.
15	OCT	0430	43	37.	15	OCT	1700	193	211.	16	OCT	0530	343	42.	16	OCT	1800	493	35.
15	OCT	0435	44	37.	15	OCT	1705	194	209.	16	OCT	0535	344	42.	16	OCT	1805	494	35.
15	OCT	0440	45	38.	15	OCT	1710	195	206.	16	OCT	0540	345	42.	16	OCT	1810	495	35.
15	OCT	0445	46	38.	15	OCT	1715	196	204.	16	OCT	0545	346	41.	16	OCT	1815	496	35.
15	OCT	0450	47	38.	15	OCT	1720	197	201.	16	OCT	0550	347	41.	16	OCT	1820	497	35.
15	OCT	0455	48	38.	15	OCT	1725	198	199.	16	OCT	0555	348	41.	16	OCT	1825	498	35.
15	OCT	0500	49	38.	15	OCT	1730	199	196.	16	OCT	0600	349	41.	16	OCT	1830	499	35.
15	OCT	0505	50	38.	15	OCT	1735	200	193.	16	OCT	0605	350	41.	16	OCT	1835	500	35.
15	OCT	0510	51	39.	15	OCT	1740	201	191.	16	OCT	0610	351	40.	16	OCT	1840	501	35.
15	OCT	0515	52	39.	15	OCT	1745	202	188.	16	OCT	0615	352	40.	16	OCT	1845	502	35.
15	OCT	0520	53	39.	15	OCT	1750	203	185.	16	OCT	0620	353	40.	16	OCT	1850	503	35.
15	OCT	0525	54	39.	15	OCT	1755	204	183.	16	OCT	0625	354	40.	16	OCT	1855	504	35.
15	OCT	0530	55	40.	15	OCT	1800	205	180.	16	OCT	0630	355	40.	16	OCT	1900	505	35.
15	OCT	0535	56	40.	15	OCT	1805	206	177.	16	OCT	0635	356	39.	16	OCT	1905	506	35.
15	OCT	0540	57	40.	15	OCT	1810	207	174.	16	OCT	0640	357	39.	16	OCT	1910	507	35.
15	OCT	0545	58	40.	15	OCT	1815	208	172.	16	OCT	0645	358	39.	16	OCT	1915	508	35.
15	OCT	0550	59	41.	15	OCT	1820	209	169.	16	OCT	0650	359	39.	16	OCT	1920	509	35.
15	OCT	0555	60	41.	15	OCT	1825	210	166.	16	OCT	0655	360	39.	16	OCT	1925	510	35.
15	OCT	0600	61	41.	15	OCT	1830	211	164.	16	OCT	0700	361	39.	16	OCT	1930	511	35.
15	OCT	0605	62	41.	15	OCT	1835	212	161.	16	OCT	0705	362	38.	16	OCT	1935	512	35.
15	OCT	0610	63	42.	15	OCT	1840	213	159.	16	OCT	0710	363	38.	16	OCT	1940	513	35.
15	OCT	0615	64	42.	15	OCT	1845	214	157.	16	OCT	0715	364	38.	16	OCT	1945	514	35.
15	OCT	0620	65	42.	15	OCT	1850	215	155.	16	OCT	0720	365	38.	16	OCT	1950	515	35.
15	OCT	0625	66	42.	15	OCT	1855	216	152.	16	OCT	0725	366	38.	16	OCT	1955	516	35.
15	OCT	0630	67	43.	15	OCT	1900	217	150.	16	OCT	0730	367	38.	16	OCT	2000	517	35.
15	OCT	0635	68	43.	15	OCT	1905	218	148.	16	OCT	0735	368	38.	16	OCT	2005	518	35.
15	OCT	0640	69	44.	15	OCT	1910	219	146.	16	OCT	0740	369	38.	16	OCT	2010	519	35.
15	OCT	0645	70	44.	15	OCT	1915	220	143.	16	OCT	0745	370	37.	16	OCT	2015	520	35.
15	OCT	0650	71	44.	15	OCT	1920	221	141.	16	OCT	0750	371	37.	16	OCT	2020	521	35.
15	OCT	0655	72	45.	15	OCT	1925	222	139.	16	OCT	0755	372	37.	16	OCT	2025	522	35.
15	OCT	0700	73	45.	15	OCT	1930	223	137.	16	OCT	0800	373	37.	16	OCT	2030	523	35.
15	OCT	0705	74	46.	15	OCT	1935	224	135.	16	OCT	0805	374	37.	16	OCT	2035	524	35.
15	OCT	0710	75	46.	15	OCT	1940	225	133.	16	OCT	0810	375	37.	16	OCT	2040	525	35.
15	OCT	0715	76	47.	15	OCT	1945	226	130.	16	OCT	0815	376	37.	16	OCT	2045	526	35.
15	OCT	0720	77	47.	15	OCT	1950	227	128.	16	OCT	0820	377	37.	16	OCT	2050	527	35.
15	OCT	0725	78	48.	15	OCT	1955	228	125.	16	OCT	0825	378	37.	16	OCT	2055	528	35.
15	OCT	0730	79	48.	15	OCT	2000	229	123.	16	OCT	0830	379	37.	16	OCT	2100	529	35.
15	OCT	0735	80	49.	15	OCT	2005	230	120.	16	OCT	0835	380	37.	16	OCT	2105	530	35.
15	OCT	0740	81	50.	15	OCT	2010	231	118.	16	OCT	0840	381	37.	16	OCT	2110	531	35.
15	OCT	0745	82	51.	15	OCT	2015	232	116.	16	OCT	0845	382	36.	16	OCT	2115	532	35.
15	OCT	0750	83	52.	15	OCT	2020	233	114.	16	OCT	0850	383	36.	16	OCT	2120	533	35.
15	OCT	0755	84	53.	15	OCT	2025	234	112.	16	OCT	0855	384	36.	16	OCT	2125	534	35.
15	OCT	0800	85	54.	15	OCT	2030	235	110.	16	OCT	0900	385	36.	16	OCT	2130	535	35.
15	OCT	0805	86	55.	15	OCT	2035	236	108.	16	OCT	0905	386	36.	16	OCT	2135	536	35.
15	OCT	0810	87	57.	15	OCT	2040	237	106.	16	OCT	0910	387	36.	16	OCT	2140	537	35.
15	OCT	0815	88	58.	15	OCT	2045	238	104.	16	OCT	0915	388	36.	16	OCT	2145	538	35.
15	OCT	0820	89	60.	15	OCT	2050	239	103.	16	OCT	0920	389	36.	16	OCT	2150	539	35.
15	OCT	0825	90	61.	15	OCT	2055	240	101.	16	OCT	0925	390	36.	16	OCT	2155	540	35.
15	OCT	0830	91	63.	15	OCT	2100	241	99.	16	OCT	0930	391	36.	16	OCT	2200	541	35.
15	OCT	0835	92	65.	15	OCT	2105	242	98.	16	OCT	0935	392	36.	16	OCT	2205	542	35.
15	OCT	0840	93	67.	15	OCT	2110	243	96.	16	OCT	0940	393	36.	16	OCT	2210	543	35.
15	OCT	0845	94	69.	15	OCT	2115	244	94.	16	OCT	0945	394	36.	16	OCT	2215	544	35.
15	OCT	0850	95	71.	15	OCT	2120	245	93.	16	OCT	0950	395	36.	16	OCT	2220	545	35.
15	OCT	0855	96	73.	15	OCT	2125	246	91.	16	OCT	0955	396	36.	16	OCT	2225	546	35.
15	OCT	0900	97	75.	15	OCT	2130	247	90.	16	OCT	1000	397	36.	16	OCT	2230	547	35.
15	OCT	0905	98	77.	15	OCT	2135	248	88.	16	OCT	1005	398	36.	16	OCT	2235	548	35.
15	OCT	0910	99	79.	15	OCT	2140	249	87.	16	OCT	1010	399	36.	16	OCT	2240	549	35.
15	OCT	0915	100	81.	15	OCT	2145	250	86.	16	OCT	1015	400	36.	16	OCT	2245	550	35.

15	OCT	0920	101	83.	*	15	OCT	2150	251	85.	*	16	OCT	1020	401	36.	*	16	OCT	2250	551	35.
15	OCT	0925	102	85.	*	15	OCT	2155	252	83.	*	16	OCT	1025	402	36.	*	16	OCT	2255	552	35.
15	OCT	0930	103	87.	*	15	OCT	2200	253	82.	*	16	OCT	1030	403	35.	*	16	OCT	2300	553	35.
15	OCT	0935	104	89.	*	15	OCT	2205	254	81.	*	16	OCT	1035	404	35.	*	16	OCT	2305	554	35.
15	OCT	0940	105	91.	*	15	OCT	2210	255	80.	*	16	OCT	1040	405	35.	*	16	OCT	2310	555	35.
15	OCT	0945	106	93.	*	15	OCT	2215	256	79.	*	16	OCT	1045	406	35.	*	16	OCT	2315	556	35.
15	OCT	0950	107	95.	*	15	OCT	2220	257	78.	*	16	OCT	1050	407	35.	*	16	OCT	2320	557	35.
15	OCT	0955	108	97.	*	15	OCT	2225	258	77.	*	16	OCT	1055	408	35.	*	16	OCT	2325	558	35.
15	OCT	1000	109	99.	*	15	OCT	2230	259	76.	*	16	OCT	1100	409	35.	*	16	OCT	2330	559	35.
15	OCT	1005	110	101.	*	15	OCT	2235	260	76.	*	16	OCT	1105	410	35.	*	16	OCT	2335	560	35.
15	OCT	1010	111	103.	*	15	OCT	2240	261	75.	*	16	OCT	1110	411	35.	*	16	OCT	2340	561	35.
15	OCT	1015	112	105.	*	15	OCT	2245	262	74.	*	16	OCT	1115	412	35.	*	16	OCT	2345	562	35.
15	OCT	1020	113	107.	*	15	OCT	2250	263	73.	*	16	OCT	1120	413	35.	*	16	OCT	2350	563	35.
15	OCT	1025	114	109.	*	15	OCT	2255	264	72.	*	16	OCT	1125	414	35.	*	16	OCT	2355	564	35.
15	OCT	1030	115	111.	*	15	OCT	2300	265	72.	*	16	OCT	1130	415	35.	*	17	OCT	0000	565	35.
15	OCT	1035	116	113.	*	15	OCT	2305	266	71.	*	16	OCT	1135	416	35.	*	17	OCT	0005	566	35.
15	OCT	1040	117	115.	*	15	OCT	2310	267	70.	*	16	OCT	1140	417	35.	*	17	OCT	0010	567	35.
15	OCT	1045	118	116.	*	15	OCT	2315	268	69.	*	16	OCT	1145	418	35.	*	17	OCT	0015	568	35.
15	OCT	1050	119	118.	*	15	OCT	2320	269	69.	*	16	OCT	1150	419	35.	*	17	OCT	0020	569	35.
15	OCT	1055	120	119.	*	15	OCT	2325	270	68.	*	16	OCT	1155	420	35.	*	17	OCT	0025	570	35.
15	OCT	1100	121	121.	*	15	OCT	2330	271	67.	*	16	OCT	1200	421	35.	*	17	OCT	0030	571	35.
15	OCT	1105	122	123.	*	15	OCT	2335	272	66.	*	16	OCT	1205	422	35.	*	17	OCT	0035	572	35.
15	OCT	1110	123	124.	*	15	OCT	2340	273	65.	*	16	OCT	1210	423	35.	*	17	OCT	0040	573	35.
15	OCT	1115	124	126.	*	15	OCT	2345	274	65.	*	16	OCT	1215	424	35.	*	17	OCT	0045	574	35.
15	OCT	1120	125	128.	*	15	OCT	2350	275	64.	*	16	OCT	1220	425	35.	*	17	OCT	0050	575	35.
15	OCT	1125	126	130.	*	15	OCT	2355	276	63.	*	16	OCT	1225	426	35.	*	17	OCT	0055	576	35.
15	OCT	1130	127	132.	*	16	OCT	0000	277	62.	*	16	OCT	1230	427	35.	*	17	OCT	0100	577	35.
15	OCT	1135	128	135.	*	16	OCT	0005	278	62.	*	16	OCT	1235	428	35.	*	17	OCT	0105	578	35.
15	OCT	1140	129	137.	*	16	OCT	0010	279	61.	*	16	OCT	1240	429	35.	*	17	OCT	0110	579	35.
15	OCT	1145	130	140.	*	16	OCT	0015	280	61.	*	16	OCT	1245	430	35.	*	17	OCT	0115	580	35.
15	OCT	1150	131	142.	*	16	OCT	0020	281	60.	*	16	OCT	1250	431	35.	*	17	OCT	0120	581	35.
15	OCT	1155	132	145.	*	16	OCT	0025	282	59.	*	16	OCT	1255	432	35.	*	17	OCT	0125	582	35.
15	OCT	1200	133	149.	*	16	OCT	0030	283	59.	*	16	OCT	1300	433	35.	*	17	OCT	0130	583	35.
15	OCT	1205	134	152.	*	16	OCT	0035	284	58.	*	16	OCT	1305	434	35.	*	17	OCT	0135	584	35.
15	OCT	1210	135	155.	*	16	OCT	0040	285	58.	*	16	OCT	1310	435	35.	*	17	OCT	0140	585	35.
15	OCT	1215	136	159.	*	16	OCT	0045	286	57.	*	16	OCT	1315	436	35.	*	17	OCT	0145	586	35.
15	OCT	1220	137	163.	*	16	OCT	0050	287	57.	*	16	OCT	1320	437	35.	*	17	OCT	0150	587	35.
15	OCT	1225	138	167.	*	16	OCT	0055	288	56.	*	16	OCT	1325	438	35.	*	17	OCT	0155	588	35.
15	OCT	1230	139	172.	*	16	OCT	0100	289	56.	*	16	OCT	1330	439	35.	*	17	OCT	0200	589	35.
15	OCT	1235	140	178.	*	16	OCT	0105	290	56.	*	16	OCT	1335	440	35.	*	17	OCT	0205	590	35.
15	OCT	1240	141	185.	*	16	OCT	0110	291	55.	*	16	OCT	1340	441	35.	*	17	OCT	0210	591	35.
15	OCT	1245	142	194.	*	16	OCT	0115	292	55.	*	16	OCT	1345	442	35.	*	17	OCT	0215	592	35.
15	OCT	1250	143	203.	*	16	OCT	0120	293	54.	*	16	OCT	1350	443	35.	*	17	OCT	0220	593	35.
15	OCT	1255	144	215.	*	16	OCT	0125	294	54.	*	16	OCT	1355	444	35.	*	17	OCT	0225	594	35.
15	OCT	1300	145	228.	*	16	OCT	0130	295	54.	*	16	OCT	1400	445	35.	*	17	OCT	0230	595	35.
15	OCT	1305	146	243.	*	16	OCT	0135	296	53.	*	16	OCT	1405	446	35.	*	17	OCT	0235	596	35.
15	OCT	1310	147	260.	*	16	OCT	0140	297	53.	*	16	OCT	1410	447	35.	*	17	OCT	0240	597	35.
15	OCT	1315	148	281.	*	16	OCT	0145	298	53.	*	16	OCT	1415	448	35.	*	17	OCT	0245	598	35.
15	OCT	1320	149	314.	*	16	OCT	0150	299	52.	*	16	OCT	1420	449	35.	*	17	OCT	0250	599	35.
15	OCT	1325	150	374.	*	16	OCT	0155	300	52.	*	16	OCT	1425	450	35.	*	17	OCT	0255	600	35.
					*						*						*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 918.	12.75		347.	146.	89.	89.
		(INCHES)	1.665	2.799	3.540	3.540
		(AC-FT)	172.	290.	366.	366.

CUMULATIVE AREA = 1.94 SQ MI

*** *

2926 KK

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* *
* PL10E *
* *
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PLEASANT GROVE CREEK

SUBBASIN RUNOFF DATA

2927 BA SUBBASIN CHARACTERISTICS
TAREA .35 SUBBASIN AREA

2959 BF BASE FLOW CHARACTERISTICS
STRTQ 1.05 INITIAL FLOW
QRCSN .00 BEGIN BASE FLOW RECESSION
RTIOR 1.00000 RECESSION CONSTANT

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HYDROGRAPH AT STATION PL10E

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
								*								
15	OCT	0100	1	.00	.00	.00	1.	*	16	OCT	0200	301	.01	.00	.00	3.
15	OCT	0105	2	.00	.00	.00	1.	*	16	OCT	0205	302	.00	.00	.00	3.
15	OCT	0110	3	.00	.00	.00	1.	*	16	OCT	0210	303	.00	.00	.00	3.
15	OCT	0115	4	.00	.00	.00	1.	*	16	OCT	0215	304	.00	.00	.00	3.
15	OCT	0120	5	.00	.00	.00	1.	*	16	OCT	0220	305	.00	.00	.00	3.
15	OCT	0125	6	.00	.00	.00	1.	*	16	OCT	0225	306	.00	.00	.00	3.
15	OCT	0130	7	.00	.00	.00	1.	*	16	OCT	0230	307	.00	.00	.00	3.
15	OCT	0135	8	.00	.00	.00	1.	*	16	OCT	0235	308	.00	.00	.00	2.
15	OCT	0140	9	.00	.00	.00	1.	*	16	OCT	0240	309	.00	.00	.00	2.
15	OCT	0145	10	.00	.00	.00	1.	*	16	OCT	0245	310	.00	.00	.00	2.
15	OCT	0150	11	.00	.00	.00	1.	*	16	OCT	0250	311	.00	.00	.00	2.
15	OCT	0155	12	.00	.00	.00	1.	*	16	OCT	0255	312	.00	.00	.00	2.

15	OCT	0200	13	.00	.00	.00	1.	*	16	OCT	0300	313	.00	.00	.00	2.
15	OCT	0205	14	.00	.00	.00	1.	*	16	OCT	0305	314	.00	.00	.00	2.
15	OCT	0210	15	.01	.00	.00	1.	*	16	OCT	0310	315	.00	.00	.00	2.
15	OCT	0215	16	.01	.00	.00	1.	*	16	OCT	0315	316	.00	.00	.00	2.
15	OCT	0220	17	.01	.00	.00	1.	*	16	OCT	0320	317	.00	.00	.00	2.
15	OCT	0225	18	.01	.00	.00	1.	*	16	OCT	0325	318	.00	.00	.00	2.
15	OCT	0230	19	.01	.00	.00	1.	*	16	OCT	0330	319	.00	.00	.00	2.
15	OCT	0235	20	.01	.00	.00	1.	*	16	OCT	0335	320	.00	.00	.00	2.
15	OCT	0240	21	.01	.00	.00	1.	*	16	OCT	0340	321	.00	.00	.00	2.
15	OCT	0245	22	.01	.00	.00	1.	*	16	OCT	0345	322	.00	.00	.00	2.
15	OCT	0250	23	.01	.00	.00	1.	*	16	OCT	0350	323	.00	.00	.00	2.
15	OCT	0255	24	.01	.00	.00	1.	*	16	OCT	0355	324	.00	.00	.00	2.
15	OCT	0300	25	.01	.00	.00	1.	*	16	OCT	0400	325	.00	.00	.00	2.
15	OCT	0305	26	.00	.00	.00	1.	*	16	OCT	0405	326	.00	.00	.00	2.
15	OCT	0310	27	.00	.00	.00	1.	*	16	OCT	0410	327	.00	.00	.00	2.
15	OCT	0315	28	.00	.00	.00	1.	*	16	OCT	0415	328	.00	.00	.00	2.
15	OCT	0320	29	.00	.00	.00	1.	*	16	OCT	0420	329	.00	.00	.00	2.
15	OCT	0325	30	.00	.00	.00	1.	*	16	OCT	0425	330	.00	.00	.00	2.
15	OCT	0330	31	.00	.00	.00	1.	*	16	OCT	0430	331	.00	.00	.00	2.
15	OCT	0335	32	.00	.00	.00	1.	*	16	OCT	0435	332	.00	.00	.00	2.
15	OCT	0340	33	.00	.00	.00	1.	*	16	OCT	0440	333	.00	.00	.00	2.
15	OCT	0345	34	.00	.00	.00	1.	*	16	OCT	0445	334	.00	.00	.00	2.
15	OCT	0350	35	.00	.00	.00	1.	*	16	OCT	0450	335	.00	.00	.00	2.
15	OCT	0355	36	.00	.00	.00	1.	*	16	OCT	0455	336	.00	.00	.00	2.
15	OCT	0400	37	.00	.00	.00	1.	*	16	OCT	0500	337	.00	.00	.00	1.
15	OCT	0405	38	.01	.00	.00	1.	*	16	OCT	0505	338	.00	.00	.00	1.
15	OCT	0410	39	.01	.00	.00	1.	*	16	OCT	0510	339	.00	.00	.00	1.
15	OCT	0415	40	.01	.00	.00	1.	*	16	OCT	0515	340	.00	.00	.00	1.
15	OCT	0420	41	.01	.00	.00	1.	*	16	OCT	0520	341	.00	.00	.00	1.
15	OCT	0425	42	.01	.00	.00	1.	*	16	OCT	0525	342	.00	.00	.00	1.
15	OCT	0430	43	.01	.00	.00	1.	*	16	OCT	0530	343	.00	.00	.00	1.
15	OCT	0435	44	.01	.00	.00	1.	*	16	OCT	0535	344	.00	.00	.00	1.
15	OCT	0440	45	.01	.00	.00	2.	*	16	OCT	0540	345	.00	.00	.00	1.
15	OCT	0445	46	.01	.00	.00	2.	*	16	OCT	0545	346	.00	.00	.00	1.
15	OCT	0450	47	.01	.00	.00	2.	*	16	OCT	0550	347	.00	.00	.00	1.
15	OCT	0455	48	.01	.00	.00	2.	*	16	OCT	0555	348	.00	.00	.00	1.
15	OCT	0500	49	.01	.00	.00	2.	*	16	OCT	0600	349	.00	.00	.00	1.
15	OCT	0505	50	.01	.00	.00	2.	*	16	OCT	0605	350	.00	.00	.00	1.
15	OCT	0510	51	.01	.00	.00	2.	*	16	OCT	0610	351	.00	.00	.00	1.
15	OCT	0515	52	.01	.00	.00	2.	*	16	OCT	0615	352	.00	.00	.00	1.
15	OCT	0520	53	.01	.00	.00	2.	*	16	OCT	0620	353	.00	.00	.00	1.
15	OCT	0525	54	.01	.00	.00	2.	*	16	OCT	0625	354	.00	.00	.00	1.
15	OCT	0530	55	.01	.00	.00	2.	*	16	OCT	0630	355	.00	.00	.00	1.
15	OCT	0535	56	.01	.00	.00	2.	*	16	OCT	0635	356	.00	.00	.00	1.
15	OCT	0540	57	.01	.00	.00	2.	*	16	OCT	0640	357	.00	.00	.00	1.
15	OCT	0545	58	.01	.00	.00	2.	*	16	OCT	0645	358	.00	.00	.00	1.
15	OCT	0550	59	.01	.00	.00	2.	*	16	OCT	0650	359	.00	.00	.00	1.
15	OCT	0555	60	.01	.00	.00	2.	*	16	OCT	0655	360	.00	.00	.00	1.
15	OCT	0600	61	.01	.00	.00	2.	*	16	OCT	0700	361	.00	.00	.00	1.
15	OCT	0605	62	.01	.00	.00	2.	*	16	OCT	0705	362	.00	.00	.00	1.
15	OCT	0610	63	.01	.00	.00	2.	*	16	OCT	0710	363	.00	.00	.00	1.
15	OCT	0615	64	.01	.00	.00	2.	*	16	OCT	0715	364	.00	.00	.00	1.
15	OCT	0620	65	.01	.00	.00	2.	*	16	OCT	0720	365	.00	.00	.00	1.
15	OCT	0625	66	.01	.00	.00	2.	*	16	OCT	0725	366	.00	.00	.00	1.
15	OCT	0630	67	.01	.00	.00	2.	*	16	OCT	0730	367	.00	.00	.00	1.
15	OCT	0635	68	.01	.00	.00	2.	*	16	OCT	0735	368	.00	.00	.00	1.
15	OCT	0640	69	.01	.00	.00	2.	*	16	OCT	0740	369	.00	.00	.00	1.
15	OCT	0645	70	.01	.00	.00	2.	*	16	OCT	0745	370	.00	.00	.00	1.
15	OCT	0650	71	.01	.00	.00	2.	*	16	OCT	0750	371	.00	.00	.00	1.
15	OCT	0655	72	.01	.00	.00	2.	*	16	OCT	0755	372	.00	.00	.00	1.
15	OCT	0700	73	.01	.00	.00	2.	*	16	OCT	0800	373	.00	.00	.00	1.
15	OCT	0705	74	.01	.00	.00	2.	*	16	OCT	0805	374	.00	.00	.00	1.
15	OCT	0710	75	.01	.00	.00	2.	*	16	OCT	0810	375	.00	.00	.00	1.
15	OCT	0715	76	.01	.00	.00	2.	*	16	OCT	0815	376	.00	.00	.00	1.
15	OCT	0720	77	.01	.00	.00	2.	*	16	OCT	0820	377	.00	.00	.00	1.
15	OCT	0725	78	.01	.00	.00	2.	*	16	OCT	0825	378	.00	.00	.00	1.
15	OCT	0730	79	.01	.00	.00	2.	*	16	OCT	0830	379	.00	.00	.00	1.
15	OCT	0735	80	.01	.00	.00	2.	*	16	OCT	0835	380	.00	.00	.00	1.
15	OCT	0740	81	.01	.00	.00	2.	*	16	OCT	0840	381	.00	.00	.00	1.
15	OCT	0745	82	.01	.00	.00	3.	*	16	OCT	0845	382	.00	.00	.00	1.
15	OCT	0750	83	.01	.00	.00	3.	*	16	OCT	0850	383	.00	.00	.00	1.
15	OCT	0755	84	.01	.00	.00	3.	*	16	OCT	0855	384	.00	.00	.00	1.
15	OCT	0800	85	.01	.00	.00	3.	*	16	OCT	0900	385	.00	.00	.00	1.
15	OCT	0805	86	.01	.00	.00	3.	*	16	OCT	0905	386	.00	.00	.00	1.
15	OCT	0810	87	.01	.00	.00	3.	*	16	OCT	0910	387	.00	.00	.00	1.
15	OCT	0815	88	.01	.00	.01	3.	*	16	OCT	0915	388	.00	.00	.00	1.
15	OCT	0820	89	.01	.00	.01	4.	*	16	OCT	0920	389	.00	.00	.00	1.
15	OCT	0825	90	.01	.00	.01	4.	*	16	OCT	0925	390	.00	.00	.00	1.
15	OCT	0830	91	.01	.00	.01	4.	*	16	OCT	0930	391	.00	.00	.00	1.
15	OCT	0835	92	.01	.00	.01	4.	*	16	OCT	0935	392	.00	.00	.00	1.
15	OCT	0840	93	.01	.00	.01	5.	*	16	OCT	0940	393	.00	.00	.00	1.
15	OCT	0845	94	.01	.00	.01	5.	*	16	OCT	0945	394	.00	.00	.00	1.
15	OCT	0850	95	.01	.00	.01	5.	*	16	OCT	0950	395	.00	.00	.00	1.
15	OCT	0855	96	.01	.00	.01	5.	*	16	OCT	0955	396	.00	.00	.00	1.
15	OCT	0900	97	.01	.00	.01	6.	*	16	OCT	1000	397	.00	.00	.00	1.
15	OCT	0905	98	.01	.00	.01	6.	*	16	OCT	1005	398	.00	.00	.00	1.
15	OCT	0910	99	.01	.00	.01	7.	*	16	OCT	1010	399	.00	.00	.00	1.
15	OCT	0915	100	.01	.00	.01	7.	*	16	OCT	1015	400	.00	.00	.00	1.
15	OCT	0920	101	.01	.00	.01	7.	*	16	OCT	1020	401	.00	.00	.00	1.
15	OCT	0925	102	.01	.00	.01	8.	*	16	OCT	1025	402	.00	.00	.00	1.
15	OCT	0930	103	.01	.00	.01	8.	*	16	OCT	1030	403	.00	.00	.00	1.
15	OCT	0935	104	.01	.00	.01	9.	*	16	OCT	1035	404	.00	.00	.00	1.
15	OCT	0940	105	.01	.00	.01	9.	*	16	OCT	1040	405	.00	.00	.00	1.
15	OCT	0945	106	.01	.00	.01	9.	*	16	OCT	1045	406	.00	.00	.00	1.
15	OCT	0950	107	.01	.00	.01	10.	*	16	OCT	1050	407	.00	.00	.00	1.
15	OCT	0955	108	.01	.00	.01	10.	*	16	OCT	1055	408	.00	.00	.00	1.
15	OCT	1000	109	.01	.00	.01	11.	*	16	OCT	1100	409	.00	.00	.00	1.
15	OCT	1005	110	.01	.00	.01	11.	*	16	OCT	1105	410	.00	.00	.00	1.
15	OCT	1010	111	.01	.00	.01	12.	*	16	OCT	1110	411	.00	.00	.00	1.
15	OCT	1015	112	.01	.00	.01	12.	*	16	OCT	1115	412	.00	.00	.00	1.
15	OCT	1020	113	.01	.00	.01	13.	*	16	OCT	1120	413	.00	.00	.00	1.
15	OCT	1025	114	.01	.00	.01	13.	*	16	OCT	1125	414	.00	.00	.00	1.
15	OCT	1030	115	.01	.00	.01	14.	*	16	OCT	1130	415	.00	.00	.00	1.
15	OCT	1035	116	.01	.00	.01	14.	*	16	OCT	1135	416	.00	.00	.00	1.
15	OCT	1040	117	.01	.00	.01	15.	*	16	OCT	1140	417	.00	.00	.00	1.
15	OCT	1045	118	.01	.00	.01	15.	*	16	OCT	1145	418	.00	.00	.00	1.
15	OCT	1050	119	.01	.00	.01	16.	*	16	OCT	1150	419	.00	.00	.00	1.

15 OCT 1055	120	.01	.00	.01	16.	*
15 OCT 1100	121	.01	.00	.01	17.	*
15 OCT 1105	122	.01	.00	.01	17.	*
15 OCT 1110	123	.01	.00	.01	17.	*
15 OCT 1115	124	.01	.00	.01	18.	*
15 OCT 1120	125	.01	.00	.01	18.	*
15 OCT 1125	126	.01	.00	.01	18.	*
15 OCT 1130	127	.01	.00	.01	19.	*
15 OCT 1135	128	.01	.00	.01	19.	*
15 OCT 1140	129	.02	.00	.01	20.	*
15 OCT 1145	130	.01	.00	.01	20.	*
15 OCT 1150	131	.02	.00	.01	20.	*
15 OCT 1155	132	.02	.00	.01	21.	*
15 OCT 1200	133	.02	.00	.01	21.	*
15 OCT 1205	134	.02	.00	.01	22.	*
15 OCT 1210	135	.02	.00	.01	23.	*
15 OCT 1215	136	.02	.00	.01	23.	*
15 OCT 1220	137	.02	.00	.01	24.	*
15 OCT 1225	138	.02	.00	.01	25.	*
15 OCT 1230	139	.02	.00	.02	25.	*
15 OCT 1235	140	.02	.00	.02	26.	*
15 OCT 1240	141	.02	.00	.02	27.	*
15 OCT 1245	142	.03	.00	.02	28.	*
15 OCT 1250	143	.03	.00	.02	30.	*
15 OCT 1255	144	.03	.00	.03	32.	*
15 OCT 1300	145	.03	.00	.03	34.	*
15 OCT 1305	146	.03	.00	.03	36.	*
15 OCT 1310	147	.04	.00	.03	38.	*
15 OCT 1315	148	.04	.00	.04	42.	*
15 OCT 1320	149	.05	.00	.05	45.	*
15 OCT 1325	150	.07	.00	.06	51.	*
15 OCT 1330	151	.19	.00	.18	60.	*
15 OCT 1335	152	.09	.00	.08	73.	*
15 OCT 1340	153	.06	.00	.05	90.	*
15 OCT 1345	154	.05	.00	.04	107.	*
15 OCT 1350	155	.04	.00	.04	120.	*
15 OCT 1355	156	.04	.00	.03	127.	*
15 OCT 1400	157	.03	.00	.03	130.	*
15 OCT 1405	158	.03	.00	.03	131.	*
15 OCT 1410	159	.03	.00	.02	130.	*
15 OCT 1415	160	.03	.00	.02	128.	*
15 OCT 1420	161	.03	.00	.02	124.	*
15 OCT 1425	162	.03	.00	.02	120.	*
15 OCT 1430	163	.02	.00	.02	115.	*
15 OCT 1435	164	.02	.00	.02	110.	*
15 OCT 1440	165	.02	.00	.01	103.	*
15 OCT 1445	166	.02	.00	.01	97.	*
15 OCT 1450	167	.02	.00	.01	90.	*
15 OCT 1455	168	.02	.00	.01	84.	*
15 OCT 1500	169	.02	.00	.01	78.	*
15 OCT 1505	170	.02	.00	.01	73.	*
15 OCT 1510	171	.02	.00	.01	68.	*
15 OCT 1515	172	.02	.00	.01	64.	*
15 OCT 1520	173	.02	.00	.01	60.	*
15 OCT 1525	174	.02	.00	.01	57.	*
15 OCT 1530	175	.02	.00	.01	54.	*
15 OCT 1535	176	.01	.00	.01	51.	*
15 OCT 1540	177	.01	.00	.01	49.	*
15 OCT 1545	178	.01	.00	.01	46.	*
15 OCT 1550	179	.01	.00	.01	44.	*
15 OCT 1555	180	.01	.00	.01	42.	*
15 OCT 1600	181	.01	.00	.01	40.	*
15 OCT 1605	182	.01	.00	.01	39.	*
15 OCT 1610	183	.01	.00	.01	37.	*
15 OCT 1615	184	.01	.00	.01	36.	*
15 OCT 1620	185	.01	.00	.01	34.	*
15 OCT 1625	186	.01	.00	.01	33.	*
15 OCT 1630	187	.01	.00	.01	32.	*
15 OCT 1635	188	.01	.00	.01	31.	*
15 OCT 1640	189	.01	.00	.01	30.	*
15 OCT 1645	190	.01	.00	.01	29.	*
15 OCT 1650	191	.01	.00	.01	28.	*
15 OCT 1655	192	.01	.00	.01	28.	*
15 OCT 1700	193	.01	.00	.01	27.	*
15 OCT 1705	194	.01	.00	.01	26.	*
15 OCT 1710	195	.01	.00	.01	26.	*
15 OCT 1715	196	.01	.00	.01	25.	*
15 OCT 1720	197	.01	.00	.01	25.	*
15 OCT 1725	198	.01	.00	.01	24.	*
15 OCT 1730	199	.01	.00	.01	24.	*
15 OCT 1735	200	.01	.00	.01	23.	*
15 OCT 1740	201	.01	.00	.01	23.	*
15 OCT 1745	202	.01	.00	.01	22.	*
15 OCT 1750	203	.01	.00	.01	22.	*
15 OCT 1755	204	.01	.00	.01	21.	*
15 OCT 1800	205	.01	.00	.01	21.	*
15 OCT 1805	206	.01	.00	.01	21.	*
15 OCT 1810	207	.01	.00	.01	20.	*
15 OCT 1815	208	.01	.00	.01	20.	*
15 OCT 1820	209	.01	.00	.01	20.	*
15 OCT 1825	210	.01	.00	.01	19.	*
15 OCT 1830	211	.01	.00	.01	19.	*
15 OCT 1835	212	.01	.00	.01	19.	*
15 OCT 1840	213	.01	.00	.01	19.	*
15 OCT 1845	214	.01	.00	.01	18.	*
15 OCT 1850	215	.01	.00	.01	18.	*
15 OCT 1855	216	.01	.00	.00	18.	*
15 OCT 1900	217	.01	.00	.00	18.	*
15 OCT 1905	218	.01	.00	.00	17.	*
15 OCT 1910	219	.01	.00	.00	17.	*
15 OCT 1915	220	.01	.00	.00	17.	*
15 OCT 1920	221	.01	.00	.00	17.	*
15 OCT 1925	222	.01	.00	.00	16.	*
15 OCT 1930	223	.01	.00	.00	16.	*
15 OCT 1935	224	.01	.00	.00	16.	*
15 OCT 1940	225	.01	.00	.00	16.	*
15 OCT 1945	226	.01	.00	.00	15.	*

16 OCT 1155	420	.00	.00	.00	1.
16 OCT 1200	421	.00	.00	.00	1.
16 OCT 1205	422	.00	.00	.00	1.
16 OCT 1210	423	.00	.00	.00	1.
16 OCT 1215	424	.00	.00	.00	1.
16 OCT 1220	425	.00	.00	.00	1.
16 OCT 1225	426	.00	.00	.00	1.
16 OCT 1230	427	.00	.00	.00	1.
16 OCT 1235	428	.00	.00	.00	1.
16 OCT 1240	429	.00	.00	.00	1.
16 OCT 1245	430	.00	.00	.00	1.
16 OCT 1250	431	.00	.00	.00	1.
16 OCT 1255	432	.00	.00	.00	1.
16 OCT 1300	433	.00	.00	.00	1.
16 OCT 1305	434	.00	.00	.00	1.
16 OCT 1310	435	.00	.00	.00	1.
16 OCT 1315	436	.00	.00	.00	1.
16 OCT 1320	437	.00	.00	.00	1.
16 OCT 1325	438	.00	.00	.00	1.
16 OCT 1330	439	.00	.00	.00	1.
16 OCT 1335	440	.00	.00	.00	1.
16 OCT 1340	441	.00	.00	.00	1.
16 OCT 1345	442	.00	.00	.00	1.
16 OCT 1350	443	.00	.00	.00	1.
16 OCT 1355	444	.00	.00	.00	1.
16 OCT 1400	445	.00	.00	.00	1.
16 OCT 1405	446	.00	.00	.00	1.
16 OCT 1410	447	.00	.00	.00	1.
16 OCT 1415	448	.00	.00	.00	1.
16 OCT 1420	449	.00	.00	.00	1.
16 OCT 1425	450	.00	.00	.00	1.
16 OCT 1430	451	.00	.00	.00	1.
16 OCT 1435	452	.00	.00	.00	1.
16 OCT 1440	453	.00	.00	.00	1.
16 OCT 1445	454	.00	.00	.00	1.
16 OCT 1450	455	.00	.00	.00	1.
16 OCT 1455	456	.00	.00	.00	1.
16 OCT 1500	457	.00	.00	.00	1.
16 OCT 1505	458	.00	.00	.00	1.
16 OCT 1510	459	.00	.00	.00	1.
16 OCT 1515	460	.00	.00	.00	1.
16 OCT 1520	461	.00	.00	.00	1.
16 OCT 1525	462	.00	.00	.00	1.
16 OCT 1530	463	.00	.00	.00	1.
16 OCT 1535	464	.00	.00	.00	1.
16 OCT 1540	465	.00	.00	.00	1.
16 OCT 1545	466	.00	.00	.00	1.
16 OCT 1550	467	.00	.00	.00	1.
16 OCT 1555	468	.00	.00	.00	1.
16 OCT 1600	469	.00	.00	.00	1.
16 OCT 1605	470	.00	.00	.00	1.
16 OCT 1610	471	.00	.00	.00	1.
16 OCT 1615	472	.00	.00	.00	1.
16 OCT 1620	473	.00	.00	.00	1.
16 OCT 1625	474	.00	.00	.00	1.
16 OCT 1630	475	.00	.00	.00	1.
16 OCT 1635	476	.00	.00	.00	1.
16 OCT 1640	477	.00	.00	.00	1.
16 OCT 1645	478	.00	.00	.00	1.
16 OCT 1650	479	.00	.00	.00	1.
16 OCT 1655	480	.00	.00	.00	1.
16 OCT 1700	481	.00	.00	.00	1.
16 OCT 1705	482	.00	.00	.00	1.
16 OCT 1710	483	.00	.00	.00	1.
16 OCT 1715	484	.00	.00	.00	1.
16 OCT 1720	485	.00	.00	.00	1.
16 OCT 1725	486	.00	.00	.00	1.
16 OCT 1730	487	.00	.00	.00	1.
16 OCT 1735	488	.00	.00	.00	1.
16 OCT 1740	489	.00	.00	.00	1.
16 OCT 1745	490	.00	.00	.00	1.
16 OCT 1750	491	.00	.00	.00	1.
16 OCT 1755	492	.00	.00	.00	1.
16 OCT 1800	493	.00	.00	.00	1.
16 OCT 1805	494	.00	.00	.00	1.
16 OCT 1810	495	.00	.00	.00	1.
16 OCT 1815	496	.00	.00	.00	1.
16 OCT 1820	497	.00	.00	.00	1.
16 OCT 1825	498	.00	.00	.00	1.
16 OCT 1830	499	.00	.00	.00	1.
16 OCT 1835	500	.00	.00	.00	1.
16 OCT 1840	501	.00	.00	.00	1.
16 OCT 1845	502	.00	.00	.00	1.
16 OCT 1850	503	.00	.00	.00	1.
16 OCT 1855	504	.00	.00	.00	1.
16 OCT 1900	505	.00	.00	.00	1.
16 OCT 1905	506	.00	.00	.00	1.
16 OCT 1910	507	.00	.00	.00	1.
16 OCT 1915	508	.00	.00	.00	1.
16 OCT 1920	509	.00	.00	.00	1.
16 OCT 1925	510	.00	.00	.00	1.
16 OCT 1930	511	.00	.00	.00	1.
16 OCT 1935	512	.00	.00	.00	1.
16 OCT 1940	513	.00	.00	.00	1.
16 OCT 1945	514	.00	.00	.00	1.
16 OCT 1950	515	.00	.00	.00	1.
16 OCT 1955	516	.00	.00	.00	1.
16 OCT 2000	517	.00	.00	.00	1.
16 OCT 2005	518	.00	.00	.00	1.
16 OCT 2010	519	.00	.00	.00	1.
16 OCT 2015	520	.00	.00	.00	1.
16 OCT 2020	521	.00	.00	.00	1.
16 OCT 2025	522	.00	.00	.00	1.
16 OCT 2030	523	.00	.00	.00	1.
16 OCT 2035	524	.00	.00	.00	1.
16 OCT 2040	525	.00	.00	.00	1.
16 OCT 2045	526	.00	.00	.00	1.

15	OCT	1950	227	.01	.00	.00	15.	*	16	OCT	2050	527	.00	.00	.00	1.
15	OCT	1955	228	.01	.00	.00	15.	*	16	OCT	2055	528	.00	.00	.00	1.
15	OCT	2000	229	.01	.00	.00	14.	*	16	OCT	2100	529	.00	.00	.00	1.
15	OCT	2005	230	.01	.00	.00	14.	*	16	OCT	2105	530	.00	.00	.00	1.
15	OCT	2010	231	.01	.00	.00	14.	*	16	OCT	2110	531	.00	.00	.00	1.
15	OCT	2015	232	.01	.00	.00	13.	*	16	OCT	2115	532	.00	.00	.00	1.
15	OCT	2020	233	.01	.00	.00	13.	*	16	OCT	2120	533	.00	.00	.00	1.
15	OCT	2025	234	.01	.00	.00	13.	*	16	OCT	2125	534	.00	.00	.00	1.
15	OCT	2030	235	.01	.00	.00	12.	*	16	OCT	2130	535	.00	.00	.00	1.
15	OCT	2035	236	.01	.00	.00	12.	*	16	OCT	2135	536	.00	.00	.00	1.
15	OCT	2040	237	.01	.00	.00	12.	*	16	OCT	2140	537	.00	.00	.00	1.
15	OCT	2045	238	.01	.00	.00	12.	*	16	OCT	2145	538	.00	.00	.00	1.
15	OCT	2050	239	.01	.00	.00	11.	*	16	OCT	2150	539	.00	.00	.00	1.
15	OCT	2055	240	.01	.00	.00	11.	*	16	OCT	2155	540	.00	.00	.00	1.
15	OCT	2100	241	.01	.00	.00	11.	*	16	OCT	2200	541	.00	.00	.00	1.
15	OCT	2105	242	.01	.00	.00	10.	*	16	OCT	2205	542	.00	.00	.00	1.
15	OCT	2110	243	.01	.00	.00	10.	*	16	OCT	2210	543	.00	.00	.00	1.
15	OCT	2115	244	.01	.00	.00	10.	*	16	OCT	2215	544	.00	.00	.00	1.
15	OCT	2120	245	.01	.00	.00	10.	*	16	OCT	2220	545	.00	.00	.00	1.
15	OCT	2125	246	.01	.00	.00	9.	*	16	OCT	2225	546	.00	.00	.00	1.
15	OCT	2130	247	.01	.00	.00	9.	*	16	OCT	2230	547	.00	.00	.00	1.
15	OCT	2135	248	.01	.00	.00	9.	*	16	OCT	2235	548	.00	.00	.00	1.
15	OCT	2140	249	.01	.00	.00	9.	*	16	OCT	2240	549	.00	.00	.00	1.
15	OCT	2145	250	.01	.00	.00	8.	*	16	OCT	2245	550	.00	.00	.00	1.
15	OCT	2150	251	.01	.00	.00	8.	*	16	OCT	2250	551	.00	.00	.00	1.
15	OCT	2155	252	.01	.00	.00	8.	*	16	OCT	2255	552	.00	.00	.00	1.
15	OCT	2200	253	.01	.00	.00	8.	*	16	OCT	2300	553	.00	.00	.00	1.
15	OCT	2205	254	.01	.00	.00	8.	*	16	OCT	2305	554	.00	.00	.00	1.
15	OCT	2210	255	.01	.00	.00	7.	*	16	OCT	2310	555	.00	.00	.00	1.
15	OCT	2215	256	.01	.00	.00	7.	*	16	OCT	2315	556	.00	.00	.00	1.
15	OCT	2220	257	.01	.00	.00	7.	*	16	OCT	2320	557	.00	.00	.00	1.
15	OCT	2225	258	.01	.00	.00	7.	*	16	OCT	2325	558	.00	.00	.00	1.
15	OCT	2230	259	.01	.00	.00	7.	*	16	OCT	2330	559	.00	.00	.00	1.
15	OCT	2235	260	.01	.00	.00	7.	*	16	OCT	2335	560	.00	.00	.00	1.
15	OCT	2240	261	.01	.00	.00	7.	*	16	OCT	2340	561	.00	.00	.00	1.
15	OCT	2245	262	.01	.00	.00	6.	*	16	OCT	2345	562	.00	.00	.00	1.
15	OCT	2250	263	.01	.00	.00	6.	*	16	OCT	2350	563	.00	.00	.00	1.
15	OCT	2255	264	.01	.00	.00	6.	*	16	OCT	2355	564	.00	.00	.00	1.
15	OCT	2300	265	.01	.00	.00	6.	*	17	OCT	0000	565	.00	.00	.00	1.
15	OCT	2305	266	.01	.00	.00	6.	*	17	OCT	0005	566	.00	.00	.00	1.
15	OCT	2310	267	.01	.00	.00	6.	*	17	OCT	0010	567	.00	.00	.00	1.
15	OCT	2315	268	.01	.00	.00	6.	*	17	OCT	0015	568	.00	.00	.00	1.
15	OCT	2320	269	.01	.00	.00	6.	*	17	OCT	0020	569	.00	.00	.00	1.
15	OCT	2325	270	.01	.00	.00	5.	*	17	OCT	0025	570	.00	.00	.00	1.
15	OCT	2330	271	.01	.00	.00	5.	*	17	OCT	0030	571	.00	.00	.00	1.
15	OCT	2335	272	.01	.00	.00	5.	*	17	OCT	0035	572	.00	.00	.00	1.
15	OCT	2340	273	.01	.00	.00	5.	*	17	OCT	0040	573	.00	.00	.00	1.
15	OCT	2345	274	.01	.00	.00	5.	*	17	OCT	0045	574	.00	.00	.00	1.
15	OCT	2350	275	.01	.00	.00	5.	*	17	OCT	0050	575	.00	.00	.00	1.
15	OCT	2355	276	.01	.00	.00	5.	*	17	OCT	0055	576	.00	.00	.00	1.
16	OCT	0000	277	.01	.00	.00	5.	*	17	OCT	0100	577	.00	.00	.00	1.
16	OCT	0005	278	.01	.00	.00	4.	*	17	OCT	0105	578	.00	.00	.00	1.
16	OCT	0010	279	.01	.00	.00	4.	*	17	OCT	0110	579	.00	.00	.00	1.
16	OCT	0015	280	.01	.00	.00	4.	*	17	OCT	0115	580	.00	.00	.00	1.
16	OCT	0020	281	.01	.00	.00	4.	*	17	OCT	0120	581	.00	.00	.00	1.
16	OCT	0025	282	.01	.00	.00	4.	*	17	OCT	0125	582	.00	.00	.00	1.
16	OCT	0030	283	.01	.00	.00	4.	*	17	OCT	0130	583	.00	.00	.00	1.
16	OCT	0035	284	.01	.00	.00	4.	*	17	OCT	0135	584	.00	.00	.00	1.
16	OCT	0040	285	.01	.00	.00	4.	*	17	OCT	0140	585	.00	.00	.00	1.
16	OCT	0045	286	.01	.00	.00	4.	*	17	OCT	0145	586	.00	.00	.00	1.
16	OCT	0050	287	.01	.00	.00	4.	*	17	OCT	0150	587	.00	.00	.00	1.
16	OCT	0055	288	.01	.00	.00	4.	*	17	OCT	0155	588	.00	.00	.00	1.
16	OCT	0100	289	.01	.00	.00	3.	*	17	OCT	0200	589	.00	.00	.00	1.
16	OCT	0105	290	.01	.00	.00	3.	*	17	OCT	0205	590	.00	.00	.00	1.
16	OCT	0110	291	.01	.00	.00	3.	*	17	OCT	0210	591	.00	.00	.00	1.
16	OCT	0115	292	.01	.00	.00	3.	*	17	OCT	0215	592	.00	.00	.00	1.
16	OCT	0120	293	.01	.00	.00	3.	*	17	OCT	0220	593	.00	.00	.00	1.
16	OCT	0125	294	.01	.00	.00	3.	*	17	OCT	0225	594	.00	.00	.00	1.
16	OCT	0130	295	.01	.00	.00	3.	*	17	OCT	0230	595	.00	.00	.00	1.
16	OCT	0135	296	.01	.00	.00	3.	*	17	OCT	0235	596	.00	.00	.00	1.
16	OCT	0140	297	.01	.00	.00	3.	*	17	OCT	0240	597	.00	.00	.00	1.
16	OCT	0145	298	.01	.00	.00	3.	*	17	OCT	0245	598	.00	.00	.00	1.
16	OCT	0150	299	.01	.00	.00	3.	*	17	OCT	0250	599	.00	.00	.00	1.
16	OCT	0155	300	.01	.00	.00	3.	*	17	OCT	0255	600	.00	.00	.00	1.
								*								

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TOTAL RAINFALL = 3.40, TOTAL LOSS = 1.43, TOTAL EXCESS = 1.98

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 131.	13.08		54.	19.	10.	10.
		(INCHES)	1.425	2.014	2.148	2.148
		(AC-FT)	27.	38.	40.	40.

CUMULATIVE AREA = .35 SQ MI

*** *** *** *

STRTQ	11.91	INITIAL FLOW
QRCSN	.00	BEGIN BASE FLOW RECESSION
RTIOR	1.00000	RECESSION CONSTANT

****

HYDROGRAPH AT STATION PL11

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
15	OCT	0100	1	.00	.00	.00	12.	16	OCT	0200	301	.01	.00	.00	28.
15	OCT	0105	2	.00	.00	.00	12.	16	OCT	0205	302	.00	.00	.00	28.
15	OCT	0110	3	.00	.00	.00	12.	16	OCT	0210	303	.00	.00	.00	27.
15	OCT	0115	4	.00	.00	.00	12.	16	OCT	0215	304	.00	.00	.00	27.
15	OCT	0120	5	.00	.00	.00	12.	16	OCT	0220	305	.00	.00	.00	26.
15	OCT	0125	6	.00	.00	.00	12.	16	OCT	0225	306	.00	.00	.00	26.
15	OCT	0130	7	.00	.00	.00	12.	16	OCT	0230	307	.00	.00	.00	25.
15	OCT	0135	8	.00	.00	.00	12.	16	OCT	0235	308	.00	.00	.00	25.
15	OCT	0140	9	.00	.00	.00	12.	16	OCT	0240	309	.00	.00	.00	24.
15	OCT	0145	10	.00	.00	.00	12.	16	OCT	0245	310	.00	.00	.00	24.
15	OCT	0150	11	.00	.00	.00	12.	16	OCT	0250	311	.00	.00	.00	23.
15	OCT	0155	12	.00	.00	.00	12.	16	OCT	0255	312	.00	.00	.00	23.
15	OCT	0200	13	.00	.00	.00	12.	16	OCT	0300	313	.00	.00	.00	22.
15	OCT	0205	14	.00	.00	.00	12.	16	OCT	0305	314	.00	.00	.00	22.
15	OCT	0210	15	.01	.00	.00	12.	16	OCT	0310	315	.00	.00	.00	22.
15	OCT	0215	16	.01	.00	.00	12.	16	OCT	0315	316	.00	.00	.00	21.
15	OCT	0220	17	.01	.00	.00	12.	16	OCT	0320	317	.00	.00	.00	21.
15	OCT	0225	18	.01	.00	.00	12.	16	OCT	0325	318	.00	.00	.00	20.
15	OCT	0230	19	.01	.00	.00	12.	16	OCT	0330	319	.00	.00	.00	20.
15	OCT	0235	20	.01	.00	.00	12.	16	OCT	0335	320	.00	.00	.00	20.
15	OCT	0240	21	.01	.00	.00	12.	16	OCT	0340	321	.00	.00	.00	19.
15	OCT	0245	22	.01	.00	.00	12.	16	OCT	0345	322	.00	.00	.00	19.
15	OCT	0250	23	.01	.00	.00	12.	16	OCT	0350	323	.00	.00	.00	18.
15	OCT	0255	24	.01	.00	.00	12.	16	OCT	0355	324	.00	.00	.00	18.
15	OCT	0300	25	.01	.00	.00	13.	16	OCT	0400	325	.00	.00	.00	18.
15	OCT	0305	26	.00	.00	.00	13.	16	OCT	0405	326	.00	.00	.00	17.
15	OCT	0310	27	.00	.00	.00	13.	16	OCT	0410	327	.00	.00	.00	17.
15	OCT	0315	28	.00	.00	.00	13.	16	OCT	0415	328	.00	.00	.00	17.
15	OCT	0320	29	.00	.00	.00	13.	16	OCT	0420	329	.00	.00	.00	17.
15	OCT	0325	30	.00	.00	.00	13.	16	OCT	0425	330	.00	.00	.00	16.
15	OCT	0330	31	.00	.00	.00	13.	16	OCT	0430	331	.00	.00	.00	16.
15	OCT	0335	32	.00	.00	.00	13.	16	OCT	0435	332	.00	.00	.00	16.
15	OCT	0340	33	.00	.00	.00	13.	16	OCT	0440	333	.00	.00	.00	16.
15	OCT	0345	34	.00	.00	.00	13.	16	OCT	0445	334	.00	.00	.00	15.
15	OCT	0350	35	.00	.00	.00	13.	16	OCT	0450	335	.00	.00	.00	15.
15	OCT	0355	36	.01	.00	.00	13.	16	OCT	0455	336	.00	.00	.00	15.
15	OCT	0400	37	.01	.00	.00	13.	16	OCT	0500	337	.00	.00	.00	15.
15	OCT	0405	38	.01	.00	.00	14.	16	OCT	0505	338	.00	.00	.00	15.
15	OCT	0410	39	.01	.00	.00	14.	16	OCT	0510	339	.00	.00	.00	15.
15	OCT	0415	40	.01	.00	.00	14.	16	OCT	0515	340	.00	.00	.00	14.
15	OCT	0420	41	.01	.00	.00	14.	16	OCT	0520	341	.00	.00	.00	14.
15	OCT	0425	42	.01	.00	.00	14.	16	OCT	0525	342	.00	.00	.00	14.
15	OCT	0430	43	.01	.00	.00	14.	16	OCT	0530	343	.00	.00	.00	14.
15	OCT	0435	44	.01	.00	.00	14.	16	OCT	0535	344	.00	.00	.00	14.
15	OCT	0440	45	.01	.00	.00	14.	16	OCT	0540	345	.00	.00	.00	14.
15	OCT	0445	46	.01	.00	.00	14.	16	OCT	0545	346	.00	.00	.00	14.
15	OCT	0450	47	.01	.00	.00	14.	16	OCT	0550	347	.00	.00	.00	14.
15	OCT	0455	48	.01	.00	.00	14.	16	OCT	0555	348	.00	.00	.00	14.
15	OCT	0500	49	.01	.00	.00	14.	16	OCT	0600	349	.00	.00	.00	14.
15	OCT	0505	50	.01	.00	.00	14.	16	OCT	0605	350	.00	.00	.00	14.
15	OCT	0510	51	.01	.00	.00	14.	16	OCT	0610	351	.00	.00	.00	13.
15	OCT	0515	52	.01	.00	.00	14.	16	OCT	0615	352	.00	.00	.00	13.
15	OCT	0520	53	.01	.00	.00	14.	16	OCT	0620	353	.00	.00	.00	13.
15	OCT	0525	54	.01	.00	.00	14.	16	OCT	0625	354	.00	.00	.00	13.
15	OCT	0530	55	.01	.00	.00	14.	16	OCT	0630	355	.00	.00	.00	13.
15	OCT	0535	56	.01	.00	.00	15.	16	OCT	0635	356	.00	.00	.00	13.
15	OCT	0540	57	.01	.00	.00	15.	16	OCT	0640	357	.00	.00	.00	13.
15	OCT	0545	58	.01	.00	.00	15.	16	OCT	0645	358	.00	.00	.00	13.
15	OCT	0550	59	.01	.00	.00	15.	16	OCT	0650	359	.00	.00	.00	13.
15	OCT	0555	60	.01	.00	.00	15.	16	OCT	0655	360	.00	.00	.00	13.
15	OCT	0600	61	.01	.00	.00	15.	16	OCT	0700	361	.00	.00	.00	13.
15	OCT	0605	62	.01	.00	.00	15.	16	OCT	0705	362	.00	.00	.00	13.
15	OCT	0610	63	.01	.00	.00	15.	16	OCT	0710	363	.00	.00	.00	13.
15	OCT	0615	64	.01	.00	.00	15.	16	OCT	0715	364	.00	.00	.00	13.
15	OCT	0620	65	.01	.00	.00	15.	16	OCT	0720	365	.00	.00	.00	13.
15	OCT	0625	66	.01	.00	.00	16.	16	OCT	0725	366	.00	.00	.00	13.
15	OCT	0630	67	.01	.00	.00	16.	16	OCT	0730	367	.00	.00	.00	13.
15	OCT	0635	68	.01	.00	.00	16.	16	OCT	0735	368	.00	.00	.00	13.
15	OCT	0640	69	.01	.00	.00	16.	16	OCT	0740	369	.00	.00	.00	13.
15	OCT	0645	70	.01	.00	.00	16.	16	OCT	0745	370	.00	.00	.00	13.
15	OCT	0650	71	.01	.00	.00	16.	16	OCT	0750	371	.00	.00	.00	13.
15	OCT	0655	72	.01	.00	.00	17.	16	OCT	0755	372	.00	.00	.00	13.
15	OCT	0700	73	.01	.00	.00	17.	16	OCT	0800	373	.00	.00	.00	13.
15	OCT	0705	74	.01	.00	.00	17.	16	OCT	0805	374	.00	.00	.00	13.
15	OCT	0710	75	.01	.00	.00	17.	16	OCT	0810	375	.00	.00	.00	13.
15	OCT	0715	76	.01	.00	.00	18.	16	OCT	0815	376	.00	.00	.00	13.
15	OCT	0720	77	.01	.00	.00	18.	16	OCT	0820	377	.00	.00	.00	13.
15	OCT	0725	78	.01	.00	.00	18.	16	OCT	0825	378	.00	.00	.00	13.
15	OCT	0730	79	.01	.00	.00	19.	16	OCT	0830	379	.00	.00	.00	13.
15	OCT	0735	80	.01	.00	.00	19.	16	OCT	0835	380	.00	.00	.00	13.
15	OCT	0740	81	.01	.00	.00	19.	16	OCT	0840	381	.00	.00	.00	13.
15	OCT	0745	82	.01	.00	.00	20.	16	OCT	0845	382	.00	.00	.00	13.
15	OCT	0750	83	.01	.00	.00	20.	16	OCT	0850	383	.00	.00	.00	13.
15	OCT	0755	84	.01	.00	.00	21.	16	OCT	0855	384	.00	.00	.00	13.
15	OCT	0800	85	.01	.00	.00	22.	16	OCT	0900	385	.00	.00	.00	13.
15	OCT	0805	86	.01	.00	.00	22.	16	OCT	0905	386	.00	.00	.00	13.
15	OCT	0810	87	.01	.00	.01	23.	16	OCT	0910	387	.00	.00	.00	13.
15	OCT	0815	88	.01	.00	.01	24.	16	OCT	0915	388	.00	.00	.00	13.
15	OCT	0820	89	.01	.00	.01	25.	16	OCT	0920	389	.00	.00	.00	13.
15	OCT	0825	90	.01	.00	.01	26.	16	OCT	0925	390	.00	.00	.00	12.
15	OCT	0830	91	.01	.00	.01	28.	16	OCT	0930	391	.00	.00	.00	12.
15	OCT	0835	92	.01	.00	.01	29.	16	OCT	0935	392	.00	.00	.00	12.
15	OCT	0840	93	.01	.00	.01	31.	16	OCT	0940	393	.00	.00	.00	12.
15	OCT	0845	94	.01	.00	.01	32.	16	OCT	0945	394	.00	.00	.00	12.

15	OCT	0850	95	.01	.00	.01	34.	*	16	OCT	0950	395	.00	.00	.00	12.
15	OCT	0855	96	.01	.00	.01	36.	*	16	OCT	0955	396	.00	.00	.00	12.
15	OCT	0900	97	.01	.00	.01	38.	*	16	OCT	1000	397	.00	.00	.00	12.
15	OCT	0905	98	.01	.00	.01	41.	*	16	OCT	1005	398	.00	.00	.00	12.
15	OCT	0910	99	.01	.00	.01	43.	*	16	OCT	1010	399	.00	.00	.00	12.
15	OCT	0915	100	.01	.00	.01	46.	*	16	OCT	1015	400	.00	.00	.00	12.
15	OCT	0920	101	.01	.00	.01	49.	*	16	OCT	1020	401	.00	.00	.00	12.
15	OCT	0925	102	.01	.00	.01	52.	*	16	OCT	1025	402	.00	.00	.00	12.
15	OCT	0930	103	.01	.00	.01	55.	*	16	OCT	1030	403	.00	.00	.00	12.
15	OCT	0935	104	.01	.00	.01	59.	*	16	OCT	1035	404	.00	.00	.00	12.
15	OCT	0940	105	.01	.00	.01	63.	*	16	OCT	1040	405	.00	.00	.00	12.
15	OCT	0945	106	.01	.00	.01	66.	*	16	OCT	1045	406	.00	.00	.00	12.
15	OCT	0950	107	.01	.00	.01	71.	*	16	OCT	1050	407	.00	.00	.00	12.
15	OCT	0955	108	.01	.00	.01	75.	*	16	OCT	1055	408	.00	.00	.00	12.
15	OCT	1000	109	.01	.00	.01	79.	*	16	OCT	1100	409	.00	.00	.00	12.
15	OCT	1005	110	.01	.00	.01	83.	*	16	OCT	1105	410	.00	.00	.00	12.
15	OCT	1010	111	.01	.00	.01	88.	*	16	OCT	1110	411	.00	.00	.00	12.
15	OCT	1015	112	.01	.00	.01	93.	*	16	OCT	1115	412	.00	.00	.00	12.
15	OCT	1020	113	.01	.00	.01	98.	*	16	OCT	1120	413	.00	.00	.00	12.
15	OCT	1025	114	.01	.00	.01	102.	*	16	OCT	1125	414	.00	.00	.00	12.
15	OCT	1030	115	.01	.00	.01	107.	*	16	OCT	1130	415	.00	.00	.00	12.
15	OCT	1035	116	.01	.00	.01	113.	*	16	OCT	1135	416	.00	.00	.00	12.
15	OCT	1040	117	.01	.00	.01	118.	*	16	OCT	1140	417	.00	.00	.00	12.
15	OCT	1045	118	.01	.00	.01	123.	*	16	OCT	1145	418	.00	.00	.00	12.
15	OCT	1050	119	.01	.00	.01	128.	*	16	OCT	1150	419	.00	.00	.00	12.
15	OCT	1055	120	.01	.00	.01	133.	*	16	OCT	1155	420	.00	.00	.00	12.
15	OCT	1100	121	.01	.00	.01	139.	*	16	OCT	1200	421	.00	.00	.00	12.
15	OCT	1105	122	.01	.00	.01	144.	*	16	OCT	1205	422	.00	.00	.00	12.
15	OCT	1110	123	.01	.00	.01	149.	*	16	OCT	1210	423	.00	.00	.00	12.
15	OCT	1115	124	.01	.00	.01	154.	*	16	OCT	1215	424	.00	.00	.00	12.
15	OCT	1120	125	.01	.00	.01	159.	*	16	OCT	1220	425	.00	.00	.00	12.
15	OCT	1125	126	.01	.00	.01	164.	*	16	OCT	1225	426	.00	.00	.00	12.
15	OCT	1130	127	.01	.00	.01	168.	*	16	OCT	1230	427	.00	.00	.00	12.
15	OCT	1135	128	.02	.00	.01	173.	*	16	OCT	1235	428	.00	.00	.00	12.
15	OCT	1140	129	.01	.00	.01	178.	*	16	OCT	1240	429	.00	.00	.00	12.
15	OCT	1145	130	.02	.00	.01	183.	*	16	OCT	1245	430	.00	.00	.00	12.
15	OCT	1150	131	.02	.00	.01	188.	*	16	OCT	1250	431	.00	.00	.00	12.
15	OCT	1155	132	.02	.00	.01	193.	*	16	OCT	1255	432	.00	.00	.00	12.
15	OCT	1200	133	.02	.00	.01	198.	*	16	OCT	1300	433	.00	.00	.00	12.
15	OCT	1205	134	.02	.00	.01	203.	*	16	OCT	1305	434	.00	.00	.00	12.
15	OCT	1210	135	.02	.00	.01	208.	*	16	OCT	1310	435	.00	.00	.00	12.
15	OCT	1215	136	.02	.00	.01	214.	*	16	OCT	1315	436	.00	.00	.00	12.
15	OCT	1220	137	.02	.00	.01	220.	*	16	OCT	1320	437	.00	.00	.00	12.
15	OCT	1225	138	.02	.00	.01	225.	*	16	OCT	1325	438	.00	.00	.00	12.
15	OCT	1230	139	.02	.00	.02	232.	*	16	OCT	1330	439	.00	.00	.00	12.
15	OCT	1235	140	.02	.00	.02	238.	*	16	OCT	1335	440	.00	.00	.00	12.
15	OCT	1240	141	.02	.00	.02	245.	*	16	OCT	1340	441	.00	.00	.00	12.
15	OCT	1245	142	.03	.00	.02	253.	*	16	OCT	1345	442	.00	.00	.00	12.
15	OCT	1250	143	.03	.00	.02	262.	*	16	OCT	1350	443	.00	.00	.00	12.
15	OCT	1255	144	.03	.00	.03	272.	*	16	OCT	1355	444	.00	.00	.00	12.
15	OCT	1300	145	.03	.00	.03	283.	*	16	OCT	1400	445	.00	.00	.00	12.
15	OCT	1305	146	.03	.00	.03	295.	*	16	OCT	1405	446	.00	.00	.00	12.
15	OCT	1310	147	.04	.00	.03	310.	*	16	OCT	1410	447	.00	.00	.00	12.
15	OCT	1315	148	.04	.00	.04	327.	*	16	OCT	1415	448	.00	.00	.00	12.
15	OCT	1320	149	.05	.00	.05	347.	*	16	OCT	1420	449	.00	.00	.00	12.
15	OCT	1325	150	.07	.00	.07	374.	*	16	OCT	1425	450	.00	.00	.00	12.
15	OCT	1330	151	.22	.00	.22	412.	*	16	OCT	1430	451	.00	.00	.00	12.
15	OCT	1335	152	.09	.00	.09	469.	*	16	OCT	1435	452	.00	.00	.00	12.
15	OCT	1340	153	.06	.00	.06	546.	*	16	OCT	1440	453	.00	.00	.00	12.
15	OCT	1345	154	.05	.00	.04	636.	*	16	OCT	1445	454	.00	.00	.00	12.
15	OCT	1350	155	.04	.00	.04	736.	*	16	OCT	1450	455	.00	.00	.00	12.
15	OCT	1355	156	.04	.00	.03	837.	*	16	OCT	1455	456	.00	.00	.00	12.
15	OCT	1400	157	.03	.00	.03	938.	*	16	OCT	1500	457	.00	.00	.00	12.
15	OCT	1405	158	.03	.00	.03	1034.	*	16	OCT	1505	458	.00	.00	.00	12.
15	OCT	1410	159	.03	.00	.02	1125.	*	16	OCT	1510	459	.00	.00	.00	12.
15	OCT	1415	160	.03	.00	.02	1205.	*	16	OCT	1515	460	.00	.00	.00	12.
15	OCT	1420	161	.03	.00	.02	1273.	*	16	OCT	1520	461	.00	.00	.00	12.
15	OCT	1425	162	.03	.00	.02	1326.	*	16	OCT	1525	462	.00	.00	.00	12.
15	OCT	1430	163	.02	.00	.02	1361.	*	16	OCT	1530	463	.00	.00	.00	12.
15	OCT	1435	164	.02	.00	.02	1378.	*	16	OCT	1535	464	.00	.00	.00	12.
15	OCT	1440	165	.02	.00	.01	1378.	*	16	OCT	1540	465	.00	.00	.00	12.
15	OCT	1445	166	.02	.00	.01	1361.	*	16	OCT	1545	466	.00	.00	.00	12.
15	OCT	1450	167	.02	.00	.01	1331.	*	16	OCT	1550	467	.00	.00	.00	12.
15	OCT	1455	168	.02	.00	.01	1289.	*	16	OCT	1555	468	.00	.00	.00	12.
15	OCT	1500	169	.02	.00	.01	1239.	*	16	OCT	1600	469	.00	.00	.00	12.
15	OCT	1505	170	.02	.00	.01	1184.	*	16	OCT	1605	470	.00	.00	.00	12.
15	OCT	1510	171	.02	.00	.01	1126.	*	16	OCT	1610	471	.00	.00	.00	12.
15	OCT	1515	172	.02	.00	.01	1068.	*	16	OCT	1615	472	.00	.00	.00	12.
15	OCT	1520	173	.02	.00	.01	1010.	*	16	OCT	1620	473	.00	.00	.00	12.
15	OCT	1525	174	.02	.00	.01	954.	*	16	OCT	1625	474	.00	.00	.00	12.
15	OCT	1530	175	.02	.00	.01	900.	*	16	OCT	1630	475	.00	.00	.00	12.
15	OCT	1535	176	.01	.00	.01	849.	*	16	OCT	1635	476	.00	.00	.00	12.
15	OCT	1540	177	.01	.00	.01	802.	*	16	OCT	1640	477	.00	.00	.00	12.
15	OCT	1545	178	.01	.00	.01	757.	*	16	OCT	1645	478	.00	.00	.00	12.
15	OCT	1550	179	.01	.00	.01	716.	*	16	OCT	1650	479	.00	.00	.00	12.
15	OCT	1555	180	.01	.00	.01	677.	*	16	OCT	1655	480	.00	.00	.00	12.
15	OCT	1600	181	.01	.00	.01	642.	*	16	OCT	1700	481	.00	.00	.00	12.
15	OCT	1605	182	.01	.00	.01	609.	*	16	OCT	1705	482	.00	.00	.00	12.
15	OCT	1610	183	.01	.00	.01	579.	*	16	OCT	1710	483	.00	.00	.00	12.
15	OCT	1615	184	.01	.00	.01	551.	*	16	OCT	1715	484	.00	.00	.00	12.
15	OCT	1620	185	.01	.00	.01	526.	*	16	OCT	1720	485	.00	.00	.00	12.
15	OCT	1625	186	.01	.00	.01	502.	*	16	OCT	1725	486	.00	.00	.00	12.
15	OCT	1630	187	.01	.00	.01	481.	*	16	OCT	1730	487	.00	.00	.00	12.
15	OCT	1635	188	.01	.00	.01	460.	*	16	OCT	1735	488	.00	.00	.00	12.
15	OCT	1640	189	.01	.00	.01	442.	*	16	OCT	1740	489	.00	.00	.00	12.
15	OCT	1645	190	.01	.00	.01	425.	*	16	OCT	1745	490	.00	.00	.00	12.
15	OCT	1650	191	.01	.00	.01	409.	*	16	OCT	1750	491	.00	.00	.00	12.
15	OCT	1655	192	.01	.00	.01	394.	*	16	OCT	1755	492	.00	.00	.00	12.
15	OCT	1700	193	.01	.00	.01	380.	*	16	OCT	1800	493	.00	.00	.00	12.
15	OCT	1705	194	.01	.00	.01	368.	*	16	OCT	1805	494	.00	.00	.00	12.
15	OCT	1710	195	.01	.00	.01	356.	*	16	OCT	1810	495	.00	.00	.00	12.
15	OCT	1715	196	.01	.00	.01	345.	*	16	OCT	1815	496	.00	.00	.00	12.
15	OCT	1720	197	.01	.00	.01	335.	*	16	OCT	1820	497	.00	.00	.00	12.
15	OCT	1725	198	.01	.00	.01	325.	*	16	OCT	1825	498	.00	.00	.00	12.
15	OCT	1730	199	.01	.00	.01	316.	*	16	OCT	1830	499	.00	.00	.00	12.
15	OCT	1735	200	.01	.00	.01	308.	*	16	OCT	1835	500	.00	.00	.00	12.
15	OCT	1740	201	.01	.00	.01	300.	*	16	OCT	1840	501	.00	.00	.00	12.

15	OCT	1745	202	.01	.00	.01	293.	*	16	OCT	1845	502	.00	.00	.00	12.
15	OCT	1750	203	.01	.00	.01	286.	*	16	OCT	1850	503	.00	.00	.00	12.
15	OCT	1755	204	.01	.00	.01	279.	*	16	OCT	1855	504	.00	.00	.00	12.
15	OCT	1800	205	.01	.00	.01	273.	*	16	OCT	1900	505	.00	.00	.00	12.
15	OCT	1805	206	.01	.00	.01	267.	*	16	OCT	1905	506	.00	.00	.00	12.
15	OCT	1810	207	.01	.00	.01	261.	*	16	OCT	1910	507	.00	.00	.00	12.
15	OCT	1815	208	.01	.00	.01	256.	*	16	OCT	1915	508	.00	.00	.00	12.
15	OCT	1820	209	.01	.00	.01	251.	*	16	OCT	1920	509	.00	.00	.00	12.
15	OCT	1825	210	.01	.00	.01	246.	*	16	OCT	1925	510	.00	.00	.00	12.
15	OCT	1830	211	.01	.00	.01	242.	*	16	OCT	1930	511	.00	.00	.00	12.
15	OCT	1835	212	.01	.00	.01	237.	*	16	OCT	1935	512	.00	.00	.00	12.
15	OCT	1840	213	.01	.00	.01	233.	*	16	OCT	1940	513	.00	.00	.00	12.
15	OCT	1845	214	.01	.00	.01	229.	*	16	OCT	1945	514	.00	.00	.00	12.
15	OCT	1850	215	.01	.00	.01	225.	*	16	OCT	1950	515	.00	.00	.00	12.
15	OCT	1855	216	.01	.00	.00	221.	*	16	OCT	1955	516	.00	.00	.00	12.
15	OCT	1900	217	.01	.00	.00	217.	*	16	OCT	2000	517	.00	.00	.00	12.
15	OCT	1905	218	.01	.00	.00	214.	*	16	OCT	2005	518	.00	.00	.00	12.
15	OCT	1910	219	.01	.00	.00	210.	*	16	OCT	2010	519	.00	.00	.00	12.
15	OCT	1915	220	.01	.00	.00	207.	*	16	OCT	2015	520	.00	.00	.00	12.
15	OCT	1920	221	.01	.00	.00	203.	*	16	OCT	2020	521	.00	.00	.00	12.
15	OCT	1925	222	.01	.00	.00	200.	*	16	OCT	2025	522	.00	.00	.00	12.
15	OCT	1930	223	.01	.00	.00	197.	*	16	OCT	2030	523	.00	.00	.00	12.
15	OCT	1935	224	.01	.00	.00	194.	*	16	OCT	2035	524	.00	.00	.00	12.
15	OCT	1940	225	.01	.00	.00	190.	*	16	OCT	2040	525	.00	.00	.00	12.
15	OCT	1945	226	.01	.00	.00	187.	*	16	OCT	2045	526	.00	.00	.00	12.
15	OCT	1950	227	.01	.00	.00	184.	*	16	OCT	2050	527	.00	.00	.00	12.
15	OCT	1955	228	.01	.00	.00	181.	*	16	OCT	2055	528	.00	.00	.00	12.
15	OCT	2000	229	.01	.00	.00	178.	*	16	OCT	2100	529	.00	.00	.00	12.
15	OCT	2005	230	.01	.00	.00	174.	*	16	OCT	2105	530	.00	.00	.00	12.
15	OCT	2010	231	.01	.00	.00	171.	*	16	OCT	2110	531	.00	.00	.00	12.
15	OCT	2015	232	.01	.00	.00	168.	*	16	OCT	2115	532	.00	.00	.00	12.
15	OCT	2020	233	.01	.00	.00	164.	*	16	OCT	2120	533	.00	.00	.00	12.
15	OCT	2025	234	.01	.00	.00	161.	*	16	OCT	2125	534	.00	.00	.00	12.
15	OCT	2030	235	.01	.00	.00	158.	*	16	OCT	2130	535	.00	.00	.00	12.
15	OCT	2035	236	.01	.00	.00	154.	*	16	OCT	2135	536	.00	.00	.00	12.
15	OCT	2040	237	.01	.00	.00	151.	*	16	OCT	2140	537	.00	.00	.00	12.
15	OCT	2045	238	.01	.00	.00	148.	*	16	OCT	2145	538	.00	.00	.00	12.
15	OCT	2050	239	.01	.00	.00	144.	*	16	OCT	2150	539	.00	.00	.00	12.
15	OCT	2055	240	.01	.00	.00	141.	*	16	OCT	2155	540	.00	.00	.00	12.
15	OCT	2100	241	.01	.00	.00	138.	*	16	OCT	2200	541	.00	.00	.00	12.
15	OCT	2105	242	.01	.00	.00	135.	*	16	OCT	2205	542	.00	.00	.00	12.
15	OCT	2110	243	.01	.00	.00	131.	*	16	OCT	2210	543	.00	.00	.00	12.
15	OCT	2115	244	.01	.00	.00	128.	*	16	OCT	2215	544	.00	.00	.00	12.
15	OCT	2120	245	.01	.00	.00	125.	*	16	OCT	2220	545	.00	.00	.00	12.
15	OCT	2125	246	.01	.00	.00	121.	*	16	OCT	2225	546	.00	.00	.00	12.
15	OCT	2130	247	.01	.00	.00	118.	*	16	OCT	2230	547	.00	.00	.00	12.
15	OCT	2135	248	.01	.00	.00	115.	*	16	OCT	2235	548	.00	.00	.00	12.
15	OCT	2140	249	.01	.00	.00	112.	*	16	OCT	2240	549	.00	.00	.00	12.
15	OCT	2145	250	.01	.00	.00	109.	*	16	OCT	2245	550	.00	.00	.00	12.
15	OCT	2150	251	.01	.00	.00	106.	*	16	OCT	2250	551	.00	.00	.00	12.
15	OCT	2155	252	.01	.00	.00	102.	*	16	OCT	2255	552	.00	.00	.00	12.
15	OCT	2200	253	.01	.00	.00	99.	*	16	OCT	2300	553	.00	.00	.00	12.
15	OCT	2205	254	.01	.00	.00	97.	*	16	OCT	2305	554	.00	.00	.00	12.
15	OCT	2210	255	.01	.00	.00	94.	*	16	OCT	2310	555	.00	.00	.00	12.
15	OCT	2215	256	.01	.00	.00	91.	*	16	OCT	2315	556	.00	.00	.00	12.
15	OCT	2220	257	.01	.00	.00	88.	*	16	OCT	2320	557	.00	.00	.00	12.
15	OCT	2225	258	.01	.00	.00	85.	*	16	OCT	2325	558	.00	.00	.00	12.
15	OCT	2230	259	.01	.00	.00	83.	*	16	OCT	2330	559	.00	.00	.00	12.
15	OCT	2235	260	.01	.00	.00	80.	*	16	OCT	2335	560	.00	.00	.00	12.
15	OCT	2240	261	.01	.00	.00	78.	*	16	OCT	2340	561	.00	.00	.00	12.
15	OCT	2245	262	.01	.00	.00	76.	*	16	OCT	2345	562	.00	.00	.00	12.
15	OCT	2250	263	.01	.00	.00	73.	*	16	OCT	2350	563	.00	.00	.00	12.
15	OCT	2255	264	.01	.00	.00	71.	*	16	OCT	2355	564	.00	.00	.00	12.
15	OCT	2300	265	.01	.00	.00	69.	*	17	OCT	0000	565	.00	.00	.00	12.
15	OCT	2305	266	.01	.00	.00	67.	*	17	OCT	0005	566	.00	.00	.00	12.
15	OCT	2310	267	.01	.00	.00	65.	*	17	OCT	0010	567	.00	.00	.00	12.
15	OCT	2315	268	.01	.00	.00	64.	*	17	OCT	0015	568	.00	.00	.00	12.
15	OCT	2320	269	.01	.00	.00	62.	*	17	OCT	0020	569	.00	.00	.00	12.
15	OCT	2325	270	.01	.00	.00	60.	*	17	OCT	0025	570	.00	.00	.00	12.
15	OCT	2330	271	.01	.00	.00	59.	*	17	OCT	0030	571	.00	.00	.00	12.
15	OCT	2335	272	.01	.00	.00	57.	*	17	OCT	0035	572	.00	.00	.00	12.
15	OCT	2340	273	.01	.00	.00	56.	*	17	OCT	0040	573	.00	.00	.00	12.
15	OCT	2345	274	.01	.00	.00	54.	*	17	OCT	0045	574	.00	.00	.00	12.
15	OCT	2350	275	.01	.00	.00	53.	*	17	OCT	0050	575	.00	.00	.00	12.
15	OCT	2355	276	.01	.00	.00	52.	*	17	OCT	0055	576	.00	.00	.00	12.
16	OCT	0000	277	.01	.00	.00	50.	*	17	OCT	0100	577	.00	.00	.00	12.
16	OCT	0005	278	.01	.00	.00	49.	*	17	OCT	0105	578	.00	.00	.00	12.
16	OCT	0010	279	.01	.00	.00	48.	*	17	OCT	0110	579	.00	.00	.00	12.
16	OCT	0015	280	.01	.00	.00	47.	*	17	OCT	0115	580	.00	.00	.00	12.
16	OCT	0020	281	.01	.00	.00	46.	*	17	OCT	0120	581	.00	.00	.00	12.
16	OCT	0025	282	.01	.00	.00	45.	*	17	OCT	0125	582	.00	.00	.00	12.
16	OCT	0030	283	.01	.00	.00	43.	*	17	OCT	0130	583	.00	.00	.00	12.
16	OCT	0035	284	.01	.00	.00	42.	*	17	OCT	0135	584	.00	.00	.00	12.
16	OCT	0040	285	.01	.00	.00	41.	*	17	OCT	0140	585	.00	.00	.00	12.
16	OCT	0045	286	.01	.00	.00	40.	*	17	OCT	0145	586	.00	.00	.00	12.
16	OCT	0050	287	.01	.00	.00	39.	*	17	OCT	0150	587	.00	.00	.00	12.
16	OCT	0055	288	.01	.00	.00	38.	*	17	OCT	0155	588	.00	.00	.00	12.
16	OCT	0100	289	.01	.00	.00	37.	*	17	OCT	0200	589	.00	.00	.00	12.
16	OCT	0105	290	.01	.00	.00	37.	*	17	OCT	0205	590	.00	.00	.00	12.
16	OCT	0110	291	.01	.00	.00	36.	*	17	OCT	0210	591	.00	.00	.00	12.
16	OCT	0115	292	.01	.00	.00	35.	*	17	OCT	0215	592	.00	.00	.00	12.
16	OCT	0120	293	.01	.00	.00	34.	*	17	OCT	0220	593	.00	.00	.00	12.
16	OCT	0125	294	.01	.00	.00	33.	*	17	OCT	0225	594	.00	.00	.00	12.
16	OCT	0130	295	.01	.00	.00	32.	*	17	OCT	0230	595	.00	.00	.00	12.
16	OCT	0135	296	.01	.00	.00	32.	*	17	OCT	0235	596	.00	.00	.00	12.
16	OCT	0140	297	.01	.00	.00	31.	*	17	OCT	0240	597	.00	.00	.00	12.
16	OCT	0145	298	.01	.00	.00	30.	*	17	OCT	0245	598	.00	.00	.00	12.
16	OCT	0150	299	.01	.00	.00	30.	*	17	OCT	0250	599	.00	.00	.00	12.
16	OCT	0155	300	.01	.00	.00	29.	*	17	OCT	0255	600	.00	.00	.00	12.

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TOTAL RAINFALL = 3.48, TOTAL LOSS = 1.43, TOTAL EXCESS = 2.05

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)				

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                    (CFS)
+    1378.     13.58                623.        213.        109.        109.
                (INCHES)            1.458       1.999       2.124       2.124
                 (AC-FT)              309.        423.        450.        450.

                CUMULATIVE AREA =     3.97 SQ MI


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          *            *
2404 KK   *    PL10B+  *
          *            *
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2405 HC          HYDROGRAPH COMBINATION
                      ICOMP          3  NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION PL10B+
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
15	OCT	0100	1	108.	15	OCT	1330	151	2573.	16	OCT	0200	301	743.	16	OCT	1430	451	119.
15	OCT	0105	2	108.	15	OCT	1335	152	2679.	16	OCT	0205	302	735.	16	OCT	1435	452	119.
15	OCT	0110	3	108.	15	OCT	1340	153	2809.	16	OCT	0210	303	728.	16	OCT	1440	453	118.
15	OCT	0115	4	108.	15	OCT	1345	154	2953.	16	OCT	0215	304	721.	16	OCT	1445	454	118.
15	OCT	0120	5	108.	15	OCT	1350	155	3099.	16	OCT	0220	305	714.	16	OCT	1450	455	118.
15	OCT	0125	6	108.	15	OCT	1355	156	3236.	16	OCT	0225	306	707.	16	OCT	1455	456	118.
15	OCT	0130	7	108.	15	OCT	1400	157	3363.	16	OCT	0230	307	700.	16	OCT	1500	457	118.
15	OCT	0135	8	108.	15	OCT	1405	158	3483.	16	OCT	0235	308	693.	16	OCT	1505	458	118.
15	OCT	0140	9	108.	15	OCT	1410	159	3598.	16	OCT	0240	309	686.	16	OCT	1510	459	118.
15	OCT	0145	10	108.	15	OCT	1415	160	3709.	16	OCT	0245	310	679.	16	OCT	1515	460	118.
15	OCT	0150	11	108.	15	OCT	1420	161	3818.	16	OCT	0250	311	672.	16	OCT	1520	461	118.
15	OCT	0155	12	109.	15	OCT	1425	162	3926.	16	OCT	0255	312	665.	16	OCT	1525	462	117.
15	OCT	0200	13	109.	15	OCT	1430	163	4034.	16	OCT	0300	313	659.	16	OCT	1530	463	117.
15	OCT	0205	14	109.	15	OCT	1435	164	4142.	16	OCT	0305	314	652.	16	OCT	1535	464	117.
15	OCT	0210	15	109.	15	OCT	1440	165	4249.	16	OCT	0310	315	645.	16	OCT	1540	465	117.
15	OCT	0215	16	110.	15	OCT	1445	166	4356.	16	OCT	0315	316	638.	16	OCT	1545	466	117.
15	OCT	0220	17	110.	15	OCT	1450	167	4461.	16	OCT	0320	317	631.	16	OCT	1550	467	117.
15	OCT	0225	18	111.	15	OCT	1455	168	4563.	16	OCT	0325	318	624.	16	OCT	1555	468	117.
15	OCT	0230	19	111.	15	OCT	1500	169	4663.	16	OCT	0330	319	616.	16	OCT	1600	469	117.
15	OCT	0235	20	112.	15	OCT	1505	170	4760.	16	OCT	0335	320	609.	16	OCT	1605	470	117.
15	OCT	0240	21	113.	15	OCT	1510	171	4853.	16	OCT	0340	321	601.	16	OCT	1610	471	117.
15	OCT	0245	22	114.	15	OCT	1515	172	4943.	16	OCT	0345	322	593.	16	OCT	1615	472	117.
15	OCT	0250	23	115.	15	OCT	1520	173	5028.	16	OCT	0350	323	585.	16	OCT	1620	473	117.
15	OCT	0255	24	116.	15	OCT	1525	174	5109.	16	OCT	0355	324	577.	16	OCT	1625	474	116.
15	OCT	0300	25	117.	15	OCT	1530	175	5186.	16	OCT	0400	325	569.	16	OCT	1630	475	116.
15	OCT	0305	26	118.	15	OCT	1535	176	5256.	16	OCT	0405	326	561.	16	OCT	1635	476	116.
15	OCT	0310	27	120.	15	OCT	1540	177	5322.	16	OCT	0410	327	552.	16	OCT	1640	477	116.
15	OCT	0315	28	121.	15	OCT	1545	178	5380.	16	OCT	0415	328	543.	16	OCT	1645	478	116.
15	OCT	0320	29	123.	15	OCT	1550	179	5432.	16	OCT	0420	329	534.	16	OCT	1650	479	116.
15	OCT	0325	30	124.	15	OCT	1555	180	5477.	16	OCT	0425	330	525.	16	OCT	1655	480	116.
15	OCT	0330	31	126.	15	OCT	1600	181	5514.	16	OCT	0430	331	516.	16	OCT	1700	481	116.
15	OCT	0335	32	127.	15	OCT	1605	182	5542.	16	OCT	0435	332	506.	16	OCT	1705	482	116.
15	OCT	0340	33	129.	15	OCT	1610	183	5560.	16	OCT	0440	333	497.	16	OCT	1710	483	116.
15	OCT	0345	34	131.	15	OCT	1615	184	5570.	16	OCT	0445	334	487.	16	OCT	1715	484	116.
15	OCT	0350	35	134.	15	OCT	1620	185	5569.	16	OCT	0450	335	478.	16	OCT	1720	485	116.
15	OCT	0355	36	136.	15	OCT	1625	186	5558.	16	OCT	0455	336	468.	16	OCT	1725	486	116.
15	OCT	0400	37	139.	15	OCT	1630	187	5535.	16	OCT	0500	337	459.	16	OCT	1730	487	116.
15	OCT	0405	38	142.	15	OCT	1635	188	5501.	16	OCT	0505	338	449.	16	OCT	1735	488	116.
15	OCT	0410	39	145.	15	OCT	1640	189	5456.	16	OCT	0510	339	440.	16	OCT	1740	489	116.
15	OCT	0415	40	149.	15	OCT	1645	190	5400.	16	OCT	0515	340	430.	16	OCT	1745	490	116.
15	OCT	0420	41	153.	15	OCT	1650	191	5332.	16	OCT	0520	341	421.	16	OCT	1750	491	116.
15	OCT	0425	42	157.	15	OCT	1655	192	5255.	16	OCT	0525	342	412.	16	OCT	1755	492	116.
15	OCT	0430	43	163.	15	OCT	1700	193	5170.	16	OCT	0530	343	403.	16	OCT	1800	493	116.
15	OCT	0435	44	169.	15	OCT	1705	194	5077.	16	OCT	0535	344	394.	16	OCT	1805	494	115.
15	OCT	0440	45	175.	15	OCT	1710	195	4980.	16	OCT	0540	345	385.	16	OCT	1810	495	115.
15	OCT	0445	46	183.	15	OCT	1715	196	4878.	16	OCT	0545	346	376.	16	OCT	1815	496	115.
15	OCT	0450	47	191.	15	OCT	1720	197	4775.	16	OCT	0550	347	367.	16	OCT	1820	497	115.
15	OCT	0455	48	200.	15	OCT	1725	198	4670.	16	OCT	0555	348	359.	16	OCT	1825	498	115.
15	OCT	0500	49	210.	15	OCT	1730	199	4566.	16	OCT	0600	349	351.	16	OCT	1830	499	115.
15	OCT	0505	50	221.	15	OCT	1735	200	4464.	16	OCT	0605	350	342.	16	OCT	1835	500	115.
15	OCT	0510	51	233.	15	OCT	1740	201	4363.	16	OCT	0610	351	334.	16	OCT	1840	501	115.
15	OCT	0515	52	246.	15	OCT	1745	202	4264.	16	OCT	0615	352	326.	16	OCT	1845	502	115.
15	OCT	0520	53	260.	15	OCT	1750	203	4167.	16	OCT	0620	353	319.	16	OCT	1850	503	115.
15	OCT	0525	54	274.	15	OCT	1755	204	4072.	16	OCT	0625	354	311.	16	OCT	1855	504	115.
15	OCT	0530	55	288.	15	OCT	1800	205	3979.	16	OCT	0630	355	303.	16	OCT	1900	505	115.
15	OCT	0535	56	303.	15	OCT	1805	206	3887.	16	OCT	0635	356	296.	16	OCT	1905	506	115.
15	OCT	0540	57	318.	15	OCT	1810	207	3796.	16	OCT	0640	357	289.	16	OCT	1910	507	115.
15	OCT	0545	58	334.	15	OCT	1815	208	3706.	16	OCT	0645	358	282.	16	OCT	1915	508	115.
15	OCT	0550	59	349.	15	OCT	1820	209	3619.	16	OCT	0650	359	275.	16	OCT	1920	509	115.
15	OCT	0555	60	364.	15	OCT	1825	210	3534.	16	OCT	0655	360	268.	16	OCT	1925	510	115.
15	OCT	0600	61	379.	15	OCT	1830	211	3452.	16	OCT	0700	361	262.	16	OCT	1930	511	115.
15	OCT	0605	62	393.	15	OCT	1835	212	3372.	16	OCT	0705	362	255.	16	OCT	1935	512	115.
15	OCT	0610	63	407.	15	OCT	1840	213	3295.	16	OCT	0710	363	249.	16	OCT	1940	513	115.
15	OCT	0615	64	420.	15	OCT	1845	214	3220.	16	OCT	0715	364	243.	16	OCT	1945	514	115.
15	OCT	0620	65	433.	15	OCT	1850	215	3148.	16	OCT	0720	365	238.	16	OCT	1950	515	115.
15	OCT	0625	66	445.	15	OCT	1855	216	3077.	16	OCT	0725	366	232.	16	OCT	1955	516	115.
15	OCT	0630	67	456.	15	OCT	1900	217	3008.	16	OCT	0730	367	227.	16	OCT	2000	517	115.
15	OCT	0635	68	466.	15	OCT	1905	218	2938.	16	OCT	0735	368	222.	16	OCT	2005	518	115.
15	OCT	0640	69	476.	15	OCT	1910	219	2868.	16	OCT	0740	369	217.	16	OCT	2010	519	115.
15	OCT	0645	70	485.	15	OCT	1915	220	2800.	16	OCT	0745	370	213.	16	OCT	2015	520	115.
15	OCT	0650	71	494.	15	OCT	1920	221	2733.	16	OCT	0750	371	208.	16	OCT	2020	521	115.
15	OCT	0655	72	502.	15	OCT	1925	222	2668.	16	OCT	0755	372	204.	16	OCT	2025	522	115.
15	OCT	0700	73	509.	15	OCT	1930	223	2605.	16	OCT	0800	373	200.	16	OCT	2030	523	115.

15	OCT	0705	74	516.	*	15	OCT	1935	224	2545.	*	16	OCT	0805	374	196.	*	16	OCT	2035	524	115.
15	OCT	0710	75	523.	*	15	OCT	1940	225	2487.	*	16	OCT	0810	375	193.	*	16	OCT	2040	525	115.
15	OCT	0715	76	529.	*	15	OCT	1945	226	2432.	*	16	OCT	0815	376	189.	*	16	OCT	2045	526	115.
15	OCT	0720	77	536.	*	15	OCT	1950	227	2379.	*	16	OCT	0820	377	186.	*	16	OCT	2050	527	115.
15	OCT	0725	78	542.	*	15	OCT	1955	228	2330.	*	16	OCT	0825	378	183.	*	16	OCT	2055	528	115.
15	OCT	0730	79	548.	*	15	OCT	2000	229	2283.	*	16	OCT	0830	379	180.	*	16	OCT	2100	529	115.
15	OCT	0735	80	554.	*	15	OCT	2005	230	2239.	*	16	OCT	0835	380	177.	*	16	OCT	2105	530	115.
15	OCT	0740	81	560.	*	15	OCT	2010	231	2198.	*	16	OCT	0840	381	174.	*	16	OCT	2110	531	115.
15	OCT	0745	82	567.	*	15	OCT	2015	232	2159.	*	16	OCT	0845	382	172.	*	16	OCT	2115	532	115.
15	OCT	0750	83	573.	*	15	OCT	2020	233	2121.	*	16	OCT	0850	383	169.	*	16	OCT	2120	533	115.
15	OCT	0755	84	580.	*	15	OCT	2025	234	2085.	*	16	OCT	0855	384	167.	*	16	OCT	2125	534	115.
15	OCT	0800	85	587.	*	15	OCT	2030	235	2051.	*	16	OCT	0900	385	165.	*	16	OCT	2130	535	115.
15	OCT	0805	86	594.	*	15	OCT	2035	236	2017.	*	16	OCT	0905	386	163.	*	16	OCT	2135	536	115.
15	OCT	0810	87	602.	*	15	OCT	2040	237	1985.	*	16	OCT	0910	387	161.	*	16	OCT	2140	537	115.
15	OCT	0815	88	610.	*	15	OCT	2045	238	1953.	*	16	OCT	0915	388	159.	*	16	OCT	2145	538	114.
15	OCT	0820	89	619.	*	15	OCT	2050	239	1922.	*	16	OCT	0920	389	157.	*	16	OCT	2150	539	114.
15	OCT	0825	90	629.	*	15	OCT	2055	240	1891.	*	16	OCT	0925	390	155.	*	16	OCT	2155	540	114.
15	OCT	0830	91	638.	*	15	OCT	2100	241	1861.	*	16	OCT	0930	391	153.	*	16	OCT	2200	541	114.
15	OCT	0835	92	649.	*	15	OCT	2105	242	1832.	*	16	OCT	0935	392	152.	*	16	OCT	2205	542	114.
15	OCT	0840	93	660.	*	15	OCT	2110	243	1803.	*	16	OCT	0940	393	150.	*	16	OCT	2210	543	114.
15	OCT	0845	94	672.	*	15	OCT	2115	244	1774.	*	16	OCT	0945	394	149.	*	16	OCT	2215	544	114.
15	OCT	0850	95	685.	*	15	OCT	2120	245	1745.	*	16	OCT	0950	395	147.	*	16	OCT	2220	545	114.
15	OCT	0855	96	698.	*	15	OCT	2125	246	1717.	*	16	OCT	0955	396	146.	*	16	OCT	2225	546	114.
15	OCT	0900	97	712.	*	15	OCT	2130	247	1688.	*	16	OCT	1000	397	145.	*	16	OCT	2230	547	114.
15	OCT	0905	98	728.	*	15	OCT	2135	248	1660.	*	16	OCT	1005	398	143.	*	16	OCT	2235	548	114.
15	OCT	0910	99	744.	*	15	OCT	2140	249	1632.	*	16	OCT	1010	399	142.	*	16	OCT	2240	549	114.
15	OCT	0915	100	761.	*	15	OCT	2145	250	1604.	*	16	OCT	1015	400	141.	*	16	OCT	2245	550	114.
15	OCT	0920	101	779.	*	15	OCT	2150	251	1577.	*	16	OCT	1020	401	140.	*	16	OCT	2250	551	114.
15	OCT	0925	102	799.	*	15	OCT	2155	252	1549.	*	16	OCT	1025	402	139.	*	16	OCT	2255	552	114.
15	OCT	0930	103	819.	*	15	OCT	2200	253	1522.	*	16	OCT	1030	403	138.	*	16	OCT	2300	553	114.
15	OCT	0935	104	840.	*	15	OCT	2205	254	1495.	*	16	OCT	1035	404	137.	*	16	OCT	2305	554	114.
15	OCT	0940	105	863.	*	15	OCT	2210	255	1468.	*	16	OCT	1040	405	136.	*	16	OCT	2310	555	114.
15	OCT	0945	106	886.	*	15	OCT	2215	256	1441.	*	16	OCT	1045	406	136.	*	16	OCT	2315	556	114.
15	OCT	0950	107	911.	*	15	OCT	2220	257	1415.	*	16	OCT	1050	407	135.	*	16	OCT	2320	557	114.
15	OCT	0955	108	936.	*	15	OCT	2225	258	1389.	*	16	OCT	1055	408	134.	*	16	OCT	2325	558	114.
15	OCT	1000	109	963.	*	15	OCT	2230	259	1363.	*	16	OCT	1100	409	133.	*	16	OCT	2330	559	114.
15	OCT	1005	110	990.	*	15	OCT	2235	260	1338.	*	16	OCT	1105	410	133.	*	16	OCT	2335	560	114.
15	OCT	1010	111	1018.	*	15	OCT	2240	261	1313.	*	16	OCT	1110	411	132.	*	16	OCT	2340	561	114.
15	OCT	1015	112	1046.	*	15	OCT	2245	262	1289.	*	16	OCT	1115	412	131.	*	16	OCT	2345	562	114.
15	OCT	1020	113	1076.	*	15	OCT	2250	263	1265.	*	16	OCT	1120	413	131.	*	16	OCT	2350	563	114.
15	OCT	1025	114	1107.	*	15	OCT	2255	264	1241.	*	16	OCT	1125	414	130.	*	16	OCT	2355	564	114.
15	OCT	1030	115	1138.	*	15	OCT	2300	265	1218.	*	16	OCT	1130	415	129.	*	17	OCT	0000	565	114.
15	OCT	1035	116	1170.	*	15	OCT	2305	266	1196.	*	16	OCT	1135	416	129.	*	17	OCT	0005	566	114.
15	OCT	1040	117	1202.	*	15	OCT	2310	267	1175.	*	16	OCT	1140	417	128.	*	17	OCT	0010	567	114.
15	OCT	1045	118	1236.	*	15	OCT	2315	268	1154.	*	16	OCT	1145	418	128.	*	17	OCT	0015	568	114.
15	OCT	1050	119	1269.	*	15	OCT	2320	269	1134.	*	16	OCT	1150	419	127.	*	17	OCT	0020	569	114.
15	OCT	1055	120	1303.	*	15	OCT	2325	270	1114.	*	16	OCT	1155	420	127.	*	17	OCT	0025	570	114.
15	OCT	1100	121	1338.	*	15	OCT	2330	271	1095.	*	16	OCT	1200	421	126.	*	17	OCT	0030	571	114.
15	OCT	1105	122	1373.	*	15	OCT	2335	272	1077.	*	16	OCT	1205	422	126.	*	17	OCT	0035	572	114.
15	OCT	1110	123	1408.	*	15	OCT	2340	273	1060.	*	16	OCT	1210	423	126.	*	17	OCT	0040	573	114.
15	OCT	1115	124	1443.	*	15	OCT	2345	274	1043.	*	16	OCT	1215	424	125.	*	17	OCT	0045	574	114.
15	OCT	1120	125	1477.	*	15	OCT	2350	275	1027.	*	16	OCT	1220	425	125.	*	17	OCT	0050	575	114.
15	OCT	1125	126	1512.	*	15	OCT	2355	276	1011.	*	16	OCT	1225	426	124.	*	17	OCT	0055	576	114.
15	OCT	1130	127	1547.	*	16	OCT	0000	277	996.	*	16	OCT	1230	427	124.	*	17	OCT	0100	577	114.
15	OCT	1135	128	1581.	*	16	OCT	0005	278	982.	*	16	OCT	1235	428	124.	*	17	OCT	0105	578	114.
15	OCT	1140	129	1615.	*	16	OCT	0010	279	968.	*	16	OCT	1240	429	123.	*	17	OCT	0110	579	114.
15	OCT	1145	130	1648.	*	16	OCT	0015	280	955.	*	16	OCT	1245	430	123.	*	17	OCT	0115	580	114.
15	OCT	1150	131	1682.	*	16	OCT	0020	281	942.	*	16	OCT	1250	431	123.	*	17	OCT	0120	581	114.
15	OCT	1155	132	1716.	*	16	OCT	0025	282	929.	*	16	OCT	1255	432	122.	*	17	OCT	0125	582	114.
15	OCT	1200	133	1749.	*	16	OCT	0030	283	917.	*	16	OCT	1300	433	122.	*	17	OCT	0130	583	114.
15	OCT	1205	134	1783.	*	16	OCT	0035	284	905.	*	16	OCT	1305	434	122.	*	17	OCT	0135	584	114.
15	OCT	1210	135	1816.	*	16	OCT	0040	285	894.	*	16	OCT	1310	435	122.	*	17	OCT	0140	585	114.
15	OCT	1215	136	1850.	*	16	OCT	0045	286	882.	*	16	OCT	1315	436	121.	*	17	OCT	0145	586	114.
15	OCT	1220	137	1885.	*	16	OCT	0050	287	871.	*	16	OCT	1320	437	121.	*	17	OCT	0150	587	114.
15	OCT	1225	138	1920.	*	16	OCT	0055	288	861.	*	16	OCT	1325	438	121.	*	17	OCT	0155	588	114.
15	OCT	1230	139	1955.	*	16	OCT	0100	289	850.	*	16	OCT	1330	439	121.	*	17	OCT	0200	589	114.
15	OCT	1235	140	1992.	*	16	OCT	0105	290	840.	*	16	OCT	1335	440	121.	*	17	OCT	0205	590	114.
15	OCT	1240	141	2029.	*	16	OCT	0110	291	830.	*	16	OCT	1340	441	120.	*	17	OCT	0210	591	114.
15	OCT	1245	142	2069.	*	16	OCT	0115	292	820.	*	16	OCT	1345	442	120.	*	17	OCT	0215	592	114.
15	OCT	1250	143	2110.	*	16	OCT	0120	293	811.	*	16	OCT	1350	443	120.	*	17	OCT	0220	593	114.
15	OCT	1255	144	2154.	*	16	OCT	0125	294	802.	*	16	OCT	1355	444	120.	*	17	OCT	0225	594	114.
15	OCT	1300	145	2200.	*	16	OCT	0130	295	793.	*	16	OCT	1400	445	120.	*	17	OCT	0230	595	114.
15	OCT	1305	146	2250.	*	16	OCT	0135	296	784.	*	16	OCT	1405	446	119.	*	17	OCT	0235	596	114.
15	OCT	1310	147	2303.	*	16	OCT	0140	297	775.	*	16	OCT	1410	447	119.	*	17	OCT	0240	597	114.
15	OCT	1315	148	2360.	*	16	OCT	0145	298	767.	*	16	OCT	1415	448	119.	*	17	OCT	0245	598	114.
15	OCT	1320	149	2421.	*	16	OCT	0150	299	759.	*	16	OCT	1420	449	119.	*	17	OCT	0250	599	114.
15	OCT	1325	150	2489.	*	16	OCT	0155	300	751.	*	16	OCT	1425	450	119.	*	17	OCT	0255	600	114.
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 5570.	15.25		4261.	1885.	980.	980.
		(INCHES)	1.341	2.374	2.566	2.566
		(AC-FT)	2113.	3739.	4043.	4043.

CUMULATIVE AREA = 29.54 SQ MI

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50-year, 24 hour hydrogrpahs: PL10+, PL10C1, PL10E, PL11, PL10B+

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          *            *
2917 KK   *    PL10+   *     COMBINE FIDDYMENT PROPERTY WITHIN PL10D
          *            *
          **************

2918 HC          HYDROGRAPH COMBINATION
                      ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE
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HYDROGRAPH AT STATION PL10+
SUM OF 2 HYDROGRAPHS

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DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
15	OCT	0100	1	68.	15	OCT	1330	151	531.	16	OCT	0200	301	127.	16	OCT	1430	451	68.
15	OCT	0105	2	68.	15	OCT	1335	152	599.	16	OCT	0205	302	126.	16	OCT	1435	452	68.
15	OCT	0110	3	68.	15	OCT	1340	153	688.	16	OCT	0210	303	125.	16	OCT	1440	453	68.
15	OCT	0115	4	68.	15	OCT	1345	154	790.	16	OCT	0215	304	124.	16	OCT	1445	454	68.
15	OCT	0120	5	68.	15	OCT	1350	155	898.	16	OCT	0220	305	122.	16	OCT	1450	455	68.
15	OCT	0125	6	68.	15	OCT	1355	156	1008.	16	OCT	0225	306	121.	16	OCT	1455	456	68.
15	OCT	0130	7	68.	15	OCT	1400	157	1117.	16	OCT	0230	307	120.	16	OCT	1500	457	68.
15	OCT	0135	8	68.	15	OCT	1405	158	1226.	16	OCT	0235	308	119.	16	OCT	1505	458	68.
15	OCT	0140	9	68.	15	OCT	1410	159	1331.	16	OCT	0240	309	118.	16	OCT	1510	459	68.
15	OCT	0145	10	68.	15	OCT	1415	160	1430.	16	OCT	0245	310	116.	16	OCT	1515	460	68.
15	OCT	0150	11	68.	15	OCT	1420	161	1520.	16	OCT	0250	311	115.	16	OCT	1520	461	68.
15	OCT	0155	12	68.	15	OCT	1425	162	1601.	16	OCT	0255	312	114.	16	OCT	1525	462	68.
15	OCT	0200	13	68.	15	OCT	1430	163	1672.	16	OCT	0300	313	113.	16	OCT	1530	463	68.
15	OCT	0205	14	68.	15	OCT	1435	164	1734.	16	OCT	0305	314	112.	16	OCT	1535	464	68.
15	OCT	0210	15	68.	15	OCT	1440	165	1787.	16	OCT	0310	315	111.	16	OCT	1540	465	68.
15	OCT	0215	16	68.	15	OCT	1445	166	1831.	16	OCT	0315	316	110.	16	OCT	1545	466	68.
15	OCT	0220	17	68.	15	OCT	1450	167	1867.	16	OCT	0320	317	109.	16	OCT	1550	467	68.
15	OCT	0225	18	68.	15	OCT	1455	168	1895.	16	OCT	0325	318	108.	16	OCT	1555	468	68.
15	OCT	0230	19	68.	15	OCT	1500	169	1914.	16	OCT	0330	319	107.	16	OCT	1600	469	68.
15	OCT	0235	20	68.	15	OCT	1505	170	1926.	16	OCT	0335	320	106.	16	OCT	1605	470	68.
15	OCT	0240	21	68.	15	OCT	1510	171	1930.	16	OCT	0340	321	105.	16	OCT	1610	471	68.
15	OCT	0245	22	68.	15	OCT	1515	172	1927.	16	OCT	0345	322	104.	16	OCT	1615	472	68.
15	OCT	0250	23	68.	15	OCT	1520	173	1917.	16	OCT	0350	323	104.	16	OCT	1620	473	68.
15	OCT	0255	24	68.	15	OCT	1525	174	1900.	16	OCT	0355	324	103.	16	OCT	1625	474	68.
15	OCT	0300	25	68.	15	OCT	1530	175	1878.	16	OCT	0400	325	102.	16	OCT	1630	475	68.
15	OCT	0305	26	68.	15	OCT	1535	176	1850.	16	OCT	0405	326	101.	16	OCT	1635	476	68.
15	OCT	0310	27	69.	15	OCT	1540	177	1817.	16	OCT	0410	327	100.	16	OCT	1640	477	68.
15	OCT	0315	28	69.	15	OCT	1545	178	1780.	16	OCT	0415	328	100.	16	OCT	1645	478	68.
15	OCT	0320	29	69.	15	OCT	1550	179	1739.	16	OCT	0420	329	99.	16	OCT	1650	479	68.
15	OCT	0325	30	69.	15	OCT	1555	180	1695.	16	OCT	0425	330	98.	16	OCT	1655	480	68.
15	OCT	0330	31	69.	15	OCT	1600	181	1649.	16	OCT	0430	331	97.	16	OCT	1700	481	68.
15	OCT	0335	32	69.	15	OCT	1605	182	1601.	16	OCT	0435	332	97.	16	OCT	1705	482	68.
15	OCT	0340	33	69.	15	OCT	1610	183	1551.	16	OCT	0440	333	96.	16	OCT	1710	483	68.
15	OCT	0345	34	69.	15	OCT	1615	184	1502.	16	OCT	0445	334	95.	16	OCT	1715	484	68.
15	OCT	0350	35	69.	15	OCT	1620	185	1451.	16	OCT	0450	335	95.	16	OCT	1720	485	68.
15	OCT	0355	36	69.	15	OCT	1625	186	1402.	16	OCT	0455	336	94.	16	OCT	1725	486	68.
15	OCT	0400	37	69.	15	OCT	1630	187	1352.	16	OCT	0500	337	93.	16	OCT	1730	487	68.
15	OCT	0405	38	69.	15	OCT	1635	188	1304.	16	OCT	0505	338	93.	16	OCT	1735	488	68.
15	OCT	0410	39	69.	15	OCT	1640	189	1257.	16	OCT	0510	339	92.	16	OCT	1740	489	68.
15	OCT	0415	40	69.	15	OCT	1645	190	1211.	16	OCT	0515	340	91.	16	OCT	1745	490	68.
15	OCT	0420	41	69.	15	OCT	1650	191	1166.	16	OCT	0520	341	91.	16	OCT	1750	491	68.
15	OCT	0425	42	70.	15	OCT	1655	192	1123.	16	OCT	0525	342	90.	16	OCT	1755	492	68.
15	OCT	0430	43	70.	15	OCT	1700	193	1082.	16	OCT	0530	343	89.	16	OCT	1800	493	68.
15	OCT	0435	44	70.	15	OCT	1705	194	1043.	16	OCT	0535	344	89.	16	OCT	1805	494	68.
15	OCT	0440	45	70.	15	OCT	1710	195	1005.	16	OCT	0540	345	88.	16	OCT	1810	495	68.
15	OCT	0445	46	70.	15	OCT	1715	196	969.	16	OCT	0545	346	88.	16	OCT	1815	496	68.
15	OCT	0450	47	70.	15	OCT	1720	197	935.	16	OCT	0550	347	87.	16	OCT	1820	497	68.
15	OCT	0455	48	71.	15	OCT	1725	198	902.	16	OCT	0555	348	86.	16	OCT	1825	498	68.
15	OCT	0500	49	71.	15	OCT	1730	199	871.	16	OCT	0600	349	86.	16	OCT	1830	499	68.
15	OCT	0505	50	71.	15	OCT	1735	200	842.	16	OCT	0605	350	85.	16	OCT	1835	500	68.
15	OCT	0510	51	71.	15	OCT	1740	201	814.	16	OCT	0610	351	85.	16	OCT	1840	501	68.
15	OCT	0515	52	71.	15	OCT	1745	202	788.	16	OCT	0615	352	84.	16	OCT	1845	502	68.
15	OCT	0520	53	72.	15	OCT	1750	203	763.	16	OCT	0620	353	84.	16	OCT	1850	503	68.
15	OCT	0525	54	72.	15	OCT	1755	204	740.	16	OCT	0625	354	83.	16	OCT	1855	504	68.
15	OCT	0530	55	72.	15	OCT	1800	205	718.	16	OCT	0630	355	83.	16	OCT	1900	505	68.
15	OCT	0535	56	73.	15	OCT	1805	206	697.	16	OCT	0635	356	82.	16	OCT	1905	506	68.
15	OCT	0540	57	73.	15	OCT	1810	207	677.	16	OCT	0640	357	82.	16	OCT	1910	507	68.
15	OCT	0545	58	73.	15	OCT	1815	208	658.	16	OCT	0645	358	81.	16	OCT	1915	508	68.
15	OCT	0550	59	74.	15	OCT	1820	209	640.	16	OCT	0650	359	81.	16	OCT	1920	509	68.
15	OCT	0555	60	74.	15	OCT	1825	210	623.	16	OCT	0655	360	80.	16	OCT	1925	510	68.
15	OCT	0600	61	74.	15	OCT	1830	211	606.	16	OCT	0700	361	80.	16	OCT	1930	511	68.
15	OCT	0605	62	75.	15	OCT	1835	212	591.	16	OCT	0705	362	79.	16	OCT	1935	512	68.
15	OCT	0610	63	75.	15	OCT	1840	213	576.	16	OCT	0710	363	79.	16	OCT	1940	513	68.
15	OCT	0615	64	76.	15	OCT	1845	214	562.	16	OCT	0715	364	79.	16	OCT	1945	514	68.
15	OCT	0620	65	76.	15	OCT	1850	215	549.	16	OCT	0720	365	78.	16	OCT	1950	515	68.
15	OCT	0625	66	76.	15	OCT	1855	216	536.	16	OCT	0725	366	78.	16	OCT	1955	516	68.
15	OCT	0630	67	77.	15	OCT	1900	217	524.	16	OCT	0730	367	77.	16	OCT	2000	517	68.
15	OCT	0635	68	77.	15	OCT	1905	218	513.	16	OCT	0735	368	77.	16	OCT	2005	518	68.
15	OCT	0640	69	78.	15	OCT	1910	219	502.	16	OCT	0740	369	77.	16	OCT	2010	519	68.
15	OCT	0645	70	78.	15	OCT	1915	220	491.	16	OCT	0745	370	76.	16	OCT	2015	520	68.
15	OCT	0650	71	79.	15	OCT	1920	221	481.	16	OCT	0750	371	76.	16	OCT	2020	521	68.
15	OCT	0655	72	79.	15	OCT	1925	222	472.	16	OCT	0755	372	76.	16	OCT	2025	522	68.
15	OCT	0700	73	80.	15	OCT	1930	223	462.	16	OCT	0800	373	76.	16	OCT	2030	523	68.
15	OCT	0705	74	80.	15	OCT	1935	224	453.	16	OCT	0805	374	75.	16	OCT	2035	524	68.

15 OCT	0710	75	81.	*	15 OCT	1940	225	445.	*	16 OCT	0810	375	75.	*	16 OCT	2040	525	68.
15 OCT	0715	76	81.	*	15 OCT	1945	226	436.	*	16 OCT	0815	376	75.	*	16 OCT	2045	526	68.
15 OCT	0720	77	82.	*	15 OCT	1950	227	428.	*	16 OCT	0820	377	74.	*	16 OCT	2050	527	68.
15 OCT	0725	78	83.	*	15 OCT	1955	228	420.	*	16 OCT	0825	378	74.	*	16 OCT	2055	528	68.
15 OCT	0730	79	83.	*	15 OCT	2000	229	412.	*	16 OCT	0830	379	74.	*	16 OCT	2100	529	68.
15 OCT	0735	80	84.	*	15 OCT	2005	230	405.	*	16 OCT	0835	380	74.	*	16 OCT	2105	530	68.
15 OCT	0740	81	85.	*	15 OCT	2010	231	398.	*	16 OCT	0840	381	73.	*	16 OCT	2110	531	68.
15 OCT	0745	82	85.	*	15 OCT	2015	232	390.	*	16 OCT	0845	382	73.	*	16 OCT	2115	532	68.
15 OCT	0750	83	86.	*	15 OCT	2020	233	383.	*	16 OCT	0850	383	73.	*	16 OCT	2120	533	68.
15 OCT	0755	84	87.	*	15 OCT	2025	234	377.	*	16 OCT	0855	384	73.	*	16 OCT	2125	534	68.
15 OCT	0800	85	88.	*	15 OCT	2030	235	370.	*	16 OCT	0900	385	73.	*	16 OCT	2130	535	68.
15 OCT	0805	86	89.	*	15 OCT	2035	236	363.	*	16 OCT	0905	386	72.	*	16 OCT	2135	536	68.
15 OCT	0810	87	90.	*	15 OCT	2040	237	357.	*	16 OCT	0910	387	72.	*	16 OCT	2140	537	68.
15 OCT	0815	88	92.	*	15 OCT	2045	238	350.	*	16 OCT	0915	388	72.	*	16 OCT	2145	538	68.
15 OCT	0820	89	93.	*	15 OCT	2050	239	344.	*	16 OCT	0920	389	72.	*	16 OCT	2150	539	68.
15 OCT	0825	90	94.	*	15 OCT	2055	240	338.	*	16 OCT	0925	390	72.	*	16 OCT	2155	540	68.
15 OCT	0830	91	96.	*	15 OCT	2100	241	332.	*	16 OCT	0930	391	72.	*	16 OCT	2200	541	68.
15 OCT	0835	92	97.	*	15 OCT	2105	242	326.	*	16 OCT	0935	392	71.	*	16 OCT	2205	542	68.
15 OCT	0840	93	99.	*	15 OCT	2110	243	320.	*	16 OCT	0940	393	71.	*	16 OCT	2210	543	68.
15 OCT	0845	94	101.	*	15 OCT	2115	244	314.	*	16 OCT	0945	394	71.	*	16 OCT	2215	544	68.
15 OCT	0850	95	103.	*	15 OCT	2120	245	308.	*	16 OCT	0950	395	71.	*	16 OCT	2220	545	68.
15 OCT	0855	96	105.	*	15 OCT	2125	246	303.	*	16 OCT	0955	396	71.	*	16 OCT	2225	546	68.
15 OCT	0900	97	107.	*	15 OCT	2130	247	297.	*	16 OCT	1000	397	71.	*	16 OCT	2230	547	68.
15 OCT	0905	98	109.	*	15 OCT	2135	248	292.	*	16 OCT	1005	398	71.	*	16 OCT	2235	548	68.
15 OCT	0910	99	111.	*	15 OCT	2140	249	287.	*	16 OCT	1010	399	71.	*	16 OCT	2240	549	68.
15 OCT	0915	100	113.	*	15 OCT	2145	250	282.	*	16 OCT	1015	400	70.	*	16 OCT	2245	550	68.
15 OCT	0920	101	116.	*	15 OCT	2150	251	277.	*	16 OCT	1020	401	70.	*	16 OCT	2250	551	68.
15 OCT	0925	102	118.	*	15 OCT	2155	252	272.	*	16 OCT	1025	402	70.	*	16 OCT	2255	552	68.
15 OCT	0930	103	121.	*	15 OCT	2200	253	267.	*	16 OCT	1030	403	70.	*	16 OCT	2300	553	68.
15 OCT	0935	104	124.	*	15 OCT	2205	254	262.	*	16 OCT	1035	404	70.	*	16 OCT	2305	554	68.
15 OCT	0940	105	126.	*	15 OCT	2210	255	257.	*	16 OCT	1040	405	70.	*	16 OCT	2310	555	68.
15 OCT	0945	106	129.	*	15 OCT	2215	256	253.	*	16 OCT	1045	406	70.	*	16 OCT	2315	556	68.
15 OCT	0950	107	132.	*	15 OCT	2220	257	248.	*	16 OCT	1050	407	70.	*	16 OCT	2320	557	68.
15 OCT	0955	108	135.	*	15 OCT	2225	258	244.	*	16 OCT	1055	408	70.	*	16 OCT	2325	558	68.
15 OCT	1000	109	138.	*	15 OCT	2230	259	240.	*	16 OCT	1100	409	70.	*	16 OCT	2330	559	68.
15 OCT	1005	110	142.	*	15 OCT	2235	260	235.	*	16 OCT	1105	410	70.	*	16 OCT	2335	560	68.
15 OCT	1010	111	145.	*	15 OCT	2240	261	231.	*	16 OCT	1110	411	70.	*	16 OCT	2340	561	68.
15 OCT	1015	112	149.	*	15 OCT	2245	262	227.	*	16 OCT	1115	412	70.	*	16 OCT	2345	562	68.
15 OCT	1020	113	152.	*	15 OCT	2250	263	223.	*	16 OCT	1120	413	69.	*	16 OCT	2350	563	68.
15 OCT	1025	114	156.	*	15 OCT	2255	264	219.	*	16 OCT	1125	414	69.	*	16 OCT	2355	564	68.
15 OCT	1030	115	160.	*	15 OCT	2300	265	215.	*	16 OCT	1130	415	69.	*	17 OCT	0000	565	68.
15 OCT	1035	116	165.	*	15 OCT	2305	266	212.	*	16 OCT	1135	416	69.	*	17 OCT	0005	566	68.
15 OCT	1040	117	169.	*	15 OCT	2310	267	208.	*	16 OCT	1140	417	69.	*	17 OCT	0010	567	68.
15 OCT	1045	118	174.	*	15 OCT	2315	268	204.	*	16 OCT	1145	418	69.	*	17 OCT	0015	568	68.
15 OCT	1050	119	178.	*	15 OCT	2320	269	201.	*	16 OCT	1150	419	69.	*	17 OCT	0020	569	68.
15 OCT	1055	120	183.	*	15 OCT	2325	270	197.	*	16 OCT	1155	420	69.	*	17 OCT	0025	570	68.
15 OCT	1100	121	189.	*	15 OCT	2330	271	194.	*	16 OCT	1200	421	69.	*	17 OCT	0030	571	68.
15 OCT	1105	122	194.	*	15 OCT	2335	272	191.	*	16 OCT	1205	422	69.	*	17 OCT	0035	572	68.
15 OCT	1110	123	200.	*	15 OCT	2340	273	187.	*	16 OCT	1210	423	69.	*	17 OCT	0040	573	68.
15 OCT	1115	124	205.	*	15 OCT	2345	274	184.	*	16 OCT	1215	424	69.	*	17 OCT	0045	574	68.
15 OCT	1120	125	211.	*	15 OCT	2350	275	181.	*	16 OCT	1220	425	69.	*	17 OCT	0050	575	68.
15 OCT	1125	126	218.	*	15 OCT	2355	276	178.	*	16 OCT	1225	426	69.	*	17 OCT	0055	576	68.
15 OCT	1130	127	224.	*	16 OCT	0000	277	175.	*	16 OCT	1230	427	69.	*	17 OCT	0100	577	68.
15 OCT	1135	128	231.	*	16 OCT	0005	278	173.	*	16 OCT	1235	428	69.	*	17 OCT	0105	578	68.
15 OCT	1140	129	238.	*	16 OCT	0010	279	170.	*	16 OCT	1240	429	69.	*	17 OCT	0110	579	68.
15 OCT	1145	130	245.	*	16 OCT	0015	280	167.	*	16 OCT	1245	430	69.	*	17 OCT	0115	580	68.
15 OCT	1150	131	253.	*	16 OCT	0020	281	165.	*	16 OCT	1250	431	69.	*	17 OCT	0120	581	68.
15 OCT	1155	132	260.	*	16 OCT	0025	282	162.	*	16 OCT	1255	432	69.	*	17 OCT	0125	582	68.
15 OCT	1200	133	268.	*	16 OCT	0030	283	160.	*	16 OCT	1300	433	69.	*	17 OCT	0130	583	68.
15 OCT	1205	134	276.	*	16 OCT	0035	284	158.	*	16 OCT	1305	434	69.	*	17 OCT	0135	584	68.
15 OCT	1210	135	284.	*	16 OCT	0040	285	155.	*	16 OCT	1310	435	69.	*	17 OCT	0140	585	68.
15 OCT	1215	136	292.	*	16 OCT	0045	286	153.	*	16 OCT	1315	436	69.	*	17 OCT	0145	586	68.
15 OCT	1220	137	301.	*	16 OCT	0050	287	151.	*	16 OCT	1320	437	69.	*	17 OCT	0150	587	68.
15 OCT	1225	138	310.	*	16 OCT	0055	288	149.	*	16 OCT	1325	438	69.	*	17 OCT	0155	588	68.
15 OCT	1230	139	319.	*	16 OCT	0100	289	147.	*	16 OCT	1330	439	69.	*	17 OCT	0200	589	68.
15 OCT	1235	140	329.	*	16 OCT	0105	290	145.	*	16 OCT	1335	440	69.	*	17 OCT	0205	590	68.
15 OCT	1240	141	339.	*	16 OCT	0110	291	144.	*	16 OCT	1340	441	69.	*	17 OCT	0210	591	68.
15 OCT	1245	142	350.	*	16 OCT	0115	292	142.	*	16 OCT	1345	442	69.	*	17 OCT	0215	592	68.
15 OCT	1250	143	361.	*	16 OCT	0120	293	140.	*	16 OCT	1350	443	69.	*	17 OCT	0220	593	68.
15 OCT	1255	144	374.	*	16 OCT	0125	294	138.	*	16 OCT	1355	444	69.	*	17 OCT	0225	594	68.
15 OCT	1300	145	387.	*	16 OCT	0130	295	137.	*	16 OCT	1400	445	69.	*	17 OCT	0230	595	68.
15 OCT	1305	146	402.	*	16 OCT	0135	296	135.	*	16 OCT	1405	446	69.	*	17 OCT	0235	596	68.
15 OCT	1310	147	418.	*	16 OCT	0140	297	133.	*	16 OCT	1410	447	69.	*	17 OCT	0240	597	68.
15 OCT	1315	148	437.	*	16 OCT	0145	298	132.	*	16 OCT	1415	448	68.	*	17 OCT	0245	598	68.
15 OCT	1320	149	458.	*	16 OCT	0150	299	130.	*	16 OCT	1420	449	68.	*	17 OCT	0250	599	68.
15 OCT	1325	150	486.	*	16 OCT	0155	300	129.	*	16 OCT	1425	450	68.	*	17 OCT	0255	600	68.
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1930.	14.17		1160.	429.	243.	243.
		(INCHES)	1.920	2.842	3.340	3.340
		(AC-FT)	575.	852.	1001.	1001.

CUMULATIVE AREA = 5.62 SQ MI

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              *             *
2663 KK       *    PL10C1   *
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2664 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION PL10C1
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
15	OCT	0100	1	35.	15	OCT	1330	151	641.	16	OCT	0200	301	56.	16	OCT	1430	451	35.
15	OCT	0105	2	35.	15	OCT	1335	152	917.	16	OCT	0205	302	56.	16	OCT	1435	452	35.
15	OCT	0110	3	35.	15	OCT	1340	153	1118.	16	OCT	0210	303	55.	16	OCT	1440	453	35.
15	OCT	0115	4	35.	15	OCT	1345	154	1178.	16	OCT	0215	304	55.	16	OCT	1445	454	35.
15	OCT	0120	5	35.	15	OCT	1350	155	1151.	16	OCT	0220	305	54.	16	OCT	1450	455	35.
15	OCT	0125	6	35.	15	OCT	1355	156	1106.	16	OCT	0225	306	54.	16	OCT	1455	456	35.
15	OCT	0130	7	35.	15	OCT	1400	157	1035.	16	OCT	0230	307	54.	16	OCT	1500	457	35.
15	OCT	0135	8	35.	15	OCT	1405	158	938.	16	OCT	0235	308	53.	16	OCT	1505	458	35.
15	OCT	0140	9	35.	15	OCT	1410	159	839.	16	OCT	0240	309	53.	16	OCT	1510	459	35.
15	OCT	0145	10	35.	15	OCT	1415	160	749.	16	OCT	0245	310	52.	16	OCT	1515	460	35.
15	OCT	0150	11	35.	15	OCT	1420	161	679.	16	OCT	0250	311	52.	16	OCT	1520	461	35.
15	OCT	0155	12	35.	15	OCT	1425	162	625.	16	OCT	0255	312	51.	16	OCT	1525	462	35.
15	OCT	0200	13	35.	15	OCT	1430	163	585.	16	OCT	0300	313	51.	16	OCT	1530	463	35.
15	OCT	0205	14	36.	15	OCT	1435	164	555.	16	OCT	0305	314	51.	16	OCT	1535	464	35.
15	OCT	0210	15	36.	15	OCT	1440	165	532.	16	OCT	0310	315	50.	16	OCT	1540	465	35.
15	OCT	0215	16	36.	15	OCT	1445	166	513.	16	OCT	0315	316	50.	16	OCT	1545	466	35.
15	OCT	0220	17	36.	15	OCT	1450	167	496.	16	OCT	0320	317	50.	16	OCT	1550	467	35.
15	OCT	0225	18	36.	15	OCT	1455	168	481.	16	OCT	0325	318	49.	16	OCT	1555	468	35.
15	OCT	0230	19	36.	15	OCT	1500	169	465.	16	OCT	0330	319	49.	16	OCT	1600	469	35.
15	OCT	0235	20	36.	15	OCT	1505	170	450.	16	OCT	0335	320	49.	16	OCT	1605	470	35.
15	OCT	0240	21	36.	15	OCT	1510	171	435.	16	OCT	0340	321	48.	16	OCT	1610	471	35.
15	OCT	0245	22	37.	15	OCT	1515	172	421.	16	OCT	0345	322	48.	16	OCT	1615	472	35.
15	OCT	0250	23	37.	15	OCT	1520	173	407.	16	OCT	0350	323	48.	16	OCT	1620	473	35.
15	OCT	0255	24	37.	15	OCT	1525	174	393.	16	OCT	0355	324	48.	16	OCT	1625	474	35.
15	OCT	0300	25	37.	15	OCT	1530	175	379.	16	OCT	0400	325	47.	16	OCT	1630	475	35.
15	OCT	0305	26	37.	15	OCT	1535	176	366.	16	OCT	0405	326	47.	16	OCT	1635	476	35.
15	OCT	0310	27	37.	15	OCT	1540	177	354.	16	OCT	0410	327	47.	16	OCT	1640	477	35.
15	OCT	0315	28	37.	15	OCT	1545	178	341.	16	OCT	0415	328	47.	16	OCT	1645	478	35.
15	OCT	0320	29	37.	15	OCT	1550	179	330.	16	OCT	0420	329	46.	16	OCT	1650	479	35.
15	OCT	0325	30	37.	15	OCT	1555	180	320.	16	OCT	0425	330	46.	16	OCT	1655	480	35.
15	OCT	0330	31	37.	15	OCT	1600	181	310.	16	OCT	0430	331	46.	16	OCT	1700	481	35.
15	OCT	0335	32	37.	15	OCT	1605	182	302.	16	OCT	0435	332	46.	16	OCT	1705	482	35.
15	OCT	0340	33	37.	15	OCT	1610	183	294.	16	OCT	0440	333	46.	16	OCT	1710	483	35.
15	OCT	0345	34	37.	15	OCT	1615	184	287.	16	OCT	0445	334	45.	16	OCT	1715	484	35.
15	OCT	0350	35	38.	15	OCT	1620	185	280.	16	OCT	0450	335	45.	16	OCT	1720	485	35.
15	OCT	0355	36	38.	15	OCT	1625	186	275.	16	OCT	0455	336	45.	16	OCT	1725	486	35.
15	OCT	0400	37	38.	15	OCT	1630	187	270.	16	OCT	0500	337	45.	16	OCT	1730	487	35.
15	OCT	0405	38	38.	15	OCT	1635	188	265.	16	OCT	0505	338	45.	16	OCT	1735	488	35.
15	OCT	0410	39	38.	15	OCT	1640	189	261.	16	OCT	0510	339	44.	16	OCT	1740	489	35.
15	OCT	0415	40	38.	15	OCT	1645	190	257.	16	OCT	0515	340	44.	16	OCT	1745	490	35.
15	OCT	0420	41	38.	15	OCT	1650	191	254.	16	OCT	0520	341	44.	16	OCT	1750	491	35.
15	OCT	0425	42	39.	15	OCT	1655	192	250.	16	OCT	0525	342	44.	16	OCT	1755	492	35.
15	OCT	0430	43	39.	15	OCT	1700	193	246.	16	OCT	0530	343	43.	16	OCT	1800	493	35.
15	OCT	0435	44	39.	15	OCT	1705	194	243.	16	OCT	0535	344	43.	16	OCT	1805	494	35.
15	OCT	0440	45	39.	15	OCT	1710	195	239.	16	OCT	0540	345	43.	16	OCT	1810	495	35.
15	OCT	0445	46	39.	15	OCT	1715	196	235.	16	OCT	0545	346	43.	16	OCT	1815	496	35.
15	OCT	0450	47	40.	15	OCT	1720	197	231.	16	OCT	0550	347	43.	16	OCT	1820	497	35.
15	OCT	0455	48	40.	15	OCT	1725	198	227.	16	OCT	0555	348	42.	16	OCT	1825	498	35.
15	OCT	0500	49	40.	15	OCT	1730	199	223.	16	OCT	0600	349	42.	16	OCT	1830	499	35.
15	OCT	0505	50	40.	15	OCT	1735	200	220.	16	OCT	0605	350	42.	16	OCT	1835	500	35.
15	OCT	0510	51	41.	15	OCT	1740	201	216.	16	OCT	0610	351	42.	16	OCT	1840	501	35.
15	OCT	0515	52	41.	15	OCT	1745	202	212.	16	OCT	0615	352	41.	16	OCT	1845	502	35.
15	OCT	0520	53	42.	15	OCT	1750	203	209.	16	OCT	0620	353	41.	16	OCT	1850	503	35.
15	OCT	0525	54	42.	15	OCT	1755	204	205.	16	OCT	0625	354	41.	16	OCT	1855	504	35.
15	OCT	0530	55	42.	15	OCT	1800	205	202.	16	OCT	0630	355	41.	16	OCT	1900	505	35.
15	OCT	0535	56	43.	15	OCT	1805	206	198.	16	OCT	0635	356	41.	16	OCT	1905	506	35.
15	OCT	0540	57	43.	15	OCT	1810	207	195.	16	OCT	0640	357	40.	16	OCT	1910	507	35.
15	OCT	0545	58	44.	15	OCT	1815	208	191.	16	OCT	0645	358	40.	16	OCT	1915	508	35.
15	OCT	0550	59	45.	15	OCT	1820	209	188.	16	OCT	0650	359	40.	16	OCT	1920	509	35.
15	OCT	0555	60	45.	15	OCT	1825	210	185.	16	OCT	0655	360	40.	16	OCT	1925	510	35.
15	OCT	0600	61	46.	15	OCT	1830	211	182.	16	OCT	0700	361	40.	16	OCT	1930	511	35.
15	OCT	0605	62	46.	15	OCT	1835	212	179.	16	OCT	0705	362	39.	16	OCT	1935	512	35.
15	OCT	0610	63	47.	15	OCT	1840	213	176.	16	OCT	0710	363	39.	16	OCT	1940	513	35.
15	OCT	0615	64	47.	15	OCT	1845	214	173.	16	OCT	0715	364	39.	16	OCT	1945	514	35.
15	OCT	0620	65	48.	15	OCT	1850	215	170.	16	OCT	0720	365	39.	16	OCT	1950	515	35.
15	OCT	0625	66	49.	15	OCT	1855	216	168.	16	OCT	0725	366	39.	16	OCT	1955	516	35.
15	OCT	0630	67	49.	15	OCT	1900	217	165.	16	OCT	0730	367	39.	16	OCT	2000	517	35.
15	OCT	0635	68	50.	15	OCT	1905	218	162.	16	OCT	0735	368	38.	16	OCT	2005	518	35.
15	OCT	0640	69	51.	15	OCT	1910	219	160.	16	OCT	0740	369	38.	16	OCT	2010	519	35.
15	OCT	0645	70	51.	15	OCT	1915	220	157.	16	OCT	0745	370	38.	16	OCT	2015	520	35.
15	OCT	0650	71	52.	15	OCT	1920	221	155.	16	OCT	0750	371	38.	16	OCT	2020	521	35.
15	OCT	0655	72	52.	15	OCT	1925	222	153.	16	OCT	0755	372	38.	16	OCT	2025	522	35.
15	OCT	0700	73	53.	15	OCT	1930	223	151.	16	OCT	0800	373	38.	16	OCT	2030	523	35.
15	OCT	0705	74	54.	15	OCT	1935	224	148.	16	OCT	0805	374	38.	16	OCT	2035	524	35.
15	OCT	0710	75	55.	15	OCT	1940	225	146.	16	OCT	0810	375	38.	16	OCT	2040	525	35.
15	OCT	0715	76	56.	15	OCT	1945	226	144.	16	OCT	0815	376	37.	16	OCT	2045	526	35.
15	OCT	0720	77	57.	15	OCT	1950	227	141.	16	OCT	0820	377	37.	16	OCT	2050	527	35.
15	OCT	0725	78	58.	15	OCT	1955	228	138.	16	OCT	0825	378	37.	16	OCT	2055	528	35.
15	OCT	0730	79	59.	15	OCT	2000	229	136.	16	OCT	0830	379	37.	16	OCT	2100	529	35.
15	OCT	0735	80	60.	15	OCT	2005	230	133.	16	OCT	0835	380	37.	16	OCT	2105	530	35.
15	OCT	0740	81	61.	15	OCT	2010	231	131.	16	OCT	0840	381	37.	16	OCT	2110	531	35.
15	OCT	0745	82	62.	15	OCT	2015	232	128.	16	OCT	0845	382	37.	16	OCT	2115	532	35.
15	OCT	0750	83	64.	15	OCT	2020	233	126.	16	OCT	0850	383	37.	16	OCT	2120	533	35.
15	OCT	0755	84	65.	15	OCT	2025	234	123.	16	OCT	0855	384	37.	16	OCT	2125	534	35.
15	OCT	0800	85	67.	15	OCT	2030	235	121.	16	OCT	0900	385	37.	16	OCT	2130	535	35.
15	OCT	0805	86	68.	15	OCT	2035	236	118.	16	OCT	0905	386	37.	16	OCT	2135	536	35.
15	OCT	0810	87	70.	15	OCT	2040	237	116.	16	OCT	0910	387	37.	16	OCT	2140	537	35.
15	OCT	0815	88	72.	15	OCT	2045	238	114.	16	OCT	0915	388	36.	16	OCT	2145	538	35.
15	OCT	0820	89	73.	15	OCT	2050	239	112.	16	OCT	0920	389	36.	16	OCT	2150	539	35.
15	OCT	0825	90	75.	15	OCT	2055	240	110.	16	OCT	0925	390	36.	16	OCT	2155	540	35.
15	OCT	0830	91	77.	15	OCT	2100	241	108.	16	OCT	0930	391	36.	16	OCT	2200	541	35.
15	OCT	0835	92	79.	15	OCT	2105	242	106.	16	OCT	0935	392	36.	16	OCT	2205	542	35.
15	OCT	0840	93	81.	15	OCT	2110	243	105.	16	OCT	0940	393	36.	16	OCT	2210	543	35.
15	OCT	0845	94	83.	15	OCT	2115	244	103.	16	OCT	0945	394	36.	16	OCT	2215	544	35.
15	OCT	0850	95	85.	15	OCT	2120	245	102.	16	OCT	0950	395	36.	16	OCT	2220	545	35.
15	OCT	0855	96	87.	15	OCT	2125	246	100.	16	OCT	0955	396	36.	16	OCT	2225	546	35.
15	OCT	0900	97	88.	15	OCT	2130	247	99.	16	OCT	1000	397	36.	16	OCT	2230	547	35.
15	OCT	0905	98	90.	15	OCT	2135	248	97.	16	OCT	1005	398	36.	16	OCT	2235	548	35.
15	OCT	0910	99	92.	15	OCT	2140	249	96.	16	OCT	1010	399	36.	16	OCT	2240	549	35.
15	OCT	0915	100	94.	15	OCT	2145	250	95.	16	OCT	1015	400	36.	16	OCT	2245	550	35.

15	OCT	0920	101	96.	*	15	OCT	2150	251	94.	*	16	OCT	1020	401	36.	*	16	OCT	2250	551	35.
15	OCT	0925	102	98.	*	15	OCT	2155	252	92.	*	16	OCT	1025	402	36.	*	16	OCT	2255	552	35.
15	OCT	0930	103	100.	*	15	OCT	2200	253	91.	*	16	OCT	1030	403	36.	*	16	OCT	2300	553	35.
15	OCT	0935	104	103.	*	15	OCT	2205	254	90.	*	16	OCT	1035	404	36.	*	16	OCT	2305	554	35.
15	OCT	0940	105	105.	*	15	OCT	2210	255	88.	*	16	OCT	1040	405	36.	*	16	OCT	2310	555	35.
15	OCT	0945	106	107.	*	15	OCT	2215	256	87.	*	16	OCT	1045	406	36.	*	16	OCT	2315	556	35.
15	OCT	0950	107	109.	*	15	OCT	2220	257	86.	*	16	OCT	1050	407	36.	*	16	OCT	2320	557	35.
15	OCT	0955	108	111.	*	15	OCT	2225	258	84.	*	16	OCT	1055	408	36.	*	16	OCT	2325	558	35.
15	OCT	1000	109	113.	*	15	OCT	2230	259	83.	*	16	OCT	1100	409	36.	*	16	OCT	2330	559	35.
15	OCT	1005	110	115.	*	15	OCT	2235	260	82.	*	16	OCT	1105	410	36.	*	16	OCT	2335	560	35.
15	OCT	1010	111	117.	*	15	OCT	2240	261	81.	*	16	OCT	1110	411	36.	*	16	OCT	2340	561	35.
15	OCT	1015	112	119.	*	15	OCT	2245	262	80.	*	16	OCT	1115	412	35.	*	16	OCT	2345	562	35.
15	OCT	1020	113	122.	*	15	OCT	2250	263	79.	*	16	OCT	1120	413	35.	*	16	OCT	2350	563	35.
15	OCT	1025	114	124.	*	15	OCT	2255	264	78.	*	16	OCT	1125	414	35.	*	16	OCT	2355	564	35.
15	OCT	1030	115	126.	*	15	OCT	2300	265	77.	*	16	OCT	1130	415	35.	*	17	OCT	0000	565	35.
15	OCT	1035	116	128.	*	15	OCT	2305	266	76.	*	16	OCT	1135	416	35.	*	17	OCT	0005	566	35.
15	OCT	1040	117	130.	*	15	OCT	2310	267	75.	*	16	OCT	1140	417	35.	*	17	OCT	0010	567	35.
15	OCT	1045	118	133.	*	15	OCT	2315	268	74.	*	16	OCT	1145	418	35.	*	17	OCT	0015	568	35.
15	OCT	1050	119	135.	*	15	OCT	2320	269	74.	*	16	OCT	1150	419	35.	*	17	OCT	0020	569	35.
15	OCT	1055	120	137.	*	15	OCT	2325	270	73.	*	16	OCT	1155	420	35.	*	17	OCT	0025	570	35.
15	OCT	1100	121	139.	*	15	OCT	2330	271	72.	*	16	OCT	1200	421	35.	*	17	OCT	0030	571	35.
15	OCT	1105	122	142.	*	15	OCT	2335	272	71.	*	16	OCT	1205	422	35.	*	17	OCT	0035	572	35.
15	OCT	1110	123	144.	*	15	OCT	2340	273	71.	*	16	OCT	1210	423	35.	*	17	OCT	0040	573	35.
15	OCT	1115	124	147.	*	15	OCT	2345	274	70.	*	16	OCT	1215	424	35.	*	17	OCT	0045	574	35.
15	OCT	1120	125	149.	*	15	OCT	2350	275	70.	*	16	OCT	1220	425	35.	*	17	OCT	0050	575	35.
15	OCT	1125	126	152.	*	15	OCT	2355	276	69.	*	16	OCT	1225	426	35.	*	17	OCT	0055	576	35.
15	OCT	1130	127	155.	*	16	OCT	0000	277	68.	*	16	OCT	1230	427	35.	*	17	OCT	0100	577	35.
15	OCT	1135	128	158.	*	16	OCT	0005	278	68.	*	16	OCT	1235	428	35.	*	17	OCT	0105	578	35.
15	OCT	1140	129	162.	*	16	OCT	0010	279	67.	*	16	OCT	1240	429	35.	*	17	OCT	0110	579	35.
15	OCT	1145	130	165.	*	16	OCT	0015	280	67.	*	16	OCT	1245	430	35.	*	17	OCT	0115	580	35.
15	OCT	1150	131	169.	*	16	OCT	0020	281	66.	*	16	OCT	1250	431	35.	*	17	OCT	0120	581	35.
15	OCT	1155	132	173.	*	16	OCT	0025	282	66.	*	16	OCT	1255	432	35.	*	17	OCT	0125	582	35.
15	OCT	1200	133	177.	*	16	OCT	0030	283	65.	*	16	OCT	1300	433	35.	*	17	OCT	0130	583	35.
15	OCT	1205	134	181.	*	16	OCT	0035	284	64.	*	16	OCT	1305	434	35.	*	17	OCT	0135	584	35.
15	OCT	1210	135	186.	*	16	OCT	0040	285	64.	*	16	OCT	1310	435	35.	*	17	OCT	0140	585	35.
15	OCT	1215	136	190.	*	16	OCT	0045	286	63.	*	16	OCT	1315	436	35.	*	17	OCT	0145	586	35.
15	OCT	1220	137	195.	*	16	OCT	0050	287	63.	*	16	OCT	1320	437	35.	*	17	OCT	0150	587	35.
15	OCT	1225	138	200.	*	16	OCT	0055	288	62.	*	16	OCT	1325	438	35.	*	17	OCT	0155	588	35.
15	OCT	1230	139	206.	*	16	OCT	0100	289	61.	*	16	OCT	1330	439	35.	*	17	OCT	0200	589	35.
15	OCT	1235	140	212.	*	16	OCT	0105	290	61.	*	16	OCT	1335	440	35.	*	17	OCT	0205	590	35.
15	OCT	1240	141	220.	*	16	OCT	0110	291	60.	*	16	OCT	1340	441	35.	*	17	OCT	0210	591	35.
15	OCT	1245	142	229.	*	16	OCT	0115	292	59.	*	16	OCT	1345	442	35.	*	17	OCT	0215	592	35.
15	OCT	1250	143	240.	*	16	OCT	0120	293	59.	*	16	OCT	1350	443	35.	*	17	OCT	0220	593	35.
15	OCT	1255	144	252.	*	16	OCT	0125	294	58.	*	16	OCT	1355	444	35.	*	17	OCT	0225	594	35.
15	OCT	1300	145	266.	*	16	OCT	0130	295	58.	*	16	OCT	1400	445	35.	*	17	OCT	0230	595	35.
15	OCT	1305	146	283.	*	16	OCT	0135	296	58.	*	16	OCT	1405	446	35.	*	17	OCT	0235	596	35.
15	OCT	1310	147	301.	*	16	OCT	0140	297	57.	*	16	OCT	1410	447	35.	*	17	OCT	0240	597	35.
15	OCT	1315	148	325.	*	16	OCT	0145	298	57.	*	16	OCT	1415	448	35.	*	17	OCT	0245	598	35.
15	OCT	1320	149	361.	*	16	OCT	0150	299	57.	*	16	OCT	1420	449	35.	*	17	OCT	0250	599	35.
15	OCT	1325	150	437.	*	16	OCT	0155	300	56.	*	16	OCT	1425	450	35.	*	17	OCT	0255	600	35.
					*						*						*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1178.	12.75		407.	168.	100.	100.
		(INCHES)	1.952	3.222	3.970	3.970
		(AC-FT)	202.	333.	411.	411.

CUMULATIVE AREA = 1.94 SQ MI

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              *             *
2926 KK       *     PL10E   *      PLEASANT GROVE CREEK
              *             *
              ***************

   SUBBASIN RUNOFF DATA

2927 BA          SUBBASIN CHARACTERISTICS
                      TAREA         .35  SUBBASIN AREA

2959 BF          BASE FLOW CHARACTERISTICS
                      STRTQ        1.05  INITIAL FLOW
                      QRCSN         .00  BEGIN BASE FLOW RECESSION
                      RTIOR     1.00000  RECESSION CONSTANT
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HYDROGRAPH AT STATION PL10E

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q		DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
								*								
15	OCT	0100	1	.00	.00	.00	1.	*	16	OCT	0200	301	.01	.00	.00	3.
15	OCT	0105	2	.01	.00	.00	1.	*	16	OCT	0205	302	.00	.00	.00	3.
15	OCT	0110	3	.01	.00	.00	1.	*	16	OCT	0210	303	.00	.00	.00	3.
15	OCT	0115	4	.01	.00	.00	1.	*	16	OCT	0215	304	.00	.00	.00	3.
15	OCT	0120	5	.01	.00	.00	1.	*	16	OCT	0220	305	.00	.00	.00	3.
15	OCT	0125	6	.01	.00	.00	1.	*	16	OCT	0225	306	.00	.00	.00	3.
15	OCT	0130	7	.01	.00	.00	1.	*	16	OCT	0230	307	.00	.00	.00	3.
15	OCT	0135	8	.00	.00	.00	1.	*	16	OCT	0235	308	.00	.00	.00	3.
15	OCT	0140	9	.00	.00	.00	1.	*	16	OCT	0240	309	.00	.00	.00	3.
15	OCT	0145	10	.00	.00	.00	1.	*	16	OCT	0245	310	.00	.00	.00	3.
15	OCT	0150	11	.00	.00	.00	1.	*	16	OCT	0250	311	.00	.00	.00	3.
15	OCT	0155	12	.00	.00	.00	1.	*	16	OCT	0255	312	.00	.00	.00	3.

15	OCT	0200	13	.01	.00	.00	1.	*	16	OCT	0300	313	.00	.00	.00	3.
15	OCT	0205	14	.01	.00	.00	1.	*	16	OCT	0305	314	.00	.00	.00	3.
15	OCT	0210	15	.01	.00	.00	1.	*	16	OCT	0310	315	.00	.00	.00	3.
15	OCT	0215	16	.01	.00	.00	1.	*	16	OCT	0315	316	.00	.00	.00	2.
15	OCT	0220	17	.01	.00	.00	1.	*	16	OCT	0320	317	.00	.00	.00	2.
15	OCT	0225	18	.01	.00	.00	1.	*	16	OCT	0325	318	.00	.00	.00	2.
15	OCT	0230	19	.01	.00	.00	1.	*	16	OCT	0330	319	.00	.00	.00	2.
15	OCT	0235	20	.01	.00	.00	1.	*	16	OCT	0335	320	.00	.00	.00	2.
15	OCT	0240	21	.01	.00	.00	1.	*	16	OCT	0340	321	.00	.00	.00	2.
15	OCT	0245	22	.01	.00	.00	1.	*	16	OCT	0345	322	.00	.00	.00	2.
15	OCT	0250	23	.01	.00	.00	1.	*	16	OCT	0350	323	.00	.00	.00	2.
15	OCT	0255	24	.01	.00	.00	1.	*	16	OCT	0355	324	.00	.00	.00	2.
15	OCT	0300	25	.01	.00	.00	1.	*	16	OCT	0400	325	.00	.00	.00	2.
15	OCT	0305	26	.01	.00	.00	1.	*	16	OCT	0405	326	.00	.00	.00	2.
15	OCT	0310	27	.01	.00	.00	1.	*	16	OCT	0410	327	.00	.00	.00	2.
15	OCT	0315	28	.01	.00	.00	1.	*	16	OCT	0415	328	.00	.00	.00	2.
15	OCT	0320	29	.01	.00	.00	1.	*	16	OCT	0420	329	.00	.00	.00	2.
15	OCT	0325	30	.01	.00	.00	1.	*	16	OCT	0425	330	.00	.00	.00	2.
15	OCT	0330	31	.01	.00	.00	2.	*	16	OCT	0430	331	.00	.00	.00	2.
15	OCT	0335	32	.01	.00	.00	2.	*	16	OCT	0435	332	.00	.00	.00	2.
15	OCT	0340	33	.01	.00	.00	2.	*	16	OCT	0440	333	.00	.00	.00	2.
15	OCT	0345	34	.01	.00	.00	2.	*	16	OCT	0445	334	.00	.00	.00	2.
15	OCT	0350	35	.01	.00	.00	2.	*	16	OCT	0450	335	.00	.00	.00	2.
15	OCT	0355	36	.01	.00	.00	2.	*	16	OCT	0455	336	.00	.00	.00	2.
15	OCT	0400	37	.01	.00	.00	2.	*	16	OCT	0500	337	.00	.00	.00	2.
15	OCT	0405	38	.01	.00	.00	2.	*	16	OCT	0505	338	.00	.00	.00	2.
15	OCT	0410	39	.01	.00	.00	2.	*	16	OCT	0510	339	.00	.00	.00	2.
15	OCT	0415	40	.01	.00	.00	2.	*	16	OCT	0515	340	.00	.00	.00	2.
15	OCT	0420	41	.01	.00	.00	2.	*	16	OCT	0520	341	.00	.00	.00	2.
15	OCT	0425	42	.01	.00	.00	2.	*	16	OCT	0525	342	.00	.00	.00	2.
15	OCT	0430	43	.01	.00	.00	2.	*	16	OCT	0530	343	.00	.00	.00	2.
15	OCT	0435	44	.01	.00	.00	2.	*	16	OCT	0535	344	.00	.00	.00	2.
15	OCT	0440	45	.01	.00	.00	2.	*	16	OCT	0540	345	.00	.00	.00	2.
15	OCT	0445	46	.01	.00	.00	2.	*	16	OCT	0545	346	.00	.00	.00	2.
15	OCT	0450	47	.01	.00	.00	2.	*	16	OCT	0550	347	.00	.00	.00	2.
15	OCT	0455	48	.01	.00	.00	2.	*	16	OCT	0555	348	.00	.00	.00	2.
15	OCT	0500	49	.01	.00	.00	2.	*	16	OCT	0600	349	.00	.00	.00	2.
15	OCT	0505	50	.01	.00	.00	2.	*	16	OCT	0605	350	.00	.00	.00	2.
15	OCT	0510	51	.01	.00	.00	2.	*	16	OCT	0610	351	.00	.00	.00	2.
15	OCT	0515	52	.01	.00	.00	2.	*	16	OCT	0615	352	.00	.00	.00	2.
15	OCT	0520	53	.01	.00	.00	2.	*	16	OCT	0620	353	.00	.00	.00	1.
15	OCT	0525	54	.01	.00	.00	2.	*	16	OCT	0625	354	.00	.00	.00	1.
15	OCT	0530	55	.01	.00	.00	2.	*	16	OCT	0630	355	.00	.00	.00	1.
15	OCT	0535	56	.01	.00	.00	2.	*	16	OCT	0635	356	.00	.00	.00	1.
15	OCT	0540	57	.01	.00	.00	2.	*	16	OCT	0640	357	.00	.00	.00	1.
15	OCT	0545	58	.01	.00	.00	2.	*	16	OCT	0645	358	.00	.00	.00	1.
15	OCT	0550	59	.01	.00	.00	2.	*	16	OCT	0650	359	.00	.00	.00	1.
15	OCT	0555	60	.01	.00	.00	2.	*	16	OCT	0655	360	.00	.00	.00	1.
15	OCT	0600	61	.01	.00	.00	2.	*	16	OCT	0700	361	.00	.00	.00	1.
15	OCT	0605	62	.01	.00	.00	2.	*	16	OCT	0705	362	.00	.00	.00	1.
15	OCT	0610	63	.01	.00	.00	2.	*	16	OCT	0710	363	.00	.00	.00	1.
15	OCT	0615	64	.01	.00	.00	2.	*	16	OCT	0715	364	.00	.00	.00	1.
15	OCT	0620	65	.01	.00	.00	2.	*	16	OCT	0720	365	.00	.00	.00	1.
15	OCT	0625	66	.01	.00	.00	2.	*	16	OCT	0725	366	.00	.00	.00	1.
15	OCT	0630	67	.01	.00	.00	3.	*	16	OCT	0730	367	.00	.00	.00	1.
15	OCT	0635	68	.01	.00	.00	3.	*	16	OCT	0735	368	.00	.00	.00	1.
15	OCT	0640	69	.01	.00	.00	3.	*	16	OCT	0740	369	.00	.00	.00	1.
15	OCT	0645	70	.01	.00	.00	3.	*	16	OCT	0745	370	.00	.00	.00	1.
15	OCT	0650	71	.01	.00	.00	3.	*	16	OCT	0750	371	.00	.00	.00	1.
15	OCT	0655	72	.01	.00	.00	3.	*	16	OCT	0755	372	.00	.00	.00	1.
15	OCT	0700	73	.01	.00	.00	3.	*	16	OCT	0800	373	.00	.00	.00	1.
15	OCT	0705	74	.01	.00	.00	3.	*	16	OCT	0805	374	.00	.00	.00	1.
15	OCT	0710	75	.01	.00	.00	3.	*	16	OCT	0810	375	.00	.00	.00	1.
15	OCT	0715	76	.01	.00	.00	3.	*	16	OCT	0815	376	.00	.00	.00	1.
15	OCT	0720	77	.01	.00	.00	3.	*	16	OCT	0820	377	.00	.00	.00	1.
15	OCT	0725	78	.01	.00	.00	3.	*	16	OCT	0825	378	.00	.00	.00	1.
15	OCT	0730	79	.01	.00	.00	4.	*	16	OCT	0830	379	.00	.00	.00	1.
15	OCT	0735	80	.01	.00	.01	4.	*	16	OCT	0835	380	.00	.00	.00	1.
15	OCT	0740	81	.01	.00	.01	4.	*	16	OCT	0840	381	.00	.00	.00	1.
15	OCT	0745	82	.01	.00	.01	4.	*	16	OCT	0845	382	.00	.00	.00	1.
15	OCT	0750	83	.01	.00	.01	4.	*	16	OCT	0850	383	.00	.00	.00	1.
15	OCT	0755	84	.01	.00	.01	5.	*	16	OCT	0855	384	.00	.00	.00	1.
15	OCT	0800	85	.01	.00	.01	5.	*	16	OCT	0900	385	.00	.00	.00	1.
15	OCT	0805	86	.01	.00	.01	5.	*	16	OCT	0905	386	.00	.00	.00	1.
15	OCT	0810	87	.01	.00	.01	5.	*	16	OCT	0910	387	.00	.00	.00	1.
15	OCT	0815	88	.01	.00	.01	6.	*	16	OCT	0915	388	.00	.00	.00	1.
15	OCT	0820	89	.01	.00	.01	6.	*	16	OCT	0920	389	.00	.00	.00	1.
15	OCT	0825	90	.01	.00	.01	6.	*	16	OCT	0925	390	.00	.00	.00	1.
15	OCT	0830	91	.01	.00	.01	7.	*	16	OCT	0930	391	.00	.00	.00	1.
15	OCT	0835	92	.01	.00	.01	7.	*	16	OCT	0935	392	.00	.00	.00	1.
15	OCT	0840	93	.01	.00	.01	8.	*	16	OCT	0940	393	.00	.00	.00	1.
15	OCT	0845	94	.01	.00	.01	8.	*	16	OCT	0945	394	.00	.00	.00	1.
15	OCT	0850	95	.01	.00	.01	8.	*	16	OCT	0950	395	.00	.00	.00	1.
15	OCT	0855	96	.01	.00	.01	9.	*	16	OCT	0955	396	.00	.00	.00	1.
15	OCT	0900	97	.01	.00	.01	9.	*	16	OCT	1000	397	.00	.00	.00	1.
15	OCT	0905	98	.01	.00	.01	10.	*	16	OCT	1005	398	.00	.00	.00	1.
15	OCT	0910	99	.01	.00	.01	10.	*	16	OCT	1010	399	.00	.00	.00	1.
15	OCT	0915	100	.01	.00	.01	11.	*	16	OCT	1015	400	.00	.00	.00	1.
15	OCT	0920	101	.01	.00	.01	11.	*	16	OCT	1020	401	.00	.00	.00	1.
15	OCT	0925	102	.01	.00	.01	11.	*	16	OCT	1025	402	.00	.00	.00	1.
15	OCT	0930	103	.01	.00	.01	12.	*	16	OCT	1030	403	.00	.00	.00	1.
15	OCT	0935	104	.01	.00	.01	12.	*	16	OCT	1035	404	.00	.00	.00	1.
15	OCT	0940	105	.01	.00	.01	13.	*	16	OCT	1040	405	.00	.00	.00	1.
15	OCT	0945	106	.01	.00	.01	13.	*	16	OCT	1045	406	.00	.00	.00	1.
15	OCT	0950	107	.01	.00	.01	14.	*	16	OCT	1050	407	.00	.00	.00	1.
15	OCT	0955	108	.01	.00	.01	14.	*	16	OCT	1055	408	.00	.00	.00	1.
15	OCT	1000	109	.01	.00	.01	14.	*	16	OCT	1100	409	.00	.00	.00	1.
15	OCT	1005	110	.01	.00	.01	15.	*	16	OCT	1105	410	.00	.00	.00	1.
15	OCT	1010	111	.01	.00	.01	15.	*	16	OCT	1110	411	.00	.00	.00	1.
15	OCT	1015	112	.01	.00	.01	16.	*	16	OCT	1115	412	.00	.00	.00	1.
15	OCT	1020	113	.01	.00	.01	16.	*	16	OCT	1120	413	.00	.00	.00	1.
15	OCT	1025	114	.01	.00	.01	17.	*	16	OCT	1125	414	.00	.00	.00	1.
15	OCT	1030	115	.01	.00	.01	17.	*	16	OCT	1130	415	.00	.00	.00	1.
15	OCT	1035	116	.01	.00	.01	17.	*	16	OCT	1135	416	.00	.00	.00	1.
15	OCT	1040	117	.01	.00	.01	18.	*	16	OCT	1140	417	.00	.00	.00	1.
15	OCT	1045	118	.01	.00	.01	18.	*	16	OCT	1145	418	.00	.00	.00	1.
15	OCT	1050	119	.01	.00	.01	19.	*	16	OCT	1150	419	.00	.00	.00	1.

15	OCT	1055	120	.01	.00	.01	19.	*	16	OCT	1155	420	.00	.00	.00	1.
15	OCT	1100	121	.01	.00	.01	20.	*	16	OCT	1200	421	.00	.00	.00	1.
15	OCT	1105	122	.01	.00	.01	20.	*	16	OCT	1205	422	.00	.00	.00	1.
15	OCT	1110	123	.02	.00	.01	21.	*	16	OCT	1210	423	.00	.00	.00	1.
15	OCT	1115	124	.02	.00	.01	21.	*	16	OCT	1215	424	.00	.00	.00	1.
15	OCT	1120	125	.02	.00	.01	22.	*	16	OCT	1220	425	.00	.00	.00	1.
15	OCT	1125	126	.02	.00	.01	22.	*	16	OCT	1225	426	.00	.00	.00	1.
15	OCT	1130	127	.02	.00	.01	23.	*	16	OCT	1230	427	.00	.00	.00	1.
15	OCT	1135	128	.02	.00	.01	23.	*	16	OCT	1235	428	.00	.00	.00	1.
15	OCT	1140	129	.02	.00	.01	24.	*	16	OCT	1240	429	.00	.00	.00	1.
15	OCT	1145	130	.02	.00	.01	24.	*	16	OCT	1245	430	.00	.00	.00	1.
15	OCT	1150	131	.02	.00	.01	25.	*	16	OCT	1250	431	.00	.00	.00	1.
15	OCT	1155	132	.02	.00	.01	26.	*	16	OCT	1255	432	.00	.00	.00	1.
15	OCT	1200	133	.02	.00	.01	26.	*	16	OCT	1300	433	.00	.00	.00	1.
15	OCT	1205	134	.02	.00	.01	27.	*	16	OCT	1305	434	.00	.00	.00	1.
15	OCT	1210	135	.02	.00	.02	28.	*	16	OCT	1310	435	.00	.00	.00	1.
15	OCT	1215	136	.02	.00	.02	29.	*	16	OCT	1315	436	.00	.00	.00	1.
15	OCT	1220	137	.02	.00	.02	29.	*	16	OCT	1320	437	.00	.00	.00	1.
15	OCT	1225	138	.02	.00	.02	30.	*	16	OCT	1325	438	.00	.00	.00	1.
15	OCT	1230	139	.02	.00	.02	31.	*	16	OCT	1330	439	.00	.00	.00	1.
15	OCT	1235	140	.03	.00	.02	32.	*	16	OCT	1335	440	.00	.00	.00	1.
15	OCT	1240	141	.03	.00	.02	34.	*	16	OCT	1340	441	.00	.00	.00	1.
15	OCT	1245	142	.03	.00	.02	35.	*	16	OCT	1345	442	.00	.00	.00	1.
15	OCT	1250	143	.03	.00	.03	37.	*	16	OCT	1350	443	.00	.00	.00	1.
15	OCT	1255	144	.03	.00	.03	39.	*	16	OCT	1355	444	.00	.00	.00	1.
15	OCT	1300	145	.04	.00	.03	41.	*	16	OCT	1400	445	.00	.00	.00	1.
15	OCT	1305	146	.04	.00	.03	44.	*	16	OCT	1405	446	.00	.00	.00	1.
15	OCT	1310	147	.04	.00	.04	47.	*	16	OCT	1410	447	.00	.00	.00	1.
15	OCT	1315	148	.05	.00	.04	50.	*	16	OCT	1415	448	.00	.00	.00	1.
15	OCT	1320	149	.06	.00	.05	55.	*	16	OCT	1420	449	.00	.00	.00	1.
15	OCT	1325	150	.08	.00	.08	62.	*	16	OCT	1425	450	.00	.00	.00	1.
15	OCT	1330	151	.27	.00	.27	75.	*	16	OCT	1430	451	.00	.00	.00	1.
15	OCT	1335	152	.11	.00	.10	97.	*	16	OCT	1435	452	.00	.00	.00	1.
15	OCT	1340	153	.07	.00	.06	124.	*	16	OCT	1440	453	.00	.00	.00	1.
15	OCT	1345	154	.05	.00	.05	149.	*	16	OCT	1445	454	.00	.00	.00	1.
15	OCT	1350	155	.05	.00	.04	165.	*	16	OCT	1450	455	.00	.00	.00	1.
15	OCT	1355	156	.04	.00	.03	171.	*	16	OCT	1455	456	.00	.00	.00	1.
15	OCT	1400	157	.04	.00	.03	172.	*	16	OCT	1500	457	.00	.00	.00	1.
15	OCT	1405	158	.03	.00	.03	170.	*	16	OCT	1505	458	.00	.00	.00	1.
15	OCT	1410	159	.03	.00	.03	166.	*	16	OCT	1510	459	.00	.00	.00	1.
15	OCT	1415	160	.03	.00	.03	161.	*	16	OCT	1515	460	.00	.00	.00	1.
15	OCT	1420	161	.03	.00	.02	155.	*	16	OCT	1520	461	.00	.00	.00	1.
15	OCT	1425	162	.03	.00	.02	146.	*	16	OCT	1525	462	.00	.00	.00	1.
15	OCT	1430	163	.03	.00	.02	137.	*	16	OCT	1530	463	.00	.00	.00	1.
15	OCT	1435	164	.02	.00	.02	127.	*	16	OCT	1535	464	.00	.00	.00	1.
15	OCT	1440	165	.02	.00	.02	117.	*	16	OCT	1540	465	.00	.00	.00	1.
15	OCT	1445	166	.02	.00	.02	108.	*	16	OCT	1545	466	.00	.00	.00	1.
15	OCT	1450	167	.02	.00	.02	100.	*	16	OCT	1550	467	.00	.00	.00	1.
15	OCT	1455	168	.02	.00	.01	93.	*	16	OCT	1555	468	.00	.00	.00	1.
15	OCT	1500	169	.02	.00	.01	86.	*	16	OCT	1600	469	.00	.00	.00	1.
15	OCT	1505	170	.02	.00	.01	80.	*	16	OCT	1605	470	.00	.00	.00	1.
15	OCT	1510	171	.02	.00	.01	75.	*	16	OCT	1610	471	.00	.00	.00	1.
15	OCT	1515	172	.02	.00	.01	71.	*	16	OCT	1615	472	.00	.00	.00	1.
15	OCT	1520	173	.02	.00	.01	67.	*	16	OCT	1620	473	.00	.00	.00	1.
15	OCT	1525	174	.02	.00	.01	63.	*	16	OCT	1625	474	.00	.00	.00	1.
15	OCT	1530	175	.02	.00	.01	60.	*	16	OCT	1630	475	.00	.00	.00	1.
15	OCT	1535	176	.02	.00	.01	57.	*	16	OCT	1635	476	.00	.00	.00	1.
15	OCT	1540	177	.02	.00	.01	54.	*	16	OCT	1640	477	.00	.00	.00	1.
15	OCT	1545	178	.02	.00	.01	52.	*	16	OCT	1645	478	.00	.00	.00	1.
15	OCT	1550	179	.02	.00	.01	50.	*	16	OCT	1650	479	.00	.00	.00	1.
15	OCT	1555	180	.02	.00	.01	48.	*	16	OCT	1655	480	.00	.00	.00	1.
15	OCT	1600	181	.02	.00	.01	46.	*	16	OCT	1700	481	.00	.00	.00	1.
15	OCT	1605	182	.02	.00	.01	44.	*	16	OCT	1705	482	.00	.00	.00	1.
15	OCT	1610	183	.01	.00	.01	43.	*	16	OCT	1710	483	.00	.00	.00	1.
15	OCT	1615	184	.01	.00	.01	41.	*	16	OCT	1715	484	.00	.00	.00	1.
15	OCT	1620	185	.01	.00	.01	40.	*	16	OCT	1720	485	.00	.00	.00	1.
15	OCT	1625	186	.01	.00	.01	38.	*	16	OCT	1725	486	.00	.00	.00	1.
15	OCT	1630	187	.01	.00	.01	37.	*	16	OCT	1730	487	.00	.00	.00	1.
15	OCT	1635	188	.01	.00	.01	36.	*	16	OCT	1735	488	.00	.00	.00	1.
15	OCT	1640	189	.01	.00	.01	35.	*	16	OCT	1740	489	.00	.00	.00	1.
15	OCT	1645	190	.01	.00	.01	34.	*	16	OCT	1745	490	.00	.00	.00	1.
15	OCT	1650	191	.01	.00	.01	33.	*	16	OCT	1750	491	.00	.00	.00	1.
15	OCT	1655	192	.01	.00	.01	32.	*	16	OCT	1755	492	.00	.00	.00	1.
15	OCT	1700	193	.01	.00	.01	32.	*	16	OCT	1800	493	.00	.00	.00	1.
15	OCT	1705	194	.01	.00	.01	31.	*	16	OCT	1805	494	.00	.00	.00	1.
15	OCT	1710	195	.01	.00	.01	30.	*	16	OCT	1810	495	.00	.00	.00	1.
15	OCT	1715	196	.01	.00	.01	29.	*	16	OCT	1815	496	.00	.00	.00	1.
15	OCT	1720	197	.01	.00	.01	29.	*	16	OCT	1820	497	.00	.00	.00	1.
15	OCT	1725	198	.01	.00	.01	28.	*	16	OCT	1825	498	.00	.00	.00	1.
15	OCT	1730	199	.01	.00	.01	28.	*	16	OCT	1830	499	.00	.00	.00	1.
15	OCT	1735	200	.01	.00	.01	27.	*	16	OCT	1835	500	.00	.00	.00	1.
15	OCT	1740	201	.01	.00	.01	26.	*	16	OCT	1840	501	.00	.00	.00	1.
15	OCT	1745	202	.01	.00	.01	26.	*	16	OCT	1845	502	.00	.00	.00	1.
15	OCT	1750	203	.01	.00	.01	25.	*	16	OCT	1850	503	.00	.00	.00	1.
15	OCT	1755	204	.01	.00	.01	25.	*	16	OCT	1855	504	.00	.00	.00	1.
15	OCT	1800	205	.01	.00	.01	25.	*	16	OCT	1900	505	.00	.00	.00	1.
15	OCT	1805	206	.01	.00	.01	24.	*	16	OCT	1905	506	.00	.00	.00	1.
15	OCT	1810	207	.01	.00	.01	24.	*	16	OCT	1910	507	.00	.00	.00	1.
15	OCT	1815	208	.01	.00	.01	23.	*	16	OCT	1915	508	.00	.00	.00	1.
15	OCT	1820	209	.01	.00	.01	23.	*	16	OCT	1920	509	.00	.00	.00	1.
15	OCT	1825	210	.01	.00	.01	22.	*	16	OCT	1925	510	.00	.00	.00	1.
15	OCT	1830	211	.01	.00	.01	22.	*	16	OCT	1930	511	.00	.00	.00	1.
15	OCT	1835	212	.01	.00	.01	22.	*	16	OCT	1935	512	.00	.00	.00	1.
15	OCT	1840	213	.01	.00	.01	21.	*	16	OCT	1940	513	.00	.00	.00	1.
15	OCT	1845	214	.01	.00	.01	21.	*	16	OCT	1945	514	.00	.00	.00	1.
15	OCT	1850	215	.01	.00	.01	21.	*	16	OCT	1950	515	.00	.00	.00	1.
15	OCT	1855	216	.01	.00	.01	20.	*	16	OCT	1955	516	.00	.00	.00	1.
15	OCT	1900	217	.01	.00	.01	20.	*	16	OCT	2000	517	.00	.00	.00	1.
15	OCT	1905	218	.01	.00	.01	20.	*	16	OCT	2005	518	.00	.00	.00	1.
15	OCT	1910	219	.01	.00	.01	19.	*	16	OCT	2010	519	.00	.00	.00	1.
15	OCT	1915	220	.01	.00	.01	19.	*	16	OCT	2015	520	.00	.00	.00	1.
15	OCT	1920	221	.01	.00	.01	19.	*	16	OCT	2020	521	.00	.00	.00	1.
15	OCT	1925	222	.01	.00	.01	18.	*	16	OCT	2025	522	.00	.00	.00	1.
15	OCT	1930	223	.01	.00	.01	18.	*	16	OCT	2030	523	.00	.00	.00	1.
15	OCT	1935	224	.01	.00	.00	18.	*	16	OCT	2035	524	.00	.00	.00	1.
15	OCT	1940	225	.01	.00	.00	17.	*	16	OCT	2040	525	.00	.00	.00	1.
15	OCT	1945	226	.01	.00	.00	17.	*	16	OCT	2045	526	.00	.00	.00	1.

15	OCT	1950	227	.01	.00	.00	17.	*	16	OCT	2050	527	.00	.00	.00	1.
15	OCT	1955	228	.01	.00	.00	16.	*	16	OCT	2055	528	.00	.00	.00	1.
15	OCT	2000	229	.01	.00	.00	16.	*	16	OCT	2100	529	.00	.00	.00	1.
15	OCT	2005	230	.01	.00	.00	16.	*	16	OCT	2105	530	.00	.00	.00	1.
15	OCT	2010	231	.01	.00	.00	15.	*	16	OCT	2110	531	.00	.00	.00	1.
15	OCT	2015	232	.01	.00	.00	15.	*	16	OCT	2115	532	.00	.00	.00	1.
15	OCT	2020	233	.01	.00	.00	15.	*	16	OCT	2120	533	.00	.00	.00	1.
15	OCT	2025	234	.01	.00	.00	14.	*	16	OCT	2125	534	.00	.00	.00	1.
15	OCT	2030	235	.01	.00	.00	14.	*	16	OCT	2130	535	.00	.00	.00	1.
15	OCT	2035	236	.01	.00	.00	14.	*	16	OCT	2135	536	.00	.00	.00	1.
15	OCT	2040	237	.01	.00	.00	13.	*	16	OCT	2140	537	.00	.00	.00	1.
15	OCT	2045	238	.01	.00	.00	13.	*	16	OCT	2145	538	.00	.00	.00	1.
15	OCT	2050	239	.01	.00	.00	13.	*	16	OCT	2150	539	.00	.00	.00	1.
15	OCT	2055	240	.01	.00	.00	12.	*	16	OCT	2155	540	.00	.00	.00	1.
15	OCT	2100	241	.01	.00	.00	12.	*	16	OCT	2200	541	.00	.00	.00	1.
15	OCT	2105	242	.01	.00	.00	12.	*	16	OCT	2205	542	.00	.00	.00	1.
15	OCT	2110	243	.01	.00	.00	11.	*	16	OCT	2210	543	.00	.00	.00	1.
15	OCT	2115	244	.01	.00	.00	11.	*	16	OCT	2215	544	.00	.00	.00	1.
15	OCT	2120	245	.01	.00	.00	11.	*	16	OCT	2220	545	.00	.00	.00	1.
15	OCT	2125	246	.01	.00	.00	11.	*	16	OCT	2225	546	.00	.00	.00	1.
15	OCT	2130	247	.01	.00	.00	10.	*	16	OCT	2230	547	.00	.00	.00	1.
15	OCT	2135	248	.01	.00	.00	10.	*	16	OCT	2235	548	.00	.00	.00	1.
15	OCT	2140	249	.01	.00	.00	10.	*	16	OCT	2240	549	.00	.00	.00	1.
15	OCT	2145	250	.01	.00	.00	10.	*	16	OCT	2245	550	.00	.00	.00	1.
15	OCT	2150	251	.01	.00	.00	10.	*	16	OCT	2250	551	.00	.00	.00	1.
15	OCT	2155	252	.01	.00	.00	9.	*	16	OCT	2255	552	.00	.00	.00	1.
15	OCT	2200	253	.01	.00	.00	9.	*	16	OCT	2300	553	.00	.00	.00	1.
15	OCT	2205	254	.01	.00	.00	9.	*	16	OCT	2305	554	.00	.00	.00	1.
15	OCT	2210	255	.01	.00	.00	9.	*	16	OCT	2310	555	.00	.00	.00	1.
15	OCT	2215	256	.01	.00	.00	9.	*	16	OCT	2315	556	.00	.00	.00	1.
15	OCT	2220	257	.01	.00	.00	8.	*	16	OCT	2320	557	.00	.00	.00	1.
15	OCT	2225	258	.01	.00	.00	8.	*	16	OCT	2325	558	.00	.00	.00	1.
15	OCT	2230	259	.01	.00	.00	8.	*	16	OCT	2330	559	.00	.00	.00	1.
15	OCT	2235	260	.01	.00	.00	8.	*	16	OCT	2335	560	.00	.00	.00	1.
15	OCT	2240	261	.01	.00	.00	7.	*	16	OCT	2340	561	.00	.00	.00	1.
15	OCT	2245	262	.01	.00	.00	7.	*	16	OCT	2345	562	.00	.00	.00	1.
15	OCT	2250	263	.01	.00	.00	7.	*	16	OCT	2350	563	.00	.00	.00	1.
15	OCT	2255	264	.01	.00	.00	7.	*	16	OCT	2355	564	.00	.00	.00	1.
15	OCT	2300	265	.01	.00	.00	7.	*	17	OCT	0000	565	.00	.00	.00	1.
15	OCT	2305	266	.01	.00	.00	7.	*	17	OCT	0005	566	.00	.00	.00	1.
15	OCT	2310	267	.01	.00	.00	6.	*	17	OCT	0010	567	.00	.00	.00	1.
15	OCT	2315	268	.01	.00	.00	6.	*	17	OCT	0015	568	.00	.00	.00	1.
15	OCT	2320	269	.01	.00	.00	6.	*	17	OCT	0020	569	.00	.00	.00	1.
15	OCT	2325	270	.01	.00	.00	6.	*	17	OCT	0025	570	.00	.00	.00	1.
15	OCT	2330	271	.01	.00	.00	6.	*	17	OCT	0030	571	.00	.00	.00	1.
15	OCT	2335	272	.01	.00	.00	6.	*	17	OCT	0035	572	.00	.00	.00	1.
15	OCT	2340	273	.01	.00	.00	6.	*	17	OCT	0040	573	.00	.00	.00	1.
15	OCT	2345	274	.01	.00	.00	6.	*	17	OCT	0045	574	.00	.00	.00	1.
15	OCT	2350	275	.01	.00	.00	6.	*	17	OCT	0050	575	.00	.00	.00	1.
15	OCT	2355	276	.01	.00	.00	5.	*	17	OCT	0055	576	.00	.00	.00	1.
16	OCT	0000	277	.01	.00	.00	5.	*	17	OCT	0100	577	.00	.00	.00	1.
16	OCT	0005	278	.01	.00	.00	5.	*	17	OCT	0105	578	.00	.00	.00	1.
16	OCT	0010	279	.01	.00	.00	5.	*	17	OCT	0110	579	.00	.00	.00	1.
16	OCT	0015	280	.01	.00	.00	5.	*	17	OCT	0115	580	.00	.00	.00	1.
16	OCT	0020	281	.01	.00	.00	5.	*	17	OCT	0120	581	.00	.00	.00	1.
16	OCT	0025	282	.01	.00	.00	5.	*	17	OCT	0125	582	.00	.00	.00	1.
16	OCT	0030	283	.01	.00	.00	5.	*	17	OCT	0130	583	.00	.00	.00	1.
16	OCT	0035	284	.01	.00	.00	5.	*	17	OCT	0135	584	.00	.00	.00	1.
16	OCT	0040	285	.01	.00	.00	5.	*	17	OCT	0140	585	.00	.00	.00	1.
16	OCT	0045	286	.01	.00	.00	5.	*	17	OCT	0145	586	.00	.00	.00	1.
16	OCT	0050	287	.01	.00	.00	5.	*	17	OCT	0150	587	.00	.00	.00	1.
16	OCT	0055	288	.01	.00	.00	4.	*	17	OCT	0155	588	.00	.00	.00	1.
16	OCT	0100	289	.01	.00	.00	4.	*	17	OCT	0200	589	.00	.00	.00	1.
16	OCT	0105	290	.01	.00	.00	4.	*	17	OCT	0205	590	.00	.00	.00	1.
16	OCT	0110	291	.01	.00	.00	4.	*	17	OCT	0210	591	.00	.00	.00	1.
16	OCT	0115	292	.01	.00	.00	4.	*	17	OCT	0215	592	.00	.00	.00	1.
16	OCT	0120	293	.01	.00	.00	4.	*	17	OCT	0220	593	.00	.00	.00	1.
16	OCT	0125	294	.01	.00	.00	4.	*	17	OCT	0225	594	.00	.00	.00	1.
16	OCT	0130	295	.01	.00	.00	4.	*	17	OCT	0230	595	.00	.00	.00	1.
16	OCT	0135	296	.01	.00	.00	4.	*	17	OCT	0235	596	.00	.00	.00	1.
16	OCT	0140	297	.01	.00	.00	4.	*	17	OCT	0240	597	.00	.00	.00	1.
16	OCT	0145	298	.01	.00	.00	4.	*	17	OCT	0245	598	.00	.00	.00	1.
16	OCT	0150	299	.01	.00	.00	4.	*	17	OCT	0250	599	.00	.00	.00	1.
16	OCT	0155	300	.01	.00	.00	3.	*	17	OCT	0255	600	.00	.00	.00	1.
								*								

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TOTAL RAINFALL = 3.86, TOTAL LOSS = 1.43, TOTAL EXCESS = 2.43

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 172.	13.00		65.	23.	12.	12.
		(INCHES)	1.723	2.436	2.574	2.574
		(AC-FT)	32.	45.	48.	48.

CUMULATIVE AREA = .35 SQ MI

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              *            *
2967 KK       *     PL11   *     PLEASANT GROVE CREEK TRIBUTARY
              *            *
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   SUBBASIN RUNOFF DATA

2968 BA          SUBBASIN CHARACTERISTICS
                      TAREA        3.97  SUBBASIN AREA

3000 BF          BASE FLOW CHARACTERISTICS
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STRTQ	11.91	INITIAL FLOW
QRCSN	.00	BEGIN BASE FLOW RECESSION
RTIOR	1.00000	RECESSION CONSTANT

HYDROGRAPH AT STATION PL11

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
15	OCT	0100	1	.00	.00	.00	12.	16	OCT	0200	301	.01	.00	.00	34.
15	OCT	0105	2	.01	.00	.00	12.	16	OCT	0205	302	.00	.00	.00	33.
15	OCT	0110	3	.01	.00	.00	12.	16	OCT	0210	303	.00	.00	.00	32.
15	OCT	0115	4	.01	.00	.00	12.	16	OCT	0215	304	.00	.00	.00	32.
15	OCT	0120	5	.01	.00	.00	12.	16	OCT	0220	305	.00	.00	.00	31.
15	OCT	0125	6	.01	.00	.00	12.	16	OCT	0225	306	.00	.00	.00	31.
15	OCT	0130	7	.01	.00	.00	12.	16	OCT	0230	307	.00	.00	.00	30.
15	OCT	0135	8	.00	.00	.00	12.	16	OCT	0235	308	.00	.00	.00	30.
15	OCT	0140	9	.00	.00	.00	12.	16	OCT	0240	309	.00	.00	.00	29.
15	OCT	0145	10	.00	.00	.00	12.	16	OCT	0245	310	.00	.00	.00	28.
15	OCT	0150	11	.00	.00	.00	12.	16	OCT	0250	311	.00	.00	.00	28.
15	OCT	0155	12	.00	.00	.00	12.	16	OCT	0255	312	.00	.00	.00	27.
15	OCT	0200	13	.01	.00	.00	12.	16	OCT	0300	313	.00	.00	.00	27.
15	OCT	0205	14	.01	.00	.00	12.	16	OCT	0305	314	.00	.00	.00	26.
15	OCT	0210	15	.01	.00	.00	12.	16	OCT	0310	315	.00	.00	.00	26.
15	OCT	0215	16	.01	.00	.00	12.	16	OCT	0315	316	.00	.00	.00	25.
15	OCT	0220	17	.01	.00	.00	12.	16	OCT	0320	317	.00	.00	.00	25.
15	OCT	0225	18	.01	.00	.00	12.	16	OCT	0325	318	.00	.00	.00	24.
15	OCT	0230	19	.01	.00	.00	12.	16	OCT	0330	319	.00	.00	.00	24.
15	OCT	0235	20	.01	.00	.00	12.	16	OCT	0335	320	.00	.00	.00	23.
15	OCT	0240	21	.01	.00	.00	12.	16	OCT	0340	321	.00	.00	.00	23.
15	OCT	0245	22	.01	.00	.00	12.	16	OCT	0345	322	.00	.00	.00	22.
15	OCT	0250	23	.01	.00	.00	13.	16	OCT	0350	323	.00	.00	.00	22.
15	OCT	0255	24	.01	.00	.00	13.	16	OCT	0355	324	.00	.00	.00	21.
15	OCT	0300	25	.01	.00	.00	13.	16	OCT	0400	325	.00	.00	.00	21.
15	OCT	0305	26	.01	.00	.00	13.	16	OCT	0405	326	.00	.00	.00	20.
15	OCT	0310	27	.01	.00	.00	13.	16	OCT	0410	327	.00	.00	.00	20.
15	OCT	0315	28	.01	.00	.00	13.	16	OCT	0415	328	.00	.00	.00	20.
15	OCT	0320	29	.01	.00	.00	13.	16	OCT	0420	329	.00	.00	.00	19.
15	OCT	0325	30	.01	.00	.00	13.	16	OCT	0425	330	.00	.00	.00	19.
15	OCT	0330	31	.01	.00	.00	13.	16	OCT	0430	331	.00	.00	.00	18.
15	OCT	0335	32	.01	.00	.00	13.	16	OCT	0435	332	.00	.00	.00	18.
15	OCT	0340	33	.01	.00	.00	13.	16	OCT	0440	333	.00	.00	.00	18.
15	OCT	0345	34	.01	.00	.00	14.	16	OCT	0445	334	.00	.00	.00	17.
15	OCT	0350	35	.01	.00	.00	14.	16	OCT	0450	335	.00	.00	.00	17.
15	OCT	0355	36	.01	.00	.00	14.	16	OCT	0455	336	.00	.00	.00	17.
15	OCT	0400	37	.01	.00	.00	14.	16	OCT	0500	337	.00	.00	.00	17.
15	OCT	0405	38	.01	.00	.00	14.	16	OCT	0505	338	.00	.00	.00	16.
15	OCT	0410	39	.01	.00	.00	14.	16	OCT	0510	339	.00	.00	.00	16.
15	OCT	0415	40	.01	.00	.00	14.	16	OCT	0515	340	.00	.00	.00	16.
15	OCT	0420	41	.01	.00	.00	14.	16	OCT	0520	341	.00	.00	.00	16.
15	OCT	0425	42	.01	.00	.00	14.	16	OCT	0525	342	.00	.00	.00	16.
15	OCT	0430	43	.01	.00	.00	15.	16	OCT	0530	343	.00	.00	.00	16.
15	OCT	0435	44	.01	.00	.00	15.	16	OCT	0535	344	.00	.00	.00	15.
15	OCT	0440	45	.01	.00	.00	15.	16	OCT	0540	345	.00	.00	.00	15.
15	OCT	0445	46	.01	.00	.00	15.	16	OCT	0545	346	.00	.00	.00	15.
15	OCT	0450	47	.01	.00	.00	15.	16	OCT	0550	347	.00	.00	.00	15.
15	OCT	0455	48	.01	.00	.00	15.	16	OCT	0555	348	.00	.00	.00	15.
15	OCT	0500	49	.01	.00	.00	15.	16	OCT	0600	349	.00	.00	.00	15.
15	OCT	0505	50	.01	.00	.00	15.	16	OCT	0605	350	.00	.00	.00	15.
15	OCT	0510	51	.01	.00	.00	16.	16	OCT	0610	351	.00	.00	.00	14.
15	OCT	0515	52	.01	.00	.00	16.	16	OCT	0615	352	.00	.00	.00	14.
15	OCT	0520	53	.01	.00	.00	16.	16	OCT	0620	353	.00	.00	.00	14.
15	OCT	0525	54	.01	.00	.00	16.	16	OCT	0625	354	.00	.00	.00	14.
15	OCT	0530	55	.01	.00	.00	16.	16	OCT	0630	355	.00	.00	.00	14.
15	OCT	0535	56	.01	.00	.00	16.	16	OCT	0635	356	.00	.00	.00	14.
15	OCT	0540	57	.01	.00	.00	17.	16	OCT	0640	357	.00	.00	.00	14.
15	OCT	0545	58	.01	.00	.00	17.	16	OCT	0645	358	.00	.00	.00	14.
15	OCT	0550	59	.01	.00	.00	17.	16	OCT	0650	359	.00	.00	.00	14.
15	OCT	0555	60	.01	.00	.00	17.	16	OCT	0655	360	.00	.00	.00	14.
15	OCT	0600	61	.01	.00	.00	18.	16	OCT	0700	361	.00	.00	.00	14.
15	OCT	0605	62	.01	.00	.00	18.	16	OCT	0705	362	.00	.00	.00	14.
15	OCT	0610	63	.01	.00	.00	18.	16	OCT	0710	363	.00	.00	.00	14.
15	OCT	0615	64	.01	.00	.00	19.	16	OCT	0715	364	.00	.00	.00	13.
15	OCT	0620	65	.01	.00	.00	19.	16	OCT	0720	365	.00	.00	.00	13.
15	OCT	0625	66	.01	.00	.00	19.	16	OCT	0725	366	.00	.00	.00	13.
15	OCT	0630	67	.01	.00	.00	20.	16	OCT	0730	367	.00	.00	.00	13.
15	OCT	0635	68	.01	.00	.00	20.	16	OCT	0735	368	.00	.00	.00	13.
15	OCT	0640	69	.01	.00	.00	21.	16	OCT	0740	369	.00	.00	.00	13.
15	OCT	0645	70	.01	.00	.00	21.	16	OCT	0745	370	.00	.00	.00	13.
15	OCT	0650	71	.01	.00	.00	22.	16	OCT	0750	371	.00	.00	.00	13.
15	OCT	0655	72	.01	.00	.00	22.	16	OCT	0755	372	.00	.00	.00	13.
15	OCT	0700	73	.01	.00	.00	23.	16	OCT	0800	373	.00	.00	.00	13.
15	OCT	0705	74	.01	.00	.00	23.	16	OCT	0805	374	.00	.00	.00	13.
15	OCT	0710	75	.01	.00	.00	24.	16	OCT	0810	375	.00	.00	.00	13.
15	OCT	0715	76	.01	.00	.00	25.	16	OCT	0815	376	.00	.00	.00	13.
15	OCT	0720	77	.01	.00	.00	26.	16	OCT	0820	377	.00	.00	.00	13.
15	OCT	0725	78	.01	.00	.00	26.	16	OCT	0825	378	.00	.00	.00	13.
15	OCT	0730	79	.01	.00	.00	27.	16	OCT	0830	379	.00	.00	.00	13.
15	OCT	0735	80	.01	.00	.01	28.	16	OCT	0835	380	.00	.00	.00	13.
15	OCT	0740	81	.01	.00	.01	29.	16	OCT	0840	381	.00	.00	.00	13.
15	OCT	0745	82	.01	.00	.01	30.	16	OCT	0845	382	.00	.00	.00	13.
15	OCT	0750	83	.01	.00	.01	32.	16	OCT	0850	383	.00	.00	.00	13.
15	OCT	0755	84	.01	.00	.01	33.	16	OCT	0855	384	.00	.00	.00	13.
15	OCT	0800	85	.01	.00	.01	34.	16	OCT	0900	385	.00	.00	.00	13.
15	OCT	0805	86	.01	.00	.01	36.	16	OCT	0905	386	.00	.00	.00	13.
15	OCT	0810	87	.01	.00	.01	38.	16	OCT	0910	387	.00	.00	.00	13.
15	OCT	0815	88	.01	.00	.01	40.	16	OCT	0915	388	.00	.00	.00	13.
15	OCT	0820	89	.01	.00	.01	41.	16	OCT	0920	389	.00	.00	.00	13.
15	OCT	0825	90	.01	.00	.01	44.	16	OCT	0925	390	.00	.00	.00	13.
15	OCT	0830	91	.01	.00	.01	46.	16	OCT	0930	391	.00	.00	.00	13.
15	OCT	0835	92	.01	.00	.01	48.	16	OCT	0935	392	.00	.00	.00	13.
15	OCT	0840	93	.01	.00	.01	51.	16	OCT	0940	393	.00	.00	.00	13.
15	OCT	0845	94	.01	.00	.01	53.	16	OCT	0945	394	.00	.00	.00	13.

15	OCT	0850	95	.01	.00	.01	56.	*	16	OCT	0950	395	.00	.00	.00	13.
15	OCT	0855	96	.01	.00	.01	59.	*	16	OCT	0955	396	.00	.00	.00	13.
15	OCT	0900	97	.01	.00	.01	62.	*	16	OCT	1000	397	.00	.00	.00	13.
15	OCT	0905	98	.01	.00	.01	66.	*	16	OCT	1005	398	.00	.00	.00	13.
15	OCT	0910	99	.01	.00	.01	69.	*	16	OCT	1010	399	.00	.00	.00	13.
15	OCT	0915	100	.01	.00	.01	73.	*	16	OCT	1015	400	.00	.00	.00	13.
15	OCT	0920	101	.01	.00	.01	76.	*	16	OCT	1020	401	.00	.00	.00	13.
15	OCT	0925	102	.01	.00	.01	80.	*	16	OCT	1025	402	.00	.00	.00	13.
15	OCT	0930	103	.01	.00	.01	84.	*	16	OCT	1030	403	.00	.00	.00	13.
15	OCT	0935	104	.01	.00	.01	88.	*	16	OCT	1035	404	.00	.00	.00	12.
15	OCT	0940	105	.01	.00	.01	92.	*	16	OCT	1040	405	.00	.00	.00	12.
15	OCT	0945	106	.01	.00	.01	97.	*	16	OCT	1045	406	.00	.00	.00	12.
15	OCT	0950	107	.01	.00	.01	101.	*	16	OCT	1050	407	.00	.00	.00	12.
15	OCT	0955	108	.01	.00	.01	106.	*	16	OCT	1055	408	.00	.00	.00	12.
15	OCT	1000	109	.01	.00	.01	110.	*	16	OCT	1100	409	.00	.00	.00	12.
15	OCT	1005	110	.01	.00	.01	115.	*	16	OCT	1105	410	.00	.00	.00	12.
15	OCT	1010	111	.01	.00	.01	120.	*	16	OCT	1110	411	.00	.00	.00	12.
15	OCT	1015	112	.01	.00	.01	125.	*	16	OCT	1115	412	.00	.00	.00	12.
15	OCT	1020	113	.01	.00	.01	130.	*	16	OCT	1120	413	.00	.00	.00	12.
15	OCT	1025	114	.01	.00	.01	135.	*	16	OCT	1125	414	.00	.00	.00	12.
15	OCT	1030	115	.01	.00	.01	140.	*	16	OCT	1130	415	.00	.00	.00	12.
15	OCT	1035	116	.01	.00	.01	145.	*	16	OCT	1135	416	.00	.00	.00	12.
15	OCT	1040	117	.01	.00	.01	150.	*	16	OCT	1140	417	.00	.00	.00	12.
15	OCT	1045	118	.01	.00	.01	155.	*	16	OCT	1145	418	.00	.00	.00	12.
15	OCT	1050	119	.01	.00	.01	161.	*	16	OCT	1150	419	.00	.00	.00	12.
15	OCT	1055	120	.01	.00	.01	166.	*	16	OCT	1155	420	.00	.00	.00	12.
15	OCT	1100	121	.01	.00	.01	171.	*	16	OCT	1200	421	.00	.00	.00	12.
15	OCT	1105	122	.01	.00	.01	177.	*	16	OCT	1205	422	.00	.00	.00	12.
15	OCT	1110	123	.01	.00	.01	182.	*	16	OCT	1210	423	.00	.00	.00	12.
15	OCT	1115	124	.02	.00	.01	187.	*	16	OCT	1215	424	.00	.00	.00	12.
15	OCT	1120	125	.02	.00	.01	193.	*	16	OCT	1220	425	.00	.00	.00	12.
15	OCT	1125	126	.02	.00	.01	198.	*	16	OCT	1225	426	.00	.00	.00	12.
15	OCT	1130	127	.02	.00	.01	204.	*	16	OCT	1230	427	.00	.00	.00	12.
15	OCT	1135	128	.02	.00	.01	209.	*	16	OCT	1235	428	.00	.00	.00	12.
15	OCT	1140	129	.02	.00	.01	215.	*	16	OCT	1240	429	.00	.00	.00	12.
15	OCT	1145	130	.02	.00	.01	221.	*	16	OCT	1245	430	.00	.00	.00	12.
15	OCT	1150	131	.02	.00	.01	227.	*	16	OCT	1250	431	.00	.00	.00	12.
15	OCT	1155	132	.02	.00	.01	233.	*	16	OCT	1255	432	.00	.00	.00	12.
15	OCT	1200	133	.02	.00	.02	240.	*	16	OCT	1300	433	.00	.00	.00	12.
15	OCT	1205	134	.02	.00	.01	246.	*	16	OCT	1305	434	.00	.00	.00	12.
15	OCT	1210	135	.02	.00	.02	253.	*	16	OCT	1310	435	.00	.00	.00	12.
15	OCT	1215	136	.02	.00	.02	260.	*	16	OCT	1315	436	.00	.00	.00	12.
15	OCT	1220	137	.02	.00	.02	268.	*	16	OCT	1320	437	.00	.00	.00	12.
15	OCT	1225	138	.02	.00	.02	276.	*	16	OCT	1325	438	.00	.00	.00	12.
15	OCT	1230	139	.02	.00	.02	284.	*	16	OCT	1330	439	.00	.00	.00	12.
15	OCT	1235	140	.03	.00	.02	292.	*	16	OCT	1335	440	.00	.00	.00	12.
15	OCT	1240	141	.03	.00	.02	302.	*	16	OCT	1340	441	.00	.00	.00	12.
15	OCT	1245	142	.03	.00	.02	312.	*	16	OCT	1345	442	.00	.00	.00	12.
15	OCT	1250	143	.03	.00	.03	323.	*	16	OCT	1350	443	.00	.00	.00	12.
15	OCT	1255	144	.03	.00	.03	336.	*	16	OCT	1355	444	.00	.00	.00	12.
15	OCT	1300	145	.04	.00	.03	350.	*	16	OCT	1400	445	.00	.00	.00	12.
15	OCT	1305	146	.04	.00	.03	366.	*	16	OCT	1405	446	.00	.00	.00	12.
15	OCT	1310	147	.04	.00	.04	384.	*	16	OCT	1410	447	.00	.00	.00	12.
15	OCT	1315	148	.05	.00	.04	404.	*	16	OCT	1415	448	.00	.00	.00	12.
15	OCT	1320	149	.06	.00	.06	429.	*	16	OCT	1420	449	.00	.00	.00	12.
15	OCT	1325	150	.08	.00	.08	461.	*	16	OCT	1425	450	.00	.00	.00	12.
15	OCT	1330	151	.31	.00	.31	514.	*	16	OCT	1430	451	.00	.00	.00	12.
15	OCT	1335	152	.11	.00	.11	598.	*	16	OCT	1435	452	.00	.00	.00	12.
15	OCT	1340	153	.07	.00	.06	711.	*	16	OCT	1440	453	.00	.00	.00	12.
15	OCT	1345	154	.05	.00	.05	844.	*	16	OCT	1445	454	.00	.00	.00	12.
15	OCT	1350	155	.05	.00	.04	986.	*	16	OCT	1450	455	.00	.00	.00	12.
15	OCT	1355	156	.04	.00	.03	1128.	*	16	OCT	1455	456	.00	.00	.00	12.
15	OCT	1400	157	.04	.00	.03	1265.	*	16	OCT	1500	457	.00	.00	.00	12.
15	OCT	1405	158	.04	.00	.03	1393.	*	16	OCT	1505	458	.00	.00	.00	12.
15	OCT	1410	159	.03	.00	.03	1507.	*	16	OCT	1510	459	.00	.00	.00	12.
15	OCT	1415	160	.03	.00	.03	1602.	*	16	OCT	1515	460	.00	.00	.00	12.
15	OCT	1420	161	.03	.00	.02	1674.	*	16	OCT	1520	461	.00	.00	.00	12.
15	OCT	1425	162	.03	.00	.02	1720.	*	16	OCT	1525	462	.00	.00	.00	12.
15	OCT	1430	163	.03	.00	.02	1739.	*	16	OCT	1530	463	.00	.00	.00	12.
15	OCT	1435	164	.02	.00	.02	1732.	*	16	OCT	1535	464	.00	.00	.00	12.
15	OCT	1440	165	.02	.00	.02	1704.	*	16	OCT	1540	465	.00	.00	.00	12.
15	OCT	1445	166	.02	.00	.02	1656.	*	16	OCT	1545	466	.00	.00	.00	12.
15	OCT	1450	167	.02	.00	.02	1593.	*	16	OCT	1550	467	.00	.00	.00	12.
15	OCT	1455	168	.02	.00	.01	1521.	*	16	OCT	1555	468	.00	.00	.00	12.
15	OCT	1500	169	.02	.00	.01	1443.	*	16	OCT	1600	469	.00	.00	.00	12.
15	OCT	1505	170	.02	.00	.01	1363.	*	16	OCT	1605	470	.00	.00	.00	12.
15	OCT	1510	171	.02	.00	.01	1282.	*	16	OCT	1610	471	.00	.00	.00	12.
15	OCT	1515	172	.02	.00	.01	1204.	*	16	OCT	1615	472	.00	.00	.00	12.
15	OCT	1520	173	.02	.00	.01	1130.	*	16	OCT	1620	473	.00	.00	.00	12.
15	OCT	1525	174	.02	.00	.01	1060.	*	16	OCT	1625	474	.00	.00	.00	12.
15	OCT	1530	175	.02	.00	.01	995.	*	16	OCT	1630	475	.00	.00	.00	12.
15	OCT	1535	176	.02	.00	.01	935.	*	16	OCT	1635	476	.00	.00	.00	12.
15	OCT	1540	177	.02	.00	.01	880.	*	16	OCT	1640	477	.00	.00	.00	12.
15	OCT	1545	178	.02	.00	.01	829.	*	16	OCT	1645	478	.00	.00	.00	12.
15	OCT	1550	179	.02	.00	.01	783.	*	16	OCT	1650	479	.00	.00	.00	12.
15	OCT	1555	180	.02	.00	.01	741.	*	16	OCT	1655	480	.00	.00	.00	12.
15	OCT	1600	181	.02	.00	.01	703.	*	16	OCT	1700	481	.00	.00	.00	12.
15	OCT	1605	182	.02	.00	.01	668.	*	16	OCT	1705	482	.00	.00	.00	12.
15	OCT	1610	183	.02	.00	.01	635.	*	16	OCT	1710	483	.00	.00	.00	12.
15	OCT	1615	184	.01	.00	.01	606.	*	16	OCT	1715	484	.00	.00	.00	12.
15	OCT	1620	185	.01	.00	.01	579.	*	16	OCT	1720	485	.00	.00	.00	12.
15	OCT	1625	186	.01	.00	.01	555.	*	16	OCT	1725	486	.00	.00	.00	12.
15	OCT	1630	187	.01	.00	.01	532.	*	16	OCT	1730	487	.00	.00	.00	12.
15	OCT	1635	188	.01	.00	.01	511.	*	16	OCT	1735	488	.00	.00	.00	12.
15	OCT	1640	189	.01	.00	.01	492.	*	16	OCT	1740	489	.00	.00	.00	12.
15	OCT	1645	190	.01	.00	.01	474.	*	16	OCT	1745	490	.00	.00	.00	12.
15	OCT	1650	191	.01	.00	.01	458.	*	16	OCT	1750	491	.00	.00	.00	12.
15	OCT	1655	192	.01	.00	.01	442.	*	16	OCT	1755	492	.00	.00	.00	12.
15	OCT	1700	193	.01	.00	.01	428.	*	16	OCT	1800	493	.00	.00	.00	12.
15	OCT	1705	194	.01	.00	.01	415.	*	16	OCT	1805	494	.00	.00	.00	12.
15	OCT	1710	195	.01	.00	.01	402.	*	16	OCT	1810	495	.00	.00	.00	12.
15	OCT	1715	196	.01	.00	.01	390.	*	16	OCT	1815	496	.00	.00	.00	12.
15	OCT	1720	197	.01	.00	.01	379.	*	16	OCT	1820	497	.00	.00	.00	12.
15	OCT	1725	198	.01	.00	.01	369.	*	16	OCT	1825	498	.00	.00	.00	12.
15	OCT	1730	199	.01	.00	.01	359.	*	16	OCT	1830	499	.00	.00	.00	12.
15	OCT	1735	200	.01	.00	.01	350.	*	16	OCT	1835	500	.00	.00	.00	12.
15	OCT	1740	201	.01	.00	.01	341.	*	16	OCT	1840	501	.00	.00	.00	12.

15	OCT	1745	202	.01	.00	.01	333.	*	16	OCT	1845	502	.00	.00	.00	12.
15	OCT	1750	203	.01	.00	.01	325.	*	16	OCT	1850	503	.00	.00	.00	12.
15	OCT	1755	204	.01	.00	.01	318.	*	16	OCT	1855	504	.00	.00	.00	12.
15	OCT	1800	205	.01	.00	.01	310.	*	16	OCT	1900	505	.00	.00	.00	12.
15	OCT	1805	206	.01	.00	.01	304.	*	16	OCT	1905	506	.00	.00	.00	12.
15	OCT	1810	207	.01	.00	.01	297.	*	16	OCT	1910	507	.00	.00	.00	12.
15	OCT	1815	208	.01	.00	.01	291.	*	16	OCT	1915	508	.00	.00	.00	12.
15	OCT	1820	209	.01	.00	.01	285.	*	16	OCT	1920	509	.00	.00	.00	12.
15	OCT	1825	210	.01	.00	.01	279.	*	16	OCT	1925	510	.00	.00	.00	12.
15	OCT	1830	211	.01	.00	.01	273.	*	16	OCT	1930	511	.00	.00	.00	12.
15	OCT	1835	212	.01	.00	.01	268.	*	16	OCT	1935	512	.00	.00	.00	12.
15	OCT	1840	213	.01	.00	.01	262.	*	16	OCT	1940	513	.00	.00	.00	12.
15	OCT	1845	214	.01	.00	.01	257.	*	16	OCT	1945	514	.00	.00	.00	12.
15	OCT	1850	215	.01	.00	.01	253.	*	16	OCT	1950	515	.00	.00	.00	12.
15	OCT	1855	216	.01	.00	.01	248.	*	16	OCT	1955	516	.00	.00	.00	12.
15	OCT	1900	217	.01	.00	.01	243.	*	16	OCT	2000	517	.00	.00	.00	12.
15	OCT	1905	218	.01	.00	.01	239.	*	16	OCT	2005	518	.00	.00	.00	12.
15	OCT	1910	219	.01	.00	.01	234.	*	16	OCT	2010	519	.00	.00	.00	12.
15	OCT	1915	220	.01	.00	.01	230.	*	16	OCT	2015	520	.00	.00	.00	12.
15	OCT	1920	221	.01	.00	.01	226.	*	16	OCT	2020	521	.00	.00	.00	12.
15	OCT	1925	222	.01	.00	.01	222.	*	16	OCT	2025	522	.00	.00	.00	12.
15	OCT	1930	223	.01	.00	.01	218.	*	16	OCT	2030	523	.00	.00	.00	12.
15	OCT	1935	224	.01	.00	.00	214.	*	16	OCT	2035	524	.00	.00	.00	12.
15	OCT	1940	225	.01	.00	.00	210.	*	16	OCT	2040	525	.00	.00	.00	12.
15	OCT	1945	226	.01	.00	.00	207.	*	16	OCT	2045	526	.00	.00	.00	12.
15	OCT	1950	227	.01	.00	.00	203.	*	16	OCT	2050	527	.00	.00	.00	12.
15	OCT	1955	228	.01	.00	.00	199.	*	16	OCT	2055	528	.00	.00	.00	12.
15	OCT	2000	229	.01	.00	.00	195.	*	16	OCT	2100	529	.00	.00	.00	12.
15	OCT	2005	230	.01	.00	.00	192.	*	16	OCT	2105	530	.00	.00	.00	12.
15	OCT	2010	231	.01	.00	.00	188.	*	16	OCT	2110	531	.00	.00	.00	12.
15	OCT	2015	232	.01	.00	.00	184.	*	16	OCT	2115	532	.00	.00	.00	12.
15	OCT	2020	233	.01	.00	.00	180.	*	16	OCT	2120	533	.00	.00	.00	12.
15	OCT	2025	234	.01	.00	.00	177.	*	16	OCT	2125	534	.00	.00	.00	12.
15	OCT	2030	235	.01	.00	.00	173.	*	16	OCT	2130	535	.00	.00	.00	12.
15	OCT	2035	236	.01	.00	.00	169.	*	16	OCT	2135	536	.00	.00	.00	12.
15	OCT	2040	237	.01	.00	.00	165.	*	16	OCT	2140	537	.00	.00	.00	12.
15	OCT	2045	238	.01	.00	.00	161.	*	16	OCT	2145	538	.00	.00	.00	12.
15	OCT	2050	239	.01	.00	.00	158.	*	16	OCT	2150	539	.00	.00	.00	12.
15	OCT	2055	240	.01	.00	.00	154.	*	16	OCT	2155	540	.00	.00	.00	12.
15	OCT	2100	241	.01	.00	.00	150.	*	16	OCT	2200	541	.00	.00	.00	12.
15	OCT	2105	242	.01	.00	.00	146.	*	16	OCT	2205	542	.00	.00	.00	12.
15	OCT	2110	243	.01	.00	.00	142.	*	16	OCT	2210	543	.00	.00	.00	12.
15	OCT	2115	244	.01	.00	.00	138.	*	16	OCT	2215	544	.00	.00	.00	12.
15	OCT	2120	245	.01	.00	.00	135.	*	16	OCT	2220	545	.00	.00	.00	12.
15	OCT	2125	246	.01	.00	.00	131.	*	16	OCT	2225	546	.00	.00	.00	12.
15	OCT	2130	247	.01	.00	.00	127.	*	16	OCT	2230	547	.00	.00	.00	12.
15	OCT	2135	248	.01	.00	.00	124.	*	16	OCT	2235	548	.00	.00	.00	12.
15	OCT	2140	249	.01	.00	.00	120.	*	16	OCT	2240	549	.00	.00	.00	12.
15	OCT	2145	250	.01	.00	.00	116.	*	16	OCT	2245	550	.00	.00	.00	12.
15	OCT	2150	251	.01	.00	.00	113.	*	16	OCT	2250	551	.00	.00	.00	12.
15	OCT	2155	252	.01	.00	.00	110.	*	16	OCT	2255	552	.00	.00	.00	12.
15	OCT	2200	253	.01	.00	.00	106.	*	16	OCT	2300	553	.00	.00	.00	12.
15	OCT	2205	254	.01	.00	.00	103.	*	16	OCT	2305	554	.00	.00	.00	12.
15	OCT	2210	255	.01	.00	.00	100.	*	16	OCT	2310	555	.00	.00	.00	12.
15	OCT	2215	256	.01	.00	.00	97.	*	16	OCT	2315	556	.00	.00	.00	12.
15	OCT	2220	257	.01	.00	.00	94.	*	16	OCT	2320	557	.00	.00	.00	12.
15	OCT	2225	258	.01	.00	.00	92.	*	16	OCT	2325	558	.00	.00	.00	12.
15	OCT	2230	259	.01	.00	.00	89.	*	16	OCT	2330	559	.00	.00	.00	12.
15	OCT	2235	260	.01	.00	.00	86.	*	16	OCT	2335	560	.00	.00	.00	12.
15	OCT	2240	261	.01	.00	.00	84.	*	16	OCT	2340	561	.00	.00	.00	12.
15	OCT	2245	262	.01	.00	.00	82.	*	16	OCT	2345	562	.00	.00	.00	12.
15	OCT	2250	263	.01	.00	.00	79.	*	16	OCT	2350	563	.00	.00	.00	12.
15	OCT	2255	264	.01	.00	.00	77.	*	16	OCT	2355	564	.00	.00	.00	12.
15	OCT	2300	265	.01	.00	.00	75.	*	17	OCT	0000	565	.00	.00	.00	12.
15	OCT	2305	266	.01	.00	.00	73.	*	17	OCT	0005	566	.00	.00	.00	12.
15	OCT	2310	267	.01	.00	.00	71.	*	17	OCT	0010	567	.00	.00	.00	12.
15	OCT	2315	268	.01	.00	.00	69.	*	17	OCT	0015	568	.00	.00	.00	12.
15	OCT	2320	269	.01	.00	.00	67.	*	17	OCT	0020	569	.00	.00	.00	12.
15	OCT	2325	270	.01	.00	.00	66.	*	17	OCT	0025	570	.00	.00	.00	12.
15	OCT	2330	271	.01	.00	.00	64.	*	17	OCT	0030	571	.00	.00	.00	12.
15	OCT	2335	272	.01	.00	.00	62.	*	17	OCT	0035	572	.00	.00	.00	12.
15	OCT	2340	273	.01	.00	.00	61.	*	17	OCT	0040	573	.00	.00	.00	12.
15	OCT	2345	274	.01	.00	.00	59.	*	17	OCT	0045	574	.00	.00	.00	12.
15	OCT	2350	275	.01	.00	.00	58.	*	17	OCT	0050	575	.00	.00	.00	12.
15	OCT	2355	276	.01	.00	.00	56.	*	17	OCT	0055	576	.00	.00	.00	12.
16	OCT	0000	277	.01	.00	.00	55.	*	17	OCT	0100	577	.00	.00	.00	12.
16	OCT	0005	278	.01	.00	.00	53.	*	17	OCT	0105	578	.00	.00	.00	12.
16	OCT	0010	279	.01	.00	.00	52.	*	17	OCT	0110	579	.00	.00	.00	12.
16	OCT	0015	280	.01	.00	.00	51.	*	17	OCT	0115	580	.00	.00	.00	12.
16	OCT	0020	281	.01	.00	.00	50.	*	17	OCT	0120	581	.00	.00	.00	12.
16	OCT	0025	282	.01	.00	.00	49.	*	17	OCT	0125	582	.00	.00	.00	12.
16	OCT	0030	283	.01	.00	.00	48.	*	17	OCT	0130	583	.00	.00	.00	12.
16	OCT	0035	284	.01	.00	.00	47.	*	17	OCT	0135	584	.00	.00	.00	12.
16	OCT	0040	285	.01	.00	.00	46.	*	17	OCT	0140	585	.00	.00	.00	12.
16	OCT	0045	286	.01	.00	.00	45.	*	17	OCT	0145	586	.00	.00	.00	12.
16	OCT	0050	287	.01	.00	.00	44.	*	17	OCT	0150	587	.00	.00	.00	12.
16	OCT	0055	288	.01	.00	.00	43.	*	17	OCT	0155	588	.00	.00	.00	12.
16	OCT	0100	289	.01	.00	.00	43.	*	17	OCT	0200	589	.00	.00	.00	12.
16	OCT	0105	290	.01	.00	.00	42.	*	17	OCT	0205	590	.00	.00	.00	12.
16	OCT	0110	291	.01	.00	.00	41.	*	17	OCT	0210	591	.00	.00	.00	12.
16	OCT	0115	292	.01	.00	.00	40.	*	17	OCT	0215	592	.00	.00	.00	12.
16	OCT	0120	293	.01	.00	.00	39.	*	17	OCT	0220	593	.00	.00	.00	12.
16	OCT	0125	294	.01	.00	.00	39.	*	17	OCT	0225	594	.00	.00	.00	12.
16	OCT	0130	295	.01	.00	.00	38.	*	17	OCT	0230	595	.00	.00	.00	12.
16	OCT	0135	296	.01	.00	.00	37.	*	17	OCT	0235	596	.00	.00	.00	12.
16	OCT	0140	297	.01	.00	.00	36.	*	17	OCT	0240	597	.00	.00	.00	12.
16	OCT	0145	298	.01	.00	.00	36.	*	17	OCT	0245	598	.00	.00	.00	12.
16	OCT	0150	299	.01	.00	.00	35.	*	17	OCT	0250	599	.00	.00	.00	12.
16	OCT	0155	300	.01	.00	.00	34.	*	17	OCT	0255	600	.00	.00	.00	12.

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TOTAL RAINFALL = 3.93, TOTAL LOSS = 1.43, TOTAL EXCESS = 2.51

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)				

		(CFS)				
+ 1739.	13.50		745.	254.	129.	129.
		(INCHES)	1.744	2.380	2.506	2.506
		(AC-FT)	369.	504.	531.	531.

CUMULATIVE AREA = 3.97 SQ MI

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            *             *
2404 KK     *    PL10B+   *
            *             *
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2405 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION PL10B+
SUM OF 3 HYDROGRAPHS

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DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
15	OCT	0100	1	108.	15	OCT	1330	151	2957.	16	OCT	0200	301	821.	16	OCT	1430	451	120.
15	OCT	0105	2	108.	15	OCT	1335	152	3089.	16	OCT	0205	302	813.	16	OCT	1435	452	120.
15	OCT	0110	3	108.	15	OCT	1340	153	3254.	16	OCT	0210	303	806.	16	OCT	1440	453	120.
15	OCT	0115	4	108.	15	OCT	1345	154	3437.	16	OCT	0215	304	798.	16	OCT	1445	454	119.
15	OCT	0120	5	108.	15	OCT	1350	155	3613.	16	OCT	0220	305	791.	16	OCT	1450	455	119.
15	OCT	0125	6	108.	15	OCT	1355	156	3767.	16	OCT	0225	306	783.	16	OCT	1455	456	119.
15	OCT	0130	7	108.	15	OCT	1400	157	3905.	16	OCT	0230	307	776.	16	OCT	1500	457	119.
15	OCT	0135	8	108.	15	OCT	1405	158	4037.	16	OCT	0235	308	768.	16	OCT	1505	458	119.
15	OCT	0140	9	108.	15	OCT	1410	159	4167.	16	OCT	0240	309	761.	16	OCT	1510	459	119.
15	OCT	0145	10	108.	15	OCT	1415	160	4297.	16	OCT	0245	310	753.	16	OCT	1515	460	119.
15	OCT	0150	11	109.	15	OCT	1420	161	4427.	16	OCT	0250	311	745.	16	OCT	1520	461	118.
15	OCT	0155	12	109.	15	OCT	1425	162	4557.	16	OCT	0255	312	738.	16	OCT	1525	462	118.
15	OCT	0200	13	109.	15	OCT	1430	163	4687.	16	OCT	0300	313	730.	16	OCT	1530	463	118.
15	OCT	0205	14	109.	15	OCT	1435	164	4818.	16	OCT	0305	314	722.	16	OCT	1535	464	118.
15	OCT	0210	15	110.	15	OCT	1440	165	4949.	16	OCT	0310	315	714.	16	OCT	1540	465	118.
15	OCT	0215	16	110.	15	OCT	1445	166	5080.	16	OCT	0315	316	706.	16	OCT	1545	466	118.
15	OCT	0220	17	111.	15	OCT	1450	167	5208.	16	OCT	0320	317	698.	16	OCT	1550	467	118.
15	OCT	0225	18	112.	15	OCT	1455	168	5335.	16	OCT	0325	318	689.	16	OCT	1555	468	118.
15	OCT	0230	19	112.	15	OCT	1500	169	5458.	16	OCT	0330	319	681.	16	OCT	1600	469	117.
15	OCT	0235	20	113.	15	OCT	1505	170	5579.	16	OCT	0335	320	672.	16	OCT	1605	470	117.
15	OCT	0240	21	114.	15	OCT	1510	171	5697.	16	OCT	0340	321	664.	16	OCT	1610	471	117.
15	OCT	0245	22	115.	15	OCT	1515	172	5810.	16	OCT	0345	322	655.	16	OCT	1615	472	117.
15	OCT	0250	23	116.	15	OCT	1520	173	5919.	16	OCT	0350	323	646.	16	OCT	1620	473	117.
15	OCT	0255	24	117.	15	OCT	1525	174	6024.	16	OCT	0355	324	636.	16	OCT	1625	474	117.
15	OCT	0300	25	119.	15	OCT	1530	175	6122.	16	OCT	0400	325	627.	16	OCT	1630	475	117.
15	OCT	0305	26	120.	15	OCT	1535	176	6215.	16	OCT	0405	326	617.	16	OCT	1635	476	117.
15	OCT	0310	27	121.	15	OCT	1540	177	6301.	16	OCT	0410	327	607.	16	OCT	1640	477	117.
15	OCT	0315	28	123.	15	OCT	1545	178	6379.	16	OCT	0415	328	597.	16	OCT	1645	478	117.
15	OCT	0320	29	125.	15	OCT	1550	179	6449.	16	OCT	0420	329	587.	16	OCT	1650	479	117.
15	OCT	0325	30	126.	15	OCT	1555	180	6510.	16	OCT	0425	330	577.	16	OCT	1655	480	117.
15	OCT	0330	31	128.	15	OCT	1600	181	6562.	16	OCT	0430	331	567.	16	OCT	1700	481	116.
15	OCT	0335	32	130.	15	OCT	1605	182	6604.	16	OCT	0435	332	556.	16	OCT	1705	482	116.
15	OCT	0340	33	132.	15	OCT	1610	183	6634.	16	OCT	0440	333	546.	16	OCT	1710	483	116.
15	OCT	0345	34	134.	15	OCT	1615	184	6654.	16	OCT	0445	334	535.	16	OCT	1715	484	116.
15	OCT	0350	35	136.	15	OCT	1620	185	6662.	16	OCT	0450	335	525.	16	OCT	1720	485	116.
15	OCT	0355	36	139.	15	OCT	1625	186	6658.	16	OCT	0455	336	514.	16	OCT	1725	486	116.
15	OCT	0400	37	141.	15	OCT	1630	187	6643.	16	OCT	0500	337	503.	16	OCT	1730	487	116.
15	OCT	0405	38	145.	15	OCT	1635	188	6615.	16	OCT	0505	338	493.	16	OCT	1735	488	116.
15	OCT	0410	39	148.	15	OCT	1640	189	6575.	16	OCT	0510	339	482.	16	OCT	1740	489	116.
15	OCT	0415	40	152.	15	OCT	1645	190	6522.	16	OCT	0515	340	472.	16	OCT	1745	490	116.
15	OCT	0420	41	157.	15	OCT	1650	191	6456.	16	OCT	0520	341	462.	16	OCT	1750	491	116.
15	OCT	0425	42	163.	15	OCT	1655	192	6376.	16	OCT	0525	342	451.	16	OCT	1755	492	116.
15	OCT	0430	43	169.	15	OCT	1700	193	6282.	16	OCT	0530	343	441.	16	OCT	1800	493	116.
15	OCT	0435	44	177.	15	OCT	1705	194	6174.	16	OCT	0535	344	431.	16	OCT	1805	494	116.
15	OCT	0440	45	185.	15	OCT	1710	195	6054.	16	OCT	0540	345	421.	16	OCT	1810	495	116.
15	OCT	0445	46	195.	15	OCT	1715	196	5924.	16	OCT	0545	346	411.	16	OCT	1815	496	116.
15	OCT	0450	47	206.	15	OCT	1720	197	5787.	16	OCT	0550	347	402.	16	OCT	1820	497	116.
15	OCT	0455	48	218.	15	OCT	1725	198	5646.	16	OCT	0555	348	392.	16	OCT	1825	498	116.
15	OCT	0500	49	231.	15	OCT	1730	199	5504.	16	OCT	0600	349	383.	16	OCT	1830	499	116.
15	OCT	0505	50	245.	15	OCT	1735	200	5361.	16	OCT	0605	350	374.	16	OCT	1835	500	116.
15	OCT	0510	51	260.	15	OCT	1740	201	5222.	16	OCT	0610	351	365.	16	OCT	1840	501	116.
15	OCT	0515	52	276.	15	OCT	1745	202	5085.	16	OCT	0615	352	356.	16	OCT	1845	502	115.
15	OCT	0520	53	293.	15	OCT	1750	203	4953.	16	OCT	0620	353	348.	16	OCT	1850	503	115.
15	OCT	0525	54	309.	15	OCT	1755	204	4826.	16	OCT	0625	354	339.	16	OCT	1855	504	115.
15	OCT	0530	55	327.	15	OCT	1800	205	4704.	16	OCT	0630	355	331.	16	OCT	1900	505	115.
15	OCT	0535	56	344.	15	OCT	1805	206	4588.	16	OCT	0635	356	323.	16	OCT	1905	506	115.
15	OCT	0540	57	361.	15	OCT	1810	207	4478.	16	OCT	0640	357	315.	16	OCT	1910	507	115.
15	OCT	0545	58	379.	15	OCT	1815	208	4373.	16	OCT	0645	358	307.	16	OCT	1915	508	115.
15	OCT	0550	59	396.	15	OCT	1820	209	4273.	16	OCT	0650	359	299.	16	OCT	1920	509	115.
15	OCT	0555	60	412.	15	OCT	1825	210	4178.	16	OCT	0655	360	292.	16	OCT	1925	510	115.
15	OCT	0600	61	428.	15	OCT	1830	211	4086.	16	OCT	0700	361	285.	16	OCT	1930	511	115.
15	OCT	0605	62	444.	15	OCT	1835	212	3997.	16	OCT	0705	362	278.	16	OCT	1935	512	115.
15	OCT	0610	63	459.	15	OCT	1840	213	3911.	16	OCT	0710	363	271.	16	OCT	1940	513	115.
15	OCT	0615	64	473.	15	OCT	1845	214	3827.	16	OCT	0715	364	265.	16	OCT	1945	514	115.
15	OCT	0620	65	487.	15	OCT	1850	215	3744.	16	OCT	0720	365	258.	16	OCT	1950	515	115.
15	OCT	0625	66	499.	15	OCT	1855	216	3664.	16	OCT	0725	366	252.	16	OCT	1955	516	115.
15	OCT	0630	67	512.	15	OCT	1900	217	3586.	16	OCT	0730	367	246.	16	OCT	2000	517	115.
15	OCT	0635	68	523.	15	OCT	1905	218	3510.	16	OCT	0735	368	241.	16	OCT	2005	518	115.
15	OCT	0640	69	535.	15	OCT	1910	219	3436.	16	OCT	0740	369	235.	16	OCT	2010	519	115.
15	OCT	0645	70	545.	15	OCT	1915	220	3365.	16	OCT	0745	370	230.	16	OCT	2015	520	115.
15	OCT	0650	71	556.	15	OCT	1920	221	3295.	16	OCT	0750	371	225.	16	OCT	2020	521	115.
15	OCT	0655	72	566.	15	OCT	1925	222	3228.	16	OCT	0755	372	220.	16	OCT	2025	522	115.
15	OCT	0700	73	576.	15	OCT	1930	223	3163.	16	OCT	0800	373	216.	16	OCT	2030	523	115.

15	OCT	0705	74	585.	*	15	OCT	1935	224	3100.	*	16	OCT	0805	374	211.	*	16	OCT	2035	524	115.
15	OCT	0710	75	595.	*	15	OCT	1940	225	3037.	*	16	OCT	0810	375	207.	*	16	OCT	2040	525	115.
15	OCT	0715	76	604.	*	15	OCT	1945	226	2975.	*	16	OCT	0815	376	203.	*	16	OCT	2045	526	115.
15	OCT	0720	77	614.	*	15	OCT	1950	227	2912.	*	16	OCT	0820	377	199.	*	16	OCT	2050	527	115.
15	OCT	0725	78	624.	*	15	OCT	1955	228	2849.	*	16	OCT	0825	378	196.	*	16	OCT	2055	528	115.
15	OCT	0730	79	633.	*	15	OCT	2000	229	2787.	*	16	OCT	0830	379	192.	*	16	OCT	2100	529	115.
15	OCT	0735	80	643.	*	15	OCT	2005	230	2725.	*	16	OCT	0835	380	189.	*	16	OCT	2105	530	115.
15	OCT	0740	81	653.	*	15	OCT	2010	231	2665.	*	16	OCT	0840	381	186.	*	16	OCT	2110	531	115.
15	OCT	0745	82	663.	*	15	OCT	2015	232	2605.	*	16	OCT	0845	382	183.	*	16	OCT	2115	532	115.
15	OCT	0750	83	673.	*	15	OCT	2020	233	2548.	*	16	OCT	0850	383	180.	*	16	OCT	2120	533	115.
15	OCT	0755	84	684.	*	15	OCT	2025	234	2491.	*	16	OCT	0855	384	178.	*	16	OCT	2125	534	115.
15	OCT	0800	85	695.	*	15	OCT	2030	235	2436.	*	16	OCT	0900	385	175.	*	16	OCT	2130	535	115.
15	OCT	0805	86	706.	*	15	OCT	2035	236	2383.	*	16	OCT	0905	386	173.	*	16	OCT	2135	536	115.
15	OCT	0810	87	718.	*	15	OCT	2040	237	2331.	*	16	OCT	0910	387	170.	*	16	OCT	2140	537	115.
15	OCT	0815	88	730.	*	15	OCT	2045	238	2282.	*	16	OCT	0915	388	168.	*	16	OCT	2145	538	115.
15	OCT	0820	89	743.	*	15	OCT	2050	239	2235.	*	16	OCT	0920	389	166.	*	16	OCT	2150	539	115.
15	OCT	0825	90	756.	*	15	OCT	2055	240	2190.	*	16	OCT	0925	390	164.	*	16	OCT	2155	540	115.
15	OCT	0830	91	770.	*	15	OCT	2100	241	2147.	*	16	OCT	0930	391	162.	*	16	OCT	2200	541	115.
15	OCT	0835	92	784.	*	15	OCT	2105	242	2106.	*	16	OCT	0935	392	160.	*	16	OCT	2205	542	115.
15	OCT	0840	93	799.	*	15	OCT	2110	243	2065.	*	16	OCT	0940	393	158.	*	16	OCT	2210	543	115.
15	OCT	0845	94	814.	*	15	OCT	2115	244	2027.	*	16	OCT	0945	394	157.	*	16	OCT	2215	544	115.
15	OCT	0850	95	831.	*	15	OCT	2120	245	1989.	*	16	OCT	0950	395	155.	*	16	OCT	2220	545	115.
15	OCT	0855	96	848.	*	15	OCT	2125	246	1952.	*	16	OCT	0955	396	154.	*	16	OCT	2225	546	114.
15	OCT	0900	97	866.	*	15	OCT	2130	247	1916.	*	16	OCT	1000	397	152.	*	16	OCT	2230	547	114.
15	OCT	0905	98	885.	*	15	OCT	2135	248	1881.	*	16	OCT	1005	398	151.	*	16	OCT	2235	548	114.
15	OCT	0910	99	904.	*	15	OCT	2140	249	1846.	*	16	OCT	1010	399	149.	*	16	OCT	2240	549	114.
15	OCT	0915	100	925.	*	15	OCT	2145	250	1812.	*	16	OCT	1015	400	148.	*	16	OCT	2245	550	114.
15	OCT	0920	101	947.	*	15	OCT	2150	251	1779.	*	16	OCT	1020	401	147.	*	16	OCT	2250	551	114.
15	OCT	0925	102	969.	*	15	OCT	2155	252	1745.	*	16	OCT	1025	402	146.	*	16	OCT	2255	552	114.
15	OCT	0930	103	993.	*	15	OCT	2200	253	1713.	*	16	OCT	1030	403	144.	*	16	OCT	2300	553	114.
15	OCT	0935	104	1018.	*	15	OCT	2205	254	1681.	*	16	OCT	1035	404	143.	*	16	OCT	2305	554	114.
15	OCT	0940	105	1043.	*	15	OCT	2210	255	1649.	*	16	OCT	1040	405	142.	*	16	OCT	2310	555	114.
15	OCT	0945	106	1070.	*	15	OCT	2215	256	1617.	*	16	OCT	1045	406	141.	*	16	OCT	2315	556	114.
15	OCT	0950	107	1098.	*	15	OCT	2220	257	1586.	*	16	OCT	1050	407	140.	*	16	OCT	2320	557	114.
15	OCT	0955	108	1127.	*	15	OCT	2225	258	1556.	*	16	OCT	1055	408	139.	*	16	OCT	2325	558	114.
15	OCT	1000	109	1157.	*	15	OCT	2230	259	1526.	*	16	OCT	1100	409	139.	*	16	OCT	2330	559	114.
15	OCT	1005	110	1188.	*	15	OCT	2235	260	1496.	*	16	OCT	1105	410	138.	*	16	OCT	2335	560	114.
15	OCT	1010	111	1219.	*	15	OCT	2240	261	1467.	*	16	OCT	1110	411	137.	*	16	OCT	2340	561	114.
15	OCT	1015	112	1252.	*	15	OCT	2245	262	1439.	*	16	OCT	1115	412	136.	*	16	OCT	2345	562	114.
15	OCT	1020	113	1285.	*	15	OCT	2250	263	1411.	*	16	OCT	1120	413	135.	*	16	OCT	2350	563	114.
15	OCT	1025	114	1319.	*	15	OCT	2255	264	1383.	*	16	OCT	1125	414	134.	*	16	OCT	2355	564	114.
15	OCT	1030	115	1355.	*	15	OCT	2300	265	1357.	*	16	OCT	1130	415	134.	*	17	OCT	0000	565	114.
15	OCT	1035	116	1391.	*	15	OCT	2305	266	1331.	*	16	OCT	1135	416	133.	*	17	OCT	0005	566	114.
15	OCT	1040	117	1427.	*	15	OCT	2310	267	1306.	*	16	OCT	1140	417	132.	*	17	OCT	0010	567	114.
15	OCT	1045	118	1464.	*	15	OCT	2315	268	1281.	*	16	OCT	1145	418	132.	*	17	OCT	0015	568	114.
15	OCT	1050	119	1502.	*	15	OCT	2320	269	1258.	*	16	OCT	1150	419	131.	*	17	OCT	0020	569	114.
15	OCT	1055	120	1540.	*	15	OCT	2325	270	1235.	*	16	OCT	1155	420	131.	*	17	OCT	0025	570	114.
15	OCT	1100	121	1579.	*	15	OCT	2330	271	1213.	*	16	OCT	1200	421	130.	*	17	OCT	0030	571	114.
15	OCT	1105	122	1617.	*	15	OCT	2335	272	1191.	*	16	OCT	1205	422	129.	*	17	OCT	0035	572	114.
15	OCT	1110	123	1656.	*	15	OCT	2340	273	1170.	*	16	OCT	1210	423	129.	*	17	OCT	0040	573	114.
15	OCT	1115	124	1695.	*	15	OCT	2345	274	1150.	*	16	OCT	1215	424	128.	*	17	OCT	0045	574	114.
15	OCT	1120	125	1733.	*	15	OCT	2350	275	1131.	*	16	OCT	1220	425	128.	*	17	OCT	0050	575	114.
15	OCT	1125	126	1772.	*	15	OCT	2355	276	1113.	*	16	OCT	1225	426	127.	*	17	OCT	0055	576	114.
15	OCT	1130	127	1810.	*	16	OCT	0000	277	1095.	*	16	OCT	1230	427	127.	*	17	OCT	0100	577	114.
15	OCT	1135	128	1849.	*	16	OCT	0005	278	1078.	*	16	OCT	1235	428	127.	*	17	OCT	0105	578	114.
15	OCT	1140	129	1887.	*	16	OCT	0010	279	1061.	*	16	OCT	1240	429	126.	*	17	OCT	0110	579	114.
15	OCT	1145	130	1926.	*	16	OCT	0015	280	1045.	*	16	OCT	1245	430	126.	*	17	OCT	0115	580	114.
15	OCT	1150	131	1964.	*	16	OCT	0020	281	1030.	*	16	OCT	1250	431	125.	*	17	OCT	0120	581	114.
15	OCT	1155	132	2003.	*	16	OCT	0025	282	1016.	*	16	OCT	1255	432	125.	*	17	OCT	0125	582	114.
15	OCT	1200	133	2042.	*	16	OCT	0030	283	1002.	*	16	OCT	1300	433	125.	*	17	OCT	0130	583	114.
15	OCT	1205	134	2082.	*	16	OCT	0035	284	988.	*	16	OCT	1305	434	124.	*	17	OCT	0135	584	114.
15	OCT	1210	135	2122.	*	16	OCT	0040	285	975.	*	16	OCT	1310	435	124.	*	17	OCT	0140	585	114.
15	OCT	1215	136	2162.	*	16	OCT	0045	286	963.	*	16	OCT	1315	436	124.	*	17	OCT	0145	586	114.
15	OCT	1220	137	2203.	*	16	OCT	0050	287	951.	*	16	OCT	1320	437	123.	*	17	OCT	0150	587	114.
15	OCT	1225	138	2245.	*	16	OCT	0055	288	940.	*	16	OCT	1325	438	123.	*	17	OCT	0155	588	114.
15	OCT	1230	139	2287.	*	16	OCT	0100	289	929.	*	16	OCT	1330	439	123.	*	17	OCT	0200	589	114.
15	OCT	1235	140	2329.	*	16	OCT	0105	290	918.	*	16	OCT	1335	440	122.	*	17	OCT	0205	590	114.
15	OCT	1240	141	2372.	*	16	OCT	0110	291	908.	*	16	OCT	1340	441	122.	*	17	OCT	0210	591	114.
15	OCT	1245	142	2416.	*	16	OCT	0115	292	898.	*	16	OCT	1345	442	122.	*	17	OCT	0215	592	114.
15	OCT	1250	143	2461.	*	16	OCT	0120	293	889.	*	16	OCT	1350	443	122.	*	17	OCT	0220	593	114.
15	OCT	1255	144	2507.	*	16	OCT	0125	294	880.	*	16	OCT	1355	444	121.	*	17	OCT	0225	594	114.
15	OCT	1300	145	2556.	*	16	OCT	0130	295	871.	*	16	OCT	1400	445	121.	*	17	OCT	0230	595	114.
15	OCT	1305	146	2608.	*	16	OCT	0135	296	862.	*	16	OCT	1405	446	121.	*	17	OCT	0235	596	114.
15	OCT	1310	147	2663.	*	16	OCT	0140	297	853.	*	16	OCT	1410	447	121.	*	17	OCT	0240	597	114.
15	OCT	1315	148	2722.	*	16	OCT	0145	298	845.	*	16	OCT	1415	448	120.	*	17	OCT	0245	598	114.
15	OCT	1320	149	2786.	*	16	OCT	0150	299	837.	*	16	OCT	1420	449	120.	*	17	OCT	0250	599	114.
15	OCT	1325	150	2860.	*	16	OCT	0155	300	829.	*	16	OCT	1425	450	120.	*	17	OCT	0255	600	114.
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 6662.	15.33		5059.	2210.	1139.	1139.
		(INCHES)	1.593	2.782	2.982	2.982
		(AC-FT)	2509.	4383.	4697.	4697.

CUMULATIVE AREA = 29.54 SQ MI

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100-year, 24 hour hydrographs: PL10+, PL10C1, PL10E, PL11, PL10B+

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15	OCT	0710	75	93.	*	15	OCT	1940	225	492.	*	16	OCT	0810	375	79.	*	16	OCT	2040	525	68.
15	OCT	0715	76	95.	*	15	OCT	1945	226	488.	*	16	OCT	0815	376	78.	*	16	OCT	2045	526	68.
15	OCT	0720	77	96.	*	15	OCT	1950	227	484.	*	16	OCT	0820	377	78.	*	16	OCT	2050	527	68.
15	OCT	0725	78	97.	*	15	OCT	1955	228	480.	*	16	OCT	0825	378	78.	*	16	OCT	2055	528	68.
15	OCT	0730	79	98.	*	15	OCT	2000	229	475.	*	16	OCT	0830	379	77.	*	16	OCT	2100	529	68.
15	OCT	0735	80	100.	*	15	OCT	2005	230	471.	*	16	OCT	0835	380	77.	*	16	OCT	2105	530	68.
15	OCT	0740	81	101.	*	15	OCT	2010	231	467.	*	16	OCT	0840	381	76.	*	16	OCT	2110	531	68.
15	OCT	0745	82	103.	*	15	OCT	2015	232	463.	*	16	OCT	0845	382	76.	*	16	OCT	2115	532	68.
15	OCT	0750	83	104.	*	15	OCT	2020	233	459.	*	16	OCT	0850	383	76.	*	16	OCT	2120	533	68.
15	OCT	0755	84	106.	*	15	OCT	2025	234	455.	*	16	OCT	0855	384	76.	*	16	OCT	2125	534	68.
15	OCT	0800	85	108.	*	15	OCT	2030	235	451.	*	16	OCT	0900	385	75.	*	16	OCT	2130	535	68.
15	OCT	0805	86	110.	*	15	OCT	2035	236	447.	*	16	OCT	0905	386	75.	*	16	OCT	2135	536	68.
15	OCT	0810	87	112.	*	15	OCT	2040	237	442.	*	16	OCT	0910	387	75.	*	16	OCT	2140	537	68.
15	OCT	0815	88	115.	*	15	OCT	2045	238	438.	*	16	OCT	0915	388	74.	*	16	OCT	2145	538	68.
15	OCT	0820	89	118.	*	15	OCT	2050	239	433.	*	16	OCT	0920	389	74.	*	16	OCT	2150	539	68.
15	OCT	0825	90	120.	*	15	OCT	2055	240	428.	*	16	OCT	0925	390	74.	*	16	OCT	2155	540	68.
15	OCT	0830	91	124.	*	15	OCT	2100	241	423.	*	16	OCT	0930	391	74.	*	16	OCT	2200	541	68.
15	OCT	0835	92	127.	*	15	OCT	2105	242	418.	*	16	OCT	0935	392	73.	*	16	OCT	2205	542	68.
15	OCT	0840	93	130.	*	15	OCT	2110	243	412.	*	16	OCT	0940	393	73.	*	16	OCT	2210	543	68.
15	OCT	0845	94	134.	*	15	OCT	2115	244	407.	*	16	OCT	0945	394	73.	*	16	OCT	2215	544	68.
15	OCT	0850	95	138.	*	15	OCT	2120	245	401.	*	16	OCT	0950	395	73.	*	16	OCT	2220	545	68.
15	OCT	0855	96	142.	*	15	OCT	2125	246	395.	*	16	OCT	0955	396	73.	*	16	OCT	2225	546	68.
15	OCT	0900	97	146.	*	15	OCT	2130	247	389.	*	16	OCT	1000	397	72.	*	16	OCT	2230	547	68.
15	OCT	0905	98	151.	*	15	OCT	2135	248	383.	*	16	OCT	1005	398	72.	*	16	OCT	2235	548	68.
15	OCT	0910	99	155.	*	15	OCT	2140	249	377.	*	16	OCT	1010	399	72.	*	16	OCT	2240	549	68.
15	OCT	0915	100	160.	*	15	OCT	2145	250	371.	*	16	OCT	1015	400	72.	*	16	OCT	2245	550	68.
15	OCT	0920	101	165.	*	15	OCT	2150	251	365.	*	16	OCT	1020	401	72.	*	16	OCT	2250	551	68.
15	OCT	0925	102	170.	*	15	OCT	2155	252	359.	*	16	OCT	1025	402	72.	*	16	OCT	2255	552	68.
15	OCT	0930	103	176.	*	15	OCT	2200	253	353.	*	16	OCT	1030	403	71.	*	16	OCT	2300	553	68.
15	OCT	0935	104	181.	*	15	OCT	2205	254	346.	*	16	OCT	1035	404	71.	*	16	OCT	2305	554	68.
15	OCT	0940	105	187.	*	15	OCT	2210	255	340.	*	16	OCT	1040	405	71.	*	16	OCT	2310	555	68.
15	OCT	0945	106	193.	*	15	OCT	2215	256	334.	*	16	OCT	1045	406	71.	*	16	OCT	2315	556	68.
15	OCT	0950	107	200.	*	15	OCT	2220	257	328.	*	16	OCT	1050	407	71.	*	16	OCT	2320	557	68.
15	OCT	0955	108	206.	*	15	OCT	2225	258	322.	*	16	OCT	1055	408	71.	*	16	OCT	2325	558	68.
15	OCT	1000	109	213.	*	15	OCT	2230	259	316.	*	16	OCT	1100	409	71.	*	16	OCT	2330	559	68.
15	OCT	1005	110	220.	*	15	OCT	2235	260	310.	*	16	OCT	1105	410	71.	*	16	OCT	2335	560	68.
15	OCT	1010	111	228.	*	15	OCT	2240	261	304.	*	16	OCT	1110	411	70.	*	16	OCT	2340	561	68.
15	OCT	1015	112	236.	*	15	OCT	2245	262	298.	*	16	OCT	1115	412	70.	*	16	OCT	2345	562	68.
15	OCT	1020	113	244.	*	15	OCT	2250	263	293.	*	16	OCT	1120	413	70.	*	16	OCT	2350	563	68.
15	OCT	1025	114	253.	*	15	OCT	2255	264	287.	*	16	OCT	1125	414	70.	*	16	OCT	2355	564	68.
15	OCT	1030	115	262.	*	15	OCT	2300	265	282.	*	16	OCT	1130	415	70.	*	17	OCT	0000	565	68.
15	OCT	1035	116	271.	*	15	OCT	2305	266	276.	*	16	OCT	1135	416	70.	*	17	OCT	0005	566	68.
15	OCT	1040	117	280.	*	15	OCT	2310	267	271.	*	16	OCT	1140	417	70.	*	17	OCT	0010	567	68.
15	OCT	1045	118	288.	*	15	OCT	2315	268	266.	*	16	OCT	1145	418	70.	*	17	OCT	0015	568	68.
15	OCT	1050	119	297.	*	15	OCT	2320	269	261.	*	16	OCT	1150	419	70.	*	17	OCT	0020	569	68.
15	OCT	1055	120	305.	*	15	OCT	2325	270	256.	*	16	OCT	1155	420	70.	*	17	OCT	0025	570	68.
15	OCT	1100	121	313.	*	15	OCT	2330	271	251.	*	16	OCT	1200	421	70.	*	17	OCT	0030	571	68.
15	OCT	1105	122	320.	*	15	OCT	2335	272	246.	*	16	OCT	1205	422	70.	*	17	OCT	0035	572	68.
15	OCT	1110	123	328.	*	15	OCT	2340	273	241.	*	16	OCT	1210	423	70.	*	17	OCT	0040	573	68.
15	OCT	1115	124	335.	*	15	OCT	2345	274	237.	*	16	OCT	1215	424	69.	*	17	OCT	0045	574	68.
15	OCT	1120	125	341.	*	15	OCT	2350	275	232.	*	16	OCT	1220	425	69.	*	17	OCT	0050	575	68.
15	OCT	1125	126	348.	*	15	OCT	2355	276	228.	*	16	OCT	1225	426	69.	*	17	OCT	0055	576	68.
15	OCT	1130	127	354.	*	16	OCT	0000	277	223.	*	16	OCT	1230	427	69.	*	17	OCT	0100	577	68.
15	OCT	1135	128	360.	*	16	OCT	0005	278	219.	*	16	OCT	1235	428	69.	*	17	OCT	0105	578	68.
15	OCT	1140	129	366.	*	16	OCT	0010	279	215.	*	16	OCT	1240	429	69.	*	17	OCT	0110	579	68.
15	OCT	1145	130	371.	*	16	OCT	0015	280	211.	*	16	OCT	1245	430	69.	*	17	OCT	0115	580	68.
15	OCT	1150	131	376.	*	16	OCT	0020	281	207.	*	16	OCT	1250	431	69.	*	17	OCT	0120	581	68.
15	OCT	1155	132	381.	*	16	OCT	0025	282	203.	*	16	OCT	1255	432	69.	*	17	OCT	0125	582	68.
15	OCT	1200	133	385.	*	16	OCT	0030	283	199.	*	16	OCT	1300	433	69.	*	17	OCT	0130	583	68.
15	OCT	1205	134	389.	*	16	OCT	0035	284	196.	*	16	OCT	1305	434	69.	*	17	OCT	0135	584	68.
15	OCT	1210	135	393.	*	16	OCT	0040	285	192.	*	16	OCT	1310	435	69.	*	17	OCT	0140	585	68.
15	OCT	1215	136	397.	*	16	OCT	0045	286	189.	*	16	OCT	1315	436	69.	*	17	OCT	0145	586	68.
15	OCT	1220	137	400.	*	16	OCT	0050	287	185.	*	16	OCT	1320	437	69.	*	17	OCT	0150	587	68.
15	OCT	1225	138	404.	*	16	OCT	0055	288	182.	*	16	OCT	1325	438	69.	*	17	OCT	0155	588	68.
15	OCT	1230	139	407.	*	16	OCT	0100	289	179.	*	16	OCT	1330	439	69.	*	17	OCT	0200	589	68.
15	OCT	1235	140	411.	*	16	OCT	0105	290	176.	*	16	OCT	1335	440	69.	*	17	OCT	0205	590	68.
15	OCT	1240	141	415.	*	16	OCT	0110	291	173.	*	16	OCT	1340	441	69.	*	17	OCT	0210	591	68.
15	OCT	1245	142	420.	*	16	OCT	0115	292	170.	*	16	OCT	1345	442	69.	*	17	OCT	0215	592	68.
15	OCT	1250	143	426.	*	16	OCT	0120	293	168.	*	16	OCT	1350	443	69.	*	17	OCT	0220	593	68.
15	OCT	1255	144	432.	*	16	OCT	0125	294	165.	*	16	OCT	1355	444	69.	*	17	OCT	0225	594	68.
15	OCT	1300	145	440.	*	16	OCT	0130	295	162.	*	16	OCT	1400	445	69.	*	17	OCT	0230	595	68.
15	OCT	1305	146	449.	*	16	OCT	0135	296	160.	*	16	OCT	1405	446	69.	*	17	OCT	0235	596	68.
15	OCT	1310	147	460.	*	16	OCT	0140	297	158.	*	16	OCT	1410	447	69.	*	17	OCT	0240	597	68.
15	OCT	1315	148	474.	*	16	OCT	0145	298	156.	*	16	OCT	1415	448	69.	*	17	OCT	0245	598	68.
15	OCT	1320	149	491.	*	16	OCT	0150	299	154.	*	16	OCT	1420	449	69.	*	17	OCT	0250	599	68.
15	OCT	1325	150	517.	*	16	OCT	0155	300	152.	*	16	OCT	1425	450	69.	*	17	OCT	0255	600	68.
					*						*						*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2146.	14.17		1232.	485.	270.	270.
		(INCHES)	2.039	3.207	3.713	3.713
		(AC-FT)	611.	961.	1113.	1113.

CUMULATIVE AREA = 5.62 SQ MI

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HYDROGRAPH AT STATION PL10C1
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
15	OCT	0100	1	35.	15	OCT	1330	151	788.	16	OCT	0200	301	65.	16	OCT	1430	451	35.
15	OCT	0105	2	35.	15	OCT	1335	152	1150.	16	OCT	0205	302	65.	16	OCT	1435	452	35.
15	OCT	0110	3	35.	15	OCT	1340	153	1390.	16	OCT	0210	303	64.	16	OCT	1440	453	35.
15	OCT	0115	4	35.	15	OCT	1345	154	1447.	16	OCT	0215	304	64.	16	OCT	1445	454	35.
15	OCT	0120	5	35.	15	OCT	1350	155	1395.	16	OCT	0220	305	63.	16	OCT	1450	455	35.
15	OCT	0125	6	35.	15	OCT	1355	156	1305.	16	OCT	0225	306	62.	16	OCT	1455	456	35.
15	OCT	0130	7	35.	15	OCT	1400	157	1184.	16	OCT	0230	307	61.	16	OCT	1500	457	35.
15	OCT	0135	8	35.	15	OCT	1405	158	1042.	16	OCT	0235	308	61.	16	OCT	1505	458	35.
15	OCT	0140	9	35.	15	OCT	1410	159	916.	16	OCT	0240	309	60.	16	OCT	1510	459	35.
15	OCT	0145	10	36.	15	OCT	1415	160	815.	16	OCT	0245	310	59.	16	OCT	1515	460	35.
15	OCT	0150	11	36.	15	OCT	1420	161	741.	16	OCT	0250	311	58.	16	OCT	1520	461	35.
15	OCT	0155	12	36.	15	OCT	1425	162	686.	16	OCT	0255	312	58.	16	OCT	1525	462	35.
15	OCT	0200	13	36.	15	OCT	1430	163	647.	16	OCT	0300	313	57.	16	OCT	1530	463	35.
15	OCT	0205	14	36.	15	OCT	1435	164	618.	16	OCT	0305	314	56.	16	OCT	1535	464	35.
15	OCT	0210	15	37.	15	OCT	1440	165	596.	16	OCT	0310	315	56.	16	OCT	1540	465	35.
15	OCT	0215	16	37.	15	OCT	1445	166	576.	16	OCT	0315	316	55.	16	OCT	1545	466	35.
15	OCT	0220	17	37.	15	OCT	1450	167	558.	16	OCT	0320	317	55.	16	OCT	1550	467	35.
15	OCT	0225	18	37.	15	OCT	1455	168	540.	16	OCT	0325	318	54.	16	OCT	1555	468	35.
15	OCT	0230	19	37.	15	OCT	1500	169	521.	16	OCT	0330	319	54.	16	OCT	1600	469	35.
15	OCT	0235	20	38.	15	OCT	1505	170	500.	16	OCT	0335	320	53.	16	OCT	1605	470	35.
15	OCT	0240	21	38.	15	OCT	1510	171	478.	16	OCT	0340	321	53.	16	OCT	1610	471	35.
15	OCT	0245	22	38.	15	OCT	1515	172	456.	16	OCT	0345	322	53.	16	OCT	1615	472	35.
15	OCT	0250	23	38.	15	OCT	1520	173	433.	16	OCT	0350	323	52.	16	OCT	1620	473	35.
15	OCT	0255	24	38.	15	OCT	1525	174	411.	16	OCT	0355	324	52.	16	OCT	1625	474	35.
15	OCT	0300	25	38.	15	OCT	1530	175	390.	16	OCT	0400	325	51.	16	OCT	1630	475	35.
15	OCT	0305	26	38.	15	OCT	1535	176	371.	16	OCT	0405	326	51.	16	OCT	1635	476	35.
15	OCT	0310	27	39.	15	OCT	1540	177	352.	16	OCT	0410	327	51.	16	OCT	1640	477	35.
15	OCT	0315	28	39.	15	OCT	1545	178	335.	16	OCT	0415	328	50.	16	OCT	1645	478	35.
15	OCT	0320	29	39.	15	OCT	1550	179	320.	16	OCT	0420	329	50.	16	OCT	1650	479	35.
15	OCT	0325	30	39.	15	OCT	1555	180	306.	16	OCT	0425	330	50.	16	OCT	1655	480	35.
15	OCT	0330	31	39.	15	OCT	1600	181	293.	16	OCT	0430	331	49.	16	OCT	1700	481	35.
15	OCT	0335	32	39.	15	OCT	1605	182	282.	16	OCT	0435	332	49.	16	OCT	1705	482	35.
15	OCT	0340	33	39.	15	OCT	1610	183	271.	16	OCT	0440	333	49.	16	OCT	1710	483	35.
15	OCT	0345	34	40.	15	OCT	1615	184	262.	16	OCT	0445	334	48.	16	OCT	1715	484	35.
15	OCT	0350	35	40.	15	OCT	1620	185	254.	16	OCT	0450	335	48.	16	OCT	1720	485	35.
15	OCT	0355	36	40.	15	OCT	1625	186	247.	16	OCT	0455	336	48.	16	OCT	1725	486	35.
15	OCT	0400	37	41.	15	OCT	1630	187	241.	16	OCT	0500	337	48.	16	OCT	1730	487	35.
15	OCT	0405	38	41.	15	OCT	1635	188	237.	16	OCT	0505	338	47.	16	OCT	1735	488	35.
15	OCT	0410	39	41.	15	OCT	1640	189	234.	16	OCT	0510	339	47.	16	OCT	1740	489	35.
15	OCT	0415	40	42.	15	OCT	1645	190	232.	16	OCT	0515	340	47.	16	OCT	1745	490	35.
15	OCT	0420	41	42.	15	OCT	1650	191	231.	16	OCT	0520	341	46.	16	OCT	1750	491	35.
15	OCT	0425	42	43.	15	OCT	1655	192	231.	16	OCT	0525	342	46.	16	OCT	1755	492	35.
15	OCT	0430	43	43.	15	OCT	1700	193	231.	16	OCT	0530	343	46.	16	OCT	1800	493	35.
15	OCT	0435	44	44.	15	OCT	1705	194	232.	16	OCT	0535	344	45.	16	OCT	1805	494	35.
15	OCT	0440	45	45.	15	OCT	1710	195	232.	16	OCT	0540	345	45.	16	OCT	1810	495	35.
15	OCT	0445	46	45.	15	OCT	1715	196	232.	16	OCT	0545	346	45.	16	OCT	1815	496	35.
15	OCT	0450	47	46.	15	OCT	1720	197	232.	16	OCT	0550	347	44.	16	OCT	1820	497	35.
15	OCT	0455	48	46.	15	OCT	1725	198	232.	16	OCT	0555	348	44.	16	OCT	1825	498	35.
15	OCT	0500	49	47.	15	OCT	1730	199	231.	16	OCT	0600	349	44.	16	OCT	1830	499	35.
15	OCT	0505	50	48.	15	OCT	1735	200	231.	16	OCT	0605	350	44.	16	OCT	1835	500	35.
15	OCT	0510	51	48.	15	OCT	1740	201	230.	16	OCT	0610	351	43.	16	OCT	1840	501	35.
15	OCT	0515	52	49.	15	OCT	1745	202	230.	16	OCT	0615	352	43.	16	OCT	1845	502	35.
15	OCT	0520	53	50.	15	OCT	1750	203	229.	16	OCT	0620	353	43.	16	OCT	1850	503	35.
15	OCT	0525	54	51.	15	OCT	1755	204	228.	16	OCT	0625	354	42.	16	OCT	1855	504	35.
15	OCT	0530	55	51.	15	OCT	1800	205	228.	16	OCT	0630	355	42.	16	OCT	1900	505	35.
15	OCT	0535	56	52.	15	OCT	1805	206	226.	16	OCT	0635	356	42.	16	OCT	1905	506	35.
15	OCT	0540	57	53.	15	OCT	1810	207	225.	16	OCT	0640	357	42.	16	OCT	1910	507	35.
15	OCT	0545	58	54.	15	OCT	1815	208	223.	16	OCT	0645	358	41.	16	OCT	1915	508	35.
15	OCT	0550	59	55.	15	OCT	1820	209	222.	16	OCT	0650	359	41.	16	OCT	1920	509	35.
15	OCT	0555	60	55.	15	OCT	1825	210	220.	16	OCT	0655	360	41.	16	OCT	1925	510	35.
15	OCT	0600	61	56.	15	OCT	1830	211	218.	16	OCT	0700	361	41.	16	OCT	1930	511	35.
15	OCT	0605	62	57.	15	OCT	1835	212	216.	16	OCT	0705	362	41.	16	OCT	1935	512	35.
15	OCT	0610	63	58.	15	OCT	1840	213	214.	16	OCT	0710	363	40.	16	OCT	1940	513	35.
15	OCT	0615	64	59.	15	OCT	1845	214	212.	16	OCT	0715	364	40.	16	OCT	1945	514	35.
15	OCT	0620	65	60.	15	OCT	1850	215	210.	16	OCT	0720	365	40.	16	OCT	1950	515	35.
15	OCT	0625	66	61.	15	OCT	1855	216	207.	16	OCT	0725	366	40.	16	OCT	1955	516	35.
15	OCT	0630	67	62.	15	OCT	1900	217	205.	16	OCT	0730	367	40.	16	OCT	2000	517	35.
15	OCT	0635	68	62.	15	OCT	1905	218	203.	16	OCT	0735	368	39.	16	OCT	2005	518	35.
15	OCT	0640	69	63.	15	OCT	1910	219	201.	16	OCT	0740	369	39.	16	OCT	2010	519	35.
15	OCT	0645	70	64.	15	OCT	1915	220	199.	16	OCT	0745	370	39.	16	OCT	2015	520	35.
15	OCT	0650	71	65.	15	OCT	1920	221	197.	16	OCT	0750	371	39.	16	OCT	2020	521	35.
15	OCT	0655	72	65.	15	OCT	1925	222	195.	16	OCT	0755	372	39.	16	OCT	2025	522	35.
15	OCT	0700	73	66.	15	OCT	1930	223	193.	16	OCT	0800	373	39.	16	OCT	2030	523	35.
15	OCT	0705	74	67.	15	OCT	1935	224	191.	16	OCT	0805	374	38.	16	OCT	2035	524	35.
15	OCT	0710	75	67.	15	OCT	1940	225	188.	16	OCT	0810	375	38.	16	OCT	2040	525	35.
15	OCT	0715	76	68.	15	OCT	1945	226	184.	16	OCT	0815	376	38.	16	OCT	2045	526	35.
15	OCT	0720	77	69.	15	OCT	1950	227	180.	16	OCT	0820	377	38.	16	OCT	2050	527	35.
15	OCT	0725	78	70.	15	OCT	1955	228	176.	16	OCT	0825	378	38.	16	OCT	2055	528	35.
15	OCT	0730	79	71.	15	OCT	2000	229	172.	16	OCT	0830	379	38.	16	OCT	2100	529	35.
15	OCT	0735	80	73.	15	OCT	2005	230	168.	16	OCT	0835	380	38.	16	OCT	2105	530	35.
15	OCT	0740	81	75.	15	OCT	2010	231	164.	16	OCT	0840	381	38.	16	OCT	2110	531	35.
15	OCT	0745	82	78.	15	OCT	2015	232	159.	16	OCT	0845	382	38.	16	OCT	2115	532	35.
15	OCT	0750	83	80.	15	OCT	2020	233	156.	16	OCT	0850	383	37.	16	OCT	2120	533	35.
15	OCT	0755	84	83.	15	OCT	2025	234	152.	16	OCT	0855	384	37.	16	OCT	2125	534	35.
15	OCT	0800	85	87.	15	OCT	2030	235	148.	16	OCT	0900	385	37.	16	OCT	2130	535	35.
15	OCT	0805	86	90.	15	OCT	2035	236	145.	16	OCT	0905	386	37.	16	OCT	2135	536	35.
15	OCT	0810	87	94.	15	OCT	2040	237	142.	16	OCT	0910	387	37.	16	OCT	2140	537	35.
15	OCT	0815	88	98.	15	OCT	2045	238	139.	16	OCT	0915	388	37.	16	OCT	2145	538	35.
15	OCT	0820	89	101.	15	OCT	2050	239	136.	16	OCT	0920	389	37.	16	OCT	2150	539	35.
15	OCT	0825	90	105.	15	OCT	2055	240	133.	16	OCT	0925	390	37.	16	OCT	2155	540	35.
15	OCT	0830	91	109.	15	OCT	2100	241	131.	16	OCT	0930	391	37.	16	OCT	2200	541	35.
15	OCT	0835	92	112.	15	OCT	2105	242	129.	16	OCT	0935	392	37.	16	OCT	2205	542	35.
15	OCT	0840	93	116.	15	OCT	2110	243	126.	16	OCT	0940	393	37.	16	OCT	2210	543	35.
15	OCT	0845	94	120.	15	OCT	2115	244	124.	16	OCT	0945	394	37.	16	OCT	2215	544	35.
15	OCT	0850	95	124.	15	OCT	2120	245	122.	16	OCT	0950	395	36.	16	OCT	2220	545	35.
15	OCT	0855	96	128.	15	OCT	2125	246	120.	16	OCT	0955	396	36.	16	OCT	2225	546	35.
15	OCT	0900	97	132.	15	OCT	2130	247	118.	16	OCT	1000	397	36.	16	OCT	2230	547	35.
15	OCT	0905	98	135.	15	OCT	2135	248	116.	16	OCT	1005	398	36.	16	OCT	2235	548	35.
15	OCT	0910	99	139.	15	OCT	2140	249	114.	16	OCT	1010	399	36.	16	OCT	2240	549	35.
15	OCT	0915	100	143.	15	OCT	2145	250	112.	16	OCT	1015	400	36.	16	OCT	2245	550	35.

15	OCT	0920	101	146.	*	15	OCT	2150	251	110.	*	16	OCT	1020	401	36.	*	16	OCT	2250	551	35.
15	OCT	0925	102	149.	*	15	OCT	2155	252	108.	*	16	OCT	1025	402	36.	*	16	OCT	2255	552	35.
15	OCT	0930	103	153.	*	15	OCT	2200	253	107.	*	16	OCT	1030	403	36.	*	16	OCT	2300	553	35.
15	OCT	0935	104	156.	*	15	OCT	2205	254	105.	*	16	OCT	1035	404	36.	*	16	OCT	2305	554	35.
15	OCT	0940	105	158.	*	15	OCT	2210	255	103.	*	16	OCT	1040	405	36.	*	16	OCT	2310	555	35.
15	OCT	0945	106	161.	*	15	OCT	2215	256	102.	*	16	OCT	1045	406	36.	*	16	OCT	2315	556	35.
15	OCT	0950	107	163.	*	15	OCT	2220	257	100.	*	16	OCT	1050	407	36.	*	16	OCT	2320	557	35.
15	OCT	0955	108	166.	*	15	OCT	2225	258	99.	*	16	OCT	1055	408	36.	*	16	OCT	2325	558	35.
15	OCT	1000	109	168.	*	15	OCT	2230	259	97.	*	16	OCT	1100	409	36.	*	16	OCT	2330	559	35.
15	OCT	1005	110	171.	*	15	OCT	2235	260	96.	*	16	OCT	1105	410	36.	*	16	OCT	2335	560	35.
15	OCT	1010	111	173.	*	15	OCT	2240	261	95.	*	16	OCT	1110	411	36.	*	16	OCT	2340	561	35.
15	OCT	1015	112	175.	*	15	OCT	2245	262	94.	*	16	OCT	1115	412	36.	*	16	OCT	2345	562	35.
15	OCT	1020	113	178.	*	15	OCT	2250	263	93.	*	16	OCT	1120	413	36.	*	16	OCT	2350	563	35.
15	OCT	1025	114	180.	*	15	OCT	2255	264	91.	*	16	OCT	1125	414	36.	*	16	OCT	2355	564	35.
15	OCT	1030	115	182.	*	15	OCT	2300	265	90.	*	16	OCT	1130	415	36.	*	17	OCT	0000	565	35.
15	OCT	1035	116	183.	*	15	OCT	2305	266	89.	*	16	OCT	1135	416	36.	*	17	OCT	0005	566	35.
15	OCT	1040	117	182.	*	15	OCT	2310	267	89.	*	16	OCT	1140	417	36.	*	17	OCT	0010	567	35.
15	OCT	1045	118	179.	*	15	OCT	2315	268	88.	*	16	OCT	1145	418	36.	*	17	OCT	0015	568	35.
15	OCT	1050	119	176.	*	15	OCT	2320	269	87.	*	16	OCT	1150	419	36.	*	17	OCT	0020	569	35.
15	OCT	1055	120	172.	*	15	OCT	2325	270	86.	*	16	OCT	1155	420	36.	*	17	OCT	0025	570	35.
15	OCT	1100	121	168.	*	15	OCT	2330	271	85.	*	16	OCT	1200	421	35.	*	17	OCT	0030	571	35.
15	OCT	1105	122	165.	*	15	OCT	2335	272	84.	*	16	OCT	1205	422	35.	*	17	OCT	0035	572	35.
15	OCT	1110	123	162.	*	15	OCT	2340	273	83.	*	16	OCT	1210	423	35.	*	17	OCT	0040	573	35.
15	OCT	1115	124	159.	*	15	OCT	2345	274	82.	*	16	OCT	1215	424	35.	*	17	OCT	0045	574	35.
15	OCT	1120	125	157.	*	15	OCT	2350	275	81.	*	16	OCT	1220	425	35.	*	17	OCT	0050	575	35.
15	OCT	1125	126	155.	*	15	OCT	2355	276	80.	*	16	OCT	1225	426	35.	*	17	OCT	0055	576	35.
15	OCT	1130	127	153.	*	16	OCT	0000	277	79.	*	16	OCT	1230	427	35.	*	17	OCT	0100	577	35.
15	OCT	1135	128	152.	*	16	OCT	0005	278	78.	*	16	OCT	1235	428	35.	*	17	OCT	0105	578	35.
15	OCT	1140	129	151.	*	16	OCT	0010	279	77.	*	16	OCT	1240	429	35.	*	17	OCT	0110	579	35.
15	OCT	1145	130	150.	*	16	OCT	0015	280	76.	*	16	OCT	1245	430	35.	*	17	OCT	0115	580	35.
15	OCT	1150	131	150.	*	16	OCT	0020	281	75.	*	16	OCT	1250	431	35.	*	17	OCT	0120	581	35.
15	OCT	1155	132	150.	*	16	OCT	0025	282	74.	*	16	OCT	1255	432	35.	*	17	OCT	0125	582	35.
15	OCT	1200	133	152.	*	16	OCT	0030	283	74.	*	16	OCT	1300	433	35.	*	17	OCT	0130	583	35.
15	OCT	1205	134	154.	*	16	OCT	0035	284	73.	*	16	OCT	1305	434	35.	*	17	OCT	0135	584	35.
15	OCT	1210	135	157.	*	16	OCT	0040	285	72.	*	16	OCT	1310	435	35.	*	17	OCT	0140	585	35.
15	OCT	1215	136	162.	*	16	OCT	0045	286	72.	*	16	OCT	1315	436	35.	*	17	OCT	0145	586	35.
15	OCT	1220	137	168.	*	16	OCT	0050	287	71.	*	16	OCT	1320	437	35.	*	17	OCT	0150	587	35.
15	OCT	1225	138	175.	*	16	OCT	0055	288	70.	*	16	OCT	1325	438	35.	*	17	OCT	0155	588	35.
15	OCT	1230	139	184.	*	16	OCT	0100	289	70.	*	16	OCT	1330	439	35.	*	17	OCT	0200	589	35.
15	OCT	1235	140	193.	*	16	OCT	0105	290	69.	*	16	OCT	1335	440	35.	*	17	OCT	0205	590	35.
15	OCT	1240	141	205.	*	16	OCT	0110	291	69.	*	16	OCT	1340	441	35.	*	17	OCT	0210	591	35.
15	OCT	1245	142	218.	*	16	OCT	0115	292	68.	*	16	OCT	1345	442	35.	*	17	OCT	0215	592	35.
15	OCT	1250	143	233.	*	16	OCT	0120	293	68.	*	16	OCT	1350	443	35.	*	17	OCT	0220	593	35.
15	OCT	1255	144	250.	*	16	OCT	0125	294	67.	*	16	OCT	1355	444	35.	*	17	OCT	0225	594	35.
15	OCT	1300	145	270.	*	16	OCT	0130	295	67.	*	16	OCT	1400	445	35.	*	17	OCT	0230	595	35.
15	OCT	1305	146	292.	*	16	OCT	0135	296	66.	*	16	OCT	1405	446	35.	*	17	OCT	0235	596	35.
15	OCT	1310	147	318.	*	16	OCT	0140	297	66.	*	16	OCT	1410	447	35.	*	17	OCT	0240	597	35.
15	OCT	1315	148	351.	*	16	OCT	0145	298	66.	*	16	OCT	1415	448	35.	*	17	OCT	0245	598	35.
15	OCT	1320	149	403.	*	16	OCT	0150	299	65.	*	16	OCT	1420	449	35.	*	17	OCT	0250	599	35.
15	OCT	1325	150	526.	*	16	OCT	0155	300	65.	*	16	OCT	1425	450	35.	*	17	OCT	0255	600	35.
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
(CFS)	(HR)					
		(CFS)				
1447.	12.75		443.	190.	111.	111.
		(INCHES)	2.124	3.650	4.410	4.410
		(AC-FT)	220.	378.	456.	456.

CUMULATIVE AREA = 1.94 SQ MI

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2926 KK   *    PL10E   *    PLEASANT GROVE CREEK
          *            *
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SUBBASIN RUNOFF DATA

2927 BA SUBBASIN CHARACTERISTICS
TARRA .35 SUBBASIN AREA

2959 BF BASE FLOW CHARACTERISTICS
STRTQ 1.05 INITIAL FLOW
QRCSN .00 BEGIN BASE FLOW RECESSION
RTIOR 1.00000 RECESSION CONSTANT

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HYDROGRAPH AT STATION PL10E

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q		DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
15	OCT	0100	1	.00	.00	.00	1.	*	16	OCT	0200	301	.01	.00	.00	5.
15	OCT	0105	2	.01	.00	.00	1.	*	16	OCT	0205	302	.00	.00	.00	5.
15	OCT	0110	3	.01	.00	.00	1.	*	16	OCT	0210	303	.00	.00	.00	5.
15	OCT	0115	4	.01	.00	.00	1.	*	16	OCT	0215	304	.00	.00	.00	5.
15	OCT	0120	5	.01	.00	.00	1.	*	16	OCT	0220	305	.00	.00	.00	5.
15	OCT	0125	6	.01	.00	.00	1.	*	16	OCT	0225	306	.00	.00	.00	5.
15	OCT	0130	7	.01	.00	.00	1.	*	16	OCT	0230	307	.00	.00	.00	5.
15	OCT	0135	8	.01	.00	.00	1.	*	16	OCT	0235	308	.00	.00	.00	4.
15	OCT	0140	9	.01	.00	.00	1.	*	16	OCT	0240	309	.00	.00	.00	4.
15	OCT	0145	10	.01	.00	.00	1.	*	16	OCT	0245	310	.00	.00	.00	4.
15	OCT	0150	11	.01	.00	.00	1.	*	16	OCT	0250	311	.00	.00	.00	4.
15	OCT	0155	12	.01	.00	.00	1.	*	16	OCT	0255	312	.00	.00	.00	4.

15	OCT	0200	13	.01	.00	.00	1.	*	16	OCT	0300	313	.00	.00	.00	4.
15	OCT	0205	14	.01	.00	.00	1.	*	16	OCT	0305	314	.00	.00	.00	4.
15	OCT	0210	15	.01	.00	.00	1.	*	16	OCT	0310	315	.00	.00	.00	4.
15	OCT	0215	16	.01	.00	.00	1.	*	16	OCT	0315	316	.00	.00	.00	3.
15	OCT	0220	17	.01	.00	.00	1.	*	16	OCT	0320	317	.00	.00	.00	3.
15	OCT	0225	18	.01	.00	.00	1.	*	16	OCT	0325	318	.00	.00	.00	3.
15	OCT	0230	19	.01	.00	.00	1.	*	16	OCT	0330	319	.00	.00	.00	3.
15	OCT	0235	20	.01	.00	.00	1.	*	16	OCT	0335	320	.00	.00	.00	3.
15	OCT	0240	21	.01	.00	.00	2.	*	16	OCT	0340	321	.00	.00	.00	3.
15	OCT	0245	22	.01	.00	.00	2.	*	16	OCT	0345	322	.00	.00	.00	3.
15	OCT	0250	23	.01	.00	.00	2.	*	16	OCT	0350	323	.00	.00	.00	3.
15	OCT	0255	24	.01	.00	.00	2.	*	16	OCT	0355	324	.00	.00	.00	3.
15	OCT	0300	25	.01	.00	.00	2.	*	16	OCT	0400	325	.00	.00	.00	3.
15	OCT	0305	26	.01	.00	.00	2.	*	16	OCT	0405	326	.00	.00	.00	3.
15	OCT	0310	27	.01	.00	.00	2.	*	16	OCT	0410	327	.00	.00	.00	3.
15	OCT	0315	28	.01	.00	.00	2.	*	16	OCT	0415	328	.00	.00	.00	3.
15	OCT	0320	29	.01	.00	.00	2.	*	16	OCT	0420	329	.00	.00	.00	2.
15	OCT	0325	30	.01	.00	.00	2.	*	16	OCT	0425	330	.00	.00	.00	2.
15	OCT	0330	31	.01	.00	.00	2.	*	16	OCT	0430	331	.00	.00	.00	2.
15	OCT	0335	32	.01	.00	.00	2.	*	16	OCT	0435	332	.00	.00	.00	2.
15	OCT	0340	33	.01	.00	.00	2.	*	16	OCT	0440	333	.00	.00	.00	2.
15	OCT	0345	34	.01	.00	.00	2.	*	16	OCT	0445	334	.00	.00	.00	2.
15	OCT	0350	35	.01	.00	.00	2.	*	16	OCT	0450	335	.00	.00	.00	2.
15	OCT	0355	36	.01	.00	.00	2.	*	16	OCT	0455	336	.00	.00	.00	2.
15	OCT	0400	37	.01	.00	.00	2.	*	16	OCT	0500	337	.00	.00	.00	2.
15	OCT	0405	38	.01	.00	.00	2.	*	16	OCT	0505	338	.00	.00	.00	2.
15	OCT	0410	39	.01	.00	.00	2.	*	16	OCT	0510	339	.00	.00	.00	2.
15	OCT	0415	40	.01	.00	.00	2.	*	16	OCT	0515	340	.00	.00	.00	2.
15	OCT	0420	41	.01	.00	.00	2.	*	16	OCT	0520	341	.00	.00	.00	2.
15	OCT	0425	42	.01	.00	.00	2.	*	16	OCT	0525	342	.00	.00	.00	2.
15	OCT	0430	43	.01	.00	.00	2.	*	16	OCT	0530	343	.00	.00	.00	2.
15	OCT	0435	44	.01	.00	.00	2.	*	16	OCT	0535	344	.00	.00	.00	2.
15	OCT	0440	45	.01	.00	.00	2.	*	16	OCT	0540	345	.00	.00	.00	2.
15	OCT	0445	46	.01	.00	.00	2.	*	16	OCT	0545	346	.00	.00	.00	2.
15	OCT	0450	47	.01	.00	.00	2.	*	16	OCT	0550	347	.00	.00	.00	2.
15	OCT	0455	48	.01	.00	.00	3.	*	16	OCT	0555	348	.00	.00	.00	2.
15	OCT	0500	49	.01	.00	.00	3.	*	16	OCT	0600	349	.00	.00	.00	2.
15	OCT	0505	50	.01	.00	.00	3.	*	16	OCT	0605	350	.00	.00	.00	2.
15	OCT	0510	51	.01	.00	.00	3.	*	16	OCT	0610	351	.00	.00	.00	2.
15	OCT	0515	52	.01	.00	.00	3.	*	16	OCT	0615	352	.00	.00	.00	2.
15	OCT	0520	53	.01	.00	.00	3.	*	16	OCT	0620	353	.00	.00	.00	2.
15	OCT	0525	54	.01	.00	.00	3.	*	16	OCT	0625	354	.00	.00	.00	2.
15	OCT	0530	55	.01	.00	.00	3.	*	16	OCT	0630	355	.00	.00	.00	2.
15	OCT	0535	56	.01	.00	.00	3.	*	16	OCT	0635	356	.00	.00	.00	2.
15	OCT	0540	57	.01	.00	.00	3.	*	16	OCT	0640	357	.00	.00	.00	2.
15	OCT	0545	58	.01	.00	.00	3.	*	16	OCT	0645	358	.00	.00	.00	2.
15	OCT	0550	59	.01	.00	.00	3.	*	16	OCT	0650	359	.00	.00	.00	2.
15	OCT	0555	60	.01	.00	.00	4.	*	16	OCT	0655	360	.00	.00	.00	2.
15	OCT	0600	61	.01	.00	.00	4.	*	16	OCT	0700	361	.00	.00	.00	2.
15	OCT	0605	62	.01	.00	.00	4.	*	16	OCT	0705	362	.00	.00	.00	2.
15	OCT	0610	63	.01	.00	.00	4.	*	16	OCT	0710	363	.00	.00	.00	2.
15	OCT	0615	64	.01	.00	.00	4.	*	16	OCT	0715	364	.00	.00	.00	2.
15	OCT	0620	65	.01	.00	.00	4.	*	16	OCT	0720	365	.00	.00	.00	2.
15	OCT	0625	66	.01	.00	.00	4.	*	16	OCT	0725	366	.00	.00	.00	2.
15	OCT	0630	67	.01	.00	.00	4.	*	16	OCT	0730	367	.00	.00	.00	2.
15	OCT	0635	68	.01	.00	.00	5.	*	16	OCT	0735	368	.00	.00	.00	1.
15	OCT	0640	69	.01	.00	.00	5.	*	16	OCT	0740	369	.00	.00	.00	1.
15	OCT	0645	70	.01	.00	.00	5.	*	16	OCT	0745	370	.00	.00	.00	1.
15	OCT	0650	71	.01	.00	.00	5.	*	16	OCT	0750	371	.00	.00	.00	1.
15	OCT	0655	72	.01	.00	.00	5.	*	16	OCT	0755	372	.00	.00	.00	1.
15	OCT	0700	73	.01	.00	.00	6.	*	16	OCT	0800	373	.00	.00	.00	1.
15	OCT	0705	74	.01	.00	.00	6.	*	16	OCT	0805	374	.00	.00	.00	1.
15	OCT	0710	75	.01	.00	.00	6.	*	16	OCT	0810	375	.00	.00	.00	1.
15	OCT	0715	76	.01	.00	.00	6.	*	16	OCT	0815	376	.00	.00	.00	1.
15	OCT	0720	77	.01	.00	.00	6.	*	16	OCT	0820	377	.00	.00	.00	1.
15	OCT	0725	78	.01	.00	.00	6.	*	16	OCT	0825	378	.00	.00	.00	1.
15	OCT	0730	79	.01	.00	.00	7.	*	16	OCT	0830	379	.00	.00	.00	1.
15	OCT	0735	80	.01	.00	.01	7.	*	16	OCT	0835	380	.00	.00	.00	1.
15	OCT	0740	81	.01	.00	.01	7.	*	16	OCT	0840	381	.00	.00	.00	1.
15	OCT	0745	82	.01	.00	.01	7.	*	16	OCT	0845	382	.00	.00	.00	1.
15	OCT	0750	83	.01	.00	.01	8.	*	16	OCT	0850	383	.00	.00	.00	1.
15	OCT	0755	84	.01	.00	.01	8.	*	16	OCT	0855	384	.00	.00	.00	1.
15	OCT	0800	85	.01	.00	.01	9.	*	16	OCT	0900	385	.00	.00	.00	1.
15	OCT	0805	86	.01	.00	.01	9.	*	16	OCT	0905	386	.00	.00	.00	1.
15	OCT	0810	87	.01	.00	.01	10.	*	16	OCT	0910	387	.00	.00	.00	1.
15	OCT	0815	88	.01	.00	.01	11.	*	16	OCT	0915	388	.00	.00	.00	1.
15	OCT	0820	89	.01	.00	.01	11.	*	16	OCT	0920	389	.00	.00	.00	1.
15	OCT	0825	90	.01	.00	.01	12.	*	16	OCT	0925	390	.00	.00	.00	1.
15	OCT	0830	91	.01	.00	.01	13.	*	16	OCT	0930	391	.00	.00	.00	1.
15	OCT	0835	92	.01	.00	.01	14.	*	16	OCT	0935	392	.00	.00	.00	1.
15	OCT	0840	93	.01	.00	.01	14.	*	16	OCT	0940	393	.00	.00	.00	1.
15	OCT	0845	94	.01	.00	.01	15.	*	16	OCT	0945	394	.00	.00	.00	1.
15	OCT	0850	95	.01	.00	.01	16.	*	16	OCT	0950	395	.00	.00	.00	1.
15	OCT	0855	96	.01	.00	.01	16.	*	16	OCT	0955	396	.00	.00	.00	1.
15	OCT	0900	97	.01	.00	.01	17.	*	16	OCT	1000	397	.00	.00	.00	1.
15	OCT	0905	98	.01	.00	.01	18.	*	16	OCT	1005	398	.00	.00	.00	1.
15	OCT	0910	99	.01	.00	.01	18.	*	16	OCT	1010	399	.00	.00	.00	1.
15	OCT	0915	100	.02	.00	.01	19.	*	16	OCT	1015	400	.00	.00	.00	1.
15	OCT	0920	101	.02	.00	.01	20.	*	16	OCT	1020	401	.00	.00	.00	1.
15	OCT	0925	102	.02	.00	.01	20.	*	16	OCT	1025	402	.00	.00	.00	1.
15	OCT	0930	103	.02	.00	.01	21.	*	16	OCT	1030	403	.00	.00	.00	1.
15	OCT	0935	104	.02	.00	.01	22.	*	16	OCT	1035	404	.00	.00	.00	1.
15	OCT	0940	105	.02	.00	.01	23.	*	16	OCT	1040	405	.00	.00	.00	1.
15	OCT	0945	106	.02	.00	.01	23.	*	16	OCT	1045	406	.00	.00	.00	1.
15	OCT	0950	107	.02	.00	.01	24.	*	16	OCT	1050	407	.00	.00	.00	1.
15	OCT	0955	108	.02	.00	.01	25.	*	16	OCT	1055	408	.00	.00	.00	1.
15	OCT	1000	109	.02	.00	.01	26.	*	16	OCT	1100	409	.00	.00	.00	1.
15	OCT	1005	110	.02	.00	.01	26.	*	16	OCT	1105	410	.00	.00	.00	1.
15	OCT	1010	111	.02	.00	.01	27.	*	16	OCT	1110	411	.00	.00	.00	1.
15	OCT	1015	112	.02	.00	.01	27.	*	16	OCT	1115	412	.00	.00	.00	1.
15	OCT	1020	113	.02	.00	.01	28.	*	16	OCT	1120	413	.00	.00	.00	1.
15	OCT	1025	114	.02	.00	.01	29.	*	16	OCT	1125	414	.00	.00	.00	1.
15	OCT	1030	115	.02	.00	.01	29.	*	16	OCT	1130	415	.00	.00	.00	1.
15	OCT	1035	116	.01	.00	.00	29.	*	16	OCT	1135	416	.00	.00	.00	1.
15	OCT	1040	117	.01	.00	.00	30.	*	16	OCT	1140	417	.00	.00	.00	1.
15	OCT	1045	118	.01	.00	.00	30.	*	16	OCT	1145	418	.00	.00	.00	1.
15	OCT	1050	119	.01	.00	.01	29.	*	16	OCT	1150	419	.00	.00	.00	1.

15	OCT	1055	120	.01	.00	.01	29.	*	16	OCT	1155	420	.00	.00	.00	1.
15	OCT	1100	121	.01	.00	.01	28.	*	16	OCT	1200	421	.00	.00	.00	1.
15	OCT	1105	122	.01	.00	.01	28.	*	16	OCT	1205	422	.00	.00	.00	1.
15	OCT	1110	123	.01	.00	.01	27.	*	16	OCT	1210	423	.00	.00	.00	1.
15	OCT	1115	124	.01	.00	.01	26.	*	16	OCT	1215	424	.00	.00	.00	1.
15	OCT	1120	125	.01	.00	.01	26.	*	16	OCT	1220	425	.00	.00	.00	1.
15	OCT	1125	126	.01	.00	.01	25.	*	16	OCT	1225	426	.00	.00	.00	1.
15	OCT	1130	127	.01	.00	.01	25.	*	16	OCT	1230	427	.00	.00	.00	1.
15	OCT	1135	128	.01	.00	.01	24.	*	16	OCT	1235	428	.00	.00	.00	1.
15	OCT	1140	129	.01	.00	.01	24.	*	16	OCT	1240	429	.00	.00	.00	1.
15	OCT	1145	130	.01	.00	.01	24.	*	16	OCT	1245	430	.00	.00	.00	1.
15	OCT	1150	131	.01	.00	.01	23.	*	16	OCT	1250	431	.00	.00	.00	1.
15	OCT	1155	132	.01	.00	.01	23.	*	16	OCT	1255	432	.00	.00	.00	1.
15	OCT	1200	133	.01	.00	.01	23.	*	16	OCT	1300	433	.00	.00	.00	1.
15	OCT	1205	134	.02	.00	.02	23.	*	16	OCT	1305	434	.00	.00	.00	1.
15	OCT	1210	135	.02	.00	.02	23.	*	16	OCT	1310	435	.00	.00	.00	1.
15	OCT	1215	136	.02	.00	.02	23.	*	16	OCT	1315	436	.00	.00	.00	1.
15	OCT	1220	137	.02	.00	.02	24.	*	16	OCT	1320	437	.00	.00	.00	1.
15	OCT	1225	138	.02	.00	.02	24.	*	16	OCT	1325	438	.00	.00	.00	1.
15	OCT	1230	139	.02	.00	.02	25.	*	16	OCT	1330	439	.00	.00	.00	1.
15	OCT	1235	140	.03	.00	.02	27.	*	16	OCT	1335	440	.00	.00	.00	1.
15	OCT	1240	141	.03	.00	.03	28.	*	16	OCT	1340	441	.00	.00	.00	1.
15	OCT	1245	142	.03	.00	.03	30.	*	16	OCT	1345	442	.00	.00	.00	1.
15	OCT	1250	143	.03	.00	.03	32.	*	16	OCT	1350	443	.00	.00	.00	1.
15	OCT	1255	144	.04	.00	.03	34.	*	16	OCT	1355	444	.00	.00	.00	1.
15	OCT	1300	145	.04	.00	.03	37.	*	16	OCT	1400	445	.00	.00	.00	1.
15	OCT	1305	146	.04	.00	.04	40.	*	16	OCT	1405	446	.00	.00	.00	1.
15	OCT	1310	147	.05	.00	.04	44.	*	16	OCT	1410	447	.00	.00	.00	1.
15	OCT	1315	148	.05	.00	.05	49.	*	16	OCT	1415	448	.00	.00	.00	1.
15	OCT	1320	149	.07	.00	.06	54.	*	16	OCT	1420	449	.00	.00	.00	1.
15	OCT	1325	150	.09	.00	.09	64.	*	16	OCT	1425	450	.00	.00	.00	1.
15	OCT	1330	151	.36	.00	.36	83.	*	16	OCT	1430	451	.00	.00	.00	1.
15	OCT	1335	152	.13	.00	.12	115.	*	16	OCT	1435	452	.00	.00	.00	1.
15	OCT	1340	153	.08	.00	.07	156.	*	16	OCT	1440	453	.00	.00	.00	1.
15	OCT	1345	154	.06	.00	.06	192.	*	16	OCT	1445	454	.00	.00	.00	1.
15	OCT	1350	155	.05	.00	.05	214.	*	16	OCT	1450	455	.00	.00	.00	1.
15	OCT	1355	156	.04	.00	.04	221.	*	16	OCT	1455	456	.00	.00	.00	1.
15	OCT	1400	157	.04	.00	.03	220.	*	16	OCT	1500	457	.00	.00	.00	1.
15	OCT	1405	158	.04	.00	.03	215.	*	16	OCT	1505	458	.00	.00	.00	1.
15	OCT	1410	159	.04	.00	.03	208.	*	16	OCT	1510	459	.00	.00	.00	1.
15	OCT	1415	160	.03	.00	.03	198.	*	16	OCT	1515	460	.00	.00	.00	1.
15	OCT	1420	161	.03	.00	.03	186.	*	16	OCT	1520	461	.00	.00	.00	1.
15	OCT	1425	162	.03	.00	.02	172.	*	16	OCT	1525	462	.00	.00	.00	1.
15	OCT	1430	163	.03	.00	.02	157.	*	16	OCT	1530	463	.00	.00	.00	1.
15	OCT	1435	164	.03	.00	.02	143.	*	16	OCT	1535	464	.00	.00	.00	1.
15	OCT	1440	165	.02	.00	.02	131.	*	16	OCT	1540	465	.00	.00	.00	1.
15	OCT	1445	166	.02	.00	.02	120.	*	16	OCT	1545	466	.00	.00	.00	1.
15	OCT	1450	167	.02	.00	.02	110.	*	16	OCT	1550	467	.00	.00	.00	1.
15	OCT	1455	168	.02	.00	.02	101.	*	16	OCT	1555	468	.00	.00	.00	1.
15	OCT	1500	169	.02	.00	.02	94.	*	16	OCT	1600	469	.00	.00	.00	1.
15	OCT	1505	170	.01	.00	.01	87.	*	16	OCT	1605	470	.00	.00	.00	1.
15	OCT	1510	171	.01	.00	.01	81.	*	16	OCT	1610	471	.00	.00	.00	1.
15	OCT	1515	172	.01	.00	.01	75.	*	16	OCT	1615	472	.00	.00	.00	1.
15	OCT	1520	173	.01	.00	.01	70.	*	16	OCT	1620	473	.00	.00	.00	1.
15	OCT	1525	174	.01	.00	.01	65.	*	16	OCT	1625	474	.00	.00	.00	1.
15	OCT	1530	175	.01	.00	.01	61.	*	16	OCT	1630	475	.00	.00	.00	1.
15	OCT	1535	176	.01	.00	.01	57.	*	16	OCT	1635	476	.00	.00	.00	1.
15	OCT	1540	177	.01	.00	.01	53.	*	16	OCT	1640	477	.00	.00	.00	1.
15	OCT	1545	178	.01	.00	.01	50.	*	16	OCT	1645	478	.00	.00	.00	1.
15	OCT	1550	179	.01	.00	.01	47.	*	16	OCT	1650	479	.00	.00	.00	1.
15	OCT	1555	180	.01	.00	.01	44.	*	16	OCT	1655	480	.00	.00	.00	1.
15	OCT	1600	181	.01	.00	.01	42.	*	16	OCT	1700	481	.00	.00	.00	1.
15	OCT	1605	182	.01	.00	.01	39.	*	16	OCT	1705	482	.00	.00	.00	1.
15	OCT	1610	183	.01	.00	.01	37.	*	16	OCT	1710	483	.00	.00	.00	1.
15	OCT	1615	184	.01	.00	.01	35.	*	16	OCT	1715	484	.00	.00	.00	1.
15	OCT	1620	185	.01	.00	.00	33.	*	16	OCT	1720	485	.00	.00	.00	1.
15	OCT	1625	186	.01	.00	.00	31.	*	16	OCT	1725	486	.00	.00	.00	1.
15	OCT	1630	187	.01	.00	.00	30.	*	16	OCT	1730	487	.00	.00	.00	1.
15	OCT	1635	188	.02	.00	.01	29.	*	16	OCT	1735	488	.00	.00	.00	1.
15	OCT	1640	189	.02	.00	.01	28.	*	16	OCT	1740	489	.00	.00	.00	1.
15	OCT	1645	190	.02	.00	.01	27.	*	16	OCT	1745	490	.00	.00	.00	1.
15	OCT	1650	191	.02	.00	.01	26.	*	16	OCT	1750	491	.00	.00	.00	1.
15	OCT	1655	192	.02	.00	.01	26.	*	16	OCT	1755	492	.00	.00	.00	1.
15	OCT	1700	193	.02	.00	.01	26.	*	16	OCT	1800	493	.00	.00	.00	1.
15	OCT	1705	194	.02	.00	.01	25.	*	16	OCT	1805	494	.00	.00	.00	1.
15	OCT	1710	195	.02	.00	.01	26.	*	16	OCT	1810	495	.00	.00	.00	1.
15	OCT	1715	196	.02	.00	.01	26.	*	16	OCT	1815	496	.00	.00	.00	1.
15	OCT	1720	197	.02	.00	.01	26.	*	16	OCT	1820	497	.00	.00	.00	1.
15	OCT	1725	198	.02	.00	.01	26.	*	16	OCT	1825	498	.00	.00	.00	1.
15	OCT	1730	199	.02	.00	.01	26.	*	16	OCT	1830	499	.00	.00	.00	1.
15	OCT	1735	200	.02	.00	.01	26.	*	16	OCT	1835	500	.00	.00	.00	1.
15	OCT	1740	201	.02	.00	.01	26.	*	16	OCT	1840	501	.00	.00	.00	1.
15	OCT	1745	202	.02	.00	.01	27.	*	16	OCT	1845	502	.00	.00	.00	1.
15	OCT	1750	203	.02	.00	.01	27.	*	16	OCT	1850	503	.00	.00	.00	1.
15	OCT	1755	204	.02	.00	.01	27.	*	16	OCT	1855	504	.00	.00	.00	1.
15	OCT	1800	205	.02	.00	.01	27.	*	16	OCT	1900	505	.00	.00	.00	1.
15	OCT	1805	206	.02	.00	.01	27.	*	16	OCT	1905	506	.00	.00	.00	1.
15	OCT	1810	207	.02	.00	.01	27.	*	16	OCT	1910	507	.00	.00	.00	1.
15	OCT	1815	208	.02	.00	.01	27.	*	16	OCT	1915	508	.00	.00	.00	1.
15	OCT	1820	209	.02	.00	.01	28.	*	16	OCT	1920	509	.00	.00	.00	1.
15	OCT	1825	210	.02	.00	.01	28.	*	16	OCT	1925	510	.00	.00	.00	1.
15	OCT	1830	211	.02	.00	.01	28.	*	16	OCT	1930	511	.00	.00	.00	1.
15	OCT	1835	212	.02	.00	.01	28.	*	16	OCT	1935	512	.00	.00	.00	1.
15	OCT	1840	213	.01	.00	.01	28.	*	16	OCT	1940	513	.00	.00	.00	1.
15	OCT	1845	214	.01	.00	.01	28.	*	16	OCT	1945	514	.00	.00	.00	1.
15	OCT	1850	215	.01	.00	.01	28.	*	16	OCT	1950	515	.00	.00	.00	1.
15	OCT	1855	216	.01	.00	.01	28.	*	16	OCT	1955	516	.00	.00	.00	1.
15	OCT	1900	217	.01	.00	.01	28.	*	16	OCT	2000	517	.00	.00	.00	1.
15	OCT	1905	218	.01	.00	.01	28.	*	16	OCT	2005	518	.00	.00	.00	1.
15	OCT	1910	219	.01	.00	.01	28.	*	16	OCT	2010	519	.00	.00	.00	1.
15	OCT	1915	220	.01	.00	.01	28.	*	16	OCT	2015	520	.00	.00	.00	1.
15	OCT	1920	221	.01	.00	.01	28.	*	16	OCT	2020	521	.00	.00	.00	1.
15	OCT	1925	222	.01	.00	.01	28.	*	16	OCT	2025	522	.00	.00	.00	1.
15	OCT	1930	223	.01	.00	.01	28.	*	16	OCT	2030	523	.00	.00	.00	1.
15	OCT	1935	224	.01	.00	.00	27.	*	16	OCT	2035	524	.00	.00	.00	1.
15	OCT	1940	225	.01	.00	.00	27.	*	16	OCT	2040	525	.00	.00	.00	1.
15	OCT	1945	226	.01	.00	.00	27.	*	16	OCT	2045	526	.00	.00	.00	1.

15	OCT	1950	227	.01	.00	.00	26.	*	16	OCT	2050	527	.00	.00	.00	1.
15	OCT	1955	228	.01	.00	.00	26.	*	16	OCT	2055	528	.00	.00	.00	1.
15	OCT	2000	229	.01	.00	.00	25.	*	16	OCT	2100	529	.00	.00	.00	1.
15	OCT	2005	230	.01	.00	.00	24.	*	16	OCT	2105	530	.00	.00	.00	1.
15	OCT	2010	231	.01	.00	.00	23.	*	16	OCT	2110	531	.00	.00	.00	1.
15	OCT	2015	232	.01	.00	.00	23.	*	16	OCT	2115	532	.00	.00	.00	1.
15	OCT	2020	233	.01	.00	.00	22.	*	16	OCT	2120	533	.00	.00	.00	1.
15	OCT	2025	234	.01	.00	.00	21.	*	16	OCT	2125	534	.00	.00	.00	1.
15	OCT	2030	235	.01	.00	.00	21.	*	16	OCT	2130	535	.00	.00	.00	1.
15	OCT	2035	236	.01	.00	.00	20.	*	16	OCT	2135	536	.00	.00	.00	1.
15	OCT	2040	237	.01	.00	.00	19.	*	16	OCT	2140	537	.00	.00	.00	1.
15	OCT	2045	238	.01	.00	.00	19.	*	16	OCT	2145	538	.00	.00	.00	1.
15	OCT	2050	239	.01	.00	.00	18.	*	16	OCT	2150	539	.00	.00	.00	1.
15	OCT	2055	240	.01	.00	.00	17.	*	16	OCT	2155	540	.00	.00	.00	1.
15	OCT	2100	241	.01	.00	.00	17.	*	16	OCT	2200	541	.00	.00	.00	1.
15	OCT	2105	242	.01	.00	.00	16.	*	16	OCT	2205	542	.00	.00	.00	1.
15	OCT	2110	243	.01	.00	.00	16.	*	16	OCT	2210	543	.00	.00	.00	1.
15	OCT	2115	244	.01	.00	.00	15.	*	16	OCT	2215	544	.00	.00	.00	1.
15	OCT	2120	245	.01	.00	.00	15.	*	16	OCT	2220	545	.00	.00	.00	1.
15	OCT	2125	246	.01	.00	.00	15.	*	16	OCT	2225	546	.00	.00	.00	1.
15	OCT	2130	247	.01	.00	.00	14.	*	16	OCT	2230	547	.00	.00	.00	1.
15	OCT	2135	248	.01	.00	.00	14.	*	16	OCT	2235	548	.00	.00	.00	1.
15	OCT	2140	249	.01	.00	.00	14.	*	16	OCT	2240	549	.00	.00	.00	1.
15	OCT	2145	250	.01	.00	.00	13.	*	16	OCT	2245	550	.00	.00	.00	1.
15	OCT	2150	251	.01	.00	.00	13.	*	16	OCT	2250	551	.00	.00	.00	1.
15	OCT	2155	252	.01	.00	.00	12.	*	16	OCT	2255	552	.00	.00	.00	1.
15	OCT	2200	253	.01	.00	.00	12.	*	16	OCT	2300	553	.00	.00	.00	1.
15	OCT	2205	254	.01	.00	.00	12.	*	16	OCT	2305	554	.00	.00	.00	1.
15	OCT	2210	255	.01	.00	.00	12.	*	16	OCT	2310	555	.00	.00	.00	1.
15	OCT	2215	256	.01	.00	.00	11.	*	16	OCT	2315	556	.00	.00	.00	1.
15	OCT	2220	257	.01	.00	.00	11.	*	16	OCT	2320	557	.00	.00	.00	1.
15	OCT	2225	258	.01	.00	.00	11.	*	16	OCT	2325	558	.00	.00	.00	1.
15	OCT	2230	259	.01	.00	.00	10.	*	16	OCT	2330	559	.00	.00	.00	1.
15	OCT	2235	260	.01	.00	.00	10.	*	16	OCT	2335	560	.00	.00	.00	1.
15	OCT	2240	261	.01	.00	.00	10.	*	16	OCT	2340	561	.00	.00	.00	1.
15	OCT	2245	262	.01	.00	.00	10.	*	16	OCT	2345	562	.00	.00	.00	1.
15	OCT	2250	263	.01	.00	.00	9.	*	16	OCT	2350	563	.00	.00	.00	1.
15	OCT	2255	264	.01	.00	.00	9.	*	16	OCT	2355	564	.00	.00	.00	1.
15	OCT	2300	265	.01	.00	.00	9.	*	17	OCT	0000	565	.00	.00	.00	1.
15	OCT	2305	266	.01	.00	.00	9.	*	17	OCT	0005	566	.00	.00	.00	1.
15	OCT	2310	267	.01	.00	.00	9.	*	17	OCT	0010	567	.00	.00	.00	1.
15	OCT	2315	268	.01	.00	.00	9.	*	17	OCT	0015	568	.00	.00	.00	1.
15	OCT	2320	269	.01	.00	.00	8.	*	17	OCT	0020	569	.00	.00	.00	1.
15	OCT	2325	270	.01	.00	.00	8.	*	17	OCT	0025	570	.00	.00	.00	1.
15	OCT	2330	271	.01	.00	.00	8.	*	17	OCT	0030	571	.00	.00	.00	1.
15	OCT	2335	272	.01	.00	.00	8.	*	17	OCT	0035	572	.00	.00	.00	1.
15	OCT	2340	273	.01	.00	.00	8.	*	17	OCT	0040	573	.00	.00	.00	1.
15	OCT	2345	274	.01	.00	.00	8.	*	17	OCT	0045	574	.00	.00	.00	1.
15	OCT	2350	275	.01	.00	.00	8.	*	17	OCT	0050	575	.00	.00	.00	1.
15	OCT	2355	276	.01	.00	.00	7.	*	17	OCT	0055	576	.00	.00	.00	1.
16	OCT	0000	277	.01	.00	.00	7.	*	17	OCT	0100	577	.00	.00	.00	1.
16	OCT	0005	278	.01	.00	.00	7.	*	17	OCT	0105	578	.00	.00	.00	1.
16	OCT	0010	279	.01	.00	.00	7.	*	17	OCT	0110	579	.00	.00	.00	1.
16	OCT	0015	280	.01	.00	.00	7.	*	17	OCT	0115	580	.00	.00	.00	1.
16	OCT	0020	281	.01	.00	.00	7.	*	17	OCT	0120	581	.00	.00	.00	1.
16	OCT	0025	282	.01	.00	.00	6.	*	17	OCT	0125	582	.00	.00	.00	1.
16	OCT	0030	283	.01	.00	.00	6.	*	17	OCT	0130	583	.00	.00	.00	1.
16	OCT	0035	284	.01	.00	.00	6.	*	17	OCT	0135	584	.00	.00	.00	1.
16	OCT	0040	285	.01	.00	.00	6.	*	17	OCT	0140	585	.00	.00	.00	1.
16	OCT	0045	286	.01	.00	.00	6.	*	17	OCT	0145	586	.00	.00	.00	1.
16	OCT	0050	287	.01	.00	.00	6.	*	17	OCT	0150	587	.00	.00	.00	1.
16	OCT	0055	288	.01	.00	.00	6.	*	17	OCT	0155	588	.00	.00	.00	1.
16	OCT	0100	289	.01	.00	.00	6.	*	17	OCT	0200	589	.00	.00	.00	1.
16	OCT	0105	290	.01	.00	.00	6.	*	17	OCT	0205	590	.00	.00	.00	1.
16	OCT	0110	291	.01	.00	.00	6.	*	17	OCT	0210	591	.00	.00	.00	1.
16	OCT	0115	292	.01	.00	.00	5.	*	17	OCT	0215	592	.00	.00	.00	1.
16	OCT	0120	293	.01	.00	.00	5.	*	17	OCT	0220	593	.00	.00	.00	1.
16	OCT	0125	294	.01	.00	.00	5.	*	17	OCT	0225	594	.00	.00	.00	1.
16	OCT	0130	295	.01	.00	.00	5.	*	17	OCT	0230	595	.00	.00	.00	1.
16	OCT	0135	296	.01	.00	.00	5.	*	17	OCT	0235	596	.00	.00	.00	1.
16	OCT	0140	297	.01	.00	.00	5.	*	17	OCT	0240	597	.00	.00	.00	1.
16	OCT	0145	298	.01	.00	.00	5.	*	17	OCT	0245	598	.00	.00	.00	1.
16	OCT	0150	299	.01	.00	.00	5.	*	17	OCT	0250	599	.00	.00	.00	1.
16	OCT	0155	300	.01	.00	.00	5.	*	17	OCT	0255	600	.00	.00	.00	1.
								*								

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TOTAL RAINFALL = 4.32, TOTAL LOSS = 1.43, TOTAL EXCESS = 2.90

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 221.	12.92		70.	27.	14.	14.
		(INCHES)	1.866	2.885	3.032	3.032
		(AC-FT)	35.	54.	57.	57.

CUMULATIVE AREA = .35 SQ MI

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              *             *
2967 KK       *     PL11    *     PLEASANT GROVE CREEK TRIBUTARY
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SUBBASIN RUNOFF DATA

2968 BA SUBBASIN CHARACTERISTICS
TAREA 3.97 SUBBASIN AREA

3000 BF BASE FLOW CHARACTERISTICS

STRTQ	11.91	INITIAL FLOW
QRCSN	.00	BEGIN BASE FLOW RECESSION
RTIOR	1.00000	RECESSION CONSTANT

HYDROGRAPH AT STATION PL11

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
15	OCT	0100	1	.00	.00	.00	12.	16	OCT	0200	301	.01	.00	.00	44.
15	OCT	0105	2	.01	.00	.00	12.	16	OCT	0205	302	.00	.00	.00	43.
15	OCT	0110	3	.01	.00	.00	12.	16	OCT	0210	303	.00	.00	.00	42.
15	OCT	0115	4	.01	.00	.00	12.	16	OCT	0215	304	.00	.00	.00	42.
15	OCT	0120	5	.01	.00	.00	12.	16	OCT	0220	305	.00	.00	.00	41.
15	OCT	0125	6	.01	.00	.00	12.	16	OCT	0225	306	.00	.00	.00	41.
15	OCT	0130	7	.01	.00	.00	12.	16	OCT	0230	307	.00	.00	.00	40.
15	OCT	0135	8	.01	.00	.00	12.	16	OCT	0235	308	.00	.00	.00	40.
15	OCT	0140	9	.01	.00	.00	12.	16	OCT	0240	309	.00	.00	.00	39.
15	OCT	0145	10	.01	.00	.00	12.	16	OCT	0245	310	.00	.00	.00	38.
15	OCT	0150	11	.01	.00	.00	12.	16	OCT	0250	311	.00	.00	.00	38.
15	OCT	0155	12	.01	.00	.00	12.	16	OCT	0255	312	.00	.00	.00	37.
15	OCT	0200	13	.01	.00	.00	12.	16	OCT	0300	313	.00	.00	.00	36.
15	OCT	0205	14	.01	.00	.00	12.	16	OCT	0305	314	.00	.00	.00	36.
15	OCT	0210	15	.01	.00	.00	12.	16	OCT	0310	315	.00	.00	.00	35.
15	OCT	0215	16	.01	.00	.00	12.	16	OCT	0315	316	.00	.00	.00	34.
15	OCT	0220	17	.01	.00	.00	12.	16	OCT	0320	317	.00	.00	.00	34.
15	OCT	0225	18	.01	.00	.00	12.	16	OCT	0325	318	.00	.00	.00	33.
15	OCT	0230	19	.01	.00	.00	13.	16	OCT	0330	319	.00	.00	.00	32.
15	OCT	0235	20	.01	.00	.00	13.	16	OCT	0335	320	.00	.00	.00	31.
15	OCT	0240	21	.01	.00	.00	13.	16	OCT	0340	321	.00	.00	.00	30.
15	OCT	0245	22	.01	.00	.00	13.	16	OCT	0345	322	.00	.00	.00	30.
15	OCT	0250	23	.01	.00	.00	13.	16	OCT	0350	323	.00	.00	.00	29.
15	OCT	0255	24	.01	.00	.00	13.	16	OCT	0355	324	.00	.00	.00	28.
15	OCT	0300	25	.01	.00	.00	13.	16	OCT	0400	325	.00	.00	.00	27.
15	OCT	0305	26	.01	.00	.00	14.	16	OCT	0405	326	.00	.00	.00	27.
15	OCT	0310	27	.01	.00	.00	14.	16	OCT	0410	327	.00	.00	.00	26.
15	OCT	0315	28	.01	.00	.00	14.	16	OCT	0415	328	.00	.00	.00	25.
15	OCT	0320	29	.01	.00	.00	14.	16	OCT	0420	329	.00	.00	.00	25.
15	OCT	0325	30	.01	.00	.00	14.	16	OCT	0425	330	.00	.00	.00	24.
15	OCT	0330	31	.01	.00	.00	15.	16	OCT	0430	331	.00	.00	.00	23.
15	OCT	0335	32	.01	.00	.00	15.	16	OCT	0435	332	.00	.00	.00	23.
15	OCT	0340	33	.01	.00	.00	15.	16	OCT	0440	333	.00	.00	.00	22.
15	OCT	0345	34	.01	.00	.00	15.	16	OCT	0445	334	.00	.00	.00	22.
15	OCT	0350	35	.01	.00	.00	16.	16	OCT	0450	335	.00	.00	.00	21.
15	OCT	0355	36	.01	.00	.00	16.	16	OCT	0455	336	.00	.00	.00	21.
15	OCT	0400	37	.01	.00	.00	16.	16	OCT	0500	337	.00	.00	.00	20.
15	OCT	0405	38	.01	.00	.00	16.	16	OCT	0505	338	.00	.00	.00	20.
15	OCT	0410	39	.01	.00	.00	16.	16	OCT	0510	339	.00	.00	.00	20.
15	OCT	0415	40	.01	.00	.00	17.	16	OCT	0515	340	.00	.00	.00	19.
15	OCT	0420	41	.01	.00	.00	17.	16	OCT	0520	341	.00	.00	.00	19.
15	OCT	0425	42	.01	.00	.00	17.	16	OCT	0525	342	.00	.00	.00	19.
15	OCT	0430	43	.01	.00	.00	18.	16	OCT	0530	343	.00	.00	.00	18.
15	OCT	0435	44	.01	.00	.00	18.	16	OCT	0535	344	.00	.00	.00	18.
15	OCT	0440	45	.01	.00	.00	18.	16	OCT	0540	345	.00	.00	.00	18.
15	OCT	0445	46	.01	.00	.00	19.	16	OCT	0545	346	.00	.00	.00	17.
15	OCT	0450	47	.01	.00	.00	19.	16	OCT	0550	347	.00	.00	.00	17.
15	OCT	0455	48	.01	.00	.00	20.	16	OCT	0555	348	.00	.00	.00	17.
15	OCT	0500	49	.01	.00	.00	20.	16	OCT	0600	349	.00	.00	.00	17.
15	OCT	0505	50	.01	.00	.00	20.	16	OCT	0605	350	.00	.00	.00	17.
15	OCT	0510	51	.01	.00	.00	21.	16	OCT	0610	351	.00	.00	.00	16.
15	OCT	0515	52	.01	.00	.00	21.	16	OCT	0615	352	.00	.00	.00	16.
15	OCT	0520	53	.01	.00	.00	22.	16	OCT	0620	353	.00	.00	.00	16.
15	OCT	0525	54	.01	.00	.00	23.	16	OCT	0625	354	.00	.00	.00	16.
15	OCT	0530	55	.01	.00	.00	23.	16	OCT	0630	355	.00	.00	.00	16.
15	OCT	0535	56	.01	.00	.00	24.	16	OCT	0635	356	.00	.00	.00	15.
15	OCT	0540	57	.01	.00	.00	25.	16	OCT	0640	357	.00	.00	.00	15.
15	OCT	0545	58	.01	.00	.00	25.	16	OCT	0645	358	.00	.00	.00	15.
15	OCT	0550	59	.01	.00	.00	26.	16	OCT	0650	359	.00	.00	.00	15.
15	OCT	0555	60	.01	.00	.00	27.	16	OCT	0655	360	.00	.00	.00	15.
15	OCT	0600	61	.01	.00	.00	28.	16	OCT	0700	361	.00	.00	.00	15.
15	OCT	0605	62	.01	.00	.00	28.	16	OCT	0705	362	.00	.00	.00	15.
15	OCT	0610	63	.01	.00	.00	29.	16	OCT	0710	363	.00	.00	.00	15.
15	OCT	0615	64	.01	.00	.00	30.	16	OCT	0715	364	.00	.00	.00	14.
15	OCT	0620	65	.01	.00	.00	31.	16	OCT	0720	365	.00	.00	.00	14.
15	OCT	0625	66	.01	.00	.00	33.	16	OCT	0725	366	.00	.00	.00	14.
15	OCT	0630	67	.01	.00	.00	34.	16	OCT	0730	367	.00	.00	.00	14.
15	OCT	0635	68	.01	.00	.00	35.	16	OCT	0735	368	.00	.00	.00	14.
15	OCT	0640	69	.01	.00	.00	36.	16	OCT	0740	369	.00	.00	.00	14.
15	OCT	0645	70	.01	.00	.00	37.	16	OCT	0745	370	.00	.00	.00	14.
15	OCT	0650	71	.01	.00	.00	39.	16	OCT	0750	371	.00	.00	.00	14.
15	OCT	0655	72	.01	.00	.00	40.	16	OCT	0755	372	.00	.00	.00	14.
15	OCT	0700	73	.01	.00	.00	41.	16	OCT	0800	373	.00	.00	.00	14.
15	OCT	0705	74	.01	.00	.00	43.	16	OCT	0805	374	.00	.00	.00	14.
15	OCT	0710	75	.01	.00	.00	44.	16	OCT	0810	375	.00	.00	.00	14.
15	OCT	0715	76	.01	.00	.00	46.	16	OCT	0815	376	.00	.00	.00	13.
15	OCT	0720	77	.01	.00	.00	47.	16	OCT	0820	377	.00	.00	.00	13.
15	OCT	0725	78	.01	.00	.00	49.	16	OCT	0825	378	.00	.00	.00	13.
15	OCT	0730	79	.01	.00	.00	50.	16	OCT	0830	379	.00	.00	.00	13.
15	OCT	0735	80	.01	.00	.01	52.	16	OCT	0835	380	.00	.00	.00	13.
15	OCT	0740	81	.01	.00	.01	53.	16	OCT	0840	381	.00	.00	.00	13.
15	OCT	0745	82	.01	.00	.01	55.	16	OCT	0845	382	.00	.00	.00	13.
15	OCT	0750	83	.01	.00	.01	57.	16	OCT	0850	383	.00	.00	.00	13.
15	OCT	0755	84	.01	.00	.01	59.	16	OCT	0855	384	.00	.00	.00	13.
15	OCT	0800	85	.01	.00	.01	62.	16	OCT	0900	385	.00	.00	.00	13.
15	OCT	0805	86	.01	.00	.01	65.	16	OCT	0905	386	.00	.00	.00	13.
15	OCT	0810	87	.01	.00	.01	68.	16	OCT	0910	387	.00	.00	.00	13.
15	OCT	0815	88	.01	.00	.01	71.	16	OCT	0915	388	.00	.00	.00	13.
15	OCT	0820	89	.01	.00	.01	75.	16	OCT	0920	389	.00	.00	.00	13.
15	OCT	0825	90	.01	.00	.01	78.	16	OCT	0925	390	.00	.00	.00	13.
15	OCT	0830	91	.01	.00	.01	83.	16	OCT	0930	391	.00	.00	.00	13.
15	OCT	0835	92	.01	.00	.01	87.	16	OCT	0935	392	.00	.00	.00	13.
15	OCT	0840	93	.01	.00	.01	92.	16	OCT	0940	393	.00	.00	.00	13.
15	OCT	0845	94	.01	.00	.01	98.	16	OCT	0945	394	.00	.00	.00	13.

15	OCT	0850	95	.01	.00	.01	103.	*	16	OCT	0950	395	.00	.00	.00	13.
15	OCT	0855	96	.01	.00	.01	109.	*	16	OCT	0955	396	.00	.00	.00	13.
15	OCT	0900	97	.01	.00	.01	116.	*	16	OCT	1000	397	.00	.00	.00	13.
15	OCT	0905	98	.01	.00	.01	123.	*	16	OCT	1005	398	.00	.00	.00	13.
15	OCT	0910	99	.02	.00	.01	130.	*	16	OCT	1010	399	.00	.00	.00	13.
15	OCT	0915	100	.02	.00	.01	137.	*	16	OCT	1015	400	.00	.00	.00	13.
15	OCT	0920	101	.02	.00	.01	145.	*	16	OCT	1020	401	.00	.00	.00	13.
15	OCT	0925	102	.02	.00	.01	153.	*	16	OCT	1025	402	.00	.00	.00	13.
15	OCT	0930	103	.02	.00	.01	161.	*	16	OCT	1030	403	.00	.00	.00	13.
15	OCT	0935	104	.02	.00	.01	170.	*	16	OCT	1035	404	.00	.00	.00	13.
15	OCT	0940	105	.02	.00	.01	178.	*	16	OCT	1040	405	.00	.00	.00	13.
15	OCT	0945	106	.02	.00	.01	187.	*	16	OCT	1045	406	.00	.00	.00	13.
15	OCT	0950	107	.02	.00	.01	196.	*	16	OCT	1050	407	.00	.00	.00	13.
15	OCT	0955	108	.02	.00	.01	205.	*	16	OCT	1055	408	.00	.00	.00	13.
15	OCT	1000	109	.02	.00	.01	214.	*	16	OCT	1100	409	.00	.00	.00	13.
15	OCT	1005	110	.02	.00	.01	222.	*	16	OCT	1105	410	.00	.00	.00	12.
15	OCT	1010	111	.02	.00	.01	231.	*	16	OCT	1110	411	.00	.00	.00	12.
15	OCT	1015	112	.02	.00	.01	239.	*	16	OCT	1115	412	.00	.00	.00	12.
15	OCT	1020	113	.02	.00	.01	247.	*	16	OCT	1120	413	.00	.00	.00	12.
15	OCT	1025	114	.02	.00	.01	256.	*	16	OCT	1125	414	.00	.00	.00	12.
15	OCT	1030	115	.02	.00	.01	263.	*	16	OCT	1130	415	.00	.00	.00	12.
15	OCT	1035	116	.01	.00	.00	271.	*	16	OCT	1135	416	.00	.00	.00	12.
15	OCT	1040	117	.01	.00	.00	278.	*	16	OCT	1140	417	.00	.00	.00	12.
15	OCT	1045	118	.01	.00	.01	284.	*	16	OCT	1145	418	.00	.00	.00	12.
15	OCT	1050	119	.01	.00	.01	289.	*	16	OCT	1150	419	.00	.00	.00	12.
15	OCT	1055	120	.01	.00	.01	293.	*	16	OCT	1155	420	.00	.00	.00	12.
15	OCT	1100	121	.01	.00	.01	296.	*	16	OCT	1200	421	.00	.00	.00	12.
15	OCT	1105	122	.01	.00	.01	299.	*	16	OCT	1205	422	.00	.00	.00	12.
15	OCT	1110	123	.01	.00	.01	300.	*	16	OCT	1210	423	.00	.00	.00	12.
15	OCT	1115	124	.01	.00	.01	300.	*	16	OCT	1215	424	.00	.00	.00	12.
15	OCT	1120	125	.01	.00	.01	300.	*	16	OCT	1220	425	.00	.00	.00	12.
15	OCT	1125	126	.01	.00	.01	299.	*	16	OCT	1225	426	.00	.00	.00	12.
15	OCT	1130	127	.01	.00	.01	297.	*	16	OCT	1230	427	.00	.00	.00	12.
15	OCT	1135	128	.01	.00	.01	294.	*	16	OCT	1235	428	.00	.00	.00	12.
15	OCT	1140	129	.01	.00	.01	292.	*	16	OCT	1240	429	.00	.00	.00	12.
15	OCT	1145	130	.01	.00	.01	288.	*	16	OCT	1245	430	.00	.00	.00	12.
15	OCT	1150	131	.01	.00	.01	285.	*	16	OCT	1250	431	.00	.00	.00	12.
15	OCT	1155	132	.01	.00	.01	281.	*	16	OCT	1255	432	.00	.00	.00	12.
15	OCT	1200	133	.01	.00	.01	277.	*	16	OCT	1300	433	.00	.00	.00	12.
15	OCT	1205	134	.02	.00	.02	273.	*	16	OCT	1305	434	.00	.00	.00	12.
15	OCT	1210	135	.02	.00	.02	269.	*	16	OCT	1310	435	.00	.00	.00	12.
15	OCT	1215	136	.02	.00	.02	266.	*	16	OCT	1315	436	.00	.00	.00	12.
15	OCT	1220	137	.02	.00	.02	264.	*	16	OCT	1320	437	.00	.00	.00	12.
15	OCT	1225	138	.02	.00	.02	262.	*	16	OCT	1325	438	.00	.00	.00	12.
15	OCT	1230	139	.02	.00	.02	261.	*	16	OCT	1330	439	.00	.00	.00	12.
15	OCT	1235	140	.03	.00	.02	262.	*	16	OCT	1335	440	.00	.00	.00	12.
15	OCT	1240	141	.03	.00	.03	264.	*	16	OCT	1340	441	.00	.00	.00	12.
15	OCT	1245	142	.03	.00	.03	267.	*	16	OCT	1345	442	.00	.00	.00	12.
15	OCT	1250	143	.03	.00	.03	273.	*	16	OCT	1350	443	.00	.00	.00	12.
15	OCT	1255	144	.04	.00	.03	281.	*	16	OCT	1355	444	.00	.00	.00	12.
15	OCT	1300	145	.04	.00	.04	291.	*	16	OCT	1400	445	.00	.00	.00	12.
15	OCT	1305	146	.04	.00	.04	305.	*	16	OCT	1405	446	.00	.00	.00	12.
15	OCT	1310	147	.05	.00	.04	322.	*	16	OCT	1410	447	.00	.00	.00	12.
15	OCT	1315	148	.05	.00	.05	344.	*	16	OCT	1415	448	.00	.00	.00	12.
15	OCT	1320	149	.07	.00	.06	372.	*	16	OCT	1420	449	.00	.00	.00	12.
15	OCT	1325	150	.10	.00	.09	412.	*	16	OCT	1425	450	.00	.00	.00	12.
15	OCT	1330	151	.40	.00	.40	483.	*	16	OCT	1430	451	.00	.00	.00	12.
15	OCT	1335	152	.13	.00	.13	597.	*	16	OCT	1435	452	.00	.00	.00	12.
15	OCT	1340	153	.08	.00	.07	756.	*	16	OCT	1440	453	.00	.00	.00	12.
15	OCT	1345	154	.06	.00	.06	946.	*	16	OCT	1445	454	.00	.00	.00	12.
15	OCT	1350	155	.05	.00	.05	1148.	*	16	OCT	1450	455	.00	.00	.00	12.
15	OCT	1355	156	.04	.00	.04	1349.	*	16	OCT	1455	456	.00	.00	.00	12.
15	OCT	1400	157	.04	.00	.03	1543.	*	16	OCT	1500	457	.00	.00	.00	12.
15	OCT	1405	158	.04	.00	.03	1720.	*	16	OCT	1505	458	.00	.00	.00	12.
15	OCT	1410	159	.04	.00	.03	1870.	*	16	OCT	1510	459	.00	.00	.00	12.
15	OCT	1415	160	.03	.00	.03	1987.	*	16	OCT	1515	460	.00	.00	.00	12.
15	OCT	1420	161	.03	.00	.03	2066.	*	16	OCT	1520	461	.00	.00	.00	12.
15	OCT	1425	162	.03	.00	.02	2106.	*	16	OCT	1525	462	.00	.00	.00	12.
15	OCT	1430	163	.03	.00	.02	2108.	*	16	OCT	1530	463	.00	.00	.00	12.
15	OCT	1435	164	.03	.00	.02	2077.	*	16	OCT	1535	464	.00	.00	.00	12.
15	OCT	1440	165	.02	.00	.02	2017.	*	16	OCT	1540	465	.00	.00	.00	12.
15	OCT	1445	166	.02	.00	.02	1936.	*	16	OCT	1545	466	.00	.00	.00	12.
15	OCT	1450	167	.02	.00	.02	1840.	*	16	OCT	1550	467	.00	.00	.00	12.
15	OCT	1455	168	.02	.00	.02	1737.	*	16	OCT	1555	468	.00	.00	.00	12.
15	OCT	1500	169	.02	.00	.02	1631.	*	16	OCT	1600	469	.00	.00	.00	12.
15	OCT	1505	170	.01	.00	.01	1525.	*	16	OCT	1605	470	.00	.00	.00	12.
15	OCT	1510	171	.01	.00	.01	1423.	*	16	OCT	1610	471	.00	.00	.00	12.
15	OCT	1515	172	.01	.00	.01	1325.	*	16	OCT	1615	472	.00	.00	.00	12.
15	OCT	1520	173	.01	.00	.01	1233.	*	16	OCT	1620	473	.00	.00	.00	12.
15	OCT	1525	174	.01	.00	.01	1147.	*	16	OCT	1625	474	.00	.00	.00	12.
15	OCT	1530	175	.01	.00	.01	1068.	*	16	OCT	1630	475	.00	.00	.00	12.
15	OCT	1535	176	.01	.00	.01	995.	*	16	OCT	1635	476	.00	.00	.00	12.
15	OCT	1540	177	.01	.00	.01	928.	*	16	OCT	1640	477	.00	.00	.00	12.
15	OCT	1545	178	.01	.00	.01	867.	*	16	OCT	1645	478	.00	.00	.00	12.
15	OCT	1550	179	.01	.00	.01	810.	*	16	OCT	1650	479	.00	.00	.00	12.
15	OCT	1555	180	.01	.00	.01	758.	*	16	OCT	1655	480	.00	.00	.00	12.
15	OCT	1600	181	.01	.00	.01	711.	*	16	OCT	1700	481	.00	.00	.00	12.
15	OCT	1605	182	.01	.00	.01	667.	*	16	OCT	1705	482	.00	.00	.00	12.
15	OCT	1610	183	.01	.00	.01	627.	*	16	OCT	1710	483	.00	.00	.00	12.
15	OCT	1615	184	.01	.00	.01	590.	*	16	OCT	1715	484	.00	.00	.00	12.
15	OCT	1620	185	.01	.00	.00	555.	*	16	OCT	1720	485	.00	.00	.00	12.
15	OCT	1625	186	.01	.00	.00	524.	*	16	OCT	1725	486	.00	.00	.00	12.
15	OCT	1630	187	.01	.00	.00	494.	*	16	OCT	1730	487	.00	.00	.00	12.
15	OCT	1635	188	.02	.00	.01	467.	*	16	OCT	1735	488	.00	.00	.00	12.
15	OCT	1640	189	.02	.00	.01	442.	*	16	OCT	1740	489	.00	.00	.00	12.
15	OCT	1645	190	.02	.00	.01	419.	*	16	OCT	1745	490	.00	.00	.00	12.
15	OCT	1650	191	.02	.00	.01	398.	*	16	OCT	1750	491	.00	.00	.00	12.
15	OCT	1655	192	.02	.00	.01	380.	*	16	OCT	1755	492	.00	.00	.00	12.
15	OCT	1700	193	.02	.00	.01	363.	*	16	OCT	1800	493	.00	.00	.00	12.
15	OCT	1705	194	.02	.00	.01	349.	*	16	OCT	1805	494	.00	.00	.00	12.
15	OCT	1710	195	.02	.00	.01	336.	*	16	OCT	1810	495	.00	.00	.00	12.
15	OCT	1715	196	.02	.00	.01	325.	*	16	OCT	1815	496	.00	.00	.00	12.
15	OCT	1720	197	.02	.00	.01	315.	*	16	OCT	1820	497	.00	.00	.00	12.
15	OCT	1725	198	.02	.00	.01	307.	*	16	OCT	1825	498	.00	.00	.00	12.
15	OCT	1730	199	.02	.00	.01	299.	*	16	OCT	1830	499	.00	.00	.00	12.
15	OCT	1735	200	.02	.00	.01	293.	*	16	OCT	1835	500	.00	.00	.00	12.
15	OCT	1740	201	.02	.00	.01	288.	*	16	OCT	1840	501	.00	.00	.00	12.

15	OCT	1745	202	.02	.00	.01	284.	*	16	OCT	1845	502	.00	.00	.00	12.
15	OCT	1750	203	.02	.00	.01	281.	*	16	OCT	1850	503	.00	.00	.00	12.
15	OCT	1755	204	.02	.00	.01	279.	*	16	OCT	1855	504	.00	.00	.00	12.
15	OCT	1800	205	.02	.00	.01	278.	*	16	OCT	1900	505	.00	.00	.00	12.
15	OCT	1805	206	.02	.00	.01	278.	*	16	OCT	1905	506	.00	.00	.00	12.
15	OCT	1810	207	.02	.00	.01	278.	*	16	OCT	1910	507	.00	.00	.00	12.
15	OCT	1815	208	.02	.00	.01	279.	*	16	OCT	1915	508	.00	.00	.00	12.
15	OCT	1820	209	.02	.00	.01	281.	*	16	OCT	1920	509	.00	.00	.00	12.
15	OCT	1825	210	.02	.00	.01	283.	*	16	OCT	1925	510	.00	.00	.00	12.
15	OCT	1830	211	.02	.00	.01	285.	*	16	OCT	1930	511	.00	.00	.00	12.
15	OCT	1835	212	.02	.00	.01	287.	*	16	OCT	1935	512	.00	.00	.00	12.
15	OCT	1840	213	.02	.00	.01	289.	*	16	OCT	1940	513	.00	.00	.00	12.
15	OCT	1845	214	.01	.00	.01	292.	*	16	OCT	1945	514	.00	.00	.00	12.
15	OCT	1850	215	.01	.00	.01	294.	*	16	OCT	1950	515	.00	.00	.00	12.
15	OCT	1855	216	.01	.00	.01	296.	*	16	OCT	1955	516	.00	.00	.00	12.
15	OCT	1900	217	.01	.00	.01	297.	*	16	OCT	2000	517	.00	.00	.00	12.
15	OCT	1905	218	.01	.00	.01	299.	*	16	OCT	2005	518	.00	.00	.00	12.
15	OCT	1910	219	.01	.00	.01	300.	*	16	OCT	2010	519	.00	.00	.00	12.
15	OCT	1915	220	.01	.00	.01	301.	*	16	OCT	2015	520	.00	.00	.00	12.
15	OCT	1920	221	.01	.00	.01	301.	*	16	OCT	2020	521	.00	.00	.00	12.
15	OCT	1925	222	.01	.00	.01	301.	*	16	OCT	2025	522	.00	.00	.00	12.
15	OCT	1930	223	.01	.00	.01	301.	*	16	OCT	2030	523	.00	.00	.00	12.
15	OCT	1935	224	.01	.00	.00	301.	*	16	OCT	2035	524	.00	.00	.00	12.
15	OCT	1940	225	.01	.00	.00	300.	*	16	OCT	2040	525	.00	.00	.00	12.
15	OCT	1945	226	.01	.00	.00	299.	*	16	OCT	2045	526	.00	.00	.00	12.
15	OCT	1950	227	.01	.00	.00	297.	*	16	OCT	2050	527	.00	.00	.00	12.
15	OCT	1955	228	.01	.00	.00	294.	*	16	OCT	2055	528	.00	.00	.00	12.
15	OCT	2000	229	.01	.00	.00	291.	*	16	OCT	2100	529	.00	.00	.00	12.
15	OCT	2005	230	.01	.00	.00	288.	*	16	OCT	2105	530	.00	.00	.00	12.
15	OCT	2010	231	.01	.00	.00	284.	*	16	OCT	2110	531	.00	.00	.00	12.
15	OCT	2015	232	.01	.00	.00	280.	*	16	OCT	2115	532	.00	.00	.00	12.
15	OCT	2020	233	.01	.00	.00	275.	*	16	OCT	2120	533	.00	.00	.00	12.
15	OCT	2025	234	.01	.00	.00	269.	*	16	OCT	2125	534	.00	.00	.00	12.
15	OCT	2030	235	.01	.00	.00	264.	*	16	OCT	2130	535	.00	.00	.00	12.
15	OCT	2035	236	.01	.00	.00	258.	*	16	OCT	2135	536	.00	.00	.00	12.
15	OCT	2040	237	.01	.00	.00	252.	*	16	OCT	2140	537	.00	.00	.00	12.
15	OCT	2045	238	.01	.00	.00	245.	*	16	OCT	2145	538	.00	.00	.00	12.
15	OCT	2050	239	.01	.00	.00	239.	*	16	OCT	2150	539	.00	.00	.00	12.
15	OCT	2055	240	.01	.00	.00	232.	*	16	OCT	2155	540	.00	.00	.00	12.
15	OCT	2100	241	.01	.00	.00	226.	*	16	OCT	2200	541	.00	.00	.00	12.
15	OCT	2105	242	.01	.00	.00	219.	*	16	OCT	2205	542	.00	.00	.00	12.
15	OCT	2110	243	.01	.00	.00	212.	*	16	OCT	2210	543	.00	.00	.00	12.
15	OCT	2115	244	.01	.00	.00	206.	*	16	OCT	2215	544	.00	.00	.00	12.
15	OCT	2120	245	.01	.00	.00	199.	*	16	OCT	2220	545	.00	.00	.00	12.
15	OCT	2125	246	.01	.00	.00	192.	*	16	OCT	2225	546	.00	.00	.00	12.
15	OCT	2130	247	.01	.00	.00	186.	*	16	OCT	2230	547	.00	.00	.00	12.
15	OCT	2135	248	.01	.00	.00	179.	*	16	OCT	2235	548	.00	.00	.00	12.
15	OCT	2140	249	.01	.00	.00	173.	*	16	OCT	2240	549	.00	.00	.00	12.
15	OCT	2145	250	.01	.00	.00	167.	*	16	OCT	2245	550	.00	.00	.00	12.
15	OCT	2150	251	.01	.00	.00	160.	*	16	OCT	2250	551	.00	.00	.00	12.
15	OCT	2155	252	.01	.00	.00	155.	*	16	OCT	2255	552	.00	.00	.00	12.
15	OCT	2200	253	.01	.00	.00	149.	*	16	OCT	2300	553	.00	.00	.00	12.
15	OCT	2205	254	.01	.00	.00	143.	*	16	OCT	2305	554	.00	.00	.00	12.
15	OCT	2210	255	.01	.00	.00	138.	*	16	OCT	2310	555	.00	.00	.00	12.
15	OCT	2215	256	.01	.00	.00	133.	*	16	OCT	2315	556	.00	.00	.00	12.
15	OCT	2220	257	.01	.00	.00	128.	*	16	OCT	2320	557	.00	.00	.00	12.
15	OCT	2225	258	.01	.00	.00	123.	*	16	OCT	2325	558	.00	.00	.00	12.
15	OCT	2230	259	.01	.00	.00	119.	*	16	OCT	2330	559	.00	.00	.00	12.
15	OCT	2235	260	.01	.00	.00	115.	*	16	OCT	2335	560	.00	.00	.00	12.
15	OCT	2240	261	.01	.00	.00	111.	*	16	OCT	2340	561	.00	.00	.00	12.
15	OCT	2245	262	.01	.00	.00	107.	*	16	OCT	2345	562	.00	.00	.00	12.
15	OCT	2250	263	.01	.00	.00	104.	*	16	OCT	2350	563	.00	.00	.00	12.
15	OCT	2255	264	.01	.00	.00	100.	*	16	OCT	2355	564	.00	.00	.00	12.
15	OCT	2300	265	.01	.00	.00	97.	*	17	OCT	0000	565	.00	.00	.00	12.
15	OCT	2305	266	.01	.00	.00	94.	*	17	OCT	0005	566	.00	.00	.00	12.
15	OCT	2310	267	.01	.00	.00	91.	*	17	OCT	0010	567	.00	.00	.00	12.
15	OCT	2315	268	.01	.00	.00	89.	*	17	OCT	0015	568	.00	.00	.00	12.
15	OCT	2320	269	.01	.00	.00	86.	*	17	OCT	0020	569	.00	.00	.00	12.
15	OCT	2325	270	.01	.00	.00	84.	*	17	OCT	0025	570	.00	.00	.00	12.
15	OCT	2330	271	.01	.00	.00	81.	*	17	OCT	0030	571	.00	.00	.00	12.
15	OCT	2335	272	.01	.00	.00	79.	*	17	OCT	0035	572	.00	.00	.00	12.
15	OCT	2340	273	.01	.00	.00	77.	*	17	OCT	0040	573	.00	.00	.00	12.
15	OCT	2345	274	.01	.00	.00	75.	*	17	OCT	0045	574	.00	.00	.00	12.
15	OCT	2350	275	.01	.00	.00	74.	*	17	OCT	0050	575	.00	.00	.00	12.
15	OCT	2355	276	.01	.00	.00	72.	*	17	OCT	0055	576	.00	.00	.00	12.
16	OCT	0000	277	.01	.00	.00	70.	*	17	OCT	0100	577	.00	.00	.00	12.
16	OCT	0005	278	.01	.00	.00	69.	*	17	OCT	0105	578	.00	.00	.00	12.
16	OCT	0010	279	.01	.00	.00	67.	*	17	OCT	0110	579	.00	.00	.00	12.
16	OCT	0015	280	.01	.00	.00	66.	*	17	OCT	0115	580	.00	.00	.00	12.
16	OCT	0020	281	.01	.00	.00	64.	*	17	OCT	0120	581	.00	.00	.00	12.
16	OCT	0025	282	.01	.00	.00	63.	*	17	OCT	0125	582	.00	.00	.00	12.
16	OCT	0030	283	.01	.00	.00	62.	*	17	OCT	0130	583	.00	.00	.00	12.
16	OCT	0035	284	.01	.00	.00	60.	*	17	OCT	0135	584	.00	.00	.00	12.
16	OCT	0040	285	.01	.00	.00	59.	*	17	OCT	0140	585	.00	.00	.00	12.
16	OCT	0045	286	.01	.00	.00	58.	*	17	OCT	0145	586	.00	.00	.00	12.
16	OCT	0050	287	.01	.00	.00	57.	*	17	OCT	0150	587	.00	.00	.00	12.
16	OCT	0055	288	.01	.00	.00	56.	*	17	OCT	0155	588	.00	.00	.00	12.
16	OCT	0100	289	.01	.00	.00	54.	*	17	OCT	0200	589	.00	.00	.00	12.
16	OCT	0105	290	.01	.00	.00	53.	*	17	OCT	0205	590	.00	.00	.00	12.
16	OCT	0110	291	.01	.00	.00	52.	*	17	OCT	0210	591	.00	.00	.00	12.
16	OCT	0115	292	.01	.00	.00	51.	*	17	OCT	0215	592	.00	.00	.00	12.
16	OCT	0120	293	.01	.00	.00	50.	*	17	OCT	0220	593	.00	.00	.00	12.
16	OCT	0125	294	.01	.00	.00	49.	*	17	OCT	0225	594	.00	.00	.00	12.
16	OCT	0130	295	.01	.00	.00	48.	*	17	OCT	0230	595	.00	.00	.00	12.
16	OCT	0135	296	.01	.00	.00	47.	*	17	OCT	0235	596	.00	.00	.00	12.
16	OCT	0140	297	.01	.00	.00	46.	*	17	OCT	0240	597	.00	.00	.00	12.
16	OCT	0145	298	.01	.00	.00	46.	*	17	OCT	0245	598	.00	.00	.00	12.
16	OCT	0150	299	.01	.00	.00	45.	*	17	OCT	0250	599	.00	.00	.00	12.
16	OCT	0155	300	.01	.00	.00	44.	*	17	OCT	0255	600	.00	.00	.00	12.

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TOTAL RAINFALL = 4.40, TOTAL LOSS = 1.43, TOTAL EXCESS = 2.98

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)				

		(CFS)				
+	2108.	13.50	798.	297.	149.	149.
		(INCHES)	1.869	2.780	2.911	2.911
		(AC-FT)	396.	589.	616.	616.

CUMULATIVE AREA = 3.97 SQ MI

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              *             *
2404 KK       *    PL10B+   *
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2405 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION PL10B+
SUM OF 3 HYDROGRAPHS

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DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
15	OCT	0100	1	108.	15	OCT	1330	151	2929.	16	OCT	0200	301	931.	16	OCT	1430	451	121.
15	OCT	0105	2	108.	15	OCT	1335	152	3074.	16	OCT	0205	302	922.	16	OCT	1435	452	120.
15	OCT	0110	3	108.	15	OCT	1340	153	3268.	16	OCT	0210	303	913.	16	OCT	1440	453	120.
15	OCT	0115	4	108.	15	OCT	1345	154	3484.	16	OCT	0215	304	904.	16	OCT	1445	454	120.
15	OCT	0120	5	108.	15	OCT	1350	155	3684.	16	OCT	0220	305	896.	16	OCT	1450	455	120.
15	OCT	0125	6	108.	15	OCT	1355	156	3855.	16	OCT	0225	306	887.	16	OCT	1455	456	120.
15	OCT	0130	7	108.	15	OCT	1400	157	4009.	16	OCT	0230	307	879.	16	OCT	1500	457	119.
15	OCT	0135	8	108.	15	OCT	1405	158	4159.	16	OCT	0235	308	871.	16	OCT	1505	458	119.
15	OCT	0140	9	108.	15	OCT	1410	159	4309.	16	OCT	0240	309	863.	16	OCT	1510	459	119.
15	OCT	0145	10	109.	15	OCT	1415	160	4462.	16	OCT	0245	310	854.	16	OCT	1515	460	119.
15	OCT	0150	11	109.	15	OCT	1420	161	4616.	16	OCT	0250	311	846.	16	OCT	1520	461	119.
15	OCT	0155	12	109.	15	OCT	1425	162	4772.	16	OCT	0255	312	838.	16	OCT	1525	462	119.
15	OCT	0200	13	109.	15	OCT	1430	163	4931.	16	OCT	0300	313	829.	16	OCT	1530	463	119.
15	OCT	0205	14	110.	15	OCT	1435	164	5092.	16	OCT	0305	314	820.	16	OCT	1535	464	118.
15	OCT	0210	15	110.	15	OCT	1440	165	5254.	16	OCT	0310	315	812.	16	OCT	1540	465	118.
15	OCT	0215	16	111.	15	OCT	1445	166	5416.	16	OCT	0315	316	803.	16	OCT	1545	466	118.
15	OCT	0220	17	112.	15	OCT	1450	167	5578.	16	OCT	0320	317	794.	16	OCT	1550	467	118.
15	OCT	0225	18	113.	15	OCT	1455	168	5739.	16	OCT	0325	318	784.	16	OCT	1555	468	118.
15	OCT	0230	19	114.	15	OCT	1500	169	5897.	16	OCT	0330	319	775.	16	OCT	1600	469	118.
15	OCT	0235	20	115.	15	OCT	1505	170	6053.	16	OCT	0335	320	765.	16	OCT	1605	470	118.
15	OCT	0240	21	116.	15	OCT	1510	171	6206.	16	OCT	0340	321	755.	16	OCT	1610	471	118.
15	OCT	0245	22	117.	15	OCT	1515	172	6355.	16	OCT	0345	322	745.	16	OCT	1615	472	117.
15	OCT	0250	23	118.	15	OCT	1520	173	6501.	16	OCT	0350	323	734.	16	OCT	1620	473	117.
15	OCT	0255	24	119.	15	OCT	1525	174	6642.	16	OCT	0355	324	723.	16	OCT	1625	474	117.
15	OCT	0300	25	121.	15	OCT	1530	175	6779.	16	OCT	0400	325	712.	16	OCT	1630	475	117.
15	OCT	0305	26	122.	15	OCT	1535	176	6909.	16	OCT	0405	326	700.	16	OCT	1635	476	117.
15	OCT	0310	27	124.	15	OCT	1540	177	7031.	16	OCT	0410	327	688.	16	OCT	1640	477	117.
15	OCT	0315	28	125.	15	OCT	1545	178	7145.	16	OCT	0415	328	676.	16	OCT	1645	478	117.
15	OCT	0320	29	127.	15	OCT	1550	179	7249.	16	OCT	0420	329	663.	16	OCT	1650	479	117.
15	OCT	0325	30	129.	15	OCT	1555	180	7340.	16	OCT	0425	330	651.	16	OCT	1655	480	117.
15	OCT	0330	31	130.	15	OCT	1600	181	7418.	16	OCT	0430	331	638.	16	OCT	1700	481	117.
15	OCT	0335	32	132.	15	OCT	1605	182	7483.	16	OCT	0435	332	625.	16	OCT	1705	482	117.
15	OCT	0340	33	134.	15	OCT	1610	183	7532.	16	OCT	0440	333	612.	16	OCT	1710	483	117.
15	OCT	0345	34	136.	15	OCT	1615	184	7565.	16	OCT	0445	334	599.	16	OCT	1715	484	116.
15	OCT	0350	35	138.	15	OCT	1620	185	7582.	16	OCT	0450	335	586.	16	OCT	1720	485	116.
15	OCT	0355	36	140.	15	OCT	1625	186	7583.	16	OCT	0455	336	572.	16	OCT	1725	486	116.
15	OCT	0400	37	143.	15	OCT	1630	187	7567.	16	OCT	0500	337	559.	16	OCT	1730	487	116.
15	OCT	0405	38	146.	15	OCT	1635	188	7536.	16	OCT	0505	338	546.	16	OCT	1735	488	116.
15	OCT	0410	39	149.	15	OCT	1640	189	7489.	16	OCT	0510	339	533.	16	OCT	1740	489	116.
15	OCT	0415	40	153.	15	OCT	1645	190	7426.	16	OCT	0515	340	521.	16	OCT	1745	490	116.
15	OCT	0420	41	158.	15	OCT	1650	191	7350.	16	OCT	0520	341	508.	16	OCT	1750	491	116.
15	OCT	0425	42	165.	15	OCT	1655	192	7258.	16	OCT	0525	342	496.	16	OCT	1755	492	116.
15	OCT	0430	43	172.	15	OCT	1700	193	7150.	16	OCT	0530	343	483.	16	OCT	1800	493	116.
15	OCT	0435	44	181.	15	OCT	1705	194	7023.	16	OCT	0535	344	471.	16	OCT	1805	494	116.
15	OCT	0440	45	192.	15	OCT	1710	195	6873.	16	OCT	0540	345	459.	16	OCT	1810	495	116.
15	OCT	0445	46	205.	15	OCT	1715	196	6703.	16	OCT	0545	346	447.	16	OCT	1815	496	116.
15	OCT	0450	47	220.	15	OCT	1720	197	6517.	16	OCT	0550	347	436.	16	OCT	1820	497	116.
15	OCT	0455	48	237.	15	OCT	1725	198	6319.	16	OCT	0555	348	424.	16	OCT	1825	498	116.
15	OCT	0500	49	256.	15	OCT	1730	199	6116.	16	OCT	0600	349	413.	16	OCT	1830	499	116.
15	OCT	0505	50	275.	15	OCT	1735	200	5911.	16	OCT	0605	350	403.	16	OCT	1835	500	116.
15	OCT	0510	51	296.	15	OCT	1740	201	5709.	16	OCT	0610	351	392.	16	OCT	1840	501	116.
15	OCT	0515	52	317.	15	OCT	1745	202	5513.	16	OCT	0615	352	382.	16	OCT	1845	502	116.
15	OCT	0520	53	339.	15	OCT	1750	203	5324.	16	OCT	0620	353	372.	16	OCT	1850	503	115.
15	OCT	0525	54	362.	15	OCT	1755	204	5145.	16	OCT	0625	354	362.	16	OCT	1855	504	115.
15	OCT	0530	55	385.	15	OCT	1800	205	4975.	16	OCT	0630	355	353.	16	OCT	1900	505	115.
15	OCT	0535	56	408.	15	OCT	1805	206	4817.	16	OCT	0635	356	344.	16	OCT	1905	506	115.
15	OCT	0540	57	431.	15	OCT	1810	207	4669.	16	OCT	0640	357	335.	16	OCT	1910	507	115.
15	OCT	0545	58	454.	15	OCT	1815	208	4531.	16	OCT	0645	358	326.	16	OCT	1915	508	115.
15	OCT	0550	59	477.	15	OCT	1820	209	4404.	16	OCT	0650	359	318.	16	OCT	1920	509	115.
15	OCT	0555	60	499.	15	OCT	1825	210	4287.	16	OCT	0655	360	310.	16	OCT	1925	510	115.
15	OCT	0600	61	520.	15	OCT	1830	211	4178.	16	OCT	0700	361	302.	16	OCT	1930	511	115.
15	OCT	0605	62	540.	15	OCT	1835	212	4077.	16	OCT	0705	362	295.	16	OCT	1935	512	115.
15	OCT	0610	63	559.	15	OCT	1840	213	3983.	16	OCT	0710	363	288.	16	OCT	1940	513	115.
15	OCT	0615	64	577.	15	OCT	1845	214	3895.	16	OCT	0715	364	281.	16	OCT	1945	514	115.
15	OCT	0620	65	594.	15	OCT	1850	215	3813.	16	OCT	0720	365	274.	16	OCT	1950	515	115.
15	OCT	0625	66	610.	15	OCT	1855	216	3738.	16	OCT	0725	366	268.	16	OCT	1955	516	115.
15	OCT	0630	67	626.	15	OCT	1900	217	3668.	16	OCT	0730	367	262.	16	OCT	2000	517	115.
15	OCT	0635	68	641.	15	OCT	1905	218	3604.	16	OCT	0735	368	256.	16	OCT	2005	518	115.
15	OCT	0640	69	655.	15	OCT	1910	219	3546.	16	OCT	0740	369	250.	16	OCT	2010	519	115.
15	OCT	0645	70	669.	15	OCT	1915	220	3493.	16	OCT	0745	370	245.	16	OCT	2015	520	115.
15	OCT	0650	71	682.	15	OCT	1920	221	3446.	16	OCT	0750	371	240.	16	OCT	2020	521	115.
15	OCT	0655	72	695.	15	OCT	1925	222	3402.	16	OCT	0755	372	235.	16	OCT	2025	522	115.
15	OCT	0700	73	708.	15	OCT	1930	223	3363.	16	OCT	0800	373	230.	16	OCT	2030	523	115.

15	OCT	0705	74	721.	*	15	OCT	1935	224	3327.	*	16	OCT	0805	374	226.	*	16	OCT	2035	524	115.
15	OCT	0710	75	733.	*	15	OCT	1940	225	3294.	*	16	OCT	0810	375	221.	*	16	OCT	2040	525	115.
15	OCT	0715	76	746.	*	15	OCT	1945	226	3264.	*	16	OCT	0815	376	217.	*	16	OCT	2045	526	115.
15	OCT	0720	77	759.	*	15	OCT	1950	227	3236.	*	16	OCT	0820	377	213.	*	16	OCT	2050	527	115.
15	OCT	0725	78	771.	*	15	OCT	1955	228	3209.	*	16	OCT	0825	378	209.	*	16	OCT	2055	528	115.
15	OCT	0730	79	784.	*	15	OCT	2000	229	3183.	*	16	OCT	0830	379	206.	*	16	OCT	2100	529	115.
15	OCT	0735	80	797.	*	15	OCT	2005	230	3158.	*	16	OCT	0835	380	202.	*	16	OCT	2105	530	115.
15	OCT	0740	81	810.	*	15	OCT	2010	231	3133.	*	16	OCT	0840	381	199.	*	16	OCT	2110	531	115.
15	OCT	0745	82	823.	*	15	OCT	2015	232	3109.	*	16	OCT	0845	382	196.	*	16	OCT	2115	532	115.
15	OCT	0750	83	837.	*	15	OCT	2020	233	3084.	*	16	OCT	0850	383	193.	*	16	OCT	2120	533	115.
15	OCT	0755	84	852.	*	15	OCT	2025	234	3059.	*	16	OCT	0855	384	190.	*	16	OCT	2125	534	115.
15	OCT	0800	85	867.	*	15	OCT	2030	235	3034.	*	16	OCT	0900	385	187.	*	16	OCT	2130	535	115.
15	OCT	0805	86	882.	*	15	OCT	2035	236	3007.	*	16	OCT	0905	386	184.	*	16	OCT	2135	536	115.
15	OCT	0810	87	899.	*	15	OCT	2040	237	2980.	*	16	OCT	0910	387	182.	*	16	OCT	2140	537	115.
15	OCT	0815	88	916.	*	15	OCT	2045	238	2951.	*	16	OCT	0915	388	179.	*	16	OCT	2145	538	115.
15	OCT	0820	89	935.	*	15	OCT	2050	239	2920.	*	16	OCT	0920	389	177.	*	16	OCT	2150	539	115.
15	OCT	0825	90	954.	*	15	OCT	2055	240	2887.	*	16	OCT	0925	390	174.	*	16	OCT	2155	540	115.
15	OCT	0830	91	975.	*	15	OCT	2100	241	2852.	*	16	OCT	0930	391	172.	*	16	OCT	2200	541	115.
15	OCT	0835	92	998.	*	15	OCT	2105	242	2815.	*	16	OCT	0935	392	170.	*	16	OCT	2205	542	115.
15	OCT	0840	93	1021.	*	15	OCT	2110	243	2776.	*	16	OCT	0940	393	168.	*	16	OCT	2210	543	115.
15	OCT	0845	94	1046.	*	15	OCT	2115	244	2735.	*	16	OCT	0945	394	166.	*	16	OCT	2215	544	115.
15	OCT	0850	95	1073.	*	15	OCT	2120	245	2691.	*	16	OCT	0950	395	164.	*	16	OCT	2220	545	115.
15	OCT	0855	96	1102.	*	15	OCT	2125	246	2644.	*	16	OCT	0955	396	162.	*	16	OCT	2225	546	115.
15	OCT	0900	97	1133.	*	15	OCT	2130	247	2595.	*	16	OCT	1000	397	161.	*	16	OCT	2230	547	115.
15	OCT	0905	98	1165.	*	15	OCT	2135	248	2543.	*	16	OCT	1005	398	159.	*	16	OCT	2235	548	114.
15	OCT	0910	99	1200.	*	15	OCT	2140	249	2488.	*	16	OCT	1010	399	157.	*	16	OCT	2240	549	114.
15	OCT	0915	100	1237.	*	15	OCT	2145	250	2432.	*	16	OCT	1015	400	156.	*	16	OCT	2245	550	114.
15	OCT	0920	101	1276.	*	15	OCT	2150	251	2373.	*	16	OCT	1020	401	154.	*	16	OCT	2250	551	114.
15	OCT	0925	102	1318.	*	15	OCT	2155	252	2315.	*	16	OCT	1025	402	153.	*	16	OCT	2255	552	114.
15	OCT	0930	103	1361.	*	15	OCT	2200	253	2257.	*	16	OCT	1030	403	151.	*	16	OCT	2300	553	114.
15	OCT	0935	104	1407.	*	15	OCT	2205	254	2201.	*	16	OCT	1035	404	150.	*	16	OCT	2305	554	114.
15	OCT	0940	105	1455.	*	15	OCT	2210	255	2147.	*	16	OCT	1040	405	148.	*	16	OCT	2310	555	114.
15	OCT	0945	106	1506.	*	15	OCT	2215	256	2094.	*	16	OCT	1045	406	147.	*	16	OCT	2315	556	114.
15	OCT	0950	107	1558.	*	15	OCT	2220	257	2042.	*	16	OCT	1050	407	146.	*	16	OCT	2320	557	114.
15	OCT	0955	108	1613.	*	15	OCT	2225	258	1992.	*	16	OCT	1055	408	145.	*	16	OCT	2325	558	114.
15	OCT	1000	109	1669.	*	15	OCT	2230	259	1944.	*	16	OCT	1100	409	144.	*	16	OCT	2330	559	114.
15	OCT	1005	110	1727.	*	15	OCT	2235	260	1898.	*	16	OCT	1105	410	143.	*	16	OCT	2335	560	114.
15	OCT	1010	111	1786.	*	15	OCT	2240	261	1853.	*	16	OCT	1110	411	141.	*	16	OCT	2340	561	114.
15	OCT	1015	112	1847.	*	15	OCT	2245	262	1809.	*	16	OCT	1115	412	140.	*	16	OCT	2345	562	114.
15	OCT	1020	113	1908.	*	15	OCT	2250	263	1767.	*	16	OCT	1120	413	139.	*	16	OCT	2350	563	114.
15	OCT	1025	114	1969.	*	15	OCT	2255	264	1727.	*	16	OCT	1125	414	139.	*	16	OCT	2355	564	114.
15	OCT	1030	115	2030.	*	15	OCT	2300	265	1687.	*	16	OCT	1130	415	138.	*	17	OCT	0000	565	114.
15	OCT	1035	116	2090.	*	15	OCT	2305	266	1649.	*	16	OCT	1135	416	137.	*	17	OCT	0005	566	114.
15	OCT	1040	117	2149.	*	15	OCT	2310	267	1613.	*	16	OCT	1140	417	136.	*	17	OCT	0010	567	114.
15	OCT	1045	118	2206.	*	15	OCT	2315	268	1577.	*	16	OCT	1145	418	135.	*	17	OCT	0015	568	114.
15	OCT	1050	119	2260.	*	15	OCT	2320	269	1543.	*	16	OCT	1150	419	134.	*	17	OCT	0020	569	114.
15	OCT	1055	120	2310.	*	15	OCT	2325	270	1509.	*	16	OCT	1155	420	134.	*	17	OCT	0025	570	114.
15	OCT	1100	121	2356.	*	15	OCT	2330	271	1477.	*	16	OCT	1200	421	133.	*	17	OCT	0030	571	114.
15	OCT	1105	122	2398.	*	15	OCT	2335	272	1446.	*	16	OCT	1205	422	132.	*	17	OCT	0035	572	114.
15	OCT	1110	123	2436.	*	15	OCT	2340	273	1417.	*	16	OCT	1210	423	132.	*	17	OCT	0040	573	114.
15	OCT	1115	124	2471.	*	15	OCT	2345	274	1388.	*	16	OCT	1215	424	131.	*	17	OCT	0045	574	114.
15	OCT	1120	125	2502.	*	15	OCT	2350	275	1360.	*	16	OCT	1220	425	130.	*	17	OCT	0050	575	114.
15	OCT	1125	126	2530.	*	15	OCT	2355	276	1334.	*	16	OCT	1225	426	130.	*	17	OCT	0055	576	114.
15	OCT	1130	127	2555.	*	16	OCT	0000	277	1308.	*	16	OCT	1230	427	129.	*	17	OCT	0100	577	114.
15	OCT	1135	128	2577.	*	16	OCT	0005	278	1284.	*	16	OCT	1235	428	129.	*	17	OCT	0105	578	114.
15	OCT	1140	129	2595.	*	16	OCT	0010	279	1260.	*	16	OCT	1240	429	128.	*	17	OCT	0110	579	114.
15	OCT	1145	130	2611.	*	16	OCT	0015	280	1238.	*	16	OCT	1245	430	128.	*	17	OCT	0115	580	114.
15	OCT	1150	131	2625.	*	16	OCT	0020	281	1216.	*	16	OCT	1250	431	127.	*	17	OCT	0120	581	114.
15	OCT	1155	132	2636.	*	16	OCT	0025	282	1196.	*	16	OCT	1255	432	127.	*	17	OCT	0125	582	114.
15	OCT	1200	133	2644.	*	16	OCT	0030	283	1176.	*	16	OCT	1300	433	126.	*	17	OCT	0130	583	114.
15	OCT	1205	134	2650.	*	16	OCT	0035	284	1157.	*	16	OCT	1305	434	126.	*	17	OCT	0135	584	114.
15	OCT	1210	135	2653.	*	16	OCT	0040	285	1139.	*	16	OCT	1310	435	125.	*	17	OCT	0140	585	114.
15	OCT	1215	136	2655.	*	16	OCT	0045	286	1122.	*	16	OCT	1315	436	125.	*	17	OCT	0145	586	114.
15	OCT	1220	137	2656.	*	16	OCT	0050	287	1105.	*	16	OCT	1320	437	125.	*	17	OCT	0150	587	114.
15	OCT	1225	138	2655.	*	16	OCT	0055	288	1089.	*	16	OCT	1325	438	124.	*	17	OCT	0155	588	114.
15	OCT	1230	139	2654.	*	16	OCT	0100	289	1074.	*	16	OCT	1330	439	124.	*	17	OCT	0200	589	114.
15	OCT	1235	140	2653.	*	16	OCT	0105	290	1060.	*	16	OCT	1335	440	124.	*	17	OCT	0205	590	114.
15	OCT	1240	141	2652.	*	16	OCT	0110	291	1046.	*	16	OCT	1340	441	123.	*	17	OCT	0210	591	114.
15	OCT	1245	142	2653.	*	16	OCT	0115	292	1032.	*	16	OCT	1345	442	123.	*	17	OCT	0215	592	114.
15	OCT	1250	143	2656.	*	16	OCT	0120	293	1019.	*	16	OCT	1350	443	123.	*	17	OCT	0220	593	114.
15	OCT	1255	144	2663.	*	16	OCT	0125	294	1007.	*	16	OCT	1355	444	122.	*	17	OCT	0225	594	114.
15	OCT	1300	145	2673.	*	16	OCT	0130	295	995.	*	16	OCT	1400	445	122.	*	17	OCT	0230	595	114.
15	OCT	1305	146	2689.	*	16	OCT	0135	296	983.	*	16	OCT	1405	446	122.	*	17	OCT	0235	596	114.
15	OCT	1310	147	2711.	*	16	OCT	0140	297	972.	*	16	OCT	1410	447	122.	*	17	OCT	0240	597	114.
15	OCT	1315	148	2741.	*	16	OCT	0145	298	961.	*	16	OCT	1415	448	121.	*	17	OCT	0245	598	114.
15	OCT	1320	149	2781.	*	16	OCT	0150	299	951.	*	16	OCT	1420	449	121.	*	17	OCT	0250	599	114.
15	OCT	1325	150	2837.	*	16	OCT	0155	300	941.	*	16	OCT	1425	450	121.	*	17	OCT	0255	600	114.
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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	49.92-HR
+ (CFS)	(HR)				
		(CFS)			
+ 7583.	15.42	5501.	2541.	1300.	1300.
		(INCHES) 1.731	3.199	3.405	3.405
		(AC-FT) 2728.	5039.	5365.	5365.

CUMULATIVE AREA = 29.54 SQ MI

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100-year, 8-day hydrographs (Storm 1): PL10+, PL10C1, PL10E, PL11, PL10B+

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1658 KK      PL10+      COMBINE FIDDYMENT PROPERTY WITHIN PL10D

1659 HC          HYDROGRAPH COMBINATION
                      ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE
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HYDROGRAPH AT STATION PL10+
SUM OF 2 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	68.	2		0000	25	170.	3		0000	49	93.	4		0000	73	79.
1		0100	2	68.	2		0100	26	150.	3		0100	50	94.	4		0100	74	77.
1		0200	3	68.	2		0200	27	130.	3		0200	51	91.	4		0200	75	82.
1		0300	4	70.	2		0300	28	114.	3		0300	52	88.	4		0300	76	287.
1		0400	5	74.	2		0400	29	102.	3		0400	53	84.	4		0400	77	437.
1		0500	6	78.	2		0500	30	93.	3		0500	54	81.	4		0500	78	478.
1		0600	7	85.	2		0600	31	86.	3		0600	55	78.	4		0600	79	400.
1		0700	8	90.	2		0700	32	82.	3		0700	56	76.	4		0700	80	300.
1		0800	9	91.	2		0800	33	78.	3		0800	57	76.	4		0800	81	217.
1		0900	10	90.	2		0900	34	76.	3		0900	58	77.	4		0900	82	179.
1		1000	11	87.	2		1000	35	73.	3		1000	59	77.	4		1000	83	166.
1		1100	12	84.	2		1100	36	72.	3		1100	60	76.	4		1100	84	159.
1		1200	13	81.	2		1200	37	71.	3		1200	61	76.	4		1200	85	151.
1		1300	14	79.	2		1300	38	70.	3		1300	62	84.	4		1300	86	140.
1		1400	15	77.	2		1400	39	69.	3		1400	63	92.	4		1400	87	129.
1		1500	16	83.	2		1500	40	69.	3		1500	64	98.	4		1500	88	118.
1		1600	17	90.	2		1600	41	69.	3		1600	65	108.	4		1600	89	109.
1		1700	18	99.	2		1700	42	69.	3		1700	66	111.	4		1700	90	100.
1		1800	19	111.	2		1800	43	69.	3		1800	67	108.	4		1800	91	93.
1		1900	20	118.	2		1900	44	69.	3		1900	68	103.	4		1900	92	87.
1		2000	21	148.	2		2000	45	72.	3		2000	69	97.	4		2000	93	83.
1		2100	22	174.	2		2100	46	76.	3		2100	70	91.	4		2100	94	80.
1		2200	23	188.	2		2200	47	81.	3		2200	71	86.	4		2200	95	77.
1		2300	24	186.	2		2300	48	88.	3		2300	72	82.	4		2300	96	77.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	95.00-HR
(CFS)	(HR)					
		(CFS)				
478.	77.00		344.	174.	122.	112.
		(INCHES)	.570	1.154	2.416	2.936
		(AC-FT)	171.	346.	724.	880.

CUMULATIVE AREA = 5.62 SQ MI

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1524 KK      PL10C1

1525 HC          HYDROGRAPH COMBINATION
                      ICOMP          3  NUMBER OF HYDROGRAPHS TO COMBINE
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HYDROGRAPH AT STATION PL10C1
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	35.	2		0000	25	57.	3		0000	49	46.	4		0000	73	37.
1		0100	2	35.	2		0100	26	50.	3		0100	50	44.	4		0100	74	38.
1		0200	3	35.	2		0200	27	47.	3		0200	51	41.	4		0200	75	55.
1		0300	4	41.	2		0300	28	44.	3		0300	52	40.	4		0300	76	341.
1		0400	5	44.	2		0400	29	41.	3		0400	53	38.	4		0400	77	150.
1		0500	6	45.	2		0500	30	39.	3		0500	54	38.	4		0500	78	114.
1		0600	7	48.	2		0600	31	38.	3		0600	55	38.	4		0600	79	95.
1		0700	8	48.	2		0700	32	38.	3		0700	56	37.	4		0700	80	73.
1		0800	9	45.	2		0800	33	37.	3		0800	57	37.	4		0800	81	65.
1		0900	10	42.	2		0900	34	37.	3		0900	58	39.	4		0900	82	82.
1		1000	11	41.	2		1000	35	36.	3		1000	59	39.	4		1000	83	75.
1		1100	12	39.	2		1100	36	36.	3		1100	60	39.	4		1100	84	65.
1		1200	13	38.	2		1200	37	35.	3		1200	61	40.	4		1200	85	59.
1		1300	14	38.	2		1300	38	35.	3		1300	62	58.	4		1300	86	54.
1		1400	15	39.	2		1400	39	35.	3		1400	63	60.	4		1400	87	48.
1		1500	16	51.	2		1500	40	35.	3		1500	64	57.	4		1500	88	45.
1		1600	17	54.	2		1600	41	35.	3		1600	65	54.	4		1600	89	44.
1		1700	18	56.	2		1700	42	35.	3		1700	66	50.	4		1700	90	43.
1		1800	19	60.	2		1800	43	35.	3		1800	67	45.	4		1800	91	41.
1		1900	20	59.	2		1900	44	35.	3		1900	68	42.	4		1900	92	40.
1		2000	21	103.	2		2000	45	45.	3		2000	69	40.	4		2000	93	40.
1		2100	22	94.	2		2100	46	47.	3		2100	70	39.	4		2100	94	39.
1		2200	23	75.	2		2200	47	47.	3		2200	71	38.	4		2200	95	38.
1		2300	24	66.	2		2300	48	49.	3		2300	72	37.	4		2300	96	38.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	95.00-HR
(CFS)	(HR)				

			(CFS)				
+	341.	75.00		139.	74.	55.	52.
			(INCHES)	.666	1.413	3.172	3.928
			(AC-FT)	69.	146.	328.	406.

CUMULATIVE AREA = 1.94 SQ MI

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1667 KK      **************
             *            *
             *     PL10E  *     PLEASANT GROVE CREEK
             *            *
             **************
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  28 IN          TIME DATA FOR INPUT TIME SERIES
                      JXMIN          60  TIME INTERVAL IN MINUTES
                     JXDATE      1    0  STARTING DATE
                     JXTIME           0  STARTING TIME

                SUBBASIN RUNOFF DATA

1668 BA          SUBBASIN CHARACTERISTICS
                      TAREA         .35  SUBBASIN AREA

1680 BF          BASE FLOW CHARACTERISTICS
                      STRTQ        1.05  INITIAL FLOW
                      QRCSN         .00  BEGIN BASE FLOW RECESSION
                      RTIOR     1.00000  RECESSION CONSTANT
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HYDROGRAPH AT STATION PL10E

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	1.	3		0000	49	.00	.00	.00	3.
1		0100	2	.00	.00	.00	1.	3		0100	50	.00	.00	.00	2.
1		0200	3	.05	.05	.00	1.	3		0200	51	.00	.00	.00	2.
1		0300	4	.10	.06	.04	2.	3		0300	52	.00	.00	.00	2.
1		0400	5	.07	.06	.01	3.	3		0400	53	.00	.00	.00	1.
1		0500	6	.02	.02	.00	2.	3		0500	54	.05	.05	.00	1.
1		0600	7	.01	.01	.00	2.	3		0600	55	.04	.04	.00	2.
1		0700	8	.02	.02	.00	2.	3		0700	56	.01	.01	.00	1.
1		0800	9	.01	.01	.00	2.	3		0800	57	.00	.00	.00	1.
1		0900	10	.00	.00	.00	2.	3		0900	58	.05	.05	.00	1.
1		1000	11	.00	.00	.00	2.	3		1000	59	.02	.02	.00	1.
1		1100	12	.00	.00	.00	1.	3		1100	60	.03	.03	.00	1.
1		1200	13	.02	.02	.00	1.	3		1200	61	.02	.02	.00	2.
1		1300	14	.06	.06	.00	2.	3		1300	62	.15	.06	.09	4.
1		1400	15	.04	.04	.00	2.	3		1400	63	.03	.03	.00	5.
1		1500	16	.13	.06	.07	4.	3		1500	64	.00	.00	.00	4.
1		1600	17	.05	.05	.00	4.	3		1600	65	.01	.01	.00	4.
1		1700	18	.06	.06	.00	4.	3		1700	66	.00	.00	.00	3.
1		1800	19	.08	.06	.02	5.	3		1800	67	.00	.00	.00	2.
1		1900	20	.06	.06	.00	4.	3		1900	68	.01	.01	.00	2.
1		2000	21	.20	.06	.14	12.	3		2000	69	.02	.02	.00	2.
1		2100	22	.02	.02	.00	11.	3		2100	70	.01	.01	.00	2.
1		2200	23	.03	.03	.00	8.	3		2200	71	.01	.01	.00	1.
1		2300	24	.02	.02	.00	5.	3		2300	72	.01	.01	.00	1.
2		0000	25	.02	.02	.00	4.	4		0000	73	.02	.02	.00	1.
2		0100	26	.00	.00	.00	3.	4		0100	74	.01	.01	.00	2.
2		0200	27	.01	.01	.00	2.	4		0200	75	.12	.06	.06	5.
2		0300	28	.02	.02	.00	2.	4		0300	76	.50	.06	.44	52.
2		0400	29	.02	.02	.00	2.	4		0400	77	.01	.01	.00	33.
2		0500	30	.00	.00	.00	2.	4		0500	78	.00	.00	.00	14.
2		0600	31	.00	.00	.00	1.	4		0600	79	.07	.06	.01	8.
2		0700	32	.00	.00	.00	1.	4		0700	80	.04	.04	.00	5.
2		0800	33	.00	.00	.00	1.	4		0800	81	.03	.03	.00	4.
2		0900	34	.00	.00	.00	1.	4		0900	82	.15	.06	.09	8.
2		1000	35	.00	.00	.00	1.	4		1000	83	.02	.02	.00	7.
2		1100	36	.00	.00	.00	1.	4		1100	84	.03	.03	.00	6.
2		1200	37	.00	.00	.00	1.	4		1200	85	.01	.01	.00	4.
2		1300	38	.00	.00	.00	1.	4		1300	86	.06	.06	.00	3.
2		1400	39	.00	.00	.00	1.	4		1400	87	.02	.02	.00	3.
2		1500	40	.00	.00	.00	1.	4		1500	88	.02	.02	.00	2.
2		1600	41	.00	.00	.00	1.	4		1600	89	.02	.02	.00	2.
2		1700	42	.00	.00	.00	1.	4		1700	90	.02	.02	.00	2.
2		1800	43	.00	.00	.00	1.	4		1800	91	.00	.00	.00	2.
2		1900	44	.02	.02	.00	1.	4		1900	92	.02	.02	.00	1.
2		2000	45	.12	.06	.06	3.	4		2000	93	.04	.04	.00	1.
2		2100	46	.03	.03	.00	3.	4		2100	94	.01	.01	.00	1.
2		2200	47	.03	.03	.00	3.	4		2200	95	.01	.01	.00	1.
2		2300	48	.00	.00	.00	3.	4		2300	96	.00	.00	.00	1.

TOTAL RAINFALL = 3.02, TOTAL LOSS = 1.89, TOTAL EXCESS = 1.13

	PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
				6-HR	24-HR	72-HR	95.00-HR
+	(CFS)	(HR)					
			(CFS)				
+	52.	75.00		19.	7.	4.	4.
			(INCHES)	.517	.794	1.355	1.534
			(AC-FT)	10.	15.	25.	29.

CUMULATIVE AREA = .35 SQ MI

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1688 KK      **************
             *            *
             *     PL11   *     PLEASANT GROVE CREEK TRIBUTARY
             *            *
             **************
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  28 IN          TIME DATA FOR INPUT TIME SERIES
                      JXMIN          60  TIME INTERVAL IN MINUTES
                     JXDATE      1    0  STARTING DATE
                     JXTIME           0  STARTING TIME

                SUBBASIN RUNOFF DATA

1689 BA          SUBBASIN CHARACTERISTICS
                      TAREA        3.97  SUBBASIN AREA
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1701 BF BASE FLOW CHARACTERISTICS
STRTQ 11.91 INITIAL FLOW
QRCSN .00 BEGIN BASE FLOW RECESSION
RTIOR 1.00000 RECESSION CONSTANT

HYDROGRAPH AT STATION PL11

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	12.	3		0000	49	.00	.00	.00	29.
1		0100	2	.00	.00	.00	12.	3		0100	50	.00	.00	.00	25.
1		0200	3	.05	.05	.00	12.	3		0200	51	.00	.00	.00	20.
1		0300	4	.10	.06	.04	16.	3		0300	52	.00	.00	.00	17.
1		0400	5	.07	.06	.01	21.	3		0400	53	.00	.00	.00	16.
1		0500	6	.02	.02	.00	25.	3		0500	54	.05	.05	.00	15.
1		0600	7	.01	.01	.00	26.	3		0600	55	.04	.04	.00	15.
1		0700	8	.02	.02	.00	26.	3		0700	56	.01	.01	.00	15.
1		0800	9	.01	.01	.00	24.	3		0800	57	.00	.00	.00	15.
1		0900	10	.00	.00	.00	21.	3		0900	58	.05	.05	.00	14.
1		1000	11	.00	.00	.00	18.	3		1000	59	.02	.02	.00	14.
1		1100	12	.00	.00	.00	16.	3		1100	60	.03	.03	.00	14.
1		1200	13	.02	.02	.00	15.	3		1200	61	.02	.02	.00	15.
1		1300	14	.06	.06	.00	15.	3		1300	62	.15	.06	.09	26.
1		1400	15	.04	.04	.00	17.	3		1400	63	.03	.03	.00	41.
1		1500	16	.13	.06	.07	25.	3		1500	64	.00	.00	.00	52.
1		1600	17	.05	.05	.00	37.	3		1600	65	.01	.01	.00	49.
1		1700	18	.06	.06	.00	45.	3		1700	66	.00	.00	.00	40.
1		1800	19	.08	.06	.02	48.	3		1800	67	.00	.00	.00	30.
1		1900	20	.06	.06	.00	53.	3		1900	68	.01	.01	.00	23.
1		2000	21	.20	.06	.14	83.	3		2000	69	.02	.02	.00	19.
1		2100	22	.02	.02	.00	116.	3		2100	70	.01	.01	.00	17.
1		2200	23	.03	.03	.00	112.	3		2200	71	.01	.01	.00	16.
1		2300	24	.02	.02	.00	78.	3		2300	72	.01	.01	.00	15.
2		0000	25	.02	.02	.00	53.	4		0000	73	.02	.02	.00	14.
2		0100	26	.00	.00	.00	36.	4		0100	74	.01	.01	.00	14.
2		0200	27	.01	.01	.00	27.	4		0200	75	.12	.06	.06	38.
2		0300	28	.02	.02	.00	21.	4		0300	76	.50	.06	.44	326.
2		0400	29	.02	.02	.00	18.	4		0400	77	.01	.01	.00	433.
2		0500	30	.00	.00	.00	17.	4		0500	78	.00	.00	.00	243.
2		0600	31	.00	.00	.00	15.	4		0600	79	.07	.06	.01	114.
2		0700	32	.00	.00	.00	14.	4		0700	80	.04	.04	.00	74.
2		0800	33	.00	.00	.00	14.	4		0800	81	.03	.03	.00	54.
2		0900	34	.00	.00	.00	13.	4		0900	82	.15	.06	.09	58.
2		1000	35	.00	.00	.00	13.	4		1000	83	.02	.02	.00	70.
2		1100	36	.00	.00	.00	13.	4		1100	84	.03	.03	.00	71.
2		1200	37	.00	.00	.00	12.	4		1200	85	.01	.01	.00	58.
2		1300	38	.00	.00	.00	12.	4		1300	86	.06	.06	.00	44.
2		1400	39	.00	.00	.00	12.	4		1400	87	.02	.02	.00	33.
2		1500	40	.00	.00	.00	12.	4		1500	88	.02	.02	.00	26.
2		1600	41	.00	.00	.00	12.	4		1600	89	.02	.02	.00	21.
2		1700	42	.00	.00	.00	12.	4		1700	90	.02	.02	.00	18.
2		1800	43	.00	.00	.00	12.	4		1800	91	.00	.00	.00	17.
2		1900	44	.02	.02	.00	13.	4		1900	92	.02	.02	.00	15.
2		2000	45	.12	.06	.06	18.	4		2000	93	.04	.04	.00	15.
2		2100	46	.03	.03	.00	27.	4		2100	94	.01	.01	.00	15.
2		2200	47	.03	.03	.00	33.	4		2200	95	.01	.01	.00	14.
2		2300	48	.00	.00	.00	32.	4		2300	96	.00	.00	.00	14.

TOTAL RAINFALL = 3.02, TOTAL LOSS = 1.89, TOTAL EXCESS = 1.13

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	96.00-HR
(CFS)	(HR)					
		(CFS)				
433.	76.00		206.	80.	45.	39.
		(INCHES)	.482	.745	1.270	1.433
		(AC-FT)	102.	158.	269.	304.

CUMULATIVE AREA = 3.97 SQ MI

1385 KK PL10B+

1386 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

HYDROGRAPH AT STATION PL10B+
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	108.	2		0000	25	761.	3		0000	49	412.	4		0000	73	178.
1		0100	2	108.	2		0100	26	574.	3		0100	50	359.	4		0100	74	180.
1		0200	3	116.	2		0200	27	431.	3		0200	51	293.	4		0200	75	296.
1		0300	4	162.	2		0300	28	334.	3		0300	52	237.	4		0300	76	1437.
1		0400	5	258.	2		0400	29	272.	3		0400	53	194.	4		0400	77	2413.
1		0500	6	372.	2		0500	30	234.	3		0500	54	170.	4		0500	78	2539.
1		0600	7	438.	2		0600	31	209.	3		0600	55	172.	4		0600	79	1969.
1		0700	8	435.	2		0700	32	189.	3		0700	56	191.	4		0700	80	1338.
1		0800	9	384.	2		0800	33	172.	3		0800	57	211.	4		0800	81	920.
1		0900	10	322.	2		0900	34	155.	3		0900	58	224.	4		0900	82	755.
1		1000	11	269.	2		1000	35	142.	3		1000	59	233.	4		1000	83	754.
1		1100	12	226.	2		1100	36	132.	3		1100	60	239.	4		1100	84	761.
1		1200	13	194.	2		1200	37	125.	3		1200	61	248.	4		1200	85	705.
1		1300	14	184.	2		1300	38	120.	3		1300	62	319.	4		1300	86	606.
1		1400	15	204.	2		1400	39	118.	3		1400	63	449.	4		1400	87	514.
1		1500	16	291.	2		1500	40	117.	3		1500	64	551.	4		1500	88	436.
1		1600	17	441.	2		1600	41	116.	3		1600	65	564.	4		1600	89	377.
1		1700	18	581.	2		1700	42	115.	3		1700	66	500.	4		1700	90	327.
1		1800	19	666.	2		1800	43	115.	3		1800	67	404.	4		1800	91	287.
1		1900	20	707.	2		1900	44	117.	3		1900	68	317.	4		1900	92	251.
1		2000	21	862.	2		2000	45	160.	3		2000	69	255.	4		2000	93	230.
1		2100	22	1049.	2		2100	46	246.	3		2100	70	215.	4		2100	94	220.

1	2200	23	1090.	*	2	2200	47	350.	*	3	2200	71	193.	*	4	2200	95	217.
1	2300	24	962.	*	2	2300	48	415.	*	3	2300	72	183.	*	4	2300	96	214.
				*					*					*					

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	95.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 2539.	77.00		1717.	771.	486.	432.
		(INCHES)	.541	.971	1.835	2.153
		(AC-FT)	852.	1530.	2891.	3392.

CUMULATIVE AREA = 29.54 SQ MI

100-year, 8-day hydrographs (Storm 2): PL10+, PL10C1, PL10E, PL11, PL10B+

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1406 KK PL10+ COMBINE FIDDYMENT PROPERTY WITHIN PL10D

1407 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION PL10+
SUM OF 2 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	73.	1		1400	15	79.	2		0400	29	115.	2		1800	43	179.
1		0100	2	73.	1		1500	16	83.	2		0500	30	108.	2		1900	44	187.
1		0200	3	73.	1		1600	17	94.	2		0600	31	101.	2		2000	45	222.
1		0300	4	73.	1		1700	18	113.	2		0700	32	100.	2		2100	46	260.
1		0400	5	74.	1		1800	19	185.	2		0800	33	123.	2		2200	47	342.
1		0500	6	74.	1		1900	20	304.	2		0900	34	167.	2		2300	48	373.
1		0600	7	75.	1		2000	21	383.	2		1000	35	211.	3		0000	49	353.
1		0700	8	76.	1		2100	22	375.	2		1100	36	297.	3		0100	50	286.
1		0800	9	79.	1		2200	23	317.	2		1200	37	402.	3		0200	51	231.
1		0900	10	80.	1		2300	24	253.	2		1300	38	438.	3		0300	52	182.
1		1000	11	81.	2		0000	25	196.	2		1400	39	379.	3		0400	53	145.
1		1100	12	81.	2		0100	26	160.	2		1500	40	304.	3		0500	54	124.
1		1200	13	80.	2		0200	27	138.	2		1600	41	242.	3		0600	55	110.
1		1300	14	78.	2		0300	28	125.	2		1700	42	195.	3		0700	56	105.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	55.00-HR
438.	37.00	(CFS)	341.	244.	183.	183.
		(INCHES)	.564	1.615	2.776	2.776
		(AC-FT)	169.	484.	832.	832.

CUMULATIVE AREA = 5.62 SQ MI

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1296 KK PL10C1

1297 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION PL10C1
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	35.	1		1400	15	43.	2		0400	29	46.	2		1800	43	79.
1		0100	2	35.	1		1500	16	49.	2		0500	30	45.	2		1900	44	95.
1		0200	3	35.	1		1600	17	59.	2		0600	31	44.	2		2000	45	121.
1		0300	4	35.	1		1700	18	72.	2		0700	32	52.	2		2100	46	119.
1		0400	5	35.	1		1800	19	158.	2		0800	33	101.	2		2200	47	189.
1		0500	6	36.	1		1900	20	191.	2		0900	34	114.	2		2300	48	126.
1		0600	7	36.	1		2000	21	128.	2		1000	35	90.	3		0000	49	93.
1		0700	8	37.	1		2100	22	102.	2		1100	36	175.	3		0100	50	79.
1		0800	9	39.	1		2200	23	84.	2		1200	37	198.	3		0200	51	65.
1		0900	10	39.	1		2300	24	70.	2		1300	38	121.	3		0300	52	56.
1		1000	11	39.	2		0000	25	62.	2		1400	39	97.	3		0400	53	50.
1		1100	12	39.	2		0100	26	58.	2		1500	40	81.	3		0500	54	45.
1		1200	13	38.	2		0200	27	54.	2		1600	41	77.	3		0600	55	41.
1		1300	14	38.	2		0300	28	48.	2		1700	42	72.	3		0700	56	39.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	55.00-HR
198.	36.00	(CFS)	133.	97.	76.	76.
		(INCHES)	.636	1.869	3.329	3.329
		(AC-FT)	66.	193.	344.	344.

CUMULATIVE AREA = 1.94 SQ MI

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1415 KK PL10E PLEASANT GROVE CREEK

28 IN TIME DATA FOR INPUT TIME SERIES

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                    JXMIN          60  TIME INTERVAL IN MINUTES
                   JXDATE      1   0  STARTING DATE
                   JXTIME          0  STARTING TIME

              SUBBASIN RUNOFF DATA

1416 BA         SUBBASIN CHARACTERISTICS
                     TAREA        .35  SUBBASIN AREA

1424 BF         BASE FLOW CHARACTERISTICS
                     STRTQ       1.05  INITIAL FLOW
                     QRCSN        .00  BEGIN BASE FLOW RECESSION
                     RTIOR    1.00000  RECESSION CONSTANT
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HYDROGRAPH AT STATION PL10E

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	1.	2		0400	29	.02	.02	.00	2.
1		0100	2	.00	.00	.00	1.	2		0500	30	.03	.03	.00	2.
1		0200	3	.00	.00	.00	1.	2		0600	31	.02	.02	.00	2.
1		0300	4	.00	.00	.00	1.	2		0700	32	.10	.06	.04	4.
1		0400	5	.05	.05	.00	1.	2		0800	33	.19	.06	.13	11.
1		0500	6	.03	.03	.00	1.	2		0900	34	.11	.06	.05	15.
1		0600	7	.02	.02	.00	1.	2		1000	35	.04	.04	.00	12.
1		0700	8	.04	.04	.00	1.	2		1100	36	.26	.06	.20	26.
1		0800	9	.02	.02	.00	1.	2		1200	37	.20	.06	.14	32.
1		0900	10	.00	.00	.00	1.	2		1300	38	.04	.04	.00	18.
1		1000	11	.00	.00	.00	1.	2		1400	39	.01	.01	.00	10.
1		1100	12	.00	.00	.00	1.	2		1500	40	.00	.00	.00	6.
1		1200	13	.03	.03	.00	1.	2		1600	41	.10	.06	.04	6.
1		1300	14	.03	.03	.00	1.	2		1700	42	.07	.06	.01	6.
1		1400	15	.10	.06	.04	2.	2		1800	43	.11	.06	.05	8.
1		1500	16	.08	.06	.02	3.	2		1900	44	.12	.06	.06	11.
1		1600	17	.09	.06	.03	4.	2		2000	45	.15	.06	.09	16.
1		1700	18	.08	.06	.02	7.	2		2100	46	.10	.06	.04	16.
1		1800	19	.25	.06	.19	22.	2		2200	47	.25	.06	.19	27.
1		1900	20	.20	.06	.14	32.	2		2300	48	.01	.01	.00	18.
1		2000	21	.08	.06	.02	20.	3		0000	49	.04	.04	.00	10.
1		2100	22	.06	.06	.00	11.	3		0100	50	.00	.00	.00	6.
1		2200	23	.05	.05	.00	7.	3		0200	51	.00	.00	.00	4.
1		2300	24	.05	.05	.00	5.	3		0300	52	.01	.01	.00	3.
2		0000	25	.01	.01	.00	3.	3		0400	53	.02	.02	.00	2.
2		0100	26	.07	.06	.01	3.	3		0500	54	.00	.00	.00	2.
2		0200	27	.05	.05	.00	3.	3		0600	55	.00	.00	.00	2.
2		0300	28	.01	.01	.00	2.	3		0700	56	.00	.00	.00	2.

TOTAL RAINFALL = 3.40, TOTAL LOSS = 1.80, TOTAL EXCESS = 1.60

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	55.00-HR
(CFS)	(HR)				
		(CFS)			
32.	36.00	19.	11.	8.	8.
		(INCHES) .502	1.197	1.846	1.846
		(AC-FT) 9.	22.	34.	34.

CUMULATIVE AREA = .35 SQ MI

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              *             *
1432 KK       *     PL11    *     PLEASANT GROVE CREEK TRIBUTARY
              *             *
              ***************

  28 IN         TIME DATA FOR INPUT TIME SERIES
                     JXMIN          60  TIME INTERVAL IN MINUTES
                    JXDATE      1   0  STARTING DATE
                    JXTIME          0  STARTING TIME

              SUBBASIN RUNOFF DATA

1433 BA         SUBBASIN CHARACTERISTICS
                     TAREA       3.97  SUBBASIN AREA

1441 BF         BASE FLOW CHARACTERISTICS
                     STRTQ      11.91  INITIAL FLOW
                     QRCSN        .00  BEGIN BASE FLOW RECESSION
                     RTIOR    1.00000  RECESSION CONSTANT
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HYDROGRAPH AT STATION PL11

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	12.	2		0400	29	.02	.02	.00	24.
1		0100	2	.00	.00	.00	12.	2		0500	30	.03	.03	.00	21.
1		0200	3	.00	.00	.00	12.	2		0600	31	.02	.02	.00	20.
1		0300	4	.00	.00	.00	12.	2		0700	32	.10	.06	.04	25.
1		0400	5	.05	.05	.00	12.	2		0800	33	.19	.06	.13	78.
1		0500	6	.03	.03	.00	13.	2		0900	34	.11	.06	.05	159.
1		0600	7	.02	.02	.00	13.	2		1000	35	.04	.04	.00	160.
1		0700	8	.04	.04	.00	14.	2		1100	36	.26	.06	.20	233.
1		0800	9	.02	.02	.00	14.	2		1200	37	.20	.06	.14	349.
1		0900	10	.00	.00	.00	14.	2		1300	38	.04	.04	.00	276.
1		1000	11	.00	.00	.00	13.	2		1400	39	.01	.01	.00	140.
1		1100	12	.00	.00	.00	13.	2		1500	40	.00	.00	.00	75.
1		1200	13	.03	.03	.00	12.	2		1600	41	.10	.06	.04	67.
1		1300	14	.03	.03	.00	13.	2		1700	42	.07	.06	.01	62.
1		1400	15	.10	.06	.04	16.	2		1800	43	.11	.06	.05	75.
1		1500	16	.08	.06	.02	24.	2		1900	44	.12	.06	.06	103.
1		1600	17	.09	.06	.03	39.	2		2000	45	.15	.06	.09	157.
1		1700	18	.08	.06	.02	63.	2		2100	46	.10	.06	.04	189.
1		1800	19	.25	.06	.19	183.	2		2200	47	.25	.06	.19	275.
1		1900	20	.20	.06	.14	330.	2		2300	48	.01	.01	.00	245.
1		2000	21	.08	.06	.02	283.	3		0000	49	.04	.04	.00	156.
1		2100	22	.06	.06	.00	157.	3		0100	50	.00	.00	.00	79.
1		2200	23	.05	.05	.00	89.	3		0200	51	.00	.00	.00	56.
1		2300	24	.05	.05	.00	63.	3		0300	52	.01	.01	.00	39.
2		0000	25	.01	.01	.00	45.	3		0400	53	.02	.02	.00	30.

2	0100	26	.07	.06	.01	36.	*	3	0500	54	.00	.00	.00	24.
2	0200	27	.05	.05	.00	31.	*	3	0600	55	.00	.00	.00	20.
2	0300	28	.01	.01	.00	28.	*	3	0700	56	.00	.00	.00	20.
							*							

TOTAL RAINFALL = 3.40, TOTAL LOSS = 1.80, TOTAL EXCESS = 1.60

	PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	55.00-HR
+	(CFS)	(HR)				
		(CFS)				
+	349.	36.00	214.	128.	86.	86.
		(INCHES)	.502	1.199	1.837	1.837
		(AC-FT)	106.	254.	389.	389.

CUMULATIVE AREA = 3.97 SQ MI

1181 KK PL10B+

1182 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

HYDROGRAPH AT STATION PL10B+
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1	0000	1	420.	1	1400	15	562.	2	0400	29	746.	2	1800	43	1125.
1	0100	2	421.	1	1500	16	683.	2	0500	30	695.	2	1900	44	1301.
1	0200	3	424.	1	1600	17	858.	2	0600	31	658.	2	2000	45	1583.
1	0300	4	428.	1	1700	18	1083.	2	0700	32	702.	2	2100	46	1850.
1	0400	5	440.	1	1800	19	1578.	2	0800	33	977.	2	2200	47	2205.
1	0500	6	468.	1	1900	20	2219.	2	0900	34	1386.	2	2300	48	2287.
1	0600	7	504.	1	2000	21	2499.	2	1000	35	1675.	3	0000	49	2042.
1	0700	8	543.	1	2100	22	2318.	2	1100	36	2070.	3	0100	50	1622.
1	0800	9	572.	1	2200	23	1873.	2	1200	37	2484.	3	0200	51	1218.
1	0900	10	581.	1	2300	24	1447.	2	1300	38	2549.	3	0300	52	924.
1	1000	11	567.	2	0000	25	1135.	2	1400	39	2204.	3	0400	53	742.
1	1100	12	540.	2	0100	26	946.	2	1500	40	1686.	3	0500	54	638.
1	1200	13	515.	2	0200	27	852.	2	1600	41	1297.	3	0600	55	575.
1	1300	14	510.	2	0300	28	797.	2	1700	42	1110.	3	0700	56	547.

	PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	55.00-HR
+	(CFS)	(HR)				
		(CFS)				
+	2549.	37.00	2086.	1516.	1167.	1167.
		(INCHES)	.657	1.909	3.368	3.368
		(AC-FT)	1035.	3008.	5305.	5305.

CUMULATIVE AREA = 29.54 SQ MI

100-year, 8-day hydrographs (Storm 3): PL10+, PL10C1, PL10E, PL11, PL10B+

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1217 KK PL10+ COMBINE FIDDYMENT PROPERTY WITHIN PL10D

1218 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION PL10+
SUM OF 2 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	113.	1		0700	8	116.	1		1400	15	1360.	1		2100	22	241.
1		0100	2	113.	1		0800	9	119.	1		1500	16	2468.	1		2200	23	187.
1		0200	3	113.	1		0900	10	204.	1		1600	17	2218.	1		2300	24	154.
1		0300	4	113.	1		1000	11	668.	1		1700	18	1355.	2		0000	25	136.
1		0400	5	113.	1		1100	12	1538.	1		1800	19	790.	2		0100	26	126.
1		0500	6	113.	1		1200	13	1290.	1		1900	20	486.	2		0200	27	121.
1		0600	7	114.	1		1300	14	935.	1		2000	21	333.					

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	26.00-HR
(CFS)	(HR)					
		(CFS)				
2468.	15.00		1619.	637.	597.	597.
		(INCHES)	2.680	4.217	4.280	4.280
		(AC-FT)	803.	1264.	1283.	1283.

CUMULATIVE AREA = 5.62 SQ MI

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1125 KK PL10C1

1126 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

***

HYDROGRAPH AT STATION PL10C1
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	37.	1		0700	8	39.	1		1400	15	799.	1		2100	22	71.
1		0100	2	37.	1		0800	9	39.	1		1500	16	1026.	1		2200	23	58.
1		0200	3	37.	1		0900	10	44.	1		1600	17	462.	1		2300	24	50.
1		0300	4	37.	1		1000	11	1027.	1		1700	18	295.	2		0000	25	44.
1		0400	5	37.	1		1100	12	301.	1		1800	19	189.	2		0100	26	41.
1		0500	6	37.	1		1200	13	266.	1		1900	20	127.	2		0200	27	40.
1		0600	7	39.	1		1300	14	275.	1		2000	21	92.					

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	26.00-HR
(CFS)	(HR)					
		(CFS)				
1027.	10.00		569.	227.	212.	212.
		(INCHES)	2.725	4.344	4.403	4.403
		(AC-FT)	282.	449.	455.	455.

CUMULATIVE AREA = 1.94 SQ MI

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1226 KK PL10E PLEASANT GROVE CREEK

28 IN TIME DATA FOR INPUT TIME SERIES
JXMIN 60 TIME INTERVAL IN MINUTES
JXDATE 1 0 STARTING DATE
JXTIME 0 STARTING TIME

SUBBASIN RUNOFF DATA

1227 BA SUBBASIN CHARACTERISTICS
TAREA .35 SUBBASIN AREA

1232 BF BASE FLOW CHARACTERISTICS
STRTQ 2.00 INITIAL FLOW
QRCSN .00 BEGIN BASE FLOW RECESSION
RTIOR 1.00000 RECESSION CONSTANT

HYDROGRAPH AT STATION PL10E

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	2.	1		1400	15	.80	.06	.74	145.
1		0100	2	.00	.00	.00	2.	1		1500	16	1.00	.06	.94	200.
1		0200	3	.01	.01	.00	2.	1		1600	17	.20	.06	.14	72.
1		0300	4	.01	.01	.00	2.	1		1700	18	.13	.06	.07	33.
1		0400	5	.01	.01	.00	2.	1		1800	19	.05	.05	.00	17.
1		0500	6	.01	.01	.00	2.	1		1900	20	.01	.01	.00	9.
1		0600	7	.08	.06	.02	2.	1		2000	21	.00	.00	.00	6.
1		0700	8	.01	.01	.00	2.	1		2100	22	.00	.00	.00	4.
1		0800	9	.00	.00	.00	2.	1		2200	23	.00	.00	.00	3.
1		0900	10	.00	.00	.00	4.	1		2300	24	.00	.00	.00	3.
1		1000	11	1.15	.06	1.09	177.	2		0000	25	.01	.01	.00	3.
1		1100	12	.15	.06	.09	69.	2		0100	26	.01	.01	.00	2.
1		1200	13	.15	.06	.09	34.	2		0200	27	.00	.00	.00	2.
1		1300	14	.25	.06	.19	40.								

TOTAL RAINFALL = 4.04, TOTAL LOSS = .64, TOTAL EXCESS = 3.40

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	26.00-HR
(CFS)	(HR)					
		(CFS)				
200.	15.00		102.	35.	32.	32.
		(INCHES)	2.715	3.700	3.718	3.718
		(AC-FT)	51.	69.	69.	69.

CUMULATIVE AREA = .35 SQ MI

1240 KK PL11 PLEASANT GROVE CREEK TRIBUTARY

28 IN TIME DATA FOR INPUT TIME SERIES
JXMIN 60 TIME INTERVAL IN MINUTES
JXDATE 1 0 STARTING DATE
JXTIME 0 STARTING TIME

SUBBASIN RUNOFF DATA

1241 BA SUBBASIN CHARACTERISTICS
TAREA 3.97 SUBBASIN AREA

1246 BF BASE FLOW CHARACTERISTICS
STRTQ 24.00 INITIAL FLOW
QRCSN .00 BEGIN BASE FLOW RECESSION
RTIOR 1.00000 RECESSION CONSTANT

HYDROGRAPH AT STATION PL11

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	24.	1		1400	15	.80	.06	.74	1505.
1		0100	2	.00	.00	.00	24.	1		1500	16	1.00	.06	.94	2326.
1		0200	3	.01	.01	.00	24.	1		1600	17	.20	.06	.14	966.
1		0300	4	.01	.01	.00	24.	1		1700	18	.13	.06	.07	310.
1		0400	5	.01	.01	.00	24.	1		1800	19	.05	.05	.00	234.
1		0500	6	.01	.01	.00	24.	1		1900	20	.01	.01	.00	124.
1		0600	7	.08	.06	.02	25.	1		2000	21	.00	.00	.00	74.
1		0700	8	.01	.01	.00	26.	1		2100	22	.00	.00	.00	49.
1		0800	9	.00	.00	.00	26.	1		2200	23	.00	.00	.00	38.
1		0900	10	.00	.00	.00	38.	1		2300	24	.00	.00	.00	32.
1		1000	11	1.15	.06	1.09	1814.	2		0000	25	.01	.01	.00	29.
1		1100	12	.15	.06	.09	1197.	2		0100	26	.01	.01	.00	27.
1		1200	13	.15	.06	.09	224.	2		0200	27	.00	.00	.00	27.
1		1300	14	.25	.06	.19	438.								

TOTAL RAINFALL = 4.04, TOTAL LOSS = .64, TOTAL EXCESS = 3.40

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	26.00-HR
(CFS)	(HR)					
		(CFS)				
2326.	15.00		1180.	400.	371.	371.
		(INCHES)	2.764	3.747	3.766	3.766
		(AC-FT)	585.	793.	797.	797.

CUMULATIVE AREA = 3.97 SQ MI

1028 KK PL10B+

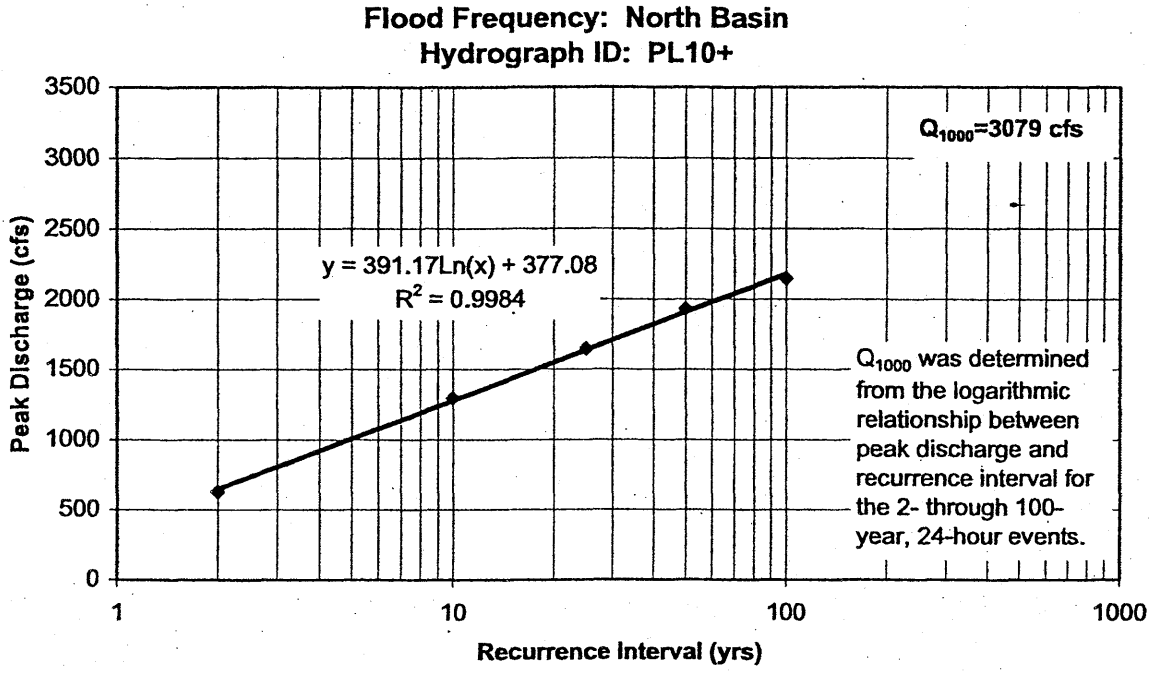
1029 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

HYDROGRAPH AT STATION PL10B+
SUM OF 3 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	1176.	1		0700	8	1308.	1		1400	15	7650.	1		2100	22	2583.
1		0100	2	1178.	1		0800	9	1352.	1		1500	16	8866.	1		2200	23	1742.
1		0200	3	1186.	1		0900	10	1649.	1		1600	17	10033.	1		2300	24	1465.
1		0300	4	1198.	1		1000	11	3815.	1		1700	18	10195.	2		0000	25	1305.
1		0400	5	1210.	1		1100	12	5583.	1		1800	19	8654.	2		0100	26	1266.
1		0500	6	1223.	1		1200	13	6768.	1		1900	20	6081.	2		0200	27	1252.
1		0600	7	1260.	1		1300	14	7196.	1		2000	21	3961.					

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	26.00-HR
(CFS)	(HR)	(CFS)				
10195.	17.00		8673.	4066.	3844.	3844.
		(INCHES)	2.730	5.119	5.243	5.243
		(AC-FT)	4301.	8065.	8259.	8259.

CUMULATIVE AREA = 29.54 SQ MI


Flood Frequency: North Basin
Hydrograph ID: PL10+
Peak Discharge (cfs)
3500
3000
2500
2000
1500
1000
500
0
1
10
100
1000
Recurrence Interval (yrs)
y = 391.17Ln(x) + 377.08
R2 = 0.9984
Q1000=3079 cfs
Q1000 was determined from the logarithmic relationship between peak discharge and recurrence interval for the 2- through 100-year, 24-hour events.

APPENDIX C

APPENDIX C
Hydraulic Modeling

This appendix contains:

- Inflow hydrograph locations for hydrodynamic (MIKE 11) modeling along Pleasant Grove Creek and their corresponding HEC-1 subbasins.

- Hydrodynamic (MIKE 11) model schematics/index maps – existing and post-project conditions.

- A profile plot of the unsteady MIKE 11 output for the 24-hour, 100-year event peak water surface elevations along Pleasant Grove Creek, comparing the existing conditions to the conditions that would exist with the North and South basin embankments in place.

- Flow hydrograph plots for the 2-, 10-, 25-, 50- and 100-year, 24-hour and 100-year 8-day events obtained from hydrodynamic calculations (MIKE 11 model) for:
    - North and South Basin inflow and outflow
    - Pleasant Grove Creek upstream and downstream of the project site

- A profile plot of the steady state HECRAS output of the 1,000-year water surface elevations in the North Basin with the outflow gates open and closed. The closed condition reflects the presence of a 250-foot-long emergency spillway with a crest elevation of 77.2 feet.

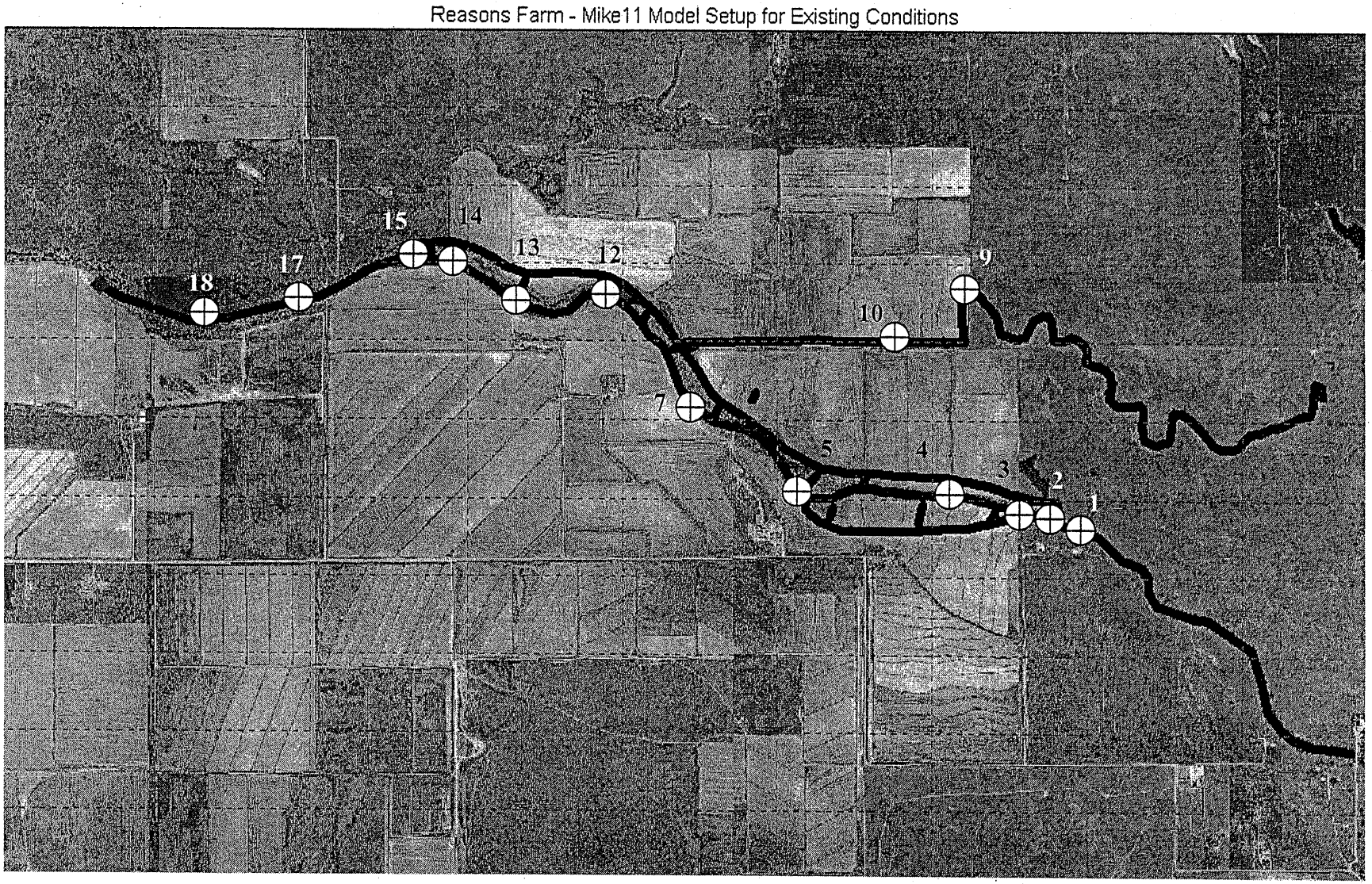
HEC-1 and MIKE11 Hydrograph ID[1] for Locations within the Pleasant Grove Creek Watershed

Location	HEC-1 Subbasin Hydrograph ID	MIKE11 Inflow Hydrograph ID
PGC[2] at U/S[3] (East) Boundary of Site	PL10B+	3.356
NT2[4] Just Upstream of Confluence w/PGC	PL10+	1.435
Inflow of Local Subbasin Runoff to PGC btw[5] NT2 and NB	PL10C1	1.116
Inflow of Local Subbasin Runoff to PGC btw NT2 and NB	PL10E	0.685
NB[6] Just Upstream of Confluence w/PGC	PL11	0.600

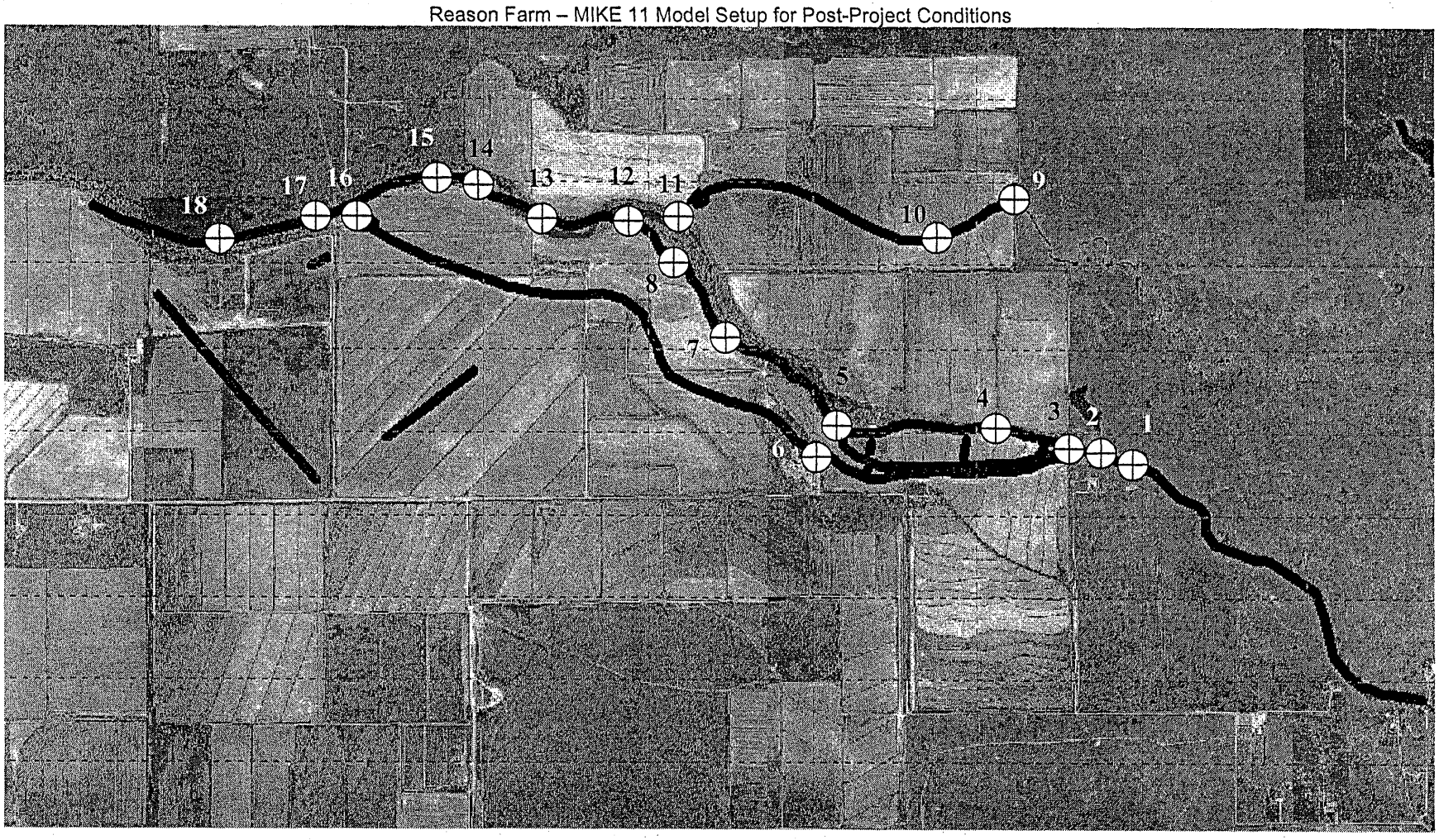
Notes:

1. ID = Identification
2. PGC = Pleasant Grove Creek
3. U/S = upstream
4. NT2 = Northern Tributary Two
5. btw = between
6. NB = North Branch Pleasant Grove Creek

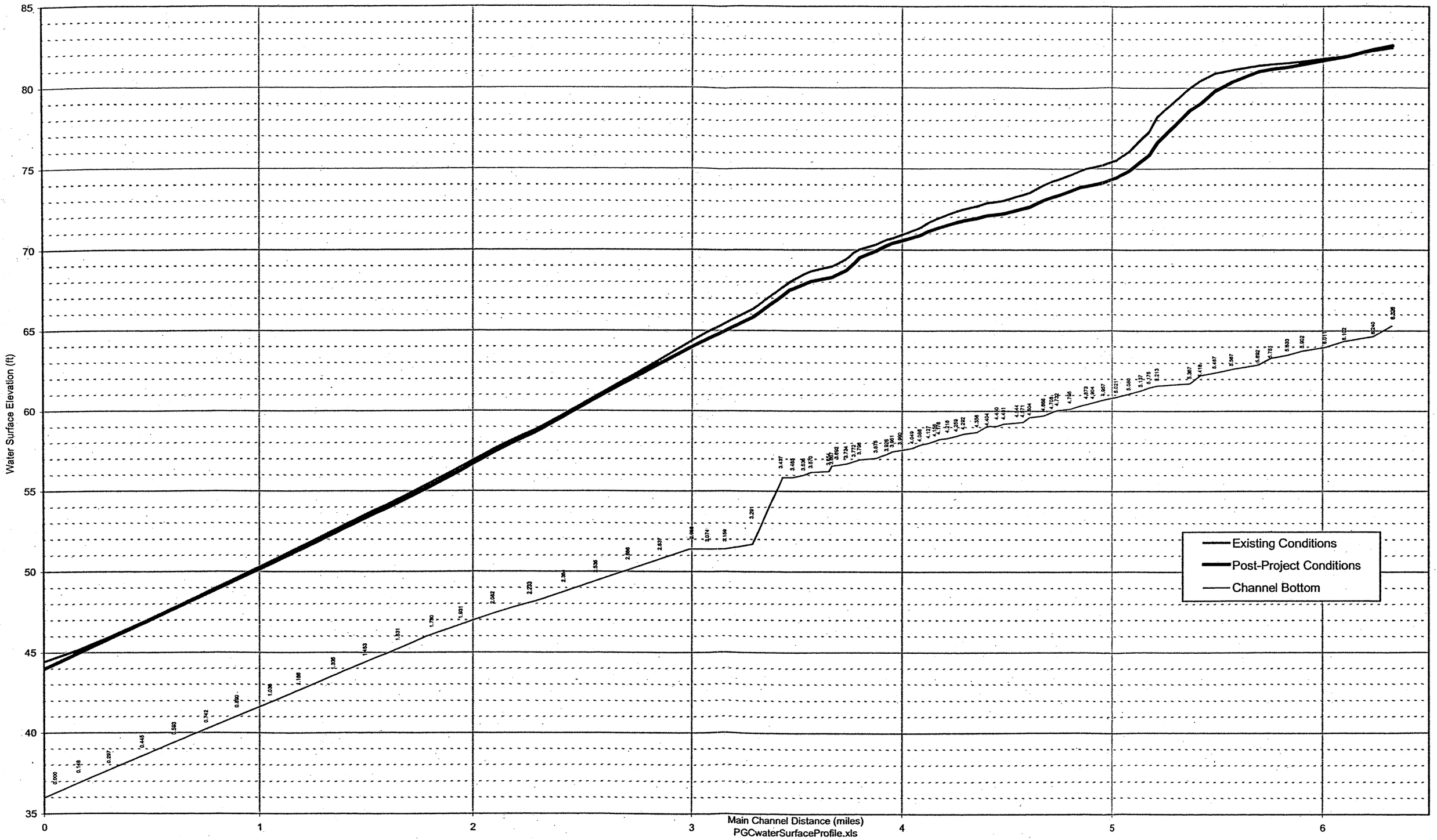
Hydrodynamic Model Schematic and Index Map for Location Numbers in Tables 3 through 6 – Existing Conditions



Hydrodynamic Model Schematic and Index Map for Location Numbers in Tables 3 through 6 – Post-Project Conditions



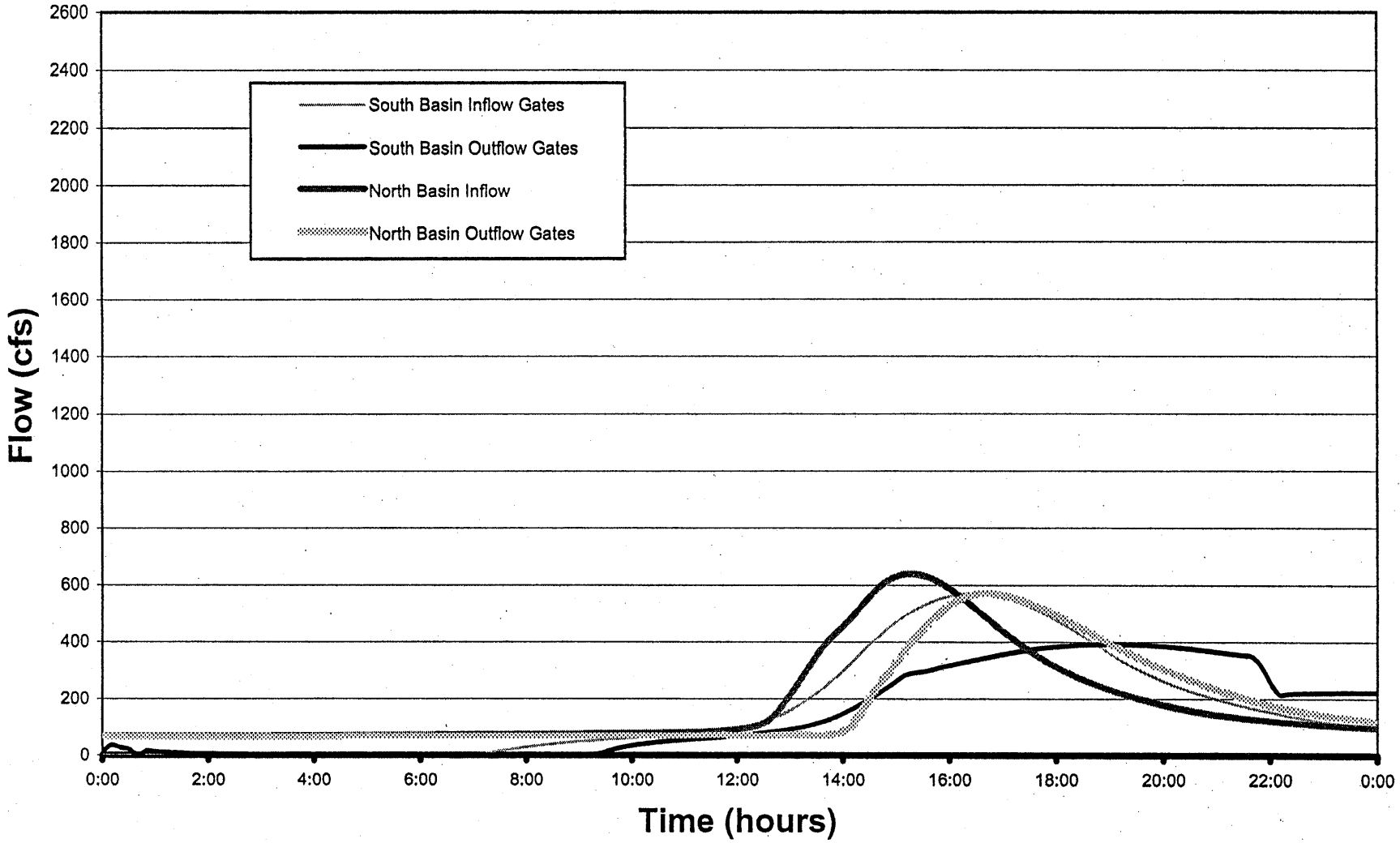
Pleasant Grove Creek Maximum Water Surface Profile, 100-year, 24-hour Storm



Inlet and Outlet Structure Flow Hydrographs - 2-year, 24-hour Storm

MIKE 11 Model Output

Note: North Basin and South Basin spillways and South Basin inflow weir remain dry.

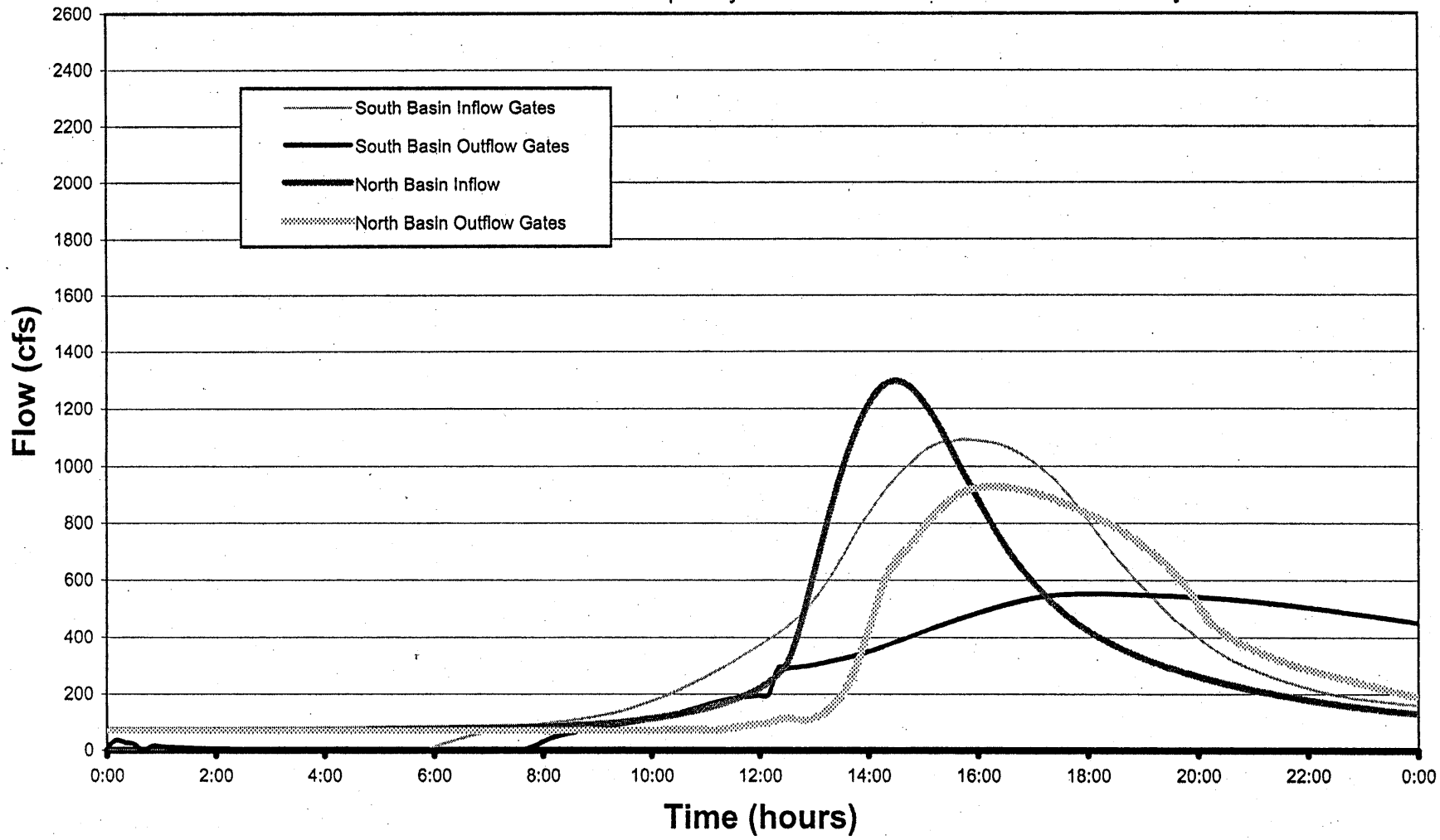


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Inlet and Outlet Structure Flow Hydrographs - 10-year, 24-hour Storm

MIKE 11 Model Output

Note: North Basin and South Basin spillways and South Basin inflow weir remain dry.

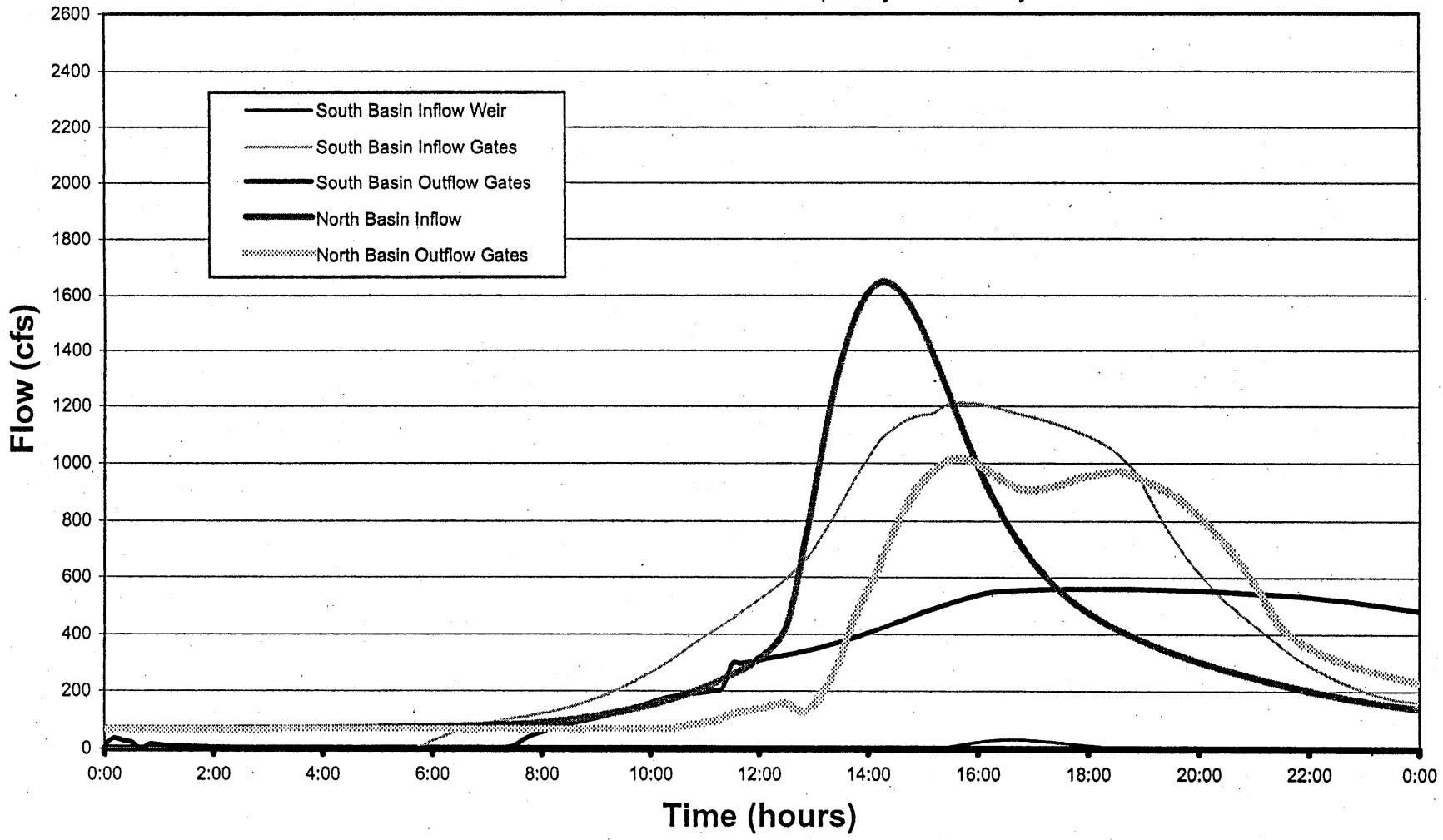


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Inlet and Outlet Structure Flow Hydrographs - 25-year, 24-hour Storm

MIKE 11 Model Output

Note: North Basin and South Basin spillways remain dry.

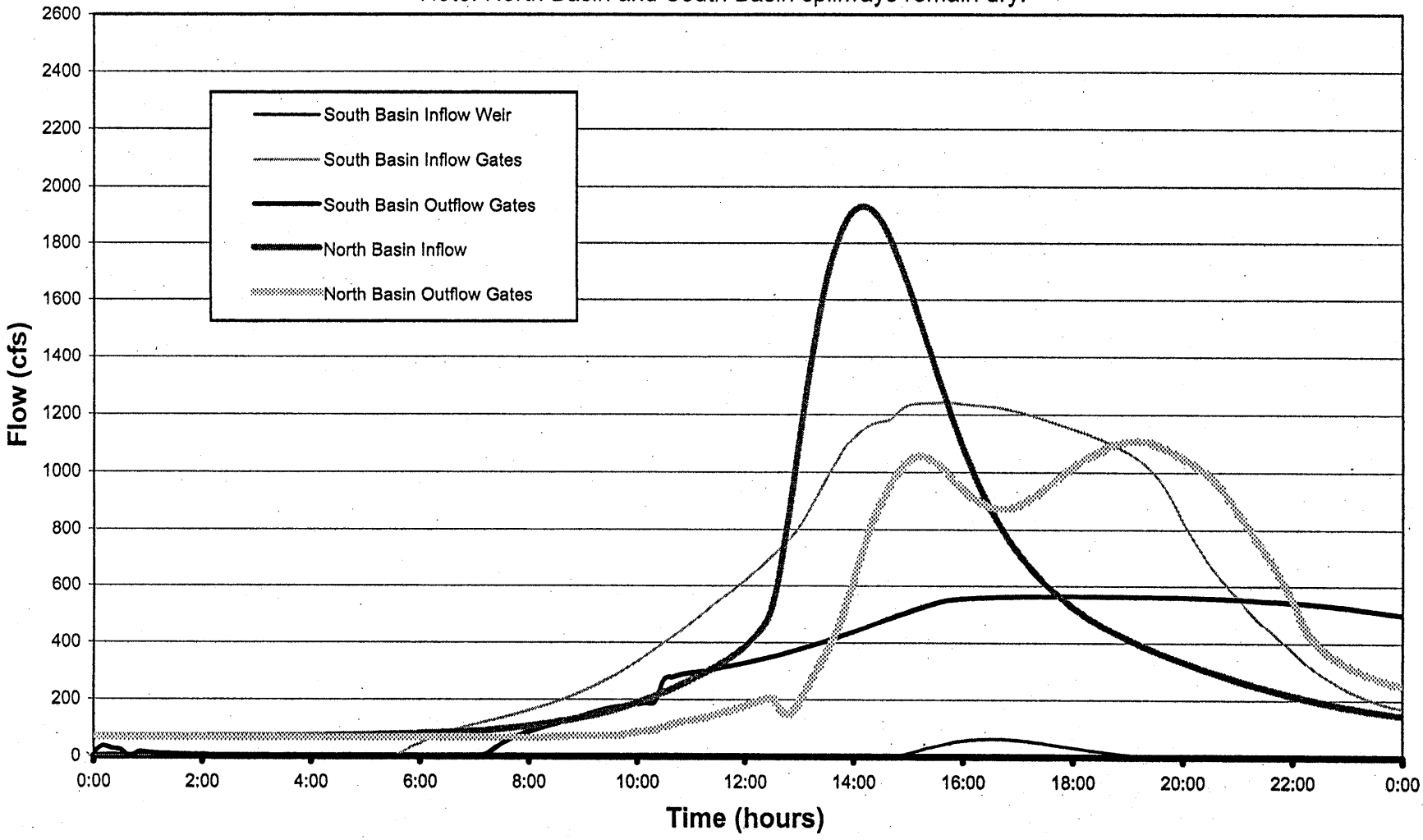


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Inlet and Outlet Structure Flow Hydrographs - 50-year, 24-hour Storm

MIKE 11 Model Output

Note: North Basin and South Basin spillways remain dry.

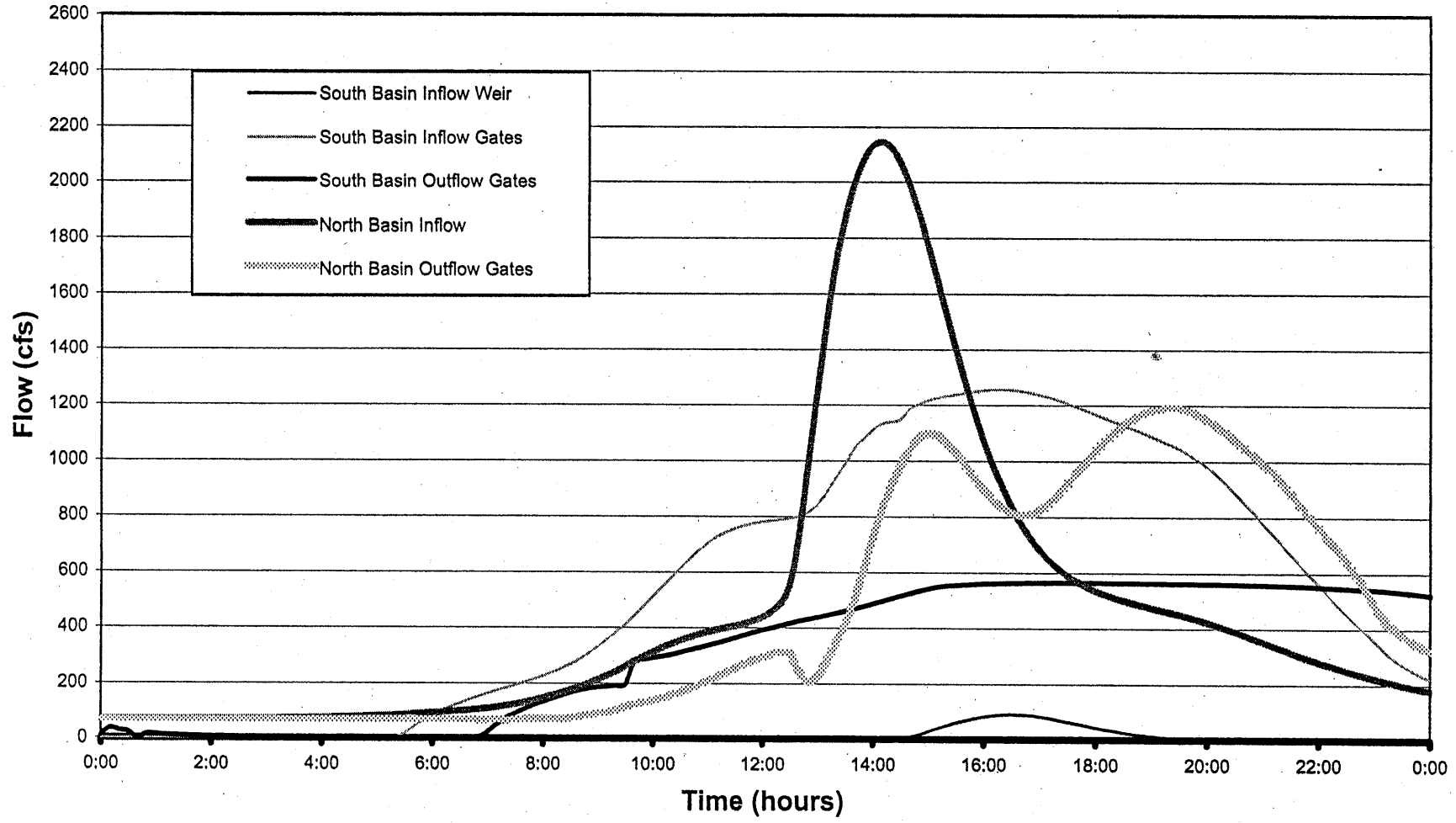


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Inlet and Outlet Structure Flow Hydrographs - 100-year, 24-hour Storm

MIKE 11 Model Output

Note: North Basin and South Basin spillways remain dry.

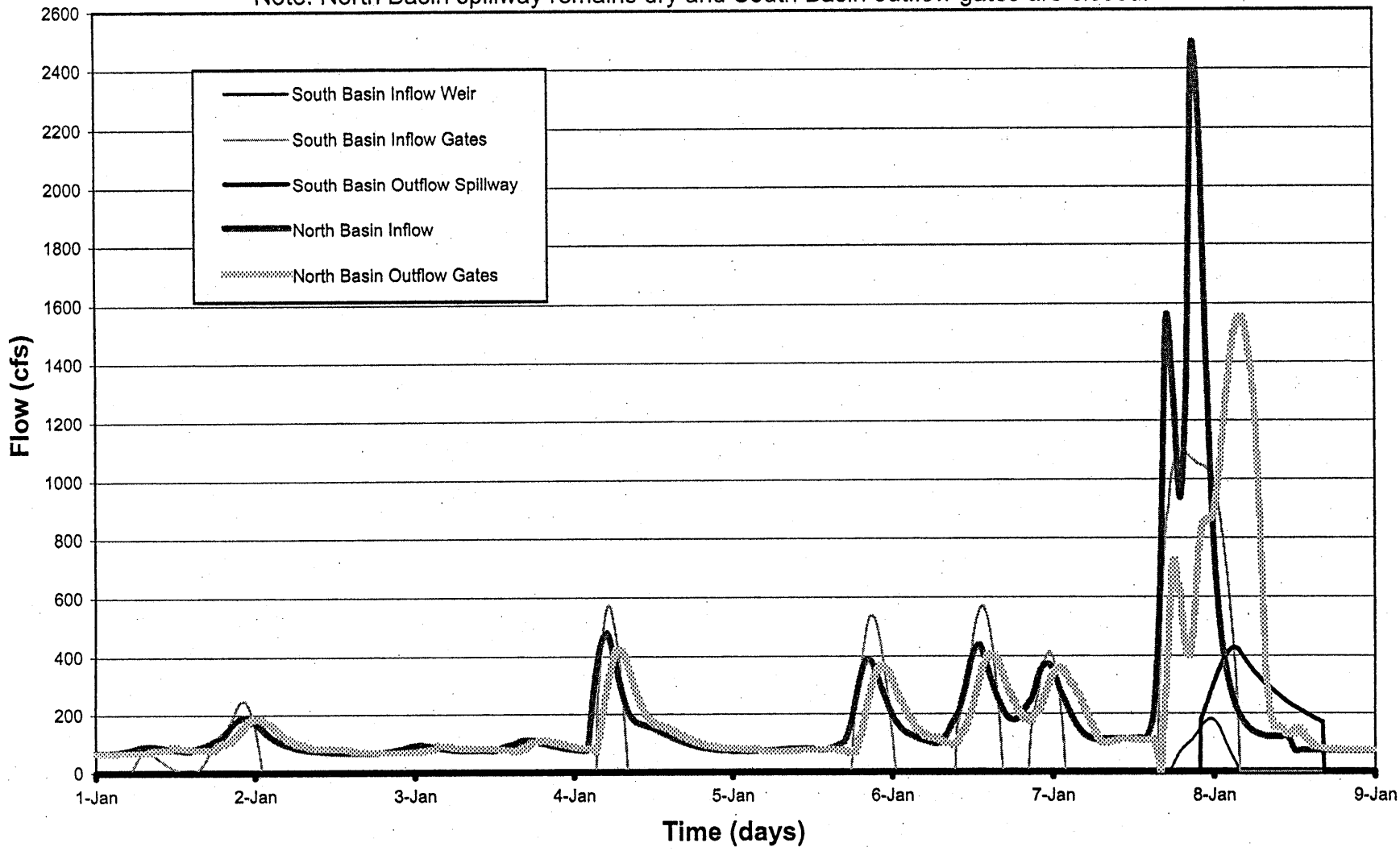


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Inlet and Outlet Structure Flow Hydrographs - 100-year, 8-day Storm

MIKE 11 Model Output

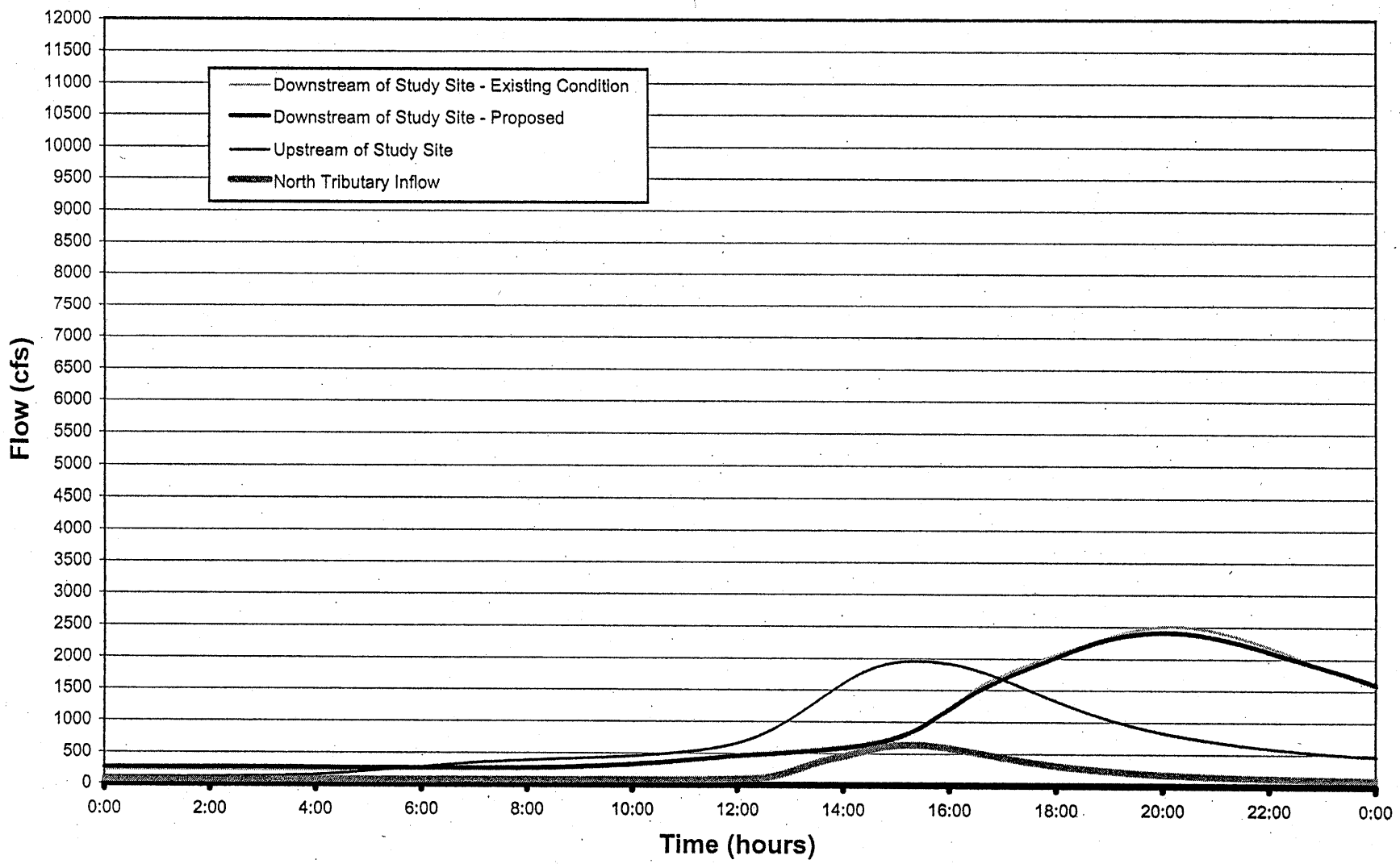
Note: North Basin spillway remains dry and South Basin outflow gates are closed.



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Pleasant Grove Creek Flow Hydrographs - 2-year, 24-hour Storm

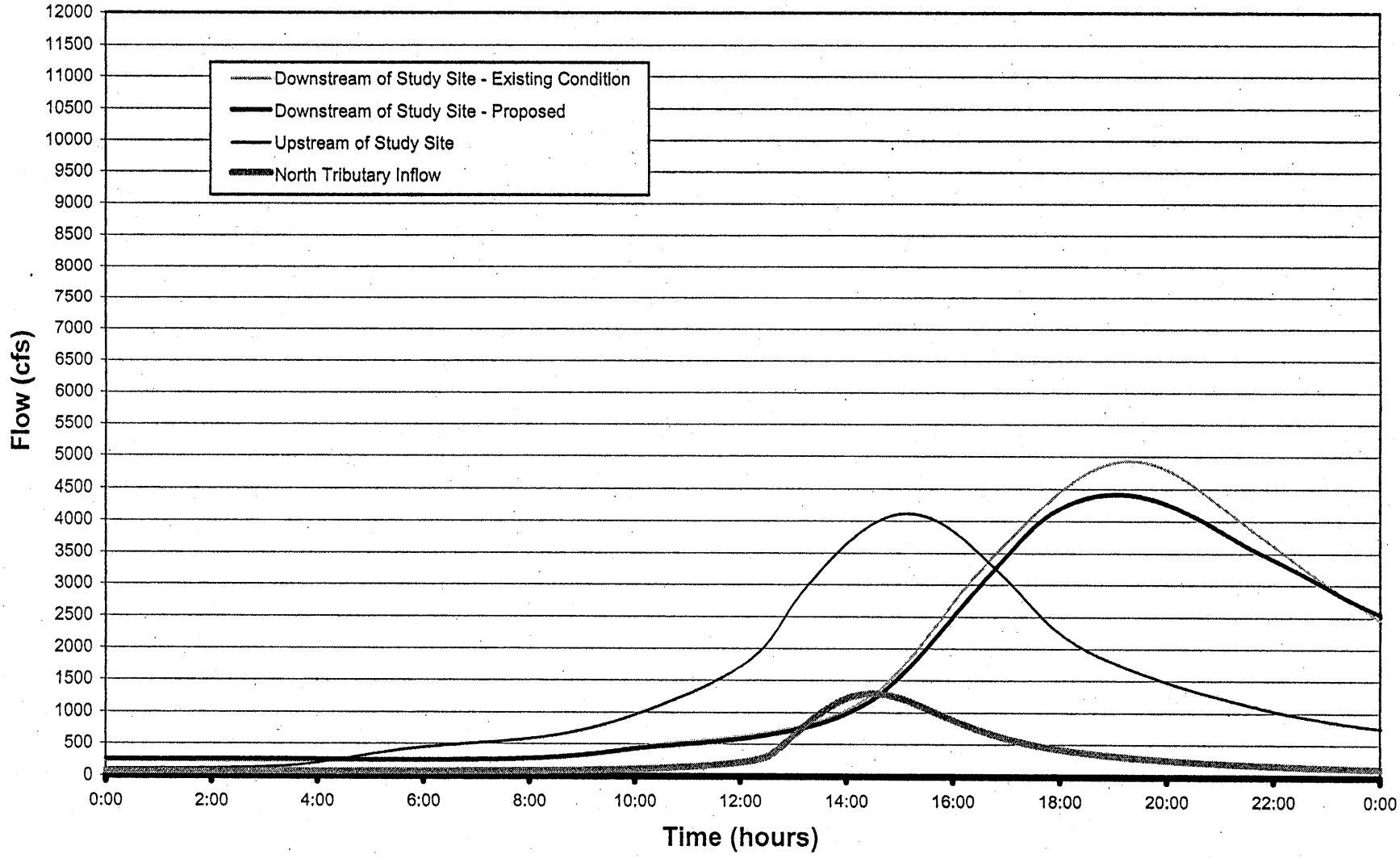
MIKE 11 Model Output



P:\Projects\1570_04_Conceptual Design_Report\Mike11-ResultSorting\FlowHydrographsDownstreamEnd.xls

Pleasant Grove Creek Flow Hydrographs - 10-year, 24-hour Storm

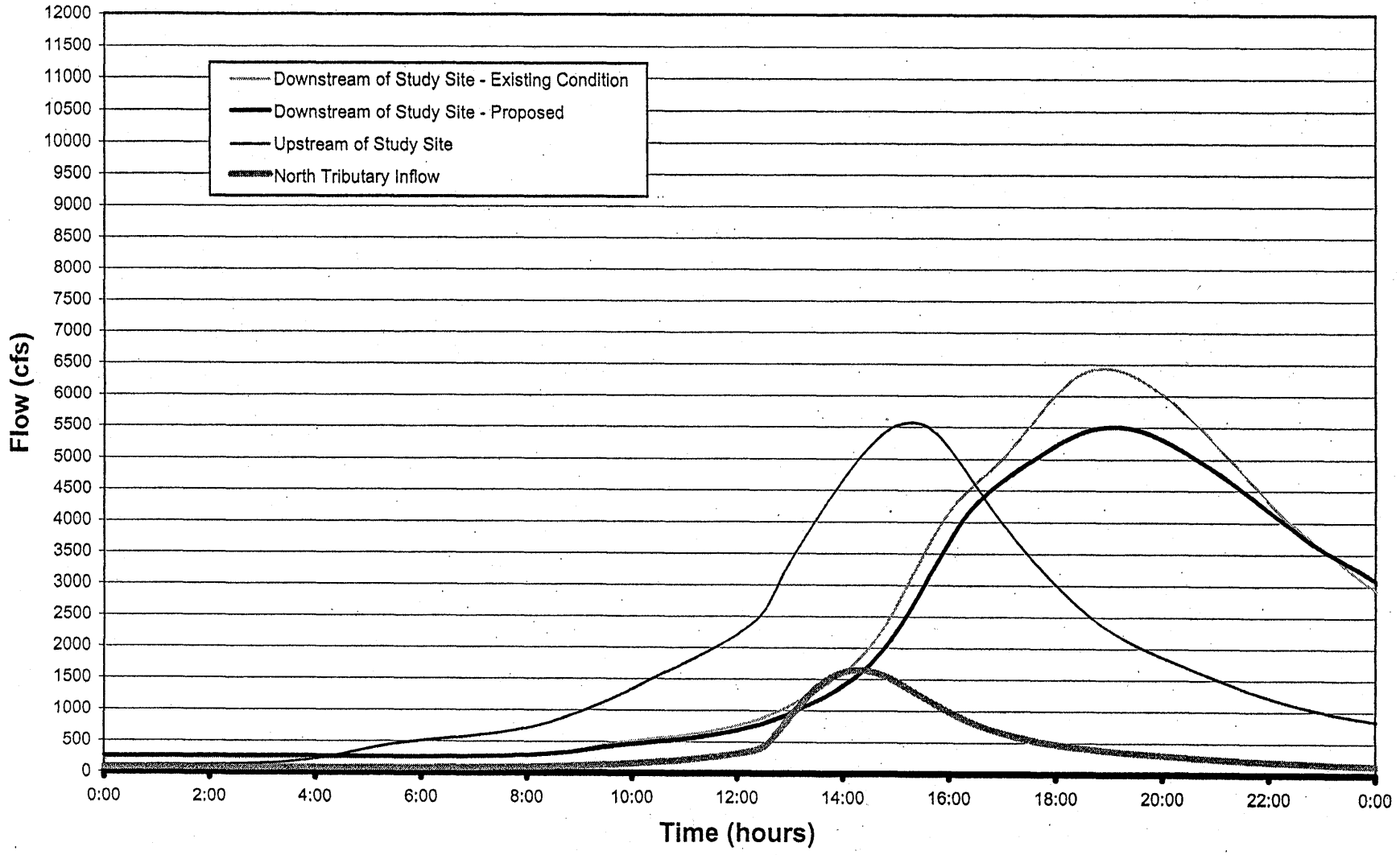
MIKE 11 Model Output



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Pleasant Grove Creek Flow Hydrographs - 25-year, 24-hour Storm

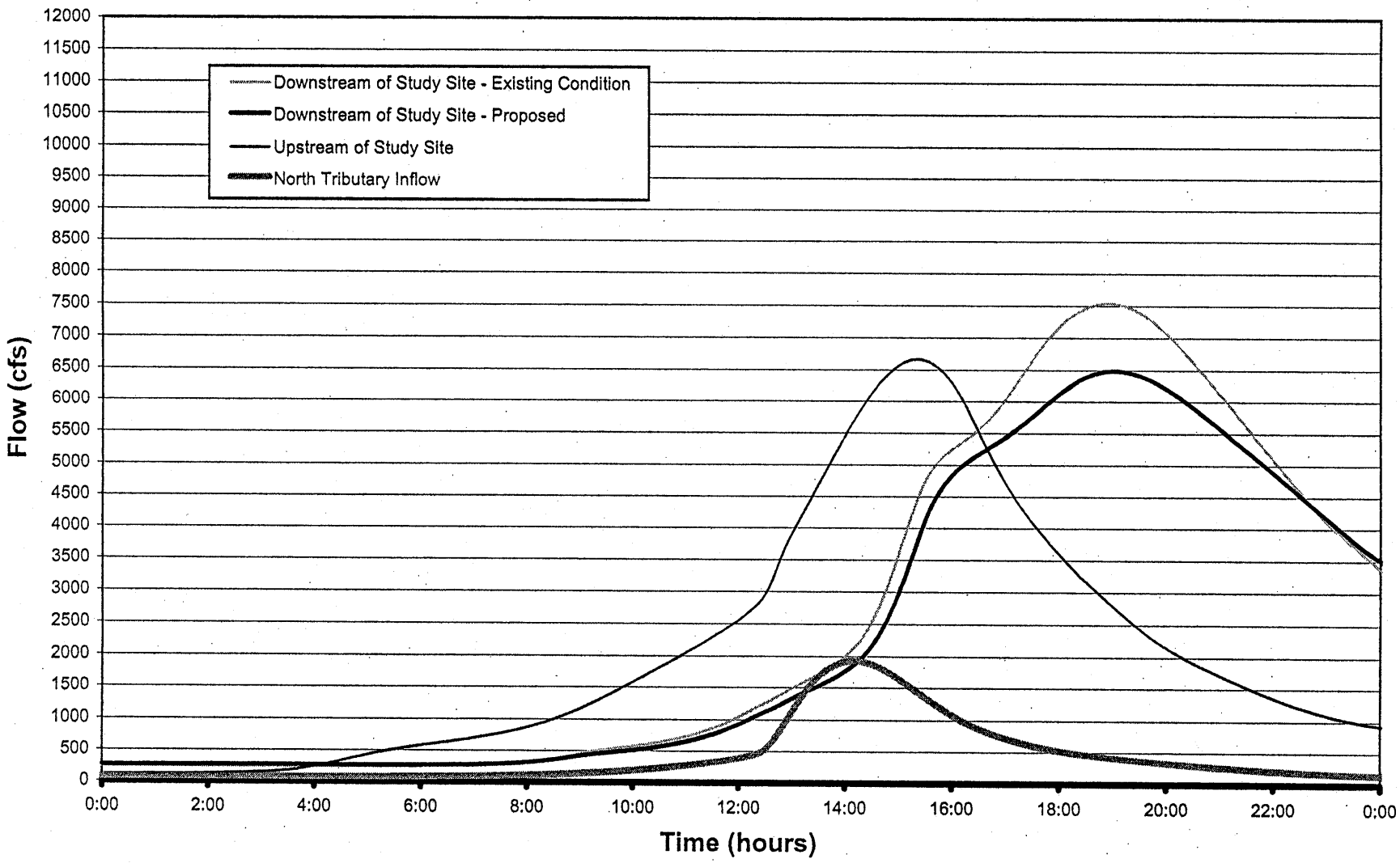
MIKE 11 Model Output



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Pleasant Grove Creek Flow Hydrographs - 50-year, 24-hour Storm

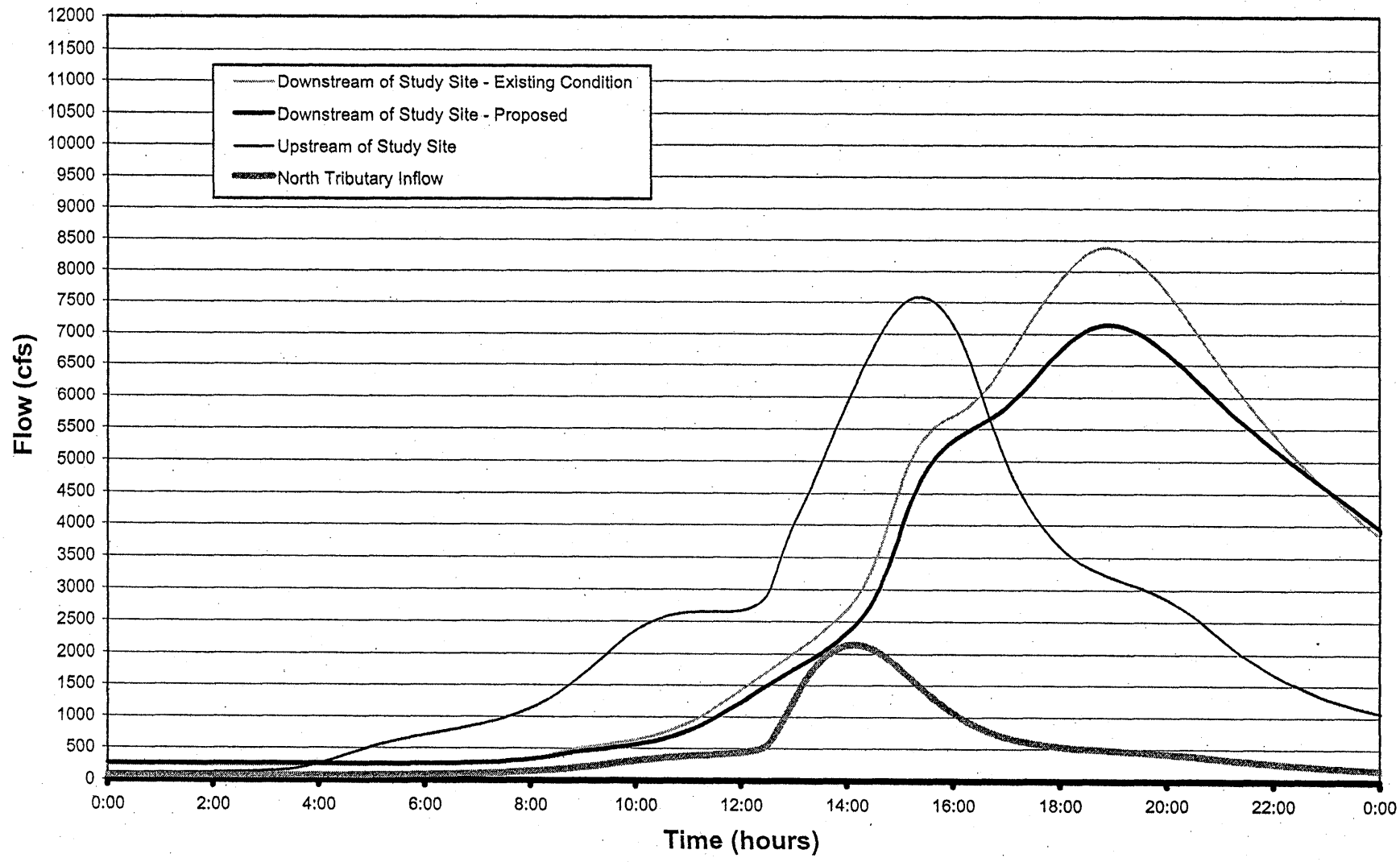
MIKE 11 Model Output



P:\Projects\1570_04_Conceptual Design_Report\Mike11-ResultSorting\FlowHydrographsDownstreamEnd.xls

Pleasant Grove Creek Flow Hydrographs - 100-year, 24-hour Storm

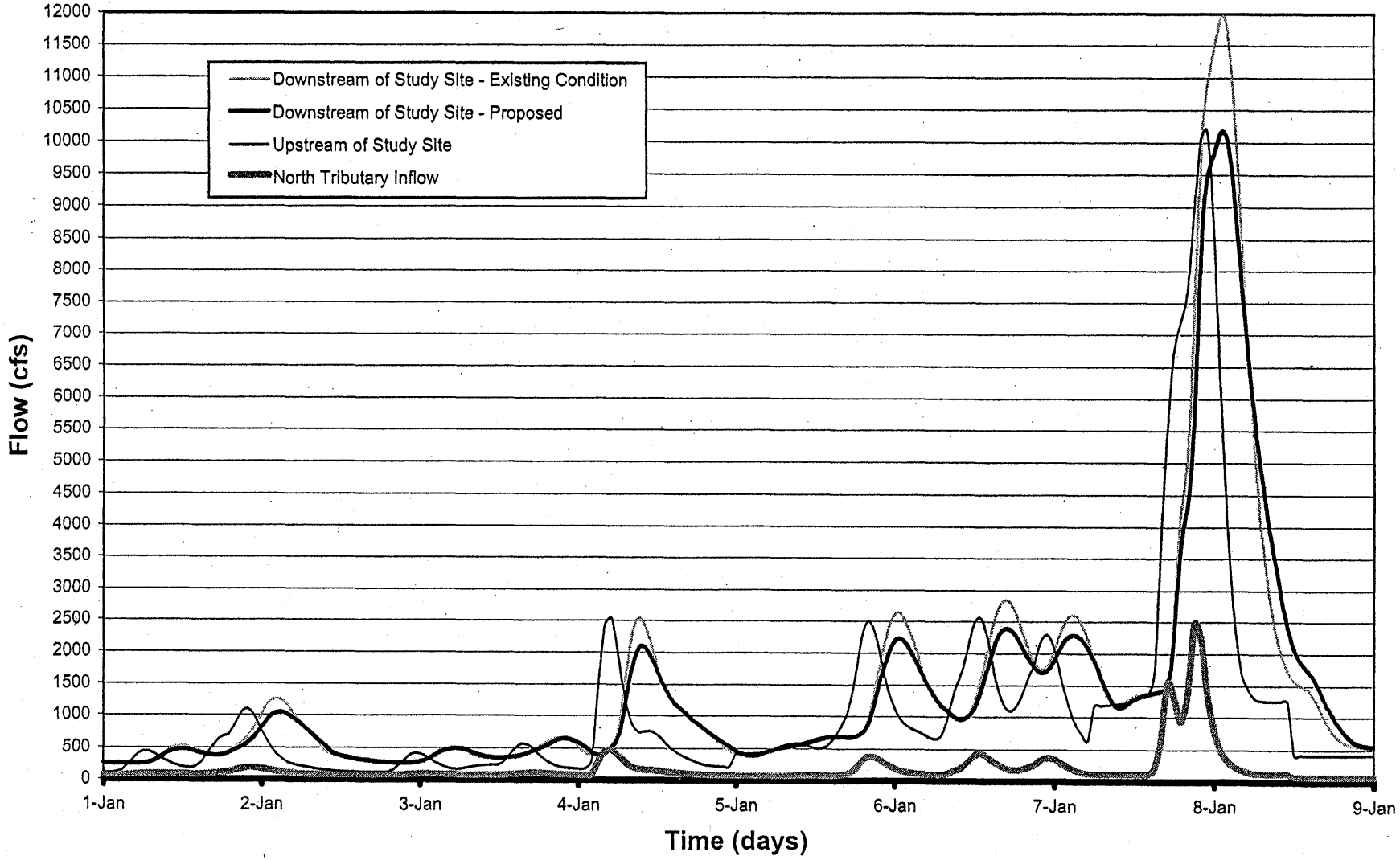
MIKE 11 Model Output



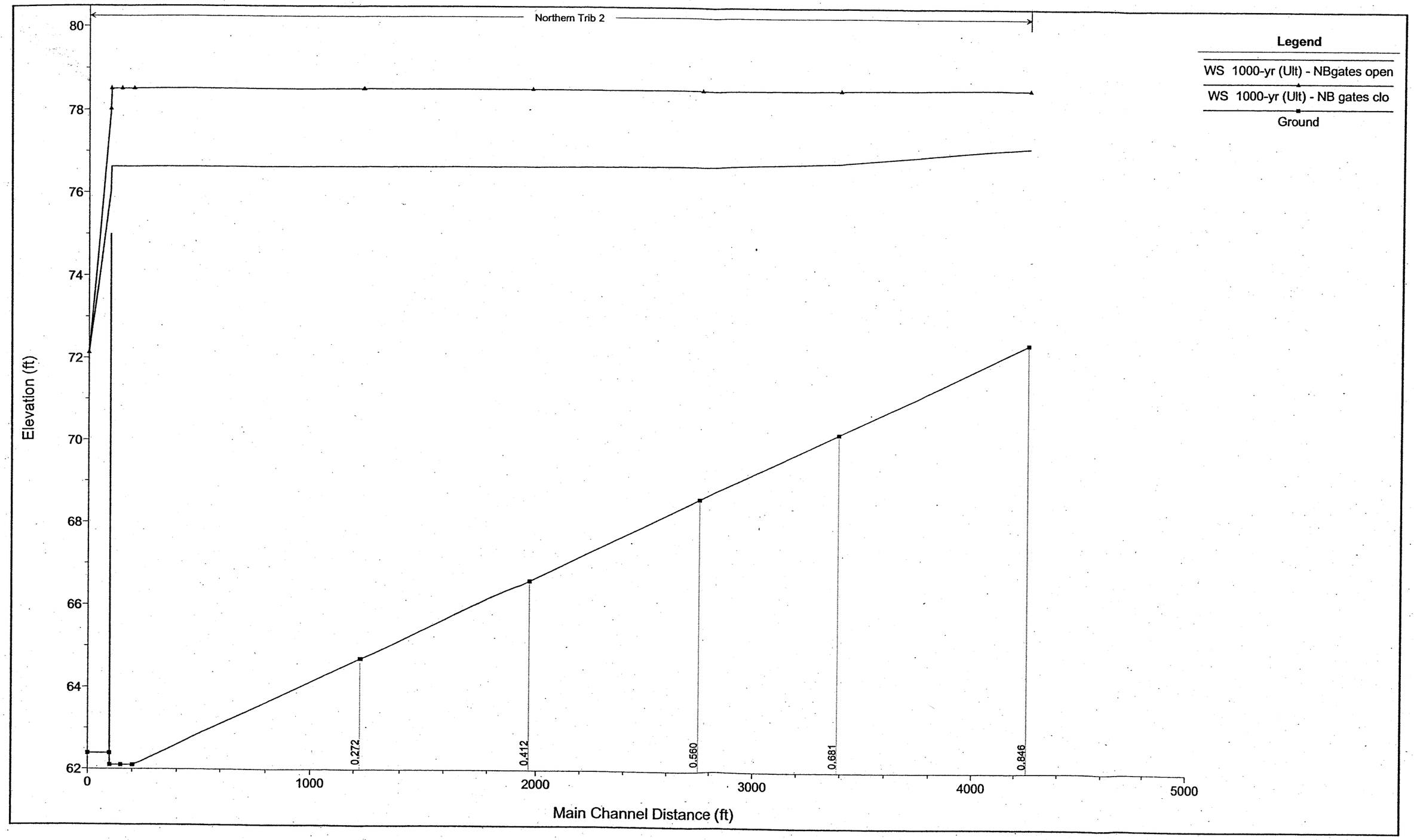
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Pleasant Grove Creek Flow Hydrographs - 100-year, 8-day Storm

MIKE 11 Model Output



P:\Projects\1570_04_Conceptual Design_Report\Mike11-ResultSorting\FlowHydrographsDownstreamEnd.xls


Northern Trib 2
Legend
WS 1000-yr (Ult) - NBgates open
WS 1000-yr (Ult) - NB gates clo
Ground
Elevation (ft)
80
78
76
74
72
70
68
66
64
62
0
1000
2000
3000
4000
5000
Main Channel Distance (ft)
0.272
0.412
0.560
0.681
0.846

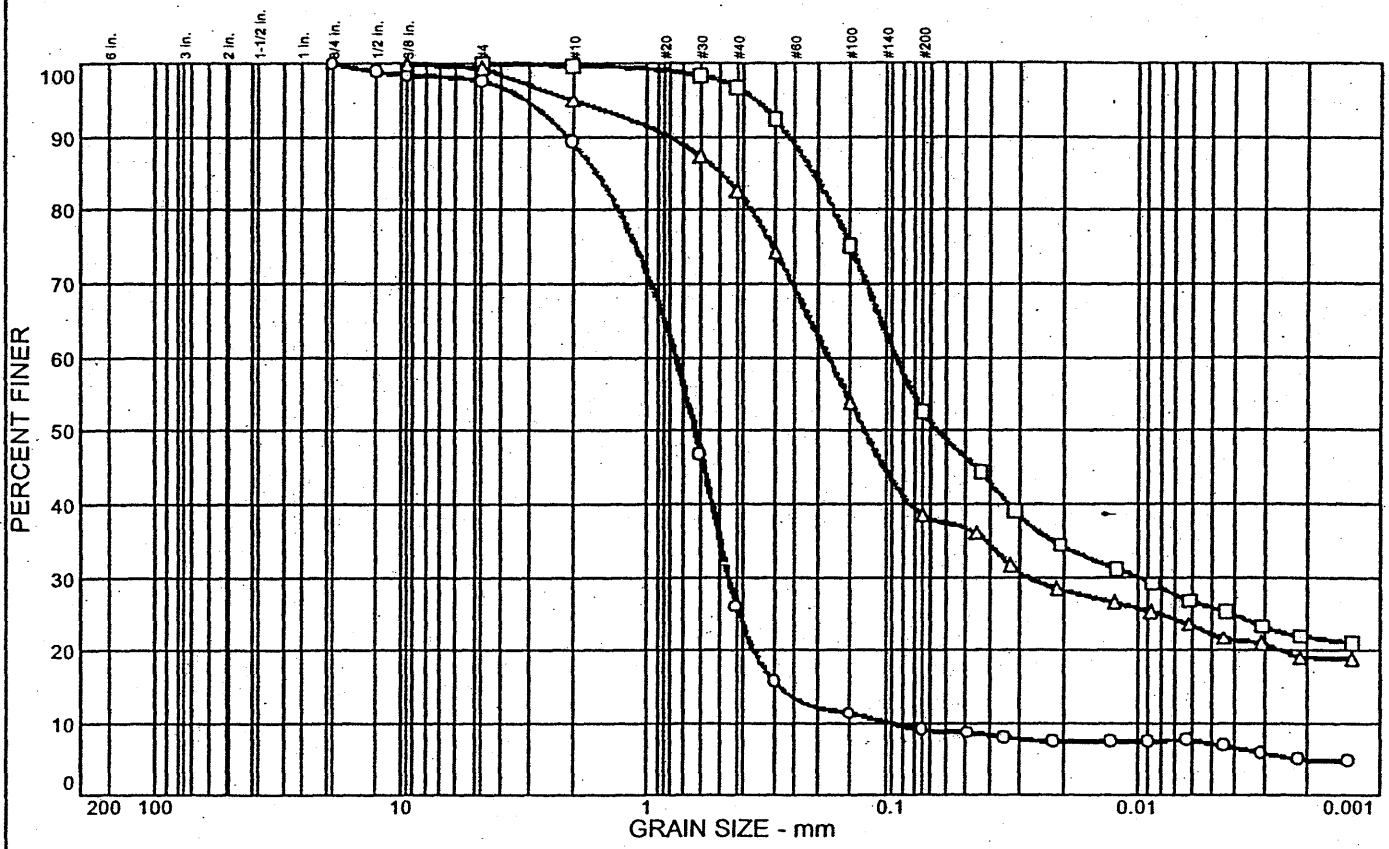
APPENDIX D

APPENDIX D
Sediment Transport Analysis

This appendix contains:

- Particle-size distributions for Pleasant Grove Creek and Northern Tributary Two.
- PWA Memorandum titled Potential Hydraulic and Geomorphic Changes Due To Levee Relocation, dated May 24, 2002.
- Compact Disc (CD) with hydrologic and hydraulic modeling and sediment transport calculations.

PARTICLE SIZE DISTRIBUTION TEST REPORT



	% + 3"	% GRAVEL	% SAND	% SILT	% CLAY	% FINES	USCS	AASHTO	PL	LL
o		2.4	88.6	1.9	7.1	9.0	SW-SM			
□			47.4	26.8	25.8	52.6	ML			
△		0.6	60.9	16.3	22.2	38.5	SM			

SIEVE inches size	PERCENT FINER o	□	△
3/4	100.0		
1/2	98.9		
3/8	98.4		100.0
	GRAIN SIZE		
D_{60}	0.764	0.0972	0.183
D_{30}	0.459	0.0100	0.0282
D_{10}	0.104		
	COEFFICIENTS		
C_c	2.66		
C_u	7.34		

SIZE	PERCENT FINER o	□	△
#4	97.6	100.0	99.4
#10	89.2	99.7	95.0
#30	46.7	98.4	87.4
#40	25.9	96.8	82.7
#50	15.7	92.5	74.5
#100	11.3	75.2	53.9
#200	9.0	52.6	38.5
0.0489 mm.	8.6		
0.0453 mm.			36.0
0.0436 mm.		44.4	
0.0347 mm.	8.0		
0.0329 mm.			31.6
0.0318 mm.		39.1	
0.0220 mm.	7.4		
0.0212 mm.			28.4
0.0206 mm.		34.4	
0.0127 mm.	7.4		
0.0123 mm.			26.5
0.0121 mm.		31.1	
0.0090 mm.	7.4		
0.0088 mm.			25.2
0.0087 mm.		29.1	
0.0063 mm.	7.7		
0.0062 mm.			23.5
0.0061 mm.		26.7	
0.0044 mm.	6.8	25.3	21.6
0.0031 mm.	5.9	23.2	20.9
0.0022 mm.	5.0		
0.0021 mm.		21.9	19.0
0.0013 mm.	4.7	21.0	18.8

SOIL DESCRIPTION

o gray-brown well graded SAND with silt

□ brown sandy SILT

△ brown silty SAND

REMARKS:

o F.M.=2.30

□ F.M.=0.34

△ F.M.=0.85

o Source: Bulk — Sample No.1, PGC upstream of the site

□ Source: Bulk — Sample No.2, NT2 upstream of the site

△ Source: Bulk — Sample No.3, NT2 middle reach

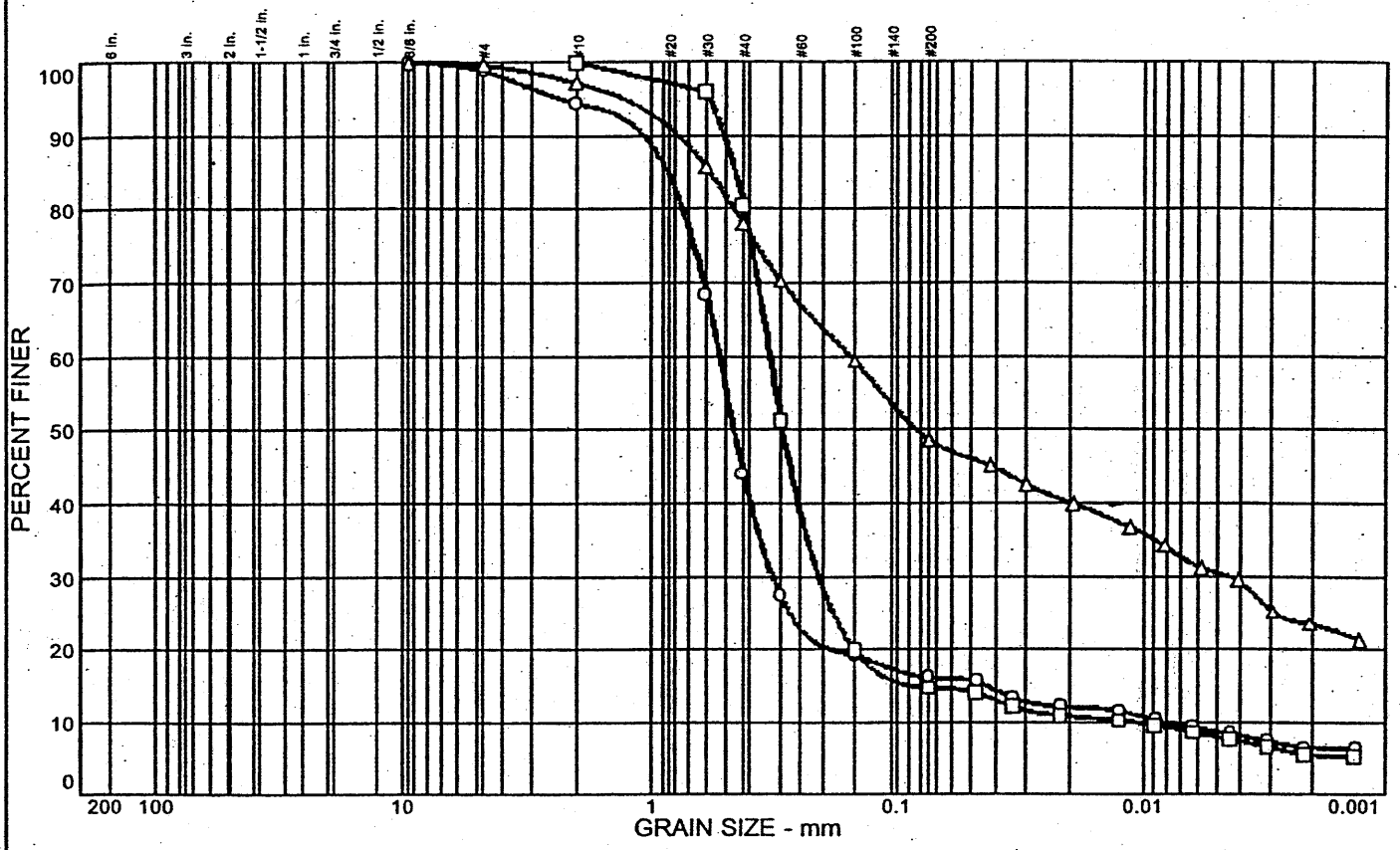
COOPER TESTING LABORATORY

Project: PWA / 1570 Reason Farm

Feature:

Project No.: 345-019

PARTICLE SIZE DISTRIBUTION TEST REPORT



	% + 3"	% GRAVEL	% SAND	% SILT	% CLAY	% FINES	USCS	AASHTO	PL	LL
o		1.2	82.7	7.4	8.7	16.1	SM			
□			85.3	6.8	7.9	14.7	SM			
Δ		0.4	51.0	18.1	30.5	48.6	SM			

SIEVE inches size	PERCENT FINER o	□	Δ
3/8	100.0		100.0
	GRAIN SIZE		
D_{60}	0.532	0.332	0.156
D_{30}	0.324	0.211	0.0044
D_{10}	0.0081	0.0110	
	COEFFICIENTS		
C_C	24.38	12.18	
C_U	65.67	30.20	

SIZE	PERCENT FINER o	□	Δ
#4	98.8		99.6
#10	94.4	100.0	97.2
#30	68.3	96.0	85.7
#40	44.0	80.6	78.0
#50	27.3	51.3	70.3
#100	19.1	19.9	59.4
#200	16.1	14.7	48.6
0.0479 mm.		14.0	
0.0473 mm.	15.7		
0.0418 mm.			45.1
0.0342 mm.		12.1	
0.0339 mm.	13.3		
0.0301 mm.			42.5
0.0218 mm.		10.9	
0.0215 mm.	12.1		
0.0193 mm.			39.9
0.0126 mm.		10.2	
0.0125 mm.	11.5		
0.0114 mm.			36.7
0.0089 mm.	10.3	9.6	
0.0082 mm.			34.1
0.0063 mm.		8.6	
0.0062 mm.	9.3		
0.0058 mm.			31.1
0.0044 mm.	8.4	7.6	
0.0041 mm.			29.4
0.0031 mm.	7.4	6.6	
0.0029 mm.			25.1
0.0022 mm.	6.5	5.6	
0.0021 mm.			23.5
0.0013 mm.	6.3	5.2	21.3

SOIL DESCRIPTION

o light brown silty SAND

□ light brown silty SAND

Δ brown silty SAND

REMARKS:

o F.M.=1.87

□ F.M.=1.33

Δ F.M.=0.85

o Source: Bulk — Sample No.4, NT2 upstream of the knickpoint zone

□ Source: Bulk — Sample No.5, NT2 just upstream of the confluence

Δ Source: Bulk — Sample No.6, PGC middle reach

COOPER TESTING LABORATORY

Project: PWA / 1570 Reason Farm

Feature:

Project No.: 345-019

PWA
PHILIP WILLIAMS & ASSOCIATES
CONSULTANTS IN HYDROLOGY
720 CALIFORNIA ST., 6TH FLOOR, SAN FRANCISCO, CA 94108
TEL 415.262.2300 FAX 415.262.2303
SFO@PWA-LTD.COM

MEMORANDUM

DATE: 05/24/2002

TO: Raul Cervantes
City of Roseville

FROM: Setenay Bozkurt, M.S.
Ken Schwarz, Ph.D

CC: Denise Heick
URS Corporation

RE: Potential Hydraulic and Geomorphic Changes Due to Levee Relocation (Task 1 and 3)
PWA Ref. #: 1570.04

This memorandum was prepared in accordance with direction of City Staff, for the purposes of assessing the feasibility of placing the North and South Basin embankments at a position closer to the Pleasant Grove Creek than that showed in the Draft Conceptual Design Report, dated April 16, 2002. The Draft Conceptual Design Report had the embankments 300 feet from the Ordinary High Water of the Pleasant Grove Creek. The revised embankment location would have a toe of slope no closer to the stream than 70 feet from the top of the bank or 100 feet from the toe of the bank, whichever provides the greatest separation from the top of bank. By relocating the embankments toward the Pleasant Grove Creek, the City hopes to get additional retention storage up to 2,530 acre-feet. This is the amount of storage required to provide for the City's existing and future entitled development, the proposed Northwest Roseville Specific Plan and the remainder of the MOU area, effluent storage for the Pleasant Grove Creek WWTP, and storage for the City of Rocklin annexation area (180 acre-feet).

This memorandum describes the analysis conducted to assess potential hydraulic and geomorphic impacts. The analysis consists of three aspects, which are:

1. potential changes in hydraulic properties
2. potential changes in relative sediment transport conditions
3. an assessment of the potential changes in lateral channel movement.

Potential impacts of levee repositioning were evaluated by comparing existing hydraulic and sediment conditions with those of the project conditions, at selected cross sections. For this purpose, four cross sections along the Pleasant Grove Creek were selected. Figure 1 presents a schematic of the selected cross sections, which can be described as follows:

1. STA 1350; immediately upstream of the project site, selected as the supply reach
2. STA 2377; at the middle reach, upstream of the Northern Tributary two confluence
3. STA 3943; on the western side of the site upstream of the project boundary
4. STA 5370; downstream of the site boundary

1. Hydraulics

The hydraulic properties associated with the existing and proposed embankment setback were generated using the MIKE11 hydrodynamic model. The hydraulic properties for all of the 2-, 10-, 25-, 50-year events for the existing and project conditions were not evaluated for the current setback analysis because these storms are contained within the channel along the embanked reach and do not go overbank. The 50-year flood does overtop its banks upstream of the embankments, but is contained in the channel downstream within the proposed project reach, and thus is not relevant to the current analysis. Only the 100-year, 8-day storm hydraulic parameters were compared at selected cross sections, because this flow event generated overbank discharge within the project conditions.

The effects of the project conditions on modeled hydraulic variables (flow depth, flow velocity, and shear stress) for the 100-year, 8-day event within Pleasant Grove Creek and Northern Tributary Two are given in Figures 1-15. Figures 1-12 depict the effects of the proposed basin structures on flow dynamics along various locations along Pleasant Grove Creek, while Figures 13-15 depict the effects of the channel restoration associated with the project conditions on flow dynamics within Northern Tributary Two. The subsequent discussion describes the effects of the project conditions on the hydraulic regime within the project site.

Model results show that the water surface elevation along the length of Pleasant Grove Creek does not vary significantly with the implementation of the proposed retention project. The most significant difference in modeled pre- and post-project water surface elevation occur at STA 1350 (upstream boundary of the project site), where model results suggest that project conditions decrease the water surface elevation during the 100-year, 8-day event by a maximum of approximately 0.15 m. In general, the effects of the levees and gate structures associated with the project conditions have a very minimal effect on water surface elevation through Pleasant Grove Creek within the project site.

The effects of the proposed project on flow velocity and shear stress along the length of Pleasant Grove Creek within the project site vary along the length of the reach. The modeled flow velocity and shear stress for the 100-year, 8-day event increase to the greatest extent for the project conditions at STA 1350.

Modeled flow velocities at STA 1350 increase by a maximum of approximately 0.2 m/s for project conditions, while project conditions cause modeled shear stress at STA 1350 to increase by a maximum of approximately 21 N/m^2. For STA 2377-STA 5370, project conditions result in an overall decrease in modeled flow velocity and shear stress for most of the 100-year, 8-day event. At STA 2337 (upstream of the confluence of Pleasant Grove Creek and Northern Tributary Two), modeled flow velocities and shear stress for project conditions are, on average, slightly greater than the exiting conditions. The maximum modeled velocity difference between the existing and project condition for STA 2337 is approximately 0.1 m/s, while the maximum shear stress difference is approximately 7 N/m^2. For STA 3943 (downstream of the confluence of Pleasant Grove Creek and Northern Branch), modeled flow velocity and shear stress decrease for the project conditions for the first 6.5 days of the 100-year, 8-day event. However, during the peak flow of the 8-day event, modeled flow velocity and shear stress at STA 3943 become higher for project conditions (maximum difference is approximately 0.3 m/s and 21 N/m^2 for velocity and shear stress, respectively). Downstream of the project site at STA 5370, project conditions cause modeled flow velocity and shear stress to decrease. The maximum decrease in modeled flow velocity is on the order of 0.1 m/s and the maximum decrease in shear stress is on the order of 6 N/m^2.

The restoration of Northern Tributary Two that is associated with the project conditions cause modeled flow velocity and shear stress at the upstream edge of the site boundary (STA 1989) to increase significantly. Modeled flow velocity at STA 1989 increases by an average of approximately 0.4 m/s for project conditions, while shear stress increases by approximately 9 N/m^2. The maximum difference in flow velocity at STA 1989 between existing and project conditions is approximately 0.7 m/s and the maximum difference in shear stress is 15 N/m^2. The restoration of the Northern Tributary Two channel to its natural grade causes an increase in channel slope throughout the reach, thereby increasing flow velocities and shear stress to appropriate values for the system.

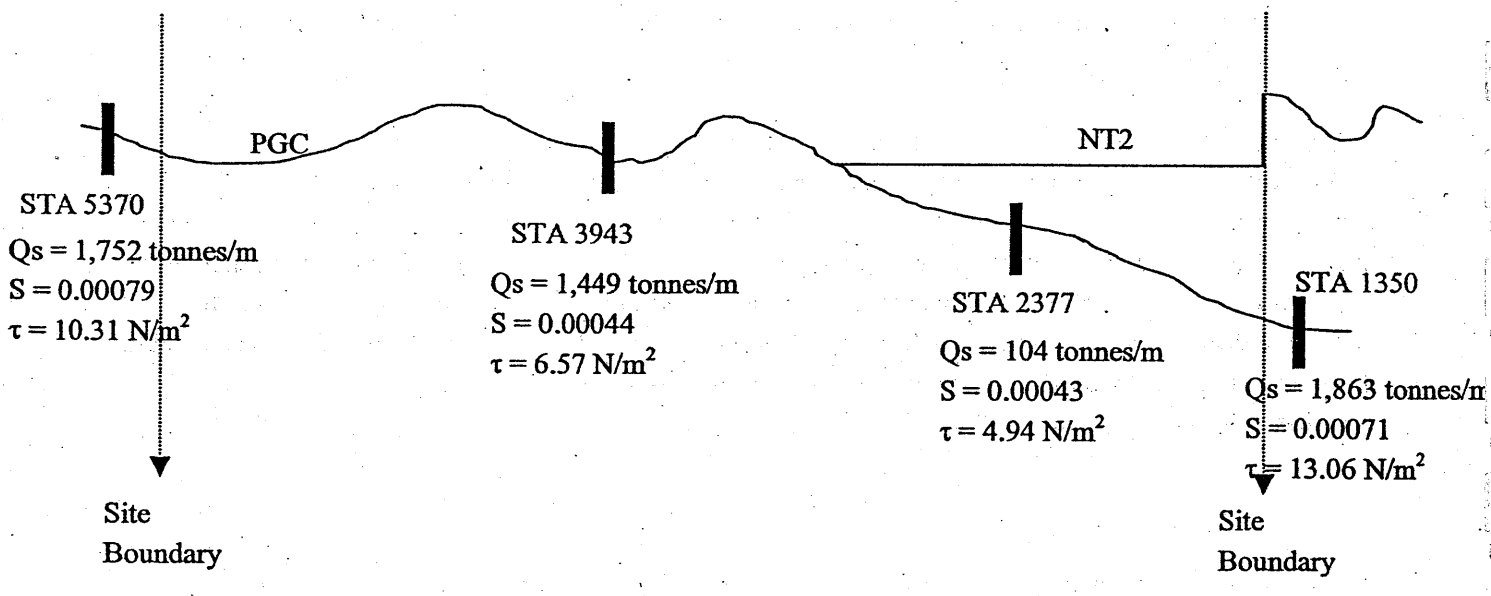
2. Sediment Transport

A sediment transport capacity analysis was provided in Section 3.3 of the Final Conceptual Design Report. That Analysis was performed to determine the quantity of sediments that could potentially accumulate in the retention basins. The current memorandum describes potential sediment transport conditions along the studied reaches of the Pleasant Grove Creek main channel for both existing conditions and a proposed embankment setback of 100 feet.

Analyzing potential changes in sediment transport capacity requires evaluating a complex blend of several processes. Channel flow splits between the main channel and the bypass channel during all of the 2-, 10-, 25-, 50- and 100-year events. The sediment loads at selected cross sections in Pleasant Grove Creek are different for the existing and proposed embankment setback conditions. For the 100-year, 8-day event, a time series of hydraulic parameters was used to calculate sediment transport based on hourly

values, and then summed over the 8-day duration. For the 2-, 10-, 25-, 50- and 100-year events, capacities were determined for peak conditions. The cross sections used in the current analysis are the station upstream of the site as the supply reach (STA 1350), a station upstream of Northern Tributary Two (STA 2377), and one further downstream in the site (STA 3943). To determine the sediment transport capacity, the Ackers and White (1973) and Brownlie (1981) total load equations were used.

The diagram below shows the location of the cross sections and associated peak hydraulic and sediment transport parameters for the 100-year, 8-day event. Table 1 and Table 2 include the results of the sediment transport capacity analysis during the 100-year, 8-day event, for the existing and project conditions, respectively. Table 3 presents sediment transport during the peak sediment transport rates during the 2-, 10-, 25-, 50- and 100-year-24-hour events, for existing and project conditions.



Notes:

1. Qs is the total sediment transport capacity per unit width for the 100-year, 8-day event calculated by Ackers & White equation
2. S is the average energy slope
3. τ is the average bed shear stress

Table 1. Existing conditions sediment transport capacity during the 100-year, 8-day event

	Ackers & White Qs (ton)	Brownlie Qs (ton)	Ackers & White Qs (ac-ft)	Brownlie Qs (ac-ft)
PGC, STA 1350	35,705	46,720	10.9	14.3
PGC, STA 2377	22,645	58,038	6.9	17.8
PGC, STA 3943	65,726	135,812	20.1	41.5
PGC, STA 5370	206,626	356,833	63.2	109.2

Table 2. Project conditions sediment transport capacity during the 100-year, 8-day event

	Ackers & White Qs (ton)	Brownlie Qs (ton)	Ackers & White Qs (ac-ft)	Brownlie Qs (ac-ft)
PGC, STA 1350	139,483	141,778	42.7	43.4
PGC, STA 2377	13,618	38,548	4.2	11.8
PGC, STA 3943	112,933	218,137	34.5	66.7
PGC, STA 5370	149,600	256,312	45.8	78.4

Sediment transport analysis is very sensitive to the specific transport equation used, as well as sediment characteristics. In addition, the choice of cross section locations has significant implications. Therefore, while interpreting the results, instead of placing emphasis on absolute numbers, relative changes from reach to reach are evaluated.

The results of the analysis can be interpreted in terms of sediment continuity. Sediment supply to the creek (Qs) is derived from the cross section upstream of the site (STA 1350). Using the sediment transport capacity (Qc) of the reaches -characterized by the selected cross sections, sediment balance can be derived. Sediment balance would be the difference between the sediment transport capacity of a given reach and the sediment supply to that reach (Balance = Qs – Qc). This balance equation is based on the assumption that the reaches are transport limited. A positive balance number indicates a depositional environment, whereas a negative number indicates an erosive environment.

For the existing conditions, sediment transport capacity values calculated by the two equations are within a reasonable range. The conveyance capacity of the reach on the eastern end of the site (STA 2377), is smaller than that of the supply reach (STA 1350), which suggests that it is a depositional reach. This result is consistent with the geomorphology of the reach, in view of the fact that the channel gets wider and flatter, and thus does not have enough energy to carry sediment. Downstream, with the additional flows from the tributaries, sediment transport capacity increases, suggesting a degrading reach. This reach

is relatively more free-flowing than the backwater zones of the upstream reaches. Therefore, it is expected that its conveyance capacity increases. Similarly, with the effect of channel narrowing, the erosional trend of the upstream reach continues between STA 3943 and STA 5370 –just downstream of the site boundary.

The erosional and depositional trends of the existing conditions are similar for the project conditions. For the project conditions, for the first three cross sections, the difference between sediment transport capacities from one reach to the other are larger. Conversely, the third and fourth cross sections have relatively closer transport capacities. Overall, the project conditions result in higher sediment transport rates. As mentioned earlier, the absolute values of sediment transport capacities have large uncertainties, and might not indicate the actual amount of sediment transport. Therefore, from the point of view of general aggradation/degradation trends, the project would not be expected to change the geomorphic trends at the site.

The general trends highlighted in the 100-yr simulation are also reflected in the values estimated for the coarser 2-, 10-, 25-, and 50-year analyses shown above. The aggradation trend of the reach between STA 1350 and STA 2377 is reinforced under all these flow conditions. Downstream at STA 3943, the existing erosional trend is reduced for the 25- and 50- year events, while for the more frequent events, the above results indicate a worsening of this condition.

3. Geomorphic Trends

An analysis of the geomorphic conditions at the Reason Farms Site, as well as the Pleasant Grove Creek channel and its watershed was presented in the previous report, titled Screening Level Evaluation of Alternative Site locations for the City of Roseville Retention Basin, dated March 8, 2002 (URS and PWA, March 2002). A brief summary of the site geomorphology is presented herein. In addition, a qualitative assessment of potential impacts of levee repositioning to channel morphology is provided. This assessment is based on the previous geomorphic study, comparison of the 1908 and 1967 topographic maps, and field observations.

In general, Reason Farms Site lies in a depositional zone within the Pleasant Grove Creek watershed (Figure 2.5.1, URS and PWA 2002). The topography of the region consists of a series of low rolling hills, with a fairly level floodplain along the stream corridor. The embanked stream channels have very low gradients and fine sediment load. Pleasant Grove Creek, through the Reason Farms Site, has the lowest channel gradients in the watershed (~0.0006).

The fine sediment load, low slope, and low energy nature of the Pleasant Grove Creek means that anticipated rates of lateral channel movement are historically low. Field observations and the comparison

Table 3. Existing and project conditions peak sediment transport capacities

2-YEAR EVENT				
	Existing Conditions		Project Conditions	
	Ackers & White (ton/hr)	Brownlie (ton/hr)	Ackers & White (ton/hr)	Brownlie (ton/hr)
STA 1350	417	697	1,177	1,882
STA 2377	24	250	1	124
STA 3943	494	1,100	221	522

10-YEAR EVENT				
	Existing Conditions		Project Conditions	
	Ackers & White (ton/hr)	Brownlie (ton/hr)	Ackers & White (ton/hr)	Brownlie (ton/hr)
STA 1350	2,738	5,042	3,394	6,535
STA 2377	3,701	8,584	62	507
STA 3943	5,582	13,521	1,605	3,530

25-YEAR EVENT				
	Existing Conditions		Project Conditions	
	Ackers & White (ton/hr)	Brownlie (ton/hr)	Ackers & White (ton/hr)	Brownlie (ton/hr)
STA 1350	1,459	2,628	5,140	9,833
STA 2377	577	2,072	2,444	1,111
STA 3943	3,529	8,624	2,962	6,539

50-YEAR EVENT				
	Existing Conditions		Project Conditions	
	Ackers & White (ton/hr)	Brownlie (ton/hr)	Ackers & White (ton/hr)	Brownlie (ton/hr)
STA 1350	2,874	5,042	6,211	12,140
STA 2377	4,439	8,979	531	1,711
STA 3943	5,460	13,523	4,429	9,919

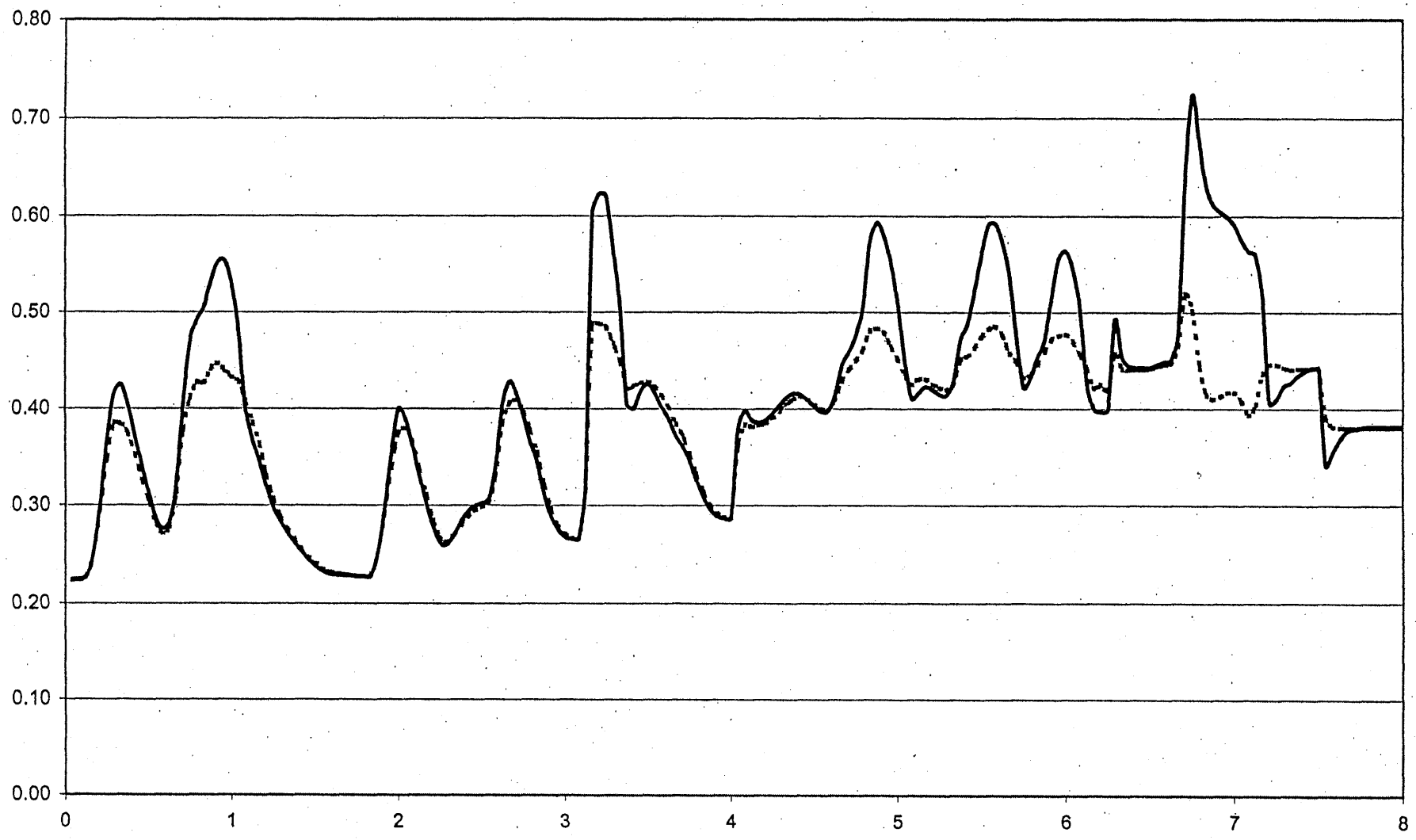
100-YEAR EVENT				
	Existing Conditions		Project Conditions	
	Ackers & White (ton/hr)	Brownlie (ton/hr)	Ackers & White (ton/hr)	Brownlie (ton/hr)
STA 1350	2,958	5,041	7,352	14,628
STA 2377	4,444	9,659	1,032	2,821
STA 3943	5,825	13,570	5,668	12,847

of 1908 and 1967 topographic maps indicated that the channels through Reason Farms show no recent lateral adjustments with channel planform being relatively stable. There are some lateral differences in the channel planform shown between the topographic maps further upstream in Pleasant Grove Creek. However they are mainly in the more tortuous meander bends, which are absent at the site. The previous URS and PWA (March 2002) report notes that lateral adjustments through the site would normally occur as avulsions during flood events (which are restricted to the inner floodplain area constrained by the embankments) in response to local deposition of sediment or woody debris rather than as true meandering. A further restraint on lateral movement is the existence of several engineered crossings in the channel that maintain the formation of seasonal lakes in the main channel. Therefore, the supposed meander belt, which is relatively narrow through the site, would not be impacted. For this reason, lateral channel movement is not expected to be constrained by the proposed embankment setback.

The previous URS and PWA (2002) report also indicates that rates of channel widening are very low and are unlikely to constrain field activities given that the main embankments are separated from the channel edge. Therefore, it is believed that the stability of the embankments will most likely not be affected.

As stated earlier, the Pleasant Grove Creek main channel has a very low gradient and is further regulated by three low crossing structures, which create backwater conditions. As a result, through the Reasons Farms site, Pleasant Grove Creek exists as a series of interspersed lakes and free-flowing channels. Examining 5 feet contours, channel gradients decrease markedly toward the project site. Field observations suggested that the site is one of deposition of sediments and woody debris. Under the natural floodplain topography indicated by the topographic maps, it seems possible that Pleasant Grove Creek would flood extensive areas under natural conditions, dispersing sediment widely. However, once constrained by embankments, sediment transported into the site during the falling limb of the runoff hydrograph can be deposited only within the inner floodplain zone. As such vertical rates of deposition are increased. Further, as the channel areas have the remnants of some earlier, lower, bank edge levees, sediment is probably deposited preferentially in the channel.

An interesting change related to aggradation and degradation trends and channel morphology is observed from the comparison of 1908 and 1967 topographic surveys. During that 60-year period, while the 70 foot and 50 foot contours did not move, the 65 foot contour migrated upstream and the 55 foot contour migrated downstream. Essentially, this suggests the formation of an extremely low gradient zone (0.0005) between the 60 and 65 foot contours, and aggradation through the majority of the Reason Farms property. The change in contour location also indicates that the gradient of 70 foot and 65 foot contour has become steeper and that incision is occurring upstream of Reason Farms. This trend is consistent with field observations of long term channel aggradation. This trend may have future implications for the location of embankments. At a feasibility level analysis, it is not possible to fully elucidate this trend or understand its implications for the project.



Source: Mike 11 Hydraulic Model

——— Project condition velocity

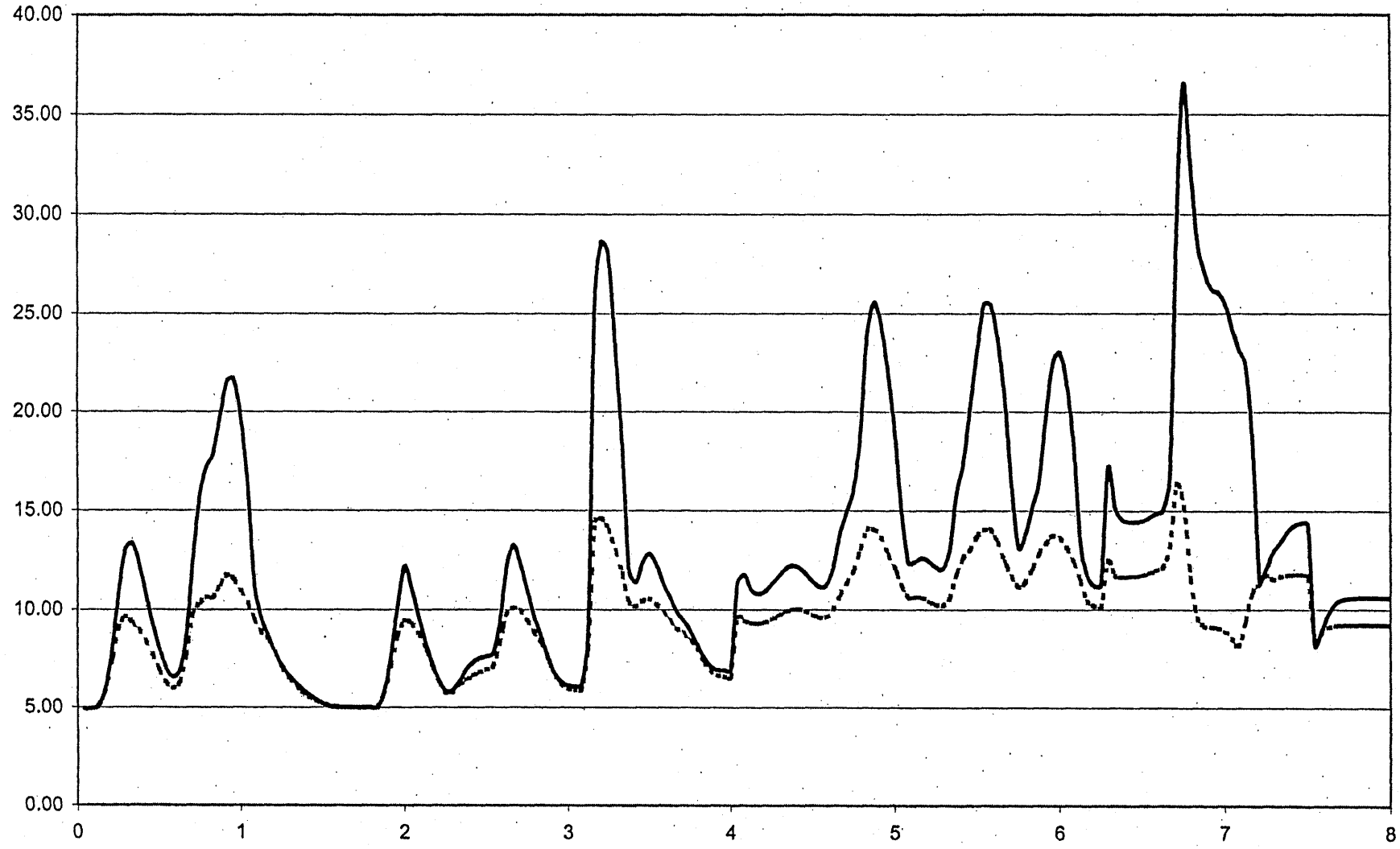
- - - Existing condition velocity

figure 1

1570-04 Reason Farms Retention Basin

PGC, 100-yr-8-day Event Flow Velocities at STA 1350

PWA



Source: Mike 11 Hydraulic Model

Project condition shear stress

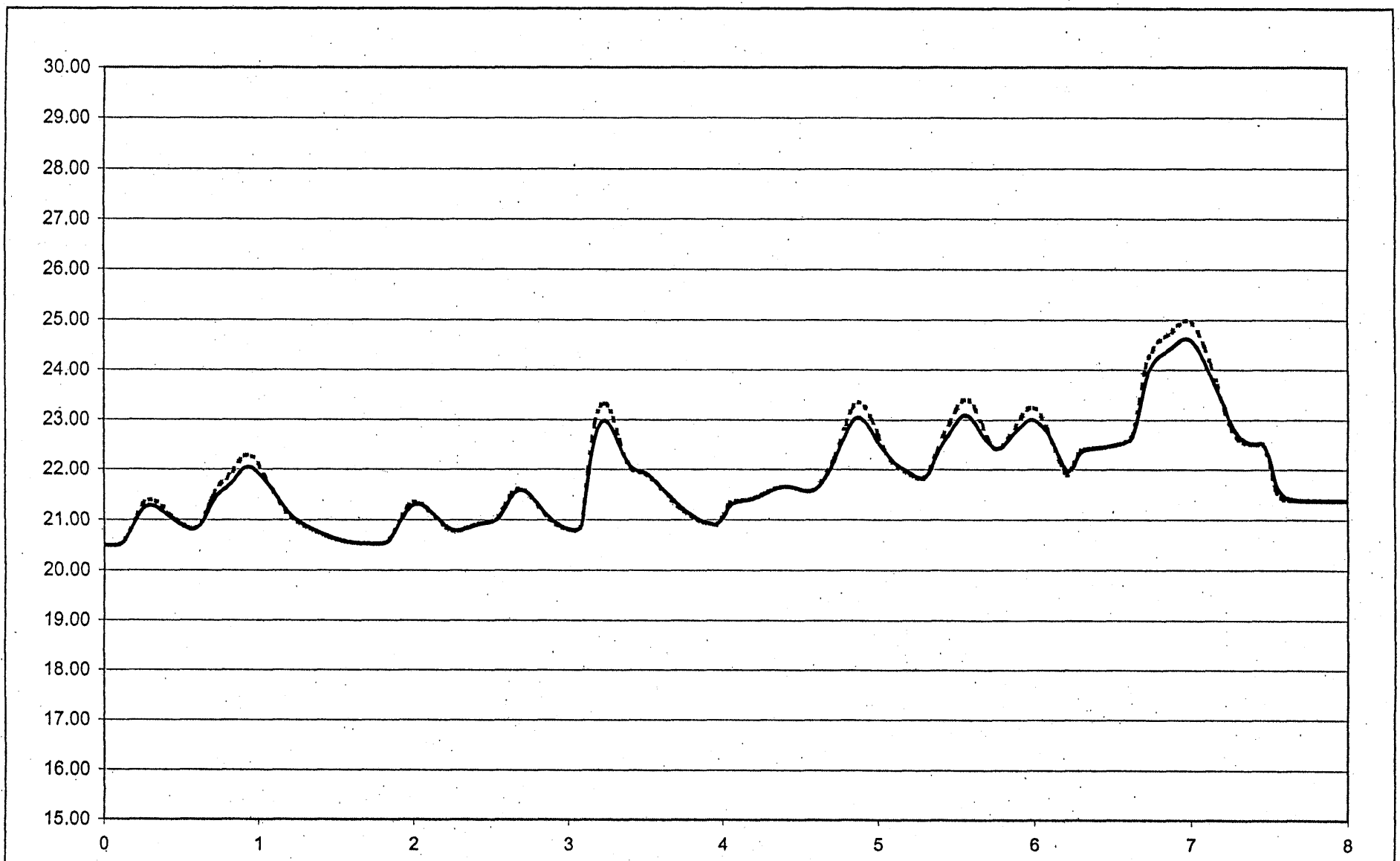
Existing condition shear stress

figure 2

1570-04 Reason Farms Retention Basin

PGC, 100-yr-8-day Event Shear Stresses at STA 1350

PWA



Source: Mike 11 Hydraulic Model

——— Project condition water surface elevation

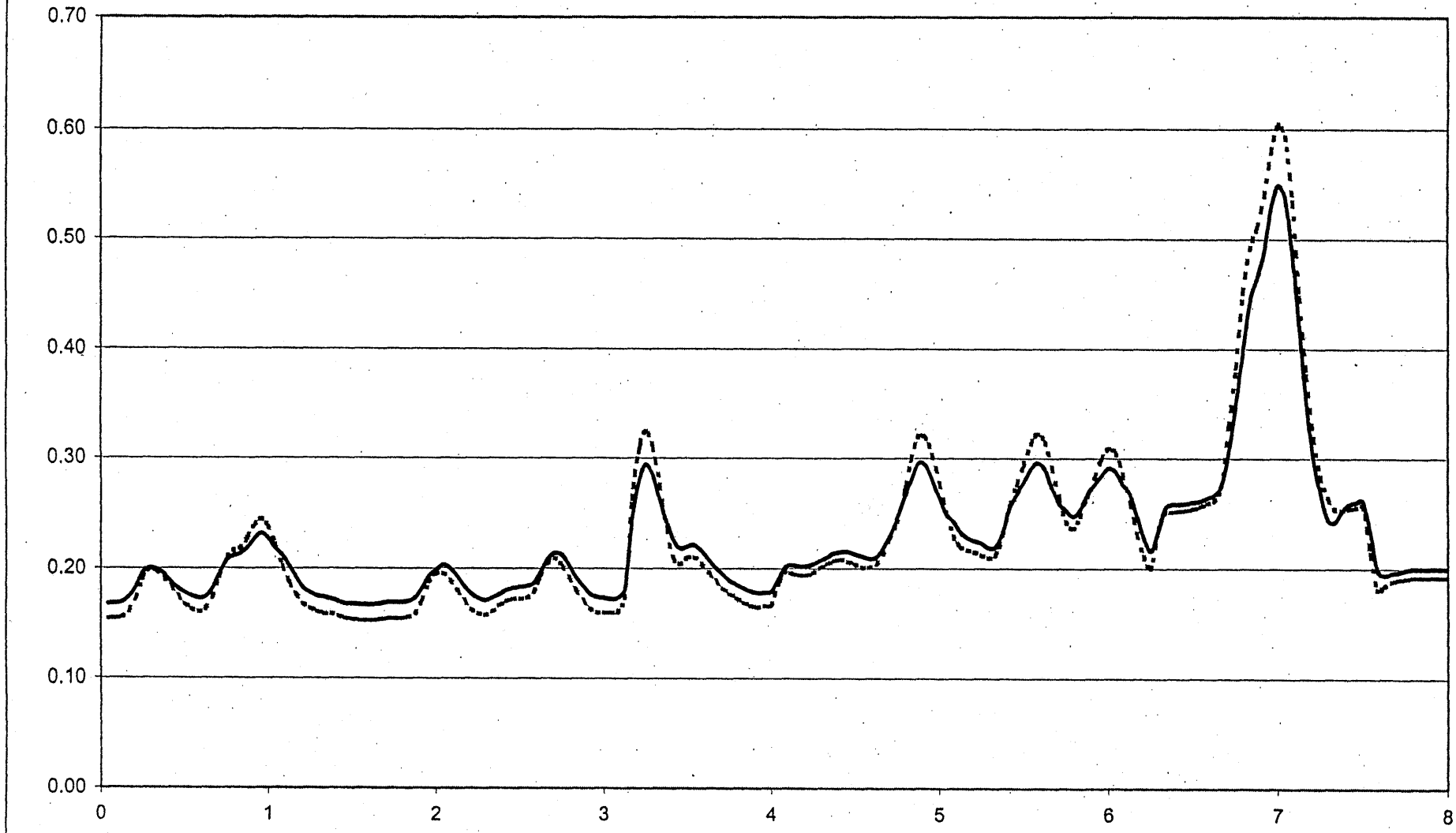
- - - Existing condition water surface elevation

figure 3

1570-04 Reason Farms Retention Basin

PGC, 100-yr-8-day Event Water Surface Elevations at STA 1350

PWA



Source: Mike 11 Hydraulic Model

——— Project condition velocity

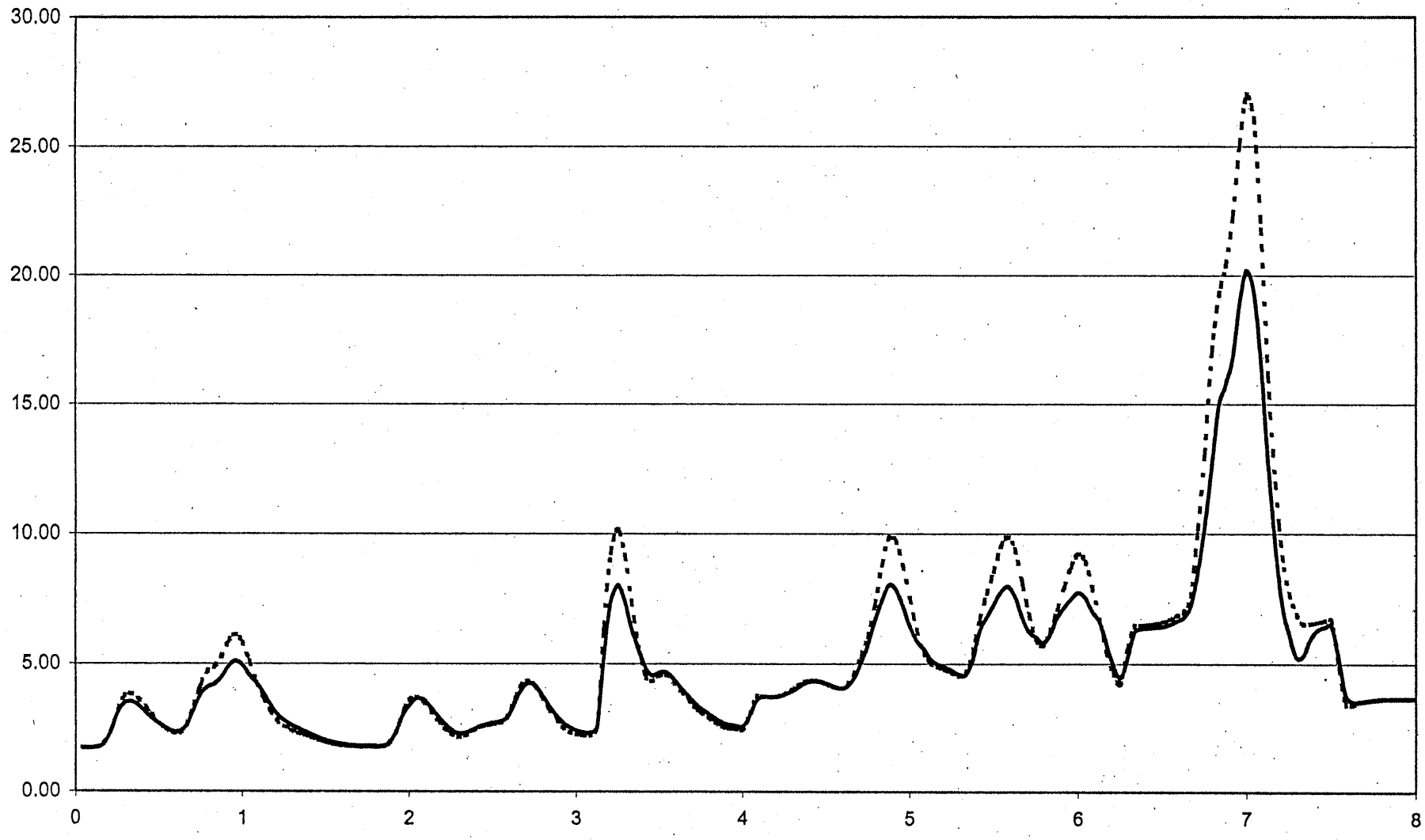
- - - Existing condition velocity

figure 4

1570-04 Reason Farms Retention Basin

PGC, 100-yr-8-day Event Flow Velocities at STA 2377

PWA



Source: Mike 11 Hydraulic Model

Project condition shear stress

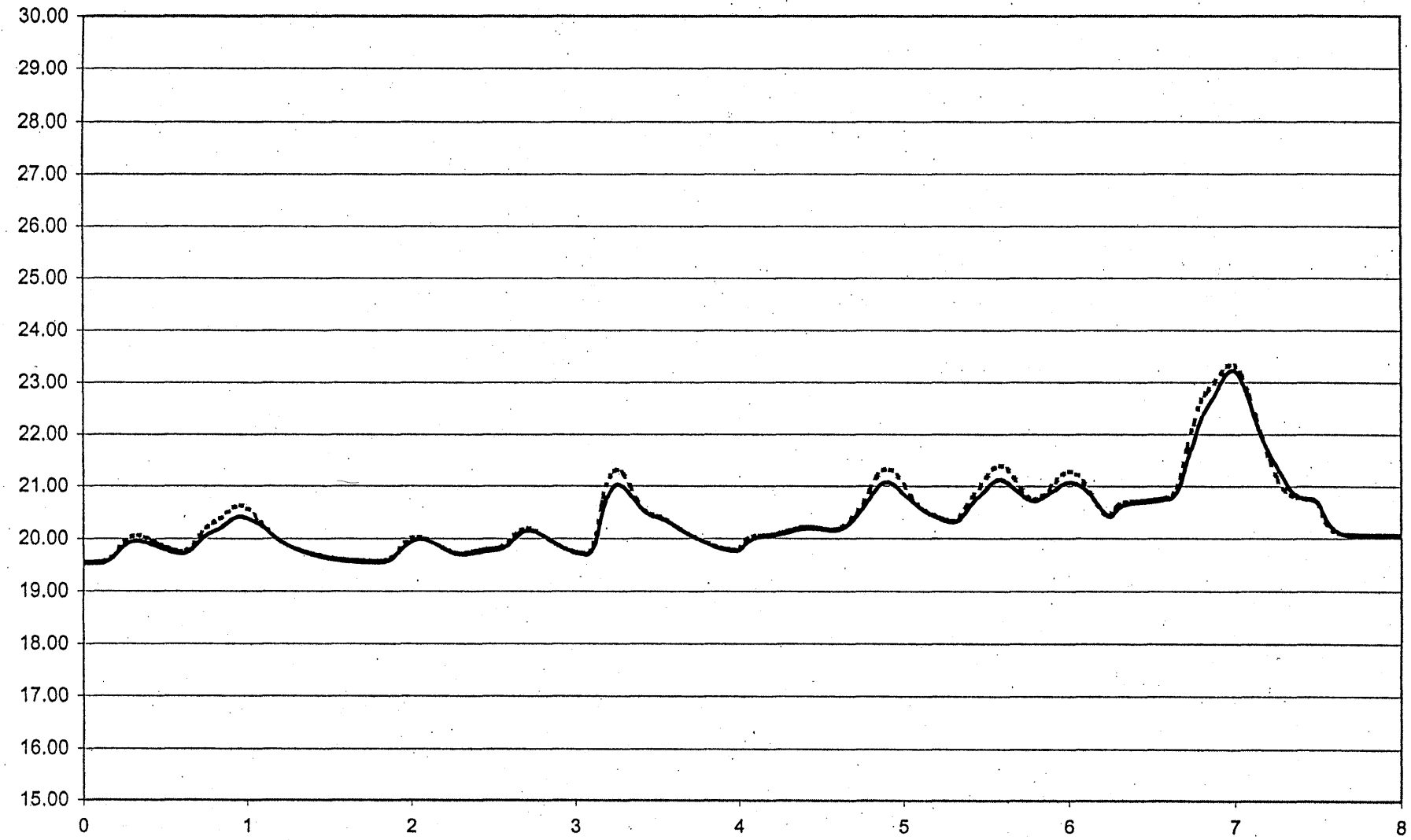
Existing condition shear stress

figure 5

1570-04 Reason Farms Retention Basin

PGC, 100-yr-8-day Event Shear Stresses at STA 2377

PWA



Source: Mike 11 Hydraulic Model

——— Project condition water surface elevation

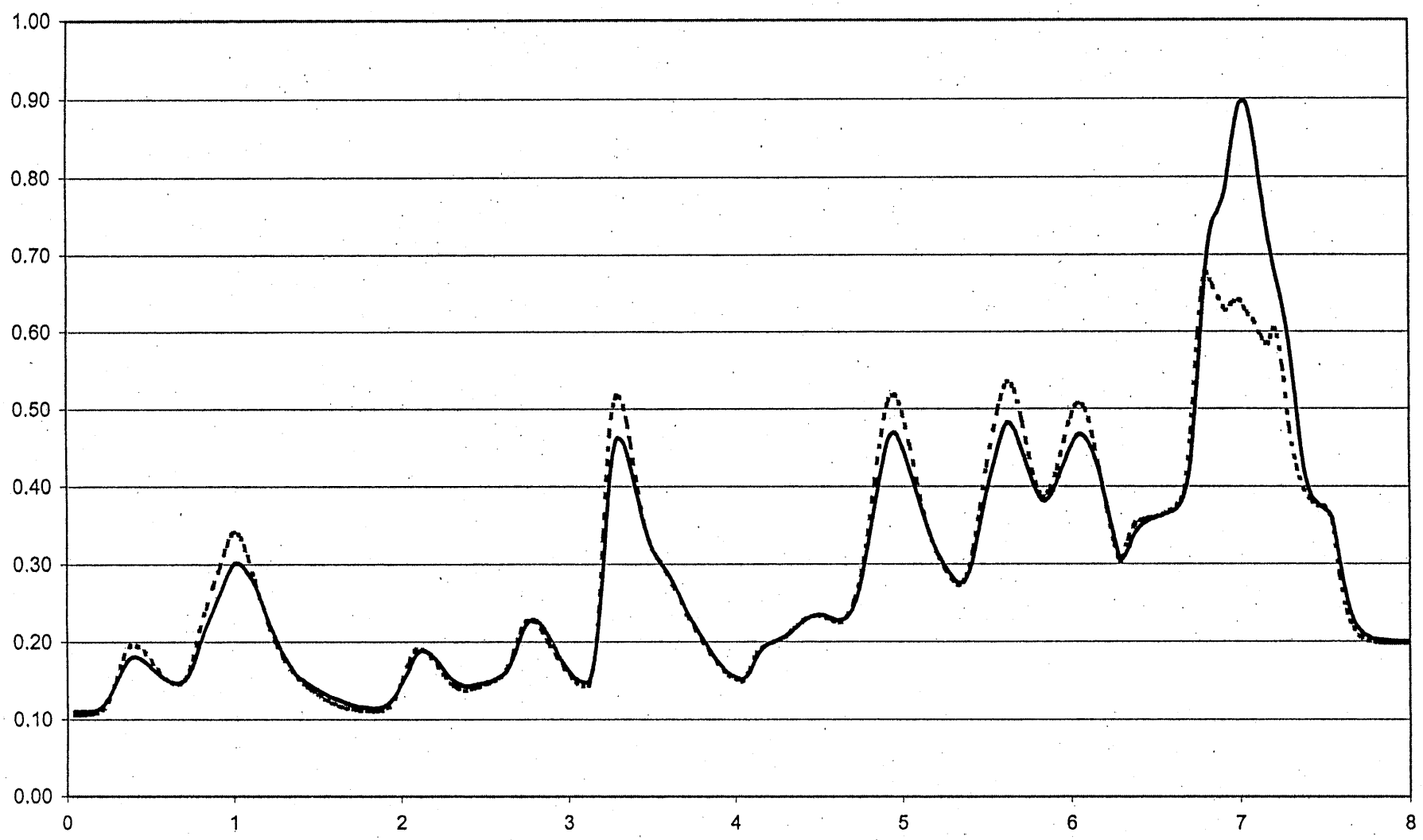
- - - Existing condition water surface elevation

figure 6

1570-04 Reason Farms Retention Basin

PGC, 100-yr-8-day Event Water Surface Elevations at STA 2377

PWA



Source: Mike 11 Hydraulic Model

Project condition velocity

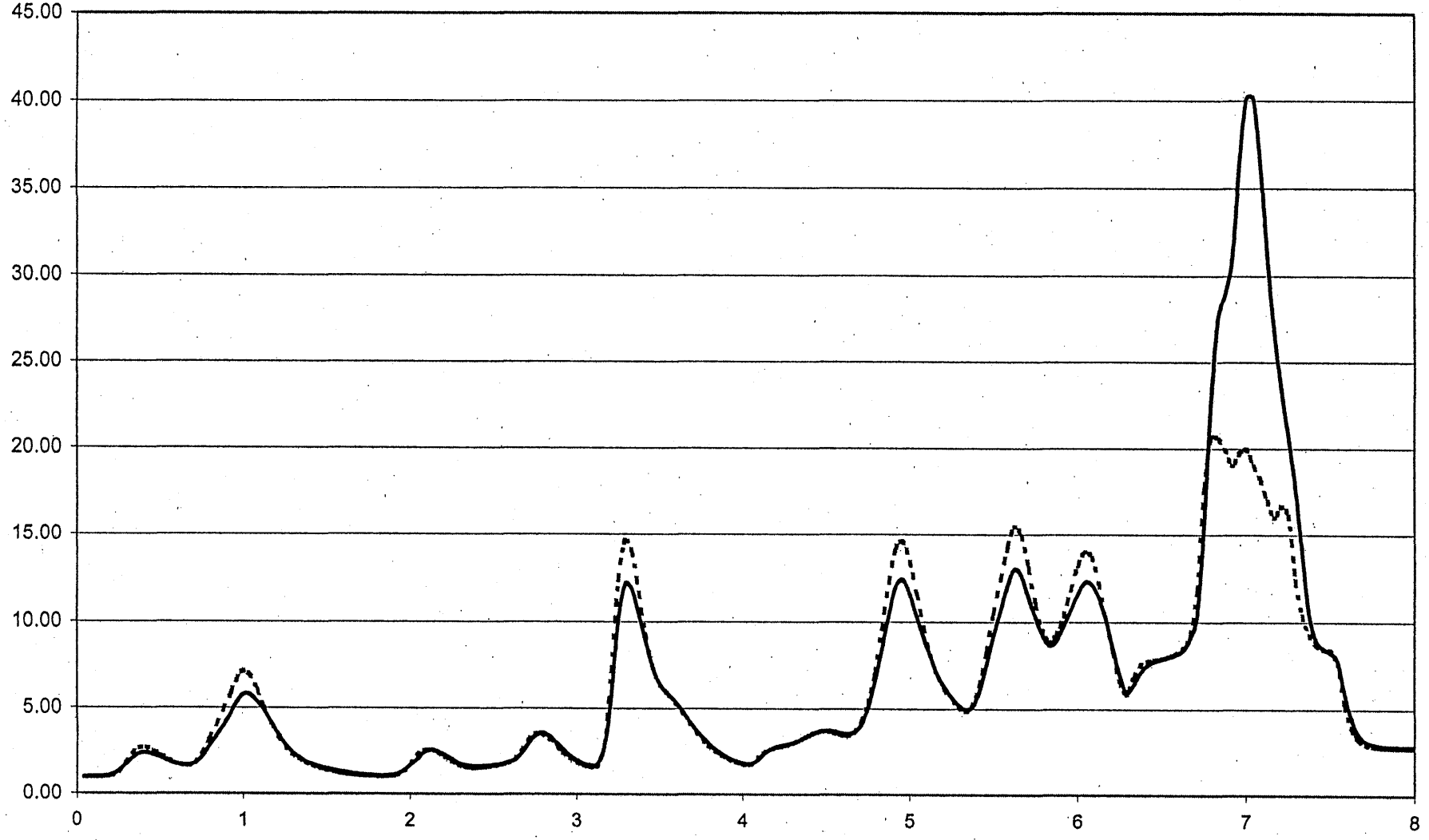
Existing condition velocity

figure 7

1570-04 Reason Farms Retention Basin

PGC, 100-yr-8-day Event Flow Velocities at STA 3943

PWA



Source: Mike 11 Hydraulic Model

Project condition shear stress

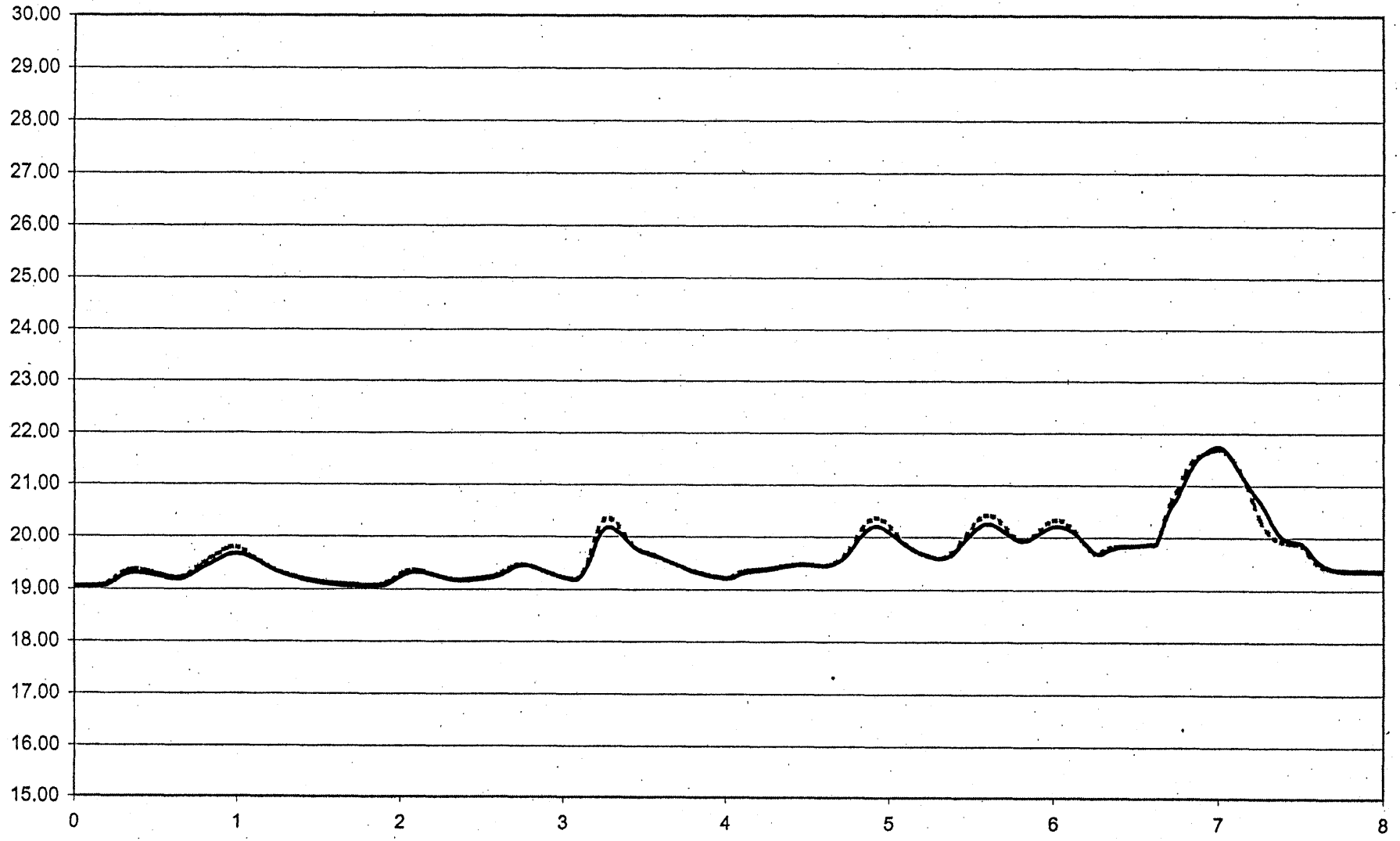
Existing condition shear stress

figure 8

1570-04 Reason Farms Retention Basin

PGC, 100-yr-8-day Event Shear Stresses at STA 3943

PWA



Source: Mike 11 Hydraulic Model

Project condition water surface elevation

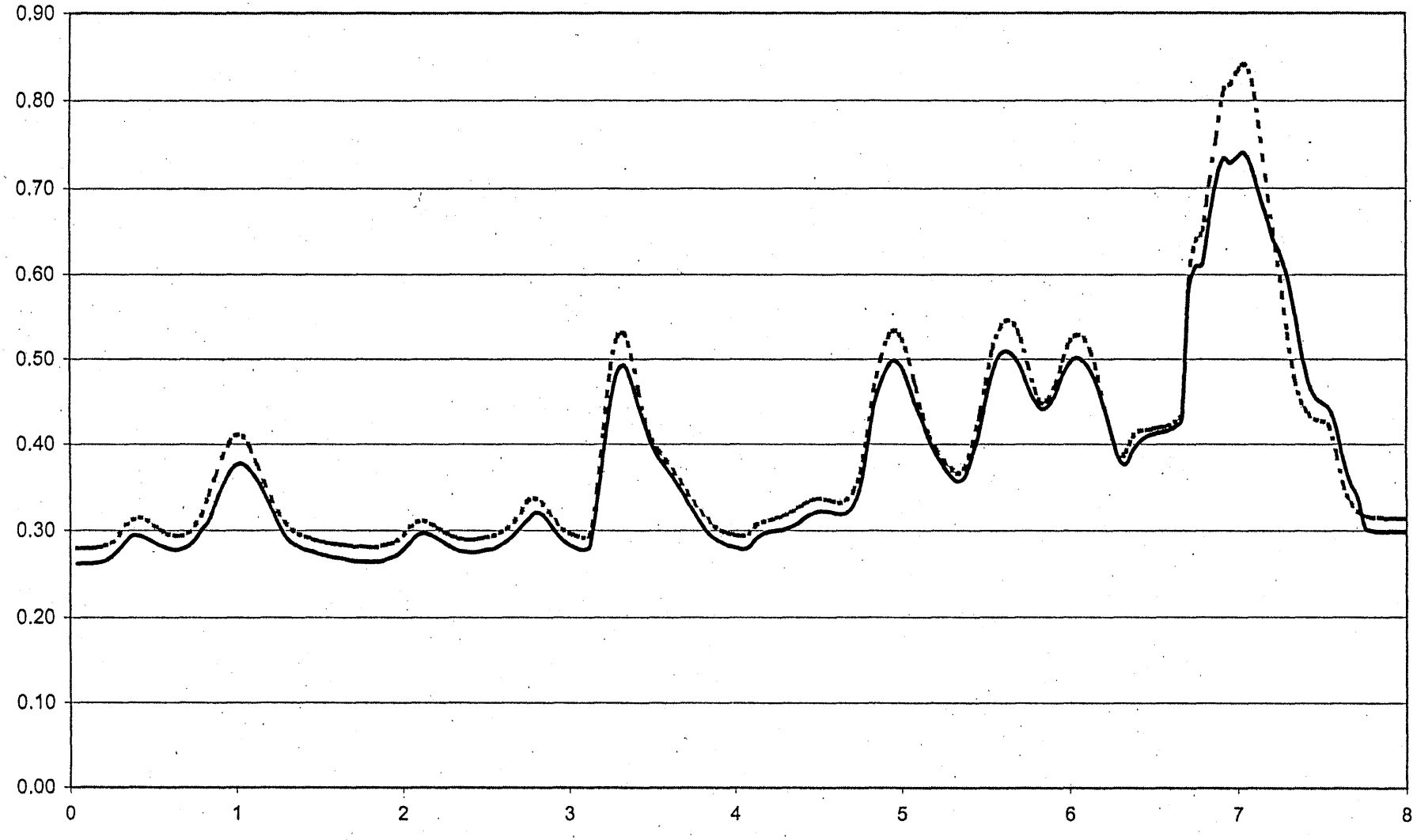
Existing condition water surface elevation

figure 9

1570-04 Reason Farms Retention Basin

PGC, 100-yr-8-day Event Water Surface Elevations at STA 3943

PWA



Source: Mike 11 Hydraulic Model

——— Project condition velocity

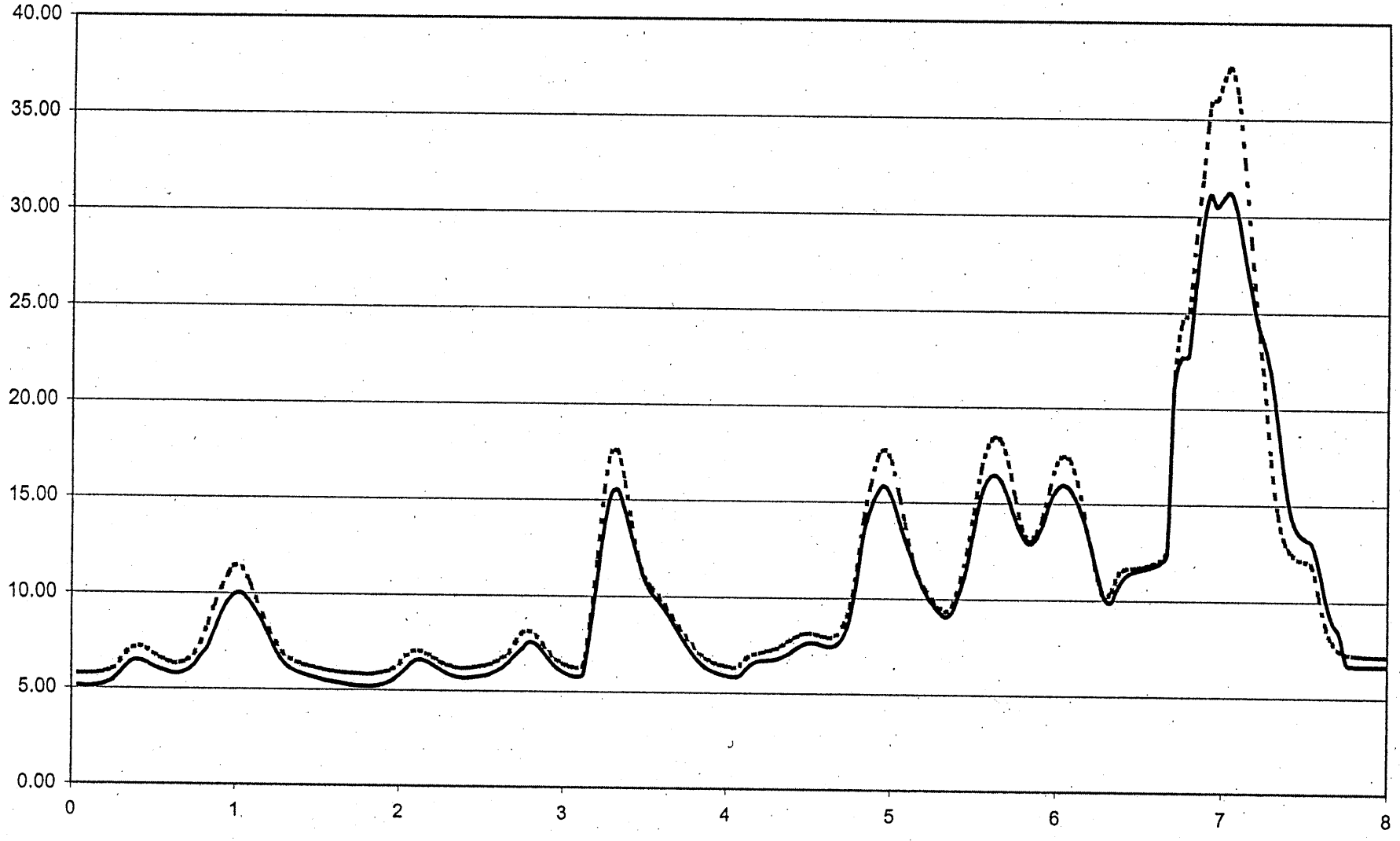
- - - Existing condition velocity

figure 10

1570-04 Reason Farms Retention Basin

PGC, 100-yr-8-day Event Flow Velocities at STA 5370

PWA



Source: Mike 11 Hydraulic Model

——— Project condition shear stress

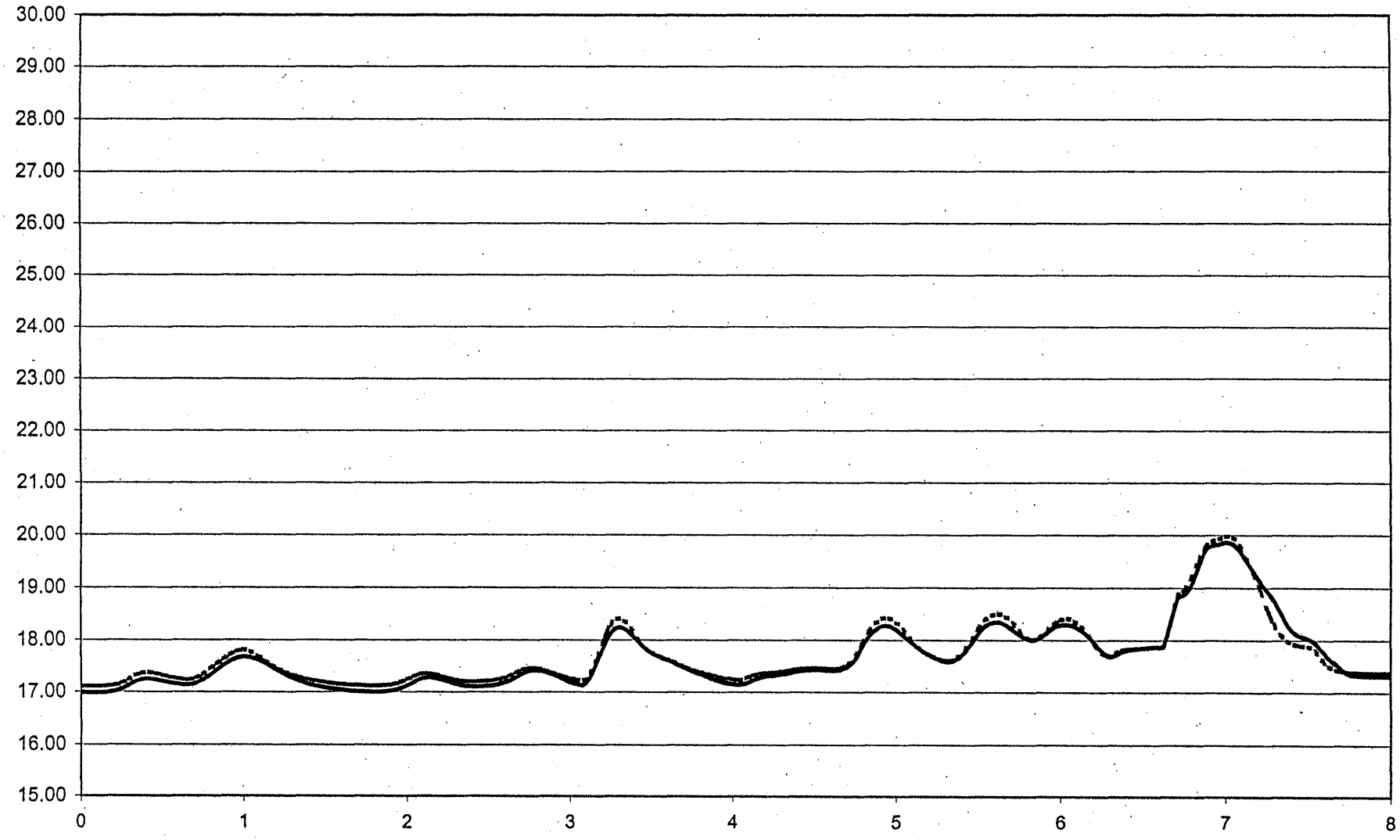
- - - Existing condition shear stress

figure 11

1570-04 Reason Farms Retention Basin

PGC, 100-yr-8-day Event Shear Stresses at STA 5370

PWA



Source: Mike 11 Hydraulic Model

——— Project condition water surface elevation

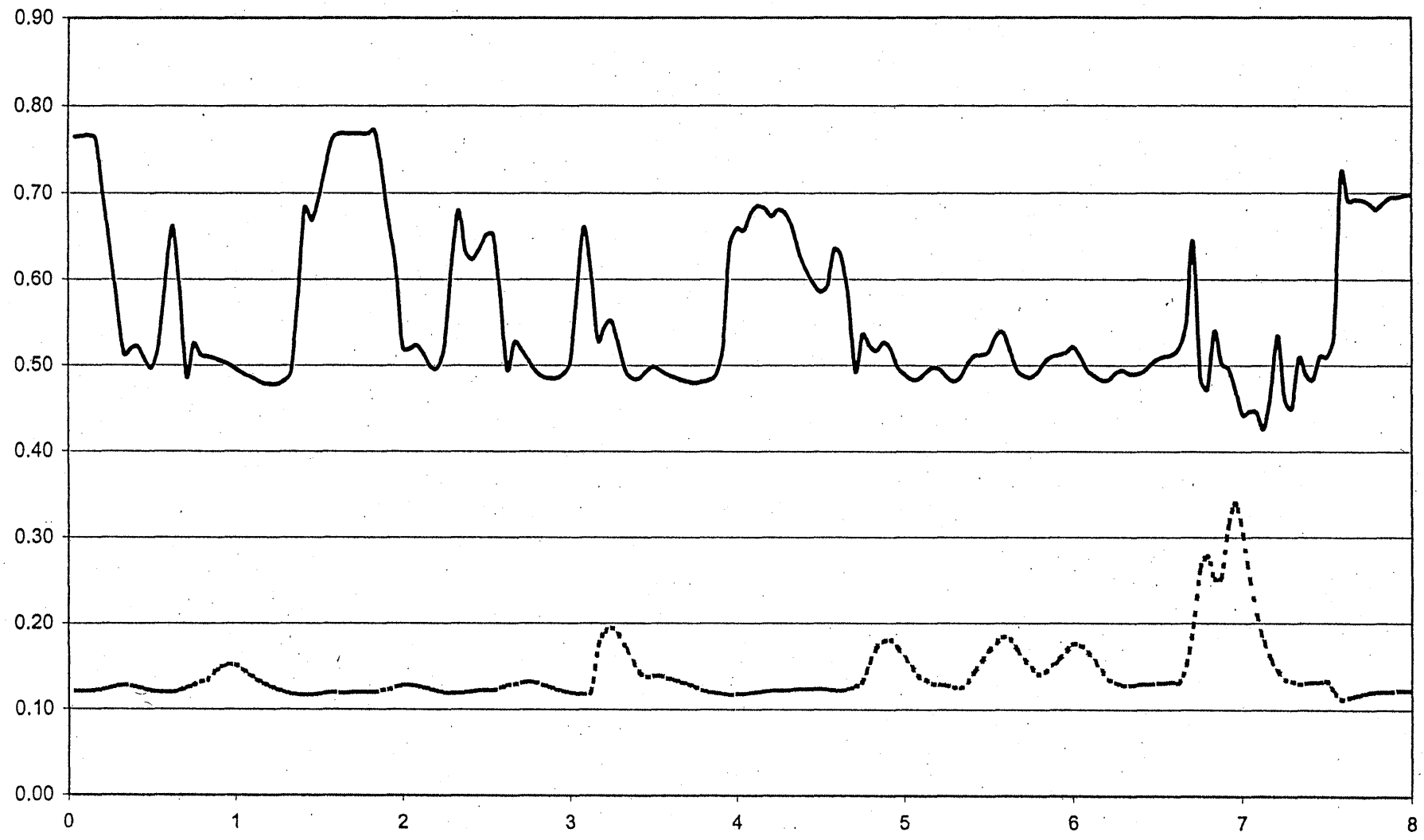
- - - Existing condition water surface elevation

figure 12

1570-04 Reason Farms Retention Basin

PGC, 100-yr-8-day Event Water Surface Elevations at STA 5370

PWA



Source: Mike 11 Hydraulic Model

Project condition velocity

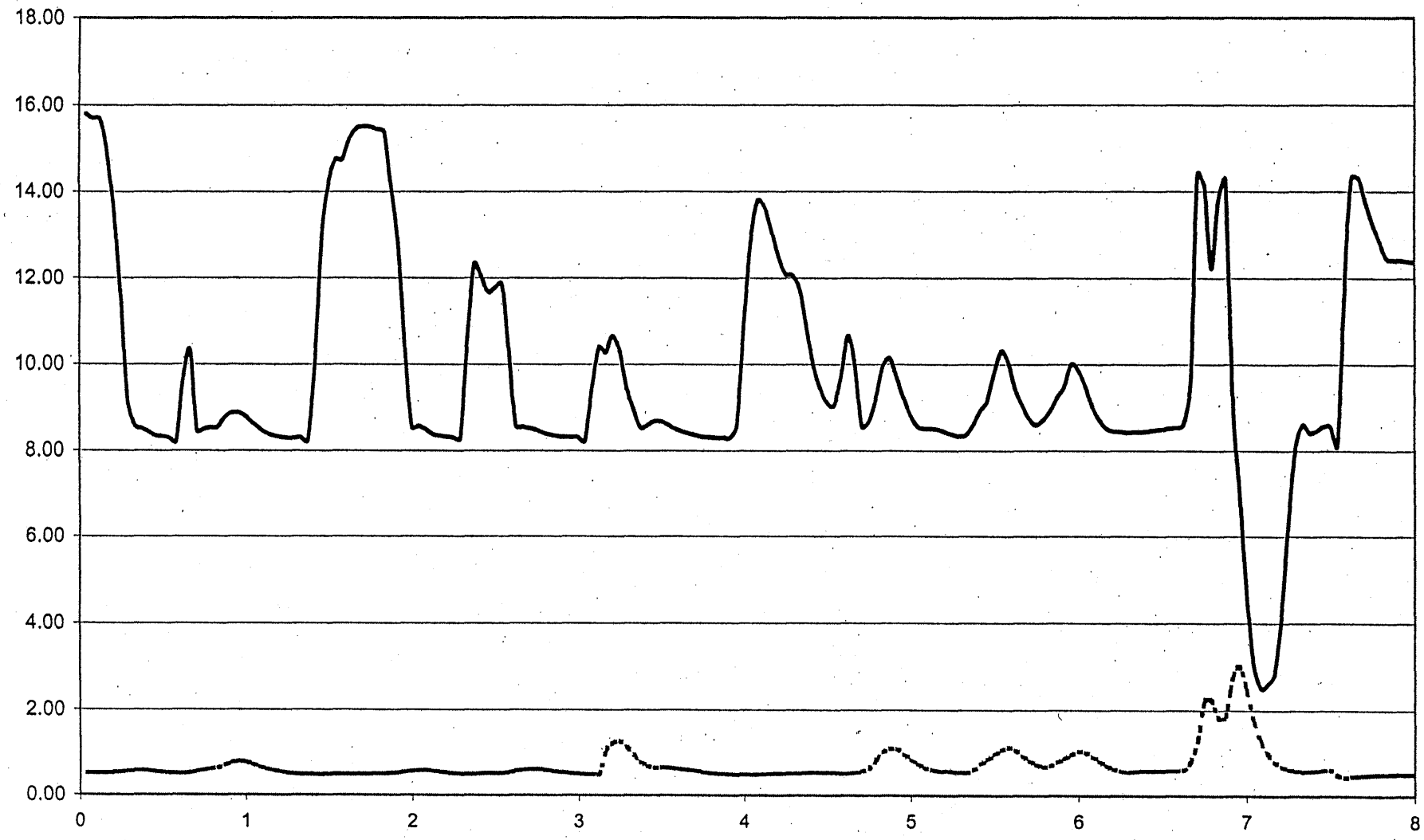
Existing condition velocity

figure 13

1570-04 Reason Farms Retention Basin

NT2, 100-yr-8-day Event Flow Velocities at STA 1989

PWA



Source: Mike 11 Hydraulic Model

Project condition shear stress

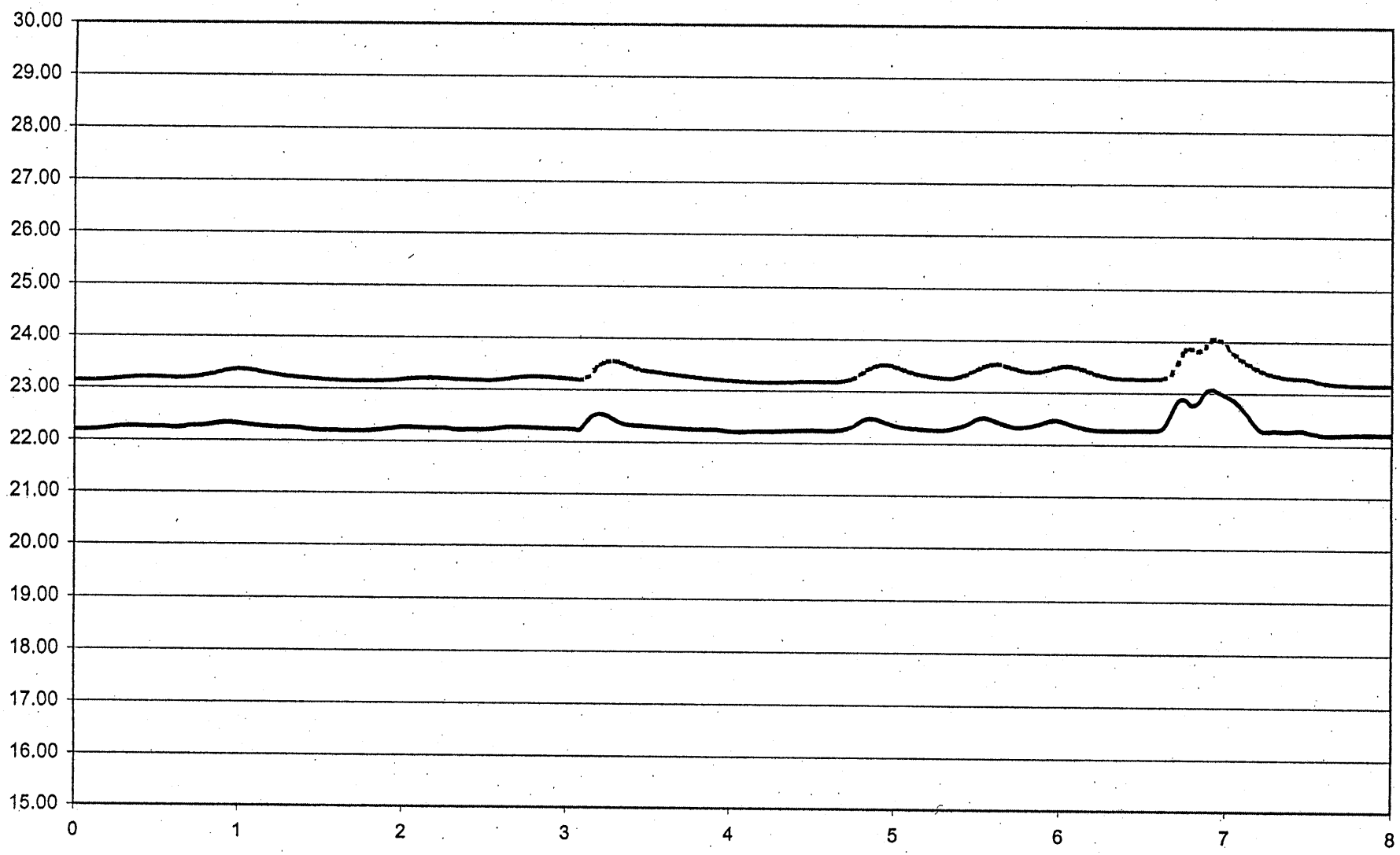
Existing condition shear stress

figure 14

1570-04 Reason Farms Retention Basin

NT2, 100-yr-8-day Event Shear Stresses at STA 1989

PWA



Source: Mike 11 Hydraulic Model

——— Project condition water surface elevation

- - - Existing condition water surface elevation

figure 15

1570-04 Reason Farms Retention Basin

NT2, 100-yr-8-day Event Water Surface Elevations at STA 1989

PWA