DRAINAGE REPORT

CARRERA PACIFIC HANGARS

ARLINGTON AIRPORT LOTS 12 & 13

SITE CIVIL DRAINAGE REPORT

HALE MILLIGAN & ASSOCIATES LLC

A State of Washington Certified Women's Business Enterprise (WBE)

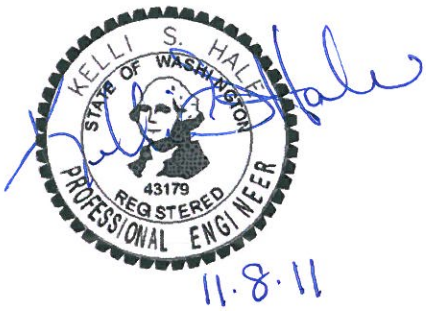
A Federal Small Business Administration Certified Women Owned Small Business (WOSB)

CARRERA PACIFIC HANGARS

ARLINGTON AIRPORT LOTS 12 & 13

11/8/2011

SITE CIVIL DRAINAGE REPORT



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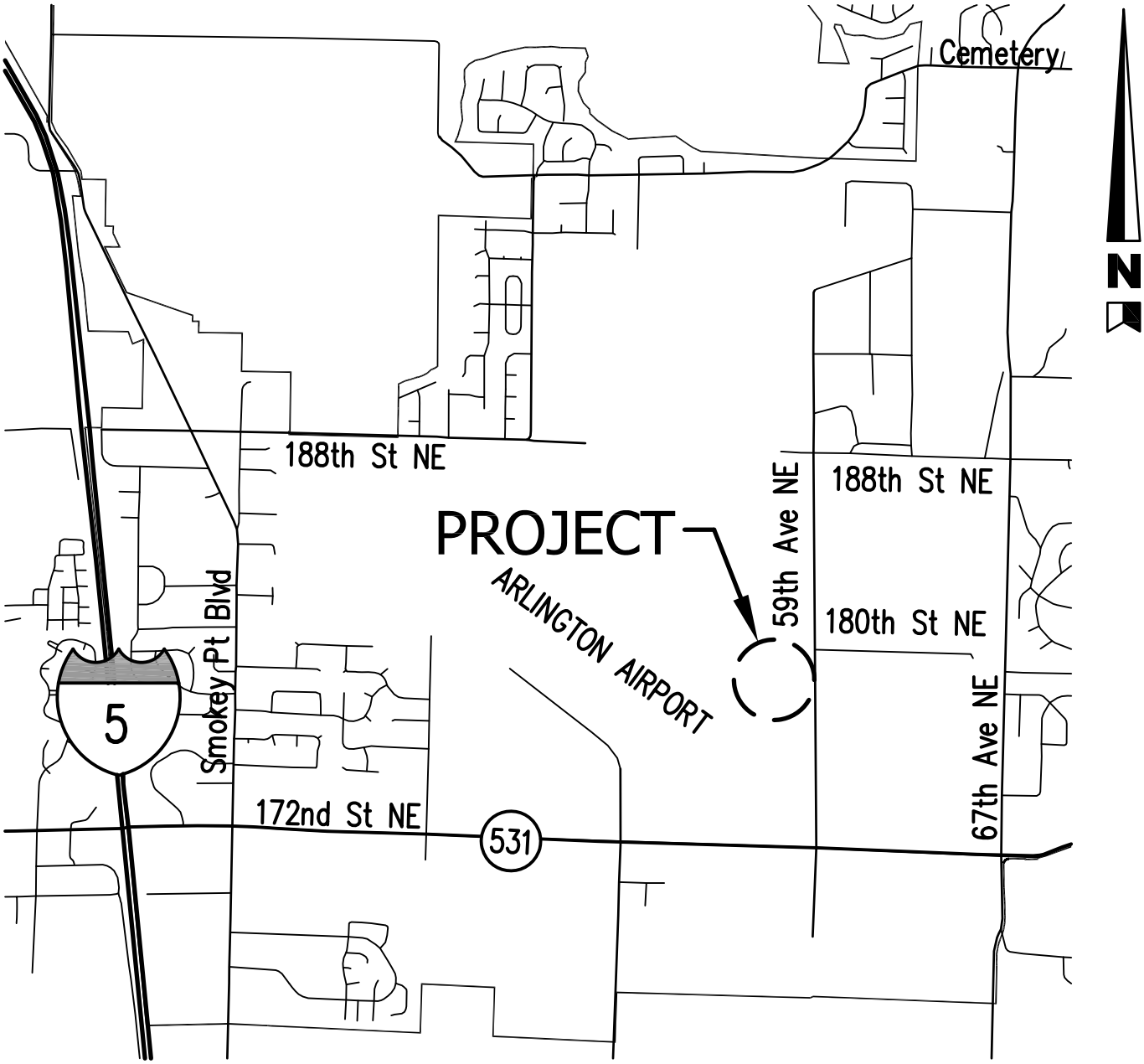
INTRODUCTION

The project is generally located in Section 22, Township 31 North, Range 5 East Willamette Meridian. More specifically the project is located on Lots 12 and 13 of the Arlington Airport. The address for Building A is 17904 59th Drive NE and Building B is 17912 59th Drive NE. The project will include demolition of Hangars A and B and replacement with two T-hangar storage buildings and associated infrastructure improvements. Building A and B will each have 20 T-hangar units, for a total of 40 T-hangar units. The buildings will be used for Land Use Code 10.400 Storage of Aircraft.



VICINITY MAP

N.T.S.

CARRERA PACIFIC HANGERS

LOTS 12 & 13

ARLINGTON AIRPORT

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Minimum Requirement #1 Preparation of Stormwater Site Plans

Stormwater Site Plans are being prepared in accordance with Volume I of the Department of Ecology Stormwater Management Manual for Western Washington as part of this project. The plans are prepared as part of the Site Civil Permit submittal for the City of Arlington.

Minimum Requirement #2 Construction Stormwater Pollution Prevention

A Stormwater Pollution Prevention Plan has been created for this project. This project does not meet the requirements that warrant an NPDES Construction Stormwater Permit because it does not discharge to waters of the state. All of the stormwater generated by the construction site will be infiltrated on the site. The 12 BMP Elements have been addressed in this report and in the SWPP plan.

The 12 BMP Elements

Element #1 – Mark Clearing Limits

To protect adjacent properties and to reduce the area of soil exposed to construction, the limits of construction will be clearly marked before land-disturbing activities begin. Trees that are to be preserved, as well as all sensitive areas and their buffers, shall be clearly delineated, both in the field and on the plans. In general, natural vegetation and native topsoil shall be retained in an undisturbed state to the maximum extent possible. The BMPs relevant to marking the clearing limits that will be applied for this project include:

BMP C103: High Visibility Plastic or Metal Fence:
The clearing limits will be marked only by property boundary stakes. If entrances other than the construction entrance are used and need to be limited, high visibility or construction fencing will be used.

Element #2 – Establish Construction Access

Construction access or activities occurring on unpaved areas shall be minimized, yet where necessary, access points shall be stabilized to minimize the tracking of sediment onto public roads, and wheel washing, street sweeping, and street cleaning shall be employed to prevent sediment from entering state waters. All wash wastewater shall be controlled on site. The specific BMPs related to establishing construction access that will be used on this project include:

BMP C105: Stabilize Construction Entrance

Element #3 – Control Flow Rates

Flow control will be achieved by infiltrating all stormwater on the site. There will be no runoff leaving the site during storm events.

Element #4 – Install Sediment Controls
Stormwater runoff is not anticipated to leave the site. Sediment controls will be installed on the site to protect the existing and proposed infiltration facilities. All stormwater runoff from disturbed areas shall pass through an appropriate sediment removal BMP before leaving the construction site or prior to being discharged to an infiltration facility. The specific BMPs to be used for controlling sediment on this project include:

BMP C220: Storm Drain Inlet Protection
BMP C233: Silt Fence

Element #5 – Stabilize Soils
Exposed and unworked soils shall be stabilized with the application of effective BMPs to prevent erosion throughout the life of the project. The specific BMPs for soil stabilization that shall be used on this project include:

BMP C120: Temporary and Permanent Seeding
BMP C121: Mulching

Element #6 – Protect Slopes
All cut and fill slopes will be designed, constructed, and protected in a manner than minimizes erosion. The slopes on the site in the existing and proposed condition are minimal therefore BMPs for slope protection are not necessary.

Element #7 – Protect Drain Inlets
All storm drain inlets and culverts made operable during construction shall be protected to prevent unfiltered or untreated water from entering the drainage conveyance system. However, the first priority is to keep all access roads clean of sediment and keep street wash water separate from entering storm drains until treatment can be provided. Storm Drain Inlet Protection (BMP C220) will be implemented for all drainage inlets and culverts that could potentially be impacted by sediment-laden runoff on and near the project site. The following inlet protection measures will be applied on this project:

BMP C201: Grass-Lined Channels
BMP C220: Storm Drain Inlet Protection

Element #8 – Stabilize Channels and Outlets
The site will not produce runoff that will be conveyed in channels, or discharged to a stream or some other natural drainage point.

Element #9 – Control Pollutants
All pollutants, including waste materials and demolition debris, that occur onsite shall be handled and disposed of in a manner that does not cause contamination of stormwater. Good housekeeping and preventative measures will be taken to ensure that the site will be kept

clean, well-organized, and free of debris. If required, BMPs to be implemented to control specific sources of pollutants are discussed below.

The facility does not require a Spill Prevention, Control, and Countermeasure (SPCC) Plan under the Federal regulations of the Clean Water Act (CWA).

Element #10 – Control Dewatering
There will be no dewatering as part of this construction project.

Element #11 – Maintain BMPs
All temporary and permanent erosion and sediment control BMPs shall be maintained and repaired as needed to assure continued performance of their intended function. Maintenance and repair shall be conducted in accordance with each particular BMPs specifications (attached). Visual monitoring of the BMPs will be conducted at least once every calendar week and within 24 hours of any stormwater or non-stormwater discharge from the site. If the site becomes inactive, and is temporarily stabilized, the inspection frequency will be reduced to once every month.
All temporary erosion and sediment control BMPs shall be removed within 30 days after the final site stabilization is achieved or after the temporary BMPs are no longer needed. Trapped sediment shall be removed or stabilized on site. Disturbed soil resulting from removal of BMPs or vegetation shall be permanently stabilized.

Element #12 – Manage the Project
Erosion and sediment control BMPs for this project have been designed based on the following principles:

- The site has been designed so that the project fits the existing topography, soils, and drainage patterns.
- Erosion control is emphasized rather than sediment control.
- The project is being phased in order to minimize the extent and duration of the area exposed.
- Runoff velocities are kept low due to the slope of the site. No runoff will leave the site.
- Sediment will be retained on site.
- ESC measures will be thoroughly monitored throughout the duration of the project.
- Most of the earthwork will be scheduled during the dry season however due to the low erosive nature of the soils winter grading is not expected to create an additional erosion problem.

In addition, project management will incorporate the key components listed below:

As this project site is located west of the Cascade Mountain Crest, the project will be managed according to the following key project components:

Phasing of Construction

- The construction project is being phased to the extent practicable in order to prevent soil erosion, and, to the maximum extent possible, the transport of sediment from the site during construction.
- Re-vegetation of exposed areas and maintenance of that vegetation shall be an integral part of the clearing activities during each phase of construction, per the Scheduling BMP (C 162).

Seasonal Work Limitations

- Since the site is expected to have 100 percent infiltration of surface water runoff within the site in approved and installed erosion and sediment control facilities. It is not necessary to limit the work to a seasonal window.

Coordination with Utilities and Other Jurisdictions

- Care has been taken to coordinate with utilities, other construction projects, and the local jurisdiction in preparing this SWPPP and scheduling the construction work.

Inspection and Monitoring

- All BMPs shall be inspected, maintained, and repaired as needed to assure continued performance of their intended function. Site inspections shall be conducted by a person who is knowledgeable in the principles and practices of erosion and sediment control. This person has the necessary skills to:
  - Assess the site conditions and construction activities that could impact the quality of stormwater, and
  - Assess the effectiveness of erosion and sediment control measures used to control the quality of stormwater discharges.
- A Certified Erosion and Sediment Control Lead shall be on-site or on-call at all times.
- Whenever inspection and/or monitoring reveals that the BMPs identified in this SWPPP are inadequate, due to the actual discharge of or potential to discharge a significant amount of any pollutant, appropriate BMPs or design changes shall be implemented as soon as possible.

Maintaining an Updated Construction SWPPP

- This SWPPP shall be retained on-site or within reasonable access to the site.
- The SWPPP shall be modified whenever there is a change in the design, construction, operation, or maintenance at the construction site that has,

or could have, a significant effect on the discharge of pollutants to waters of the state.

- The SWPPP shall be modified if, during inspections or investigations conducted by the owner/operator, or the applicable local or state regulatory authority, it is determined that the SWPPP is ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site. The SWPPP shall be modified as necessary to include additional or modified BMPs designed to correct problems identified. Revisions to the SWPPP shall be completed within seven (7) days following the inspection.

Minimum Requirement #3 Source Control of Pollution

All known, available and reasonable source control BMPs shall be applied to this project. BMPs will be used to prevent stormwater from coming into contract with pollutants.

Owner will assign one individuals to be responsible for stormwater pollution control. Hold regular meetings to review the overall operation of the BMPs. The owner will establish responsibilities for inspections, operation and maintenance, and availability for emergency situations.

Owner agrees to train all team members in the operation, maintenance and inspections of BMPs, and reporting procedures.

Owner agrees to promptly contain and clean up solid and liquid pollutant leaks and spills including oils, solvents, fuels, and dust from manufacturing operations on any exposed soil, vegetation, or paved area.

Owner agrees to sweep paved material handling and storage areas regularly as needed, for the collection and disposal of dust and debris that could contaminate stormwater. Owner agrees to not hose down pollutants from any area to the ground, storm drain, conveyance ditch, or receiving water unless necessary for dust control purposes to meet air quality regulations and unless the pollutants are conveyed to a treatment system approved by the local jurisdiction.

Owner agrees to clean oils, debris, sludge, etc. from all BMP systems regularly, including catch basins, settling/detention basins, oil/water separators, boomed areas, and conveyance systems, to prevent the contamination of stormwater. If hazardous waste is ever encountered on the site it will be handled in accordance with Chapter 173-303 WAC.

Owner agrees to promptly repair or replace all substantially cracked or otherwise damaged paved secondary containment, high-intensity parking and any other drainage areas, which are subjected to pollutant material leaks or spills.

Owner agrees to promptly repair or replace all leaking connections, pipes, hoses, valves, etc. which can contaminate stormwater.

Minimum Requirement #4 Preservation of Natural Drainage System and Outfalls

The proposed Hangar project will not alter the existing drainage system or outfalls.

Existing Drainage

The existing 104,193 S.F. (2.39 acre) site has two existing hanger buildings with associated taxi lanes and paved entrances. Most of the existing drainage infiltrates onsite however there is an existing overflow system that parallels the taxiway west of the buildings. This project will preserve the natural drainage system and outfalls by using infiltration for water quality and flow control, with an overflow to the existing drainage overflow system.

Soil

The existing soils consist of Lynnwood Sandy Loam 0-3 percent slopes per the National Resources Conservation Service (NRCS) Soil Survey of Snohomish County, see Appendix A. Lynnwood soils are classified in the USDA Soil Textural Classification as follows; the top layer of soil from 0 to 29 inches is classified as a loamy sand and has an infiltration rate of 2.0 – 6.0 inches per hour. The second layer of soil from 29 to 60 inches is classified as a clean gravelly sand and has an infiltration rate of 6.0 - 20.0 inches per hour. The physical and chemical properties of the soil are listed in the Soil Report in Appendix A.

On August 25, 2011 soil logs were completed on the proposed site. The results of the soil logs and a soil log map are included in Appendix B. The soil logs were consistent with the National Resources Conservation Service (NRCS) Soil Survey of Snohomish County. In general the soil logs revealed that the top 18-24 inches is a brown loamy sand followed by a gray gravelly sand. The seasonal high water table was not encountered nor was there any evidence of the seasonal high water table at 8 feet, the depth the soil log holes were terminated. The proposed infiltration facilities meet the Department of Ecology minimum separation of five feet.

Downstream Analysis

The existing site infiltrates onsite with an overflow that runs parallel to the taxiway on the west side of the existing hangars. The overflow system runs parallel to the airport taxiway for greater than ¼ mile downstream from the site. The following are photos taken of the site and the downstream conveyance system.

Grass Area East of Hangar B

Infiltration System South of Hangar A

Conveyance System South of Hangars A & B

Conveyance System Parallel to Hangars A

Minimum Requirement #5 On-Site Stormwater Management

The proposed site will consist of two T-hangar buildings with associated pavement, drainage and utilities. The developed site will consist of 43,104 S.F. (0.99 acres) of roof area, 24,736 S.F. (0.56 acres) of asphalt and 35,903 S.F. (0.82 acres) of grass area.

Infiltration will be used on the proposed project site for both flow control and water quality.

Minimum Requirement #6 Runoff Treatment

In order to achieve water quality the asphalt areas of the site will be infiltrated into grass lined infiltration facilities. The taxiway and ramps to the hangars will be crowned so that the water from these impervious areas will flow into the infiltration areas. The water quality will be achieved in a loamy sand. There will be a minimum of 18 inches of the loamy sand in order to properly treat the stormwater as outlined in the DOE SSC-6. According to SSC-6 loamy sand has a cation exchange capacity of greater than 5 milliequivalents per 100 grams, therefore the loamy sand will be sufficient to provide water quality treatment.

All of the asphalt area will be infiltrated into the infiltration areas between the hangar entrances and the taxi lanes. The paved surfaces are considered pollution generating therefore water quality is required.

A short term infiltration rate of 2.0 inches per hour is suggested in the DOE Stormwater Management Manual for Loamy Sand. A safety factor of 4 is used reducing the design infiltration rate to 0.5 inches per hour.

The current paved areas are infiltrated onsite or conveyed downstream and infiltrated. Since we are not increasing the paved area we will not be providing additional water quality.

Minimum Requirement #7 Flow Control

All of the roof area on the site will be infiltrated directly into the gravelly sand layer to take advantage of the high infiltration capacity of this soil. The roof area is not considered to be a pollution generating impervious surface therefore water quality is not required. The infiltration will be via gravel trenches with perforated PVC pipe for distribution.

The short term infiltration rate of the soil is estimated to be approximately 20 inches per hour in Table 14 of the Soil Survey of Snohomish County Area Washington. The long term infiltration rate outlined in the Geotechnical Report dated May 29, 1998 by Terra Associates is 5 inches per hour.

Drainage Calculations

The drainage calculations for this site were performed using MGS Flood Version 4.12. All calculations and assumptions were based on the requirements outlined in the 2005 Department of Ecology Stormwater Management Manual for Western Washington. Per Volume III Page 2-2 MGS Flood software is approved by the Department of Ecology. Only the bottom area of the infiltration trench was used in the infiltration surface area. The calculations are included in Appendix E of this report. The calculations are broken down into two sub-basins. The calculations include a typical sub-basin for the roof area of Building A-North, and roof area for Building B. The existing drainage system will be used for Building A-South.

Building A Sub-Basin

In order to represent the building one roof area that was going to each infiltration trench one half of the roof area was used in the model. One half of the roof will be routed to the existing infiltration trenches on the south side of the building for infiltration via the roof drains shown in the plans. The other half of the building will be routed to the new infiltration trench on the north side of the building. The pre-developed site was modeled as 0.243 acres of outwash forest. The developed site was modeled as 0.243 acres of impervious area. One set of calculation represents each side of building one since the calculations for each side are the equivalent.

Building B Sub-Basin

In order to represent the Building B roof area that was going to each infiltration trench one half of the roof area was used in the model. One half of the roof will be routed to each side of the building for infiltration via the roof drains shown in the site civil plans. The pre-developed site was modeled as 0.256 acres of outwash forest. The developed site was modeled as 0.256 acres of impervious area.

Asphalt Sub-Basins

Basin A North

A typical asphalt area contributing to a typical infiltration swale is modeled as a pre-developed condition of 0.036 acres of outwash forest and a developed condition of 0.018 acres of grass area and 0.018 acres of impervious area (asphalt). All of the basins are the same so one set of calculations is included to represent all of the basins. A detail of the asphalt sub-basin is included in the site plan in this report.

Basin B West

A typical asphalt area contributing to a typical infiltration swale is modeled as a pre-developed condition of 0.032 acres of outwash forest and a developed condition of 0.016 acres of grass area and 0.016 acres of impervious area (asphalt). All of the basins are the same so one set of calculations is included to represent all of the basins. A detail of the asphalt sub-basin is included in the site plan in this report.

Basin B East

A typical asphalt area contributing to a typical infiltration swale is modeled as a pre-developed condition of 0.022 acres of outwash forest and a developed condition of 0.011 acres of grass area and 0.011 acres of impervious area (asphalt). All of the basins are the same so one set of calculations is included to represent all of the basins. A detail of the asphalt sub-basin is included in the site plan in this report.

Minimum Requirement #8 – Wetlands Protection

This requirement does not apply because this project does not discharge stormwater into a wetland.

Minimum Requirement #9 – Basin Watershed Planning

This site is located in the Airport Wellhead Protection Zone. Although the proposed Hangars do not fall within the project classifications outlined in Arlington Municipal Code Table 20.88-5, additional precautions will be taken to ensure that water quality is maintained in this area.

Minimum Requirement #10 – Operations and Maintenance

An Operations and Maintenance Manual, consistent with the provisions of Volume V of the Stormwater Management Manual for Western Washington is included in Appendix G of this report.

APPENDIX A SOIL SURVEY

United States Department of Agriculture

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Snohomish County Area, Washington

August 24, 2011

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://soils.usda.gov/sqi/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://soils.usda.gov/contact/state_offices/).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Units

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features

- Gully
- Short Steep Slope
- Other

Political Features

- Cities

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:4,600 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 10N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Snohomish County Area, Washington
Survey Area Data: Version 6, Sep 22, 2009

Date(s) aerial images were photographed: 7/24/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Snohomish County Area, Washington (WA661)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
30	Lynnwood loamy sand, 0 to 3 percent slopes	81.2	100.0%
Totals for Area of Interest		**81.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Snohomish County Area, Washington

30—Lynnwood loamy sand, 0 to 3 percent slopes

Map Unit Setting

Elevation: 50 to 600 feet
Mean annual precipitation: 40 to 65 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 180 to 200 days

Map Unit Composition

Lynnwood and similar soils: 85 percent
Minor components: 3 percent

Description of Lynnwood

Setting

Landform: Outwash plains, terraces
Parent material: Glacial outwash

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.8 inches)

Interpretive groups

Land capability (nonirrigated): 4s

Typical profile

0 to 1 inches: Loamy sand
1 to 29 inches: Loamy sand
29 to 60 inches: Sand

Minor Components

Custer

Percent of map unit: 3 percent
Landform: Depressions

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Soil Physical Properties

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Engineering Properties (Hangars A & B)

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM,

GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash.

Engineering Properties– Snohomish County Area, Washington												
Map unit symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
30—Lynnwood loamy sand, 0 to 3 percent slopes												
Lynnwood	0-1	*Loamy sand	SM	A-2	0	0	95-100	90-100	50-80	20-35	0-14	NP
	1-29	*Loamy sand, Loamy fine sand	SM	A-2	0	0	80-100	75-100	50-75	15-35	0-14	NP
	29-60	*Sand, Fine sand, loamy fine sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	80-100	75-100	40-75	0-30	0-14	NP

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

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Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

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Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

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Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://soils.usda.gov/

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://soils.usda.gov/

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://soils.usda.gov/

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United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://soils.usda.gov/

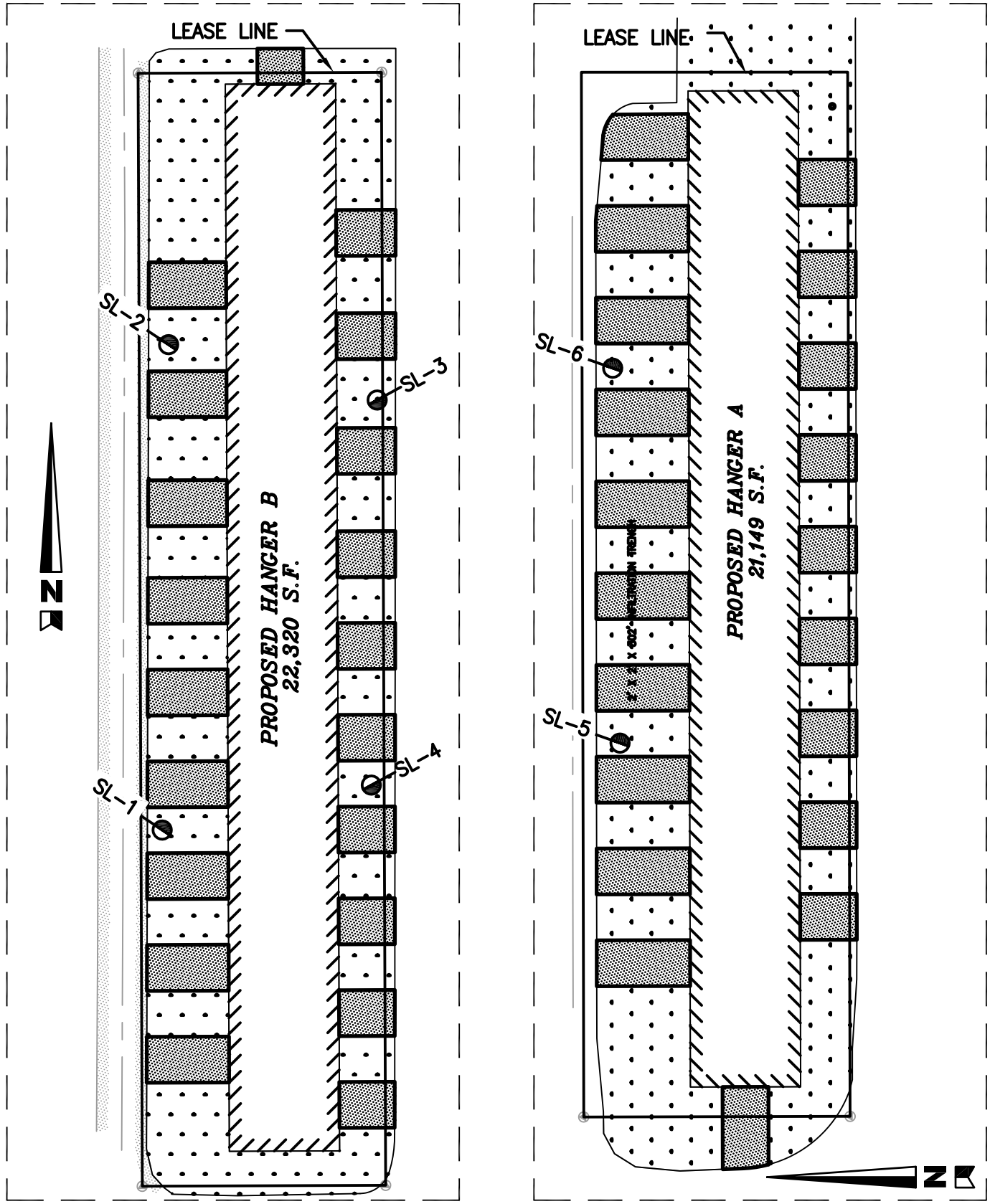
United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.glti.nrcs.usda.gov/

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://soils.usda.gov/

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://soils.usda.gov/

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210.

APPENDIX B SOIL LOGS



CARRERA PACIFIC HANGERS

LOTS 12 & 13

SOIL LOG MAP

SCALE: 1" = 60'

HALE MILLIGAN & ASSOCIATES LLC

CIVIL ENGINEERING PLANNING PROJECT MANAGEMENT

307 OLYMPIC AVENUE, SUITE 213 ARLINGTON, WA 98223

P: (360) 474-4624 F: (425) 968-1245

Soil Log #1
0-3”Topsoil
3”- 30” Red Brown Loamy Sand
30”+ Grey Sandy Gravel

Soil Log #2
0-3”Topsoil
3”- 40” Red Brown Loamy Sand
40”+ Grey Sandy Gravel

Soil Log #3
0-2”Topsoil
2”- 24” Red Brown Loamy Sand
24”+ Grey Sandy Gravel

Soil Log #4
0-4”Topsoil
4”- 30” Red Brown Loamy Sand
30”+ Grey Sandy Gravel

Soil Log #5
0-2”Topsoil
2”- 24” Red Brown Loamy Sand
24”+ Grey Sandy Gravel

Soil Log #6
0-3”Topsoil
3”- 26” Red Brown Loamy Sand
26”+ Grey Sandy Gravel

All soil log holes were terminated at a depth of 8’. There were no signs of the seasonal high groundwater table at this depth.

GEOTEST

741 Marine Drive
Bellingham, WA 98225

PHONE 360 733_7318
TOLL FREE 888 251_5276
FAX 360 733_7418

SOIL TEST REPORT

PROJECT: **Carrera Pacific Hangers**
ADDRESS: **Arlington, WA**
CLIENT: **Hale-Milligan & Associates**
CONTRACTOR: **-**
SAMPLE SOURCE: **Native Soil**
SAMPLE LOCATION: **Lots 12 and 13**

JOB #: **11-0150**
REPORT #: **S04**
DATE: **9-1-11**
PAGE: **1 of 1**
LAB #: **1102A**

Laboratory Test Data:

Test Type	Test Reference	Test Results	Specification	Comments
Soil Organic Matter Content	ASTM D2974 Method C	**2.20%**	1% min.	Meets specification

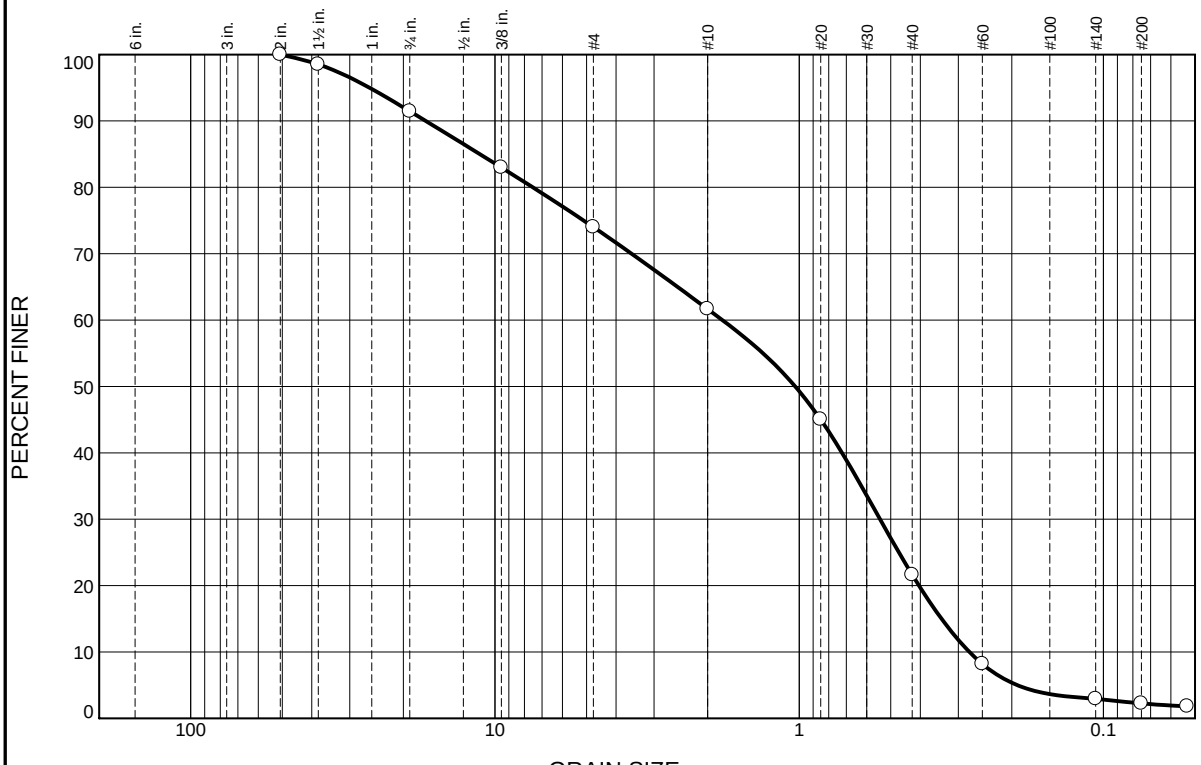
Comments: Reported soil organic moisture content was determined by weight.
Oven temperature: 440 C

Copies: Client

Submitted By:
Grant Richardson
Technical Director

This report shall not be reproduced except in full, without the written approval of GeoTest Services, Inc.
The above test results relate only to the sample (or location) tested. Copyright © 1993 GTS

Sieve Analysis Test Report - ASTM C136/C117



% +3"	% Gravel		% Sand			% Fines
	Coarse	Fine	Coarse	Medium	Fine	Silt
0	9	17	12	40	20	2

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2"	100		
1-1/2"	99		
3/4"	91		
3/8"	83		
#4	74		
#10	62		
#20	45		
#40	22		
#60	8		
#140	3		
#200	2.3		
#270	1.8		

* (no specification provided)

Material Description

poorly graded sand with gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 16.8986 D_{85}= 11.2170 D_{60}= 1.7882
D_{50}= 1.0307 D_{30}= 0.5423 D_{15}= 0.3405
D_{10}= 0.2758 C_u= 6.48 C_c= 0.60

Classification

USCS= SP AASHTO=

Remarks

Location: Native (Lot 12 & 13)
Sample Number: 1101A

Date: 9-1-11

GEOTEST
741 Marine Drive
Bellingham, WA 98225
www.GeoTest-Inc.com

Client: Kelli Hale
Project: Carrera Pacific Hangers
Arlington, WA
Project No: 11-0150 **Report** S003

Tested By: ES **Checked By:** GR

APPENDIX C SITE PLAN

APPENDIX D DRAINAGE CALCULATIONS

MGS FLOOD
PROJECT REPORT

Program Version: MGSFlood Light, Single Time Series Version 4.12
Program License Number: 201110003
Run Date: 09/14/2011 9:25 AM

Input File Name: HangersRoof.fld
Project Name: Arlington Airport Hangers
Analysis Title:
Comments: Building 1

PRECIPITATION INPUT

Computational Time Step (Minutes): 60

Extended Precipitation Timeseries Selected
Climatic Region Number: 14

Full Period of Record Available used for Routing
Precipitation Station : 96004405 Puget East 44 in_5min 10/01/1939-10/01/2097
Evaporation Station : 961044 Puget East 44 in MAP
Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1
HSPF Parameter Region Name : USGS Default

********** Default HSPF Parameters Used (Not Modified by User) **********

********** **WATERSHED DEFINITION** **********

----------SCENARIO: PREDEVELOPED
Number of Subbasins: 1

---------- Subbasin : Predeveloped Condition ----------

	-------Area(Acres) --------
Till Forest	0.000
Till Pasture	0.000
Till Grass	0.000
Outwash Forest	0.233
Outwash Pasture	0.000
Outwash Grass	0.000
Wetland	0.000
Green Roof	0.000
User	0.000
Impervious	0.000
Subbasin Total	0.233

----------SCENARIO: POSTDEVELOPED
Number of Subbasins: 1

---------- Subbasin : Developed Condition ----------

	-------Area(Acres) --------
Till Forest	0.000
Till Pasture	0.000
Till Grass	0.000
Outwash Forest	0.000
Outwash Pasture	0.000
Outwash Grass	0.000
Wetland	0.000
Green Roof	0.000
User	0.000
Impervious	0.233
---	---
Subbasin Total	0.233

********** **LINK DATA** **********

----------SCENARIO: PREDEVELOPED
Number of Links: 0

********** **LINK DATA** **********

----------SCENARIO: POSTDEVELOPED
Number of Links: 1

Link Name: Roof Trench
Link Type: Infiltration Trench
Downstream Link: None

Trench Type	:	Trench on Embankment Sideslope
Trench Length (ft)	:	290.00
Trench Width (ft)	:	2.00
Trench Depth (ft)	:	2.00
Trench Bottom Elev (ft)	:	100.00
Trench Rockfill Porosity (%)	:	33.00

Constant Infiltration Option Used
Infiltration Rate (in/hr): 5.00

Structure Stage, Storage Discharge Tables

Link: Lnk1 Roof Trench

Elev (ft)	Storage (ac-ft)	Discharge (cfs)	Infilt Discharge (cfs)

100.000	0.000	0.000	0.000
100.010	4.394E-05	0.000	0.067
100.020	8.788E-05	0.000	0.067
100.040	1.758E-04	0.000	0.067
100.080	3.515E-04	0.000	0.067
100.120	5.273E-04	0.000	0.067
100.160	7.030E-04	0.000	0.067
100.200	8.788E-04	0.000	0.067
100.240	1.055E-03	0.000	0.067
100.280	1.230E-03	0.000	0.067
100.320	1.406E-03	0.000	0.067
100.360	1.582E-03	0.000	0.067
100.400	1.758E-03	0.000	0.067
100.440	1.933E-03	0.000	0.067
100.480	2.109E-03	0.000	0.067
100.520	2.285E-03	0.000	0.067
100.560	2.461E-03	0.000	0.067
100.600	2.636E-03	0.000	0.067
100.640	2.812E-03	0.000	0.067
100.680	2.988E-03	0.000	0.067
100.720	3.164E-03	0.000	0.067
100.760	3.339E-03	0.000	0.067
100.800	3.515E-03	0.000	0.067
100.840	3.691E-03	0.000	0.067
100.880	3.867E-03	0.000	0.067
100.920	4.042E-03	0.000	0.067
100.960	4.218E-03	0.000	0.067
101.000	4.394E-03	0.000	0.067
101.040	4.570E-03	0.000	0.067
101.080	4.745E-03	0.000	0.067
101.120	4.921E-03	0.000	0.067
101.160	5.097E-03	0.000	0.067
101.200	5.273E-03	0.000	0.067
101.240	5.448E-03	0.000	0.067
101.280	5.624E-03	0.000	0.067
101.320	5.800E-03	0.000	0.067
101.360	5.976E-03	0.000	0.067
101.400	6.152E-03	0.000	0.067
101.440	6.327E-03	0.000	0.067
101.480	6.503E-03	0.000	0.067
101.520	6.679E-03	0.000	0.067
101.560	6.855E-03	0.000	0.067
101.600	7.030E-03	0.000	0.067
101.640	7.206E-03	0.000	0.067
101.680	7.382E-03	0.000	0.067
101.720	7.558E-03	0.000	0.067
101.760	7.733E-03	0.000	0.067
101.800	7.909E-03	0.000	0.067
101.840	8.085E-03	0.000	0.067
101.880	8.261E-03	0.000	0.067
101.920	8.436E-03	0.000	0.067
101.960	8.612E-03	0.000	0.067
102.000	8.788E-03	0.000	0.067
102.005	8.810E-03	0.205	0.067
102.010	8.832E-03	0.580	0.067

102.015	8.854E-03	1.066	0.067
102.020	8.876E-03	1.640	0.067
102.025	8.898E-03	2.293	0.067
102.030	8.920E-03	3.014	0.067
102.035	8.942E-03	3.798	0.067
102.040	8.964E-03	4.640	0.067
102.045	8.986E-03	5.537	0.067
102.050	9.008E-03	6.485	0.067
102.055	9.030E-03	7.481	0.067
102.060	9.052E-03	8.524	0.067
102.065	9.073E-03	9.612	0.067
102.070	9.095E-03	10.742	0.067
102.075	9.117E-03	11.913	0.067
102.080	9.139E-03	13.124	0.067
102.085	9.161E-03	14.373	0.067
102.090	9.183E-03	15.660	0.067
102.095	9.205E-03	16.983	0.067
102.100	9.227E-03	18.341	0.067

**********FLOOD FREQUENCY AND DURATION STATISTICS**********

----------SCENARIO: PREDEVELOPED
Number of Subbasins: 1
Number of Links: 0

----------SCENARIO: POSTDEVELOPED
Number of Subbasins: 1
Number of Links: 1

*************Water Quality Facility Data ***************

----------SCENARIO: PREDEVELOPED

Number of Links: 0

----------SCENARIO: POSTDEVELOPED

Number of Links: 1

********** Link: Roof Trench **********

Infiltration/Filtration Statistics----------
Total Runoff Volume (ac-ft): 115.24
Total Runoff Infiltrated (ac-ft): 115.24, 100.00%
Total Runoff Filtered (ac-ft): 0.00, 0.00%
Percent Treated (Infiltrated+Filtered)/Total Volume: 100.00%

*************Compliance Point Results ***************

Scenario Predeveloped Compliance Subbasin: Predeveloped Condition

Scenario Postdeveloped Compliance Link: Roof Trench
****Point of Compliance Annual Maxima Flow Data ****

Predevelopment Runoff		Postdevelopment Runoff	
Date	Annual Max Q (cfs)	Date	Annual Max Q (cfs)
01/27/1940	0.000	10/27/1939	0.000
01/31/1941	0.000	09/02/1941	0.000
12/18/1941	0.000	12/15/1941	0.000
12/27/1942	0.000	11/23/1942	0.000
01/23/1944	0.000	01/22/1944	0.000
03/19/1945	0.000	02/07/1945	0.000
06/13/1946	0.000	01/23/1946	0.000
02/13/1947	0.000	10/20/1946	0.000
03/21/1948	0.000	03/21/1948	0.000
05/01/1949	0.000	09/14/1949	0.000
03/03/1950	1.203E-03	03/03/1950	0.000
02/19/1951	0.000	10/08/1950	0.000
01/05/1952	0.000	06/29/1952	0.000
01/11/1953	0.000	09/30/1953	0.000
02/11/1954	0.000	12/19/1953	0.000
02/28/1955	0.000	11/05/1954	0.000
03/09/1956	0.000	10/07/1955	0.000
06/11/1957	0.000	11/16/1956	0.000
04/19/1958	0.000	01/16/1958	0.000
03/09/1959	0.000	01/12/1959	0.000
04/24/1960	0.000	12/15/1959	0.000
05/08/1961	0.000	02/14/1961	0.000
03/24/1962	0.000	07/05/1962	0.000
01/02/1963	0.000	05/05/1963	0.000
01/31/1964	0.000	09/17/1964	0.000
01/02/1965	0.000	05/04/1965	0.000
05/06/1966	0.000	01/05/1966	0.000
12/16/1966	0.000	11/13/1966	0.000
12/02/1967	0.000	08/23/1968	0.000
05/29/1969	0.000	12/03/1968	0.000
01/31/1970	0.000	01/13/1970	0.000
12/05/1970	0.000	12/05/1970	0.000
03/05/1972	1.098E-03	02/27/1972	0.000
05/24/1973	0.000	06/24/1973	0.000
04/06/1974	0.000	11/11/1973	0.000
06/24/1975	0.000	10/27/1974	0.000
03/23/1976	0.000	07/08/1976	0.000
01/17/1977	0.000	08/26/1977	0.000
02/01/1978	0.000	09/17/1978	0.000
09/08/1979	0.000	09/08/1979	0.000
12/18/1979	0.000	12/14/1979	0.000
12/02/1980	0.000	11/21/1980	0.000
02/28/1982	0.000	10/06/1981	0.000
08/29/1983	0.000	10/28/1982	0.000
01/24/1984	0.000	01/03/1984	0.000
03/26/1985	0.000	06/06/1985	0.000
01/01/1986	0.000	01/18/1986	0.000
12/25/1986	0.000	10/26/1986	0.000
01/14/1988	0.000	11/11/1987	0.000

12/30/1988	0.000	08/21/1989	0.000
04/28/1990	0.000	01/09/1990	0.000
04/04/1991	5.150E-04	11/24/1990	0.000
01/27/1992	0.000	01/27/1992	0.000
06/09/1993	0.000	06/09/1993	0.000
06/17/1994	0.000	09/03/1994	0.000
02/20/1995	0.000	11/30/1994	0.000
02/08/1996	6.779E-04	02/08/1996	0.000
03/18/1997	1.391E-04	01/02/1997	0.000
11/07/1997	0.000	10/29/1997	0.000
02/18/1999	1.151E-04	11/04/1998	0.000
03/26/2000	0.000	11/04/1999	0.000
05/05/2001	0.000	09/01/2001	0.000
05/03/2002	0.000	05/03/2002	0.000
02/06/2003	4.781E-04	02/06/2003	0.000
04/13/2004	0.000	01/01/2004	0.000
02/17/2005	0.000	02/05/2005	0.000
07/08/2006	0.000	01/02/2006	0.000
03/30/2007	0.000	12/14/2006	0.000
05/28/2008	0.000	03/21/2008	0.000
12/02/2008	0.000	02/17/2009	0.000
04/12/2010	0.000	06/10/2010	0.000
03/08/2011	1.897E-04	09/30/2011	0.000
11/25/2011	0.000	10/22/2011	0.000
03/27/2013	0.000	01/20/2013	0.000
04/04/2014	0.000	11/16/2013	0.000
02/08/2015	0.000	09/27/2015	0.000
01/27/2016	1.855E-04	01/04/2016	0.000
05/17/2017	0.000	06/14/2017	0.000
01/29/2018	0.000	12/25/2017	0.000
01/23/2019	0.000	11/09/2018	0.000
03/08/2020	0.000	12/12/2019	0.000
05/03/2021	0.000	11/24/2020	0.000
02/17/2022	0.000	12/20/2021	0.000
03/30/2023	0.000	02/02/2023	0.000
03/01/2024	0.000	09/17/2024	0.000
12/21/2024	0.000	06/14/2025	0.000
03/14/2026	0.000	03/09/2026	0.000
02/13/2027	0.000	03/15/2027	0.000
04/15/2028	0.000	06/01/2028	0.000
04/28/2029	0.000	10/11/2028	0.000
02/16/2030	0.000	11/04/2029	0.000
06/12/2031	0.000	09/24/2031	0.000
04/07/2032	0.000	01/20/2032	0.000
06/17/2033	0.000	08/24/2033	0.000
02/18/2034	1.289E-03	01/12/2034	0.000
02/11/2035	0.000	12/27/2034	0.000
05/10/2036	0.000	12/04/2035	0.000
03/08/2037	0.000	05/15/2037	0.000
12/14/2037	0.000	11/24/2037	0.000
01/11/2039	0.000	11/03/2038	0.000
11/17/2039	0.000	01/14/2040	0.000
03/31/2041	0.000	12/24/2040	0.000
03/01/2042	0.000	11/11/2041	0.000
03/31/2043	2.434E-04	07/19/2043	0.000
03/16/2044	0.000	11/03/2043	0.000

03/27/2045	0.000	11/02/2044	0.000
05/01/2046	0.000	03/07/2046	0.000
03/12/2047	0.000	11/24/2046	0.000
12/09/2047	0.000	12/02/2047	0.000
03/15/2049	0.000	07/31/2049	0.000
03/09/2050	0.000	12/04/2049	0.000
05/17/2051	0.000	02/02/2051	0.000
02/08/2052	0.000	10/25/2051	0.000
04/25/2053	0.000	06/04/2053	0.000
01/01/2054	0.000	12/08/2053	0.000
10/31/2054	0.000	10/27/2054	0.000
02/07/2056	3.473E-04	02/07/2056	0.000
03/01/2057	2.516E-04	05/31/2057	0.000
01/24/2058	0.000	01/24/2058	0.000
03/28/2059	2.752E-04	11/25/2058	0.000
03/09/2060	0.000	05/15/2060	0.000
03/14/2061	0.000	09/01/2061	0.000
02/03/2062	1.293E-04	02/03/2062	0.054
05/02/2063	0.000	09/16/2063	0.000
12/06/2063	0.000	09/30/2064	0.000
02/03/2065	0.000	11/29/2064	0.000
02/08/2066	0.000	06/27/2066	0.000
03/14/2067	0.000	01/19/2067	0.000
12/22/2067	0.000	05/05/2068	0.000
01/04/2069	0.000	07/10/2069	0.000
04/24/2070	0.000	09/03/2070	0.000
02/18/2071	0.000	09/27/2071	0.000
02/27/2072	0.000	04/28/2072	0.000
02/25/2073	0.000	12/25/2072	0.000
01/24/2074	0.000	03/16/2074	0.000
01/07/2075	0.000	08/27/2075	0.000
03/24/2076	0.000	03/24/2076	0.000
11/24/2076	0.000	08/24/2077	0.000
11/01/2077	0.000	11/25/2077	0.000
11/03/2078	0.000	11/03/2078	0.000
02/02/2080	0.000	12/17/2079	0.000
05/07/2081	0.000	11/06/2080	0.000
02/18/2082	1.977E-04	02/18/2082	0.000
02/11/2083	0.000	03/29/2083	0.000
11/15/2083	0.000	06/28/2084	0.000
12/13/2084	0.000	09/06/2085	0.000
01/18/2086	0.000	09/23/2086	0.000
01/02/2087	0.000	10/26/2086	0.000
01/12/2088	0.000	11/21/2087	0.000
01/17/2089	0.000	11/05/2088	0.000
03/14/2090	0.000	10/23/2089	0.000
05/06/2091	0.000	08/27/2091	0.000
02/23/2092	0.000	06/29/2092	0.000
01/19/2093	0.000	11/18/2092	0.000
02/17/2094	0.000	10/23/2093	0.000
03/20/2095	0.000	07/25/2095	0.000
11/24/2095	0.000	08/02/2096	0.000
03/01/2097	3.065E-03	11/12/2096	0.000

******Point of Compliance Ranked Maxima Flow Data ******

Predevelopment		Postdevelopment	
Tr (yrs)	Q (cfs)	Tr (yrs)	Q (cfs)
1.00	0.000	1.00	0.000
1.01	0.000	1.01	0.000
1.02	0.000	1.02	0.000
1.02	0.000	1.02	0.000
1.03	0.000	1.03	0.000
1.04	0.000	1.04	0.000
1.04	0.000	1.04	0.000
1.05	0.000	1.05	0.000
1.06	0.000	1.06	0.000
1.06	0.000	1.06	0.000
1.07	0.000	1.07	0.000
1.08	0.000	1.08	0.000
1.09	0.000	1.09	0.000
1.09	0.000	1.09	0.000
1.10	0.000	1.10	0.000
1.11	0.000	1.11	0.000
1.12	0.000	1.12	0.000
1.12	0.000	1.12	0.000
1.13	0.000	1.13	0.000
1.14	0.000	1.14	0.000
1.15	0.000	1.15	0.000
1.16	0.000	1.16	0.000
1.17	0.000	1.17	0.000
1.18	0.000	1.18	0.000
1.18	0.000	1.18	0.000
1.19	0.000	1.19	0.000
1.20	0.000	1.20	0.000
1.21	0.000	1.21	0.000
1.22	0.000	1.22	0.000
1.23	0.000	1.23	0.000
1.24	0.000	1.24	0.000
1.25	0.000	1.25	0.000
1.26	0.000	1.26	0.000
1.27	0.000	1.27	0.000
1.28	0.000	1.28	0.000
1.29	0.000	1.29	0.000
1.30	0.000	1.30	0.000
1.31	0.000	1.31	0.000
1.32	0.000	1.32	0.000
1.33	0.000	1.33	0.000
1.35	0.000	1.35	0.000
1.36	0.000	1.36	0.000
1.37	0.000	1.37	0.000
1.38	0.000	1.38	0.000
1.39	0.000	1.39	0.000
1.40	0.000	1.40	0.000
1.42	0.000	1.42	0.000
1.43	0.000	1.43	0.000
1.44	0.000	1.44	0.000
1.46	0.000	1.46	0.000
1.47	0.000	1.47	0.000
1.48	0.000	1.48	0.000
1.50	0.000	1.50	0.000

1.51	0.000	1.51	0.000
1.53	0.000	1.53	0.000
1.54	0.000	1.54	0.000
1.56	0.000	1.56	0.000
1.57	0.000	1.57	0.000
1.59	0.000	1.59	0.000
1.60	0.000	1.60	0.000
1.62	0.000	1.62	0.000
1.64	0.000	1.64	0.000
1.65	0.000	1.65	0.000
1.67	0.000	1.67	0.000
1.69	0.000	1.69	0.000
1.71	0.000	1.71	0.000
1.73	0.000	1.73	0.000
1.75	0.000	1.75	0.000
1.77	0.000	1.77	0.000
1.79	0.000	1.79	0.000
1.81	0.000	1.81	0.000
1.83	0.000	1.83	0.000
1.85	0.000	1.85	0.000
1.87	0.000	1.87	0.000
1.89	0.000	1.89	0.000
1.92	0.000	1.92	0.000
1.94	0.000	1.94	0.000
1.96	0.000	1.96	0.000
1.99	0.000	1.99	0.000
2.01	0.000	2.01	0.000
2.04	0.000	2.04	0.000
2.07	0.000	2.07	0.000
2.09	0.000	2.09	0.000
2.12	0.000	2.12	0.000
2.15	0.000	2.15	0.000
2.18	0.000	2.18	0.000
2.21	0.000	2.21	0.000
2.24	0.000	2.24	0.000
2.27	0.000	2.27	0.000
2.31	0.000	2.31	0.000
2.34	0.000	2.34	0.000
2.38	0.000	2.38	0.000
2.41	0.000	2.41	0.000
2.45	0.000	2.45	0.000
2.49	0.000	2.49	0.000
2.53	0.000	2.53	0.000
2.57	0.000	2.57	0.000
2.61	0.000	2.61	0.000
2.65	0.000	2.65	0.000
2.70	0.000	2.70	0.000
2.75	0.000	2.75	0.000
2.80	0.000	2.80	0.000
2.85	0.000	2.85	0.000
2.90	0.000	2.90	0.000
2.95	0.000	2.95	0.000
3.01	0.000	3.01	0.000
3.07	0.000	3.07	0.000
3.13	0.000	3.13	0.000
3.19	0.000	3.19	0.000

3.26	0.000	3.26	0.000
3.32	0.000	3.32	0.000
3.40	0.000	3.40	0.000
3.47	0.000	3.47	0.000
3.55	0.000	3.55	0.000
3.63	0.000	3.63	0.000
3.72	0.000	3.72	0.000
3.80	0.000	3.80	0.000
3.90	0.000	3.90	0.000
4.00	0.000	4.00	0.000
4.10	0.000	4.10	0.000
4.21	0.000	4.21	0.000
4.32	0.000	4.32	0.000
4.45	0.000	4.45	0.000
4.58	0.000	4.58	0.000
4.71	0.000	4.71	0.000
4.86	0.000	4.86	0.000
5.01	0.000	5.01	0.000
5.17	0.000	5.17	0.000
5.35	0.000	5.35	0.000
5.54	0.000	5.54	0.000
5.74	0.000	5.74	0.000
5.95	0.000	5.95	0.000
6.19	0.000	6.19	0.000
6.44	0.000	6.44	0.000
6.71	0.000	6.71	0.000
7.01	0.000	7.01	0.000
7.33	0.000	7.33	0.000
7.69	0.000	7.69	0.000
8.08	0.000	8.08	0.000
8.52	0.000	8.52	0.000
9.00	0.000	9.00	0.000
9.55	1.151E-04	9.55	0.000E+00
10.16	1.293E-04	10.16	0.000E+00
10.86	1.391E-04	10.86	0.000E+00
11.66	1.855E-04	11.66	0.000E+00
12.59	1.897E-04	12.59	0.000E+00
13.68	1.977E-04	13.68	0.000E+00
14.97	2.434E-04	14.97	0.000E+00
16.54	2.516E-04	16.54	0.000E+00
18.47	2.752E-04	18.47	0.000E+00
20.92	3.473E-04	20.92	0.000E+00
24.10	4.781E-04	24.10	0.000E+00
28.44	5.150E-04	28.44	0.000E+00
34.68	6.779E-04	34.68	0.000E+00
44.42	1.098E-03	44.42	0.000E+00
61.77	1.203E-03	61.77	0.000E+00
101.36	1.289E-03	101.36	0.000E+00
282.36	3.065E-03	282.36	5.357E-02

***** Point of Compliance Flow Frequency Data *****

Recurrence Interval Computed Using Gringorten Plotting Position

Predevelopment Runoff		Postdevelopment Runoff	
Tr (Years)	Discharge (cfs)	Tr (Years)	Discharge (cfs)

2-Year	4.629E-05	2-Year	5.629E-08
5-Year	4.693E-05	5-Year	1.067E-06
10-Year	1.256E-04	10-Year	2.725E-06
25-Year	4.863E-04	25-Year	5.622E-06
50-Year	1.135E-03	50-Year	7.191E-06
100-Year	1.286E-03	100-Year	9.854E-06
200-Year	2.467E-03	200-Year	0.036

** Record too Short to Compute Peak Discharge for These Recurrence Intervals

***** Point of Compliance Flow Duration Data *****

Predevelopment Runoff		Postdevelopment Runoff	
Discharge (cfs)	Exceedance Probability	Discharge (cfs)	Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
1.533E-05	8.1998E-03	2.679E-04	7.2200E-07
2.315E-05	4.3713E-03	5.357E-04	7.2200E-07
4.629E-05	2.7678E-04	8.036E-04	7.2200E-07
6.130E-05	1.2779E-04	1.071E-03	7.2200E-07
7.663E-05	1.0252E-04	1.339E-03	7.2200E-07
9.195E-05	8.3752E-05	1.607E-03	7.2200E-07
1.073E-04	6.9312E-05	1.875E-03	7.2200E-07
1.226E-04	6.0648E-05	2.143E-03	7.2200E-07
1.379E-04	5.1262E-05	2.411E-03	7.2200E-07
1.533E-04	4.6930E-05	2.679E-03	7.2200E-07
1.686E-04	4.4764E-05	2.946E-03	7.2200E-07
1.839E-04	4.1876E-05	3.214E-03	7.2200E-07
1.992E-04	3.8988E-05	3.482E-03	7.2200E-07
2.146E-04	3.6822E-05	3.750E-03	7.2200E-07
2.299E-04	3.3934E-05	4.018E-03	7.2200E-07
2.452E-04	3.1768E-05	4.286E-03	7.2200E-07
2.605E-04	2.9602E-05	4.554E-03	7.2200E-07
2.759E-04	2.6714E-05	4.821E-03	7.2200E-07
2.912E-04	2.5992E-05	5.089E-03	7.2200E-07
3.065E-04	2.5992E-05	5.357E-03	7.2200E-07
3.218E-04	2.5270E-05	5.625E-03	7.2200E-07
3.372E-04	2.3104E-05	5.893E-03	7.2200E-07
3.525E-04	2.1660E-05	6.161E-03	7.2200E-07
3.678E-04	2.0938E-05	6.429E-03	7.2200E-07
3.831E-04	2.0938E-05	6.697E-03	7.2200E-07
3.985E-04	2.0216E-05	6.964E-03	7.2200E-07
4.138E-04	2.0216E-05	7.232E-03	7.2200E-07
4.291E-04	2.0216E-05	7.500E-03	7.2200E-07
4.444E-04	1.9494E-05	7.768E-03	7.2200E-07
4.598E-04	1.8772E-05	8.036E-03	7.2200E-07
4.751E-04	1.7328E-05	8.304E-03	7.2200E-07
4.904E-04	1.5162E-05	8.572E-03	7.2200E-07
5.057E-04	1.4440E-05	8.839E-03	7.2200E-07
5.211E-04	1.3718E-05	9.107E-03	7.2200E-07
5.364E-04	1.3718E-05	9.375E-03	7.2200E-07
5.517E-04	1.3718E-05	9.643E-03	7.2200E-07
5.670E-04	1.3718E-05	9.911E-03	7.2200E-07
5.824E-04	1.1552E-05	1.018E-02	7.2200E-07

5.977E-04	1.1552E-05	1.045E-02	7.2200E-07
6.130E-04	1.0108E-05	1.071E-02	7.2200E-07
6.283E-04	9.3860E-06	1.098E-02	7.2200E-07
6.437E-04	9.3860E-06	1.125E-02	7.2200E-07
6.590E-04	9.3860E-06	1.152E-02	7.2200E-07
6.743E-04	9.3860E-06	1.179E-02	7.2200E-07
6.896E-04	7.9420E-06	1.205E-02	7.2200E-07
7.050E-04	7.9420E-06	1.232E-02	7.2200E-07
7.203E-04	7.9420E-06	1.259E-02	7.2200E-07
7.356E-04	6.4980E-06	1.286E-02	7.2200E-07
7.509E-04	6.4980E-06	1.313E-02	7.2200E-07
7.663E-04	6.4980E-06	1.339E-02	7.2200E-07
7.816E-04	5.7760E-06	1.366E-02	7.2200E-07
7.969E-04	5.7760E-06	1.393E-02	7.2200E-07
8.122E-04	5.7760E-06	1.420E-02	7.2200E-07
8.276E-04	5.7760E-06	1.446E-02	7.2200E-07
8.429E-04	5.7760E-06	1.473E-02	7.2200E-07
8.582E-04	5.7760E-06	1.500E-02	7.2200E-07
8.735E-04	5.7760E-06	1.527E-02	7.2200E-07
8.889E-04	5.7760E-06	1.554E-02	7.2200E-07
9.042E-04	5.7760E-06	1.580E-02	7.2200E-07
9.195E-04	5.7760E-06	1.607E-02	7.2200E-07
9.348E-04	5.7760E-06	1.634E-02	7.2200E-07
9.502E-04	5.7760E-06	1.661E-02	7.2200E-07
9.655E-04	5.7760E-06	1.688E-02	7.2200E-07
9.808E-04	5.7760E-06	1.714E-02	7.2200E-07
9.961E-04	5.7760E-06	1.741E-02	7.2200E-07
1.011E-03	5.7760E-06	1.768E-02	7.2200E-07
1.027E-03	5.7760E-06	1.795E-02	7.2200E-07
1.042E-03	4.3320E-06	1.821E-02	7.2200E-07
1.057E-03	4.3320E-06	1.848E-02	7.2200E-07
1.073E-03	4.3320E-06	1.875E-02	7.2200E-07
1.088E-03	4.3320E-06	1.902E-02	7.2200E-07
1.103E-03	3.6100E-06	1.929E-02	7.2200E-07
1.119E-03	3.6100E-06	1.955E-02	7.2200E-07
1.135E-03	3.6071E-06	1.982E-02	7.2200E-07
1.149E-03	3.6100E-06	2.009E-02	7.2200E-07
1.165E-03	3.6100E-06	2.036E-02	7.2200E-07
1.180E-03	3.6100E-06	2.063E-02	7.2200E-07
1.195E-03	3.6100E-06	2.089E-02	7.2200E-07
1.211E-03	2.1660E-06	2.116E-02	7.2200E-07
1.226E-03	2.1660E-06	2.143E-02	7.2200E-07
1.241E-03	2.1660E-06	2.170E-02	7.2200E-07
1.257E-03	2.1660E-06	2.196E-02	7.2200E-07
1.272E-03	1.4440E-06	2.223E-02	7.2200E-07
1.287E-03	1.4440E-06	2.250E-02	7.2200E-07
1.303E-03	7.2200E-07	2.277E-02	7.2200E-07
1.318E-03	7.2200E-07	2.304E-02	7.2200E-07
1.333E-03	7.2200E-07	2.330E-02	7.2200E-07
1.349E-03	7.2200E-07	2.357E-02	7.2200E-07
1.364E-03	7.2200E-07	2.384E-02	7.2200E-07
1.379E-03	7.2200E-07	2.411E-02	7.2200E-07
1.395E-03	7.2200E-07	2.438E-02	7.2200E-07
1.410E-03	7.2200E-07	2.464E-02	7.2200E-07
1.425E-03	7.2200E-07	2.491E-02	7.2200E-07
1.441E-03	7.2200E-07	2.518E-02	7.2200E-07

1.456E-03	7.2200E-07	2.545E-02	7.2200E-07
1.471E-03	7.2200E-07	2.571E-02	7.2200E-07
1.487E-03	7.2200E-07	2.598E-02	7.2200E-07
1.502E-03	7.2200E-07	2.625E-02	7.2200E-07
1.517E-03	7.2200E-07	2.652E-02	7.2200E-07
1.533E-03	7.2200E-07	2.679E-02	7.2200E-07
1.548E-03	7.2200E-07	2.705E-02	7.2200E-07
1.563E-03	7.2200E-07	2.732E-02	7.2200E-07
1.578E-03	7.2200E-07	2.759E-02	7.2200E-07
1.594E-03	7.2200E-07	2.786E-02	7.2200E-07
1.609E-03	7.2200E-07	2.813E-02	7.2200E-07
1.624E-03	7.2200E-07	2.839E-02	7.2200E-07
1.640E-03	7.2200E-07	2.866E-02	7.2200E-07
1.655E-03	7.2200E-07	2.893E-02	7.2200E-07
1.670E-03	7.2200E-07	2.920E-02	7.2200E-07
1.686E-03	7.2200E-07	2.946E-02	7.2200E-07
1.701E-03	7.2200E-07	2.973E-02	7.2200E-07
1.716E-03	7.2200E-07	3.000E-02	7.2200E-07
1.732E-03	7.2200E-07	3.027E-02	7.2200E-07
1.747E-03	7.2200E-07	3.054E-02	7.2200E-07
1.762E-03	7.2200E-07	3.080E-02	7.2200E-07
1.778E-03	7.2200E-07	3.107E-02	7.2200E-07
1.793E-03	7.2200E-07	3.134E-02	7.2200E-07
1.808E-03	7.2200E-07	3.161E-02	7.2200E-07
1.824E-03	7.2200E-07	3.188E-02	7.2200E-07
1.839E-03	7.2200E-07	3.214E-02	7.2200E-07
1.854E-03	7.2200E-07	3.241E-02	7.2200E-07
1.870E-03	7.2200E-07	3.268E-02	7.2200E-07
1.885E-03	7.2200E-07	3.295E-02	7.2200E-07
1.900E-03	7.2200E-07	3.321E-02	7.2200E-07
1.916E-03	7.2200E-07	3.348E-02	7.2200E-07
1.931E-03	7.2200E-07	3.375E-02	7.2200E-07
1.946E-03	7.2200E-07	3.402E-02	7.2200E-07
1.962E-03	7.2200E-07	3.429E-02	7.2200E-07
1.977E-03	7.2200E-07	3.455E-02	7.2200E-07
1.992E-03	7.2200E-07	3.482E-02	7.2200E-07
2.008E-03	7.2200E-07	3.509E-02	7.2200E-07
2.023E-03	7.2200E-07	3.536E-02	7.2200E-07
2.038E-03	7.2200E-07	3.563E-02	7.2200E-07
2.054E-03	7.2200E-07	3.589E-02	7.2200E-07
2.069E-03	7.2200E-07	3.616E-02	7.2200E-07
2.084E-03	7.2200E-07	3.643E-02	7.2200E-07
2.100E-03	7.2200E-07	3.670E-02	7.2200E-07
2.115E-03	7.2200E-07	3.696E-02	7.2200E-07
2.130E-03	7.2200E-07	3.723E-02	7.2200E-07
2.146E-03	7.2200E-07	3.750E-02	7.2200E-07
2.161E-03	7.2200E-07	3.777E-02	7.2200E-07
2.176E-03	7.2200E-07	3.804E-02	7.2200E-07
2.192E-03	7.2200E-07	3.830E-02	7.2200E-07
2.207E-03	7.2200E-07	3.857E-02	7.2200E-07
2.222E-03	7.2200E-07	3.884E-02	7.2200E-07
2.237E-03	7.2200E-07	3.911E-02	7.2200E-07
2.253E-03	7.2200E-07	3.938E-02	7.2200E-07
2.268E-03	7.2200E-07	3.964E-02	7.2200E-07
2.283E-03	7.2200E-07	3.991E-02	7.2200E-07
2.299E-03	7.2200E-07	4.018E-02	7.2200E-07

2.314E-03	7.2200E-07	4.045E-02	7.2200E-07
2.329E-03	7.2200E-07	4.071E-02	7.2200E-07
2.345E-03	7.2200E-07	4.098E-02	7.2200E-07
2.360E-03	7.2200E-07	4.125E-02	7.2200E-07
2.375E-03	7.2200E-07	4.152E-02	7.2200E-07
2.391E-03	7.2200E-07	4.179E-02	7.2200E-07
2.406E-03	7.2200E-07	4.205E-02	7.2200E-07
2.421E-03	7.2200E-07	4.232E-02	7.2200E-07
2.437E-03	7.2200E-07	4.259E-02	7.2200E-07
2.452E-03	7.2200E-07	4.286E-02	7.2200E-07
2.467E-03	7.2200E-07	4.313E-02	7.2200E-07
2.483E-03	7.2200E-07	4.339E-02	7.2200E-07
2.498E-03	7.2200E-07	4.366E-02	7.2200E-07
2.513E-03	7.2200E-07	4.393E-02	7.2200E-07
2.529E-03	7.2200E-07	4.420E-02	7.2200E-07
2.544E-03	7.2200E-07	4.446E-02	7.2200E-07
2.559E-03	7.2200E-07	4.473E-02	7.2200E-07
2.575E-03	7.2200E-07	4.500E-02	7.2200E-07
2.590E-03	7.2200E-07	4.527E-02	7.2200E-07
2.605E-03	7.2200E-07	4.554E-02	7.2200E-07
2.621E-03	7.2200E-07	4.580E-02	7.2200E-07
2.636E-03	7.2200E-07	4.607E-02	7.2200E-07
2.651E-03	7.2200E-07	4.634E-02	7.2200E-07
2.667E-03	7.2200E-07	4.661E-02	7.2200E-07
2.682E-03	7.2200E-07	4.688E-02	7.2200E-07
2.697E-03	7.2200E-07	4.714E-02	7.2200E-07
2.713E-03	7.2200E-07	4.741E-02	7.2200E-07
2.728E-03	7.2200E-07	4.768E-02	7.2200E-07
2.743E-03	7.2200E-07	4.795E-02	7.2200E-07
2.759E-03	7.2200E-07	4.821E-02	7.2200E-07
2.774E-03	7.2200E-07	4.848E-02	7.2200E-07
2.789E-03	7.2200E-07	4.875E-02	7.2200E-07
2.805E-03	7.2200E-07	4.902E-02	7.2200E-07
2.820E-03	7.2200E-07	4.929E-02	7.2200E-07
2.835E-03	7.2200E-07	4.955E-02	7.2200E-07
2.850E-03	7.2200E-07	4.982E-02	7.2200E-07
2.866E-03	7.2200E-07	5.009E-02	7.2200E-07
2.881E-03	7.2200E-07	5.036E-02	7.2200E-07
2.896E-03	7.2200E-07	5.063E-02	7.2200E-07
2.912E-03	7.2200E-07	5.089E-02	7.2200E-07
2.927E-03	7.2200E-07	5.116E-02	7.2200E-07
2.942E-03	7.2200E-07	5.143E-02	7.2200E-07
2.958E-03	7.2200E-07	5.170E-02	7.2200E-07
2.973E-03	7.2200E-07	5.197E-02	7.2200E-07
2.988E-03	7.2200E-07	5.223E-02	7.2200E-07
3.004E-03	7.2200E-07	5.250E-02	7.2200E-07
3.019E-03	7.2200E-07	5.277E-02	7.2200E-07
3.034E-03	7.2200E-07	5.304E-02	7.2200E-07
3.050E-03	7.2200E-07	5.330E-02	7.2200E-07
3.065E-03	7.2200E-07	5.357E-02	7.2200E-07

****** Flow Duration Performance According to Dept. of Ecology Criteria ******

Excursion at Predeveloped ½Q2 (Must be Less Than 0%):	-100.0%	PASS
Maximum Excursion from ½Q2 to Q2 (Must be Less Than 0%):	-99999.0%	PASS
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	-80.0%	PASS
Percent Excursion from Q2 to Q50 (Must be less than 50%):	0.0%	PASS

POND MEETS ALL DURATION DESIGN CRITERIA: PASS

MGS FLOOD
PROJECT REPORT

Program Version: MGSFlood Light, Single Time Series Version 4.12
Program License Number: 201110003
Run Date: 09/14/2011 9:48 AM

Input File Name: HangerRoof2.fld
Project Name: Arlington Airport Hangers
Analysis Title:
Comments: Buildings 2 &3

——————————————— PRECIPITATION INPUT ———————————————

Computational Time Step (Minutes): 60

Extended Precipitation Timeseries Selected
Climatic Region Number: 14

Full Period of Record Available used for Routing
Precipitation Station : 96004405 Puget East 44 in_5min 10/01/1939-10/01/2097
Evaporation Station : 961044 Puget East 44 in MAP
Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1
HSPF Parameter Region Name : USGS Default

********** Default HSPF Parameters Used (Not Modified by User) **********

********** **WATERSHED DEFINITION** **********

----------SCENARIO: PREDEVELOPED
Number of Subbasins: 1

---------- Subbasin : Predeveloped Condition ----------

	-------Area(Acres) --------
Till Forest	0.000
Till Pasture	0.000
Till Grass	0.000
Outwash Forest	0.220
Outwash Pasture	0.000
Outwash Grass	0.000
Wetland	0.000
Green Roof	0.000
User	0.000
Impervious	0.000
Subbasin Total	0.220

----------SCENARIO: POSTDEVELOPED
Number of Subbasins: 1

---------- Subbasin : Developed Condition ----------

	-------Area(Acres) --------
Till Forest	0.000
Till Pasture	0.000
Till Grass	0.000
Outwash Forest	0.000
Outwash Pasture	0.000
Outwash Grass	0.000
Wetland	0.000
Green Roof	0.000
User	0.000
Impervious	0.220
---	---
Subbasin Total	0.220

********** **LINK DATA** **********

----------SCENARIO: PREDEVELOPED
Number of Links: 0

********** **LINK DATA** **********

----------SCENARIO: POSTDEVELOPED
Number of Links: 1

Link Name: Roof Trench
Link Type: Infiltration Trench
Downstream Link: None

Trench Type	:	Trench on Embankment Sideslope
Trench Length (ft)	:	273.00
Trench Width (ft)	:	2.00
Trench Depth (ft)	:	2.00
Trench Bottom Elev (ft)	:	100.00
Trench Rockfill Porosity (%)	:	33.00

Constant Infiltration Option Used
Infiltration Rate (in/hr): 5.00

Structure Stage, Storage Discharge Tables

Link: Lnk1 Roof Trench

Elev (ft)	Storage (ac-ft)	Discharge (cfs)	Infilt Discharge (cfs)

100.000	0.000	0.000	0.000
100.010	4.136E-05	0.000	0.063
100.020	8.273E-05	0.000	0.063
100.040	1.655E-04	0.000	0.063
100.080	3.309E-04	0.000	0.063
100.120	4.964E-04	0.000	0.063
100.160	6.618E-04	0.000	0.063
100.200	8.273E-04	0.000	0.063
100.240	9.927E-04	0.000	0.063
100.280	1.158E-03	0.000	0.063
100.320	1.324E-03	0.000	0.063
100.360	1.489E-03	0.000	0.063
100.400	1.655E-03	0.000	0.063
100.440	1.820E-03	0.000	0.063
100.480	1.985E-03	0.000	0.063
100.520	2.151E-03	0.000	0.063
100.560	2.316E-03	0.000	0.063
100.600	2.482E-03	0.000	0.063
100.640	2.647E-03	0.000	0.063
100.680	2.813E-03	0.000	0.063
100.720	2.978E-03	0.000	0.063
100.760	3.144E-03	0.000	0.063
100.800	3.309E-03	0.000	0.063
100.840	3.475E-03	0.000	0.063
100.880	3.640E-03	0.000	0.063
100.920	3.805E-03	0.000	0.063
100.960	3.971E-03	0.000	0.063
101.000	4.136E-03	0.000	0.063
101.040	4.302E-03	0.000	0.063
101.080	4.467E-03	0.000	0.063
101.120	4.633E-03	0.000	0.063
101.160	4.798E-03	0.000	0.063
101.200	4.964E-03	0.000	0.063
101.240	5.129E-03	0.000	0.063
101.280	5.295E-03	0.000	0.063
101.320	5.460E-03	0.000	0.063
101.360	5.625E-03	0.000	0.063
101.400	5.791E-03	0.000	0.063
101.440	5.956E-03	0.000	0.063
101.480	6.122E-03	0.000	0.063
101.520	6.287E-03	0.000	0.063
101.560	6.453E-03	0.000	0.063
101.600	6.618E-03	0.000	0.063
101.640	6.784E-03	0.000	0.063
101.680	6.949E-03	0.000	0.063
101.720	7.115E-03	0.000	0.063
101.760	7.280E-03	0.000	0.063
101.800	7.445E-03	0.000	0.063
101.840	7.611E-03	0.000	0.063
101.880	7.776E-03	0.000	0.063
101.920	7.942E-03	0.000	0.063
101.960	8.107E-03	0.000	0.063
102.000	8.273E-03	0.000	0.063
102.005	8.293E-03	0.193	0.063
102.010	8.314E-03	0.546	0.063

102.015	8.335E-03	1.003	0.063
102.020	8.355E-03	1.544	0.063
102.025	8.376E-03	2.158	0.063
102.030	8.397E-03	2.837	0.063
102.035	8.418E-03	3.575	0.063
102.040	8.438E-03	4.368	0.063
102.045	8.459E-03	5.212	0.063
102.050	8.480E-03	6.104	0.063
102.055	8.500E-03	7.043	0.063
102.060	8.521E-03	8.025	0.063
102.065	8.542E-03	9.048	0.063
102.070	8.562E-03	10.112	0.063
102.075	8.583E-03	11.215	0.063
102.080	8.604E-03	12.355	0.063
102.085	8.624E-03	13.531	0.063
102.090	8.645E-03	14.742	0.063
102.095	8.666E-03	15.987	0.063
102.100	8.686E-03	17.266	0.063

**********FLOOD FREQUENCY AND DURATION STATISTICS**********

----------SCENARIO: PREDEVELOPED
Number of Subbasins: 1
Number of Links: 0

----------SCENARIO: POSTDEVELOPED
Number of Subbasins: 1
Number of Links: 1

*************Water Quality Facility Data ***************

----------SCENARIO: PREDEVELOPED

Number of Links: 0

----------SCENARIO: POSTDEVELOPED

Number of Links: 1

********** Link: Roof Trench **********

Infiltration/Filtration Statistics----------
Total Runoff Volume (ac-ft): 108.81
Total Runoff Infiltrated (ac-ft): 108.81, 100.00%
Total Runoff Filtered (ac-ft): 0.00, 0.00%
Percent Treated (Infiltrated+Filtered)/Total Volume: 100.00%

*************Compliance Point Results ***************

Scenario Predeveloped Compliance Subbasin: Predeveloped Condition

Scenario Postdeveloped Compliance Link: Roof Trench
****Point of Compliance Annual Maxima Flow Data ****

Predevelopment Runoff		Postdevelopment Runoff	
Date	Annual Max Q (cfs)	Date	Annual Max Q (cfs)
01/27/1940	0.000	10/27/1939	0.000
01/31/1941	0.000	09/02/1941	0.000
12/18/1941	0.000	12/15/1941	0.000
12/27/1942	0.000	11/23/1942	0.000
01/23/1944	0.000	01/22/1944	0.000
03/19/1945	0.000	02/07/1945	0.000
06/13/1946	0.000	01/02/1946	0.000
02/13/1947	0.000	10/20/1946	0.000
03/21/1948	0.000	10/18/1947	0.000
05/01/1949	0.000	09/14/1949	0.000
03/03/1950	1.136E-03	03/03/1950	0.000
02/19/1951	0.000	10/08/1950	0.000
01/05/1952	0.000	06/29/1952	0.000
01/11/1953	0.000	09/30/1953	0.000
02/11/1954	0.000	12/19/1953	0.000
02/28/1955	0.000	11/05/1954	0.000
03/09/1956	0.000	10/07/1955	0.000
06/11/1957	0.000	12/09/1956	0.000
04/19/1958	0.000	01/16/1958	0.000
03/09/1959	0.000	01/24/1959	0.000
04/24/1960	0.000	11/20/1959	0.000
05/08/1961	0.000	02/14/1961	0.000
03/24/1962	0.000	07/05/1962	0.000
01/02/1963	0.000	05/05/1963	0.000
01/31/1964	0.000	09/17/1964	0.000
01/02/1965	0.000	05/04/1965	0.000
05/06/1966	0.000	01/05/1966	0.000
12/16/1966	0.000	11/13/1966	0.000
12/02/1967	0.000	08/23/1968	0.000
05/29/1969	0.000	04/17/1969	0.000
01/31/1970	0.000	01/13/1970	0.000
12/05/1970	0.000	12/05/1970	0.000
03/05/1972	1.036E-03	02/27/1972	0.000
05/24/1973	0.000	06/24/1973	0.000
04/06/1974	0.000	11/11/1973	0.000
06/24/1975	0.000	10/27/1974	0.000
03/23/1976	0.000	07/08/1976	0.000
01/17/1977	0.000	08/26/1977	0.000
02/01/1978	0.000	09/17/1978	0.000
09/08/1979	0.000	09/08/1979	0.000
12/18/1979	0.000	12/14/1979	0.000
12/02/1980	0.000	11/21/1980	0.000
02/28/1982	0.000	10/06/1981	0.000
08/29/1983	0.000	10/28/1982	0.000
01/24/1984	0.000	01/03/1984	0.000
03/26/1985	0.000	06/06/1985	0.000
01/01/1986	0.000	01/18/1986	0.000
12/25/1986	0.000	10/26/1986	0.000
01/14/1988	0.000	11/11/1987	0.000

12/30/1988	0.000	08/21/1989	0.000
04/28/1990	0.000	01/09/1990	8.203E-04
04/04/1991	4.863E-04	11/24/1990	0.000
01/27/1992	0.000	01/27/1992	0.000
06/09/1993	0.000	06/09/1993	0.000
06/17/1994	0.000	09/03/1994	0.000
02/20/1995	0.000	11/30/1994	0.000
02/08/1996	6.400E-04	02/08/1996	0.000
03/18/1997	1.313E-04	01/02/1997	0.000
11/07/1997	0.000	10/29/1997	0.000
02/18/1999	1.086E-04	11/04/1998	0.000
03/26/2000	0.000	11/04/1999	0.000
05/05/2001	0.000	09/01/2001	0.000
05/03/2002	0.000	05/03/2002	0.000
02/06/2003	4.515E-04	02/06/2003	0.000
04/13/2004	0.000	01/01/2004	0.000
02/17/2005	0.000	02/05/2005	0.000
07/08/2006	0.000	07/08/2006	0.000
03/30/2007	0.000	12/14/2006	0.000
05/28/2008	0.000	03/21/2008	0.000
12/02/2008	0.000	02/17/2009	0.000
04/12/2010	0.000	06/10/2010	0.000
03/08/2011	1.791E-04	09/30/2011	0.000
11/25/2011	0.000	10/22/2011	0.000
03/27/2013	0.000	01/20/2013	0.000
04/04/2014	0.000	11/16/2013	0.000
02/08/2015	0.000	09/13/2015	0.000
01/27/2016	1.751E-04	01/04/2016	0.000
05/17/2017	0.000	06/14/2017	0.000
01/29/2018	0.000	12/25/2017	0.000
01/23/2019	0.000	11/09/2018	0.000
03/08/2020	0.000	12/12/2019	0.000
05/03/2021	0.000	11/24/2020	0.000
02/17/2022	0.000	12/20/2021	0.000
03/30/2023	0.000	02/02/2023	0.000
03/01/2024	0.000	03/11/2024	0.000
12/21/2024	0.000	06/14/2025	0.000
03/14/2026	0.000	03/09/2026	0.000
02/13/2027	0.000	05/30/2027	0.000
04/15/2028	0.000	02/18/2028	0.000
04/28/2029	0.000	10/11/2028	0.000
02/16/2030	0.000	11/04/2029	0.000
06/12/2031	0.000	09/24/2031	0.000
04/07/2032	0.000	01/20/2032	0.000
06/17/2033	0.000	08/24/2033	0.000
02/18/2034	1.217E-03	01/12/2034	0.000
02/11/2035	0.000	12/27/2034	0.000
05/10/2036	0.000	12/04/2035	0.000
03/08/2037	0.000	05/15/2037	0.000
12/14/2037	0.000	11/24/2037	0.000
01/11/2039	0.000	11/03/2038	0.000
11/17/2039	0.000	01/14/2040	0.000
03/31/2041	0.000	12/03/2040	0.000
03/01/2042	0.000	11/11/2041	0.000
03/31/2043	2.298E-04	07/19/2043	0.000
03/16/2044	0.000	11/03/2043	0.000

03/27/2045	0.000	11/02/2044	0.000
05/01/2046	0.000	03/07/2046	0.000
03/12/2047	0.000	11/24/2046	0.000
12/09/2047	0.000	12/02/2047	0.000
03/15/2049	0.000	07/31/2049	0.000
03/09/2050	0.000	12/04/2049	0.000
05/17/2051	0.000	02/02/2051	0.000
02/08/2052	0.000	06/29/2052	0.000
04/25/2053	0.000	06/04/2053	0.000
01/01/2054	0.000	12/08/2053	0.000
10/31/2054	0.000	10/27/2054	0.000
02/07/2056	3.279E-04	02/07/2056	0.000
03/01/2057	2.376E-04	05/31/2057	0.000
01/24/2058	0.000	01/24/2058	0.000
03/28/2059	2.598E-04	11/25/2058	0.000
03/09/2060	0.000	05/15/2060	0.000
03/14/2061	0.000	09/01/2061	0.000
02/03/2062	1.221E-04	02/03/2062	0.052
05/02/2063	0.000	09/16/2063	0.000
12/06/2063	0.000	09/30/2064	0.000
02/03/2065	0.000	11/29/2064	0.000
02/08/2066	0.000	06/27/2066	0.000
03/14/2067	0.000	01/19/2067	0.000
12/22/2067	0.000	05/05/2068	0.000
01/04/2069	0.000	07/10/2069	0.000
04/24/2070	0.000	04/09/2070	0.000
02/18/2071	0.000	09/27/2071	0.000
02/27/2072	0.000	04/28/2072	0.000
02/25/2073	0.000	12/25/2072	0.000
01/24/2074	0.000	03/16/2074	0.000
01/07/2075	0.000	08/27/2075	0.000
03/24/2076	0.000	03/24/2076	0.000
11/24/2076	0.000	08/24/2077	0.000
11/01/2077	0.000	11/25/2077	0.000
11/03/2078	0.000	11/03/2078	0.000
02/02/2080	0.000	12/17/2079	0.000
05/07/2081	0.000	11/06/2080	0.000
02/18/2082	1.867E-04	02/18/2082	0.000
02/11/2083	0.000	03/29/2083	0.000
11/15/2083	0.000	04/30/2084	0.000
12/13/2084	0.000	09/06/2085	0.000
01/18/2086	0.000	09/23/2086	0.000
01/02/2087	0.000	10/26/2086	0.000
01/12/2088	0.000	03/25/2088	0.000
01/17/2089	0.000	11/05/2088	0.000
03/14/2090	0.000	10/23/2089	0.000
05/06/2091	0.000	08/27/2091	0.000
02/23/2092	0.000	06/29/2092	0.000
01/19/2093	0.000	11/18/2092	0.000
02/17/2094	0.000	10/23/2093	0.000
03/20/2095	0.000	11/19/2094	0.000
11/24/2095	0.000	08/02/2096	0.000
03/01/2097	2.894E-03	11/12/2096	0.000

******Point of Compliance Ranked Maxima Flow Data ******

Predevelopment		Postdevelopment	
Tr (yrs)	Q (cfs)	Tr (yrs)	Q (cfs)
1.00	0.000	1.00	0.000
1.01	0.000	1.01	0.000
1.02	0.000	1.02	0.000
1.02	0.000	1.02	0.000
1.03	0.000	1.03	0.000
1.04	0.000	1.04	0.000
1.04	0.000	1.04	0.000
1.05	0.000	1.05	0.000
1.06	0.000	1.06	0.000
1.06	0.000	1.06	0.000
1.07	0.000	1.07	0.000
1.08	0.000	1.08	0.000
1.09	0.000	1.09	0.000
1.09	0.000	1.09	0.000
1.10	0.000	1.10	0.000
1.11	0.000	1.11	0.000
1.12	0.000	1.12	0.000
1.12	0.000	1.12	0.000
1.13	0.000	1.13	0.000
1.14	0.000	1.14	0.000
1.15	0.000	1.15	0.000
1.16	0.000	1.16	0.000
1.17	0.000	1.17	0.000
1.18	0.000	1.18	0.000
1.18	0.000	1.18	0.000
1.19	0.000	1.19	0.000
1.20	0.000	1.20	0.000
1.21	0.000	1.21	0.000
1.22	0.000	1.22	0.000
1.23	0.000	1.23	0.000
1.24	0.000	1.24	0.000
1.25	0.000	1.25	0.000
1.26	0.000	1.26	0.000
1.27	0.000	1.27	0.000
1.28	0.000	1.28	0.000
1.29	0.000	1.29	0.000
1.30	0.000	1.30	0.000
1.31	0.000	1.31	0.000
1.32	0.000	1.32	0.000
1.33	0.000	1.33	0.000
1.35	0.000	1.35	0.000
1.36	0.000	1.36	0.000
1.37	0.000	1.37	0.000
1.38	0.000	1.38	0.000
1.39	0.000	1.39	0.000
1.40	0.000	1.40	0.000
1.42	0.000	1.42	0.000
1.43	0.000	1.43	0.000
1.44	0.000	1.44	0.000
1.46	0.000	1.46	0.000
1.47	0.000	1.47	0.000
1.48	0.000	1.48	0.000
1.50	0.000	1.50	0.000

1.51	0.000	1.51	0.000
1.53	0.000	1.53	0.000
1.54	0.000	1.54	0.000
1.56	0.000	1.56	0.000
1.57	0.000	1.57	0.000
1.59	0.000	1.59	0.000
1.60	0.000	1.60	0.000
1.62	0.000	1.62	0.000
1.64	0.000	1.64	0.000
1.65	0.000	1.65	0.000
1.67	0.000	1.67	0.000
1.69	0.000	1.69	0.000
1.71	0.000	1.71	0.000
1.73	0.000	1.73	0.000
1.75	0.000	1.75	0.000
1.77	0.000	1.77	0.000
1.79	0.000	1.79	0.000
1.81	0.000	1.81	0.000
1.83	0.000	1.83	0.000
1.85	0.000	1.85	0.000
1.87	0.000	1.87	0.000
1.89	0.000	1.89	0.000
1.92	0.000	1.92	0.000
1.94	0.000	1.94	0.000
1.96	0.000	1.96	0.000
1.99	0.000	1.99	0.000
2.01	0.000	2.01	0.000
2.04	0.000	2.04	0.000
2.07	0.000	2.07	0.000
2.09	0.000	2.09	0.000
2.12	0.000	2.12	0.000
2.15	0.000	2.15	0.000
2.18	0.000	2.18	0.000
2.21	0.000	2.21	0.000
2.24	0.000	2.24	0.000
2.27	0.000	2.27	0.000
2.31	0.000	2.31	0.000
2.34	0.000	2.34	0.000
2.38	0.000	2.38	0.000
2.41	0.000	2.41	0.000
2.45	0.000	2.45	0.000
2.49	0.000	2.49	0.000
2.53	0.000	2.53	0.000
2.57	0.000	2.57	0.000
2.61	0.000	2.61	0.000
2.65	0.000	2.65	0.000
2.70	0.000	2.70	0.000
2.75	0.000	2.75	0.000
2.80	0.000	2.80	0.000
2.85	0.000	2.85	0.000
2.90	0.000	2.90	0.000
2.95	0.000	2.95	0.000
3.01	0.000	3.01	0.000
3.07	0.000	3.07	0.000
3.13	0.000	3.13	0.000
3.19	0.000	3.19	0.000

3.26	0.000	3.26	0.000
3.32	0.000	3.32	0.000
3.40	0.000	3.40	0.000
3.47	0.000	3.47	0.000
3.55	0.000	3.55	0.000
3.63	0.000	3.63	0.000
3.72	0.000	3.72	0.000
3.80	0.000	3.80	0.000
3.90	0.000	3.90	0.000
4.00	0.000	4.00	0.000
4.10	0.000	4.10	0.000
4.21	0.000	4.21	0.000
4.32	0.000	4.32	0.000
4.45	0.000	4.45	0.000
4.58	0.000	4.58	0.000
4.71	0.000	4.71	0.000
4.86	0.000	4.86	0.000
5.01	0.000	5.01	0.000
5.17	0.000	5.17	0.000
5.35	0.000	5.35	0.000
5.54	0.000	5.54	0.000
5.74	0.000	5.74	0.000
5.95	0.000	5.95	0.000
6.19	0.000	6.19	0.000
6.44	0.000	6.44	0.000
6.71	0.000	6.71	0.000
7.01	0.000	7.01	0.000
7.33	0.000	7.33	0.000
7.69	0.000	7.69	0.000
8.08	0.000	8.08	0.000
8.52	0.000	8.52	0.000
9.00	0.000	9.00	0.000
9.55	1.086E-04	9.55	0.000E+00
10.16	1.221E-04	10.16	0.000E+00
10.86	1.313E-04	10.86	0.000E+00
11.66	1.751E-04	11.66	0.000E+00
12.59	1.791E-04	12.59	0.000E+00
13.68	1.867E-04	13.68	0.000E+00
14.97	2.298E-04	14.97	0.000E+00
16.54	2.376E-04	16.54	0.000E+00
18.47	2.598E-04	18.47	0.000E+00
20.92	3.279E-04	20.92	0.000E+00
24.10	4.515E-04	24.10	0.000E+00
28.44	4.863E-04	28.44	0.000E+00
34.68	6.400E-04	34.68	0.000E+00
44.42	1.036E-03	44.42	0.000E+00
61.77	1.136E-03	61.77	0.000E+00
101.36	1.217E-03	101.36	8.203E-04
282.36	2.894E-03	282.36	5.213E-02

***** Point of Compliance Flow Frequency Data *****

Recurrence Interval Computed Using Gringorten Plotting Position

Predevelopment Runoff		Postdevelopment Runoff	
Tr (Years)	Discharge (cfs)	Tr (Years)	Discharge (cfs)

2-Year	4.371E-05	2-Year	6.060E-08
5-Year	4.431E-05	5-Year	1.115E-06
10-Year	1.186E-04	10-Year	2.767E-06
25-Year	4.592E-04	25-Year	5.706E-06
50-Year	1.072E-03	50-Year	7.252E-06
100-Year	1.214E-03	100-Year	7.981E-04
200-Year	2.329E-03	200-Year	0.035

** Record too Short to Compute Peak Discharge for These Recurrence Intervals

***** Point of Compliance Flow Duration Data *****

Predevelopment Runoff		Postdevelopment Runoff	
Discharge (cfs)	Exceedance Probability	Discharge (cfs)	Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
1.447E-05	8.1998E-03	2.606E-04	1.4440E-06
2.185E-05	4.3713E-03	5.213E-04	1.4440E-06
4.371E-05	2.7678E-04	7.819E-04	1.4440E-06
5.788E-05	1.2779E-04	1.043E-03	7.2200E-07
7.235E-05	1.0252E-04	1.303E-03	7.2200E-07
8.682E-05	8.3752E-05	1.564E-03	7.2200E-07
1.013E-04	6.9312E-05	1.824E-03	7.2200E-07
1.158E-04	6.0648E-05	2.085E-03	7.2200E-07
1.302E-04	5.1262E-05	2.346E-03	7.2200E-07
1.447E-04	4.6930E-05	2.606E-03	7.2200E-07
1.592E-04	4.4764E-05	2.867E-03	7.2200E-07
1.736E-04	4.1876E-05	3.128E-03	7.2200E-07
1.881E-04	3.8988E-05	3.388E-03	7.2200E-07
2.026E-04	3.6822E-05	3.649E-03	7.2200E-07
2.171E-04	3.3934E-05	3.910E-03	7.2200E-07
2.315E-04	3.1768E-05	4.170E-03	7.2200E-07
2.460E-04	2.9602E-05	4.431E-03	7.2200E-07
2.605E-04	2.6714E-05	4.691E-03	7.2200E-07
2.749E-04	2.5992E-05	4.952E-03	7.2200E-07
2.894E-04	2.5992E-05	5.213E-03	7.2200E-07
3.039E-04	2.5270E-05	5.473E-03	7.2200E-07
3.183E-04	2.3104E-05	5.734E-03	7.2200E-07
3.328E-04	2.1660E-05	5.995E-03	7.2200E-07
3.473E-04	2.0938E-05	6.255E-03	7.2200E-07
3.618E-04	2.0938E-05	6.516E-03	7.2200E-07
3.762E-04	2.0216E-05	6.777E-03	7.2200E-07
3.907E-04	2.0216E-05	7.037E-03	7.2200E-07
4.052E-04	2.0216E-05	7.298E-03	7.2200E-07
4.196E-04	1.9494E-05	7.559E-03	7.2200E-07
4.341E-04	1.8772E-05	7.819E-03	7.2200E-07
4.486E-04	1.7328E-05	8.080E-03	7.2200E-07
4.630E-04	1.5162E-05	8.340E-03	7.2200E-07
4.775E-04	1.4440E-05	8.601E-03	7.2200E-07
4.920E-04	1.3718E-05	8.862E-03	7.2200E-07
5.065E-04	1.3718E-05	9.122E-03	7.2200E-07
5.209E-04	1.3718E-05	9.383E-03	7.2200E-07
5.354E-04	1.3718E-05	9.644E-03	7.2200E-07
5.499E-04	1.1552E-05	9.904E-03	7.2200E-07

5.643E-04	1.1552E-05	1.016E-02	7.2200E-07
5.788E-04	1.0108E-05	1.043E-02	7.2200E-07
5.933E-04	9.3860E-06	1.069E-02	7.2200E-07
6.077E-04	9.3860E-06	1.095E-02	7.2200E-07
6.222E-04	9.3860E-06	1.121E-02	7.2200E-07
6.367E-04	9.3860E-06	1.147E-02	7.2200E-07
6.512E-04	7.9420E-06	1.173E-02	7.2200E-07
6.656E-04	7.9420E-06	1.199E-02	7.2200E-07
6.801E-04	7.9420E-06	1.225E-02	7.2200E-07
6.946E-04	6.4980E-06	1.251E-02	7.2200E-07
7.090E-04	6.4980E-06	1.277E-02	7.2200E-07
7.235E-04	6.4980E-06	1.303E-02	7.2200E-07
7.380E-04	5.7760E-06	1.329E-02	7.2200E-07
7.524E-04	5.7760E-06	1.355E-02	7.2200E-07
7.669E-04	5.7760E-06	1.381E-02	7.2200E-07
7.814E-04	5.7760E-06	1.407E-02	7.2200E-07
7.959E-04	5.7760E-06	1.434E-02	7.2200E-07
8.103E-04	5.7760E-06	1.460E-02	7.2200E-07
8.248E-04	5.7760E-06	1.486E-02	7.2200E-07
8.393E-04	5.7760E-06	1.512E-02	7.2200E-07
8.537E-04	5.7760E-06	1.538E-02	7.2200E-07
8.682E-04	5.7760E-06	1.564E-02	7.2200E-07
8.827E-04	5.7760E-06	1.590E-02	7.2200E-07
8.971E-04	5.7760E-06	1.616E-02	7.2200E-07
9.116E-04	5.7760E-06	1.642E-02	7.2200E-07
9.261E-04	5.7760E-06	1.668E-02	7.2200E-07
9.406E-04	5.7760E-06	1.694E-02	7.2200E-07
9.550E-04	5.7760E-06	1.720E-02	7.2200E-07
9.695E-04	5.7760E-06	1.746E-02	7.2200E-07
9.840E-04	4.3320E-06	1.772E-02	7.2200E-07
9.984E-04	4.3320E-06	1.798E-02	7.2200E-07
1.013E-03	4.3320E-06	1.824E-02	7.2200E-07
1.027E-03	4.3320E-06	1.851E-02	7.2200E-07
1.042E-03	3.6100E-06	1.877E-02	7.2200E-07
1.056E-03	3.6100E-06	1.903E-02	7.2200E-07
1.072E-03	3.6071E-06	1.929E-02	7.2200E-07
1.085E-03	3.6100E-06	1.955E-02	7.2200E-07
1.100E-03	3.6100E-06	1.981E-02	7.2200E-07
1.114E-03	3.6100E-06	2.007E-02	7.2200E-07
1.129E-03	3.6100E-06	2.033E-02	7.2200E-07
1.143E-03	2.1660E-06	2.059E-02	7.2200E-07
1.158E-03	2.1660E-06	2.085E-02	7.2200E-07
1.172E-03	2.1660E-06	2.111E-02	7.2200E-07
1.187E-03	2.1660E-06	2.137E-02	7.2200E-07
1.201E-03	1.4440E-06	2.163E-02	7.2200E-07
1.215E-03	1.4440E-06	2.189E-02	7.2200E-07
1.230E-03	7.2200E-07	2.215E-02	7.2200E-07
1.244E-03	7.2200E-07	2.241E-02	7.2200E-07
1.259E-03	7.2200E-07	2.268E-02	7.2200E-07
1.273E-03	7.2200E-07	2.294E-02	7.2200E-07
1.288E-03	7.2200E-07	2.320E-02	7.2200E-07
1.302E-03	7.2200E-07	2.346E-02	7.2200E-07
1.317E-03	7.2200E-07	2.372E-02	7.2200E-07
1.331E-03	7.2200E-07	2.398E-02	7.2200E-07
1.346E-03	7.2200E-07	2.424E-02	7.2200E-07
1.360E-03	7.2200E-07	2.450E-02	7.2200E-07

1.375E-03	7.2200E-07	2.476E-02	7.2200E-07
1.389E-03	7.2200E-07	2.502E-02	7.2200E-07
1.404E-03	7.2200E-07	2.528E-02	7.2200E-07
1.418E-03	7.2200E-07	2.554E-02	7.2200E-07
1.433E-03	7.2200E-07	2.580E-02	7.2200E-07
1.447E-03	7.2200E-07	2.606E-02	7.2200E-07
1.461E-03	7.2200E-07	2.632E-02	7.2200E-07
1.476E-03	7.2200E-07	2.659E-02	7.2200E-07
1.490E-03	7.2200E-07	2.685E-02	7.2200E-07
1.505E-03	7.2200E-07	2.711E-02	7.2200E-07
1.519E-03	7.2200E-07	2.737E-02	7.2200E-07
1.534E-03	7.2200E-07	2.763E-02	7.2200E-07
1.548E-03	7.2200E-07	2.789E-02	7.2200E-07
1.563E-03	7.2200E-07	2.815E-02	7.2200E-07
1.577E-03	7.2200E-07	2.841E-02	7.2200E-07
1.592E-03	7.2200E-07	2.867E-02	7.2200E-07
1.606E-03	7.2200E-07	2.893E-02	7.2200E-07
1.621E-03	7.2200E-07	2.919E-02	7.2200E-07
1.635E-03	7.2200E-07	2.945E-02	7.2200E-07
1.650E-03	7.2200E-07	2.971E-02	7.2200E-07
1.664E-03	7.2200E-07	2.997E-02	7.2200E-07
1.679E-03	7.2200E-07	3.023E-02	7.2200E-07
1.693E-03	7.2200E-07	3.049E-02	7.2200E-07
1.707E-03	7.2200E-07	3.076E-02	7.2200E-07
1.722E-03	7.2200E-07	3.102E-02	7.2200E-07
1.736E-03	7.2200E-07	3.128E-02	7.2200E-07
1.751E-03	7.2200E-07	3.154E-02	7.2200E-07
1.765E-03	7.2200E-07	3.180E-02	7.2200E-07
1.780E-03	7.2200E-07	3.206E-02	7.2200E-07
1.794E-03	7.2200E-07	3.232E-02	7.2200E-07
1.809E-03	7.2200E-07	3.258E-02	7.2200E-07
1.823E-03	7.2200E-07	3.284E-02	7.2200E-07
1.838E-03	7.2200E-07	3.310E-02	7.2200E-07
1.852E-03	7.2200E-07	3.336E-02	7.2200E-07
1.867E-03	7.2200E-07	3.362E-02	7.2200E-07
1.881E-03	7.2200E-07	3.388E-02	7.2200E-07
1.896E-03	7.2200E-07	3.414E-02	7.2200E-07
1.910E-03	7.2200E-07	3.440E-02	7.2200E-07
1.925E-03	7.2200E-07	3.466E-02	7.2200E-07
1.939E-03	7.2200E-07	3.493E-02	7.2200E-07
1.953E-03	7.2200E-07	3.519E-02	7.2200E-07
1.968E-03	7.2200E-07	3.545E-02	7.2200E-07
1.982E-03	7.2200E-07	3.571E-02	7.2200E-07
1.997E-03	7.2200E-07	3.597E-02	7.2200E-07
2.011E-03	7.2200E-07	3.623E-02	7.2200E-07
2.026E-03	7.2200E-07	3.649E-02	7.2200E-07
2.040E-03	7.2200E-07	3.675E-02	7.2200E-07
2.055E-03	7.2200E-07	3.701E-02	7.2200E-07
2.069E-03	7.2200E-07	3.727E-02	7.2200E-07
2.084E-03	7.2200E-07	3.753E-02	7.2200E-07
2.098E-03	7.2200E-07	3.779E-02	7.2200E-07
2.113E-03	7.2200E-07	3.805E-02	7.2200E-07
2.127E-03	7.2200E-07	3.831E-02	7.2200E-07
2.142E-03	7.2200E-07	3.857E-02	7.2200E-07
2.156E-03	7.2200E-07	3.884E-02	7.2200E-07
2.171E-03	7.2200E-07	3.910E-02	7.2200E-07

2.185E-03	7.2200E-07	3.936E-02	7.2200E-07
2.199E-03	7.2200E-07	3.962E-02	7.2200E-07
2.214E-03	7.2200E-07	3.988E-02	7.2200E-07
2.228E-03	7.2200E-07	4.014E-02	7.2200E-07
2.243E-03	7.2200E-07	4.040E-02	7.2200E-07
2.257E-03	7.2200E-07	4.066E-02	7.2200E-07
2.272E-03	7.2200E-07	4.092E-02	7.2200E-07
2.286E-03	7.2200E-07	4.118E-02	7.2200E-07
2.301E-03	7.2200E-07	4.144E-02	7.2200E-07
2.315E-03	7.2200E-07	4.170E-02	7.2200E-07
2.330E-03	7.2200E-07	4.196E-02	7.2200E-07
2.344E-03	7.2200E-07	4.222E-02	7.2200E-07
2.359E-03	7.2200E-07	4.248E-02	7.2200E-07
2.373E-03	7.2200E-07	4.274E-02	7.2200E-07
2.388E-03	7.2200E-07	4.301E-02	7.2200E-07
2.402E-03	7.2200E-07	4.327E-02	7.2200E-07
2.417E-03	7.2200E-07	4.353E-02	7.2200E-07
2.431E-03	7.2200E-07	4.379E-02	7.2200E-07
2.445E-03	7.2200E-07	4.405E-02	7.2200E-07
2.460E-03	7.2200E-07	4.431E-02	7.2200E-07
2.474E-03	7.2200E-07	4.457E-02	7.2200E-07
2.489E-03	7.2200E-07	4.483E-02	7.2200E-07
2.503E-03	7.2200E-07	4.509E-02	7.2200E-07
2.518E-03	7.2200E-07	4.535E-02	7.2200E-07
2.532E-03	7.2200E-07	4.561E-02	7.2200E-07
2.547E-03	7.2200E-07	4.587E-02	7.2200E-07
2.561E-03	7.2200E-07	4.613E-02	7.2200E-07
2.576E-03	7.2200E-07	4.639E-02	7.2200E-07
2.590E-03	7.2200E-07	4.665E-02	7.2200E-07
2.605E-03	7.2200E-07	4.691E-02	7.2200E-07
2.619E-03	7.2200E-07	4.718E-02	7.2200E-07
2.634E-03	7.2200E-07	4.744E-02	7.2200E-07
2.648E-03	7.2200E-07	4.770E-02	7.2200E-07
2.663E-03	7.2200E-07	4.796E-02	7.2200E-07
2.677E-03	7.2200E-07	4.822E-02	7.2200E-07
2.691E-03	7.2200E-07	4.848E-02	7.2200E-07
2.706E-03	7.2200E-07	4.874E-02	7.2200E-07
2.720E-03	7.2200E-07	4.900E-02	7.2200E-07
2.735E-03	7.2200E-07	4.926E-02	7.2200E-07
2.749E-03	7.2200E-07	4.952E-02	7.2200E-07
2.764E-03	7.2200E-07	4.978E-02	7.2200E-07
2.778E-03	7.2200E-07	5.004E-02	7.2200E-07
2.793E-03	7.2200E-07	5.030E-02	7.2200E-07
2.807E-03	7.2200E-07	5.056E-02	7.2200E-07
2.822E-03	7.2200E-07	5.082E-02	7.2200E-07
2.836E-03	7.2200E-07	5.109E-02	7.2200E-07
2.851E-03	7.2200E-07	5.135E-02	7.2200E-07
2.865E-03	7.2200E-07	5.161E-02	7.2200E-07
2.880E-03	7.2200E-07	5.187E-02	7.2200E-07
2.894E-03	7.2200E-07	5.213E-02	7.2200E-07

****** Flow Duration Performance According to Dept. of Ecology Criteria ******

Excursion at Predeveloped ½Q2 (Must be Less Than 0%):	-100.0%	PASS
Maximum Excursion from ½Q2 to Q2 (Must be Less Than 0%):	-99999.0%	PASS
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	-75.0%	PASS
Percent Excursion from Q2 to Q50 (Must be less than 50%):	0.0%	PASS

POND MEETS ALL DURATION DESIGN CRITERIA: PASS

MGS FLOOD
PROJECT REPORT

Program Version: MGSFlood Light, Single Time Series Version 4.12
Program License Number: 201110003
Run Date: 11/08/2011 1:47 PM

Input File Name: AsphaltAN.fld
Project Name: Arlington Airport Hangers
Analysis Title:
Comments: Asphalt A North

——————————————— PRECIPITATION INPUT ———————————————

Computational Time Step (Minutes): 15

Extended Precipitation Timeseries Selected
Climatic Region Number: 14

Full Period of Record Available used for Routing
Precipitation Station : 96004405 Puget East 44 in_5min 10/01/1939-10/01/2097
Evaporation Station : 961044 Puget East 44 in MAP
Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1
HSPF Parameter Region Name : USGS Default

********** Default HSPF Parameters Used (Not Modified by User) **********

********** **WATERSHED DEFINITION** **********

----------SCENARIO: PREDEVELOPED
Number of Subbasins: 1

---------- Subbasin : Predeveloped Condition ----------

	-------Area(Acres) --------
Till Forest	0.000
Till Pasture	0.000
Till Grass	0.000
Outwash Forest	0.036
Outwash Pasture	0.000
Outwash Grass	0.000
Wetland	0.000
Green Roof	0.000
User	0.000
Impervious	0.000
Subbasin Total	0.036

----------SCENARIO: POSTDEVELOPED
Number of Subbasins: 1

---------- Subbasin : Developed Condition ----------

	-------Area(Acres) --------
Till Forest	0.000
Till Pasture	0.000
Till Grass	0.000
Outwash Forest	0.000
Outwash Pasture	0.000
Outwash Grass	0.018
Wetland	0.000
Green Roof	0.000
User	0.000
Impervious	0.018
---	---
Subbasin Total	0.036

********** **LINK DATA** **********

----------SCENARIO: PREDEVELOPED
Number of Links: 0

********** **LINK DATA** **********

----------SCENARIO: POSTDEVELOPED
Number of Links: 1

Link Name: InfiltrationPond
Link Type: Structure
Downstream Link: None

Prismatic Pond Option Used

Pond Floor Elevation (ft)	:	100.00
Riser Crest Elevation (ft)	:	104.00
Max Pond Elevation (ft)	:	104.50
Storage Depth (ft)	:	4.00
Pond Bottom Length (ft)	:	30.0
Pond Bottom Width (ft)	:	16.0
Pond Side Slopes (ft/ft)	:	L1= 3.00 L2= 3.00 W1= 3.00 W2= 3.00
Bottom Area (sq-ft)	:	480.
Area at Riser Crest El (sq-ft)	:	2,160.
(acres)	:	0.050
Volume at Riser Crest (cu-ft)	:	4,896.
(ac-ft)	:	0.112
Area at Max Elevation (sq-ft)	:	2451.
(acres)	:	0.056
Vol at Max Elevation (cu-ft)	:	6,264.
(ac-ft)	:	0.144

Constant Infiltration Option Used
Infiltration Rate (in/hr): 0.50

Riser Geometry
Riser Structure Type : Circular
Riser Diameter (in) : 18.00
Common Length (ft) : 0.000
Riser Crest Elevation : 104.00 ft

Hydraulic Structure Geometry

Number of Devices: 0

Structure Stage, Storage Discharge Tables

Link: Lnk1 InfiltrationPond

Elev (ft)	Storage (ac-ft)	Discharge (cfs)	Infilt Discharge (cfs)
100.000	0.000	0.000	0.000
100.018	1.938E-04	0.000	0.006
100.035	3.896E-04	0.000	0.006
100.070	7.870E-04	0.000	0.006
100.140	1.606E-03	0.000	0.006
100.210	2.456E-03	0.000	0.006
100.280	3.340E-03	0.000	0.006
100.350	4.257E-03	0.000	0.007
100.420	5.207E-03	0.000	0.007
100.490	6.192E-03	0.000	0.007
100.560	7.213E-03	0.000	0.007
100.630	8.268E-03	0.000	0.008
100.700	9.360E-03	0.000	0.008
100.770	0.010	0.000	0.008
100.840	0.012	0.000	0.009
100.910	0.013	0.000	0.009
100.980	0.014	0.000	0.009
101.050	0.015	0.000	0.009
101.120	0.017	0.000	0.010
101.190	0.018	0.000	0.010
101.260	0.019	0.000	0.010
101.330	0.021	0.000	0.011
101.400	0.022	0.000	0.011
101.470	0.024	0.000	0.011
101.540	0.025	0.000	0.011
101.610	0.027	0.000	0.012
101.680	0.029	0.000	0.012
101.750	0.030	0.000	0.012
101.820	0.032	0.000	0.013
101.890	0.034	0.000	0.013
101.960	0.036	0.000	0.013
102.030	0.038	0.000	0.014
102.100	0.040	0.000	0.014
102.170	0.042	0.000	0.014

102.240	0.044	0.000	0.015
102.310	0.046	0.000	0.015
102.380	0.048	0.000	0.016
102.450	0.050	0.000	0.016
102.520	0.052	0.000	0.016
102.590	0.055	0.000	0.017
102.660	0.057	0.000	0.017
102.730	0.059	0.000	0.017
102.800	0.062	0.000	0.018
102.870	0.064	0.000	0.018
102.940	0.067	0.000	0.019
103.010	0.069	0.000	0.019
103.080	0.072	0.000	0.019
103.150	0.075	0.000	0.020
103.220	0.078	0.000	0.020
103.290	0.080	0.000	0.021
103.360	0.083	0.000	0.021
103.430	0.086	0.000	0.021
103.500	0.089	0.000	0.022
103.570	0.092	0.000	0.022
103.640	0.095	0.000	0.023
103.710	0.099	0.000	0.023
103.780	0.102	0.000	0.024
103.850	0.105	0.000	0.024
103.920	0.108	0.000	0.024
103.940	0.109	0.000	0.025
103.960	0.110	0.000	0.025
103.980	0.111	0.000	0.025
104.000	0.112	0.000	0.025
104.018	0.113	0.037	0.025
104.035	0.114	0.104	0.025
104.053	0.115	0.191	0.025
104.070	0.116	0.294	0.025
104.088	0.117	0.411	0.026
104.105	0.118	0.540	0.026
104.123	0.119	0.680	0.026
104.140	0.119	0.830	0.026
104.210	0.123	1.508	0.026
104.280	0.127	2.274	0.027
104.350	0.131	3.073	0.027
104.420	0.134	3.848	0.028
104.490	0.138	4.548	0.028
104.560	0.142	5.130	0.029
104.630	0.146	5.575	0.029
104.700	0.150	5.893	0.030
104.770	0.155	6.219	0.030
104.840	0.159	6.495	0.031
104.910	0.163	6.760	0.031
104.980	0.167	7.016	0.032
105.050	0.172	7.262	0.032

**************************FLOOD FREQUENCY AND DURATION STATISTICS**********************

----------SCENARIO: PREDEVELOPED
Number of Subbasins: 1

Number of Links: 0

----------SCENARIO: POSTDEVELOPED
Number of Subbasins: 1
Number of Links: 1

********** Link: InfiltrationPond ********** Link WSEL Stats
Annual Maxima WSEL

Max Date	WSEL (ft)
10/27/1939	100.017
09/02/1941	100.020
12/15/1941	100.028
11/23/1942	100.015
10/29/1943	100.014
02/07/1945	100.016
01/23/1946	100.015
10/20/1946	100.018
10/18/1947	100.018
02/16/1949	100.024
03/03/1950	100.094
10/08/1950	100.012
06/29/1952	100.077
09/30/1953	100.023
12/19/1953	100.015
09/13/1955	100.011
10/07/1955	100.020
05/21/1957	100.010
01/16/1958	100.017
01/12/1959	100.013
01/28/1960	100.018
10/23/1960	100.016
07/05/1962	100.022
11/25/1962	100.011
09/17/1964	100.022
05/04/1965	100.023
01/05/1966	100.014
11/13/1966	100.022
08/23/1968	100.031
05/29/1969	100.013
01/13/1970	100.014
12/05/1970	100.013
02/27/1972	100.037
06/24/1973	100.013
11/11/1973	100.015
10/27/1974	100.020
07/08/1976	100.013
10/28/1976	100.018
09/17/1978	100.026
09/08/1979	100.023
12/14/1979	100.018
11/21/1980	100.023
10/06/1981	100.044
10/28/1982	100.028

03/14/1984	100.014
06/06/1985	100.013
01/18/1986	100.019
10/26/1986	100.037
05/28/1988	100.012
08/21/1989	100.016
01/09/1990	100.101
11/24/1990	100.069
01/27/1992	100.016
06/09/1993	100.012
09/03/1994	100.011
11/30/1994	100.014
02/08/1996	100.023
01/02/1997	100.018
10/29/1997	100.014
11/04/1998	100.056
09/26/2000	100.017
09/01/2001	100.011
05/03/2002	100.044
02/06/2003	100.020
01/01/2004	100.013
02/05/2005	100.015
11/16/2005	100.014
12/14/2006	100.017
03/21/2008	100.024
02/17/2009	100.026
06/10/2010	100.061
09/30/2011	100.031
10/22/2011	100.024
01/20/2013	100.056
12/06/2013	100.023
11/17/2014	100.015
01/04/2016	100.026
06/14/2017	100.019
12/25/2017	100.017
11/09/2018	100.019
12/12/2019	100.013
11/24/2020	100.021
12/20/2021	100.024
02/02/2023	100.016
09/17/2024	100.014
06/14/2025	100.020
03/09/2026	100.012
05/30/2027	100.013
06/01/2028	100.016
10/11/2028	100.022
11/04/2029	100.024
09/24/2031	100.028
01/20/2032	100.018
12/23/2032	100.012
02/18/2034	100.018
12/21/2034	100.014
12/04/2035	100.016
05/15/2037	100.017
11/24/2037	100.017
11/04/2038	100.016

01/14/2040	100.035
12/24/2040	100.012
11/11/2041	100.030
07/19/2043	100.038
09/05/2044	100.016
11/02/2044	100.018
03/07/2046	100.017
11/24/2046	100.015
12/02/2047	100.017
07/31/2049	100.015
12/04/2049	100.023
02/02/2051	100.016
10/25/2051	100.015
06/04/2053	100.039
10/14/2053	100.013
10/27/2054	100.036
02/07/2056	100.024
11/19/2056	100.028
01/24/2058	100.025
11/25/2058	100.018
05/15/2060	100.034
09/01/2061	100.033
02/03/2062	100.134
09/16/2063	100.016
07/21/2064	100.024
11/29/2064	100.016
06/27/2066	100.010
12/05/2066	100.015
01/18/2068	100.027
07/10/2069	100.011
04/09/2070	100.012
09/27/2071	100.013
04/28/2072	100.017
12/25/2072	100.022
11/09/2073	100.015
08/27/2075	100.017
03/24/2076	100.017
08/24/2077	100.034
08/14/2078	100.015
11/03/2078	100.017
12/17/2079	100.022
09/20/2081	100.027
02/18/2082	100.017
03/29/2083	100.014
06/28/2084	100.015
09/06/2085	100.017
09/23/2086	100.015
10/26/2086	100.023
01/14/2088	100.017
11/05/2088	100.028
10/23/2089	100.015
08/27/2091	100.016
04/29/2092	100.034
11/18/2092	100.016
10/23/2093	100.022
10/31/2094	100.011

08/02/2096	100.028
11/12/2096	100.041

Ranked Annual Maxima Water Surface Elevation (ft)

Tr (Years)	WSEL (ft)
1.00	100.010
1.01	100.010
1.02	100.011
1.02	100.011
1.03	100.011
1.04	100.011
1.04	100.011
1.05	100.011
1.06	100.012
1.06	100.012
1.07	100.012
1.08	100.012
1.09	100.012
1.09	100.012
1.10	100.012
1.11	100.013
1.12	100.013
1.12	100.013
1.13	100.013
1.14	100.013
1.15	100.013
1.16	100.013
1.17	100.013
1.18	100.013
1.18	100.013
1.19	100.013
1.20	100.014
1.21	100.014
1.22	100.014
1.23	100.014
1.24	100.014
1.25	100.014
1.26	100.014
1.27	100.014
1.28	100.014
1.29	100.014
1.30	100.015
1.31	100.015
1.32	100.015
1.33	100.015
1.35	100.015
1.36	100.015
1.37	100.015
1.38	100.015
1.39	100.015
1.40	100.015
1.42	100.015
1.43	100.015
1.44	100.015
1.46	100.015

1.47	100.015
1.48	100.016
1.50	100.016
1.51	100.016
1.53	100.016
1.54	100.016
1.56	100.016
1.57	100.016
1.59	100.016
1.60	100.016
1.62	100.016
1.64	100.016
1.65	100.016
1.67	100.016
1.69	100.016
1.71	100.017
1.73	100.017
1.75	100.017
1.77	100.017
1.79	100.017
1.81	100.017
1.83	100.017
1.85	100.017
1.87	100.017
1.89	100.017
1.92	100.017
1.94	100.017
1.96	100.017
1.99	100.017
2.01	100.017
2.04	100.017
2.07	100.018
2.09	100.018
2.12	100.018
2.15	100.018
2.18	100.018
2.21	100.018
2.24	100.018
2.27	100.018
2.31	100.018
2.34	100.018
2.38	100.019
2.41	100.019
2.45	100.019
2.49	100.020
2.53	100.020
2.57	100.020
2.61	100.020
2.65	100.020
2.70	100.021
2.75	100.022
2.80	100.022
2.85	100.022
2.90	100.022
2.95	100.022
3.01	100.022

3.07	100.022
3.13	100.023
3.19	100.023
3.26	100.023
3.32	100.023
3.40	100.023
3.47	100.023
3.55	100.023
3.63	100.023
3.72	100.024
3.80	100.024
3.90	100.024
4.00	100.024
4.10	100.024
4.21	100.024
4.32	100.024
4.45	100.025
4.58	100.026
4.71	100.026
4.86	100.026
5.01	100.027
5.17	100.027
5.35	100.028
5.54	100.028
5.74	100.028
5.95	100.028
6.19	100.028
6.44	100.028
6.71	100.030
7.01	100.031
7.33	100.031
7.69	100.033
8.08	100.034
8.52	100.034
9.00	100.034
9.55	100.035
10.16	100.036
10.86	100.037
11.66	100.037
12.59	100.038
13.68	100.039
14.97	100.041
16.54	100.044
18.47	100.044
20.92	100.056
24.10	100.056
28.44	100.061
34.68	100.069
44.42	100.077
61.77	100.094
101.36	100.101
282.36	100.134

WSEL Frequency Data(ft)
(Recurrence Interval Computed Using Gringorten Plotting Position)

Tr (yrs)	WSEL Peak (ft)

==========

1.05-Year	100.012
1.11-Year	100.013
1.25-Year	100.014
2.00-Year	100.017
3.33-Year	100.023
5-Year	100.027
10-Year	100.036
25-Year	100.051
50-Year	100.083
100-Year	100.101

*************Water Quality Facility Data ***************

----------SCENARIO: PREDEVELOPED

Number of Links: 0

----------SCENARIO: POSTDEVELOPED

Number of Links: 1

********** Link: InfiltrationPond **********

Basic Wet Pond Volume (91% Exceedance): 87. cu-ft
Computed Large Wet Pond Volume, 1.5*Basic Volume: 131. cu-ft

Time to Infiltrate 91% Treatment Volume, (Hours): 5.77

Infiltration/Filtration Statistics----------
Total Runoff Volume (ac-ft): 9.06
Total Runoff Infiltrated (ac-ft): 9.06, 100.00%
Total Runoff Filtered (ac-ft): 0.00, 0.00%
Percent Treated (Infiltrated+Filtered)/Total Volume: 100.00%

*************Compliance Point Results ***************

Scenario Predeveloped Compliance Subbasin: Predeveloped Condition

Scenario Postdeveloped Compliance Link: InfiltrationPond
****Point of Compliance Annual Maxima Flow Data ****

Predevelopment Runoff		Postdevelopment Runoff	
Date	Annual Max Q (cfs)	Date	Annual Max Q (cfs)
04/23/1940	0.000	10/27/1939	0.000
05/16/1941	0.000	09/02/1941	0.000
11/13/1941	0.000	12/15/1941	0.000
04/20/1943	0.000	11/23/1942	0.000
01/22/1944	0.000	10/29/1943	0.000

05/15/1945	0.000	02/07/1945	0.000
02/27/1946	0.000	01/23/1946	0.000
01/23/1947	0.000	10/20/1946	0.000
02/16/1948	0.000	10/18/1947	0.000
11/14/1948	0.000	02/16/1949	0.000
03/03/1950	1.141E-04	03/03/1950	0.000
12/05/1950	0.000	10/08/1950	0.000
06/29/1952	0.000	06/29/1952	0.000
03/28/1953	0.000	09/30/1953	0.000
01/03/1954	0.000	12/19/1953	0.000
02/28/1955	0.000	09/13/1955	0.000
06/03/1956	0.000	10/07/1955	0.000
06/12/1957	0.000	05/21/1957	0.000
02/24/1958	0.000	01/16/1958	0.000
01/12/1959	0.000	01/12/1959	0.000
01/28/1960	0.000	01/28/1960	0.000
03/10/1961	0.000	10/23/1960	0.000
05/08/1962	0.000	07/05/1962	0.000
06/28/1963	0.000	11/25/1962	0.000
03/22/1964	0.000	09/17/1964	0.000
02/26/1965	0.000	05/04/1965	0.000
01/05/1966	0.000	01/05/1966	0.000
01/19/1967	0.000	11/13/1966	0.000
02/02/1968	0.000	08/23/1968	0.000
12/07/1968	0.000	05/29/1969	0.000
04/01/1970	0.000	01/13/1970	0.000
12/06/1970	0.000	12/05/1970	0.000
02/27/1972	1.075E-04	02/27/1972	0.000
01/13/1973	0.000	06/24/1973	0.000
01/25/1974	0.000	11/11/1973	0.000
12/26/1974	0.000	10/27/1974	0.000
02/27/1976	0.000	07/08/1976	0.000
09/23/1977	0.000	10/28/1976	0.000
12/15/1977	0.000	09/17/1978	0.000
03/04/1979	0.000	09/08/1979	0.000
12/17/1979	0.000	12/14/1979	0.000
11/21/1980	0.000	11/21/1980	0.000
02/20/1982	0.000	10/06/1981	0.000
10/28/1982	0.000	10/28/1982	0.000
04/09/1984	0.000	03/14/1984	0.000
06/06/1985	0.000	06/06/1985	0.000
02/15/1986	0.000	01/18/1986	0.000
03/11/1987	0.000	10/26/1986	0.000
05/16/1988	0.000	05/28/1988	0.000
05/17/1989	0.000	08/21/1989	0.000
03/13/1990	0.000	01/09/1990	0.000
04/04/1991	1.985E-04	11/24/1990	0.000
04/16/1992	0.000	01/27/1992	0.000
04/08/1993	0.000	06/09/1993	0.000
03/20/1994	0.000	09/03/1994	0.000
11/30/1994	0.000	11/30/1994	0.000
02/09/1996	1.227E-04	02/08/1996	0.000
12/31/1996	0.000	01/02/1997	0.000
03/22/1998	0.000	10/29/1997	0.000
02/24/1999	0.000	11/04/1998	0.000
02/05/2000	0.000	09/26/2000	0.000

04/01/2001	0.000	09/01/2001	0.000
05/03/2002	0.000	05/03/2002	0.000
02/06/2003	1.200E-04	02/06/2003	0.000
01/01/2004	0.000	01/01/2004	0.000
01/06/2005	0.000	02/05/2005	0.000
01/02/2006	0.000	11/16/2005	0.000
02/02/2007	0.000	12/14/2006	0.000
05/03/2008	0.000	03/21/2008	0.000
02/17/2009	0.000	02/17/2009	0.000
11/26/2009	0.000	06/10/2010	0.000
03/08/2011	0.000	09/30/2011	0.000
10/22/2011	0.000	10/22/2011	0.000
01/20/2013	0.000	01/20/2013	0.000
01/25/2014	0.000	12/06/2013	0.000
11/17/2014	0.000	11/17/2014	0.000
12/21/2015	0.000	01/04/2016	0.000
06/15/2017	0.000	06/14/2017	0.000
04/20/2018	0.000	12/25/2017	0.000
05/05/2019	0.000	11/09/2018	0.000
03/29/2020	0.000	12/12/2019	0.000
05/20/2021	0.000	11/24/2020	0.000
06/02/2022	0.000	12/20/2021	0.000
02/25/2023	0.000	02/02/2023	0.000
03/11/2024	0.000	09/17/2024	0.000
03/26/2025	0.000	06/14/2025	0.000
03/09/2026	0.000	03/09/2026	0.000
01/27/2027	0.000	05/30/2027	0.000
03/14/2028	0.000	06/01/2028	0.000
12/03/2028	0.000	10/11/2028	0.000
12/13/2029	0.000	11/04/2029	0.000
12/30/2030	0.000	09/24/2031	0.000
04/08/2032	0.000	01/20/2032	0.000
04/18/2033	0.000	12/23/2032	0.000
02/21/2034	1.605E-04	02/18/2034	0.000
05/03/2035	0.000	12/21/2034	0.000
02/27/2036	0.000	12/04/2035	0.000
05/15/2037	0.000	05/15/2037	0.000
04/05/2038	0.000	11/24/2037	0.000
02/07/2039	0.000	11/04/2038	0.000
11/17/2039	0.000	01/14/2040	0.000
02/19/2041	0.000	12/24/2040	0.000
12/14/2041	0.000	11/11/2041	0.000
03/31/2043	0.000	07/19/2043	0.000
06/08/2044	0.000	09/05/2044	0.000
02/07/2045	0.000	11/02/2044	0.000
02/16/2046	0.000	03/07/2046	0.000
04/17/2047	0.000	11/24/2046	0.000
04/20/2048	0.000	12/02/2047	0.000
03/16/2049	0.000	07/31/2049	0.000
05/23/2050	0.000	12/04/2049	0.000
11/24/2050	0.000	02/02/2051	0.000
04/13/2052	0.000	10/25/2051	0.000
12/10/2052	0.000	06/04/2053	0.000
05/16/2054	0.000	10/14/2053	0.000
04/09/2055	0.000	10/27/2054	0.000
02/08/2056	0.000	02/07/2056	0.000

03/01/2057	0.000	11/19/2056	0.000
02/20/2058	0.000	01/24/2058	0.000
11/25/2058	0.000	11/25/2058	0.000
05/15/2060	0.000	05/15/2060	0.000
11/13/2060	0.000	09/01/2061	0.000
01/02/2062	0.000	02/03/2062	0.000
02/02/2063	0.000	09/16/2063	0.000
12/23/2063	0.000	07/21/2064	0.000
11/11/2064	0.000	11/29/2064	0.000
12/06/2065	0.000	06/27/2066	0.000
11/27/2066	0.000	12/05/2066	0.000
11/29/2067	0.000	01/18/2068	0.000
04/12/2069	0.000	07/10/2069	0.000
04/09/2070	0.000	04/09/2070	0.000
11/08/2070	0.000	09/27/2071	0.000
04/28/2072	0.000	04/28/2072	0.000
12/25/2072	0.000	12/25/2072	0.000
11/09/2073	0.000	11/09/2073	0.000
02/12/2075	0.000	08/27/2075	0.000
11/04/2075	0.000	03/24/2076	0.000
04/08/2077	0.000	08/24/2077	0.000
11/25/2077	0.000	08/14/2078	0.000
01/20/2079	0.000	11/03/2078	0.000
12/17/2079	0.000	12/17/2079	0.000
04/05/2081	0.000	09/20/2081	0.000
11/19/2081	0.000	02/18/2082	0.000
03/29/2083	0.000	03/29/2083	0.000
05/08/2084	0.000	06/28/2084	0.000
02/11/2085	0.000	09/06/2085	0.000
04/15/2086	0.000	09/23/2086	0.000
12/21/2086	0.000	10/26/2086	0.000
05/02/2088	0.000	01/14/2088	0.000
01/17/2089	0.000	11/05/2088	0.000
03/13/2090	0.000	10/23/2089	0.000
11/07/2090	0.000	08/27/2091	0.000
06/29/2092	0.000	04/29/2092	0.000
06/15/2093	0.000	11/18/2092	0.000
06/18/2094	0.000	10/23/2093	0.000
04/10/2095	0.000	10/31/2094	0.000
11/24/2095	0.000	08/02/2096	0.000
01/29/2097	3.464E-04	11/12/2096	0.000

******Point of Compliance Ranked Maxima Flow Data ******

Predevelopment		Postdevelopment	
Tr (yrs)	Q (cfs)	Tr (yrs)	Q (cfs)
1.00	0.000	1.00	0.000
1.01	0.000	1.01	0.000
1.02	0.000	1.02	0.000
1.02	0.000	1.02	0.000
1.03	0.000	1.03	0.000
1.04	0.000	1.04	0.000
1.04	0.000	1.04	0.000
1.05	0.000	1.05	0.000
1.06	0.000	1.06	0.000

1.06	0.000	1.06	0.000
1.07	0.000	1.07	0.000
1.08	0.000	1.08	0.000
1.09	0.000	1.09	0.000
1.09	0.000	1.09	0.000
1.10	0.000	1.10	0.000
1.11	0.000	1.11	0.000
1.12	0.000	1.12	0.000
1.12	0.000	1.12	0.000
1.13	0.000	1.13	0.000
1.14	0.000	1.14	0.000
1.15	0.000	1.15	0.000
1.16	0.000	1.16	0.000
1.17	0.000	1.17	0.000
1.18	0.000	1.18	0.000
1.18	0.000	1.18	0.000
1.19	0.000	1.19	0.000
1.20	0.000	1.20	0.000
1.21	0.000	1.21	0.000
1.22	0.000	1.22	0.000
1.23	0.000	1.23	0.000
1.24	0.000	1.24	0.000
1.25	0.000	1.25	0.000
1.26	0.000	1.26	0.000
1.27	0.000	1.27	0.000
1.28	0.000	1.28	0.000
1.29	0.000	1.29	0.000
1.30	0.000	1.30	0.000
1.31	0.000	1.31	0.000
1.32	0.000	1.32	0.000
1.33	0.000	1.33	0.000
1.35	0.000	1.35	0.000
1.36	0.000	1.36	0.000
1.37	0.000	1.37	0.000
1.38	0.000	1.38	0.000
1.39	0.000	1.39	0.000
1.40	0.000	1.40	0.000
1.42	0.000	1.42	0.000
1.43	0.000	1.43	0.000
1.44	0.000	1.44	0.000
1.46	0.000	1.46	0.000
1.47	0.000	1.47	0.000
1.48	0.000	1.48	0.000
1.50	0.000	1.50	0.000
1.51	0.000	1.51	0.000
1.53	0.000	1.53	0.000
1.54	0.000	1.54	0.000
1.56	0.000	1.56	0.000
1.57	0.000	1.57	0.000
1.59	0.000	1.59	0.000
1.60	0.000	1.60	0.000
1.62	0.000	1.62	0.000
1.64	0.000	1.64	0.000
1.65	0.000	1.65	0.000
1.67	0.000	1.67	0.000
1.69	0.000	1.69	0.000

1.71	0.000	1.71	0.000
1.73	0.000	1.73	0.000
1.75	0.000	1.75	0.000
1.77	0.000	1.77	0.000
1.79	0.000	1.79	0.000
1.81	0.000	1.81	0.000
1.83	0.000	1.83	0.000
1.85	0.000	1.85	0.000
1.87	0.000	1.87	0.000
1.89	0.000	1.89	0.000
1.92	0.000	1.92	0.000
1.94	0.000	1.94	0.000
1.96	0.000	1.96	0.000
1.99	0.000	1.99	0.000
2.01	0.000	2.01	0.000
2.04	0.000	2.04	0.000
2.07	0.000	2.07	0.000
2.09	0.000	2.09	0.000
2.12	0.000	2.12	0.000
2.15	0.000	2.15	0.000
2.18	0.000	2.18	0.000
2.21	0.000	2.21	0.000
2.24	0.000	2.24	0.000
2.27	0.000	2.27	0.000
2.31	0.000	2.31	0.000
2.34	0.000	2.34	0.000
2.38	0.000	2.38	0.000
2.41	0.000	2.41	0.000
2.45	0.000	2.45	0.000
2.49	0.000	2.49	0.000
2.53	0.000	2.53	0.000
2.57	0.000	2.57	0.000
2.61	0.000	2.61	0.000
2.65	0.000	2.65	0.000
2.70	0.000	2.70	0.000
2.75	0.000	2.75	0.000
2.80	0.000	2.80	0.000
2.85	0.000	2.85	0.000
2.90	0.000	2.90	0.000
2.95	0.000	2.95	0.000
3.01	0.000	3.01	0.000
3.07	0.000	3.07	0.000
3.13	0.000	3.13	0.000
3.19	0.000	3.19	0.000
3.26	0.000	3.26	0.000
3.32	0.000	3.32	0.000
3.40	0.000	3.40	0.000
3.47	0.000	3.47	0.000
3.55	0.000	3.55	0.000
3.63	0.000	3.63	0.000
3.72	0.000	3.72	0.000
3.80	0.000	3.80	0.000
3.90	0.000	3.90	0.000
4.00	0.000	4.00	0.000
4.10	0.000	4.10	0.000
4.21	0.000	4.21	0.000

4.32	0.000	4.32	0.000
4.45	0.000	4.45	0.000
4.58	0.000	4.58	0.000
4.71	0.000	4.71	0.000
4.86	0.000	4.86	0.000
5.01	0.000	5.01	0.000
5.17	0.000	5.17	0.000
5.35	0.000	5.35	0.000
5.54	0.000	5.54	0.000
5.74	0.000	5.74	0.000
5.95	0.000	5.95	0.000
6.19	0.000	6.19	0.000
6.44	0.000	6.44	0.000
6.71	0.000	6.71	0.000
7.01	0.000	7.01	0.000
7.33	0.000	7.33	0.000
7.69	0.000	7.69	0.000
8.08	0.000	8.08	0.000
8.52	0.000	8.52	0.000
9.00	0.000	9.00	0.000
9.55	0.000	9.55	0.000
10.16	0.000	10.16	0.000
10.86	0.000	10.86	0.000
11.66	0.000	11.66	0.000
12.59	0.000	12.59	0.000
13.68	0.000	13.68	0.000
14.97	0.000	14.97	0.000
16.54	0.000	16.54	0.000
18.47	0.000	18.47	0.000
20.92	0.000	20.92	0.000
24.10	1.075E-04	24.10	0.000E+00
28.44	1.141E-04	28.44	0.000E+00
34.68	1.200E-04	34.68	0.000E+00
44.42	1.227E-04	44.42	0.000E+00
61.77	1.605E-04	61.77	0.000E+00
101.36	1.985E-04	101.36	0.000E+00
282.36	3.464E-04	282.36	0.000E+00

***** Point of Compliance Flow Frequency Data *****

Recurrence Interval Computed Using Gringorten Plotting Position

Predevelopment Runoff		Postdevelopment Runoff	
Tr (Years)	Discharge (cfs)	Tr (Years)	Discharge (cfs)
2-Year	2.792E-05	2-Year	1.739E-07
5-Year	2.879E-05	5-Year	2.725E-07
10-Year	2.900E-05	10-Year	3.578E-07
25-Year	1.090E-04	25-Year	5.742E-07
50-Year	1.363E-04	50-Year	8.283E-07
100-Year	1.975E-04	100-Year	1.009E-06
200-Year	2.967E-04	200-Year	1.227E-06

** Record too Short to Compute Peak Discharge for These Recurrence Intervals

***** Point of Compliance Flow Duration Data *****

Predevelopment Runoff Postdevelopment Runoff

Discharge (cfs)	Exceedance Probability	Discharge (cfs)	Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
1.732E-06	1.3028E-02	0.000E+00	9.2530E-01
3.464E-06	5.7410E-03	0.000E+00	8.5618E-01
5.197E-06	3.1871E-03	0.000E+00	7.9222E-01
6.929E-06	2.1698E-03	0.000E+00	7.3304E-01
8.661E-06	1.6516E-03	0.000E+00	6.7828E-01
1.039E-05	1.2456E-03	0.000E+00	6.2762E-01
1.213E-05	9.4690E-04	0.000E+00	5.8073E-01
1.396E-05	7.0946E-04	0.000E+00	5.3735E-01
1.559E-05	5.5089E-04	0.000E+00	4.9721E-01
1.732E-05	4.2544E-04	0.000E+00	4.6007E-01
1.905E-05	3.3068E-04	0.000E+00	4.2570E-01
2.079E-05	2.4981E-04	0.000E+00	3.9390E-01
2.252E-05	1.7978E-04	0.000E+00	3.6448E-01
2.425E-05	1.2292E-04	0.000E+00	3.3725E-01
2.598E-05	7.3644E-05	0.000E+00	3.1206E-01
2.792E-05	2.8054E-05	0.000E+00	2.8875E-01
2.879E-05	1.3774E-05	0.000E+00	2.6718E-01
3.118E-05	7.4005E-06	0.000E+00	2.4722E-01
3.291E-05	7.4005E-06	0.000E+00	2.2875E-01
3.464E-05	6.8590E-06	0.000E+00	2.1166E-01
3.638E-05	6.4980E-06	0.000E+00	1.9585E-01
3.811E-05	5.7760E-06	0.000E+00	1.8122E-01
3.984E-05	5.4150E-06	0.000E+00	1.6769E-01
4.157E-05	4.8735E-06	0.000E+00	1.5516E-01
4.330E-05	4.6930E-06	0.000E+00	1.4357E-01
4.504E-05	4.5125E-06	0.000E+00	1.3284E-01
4.677E-05	4.3320E-06	0.000E+00	1.2292E-01
4.850E-05	4.3320E-06	0.000E+00	1.1374E-01
5.023E-05	4.3320E-06	0.000E+00	1.0524E-01
5.197E-05	4.1515E-06	0.000E+00	9.7380E-02
5.370E-05	4.1515E-06	0.000E+00	9.0106E-02
5.543E-05	4.1515E-06	0.000E+00	8.3375E-02
5.716E-05	3.9710E-06	0.000E+00	7.7147E-02
5.889E-05	3.7905E-06	0.000E+00	7.1384E-02
6.063E-05	3.7905E-06	0.000E+00	6.6052E-02
6.236E-05	3.7905E-06	0.000E+00	6.1118E-02
6.409E-05	3.6100E-06	0.000E+00	5.6552E-02
6.582E-05	3.6100E-06	0.000E+00	5.2328E-02
6.756E-05	3.4295E-06	0.000E+00	4.8419E-02
6.929E-05	3.2490E-06	0.000E+00	4.4802E-02
7.102E-05	3.0685E-06	0.000E+00	4.1455E-02
7.275E-05	2.8880E-06	0.000E+00	3.8358E-02
7.448E-05	2.8880E-06	0.000E+00	3.5493E-02
7.622E-05	2.7075E-06	0.000E+00	3.2842E-02
7.795E-05	2.7075E-06	0.000E+00	3.0388E-02
7.968E-05	2.7075E-06	0.000E+00	2.8118E-02
8.141E-05	2.7075E-06	0.000E+00	2.6018E-02
8.315E-05	2.7075E-06	0.000E+00	2.4074E-02
8.488E-05	2.7075E-06	0.000E+00	2.2276E-02
8.661E-05	2.7075E-06	0.000E+00	2.0612E-02

8.834E-05	2.7075E-06	0.000E+00	1.9072E-02
9.007E-05	2.7075E-06	0.000E+00	1.7648E-02
9.181E-05	2.7075E-06	0.000E+00	1.6329E-02
9.354E-05	2.5270E-06	0.000E+00	1.5109E-02
9.527E-05	2.5270E-06	0.000E+00	1.3981E-02
9.700E-05	2.5270E-06	0.000E+00	1.2936E-02
9.873E-05	2.3465E-06	0.000E+00	1.1970E-02
1.005E-04	2.3465E-06	0.000E+00	1.1076E-02
1.022E-04	2.1660E-06	0.000E+00	1.0249E-02
1.039E-04	2.1660E-06	0.000E+00	9.4829E-03
1.057E-04	2.1660E-06	0.000E+00	8.7746E-03
1.074E-04	1.9855E-06	0.000E+00	8.1191E-03
1.091E-04	1.8050E-06	0.000E+00	7.5126E-03
1.109E-04	1.8050E-06	0.000E+00	6.9514E-03
1.126E-04	1.8050E-06	0.000E+00	6.4321E-03
1.143E-04	1.6245E-06	0.000E+00	5.9517E-03
1.161E-04	1.4440E-06	0.000E+00	5.5071E-03
1.178E-04	1.4440E-06	0.000E+00	5.0957E-03
1.195E-04	1.4440E-06	0.000E+00	4.7150E-03
1.213E-04	1.2635E-06	0.000E+00	4.3628E-03
1.230E-04	1.0830E-06	0.000E+00	4.0369E-03
1.247E-04	1.0830E-06	0.000E+00	3.7354E-03
1.265E-04	1.0830E-06	0.000E+00	3.4563E-03
1.282E-04	1.0830E-06	0.000E+00	3.1981E-03
1.299E-04	1.0830E-06	0.000E+00	2.9592E-03
1.316E-04	1.0830E-06	0.000E+00	2.7382E-03
1.334E-04	1.0830E-06	0.000E+00	2.5336E-03
1.351E-04	1.0830E-06	0.000E+00	2.3444E-03
1.363E-04	1.0830E-06	0.000E+00	2.1692E-03
1.386E-04	1.0830E-06	0.000E+00	2.0072E-03
1.403E-04	1.0830E-06	0.000E+00	1.8573E-03
1.420E-04	1.0830E-06	0.000E+00	1.7185E-03
1.438E-04	1.0830E-06	0.000E+00	1.5902E-03
1.455E-04	1.0830E-06	0.000E+00	1.4714E-03
1.472E-04	1.0830E-06	0.000E+00	1.3615E-03
1.490E-04	1.0830E-06	0.000E+00	1.2598E-03
1.507E-04	1.0830E-06	0.000E+00	1.1656E-03
1.524E-04	1.0830E-06	0.000E+00	1.0786E-03
1.542E-04	9.0250E-07	0.000E+00	9.9801E-04
1.559E-04	9.0250E-07	0.000E+00	9.2345E-04
1.576E-04	9.0250E-07	0.000E+00	8.5447E-04
1.594E-04	9.0250E-07	0.000E+00	7.9064E-04
1.611E-04	7.2200E-07	0.000E+00	7.3158E-04
1.628E-04	7.2200E-07	0.000E+00	6.7693E-04
1.646E-04	7.2200E-07	0.000E+00	6.2636E-04
1.663E-04	7.2200E-07	0.000E+00	5.7957E-04
1.680E-04	7.2200E-07	0.000E+00	5.3628E-04
1.698E-04	7.2200E-07	0.000E+00	4.9622E-04
1.715E-04	7.2200E-07	0.000E+00	4.5915E-04
1.732E-04	7.2200E-07	0.000E+00	4.2485E-04
1.750E-04	7.2200E-07	0.000E+00	3.9312E-04
1.767E-04	7.2200E-07	0.000E+00	3.6375E-04
1.784E-04	7.2200E-07	0.000E+00	3.3658E-04
1.801E-04	7.2200E-07	0.000E+00	3.1144E-04
1.819E-04	7.2200E-07	0.000E+00	2.8817E-04
1.836E-04	7.2200E-07	0.000E+00	2.6664E-04

1.853E-04	7.2200E-07	0.000E+00	2.4673E-04
1.871E-04	7.2200E-07	0.000E+00	2.2830E-04
1.888E-04	7.2200E-07	0.000E+00	2.1124E-04
1.905E-04	7.2200E-07	0.000E+00	1.9546E-04
1.923E-04	7.2200E-07	0.000E+00	1.8086E-04
1.940E-04	7.2200E-07	0.000E+00	1.6735E-04
1.957E-04	7.2200E-07	0.000E+00	1.5485E-04
1.975E-04	7.2200E-07	0.000E+00	1.4328E-04
1.992E-04	5.4150E-07	0.000E+00	1.3258E-04
2.009E-04	5.4150E-07	0.000E+00	1.2268E-04
2.027E-04	5.4150E-07	0.000E+00	1.1351E-04
2.044E-04	5.4150E-07	0.000E+00	1.0503E-04
2.061E-04	5.4150E-07	0.000E+00	9.7186E-05
2.079E-04	5.4150E-07	0.000E+00	8.9926E-05
2.096E-04	5.4150E-07	0.000E+00	8.3209E-05
2.113E-04	5.4150E-07	0.000E+00	7.6993E-05
2.131E-04	5.4150E-07	0.000E+00	7.1242E-05
2.148E-04	5.4150E-07	0.000E+00	6.5920E-05
2.165E-04	5.4150E-07	0.000E+00	6.0996E-05
2.183E-04	5.4150E-07	0.000E+00	5.6439E-05
2.200E-04	5.4150E-07	0.000E+00	5.2223E-05
2.217E-04	5.4150E-07	0.000E+00	4.8322E-05
2.235E-04	5.4150E-07	0.000E+00	4.4712E-05
2.252E-04	5.4150E-07	0.000E+00	4.1372E-05
2.269E-04	3.6100E-07	0.000E+00	3.8282E-05
2.286E-04	3.6100E-07	0.000E+00	3.5422E-05
2.304E-04	3.6100E-07	0.000E+00	3.2776E-05
2.321E-04	3.6100E-07	0.000E+00	3.0328E-05
2.338E-04	3.6100E-07	0.000E+00	2.8062E-05
2.356E-04	3.6100E-07	0.000E+00	2.5966E-05
2.373E-04	3.6100E-07	0.000E+00	2.4026E-05
2.390E-04	3.6100E-07	0.000E+00	2.2232E-05
2.408E-04	3.6100E-07	0.000E+00	2.0571E-05
2.425E-04	3.6100E-07	0.000E+00	1.9034E-05
2.442E-04	3.6100E-07	0.000E+00	1.7612E-05
2.460E-04	3.6100E-07	0.000E+00	1.6297E-05
2.477E-04	3.6100E-07	0.000E+00	1.5079E-05
2.494E-04	3.6100E-07	0.000E+00	1.3953E-05
2.512E-04	3.6100E-07	0.000E+00	1.2911E-05
2.529E-04	3.6100E-07	0.000E+00	1.1946E-05
2.546E-04	3.6100E-07	0.000E+00	1.1054E-05
2.564E-04	3.6100E-07	0.000E+00	1.0228E-05
2.581E-04	3.6100E-07	0.000E+00	9.4640E-06
2.598E-04	3.6100E-07	0.000E+00	8.7571E-06
2.616E-04	3.6100E-07	0.000E+00	8.1029E-06
2.633E-04	3.6100E-07	0.000E+00	7.4976E-06
2.650E-04	3.6100E-07	0.000E+00	6.9375E-06
2.668E-04	3.6100E-07	0.000E+00	6.4193E-06
2.685E-04	3.6100E-07	0.000E+00	5.9398E-06
2.702E-04	3.6100E-07	0.000E+00	5.4961E-06
2.720E-04	3.6100E-07	0.000E+00	5.0855E-06
2.737E-04	3.6100E-07	0.000E+00	4.7056E-06
2.754E-04	3.6100E-07	0.000E+00	4.3541E-06
2.772E-04	3.6100E-07	0.000E+00	4.0289E-06
2.789E-04	3.6100E-07	0.000E+00	3.7279E-06
2.806E-04	3.6100E-07	0.000E+00	3.4494E-06

2.823E-04	3.6100E-07	0.000E+00	3.1918E-06
2.841E-04	3.6100E-07	0.000E+00	2.9533E-06
2.858E-04	3.6100E-07	0.000E+00	2.7327E-06
2.875E-04	3.6100E-07	0.000E+00	2.5286E-06
2.893E-04	3.6100E-07	0.000E+00	2.3397E-06
2.910E-04	3.6100E-07	0.000E+00	2.1649E-06
2.927E-04	1.8050E-07	0.000E+00	2.0032E-06
2.945E-04	1.8050E-07	0.000E+00	1.8536E-06
2.962E-04	1.8050E-07	0.000E+00	1.7151E-06
2.979E-04	1.8050E-07	0.000E+00	1.5870E-06
2.997E-04	1.8050E-07	0.000E+00	1.4684E-06
3.014E-04	1.8050E-07	0.000E+00	1.3587E-06
3.031E-04	1.8050E-07	0.000E+00	1.2572E-06
3.049E-04	1.8050E-07	0.000E+00	1.1633E-06
3.066E-04	1.8050E-07	0.000E+00	1.0764E-06
3.083E-04	1.8050E-07	0.000E+00	9.9601E-07
3.101E-04	1.8050E-07	0.000E+00	9.2161E-07
3.118E-04	1.8050E-07	0.000E+00	8.5277E-07
3.135E-04	1.8050E-07	0.000E+00	7.8906E-07
3.153E-04	1.8050E-07	0.000E+00	7.3012E-07
3.170E-04	1.8050E-07	0.000E+00	6.7558E-07
3.187E-04	1.8050E-07	0.000E+00	6.2511E-07
3.205E-04	1.8050E-07	0.000E+00	5.7842E-07
3.222E-04	1.8050E-07	0.000E+00	5.3521E-07
3.239E-04	1.8050E-07	0.000E+00	4.9523E-07
3.257E-04	1.8050E-07	0.000E+00	4.5824E-07
3.274E-04	1.8050E-07	0.000E+00	4.2401E-07
3.291E-04	1.8050E-07	0.000E+00	3.9233E-07
3.308E-04	1.8050E-07	0.000E+00	3.6303E-07
3.326E-04	1.8050E-07	0.000E+00	3.3591E-07
3.343E-04	1.8050E-07	0.000E+00	3.1081E-07
3.360E-04	1.8050E-07	0.000E+00	2.8760E-07
3.378E-04	1.8050E-07	0.000E+00	2.6611E-07
3.395E-04	1.8050E-07	0.000E+00	2.4623E-07
3.412E-04	1.8050E-07	0.000E+00	2.2784E-07
3.430E-04	1.8050E-07	0.000E+00	2.1082E-07
3.447E-04	1.8050E-07	0.000E+00	1.9507E-07
3.464E-04	1.8050E-07	2.000E-04	1.8050E-07

****** Flow Duration Performance According to Dept. of Ecology Criteria ******

Excursion at Predeveloped ½Q2 (Must be Less Than 0%):	0.0%	PASS
Maximum Excursion from ½Q2 to Q2 (Must be Less Than 0%):	0.0%	PASS
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	0.0%	PASS
Percent Excursion from Q2 to Q50 (Must be less than 50%):	0.0%	PASS

POND MEETS ALL DURATION DESIGN CRITERIA: PASS

MGS FLOOD
PROJECT REPORT

Program Version: MGSFlood Light, Single Time Series Version 4.12
Program License Number: 201110003
Run Date: 11/08/2011 1:58 PM

Input File Name: AsphaltBE.fld
Project Name: Arlington Airport Hangers
Analysis Title:
Comments: Asphalt B East

——————————————— PRECIPITATION INPUT ———————————————

Computational Time Step (Minutes): 15

Extended Precipitation Timeseries Selected
Climatic Region Number: 14

Full Period of Record Available used for Routing
Precipitation Station : 96004405 Puget East 44 in_5min 10/01/1939-10/01/2097
Evaporation Station : 961044 Puget East 44 in MAP
Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1
HSPF Parameter Region Name : USGS Default

********** Default HSPF Parameters Used (Not Modified by User) **********

********** **WATERSHED DEFINITION** **********

----------SCENARIO: PREDEVELOPED
Number of Subbasins: 1

---------- Subbasin : Predeveloped Condition ----------

	-------Area(Acres) --------
Till Forest	0.000
Till Pasture	0.000
Till Grass	0.000
Outwash Forest	0.023
Outwash Pasture	0.000
Outwash Grass	0.000
Wetland	0.000
Green Roof	0.000
User	0.000
Impervious	0.000
Subbasin Total	0.023

----------SCENARIO: POSTDEVELOPED
Number of Subbasins: 1

---------- Subbasin : Developed Condition ----------

	-------Area(Acres) --------
Till Forest	0.000
Till Pasture	0.000
Till Grass	0.000
Outwash Forest	0.000
Outwash Pasture	0.000
Outwash Grass	0.012
Wetland	0.000
Green Roof	0.000
User	0.000
Impervious	0.011
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Subbasin Total	0.023

********** **LINK DATA** **********

----------SCENARIO: PREDEVELOPED
Number of Links: 0

********** **LINK DATA** **********

----------SCENARIO: POSTDEVELOPED
Number of Links: 1

Link Name: InfiltrationPond
Link Type: Structure
Downstream Link: None

Prismatic Pond Option Used

Pond Floor Elevation (ft)	:	100.00
Riser Crest Elevation (ft)	:	104.00
Max Pond Elevation (ft)	:	104.50
Storage Depth (ft)	:	4.00
Pond Bottom Length (ft)	:	16.0
Pond Bottom Width (ft)	:	14.0
Pond Side Slopes (ft/ft)	:	L1= 3.00 L2= 3.00 W1= 3.00 W2= 3.00
Bottom Area (sq-ft)	:	224.
Area at Riser Crest El (sq-ft)	:	1,520.
(acres)	:	0.035
Volume at Riser Crest (cu-ft)	:	3,104.
(ac-ft)	:	0.071
Area at Max Elevation (sq-ft)	:	1763.
(acres)	:	0.040
Vol at Max Elevation (cu-ft)	:	4,076.
(ac-ft)	:	0.094

Constant Infiltration Option Used
Infiltration Rate (in/hr): 0.50

Riser Geometry
Riser Structure Type : Circular
Riser Diameter (in) : 18.00
Common Length (ft) : 0.000
Riser Crest Elevation : 104.00 ft

Hydraulic Structure Geometry

Number of Devices: 0

Structure Stage, Storage Discharge Tables

Link: Lnk1 InfiltrationPond

Elev (ft)	Storage (ac-ft)	Discharge (cfs)	Infilt Discharge (cfs)
100.000	0.000	0.000	0.000
100.018	9.063E-05	0.000	0.003
100.035	1.825E-04	0.000	0.003
100.070	3.702E-04	0.000	0.003
100.140	7.612E-04	0.000	0.003
100.210	1.174E-03	0.000	0.003
100.280	1.608E-03	0.000	0.003
100.350	2.065E-03	0.000	0.003
100.420	2.545E-03	0.000	0.004
100.490	3.048E-03	0.000	0.004
100.560	3.576E-03	0.000	0.004
100.630	4.129E-03	0.000	0.004
100.700	4.707E-03	0.000	0.004
100.770	5.310E-03	0.000	0.004
100.840	5.941E-03	0.000	0.005
100.910	6.598E-03	0.000	0.005
100.980	7.283E-03	0.000	0.005
101.050	7.996E-03	0.000	0.005
101.120	8.738E-03	0.000	0.005
101.190	9.509E-03	0.000	0.006
101.260	0.010	0.000	0.006
101.330	0.011	0.000	0.006
101.400	0.012	0.000	0.006
101.470	0.013	0.000	0.007
101.540	0.014	0.000	0.007
101.610	0.015	0.000	0.007
101.680	0.016	0.000	0.007
101.750	0.017	0.000	0.008
101.820	0.018	0.000	0.008
101.890	0.019	0.000	0.008
101.960	0.020	0.000	0.008
102.030	0.021	0.000	0.009
102.100	0.022	0.000	0.009
102.170	0.024	0.000	0.009

102.240	0.025	0.000	0.009
102.310	0.026	0.000	0.010
102.380	0.028	0.000	0.010
102.450	0.029	0.000	0.010
102.520	0.030	0.000	0.010
102.590	0.032	0.000	0.011
102.660	0.033	0.000	0.011
102.730	0.035	0.000	0.011
102.800	0.037	0.000	0.012
102.870	0.038	0.000	0.012
102.940	0.040	0.000	0.012
103.010	0.042	0.000	0.013
103.080	0.043	0.000	0.013
103.150	0.045	0.000	0.013
103.220	0.047	0.000	0.014
103.290	0.049	0.000	0.014
103.360	0.051	0.000	0.014
103.430	0.053	0.000	0.015
103.500	0.055	0.000	0.015
103.570	0.057	0.000	0.015
103.640	0.059	0.000	0.016
103.710	0.062	0.000	0.016
103.780	0.064	0.000	0.016
103.850	0.066	0.000	0.017
103.920	0.069	0.000	0.017
103.940	0.069	0.000	0.017
103.960	0.070	0.000	0.017
103.980	0.071	0.000	0.017
104.000	0.071	0.000	0.018
104.018	0.072	0.037	0.018
104.035	0.072	0.104	0.018
104.053	0.073	0.191	0.018
104.070	0.074	0.294	0.018
104.088	0.074	0.411	0.018
104.105	0.075	0.540	0.018
104.123	0.076	0.680	0.018
104.140	0.076	0.830	0.018
104.210	0.079	1.508	0.019
104.280	0.081	2.274	0.019
104.350	0.084	3.073	0.020
104.420	0.087	3.848	0.020
104.490	0.090	4.548	0.020
104.560	0.093	5.130	0.021
104.630	0.095	5.575	0.021
104.700	0.098	5.893	0.022
104.770	0.101	6.219	0.022
104.840	0.105	6.495	0.022
104.910	0.108	6.760	0.023
104.980	0.111	7.016	0.023
105.050	0.114	7.262	0.024

**************************FLOOD FREQUENCY AND DURATION STATISTICS**********************

----------SCENARIO: PREDEVELOPED

Number of Subbasins: 1

Number of Links: 0

----------SCENARIO: POSTDEVELOPED
Number of Subbasins: 1
Number of Links: 1

********** Link: InfiltrationPond ********** Link WSEL Stats
Annual Maxima WSEL

Max Date	WSEL (ft)
10/27/1939	100.027
09/02/1941	100.034
12/15/1941	100.048
11/23/1942	100.021
10/29/1943	100.018
02/07/1945	100.027
01/23/1946	100.020
10/20/1946	100.029
03/21/1948	100.031
02/16/1949	100.038
03/03/1950	100.147
10/08/1950	100.015
06/29/1952	100.111
09/30/1953	100.038
12/19/1953	100.020
09/13/1955	100.014
10/07/1955	100.032
05/21/1957	100.013
01/16/1958	100.025
01/12/1959	100.017
01/28/1960	100.028
10/23/1960	100.023
07/05/1962	100.034
11/25/1962	100.014
09/17/1964	100.038
05/04/1965	100.038
01/05/1966	100.018
11/13/1966	100.038
08/23/1968	100.047
05/29/1969	100.017
01/13/1970	100.019
12/05/1970	100.017
02/27/1972	100.067
06/24/1973	100.017
11/11/1973	100.020
10/27/1974	100.032
07/08/1976	100.017
10/28/1976	100.028
09/22/1978	100.043
09/08/1979	100.037
12/14/1979	100.031
11/21/1980	100.039
10/06/1981	100.076
10/28/1982	100.051

03/14/1984	100.018
06/06/1985	100.017
01/18/1986	100.031
10/26/1986	100.064
05/28/1988	100.016
08/21/1989	100.023
01/09/1990	100.180
11/24/1990	100.129
01/27/1992	100.027
06/09/1993	100.016
09/03/1994	100.015
11/30/1994	100.018
02/08/1996	100.039
01/02/1997	100.029
10/29/1997	100.018
11/04/1998	100.084
11/04/1999	100.027
09/01/2001	100.015
05/03/2002	100.073
02/06/2003	100.034
01/01/2004	100.017
02/05/2005	100.021
11/16/2005	100.019
12/14/2006	100.026
03/21/2008	100.038
02/17/2009	100.063
06/10/2010	100.094
09/30/2011	100.048
10/22/2011	100.040
01/20/2013	100.104
11/16/2013	100.047
11/17/2014	100.020
01/04/2016	100.055
06/14/2017	100.029
12/25/2017	100.025
11/09/2018	100.034
12/12/2019	100.017
11/24/2020	100.035
12/20/2021	100.042
02/03/2023	100.025
09/17/2024	100.019
06/14/2025	100.032
03/09/2026	100.015
05/30/2027	100.016
06/01/2028	100.022
10/11/2028	100.046
11/04/2029	100.054
09/24/2031	100.048
01/20/2032	100.032
12/23/2032	100.016
02/18/2034	100.030
12/21/2034	100.019
12/04/2035	100.024
05/15/2037	100.027
11/24/2037	100.026
11/04/2038	100.022

01/14/2040	100.059
12/24/2040	100.016
11/11/2041	100.048
07/19/2043	100.061
09/05/2044	100.022
11/02/2044	100.031
03/07/2046	100.025
11/24/2046	100.021
12/02/2047	100.036
07/31/2049	100.020
12/04/2049	100.057
02/02/2051	100.022
10/25/2051	100.021
06/04/2053	100.062
10/14/2053	100.017
10/27/2054	100.067
02/07/2056	100.047
11/19/2056	100.051
01/24/2058	100.040
11/26/2058	100.033
05/15/2060	100.055
09/01/2061	100.050
02/03/2062	100.197
07/08/2063	100.022
07/21/2064	100.041
11/29/2064	100.028
06/27/2066	100.013
12/05/2066	100.020
01/18/2068	100.049
07/10/2069	100.014
04/09/2070	100.016
09/27/2071	100.017
04/28/2072	100.024
12/25/2072	100.042
11/09/2073	100.020
08/27/2075	100.027
03/24/2076	100.027
08/24/2077	100.052
08/14/2078	100.022
11/03/2078	100.024
12/17/2079	100.068
09/20/2081	100.043
02/18/2082	100.028
03/29/2083	100.018
06/28/2084	100.021
09/06/2085	100.032
09/23/2086	100.023
11/19/2086	100.037
01/14/2088	100.025
11/05/2088	100.059
10/23/2089	100.020
08/27/2091	100.024
06/29/2092	100.076
06/15/2093	100.022
10/23/2093	100.036
10/31/2094	100.015

08/02/2096	100.044
11/12/2096	100.065

Ranked Annual Maxima Water Surface Elevation (ft)

Tr (Years)	WSEL (ft)
1.00	100.013
1.01	100.013
1.02	100.014
1.02	100.014
1.03	100.014
1.04	100.015
1.04	100.015
1.05	100.015
1.06	100.015
1.06	100.015
1.07	100.016
1.08	100.016
1.09	100.016
1.09	100.016
1.10	100.016
1.11	100.016
1.12	100.017
1.12	100.017
1.13	100.017
1.14	100.017
1.15	100.017
1.16	100.017
1.17	100.017
1.18	100.017
1.18	100.017
1.19	100.017
1.20	100.018
1.21	100.018
1.22	100.018
1.23	100.018
1.24	100.018
1.25	100.018
1.26	100.019
1.27	100.019
1.28	100.019
1.29	100.019
1.30	100.020
1.31	100.020
1.32	100.020
1.33	100.020
1.35	100.020
1.36	100.020
1.37	100.020
1.38	100.020
1.39	100.021
1.40	100.021
1.42	100.021
1.43	100.021
1.44	100.021
1.46	100.022

1.47	100.022
1.48	100.022
1.50	100.022
1.51	100.022
1.53	100.022
1.54	100.022
1.56	100.023
1.57	100.023
1.59	100.023
1.60	100.024
1.62	100.024
1.64	100.024
1.65	100.024
1.67	100.025
1.69	100.025
1.71	100.025
1.73	100.025
1.75	100.025
1.77	100.026
1.79	100.026
1.81	100.027
1.83	100.027
1.85	100.027
1.87	100.027
1.89	100.027
1.92	100.027
1.94	100.027
1.96	100.028
1.99	100.028
2.01	100.028
2.04	100.028
2.07	100.029
2.09	100.029
2.12	100.029
2.15	100.030
2.18	100.031
2.21	100.031
2.24	100.031
2.27	100.031
2.31	100.032
2.34	100.032
2.38	100.032
2.41	100.032
2.45	100.032
2.49	100.033
2.53	100.034
2.57	100.034
2.61	100.034
2.65	100.034
2.70	100.035
2.75	100.036
2.80	100.036
2.85	100.037
2.90	100.037
2.95	100.038
3.01	100.038

3.07	100.038
3.13	100.038
3.19	100.038
3.26	100.038
3.32	100.039
3.40	100.039
3.47	100.040
3.55	100.040
3.63	100.041
3.72	100.042
3.80	100.042
3.90	100.043
4.00	100.043
4.10	100.044
4.21	100.046
4.32	100.047
4.45	100.047
4.58	100.047
4.71	100.048
4.86	100.048
5.01	100.048
5.17	100.048
5.35	100.049
5.54	100.050
5.74	100.051
5.95	100.051
6.19	100.052
6.44	100.054
6.71	100.055
7.01	100.055
7.33	100.057
7.69	100.059
8.08	100.059
8.52	100.061
9.00	100.062
9.55	100.063
10.16	100.064
10.86	100.065
11.66	100.067
12.59	100.067
13.68	100.068
14.97	100.073
16.54	100.076
18.47	100.076
20.92	100.084
24.10	100.094
28.44	100.104
34.68	100.111
44.42	100.129
61.77	100.147
101.36	100.180
282.36	100.197

WSEL Frequency Data(ft)
(Recurrence Interval Computed Using Gringorten Plotting Position)

Tr (yrs)	WSEL Peak (ft)

==========

1.05-Year	100.015
1.11-Year	100.016
1.25-Year	100.018
2.00-Year	100.028
3.33-Year	100.039
5-Year	100.048
10-Year	100.064
25-Year	100.081
50-Year	100.136
100-Year	100.179

*************Water Quality Facility Data ***************

----------SCENARIO: PREDEVELOPED

Number of Links: 0

----------SCENARIO: POSTDEVELOPED

Number of Links: 1

********** Link: InfiltrationPond **********

Basic Wet Pond Volume (91% Exceedance): 53. cu-ft
Computed Large Wet Pond Volume, 1.5*Basic Volume: 80. cu-ft

Time to Infiltrate 91% Treatment Volume, (Hours): 6.74

Infiltration/Filtration Statistics----------
Total Runoff Volume (ac-ft): 5.54
Total Runoff Infiltrated (ac-ft): 5.54, 100.00%
Total Runoff Filtered (ac-ft): 0.00, 0.00%
Percent Treated (Infiltrated+Filtered)/Total Volume: 100.00%

*************Compliance Point Results ***************

Scenario Predeveloped Compliance Subbasin: Predeveloped Condition

Scenario Postdeveloped Compliance Link: InfiltrationPond
****Point of Compliance Annual Maxima Flow Data ****

Predevelopment Runoff		Postdevelopment Runoff	
Date	Annual Max Q (cfs)	Date	Annual Max Q (cfs)
04/23/1940	0.000	10/27/1939	0.000
05/16/1941	0.000	09/02/1941	0.000
11/13/1941	0.000	12/15/1941	0.000
04/20/1943	0.000	11/23/1942	0.000
01/22/1944	0.000	10/29/1943	0.000

05/15/1945	0.000	02/07/1945	0.000
02/27/1946	0.000	01/23/1946	0.000
01/23/1947	0.000	10/20/1946	0.000
02/16/1948	0.000	03/21/1948	0.000
11/14/1948	0.000	02/16/1949	0.000
03/03/1950	0.000	03/03/1950	0.000
12/05/1950	0.000	10/08/1950	0.000
06/29/1952	0.000	06/29/1952	0.000
03/28/1953	0.000	09/30/1953	0.000
01/03/1954	0.000	12/19/1953	0.000
02/28/1955	0.000	09/13/1955	0.000
06/03/1956	0.000	10/07/1955	0.000
06/12/1957	0.000	05/21/1957	0.000
02/24/1958	0.000	01/16/1958	0.000
01/12/1959	0.000	01/12/1959	0.000
01/28/1960	0.000	01/28/1960	0.000
03/10/1961	0.000	10/23/1960	0.000
05/08/1962	0.000	07/05/1962	0.000
06/28/1963	0.000	11/25/1962	0.000
03/22/1964	0.000	09/17/1964	0.000
02/26/1965	0.000	05/04/1965	0.000
01/05/1966	0.000	01/05/1966	0.000
01/19/1967	0.000	11/13/1966	0.000
02/02/1968	0.000	08/23/1968	0.000
12/07/1968	0.000	12/15/1968	0.000
04/01/1970	0.000	01/13/1970	0.000
12/06/1970	0.000	12/05/1970	0.000
02/27/1972	0.000	02/27/1972	0.000
01/13/1973	0.000	06/24/1973	0.000
01/25/1974	0.000	11/11/1973	0.000
12/26/1974	0.000	10/27/1974	0.000
02/27/1976	0.000	07/08/1976	0.000
09/23/1977	0.000	10/28/1976	0.000
12/15/1977	0.000	09/22/1978	0.000
03/04/1979	0.000	09/08/1979	0.000
12/17/1979	0.000	12/14/1979	0.000
11/21/1980	0.000	11/21/1980	0.000
02/20/1982	0.000	10/06/1981	0.000
10/28/1982	0.000	10/28/1982	0.000
04/09/1984	0.000	03/14/1984	0.000
06/06/1985	0.000	06/06/1985	0.000
02/15/1986	0.000	01/18/1986	0.000
03/11/1987	0.000	10/26/1986	0.000
05/16/1988	0.000	05/28/1988	0.000
05/17/1989	0.000	08/21/1989	0.000
03/13/1990	0.000	01/09/1990	0.000
04/04/1991	1.268E-04	11/24/1990	0.000
04/16/1992	0.000	01/27/1992	0.000
04/08/1993	0.000	06/09/1993	0.000
03/20/1994	0.000	09/03/1994	0.000
11/30/1994	0.000	11/30/1994	0.000
02/09/1996	0.000	02/08/1996	0.000
12/31/1996	0.000	01/02/1997	0.000
03/22/1998	0.000	10/29/1997	0.000
02/24/1999	0.000	11/04/1998	0.000
02/05/2000	0.000	11/04/1999	0.000

04/01/2001	0.000	09/01/2001	0.000
05/03/2002	0.000	05/03/2002	0.000
02/06/2003	0.000	02/06/2003	0.000
01/01/2004	0.000	01/01/2004	0.000
01/06/2005	0.000	02/05/2005	0.000
01/02/2006	0.000	11/16/2005	0.000
02/02/2007	0.000	12/14/2006	0.000
05/03/2008	0.000	03/21/2008	0.000
02/17/2009	0.000	02/17/2009	0.000
11/26/2009	0.000	06/10/2010	0.000
03/08/2011	0.000	09/30/2011	0.000
10/22/2011	0.000	10/22/2011	0.000
01/20/2013	0.000	01/20/2013	0.000
01/25/2014	0.000	11/16/2013	0.000
11/17/2014	0.000	11/17/2014	0.000
12/21/2015	0.000	01/04/2016	0.000
06/15/2017	0.000	06/14/2017	0.000
04/20/2018	0.000	12/25/2017	0.000
05/05/2019	0.000	11/09/2018	0.000
03/29/2020	0.000	12/12/2019	0.000
05/20/2021	0.000	11/24/2020	0.000
06/02/2022	0.000	12/20/2021	0.000
02/25/2023	0.000	02/03/2023	0.000
03/11/2024	0.000	09/17/2024	0.000
03/26/2025	0.000	06/14/2025	0.000
03/09/2026	0.000	03/09/2026	0.000
01/27/2027	0.000	05/30/2027	0.000
03/14/2028	0.000	06/01/2028	0.000
12/03/2028	0.000	10/11/2028	0.000
12/13/2029	0.000	11/04/2029	0.000
12/30/2030	0.000	09/24/2031	0.000
04/08/2032	0.000	01/20/2032	0.000
04/18/2033	0.000	12/23/2032	0.000
02/21/2034	1.025E-04	02/18/2034	0.000
05/03/2035	0.000	12/21/2034	0.000
02/27/2036	0.000	12/04/2035	0.000
05/15/2037	0.000	05/15/2037	0.000
04/05/2038	0.000	11/24/2037	0.000
02/07/2039	0.000	11/04/2038	0.000
11/17/2039	0.000	01/14/2040	0.000
02/19/2041	0.000	12/24/2040	0.000
12/14/2041	0.000	11/11/2041	0.000
03/31/2043	0.000	07/19/2043	0.000
06/08/2044	0.000	09/05/2044	0.000
02/07/2045	0.000	11/02/2044	0.000
02/16/2046	0.000	03/07/2046	0.000
04/17/2047	0.000	11/24/2046	0.000
04/20/2048	0.000	12/02/2047	0.000
03/16/2049	0.000	07/31/2049	0.000
05/23/2050	0.000	12/04/2049	0.000
11/24/2050	0.000	02/02/2051	0.000
04/13/2052	0.000	10/25/2051	0.000
12/10/2052	0.000	06/04/2053	0.000
05/16/2054	0.000	10/14/2053	0.000
04/09/2055	0.000	10/27/2054	0.000
02/08/2056	0.000	02/07/2056	0.000

03/01/2057	0.000	11/19/2056	0.000
02/20/2058	0.000	01/24/2058	0.000
11/25/2058	0.000	11/26/2058	0.000
05/15/2060	0.000	05/15/2060	0.000
11/13/2060	0.000	09/01/2061	0.000
01/02/2062	0.000	02/03/2062	0.000
02/02/2063	0.000	07/08/2063	0.000
12/23/2063	0.000	07/21/2064	0.000
11/11/2064	0.000	11/29/2064	0.000
12/06/2065	0.000	06/27/2066	0.000
11/27/2066	0.000	12/05/2066	0.000
11/29/2067	0.000	01/18/2068	0.000
04/12/2069	0.000	07/10/2069	0.000
04/09/2070	0.000	04/09/2070	0.000
11/08/2070	0.000	09/27/2071	0.000
04/28/2072	0.000	04/28/2072	0.000
12/25/2072	0.000	12/25/2072	0.000
11/09/2073	0.000	11/09/2073	0.000
02/12/2075	0.000	08/27/2075	0.000
11/04/2075	0.000	03/24/2076	0.000
04/08/2077	0.000	08/24/2077	0.000
11/25/2077	0.000	08/14/2078	0.000
01/20/2079	0.000	11/03/2078	0.000
12/17/2079	0.000	12/17/2079	0.000
04/05/2081	0.000	09/20/2081	0.000
11/19/2081	0.000	02/18/2082	0.000
03/29/2083	0.000	03/29/2083	0.000
05/08/2084	0.000	06/28/2084	0.000
02/11/2085	0.000	09/06/2085	0.000
04/15/2086	0.000	09/23/2086	0.000
12/21/2086	0.000	11/19/2086	0.000
05/02/2088	0.000	01/14/2088	0.000
01/17/2089	0.000	11/05/2088	0.000
03/13/2090	0.000	10/23/2089	0.000
11/07/2090	0.000	08/27/2091	0.000
06/29/2092	0.000	06/29/2092	0.000
06/15/2093	0.000	06/15/2093	0.000
06/18/2094	0.000	10/23/2093	0.000
04/10/2095	0.000	10/31/2094	0.000
11/24/2095	0.000	08/02/2096	0.000
01/29/2097	2.213E-04	11/12/2096	0.000

******Point of Compliance Ranked Maxima Flow Data ******

Predevelopment		Postdevelopment	
Tr (yrs)	Q (cfs)	Tr (yrs)	Q (cfs)
1.00	0.000	1.00	0.000
1.01	0.000	1.01	0.000
1.02	0.000	1.02	0.000
1.02	0.000	1.02	0.000
1.03	0.000	1.03	0.000
1.04	0.000	1.04	0.000
1.04	0.000	1.04	0.000
1.05	0.000	1.05	0.000
1.06	0.000	1.06	0.000

1.06	0.000	1.06	0.000
1.07	0.000	1.07	0.000
1.08	0.000	1.08	0.000
1.09	0.000	1.09	0.000
1.09	0.000	1.09	0.000
1.10	0.000	1.10	0.000
1.11	0.000	1.11	0.000
1.12	0.000	1.12	0.000
1.12	0.000	1.12	0.000
1.13	0.000	1.13	0.000
1.14	0.000	1.14	0.000
1.15	0.000	1.15	0.000
1.16	0.000	1.16	0.000
1.17	0.000	1.17	0.000
1.18	0.000	1.18	0.000
1.18	0.000	1.18	0.000
1.19	0.000	1.19	0.000
1.20	0.000	1.20	0.000
1.21	0.000	1.21	0.000
1.22	0.000	1.22	0.000
1.23	0.000	1.23	0.000
1.24	0.000	1.24	0.000
1.25	0.000	1.25	0.000
1.26	0.000	1.26	0.000
1.27	0.000	1.27	0.000
1.28	0.000	1.28	0.000
1.29	0.000	1.29	0.000
1.30	0.000	1.30	0.000
1.31	0.000	1.31	0.000
1.32	0.000	1.32	0.000
1.33	0.000	1.33	0.000
1.35	0.000	1.35	0.000
1.36	0.000	1.36	0.000
1.37	0.000	1.37	0.000
1.38	0.000	1.38	0.000
1.39	0.000	1.39	0.000
1.40	0.000	1.40	0.000
1.42	0.000	1.42	0.000
1.43	0.000	1.43	0.000
1.44	0.000	1.44	0.000
1.46	0.000	1.46	0.000
1.47	0.000	1.47	0.000
1.48	0.000	1.48	0.000
1.50	0.000	1.50	0.000
1.51	0.000	1.51	0.000
1.53	0.000	1.53	0.000
1.54	0.000	1.54	0.000
1.56	0.000	1.56	0.000
1.57	0.000	1.57	0.000
1.59	0.000	1.59	0.000
1.60	0.000	1.60	0.000
1.62	0.000	1.62	0.000
1.64	0.000	1.64	0.000
1.65	0.000	1.65	0.000
1.67	0.000	1.67	0.000
1.69	0.000	1.69	0.000

1.71	0.000	1.71	0.000
1.73	0.000	1.73	0.000
1.75	0.000	1.75	0.000
1.77	0.000	1.77	0.000
1.79	0.000	1.79	0.000
1.81	0.000	1.81	0.000
1.83	0.000	1.83	0.000
1.85	0.000	1.85	0.000
1.87	0.000	1.87	0.000
1.89	0.000	1.89	0.000
1.92	0.000	1.92	0.000
1.94	0.000	1.94	0.000
1.96	0.000	1.96	0.000
1.99	0.000	1.99	0.000
2.01	0.000	2.01	0.000
2.04	0.000	2.04	0.000
2.07	0.000	2.07	0.000
2.09	0.000	2.09	0.000
2.12	0.000	2.12	0.000
2.15	0.000	2.15	0.000
2.18	0.000	2.18	0.000
2.21	0.000	2.21	0.000
2.24	0.000	2.24	0.000
2.27	0.000	2.27	0.000
2.31	0.000	2.31	0.000
2.34	0.000	2.34	0.000
2.38	0.000	2.38	0.000
2.41	0.000	2.41	0.000
2.45	0.000	2.45	0.000
2.49	0.000	2.49	0.000
2.53	0.000	2.53	0.000
2.57	0.000	2.57	0.000
2.61	0.000	2.61	0.000
2.65	0.000	2.65	0.000
2.70	0.000	2.70	0.000
2.75	0.000	2.75	0.000
2.80	0.000	2.80	0.000
2.85	0.000	2.85	0.000
2.90	0.000	2.90	0.000
2.95	0.000	2.95	0.000
3.01	0.000	3.01	0.000
3.07	0.000	3.07	0.000
3.13	0.000	3.13	0.000
3.19	0.000	3.19	0.000
3.26	0.000	3.26	0.000
3.32	0.000	3.32	0.000
3.40	0.000	3.40	0.000
3.47	0.000	3.47	0.000
3.55	0.000	3.55	0.000
3.63	0.000	3.63	0.000
3.72	0.000	3.72	0.000
3.80	0.000	3.80	0.000
3.90	0.000	3.90	0.000
4.00	0.000	4.00	0.000
4.10	0.000	4.10	0.000
4.21	0.000	4.21	0.000

4.32	0.000	4.32	0.000
4.45	0.000	4.45	0.000
4.58	0.000	4.58	0.000
4.71	0.000	4.71	0.000
4.86	0.000	4.86	0.000
5.01	0.000	5.01	0.000
5.17	0.000	5.17	0.000
5.35	0.000	5.35	0.000
5.54	0.000	5.54	0.000
5.74	0.000	5.74	0.000
5.95	0.000	5.95	0.000
6.19	0.000	6.19	0.000
6.44	0.000	6.44	0.000
6.71	0.000	6.71	0.000
7.01	0.000	7.01	0.000
7.33	0.000	7.33	0.000
7.69	0.000	7.69	0.000
8.08	0.000	8.08	0.000
8.52	0.000	8.52	0.000
9.00	0.000	9.00	0.000
9.55	0.000	9.55	0.000
10.16	0.000	10.16	0.000
10.86	0.000	10.86	0.000
11.66	0.000	11.66	0.000
12.59	0.000	12.59	0.000
13.68	0.000	13.68	0.000
14.97	0.000	14.97	0.000
16.54	0.000	16.54	0.000
18.47	0.000	18.47	0.000
20.92	0.000	20.92	0.000
24.10	0.000	24.10	0.000
28.44	0.000	28.44	0.000
34.68	0.000	34.68	0.000
44.42	0.000	44.42	0.000
61.77	1.025E-04	61.77	0.000E+00
101.36	1.268E-04	101.36	0.000E+00
282.36	2.213E-04	282.36	0.000E+00

***** Point of Compliance Flow Frequency Data *****

Recurrence Interval Computed Using Gringorten Plotting Position

Predevelopment Runoff		Postdevelopment Runoff	
Tr (Years)	Discharge (cfs)	Tr (Years)	Discharge (cfs)
2-Year	1.784E-05	2-Year	2.786E-07
5-Year	1.840E-05	5-Year	4.787E-07
10-Year	1.853E-05	10-Year	6.362E-07
25-Year	6.963E-05	25-Year	9.639E-07
50-Year	8.708E-05	50-Year	1.353E-06
100-Year	1.262E-04	100-Year	1.791E-06
200-Year	1.895E-04	200-Year	1.910E-06

** Record too Short to Compute Peak Discharge for These Recurrence Intervals

***** Point of Compliance Flow Duration Data *****

Predevelopment Runoff Postdevelopment Runoff

Discharge (cfs)	Exceedance Probability	Discharge (cfs)	Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
1.107E-06	1.3028E-02	0.000E+00	9.2530E-01
2.213E-06	5.7410E-03	0.000E+00	8.5618E-01
3.320E-06	3.1871E-03	0.000E+00	7.9222E-01
4.427E-06	2.1698E-03	0.000E+00	7.3304E-01
5.533E-06	1.6516E-03	0.000E+00	6.7828E-01
6.640E-06	1.2456E-03	0.000E+00	6.2762E-01
7.747E-06	9.4690E-04	0.000E+00	5.8073E-01
8.920E-06	7.0946E-04	0.000E+00	5.3735E-01
9.960E-06	5.5089E-04	0.000E+00	4.9721E-01
1.107E-05	4.2544E-04	0.000E+00	4.6007E-01
1.217E-05	3.3068E-04	0.000E+00	4.2570E-01
1.328E-05	2.4981E-04	0.000E+00	3.9390E-01
1.439E-05	1.7978E-04	0.000E+00	3.6448E-01
1.549E-05	1.2292E-04	0.000E+00	3.3725E-01
1.660E-05	7.3644E-05	0.000E+00	3.1206E-01
1.784E-05	2.8054E-05	0.000E+00	2.8875E-01
1.840E-05	1.3774E-05	0.000E+00	2.6718E-01
1.992E-05	7.4005E-06	0.000E+00	2.4722E-01
2.103E-05	7.4005E-06	0.000E+00	2.2875E-01
2.213E-05	6.8590E-06	0.000E+00	2.1166E-01
2.324E-05	6.4980E-06	0.000E+00	1.9585E-01
2.435E-05	5.7760E-06	0.000E+00	1.8122E-01
2.545E-05	5.4150E-06	0.000E+00	1.6769E-01
2.656E-05	4.8735E-06	0.000E+00	1.5516E-01
2.767E-05	4.6930E-06	0.000E+00	1.4357E-01
2.877E-05	4.5125E-06	0.000E+00	1.3284E-01
2.988E-05	4.3320E-06	0.000E+00	1.2292E-01
3.099E-05	4.3320E-06	0.000E+00	1.1374E-01
3.209E-05	4.3320E-06	0.000E+00	1.0524E-01
3.320E-05	4.1515E-06	0.000E+00	9.7380E-02
3.431E-05	4.1515E-06	0.000E+00	9.0106E-02
3.541E-05	4.1515E-06	0.000E+00	8.3375E-02
3.652E-05	3.9710E-06	0.000E+00	7.7147E-02
3.763E-05	3.7905E-06	0.000E+00	7.1384E-02
3.873E-05	3.7905E-06	0.000E+00	6.6052E-02
3.984E-05	3.7905E-06	0.000E+00	6.1118E-02
4.095E-05	3.6100E-06	0.000E+00	5.6552E-02
4.205E-05	3.6100E-06	0.000E+00	5.2328E-02
4.316E-05	3.4295E-06	0.000E+00	4.8419E-02
4.427E-05	3.2490E-06	0.000E+00	4.4802E-02
4.537E-05	3.0685E-06	0.000E+00	4.1455E-02
4.648E-05	2.8880E-06	0.000E+00	3.8358E-02
4.759E-05	2.8880E-06	0.000E+00	3.5493E-02
4.869E-05	2.7075E-06	0.000E+00	3.2842E-02
4.980E-05	2.7075E-06	0.000E+00	3.0388E-02
5.091E-05	2.7075E-06	0.000E+00	2.8118E-02
5.201E-05	2.7075E-06	0.000E+00	2.6018E-02
5.312E-05	2.7075E-06	0.000E+00	2.4074E-02
5.423E-05	2.7075E-06	0.000E+00	2.2276E-02
5.533E-05	2.7075E-06	0.000E+00	2.0612E-02

5.644E-05	2.7075E-06	0.000E+00	1.9072E-02
5.755E-05	2.7075E-06	0.000E+00	1.7648E-02
5.865E-05	2.7075E-06	0.000E+00	1.6329E-02
5.976E-05	2.5270E-06	0.000E+00	1.5109E-02
6.087E-05	2.5270E-06	0.000E+00	1.3981E-02
6.197E-05	2.5270E-06	0.000E+00	1.2936E-02
6.308E-05	2.3465E-06	0.000E+00	1.1970E-02
6.419E-05	2.3465E-06	0.000E+00	1.1076E-02
6.529E-05	2.1660E-06	0.000E+00	1.0249E-02
6.640E-05	2.1660E-06	0.000E+00	9.4829E-03
6.751E-05	2.1660E-06	0.000E+00	8.7746E-03
6.861E-05	1.9855E-06	0.000E+00	8.1191E-03
6.972E-05	1.8050E-06	0.000E+00	7.5126E-03
7.083E-05	1.8050E-06	0.000E+00	6.9514E-03
7.193E-05	1.8050E-06	0.000E+00	6.4321E-03
7.304E-05	1.6245E-06	0.000E+00	5.9517E-03
7.415E-05	1.4440E-06	0.000E+00	5.5071E-03
7.525E-05	1.4440E-06	0.000E+00	5.0957E-03
7.636E-05	1.4440E-06	0.000E+00	4.7150E-03
7.747E-05	1.2635E-06	0.000E+00	4.3628E-03
7.857E-05	1.0830E-06	0.000E+00	4.0369E-03
7.968E-05	1.0830E-06	0.000E+00	3.7354E-03
8.079E-05	1.0830E-06	0.000E+00	3.4563E-03
8.189E-05	1.0830E-06	0.000E+00	3.1981E-03
8.300E-05	1.0830E-06	0.000E+00	2.9592E-03
8.411E-05	1.0830E-06	0.000E+00	2.7382E-03
8.521E-05	1.0830E-06	0.000E+00	2.5336E-03
8.632E-05	1.0830E-06	0.000E+00	2.3444E-03
8.708E-05	1.0830E-06	0.000E+00	2.1692E-03
8.853E-05	1.0830E-06	0.000E+00	2.0072E-03
8.964E-05	1.0830E-06	0.000E+00	1.8573E-03
9.075E-05	1.0830E-06	0.000E+00	1.7185E-03
9.185E-05	1.0830E-06	0.000E+00	1.5902E-03
9.296E-05	1.0830E-06	0.000E+00	1.4714E-03
9.407E-05	1.0830E-06	0.000E+00	1.3615E-03
9.517E-05	1.0830E-06	0.000E+00	1.2598E-03
9.628E-05	1.0830E-06	0.000E+00	1.1656E-03
9.739E-05	1.0830E-06	0.000E+00	1.0786E-03
9.849E-05	9.0250E-07	0.000E+00	9.9801E-04
9.960E-05	9.0250E-07	0.000E+00	9.2345E-04
1.007E-04	9.0250E-07	0.000E+00	8.5447E-04
1.018E-04	9.0250E-07	0.000E+00	7.9064E-04
1.029E-04	7.2200E-07	0.000E+00	7.3158E-04
1.040E-04	7.2200E-07	0.000E+00	6.7693E-04
1.051E-04	7.2200E-07	0.000E+00	6.2636E-04
1.062E-04	7.2200E-07	0.000E+00	5.7957E-04
1.073E-04	7.2200E-07	0.000E+00	5.3628E-04
1.085E-04	7.2200E-07	0.000E+00	4.9622E-04
1.096E-04	7.2200E-07	0.000E+00	4.5915E-04
1.107E-04	7.2200E-07	0.000E+00	4.2485E-04
1.118E-04	7.2200E-07	0.000E+00	3.9312E-04
1.129E-04	7.2200E-07	0.000E+00	3.6375E-04
1.140E-04	7.2200E-07	0.000E+00	3.3658E-04
1.151E-04	7.2200E-07	0.000E+00	3.1144E-04
1.162E-04	7.2200E-07	0.000E+00	2.8817E-04
1.173E-04	7.2200E-07	0.000E+00	2.6664E-04

1.184E-04	7.2200E-07	0.000E+00	2.4673E-04
1.195E-04	7.2200E-07	0.000E+00	2.2830E-04
1.206E-04	7.2200E-07	0.000E+00	2.1124E-04
1.217E-04	7.2200E-07	0.000E+00	1.9546E-04
1.228E-04	7.2200E-07	0.000E+00	1.8086E-04
1.239E-04	7.2200E-07	0.000E+00	1.6735E-04
1.251E-04	7.2200E-07	0.000E+00	1.5485E-04
1.262E-04	7.2200E-07	0.000E+00	1.4328E-04
1.273E-04	5.4150E-07	0.000E+00	1.3258E-04
1.284E-04	5.4150E-07	0.000E+00	1.2268E-04
1.295E-04	5.4150E-07	0.000E+00	1.1351E-04
1.306E-04	5.4150E-07	0.000E+00	1.0503E-04
1.317E-04	5.4150E-07	0.000E+00	9.7186E-05
1.328E-04	5.4150E-07	0.000E+00	8.9926E-05
1.339E-04	5.4150E-07	0.000E+00	8.3209E-05
1.350E-04	5.4150E-07	0.000E+00	7.6993E-05
1.361E-04	5.4150E-07	0.000E+00	7.1242E-05
1.372E-04	5.4150E-07	0.000E+00	6.5920E-05
1.383E-04	5.4150E-07	0.000E+00	6.0996E-05
1.394E-04	5.4150E-07	0.000E+00	5.6439E-05
1.405E-04	5.4150E-07	0.000E+00	5.2223E-05
1.417E-04	5.4150E-07	0.000E+00	4.8322E-05
1.428E-04	5.4150E-07	0.000E+00	4.4712E-05
1.439E-04	5.4150E-07	0.000E+00	4.1372E-05
1.450E-04	3.6100E-07	0.000E+00	3.8282E-05
1.461E-04	3.6100E-07	0.000E+00	3.5422E-05
1.472E-04	3.6100E-07	0.000E+00	3.2776E-05
1.483E-04	3.6100E-07	0.000E+00	3.0328E-05
1.494E-04	3.6100E-07	0.000E+00	2.8062E-05
1.505E-04	3.6100E-07	0.000E+00	2.5966E-05
1.516E-04	3.6100E-07	0.000E+00	2.4026E-05
1.527E-04	3.6100E-07	0.000E+00	2.2232E-05
1.538E-04	3.6100E-07	0.000E+00	2.0571E-05
1.549E-04	3.6100E-07	0.000E+00	1.9034E-05
1.560E-04	3.6100E-07	0.000E+00	1.7612E-05
1.571E-04	3.6100E-07	0.000E+00	1.6297E-05
1.583E-04	3.6100E-07	0.000E+00	1.5079E-05
1.594E-04	3.6100E-07	0.000E+00	1.3953E-05
1.605E-04	3.6100E-07	0.000E+00	1.2911E-05
1.616E-04	3.6100E-07	0.000E+00	1.1946E-05
1.627E-04	3.6100E-07	0.000E+00	1.1054E-05
1.638E-04	3.6100E-07	0.000E+00	1.0228E-05
1.649E-04	3.6100E-07	0.000E+00	9.4640E-06
1.660E-04	3.6100E-07	0.000E+00	8.7571E-06
1.671E-04	3.6100E-07	0.000E+00	8.1029E-06
1.682E-04	3.6100E-07	0.000E+00	7.4976E-06
1.693E-04	3.6100E-07	0.000E+00	6.9375E-06
1.704E-04	3.6100E-07	0.000E+00	6.4193E-06
1.715E-04	3.6100E-07	0.000E+00	5.9398E-06
1.726E-04	3.6100E-07	0.000E+00	5.4961E-06
1.737E-04	3.6100E-07	0.000E+00	5.0855E-06
1.749E-04	3.6100E-07	0.000E+00	4.7056E-06
1.760E-04	3.6100E-07	0.000E+00	4.3541E-06
1.771E-04	3.6100E-07	0.000E+00	4.0289E-06
1.782E-04	3.6100E-07	0.000E+00	3.7279E-06
1.793E-04	3.6100E-07	0.000E+00	3.4494E-06

1.804E-04	3.6100E-07	0.000E+00	3.1918E-06
1.815E-04	3.6100E-07	0.000E+00	2.9533E-06
1.826E-04	3.6100E-07	0.000E+00	2.7327E-06
1.837E-04	3.6100E-07	0.000E+00	2.5286E-06
1.848E-04	3.6100E-07	0.000E+00	2.3397E-06
1.859E-04	3.6100E-07	0.000E+00	2.1649E-06
1.870E-04	1.8050E-07	0.000E+00	2.0032E-06
1.881E-04	1.8050E-07	0.000E+00	1.8536E-06
1.892E-04	1.8050E-07	0.000E+00	1.7151E-06
1.903E-04	1.8050E-07	0.000E+00	1.5870E-06
1.915E-04	1.8050E-07	0.000E+00	1.4684E-06
1.926E-04	1.8050E-07	0.000E+00	1.3587E-06
1.937E-04	1.8050E-07	0.000E+00	1.2572E-06
1.948E-04	1.8050E-07	0.000E+00	1.1633E-06
1.959E-04	1.8050E-07	0.000E+00	1.0764E-06
1.970E-04	1.8050E-07	0.000E+00	9.9601E-07
1.981E-04	1.8050E-07	0.000E+00	9.2161E-07
1.992E-04	1.8050E-07	0.000E+00	8.5277E-07
2.003E-04	1.8050E-07	0.000E+00	7.8906E-07
2.014E-04	1.8050E-07	0.000E+00	7.3012E-07
2.025E-04	1.8050E-07	0.000E+00	6.7558E-07
2.036E-04	1.8050E-07	0.000E+00	6.2511E-07
2.047E-04	1.8050E-07	0.000E+00	5.7842E-07
2.058E-04	1.8050E-07	0.000E+00	5.3521E-07
2.069E-04	1.8050E-07	0.000E+00	4.9523E-07
2.081E-04	1.8050E-07	0.000E+00	4.5824E-07
2.092E-04	1.8050E-07	0.000E+00	4.2401E-07
2.103E-04	1.8050E-07	0.000E+00	3.9233E-07
2.114E-04	1.8050E-07	0.000E+00	3.6303E-07
2.125E-04	1.8050E-07	0.000E+00	3.3591E-07
2.136E-04	1.8050E-07	0.000E+00	3.1081E-07
2.147E-04	1.8050E-07	0.000E+00	2.8760E-07
2.158E-04	1.8050E-07	0.000E+00	2.6611E-07
2.169E-04	1.8050E-07	0.000E+00	2.4623E-07
2.180E-04	1.8050E-07	0.000E+00	2.2784E-07
2.191E-04	1.8050E-07	0.000E+00	2.1082E-07
2.202E-04	1.8050E-07	0.000E+00	1.9507E-07
2.213E-04	1.8050E-07	2.000E-04	1.8050E-07

****** Flow Duration Performance According to Dept. of Ecology Criteria ******

Excursion at Predeveloped ½Q2 (Must be Less Than 0%):	0.0%	PASS
Maximum Excursion from ½Q2 to Q2 (Must be Less Than 0%):	0.0%	PASS
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	0.0%	PASS
Percent Excursion from Q2 to Q50 (Must be less than 50%):	0.0%	PASS

POND MEETS ALL DURATION DESIGN CRITERIA: PASS

MGS FLOOD
PROJECT REPORT

Program Version: MGSFlood Light, Single Time Series Version 4.12
Program License Number: 201110003
Run Date: 11/08/2011 2:03 PM

Input File Name: AsphaltBW.fld
Project Name: Arlington Airport Hangers
Analysis Title:
Comments: Asphalt B West

——————————————— PRECIPITATION INPUT ———————————————

Computational Time Step (Minutes): 15

Extended Precipitation Timeseries Selected
Climatic Region Number: 14

Full Period of Record Available used for Routing
Precipitation Station : 96004405 Puget East 44 in_5min 10/01/1939-10/01/2097
Evaporation Station : 961044 Puget East 44 in MAP
Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1
HSPF Parameter Region Name : USGS Default

********** Default HSPF Parameters Used (Not Modified by User) **********

********** **WATERSHED DEFINITION** **********

----------SCENARIO: PREDEVELOPED
Number of Subbasins: 1

---------- Subbasin : Predeveloped Condition ----------

	-------Area(Acres) --------
Till Forest	0.000
Till Pasture	0.000
Till Grass	0.000
Outwash Forest	0.032
Outwash Pasture	0.000
Outwash Grass	0.000
Wetland	0.000
Green Roof	0.000
User	0.000
Impervious	0.000
Subbasin Total	0.032

----------SCENARIO: POSTDEVELOPED
Number of Subbasins: 1

---------- Subbasin : Developed Condition ----------

	-------Area(Acres) --------
Till Forest	0.000
Till Pasture	0.000
Till Grass	0.000
Outwash Forest	0.000
Outwash Pasture	0.000
Outwash Grass	0.016
Wetland	0.000
Green Roof	0.000
User	0.000
Impervious	0.016
---	---
Subbasin Total	0.032

********** **LINK DATA** **********

----------SCENARIO: PREDEVELOPED
Number of Links: 0

********** **LINK DATA** **********

----------SCENARIO: POSTDEVELOPED
Number of Links: 1

Link Name: InfiltrationPond
Link Type: Structure
Downstream Link: None

Prismatic Pond Option Used

Pond Floor Elevation (ft)	:	100.00
Riser Crest Elevation (ft)	:	104.00
Max Pond Elevation (ft)	:	104.50
Storage Depth (ft)	:	4.00
Pond Bottom Length (ft)	:	28.0
Pond Bottom Width (ft)	:	14.0
Pond Side Slopes (ft/ft)	:	L1= 3.00 L2= 3.00 W1= 3.00 W2= 3.00
Bottom Area (sq-ft)	:	392.
Area at Riser Crest El (sq-ft)	:	1,976.
(acres)	:	0.045
Volume at Riser Crest (cu-ft)	:	4,352.
(ac-ft)	:	0.100
Area at Max Elevation (sq-ft)	:	2255.
(acres)	:	0.052
Vol at Max Elevation (cu-ft)	:	5,607.
(ac-ft)	:	0.129

Constant Infiltration Option Used
Infiltration Rate (in/hr): 0.50

Riser Geometry
Riser Structure Type : Circular
Riser Diameter (in) : 18.00
Common Length (ft) : 0.000
Riser Crest Elevation : 104.00 ft

Hydraulic Structure Geometry

Number of Devices: 0

Structure Stage, Storage Discharge Tables

Link: Lnk1 InfiltrationPond

Elev (ft)	Storage (ac-ft)	Discharge (cfs)	Infilt Discharge (cfs)
100.000	0.000	0.000	0.000
100.018	1.584E-04	0.000	0.005
100.035	3.186E-04	0.000	0.005
100.070	6.443E-04	0.000	0.005
100.140	1.317E-03	0.000	0.005
100.210	2.020E-03	0.000	0.005
100.280	2.753E-03	0.000	0.005
100.350	3.516E-03	0.000	0.006
100.420	4.310E-03	0.000	0.006
100.490	5.136E-03	0.000	0.006
100.560	5.995E-03	0.000	0.006
100.630	6.886E-03	0.000	0.007
100.700	7.811E-03	0.000	0.007
100.770	8.770E-03	0.000	0.007
100.840	9.763E-03	0.000	0.007
100.910	0.011	0.000	0.008
100.980	0.012	0.000	0.008
101.050	0.013	0.000	0.008
101.120	0.014	0.000	0.008
101.190	0.015	0.000	0.009
101.260	0.016	0.000	0.009
101.330	0.018	0.000	0.009
101.400	0.019	0.000	0.009
101.470	0.020	0.000	0.010
101.540	0.022	0.000	0.010
101.610	0.023	0.000	0.010
101.680	0.025	0.000	0.011
101.750	0.026	0.000	0.011
101.820	0.028	0.000	0.011
101.890	0.029	0.000	0.012
101.960	0.031	0.000	0.012
102.030	0.032	0.000	0.012
102.100	0.034	0.000	0.012
102.170	0.036	0.000	0.013

102.240	0.038	0.000	0.013
102.310	0.040	0.000	0.013
102.380	0.042	0.000	0.014
102.450	0.043	0.000	0.014
102.520	0.045	0.000	0.015
102.590	0.047	0.000	0.015
102.660	0.050	0.000	0.015
102.730	0.052	0.000	0.016
102.800	0.054	0.000	0.016
102.870	0.056	0.000	0.016
102.940	0.058	0.000	0.017
103.010	0.061	0.000	0.017
103.080	0.063	0.000	0.017
103.150	0.066	0.000	0.018
103.220	0.068	0.000	0.018
103.290	0.071	0.000	0.019
103.360	0.073	0.000	0.019
103.430	0.076	0.000	0.019
103.500	0.079	0.000	0.020
103.570	0.082	0.000	0.020
103.640	0.084	0.000	0.021
103.710	0.087	0.000	0.021
103.780	0.090	0.000	0.022
103.850	0.093	0.000	0.022
103.920	0.096	0.000	0.022
103.940	0.097	0.000	0.022
103.960	0.098	0.000	0.023
103.980	0.099	0.000	0.023
104.000	0.100	0.000	0.023
104.018	0.101	0.037	0.023
104.035	0.102	0.104	0.023
104.053	0.102	0.191	0.023
104.070	0.103	0.294	0.023
104.088	0.104	0.411	0.023
104.105	0.105	0.540	0.024
104.123	0.106	0.680	0.024
104.140	0.106	0.830	0.024
104.210	0.110	1.508	0.024
104.280	0.113	2.274	0.025
104.350	0.117	3.073	0.025
104.420	0.120	3.848	0.026
104.490	0.124	4.548	0.026
104.560	0.127	5.130	0.027
104.630	0.131	5.575	0.027
104.700	0.135	5.893	0.027
104.770	0.139	6.219	0.028
104.840	0.143	6.495	0.028
104.910	0.147	6.760	0.029
104.980	0.151	7.016	0.029
105.050	0.155	7.262	0.030

**************************FLOOD FREQUENCY AND DURATION STATISTICS************************

----------SCENARIO: PREDEVELOPED

Number of Subbasins: 1

Number of Links: 0

----------SCENARIO: POSTDEVELOPED
Number of Subbasins: 1
Number of Links: 1

********** Link: InfiltrationPond ********** Link WSEL Stats
Annual Maxima WSEL

Max Date	WSEL (ft)
10/27/1939	100.020
09/02/1941	100.024
12/15/1941	100.033
11/23/1942	100.016
10/29/1943	100.015
02/07/1945	100.017
01/23/1946	100.016
10/20/1946	100.020
03/21/1948	100.021
02/16/1949	100.028
03/03/1950	100.108
10/08/1950	100.013
06/29/1952	100.087
09/30/1953	100.026
12/19/1953	100.016
09/13/1955	100.012
10/07/1955	100.023
05/21/1957	100.011
01/16/1958	100.019
01/12/1959	100.014
01/28/1960	100.020
10/23/1960	100.017
07/05/1962	100.025
11/25/1962	100.012
09/17/1964	100.026
05/04/1965	100.027
01/05/1966	100.015
11/13/1966	100.026
08/23/1968	100.035
05/29/1969	100.014
01/13/1970	100.015
12/05/1970	100.014
02/27/1972	100.044
06/24/1973	100.014
11/11/1973	100.016
10/27/1974	100.023
07/08/1976	100.015
10/28/1976	100.020
09/17/1978	100.030
09/08/1979	100.027
12/14/1979	100.020
11/21/1980	100.027
10/06/1981	100.053
10/28/1982	100.034

03/14/1984	100.015
06/06/1985	100.014
01/18/1986	100.021
10/26/1986	100.044
05/28/1988	100.013
08/21/1989	100.018
01/09/1990	100.123
11/24/1990	100.085
01/27/1992	100.018
06/09/1993	100.013
09/03/1994	100.012
11/30/1994	100.015
02/08/1996	100.027
01/02/1997	100.021
10/29/1997	100.015
11/04/1998	100.064
09/26/2000	100.019
09/01/2001	100.012
05/03/2002	100.052
02/06/2003	100.023
01/01/2004	100.014
02/05/2005	100.017
11/16/2005	100.015
12/14/2006	100.018
03/21/2008	100.027
02/17/2009	100.034
06/10/2010	100.071
09/30/2011	100.035
10/22/2011	100.028
01/20/2013	100.069
12/06/2013	100.027
11/17/2014	100.016
01/04/2016	100.032
06/14/2017	100.022
12/25/2017	100.019
11/09/2018	100.023
12/12/2019	100.014
11/24/2020	100.024
12/20/2021	100.029
02/02/2023	100.018
09/17/2024	100.015
06/14/2025	100.023
03/09/2026	100.013
05/30/2027	100.014
06/01/2028	100.017
10/11/2028	100.027
11/04/2029	100.031
09/24/2031	100.034
01/20/2032	100.021
12/23/2032	100.014
02/18/2034	100.020
12/21/2034	100.015
12/04/2035	100.018
05/15/2037	100.019
11/24/2037	100.019
11/04/2038	100.018

01/14/2040	100.041
12/24/2040	100.014
11/11/2041	100.035
07/19/2043	100.044
09/05/2044	100.017
11/02/2044	100.021
03/07/2046	100.019
11/24/2046	100.016
12/02/2047	100.020
07/31/2049	100.016
12/04/2049	100.027
02/02/2051	100.017
10/25/2051	100.016
06/04/2053	100.045
10/14/2053	100.014
10/27/2054	100.044
02/07/2056	100.029
11/19/2056	100.032
01/24/2058	100.028
11/26/2058	100.021
05/15/2060	100.040
09/01/2061	100.038
02/03/2062	100.151
09/16/2063	100.017
07/21/2064	100.028
11/29/2064	100.018
06/27/2066	100.011
12/05/2066	100.016
01/18/2068	100.033
07/10/2069	100.011
04/09/2070	100.014
09/27/2071	100.014
04/28/2072	100.018
12/25/2072	100.026
11/09/2073	100.016
08/27/2075	100.019
03/24/2076	100.018
08/24/2077	100.039
08/14/2078	100.017
11/03/2078	100.018
12/17/2079	100.033
09/20/2081	100.032
02/18/2082	100.019
03/29/2083	100.015
06/28/2084	100.017
09/06/2085	100.019
09/23/2086	100.016
10/26/2086	100.027
01/14/2088	100.018
11/05/2088	100.035
10/23/2089	100.016
08/27/2091	100.018
06/29/2092	100.043
11/18/2092	100.017
10/23/2093	100.025
10/31/2094	100.012

08/02/2096	100.033
11/12/2096	100.047

Ranked Annual Maxima Water Surface Elevation (ft)

Tr (Years)	WSEL (ft)
1.00	100.011
1.01	100.011
1.02	100.011
1.02	100.012
1.03	100.012
1.04	100.012
1.04	100.012
1.05	100.012
1.06	100.013
1.06	100.013
1.07	100.013
1.08	100.013
1.09	100.014
1.09	100.014
1.10	100.014
1.11	100.014
1.12	100.014
1.12	100.014
1.13	100.014
1.14	100.014
1.15	100.014
1.16	100.014
1.17	100.014
1.18	100.014
1.18	100.014
1.19	100.015
1.20	100.015
1.21	100.015
1.22	100.015
1.23	100.015
1.24	100.015
1.25	100.015
1.26	100.015
1.27	100.015
1.28	100.015
1.29	100.015
1.30	100.016
1.31	100.016
1.32	100.016
1.33	100.016
1.35	100.016
1.36	100.016
1.37	100.016
1.38	100.016
1.39	100.016
1.40	100.016
1.42	100.016
1.43	100.016
1.44	100.017
1.46	100.017

1.47	100.017
1.48	100.017
1.50	100.017
1.51	100.017
1.53	100.017
1.54	100.017
1.56	100.017
1.57	100.017
1.59	100.018
1.60	100.018
1.62	100.018
1.64	100.018
1.65	100.018
1.67	100.018
1.69	100.018
1.71	100.018
1.73	100.018
1.75	100.018
1.77	100.018
1.79	100.018
1.81	100.019
1.83	100.019
1.85	100.019
1.87	100.019
1.89	100.019
1.92	100.019
1.94	100.019
1.96	100.019
1.99	100.019
2.01	100.020
2.04	100.020
2.07	100.020
2.09	100.020
2.12	100.020
2.15	100.020
2.18	100.020
2.21	100.021
2.24	100.021
2.27	100.021
2.31	100.021
2.34	100.021
2.38	100.021
2.41	100.022
2.45	100.023
2.49	100.023
2.53	100.023
2.57	100.023
2.61	100.023
2.65	100.024
2.70	100.024
2.75	100.025
2.80	100.025
2.85	100.026
2.90	100.026
2.95	100.026
3.01	100.026

3.07	100.027
3.13	100.027
3.19	100.027
3.26	100.027
3.32	100.027
3.40	100.027
3.47	100.027
3.55	100.027
3.63	100.027
3.72	100.028
3.80	100.028
3.90	100.028
4.00	100.028
4.10	100.029
4.21	100.029
4.32	100.030
4.45	100.031
4.58	100.032
4.71	100.032
4.86	100.032
5.01	100.033
5.17	100.033
5.35	100.033
5.54	100.033
5.74	100.034
5.95	100.034
6.19	100.034
6.44	100.035
6.71	100.035
7.01	100.035
7.33	100.035
7.69	100.038
8.08	100.039
8.52	100.040
9.00	100.041
9.55	100.043
10.16	100.044
10.86	100.044
11.66	100.044
12.59	100.044
13.68	100.045
14.97	100.047
16.54	100.052
18.47	100.053
20.92	100.064
24.10	100.069
28.44	100.071
34.68	100.085
44.42	100.087
61.77	100.108
101.36	100.123
282.36	100.151

WSEL Frequency Data(ft)
(Recurrence Interval Computed Using Gringorten Plotting Position)

Tr (yrs)	WSEL Peak (ft)

==========

1.05-Year	100.013
1.11-Year	100.014
1.25-Year	100.015
2.00-Year	100.020
3.33-Year	100.027
5-Year	100.033
10-Year	100.044
25-Year	100.060
50-Year	100.092
100-Year	100.123

*************Water Quality Facility Data ***************

----------SCENARIO: PREDEVELOPED

Number of Links: 0

----------SCENARIO: POSTDEVELOPED

Number of Links: 1

********** Link: InfiltrationPond **********

Basic Wet Pond Volume (91% Exceedance): 78. cu-ft
Computed Large Wet Pond Volume, 1.5*Basic Volume: 116. cu-ft

Time to Infiltrate 91% Treatment Volume, (Hours): 6.06

Infiltration/Filtration Statistics----------
Total Runoff Volume (ac-ft): 8.05
Total Runoff Infiltrated (ac-ft): 8.05, 100.00%
Total Runoff Filtered (ac-ft): 0.00, 0.00%
Percent Treated (Infiltrated+Filtered)/Total Volume: 100.00%

*************Compliance Point Results ***************

Scenario Predeveloped Compliance Subbasin: Predeveloped Condition

Scenario Postdeveloped Compliance Link: InfiltrationPond
****Point of Compliance Annual Maxima Flow Data ****

Predevelopment Runoff		Postdevelopment Runoff	
Date	Annual Max Q (cfs)	Date	Annual Max Q (cfs)
04/23/1940	0.000	10/27/1939	0.000
05/16/1941	0.000	09/02/1941	0.000
11/13/1941	0.000	12/15/1941	0.000
04/20/1943	0.000	11/23/1942	0.000
01/22/1944	0.000	10/29/1943	0.000

05/15/1945	0.000	02/07/1945	0.000
02/27/1946	0.000	01/23/1946	0.000
01/23/1947	0.000	10/20/1946	0.000
02/16/1948	0.000	03/21/1948	0.000
11/14/1948	0.000	02/16/1949	0.000
03/03/1950	1.014E-04	03/03/1950	0.000
12/05/1950	0.000	10/08/1950	0.000
06/29/1952	0.000	06/29/1952	0.000
03/28/1953	0.000	09/30/1953	0.000
01/03/1954	0.000	12/19/1953	0.000
02/28/1955	0.000	09/13/1955	0.000
06/03/1956	0.000	10/07/1955	0.000
06/12/1957	0.000	05/21/1957	0.000
02/24/1958	0.000	01/16/1958	0.000
01/12/1959	0.000	01/12/1959	0.000
01/28/1960	0.000	01/28/1960	0.000
03/10/1961	0.000	10/23/1960	0.000
05/08/1962	0.000	07/05/1962	0.000
06/28/1963	0.000	11/25/1962	0.000
03/22/1964	0.000	09/17/1964	0.000
02/26/1965	0.000	05/04/1965	0.000
01/05/1966	0.000	01/05/1966	0.000
01/19/1967	0.000	11/13/1966	0.000
02/02/1968	0.000	08/23/1968	0.000
12/07/1968	0.000	05/29/1969	0.000
04/01/1970	0.000	01/13/1970	0.000
12/06/1970	0.000	12/05/1970	0.000
02/27/1972	0.000	02/27/1972	0.000
01/13/1973	0.000	06/24/1973	0.000
01/25/1974	0.000	11/11/1973	0.000
12/26/1974	0.000	10/27/1974	0.000
02/27/1976	0.000	07/08/1976	0.000
09/23/1977	0.000	10/28/1976	0.000
12/15/1977	0.000	09/17/1978	0.000
03/04/1979	0.000	09/08/1979	0.000
12/17/1979	0.000	12/14/1979	0.000
11/21/1980	0.000	11/21/1980	0.000
02/20/1982	0.000	10/06/1981	0.000
10/28/1982	0.000	10/28/1982	0.000
04/09/1984	0.000	03/14/1984	0.000
06/06/1985	0.000	06/06/1985	0.000
02/15/1986	0.000	01/18/1986	0.000
03/11/1987	0.000	10/26/1986	0.000
05/16/1988	0.000	05/28/1988	0.000
05/17/1989	0.000	08/21/1989	0.000
03/13/1990	0.000	01/09/1990	0.000
04/04/1991	1.765E-04	11/24/1990	0.000
04/16/1992	0.000	01/27/1992	0.000
04/08/1993	0.000	06/09/1993	0.000
03/20/1994	0.000	09/03/1994	0.000
11/30/1994	0.000	11/30/1994	0.000
02/09/1996	1.091E-04	02/08/1996	0.000
12/31/1996	0.000	01/02/1997	0.000
03/22/1998	0.000	10/29/1997	0.000
02/24/1999	0.000	11/04/1998	0.000
02/05/2000	0.000	09/26/2000	0.000

04/01/2001	0.000	09/01/2001	0.000
05/03/2002	0.000	05/03/2002	0.000
02/06/2003	1.066E-04	02/06/2003	0.000
01/01/2004	0.000	01/01/2004	0.000
01/06/2005	0.000	02/05/2005	0.000
01/02/2006	0.000	11/16/2005	0.000
02/02/2007	0.000	12/14/2006	0.000
05/03/2008	0.000	03/21/2008	0.000
02/17/2009	0.000	02/17/2009	0.000
11/26/2009	0.000	06/10/2010	0.000
03/08/2011	0.000	09/30/2011	0.000
10/22/2011	0.000	10/22/2011	0.000
01/20/2013	0.000	01/20/2013	0.000
01/25/2014	0.000	12/06/2013	0.000
11/17/2014	0.000	11/17/2014	0.000
12/21/2015	0.000	01/04/2016	0.000
06/15/2017	0.000	06/14/2017	0.000
04/20/2018	0.000	12/25/2017	0.000
05/05/2019	0.000	11/09/2018	0.000
03/29/2020	0.000	12/12/2019	0.000
05/20/2021	0.000	11/24/2020	0.000
06/02/2022	0.000	12/20/2021	0.000
02/25/2023	0.000	02/02/2023	0.000
03/11/2024	0.000	09/17/2024	0.000
03/26/2025	0.000	06/14/2025	0.000
03/09/2026	0.000	03/09/2026	0.000
01/27/2027	0.000	05/30/2027	0.000
03/14/2028	0.000	06/01/2028	0.000
12/03/2028	0.000	10/11/2028	0.000
12/13/2029	0.000	11/04/2029	0.000
12/30/2030	0.000	09/24/2031	0.000
04/08/2032	0.000	01/20/2032	0.000
04/18/2033	0.000	12/23/2032	0.000
02/21/2034	1.427E-04	02/18/2034	0.000
05/03/2035	0.000	12/21/2034	0.000
02/27/2036	0.000	12/04/2035	0.000
05/15/2037	0.000	05/15/2037	0.000
04/05/2038	0.000	11/24/2037	0.000
02/07/2039	0.000	11/04/2038	0.000
11/17/2039	0.000	01/14/2040	0.000
02/19/2041	0.000	12/24/2040	0.000
12/14/2041	0.000	11/11/2041	0.000
03/31/2043	0.000	07/19/2043	0.000
06/08/2044	0.000	09/05/2044	0.000
02/07/2045	0.000	11/02/2044	0.000
02/16/2046	0.000	03/07/2046	0.000
04/17/2047	0.000	11/24/2046	0.000
04/20/2048	0.000	12/02/2047	0.000
03/16/2049	0.000	07/31/2049	0.000
05/23/2050	0.000	12/04/2049	0.000
11/24/2050	0.000	02/02/2051	0.000
04/13/2052	0.000	10/25/2051	0.000
12/10/2052	0.000	06/04/2053	0.000
05/16/2054	0.000	10/14/2053	0.000
04/09/2055	0.000	10/27/2054	0.000
02/08/2056	0.000	02/07/2056	0.000

03/01/2057	0.000	11/19/2056	0.000
02/20/2058	0.000	01/24/2058	0.000
11/25/2058	0.000	11/26/2058	0.000
05/15/2060	0.000	05/15/2060	0.000
11/13/2060	0.000	09/01/2061	0.000
01/02/2062	0.000	02/03/2062	0.000
02/02/2063	0.000	09/16/2063	0.000
12/23/2063	0.000	07/21/2064	0.000
11/11/2064	0.000	11/29/2064	0.000
12/06/2065	0.000	06/27/2066	0.000
11/27/2066	0.000	12/05/2066	0.000
11/29/2067	0.000	01/18/2068	0.000
04/12/2069	0.000	07/10/2069	0.000
04/09/2070	0.000	04/09/2070	0.000
11/08/2070	0.000	09/27/2071	0.000
04/28/2072	0.000	04/28/2072	0.000
12/25/2072	0.000	12/25/2072	0.000
11/09/2073	0.000	11/09/2073	0.000
02/12/2075	0.000	08/27/2075	0.000
11/04/2075	0.000	03/24/2076	0.000
04/08/2077	0.000	08/24/2077	0.000
11/25/2077	0.000	08/14/2078	0.000
01/20/2079	0.000	11/03/2078	0.000
12/17/2079	0.000	12/17/2079	0.000
04/05/2081	0.000	09/20/2081	0.000
11/19/2081	0.000	02/18/2082	0.000
03/29/2083	0.000	03/29/2083	0.000
05/08/2084	0.000	06/28/2084	0.000
02/11/2085	0.000	09/06/2085	0.000
04/15/2086	0.000	09/23/2086	0.000
12/21/2086	0.000	10/26/2086	0.000
05/02/2088	0.000	01/14/2088	0.000
01/17/2089	0.000	11/05/2088	0.000
03/13/2090	0.000	10/23/2089	0.000
11/07/2090	0.000	08/27/2091	0.000
06/29/2092	0.000	06/29/2092	0.000
06/15/2093	0.000	11/18/2092	0.000
06/18/2094	0.000	10/23/2093	0.000
04/10/2095	0.000	10/31/2094	0.000
11/24/2095	0.000	08/02/2096	0.000
01/29/2097	3.079E-04	11/12/2096	0.000

******Point of Compliance Ranked Maxima Flow Data ******

Predevelopment		Postdevelopment	
Tr (yrs)	Q (cfs)	Tr (yrs)	Q (cfs)
1.00	0.000	1.00	0.000
1.01	0.000	1.01	0.000
1.02	0.000	1.02	0.000
1.02	0.000	1.02	0.000
1.03	0.000	1.03	0.000
1.04	0.000	1.04	0.000
1.04	0.000	1.04	0.000
1.05	0.000	1.05	0.000
1.06	0.000	1.06	0.000

1.06	0.000	1.06	0.000
1.07	0.000	1.07	0.000
1.08	0.000	1.08	0.000
1.09	0.000	1.09	0.000
1.09	0.000	1.09	0.000
1.10	0.000	1.10	0.000
1.11	0.000	1.11	0.000
1.12	0.000	1.12	0.000
1.12	0.000	1.12	0.000
1.13	0.000	1.13	0.000
1.14	0.000	1.14	0.000
1.15	0.000	1.15	0.000
1.16	0.000	1.16	0.000
1.17	0.000	1.17	0.000
1.18	0.000	1.18	0.000
1.18	0.000	1.18	0.000
1.19	0.000	1.19	0.000
1.20	0.000	1.20	0.000
1.21	0.000	1.21	0.000
1.22	0.000	1.22	0.000
1.23	0.000	1.23	0.000
1.24	0.000	1.24	0.000
1.25	0.000	1.25	0.000
1.26	0.000	1.26	0.000
1.27	0.000	1.27	0.000
1.28	0.000	1.28	0.000
1.29	0.000	1.29	0.000
1.30	0.000	1.30	0.000
1.31	0.000	1.31	0.000
1.32	0.000	1.32	0.000
1.33	0.000	1.33	0.000
1.35	0.000	1.35	0.000
1.36	0.000	1.36	0.000
1.37	0.000	1.37	0.000
1.38	0.000	1.38	0.000
1.39	0.000	1.39	0.000
1.40	0.000	1.40	0.000
1.42	0.000	1.42	0.000
1.43	0.000	1.43	0.000
1.44	0.000	1.44	0.000
1.46	0.000	1.46	0.000
1.47	0.000	1.47	0.000
1.48	0.000	1.48	0.000
1.50	0.000	1.50	0.000
1.51	0.000	1.51	0.000
1.53	0.000	1.53	0.000
1.54	0.000	1.54	0.000
1.56	0.000	1.56	0.000
1.57	0.000	1.57	0.000
1.59	0.000	1.59	0.000
1.60	0.000	1.60	0.000
1.62	0.000	1.62	0.000
1.64	0.000	1.64	0.000
1.65	0.000	1.65	0.000
1.67	0.000	1.67	0.000
1.69	0.000	1.69	0.000

1.71	0.000	1.71	0.000
1.73	0.000	1.73	0.000
1.75	0.000	1.75	0.000
1.77	0.000	1.77	0.000
1.79	0.000	1.79	0.000
1.81	0.000	1.81	0.000
1.83	0.000	1.83	0.000
1.85	0.000	1.85	0.000
1.87	0.000	1.87	0.000
1.89	0.000	1.89	0.000
1.92	0.000	1.92	0.000
1.94	0.000	1.94	0.000
1.96	0.000	1.96	0.000
1.99	0.000	1.99	0.000
2.01	0.000	2.01	0.000
2.04	0.000	2.04	0.000
2.07	0.000	2.07	0.000
2.09	0.000	2.09	0.000
2.12	0.000	2.12	0.000
2.15	0.000	2.15	0.000
2.18	0.000	2.18	0.000
2.21	0.000	2.21	0.000
2.24	0.000	2.24	0.000
2.27	0.000	2.27	0.000
2.31	0.000	2.31	0.000
2.34	0.000	2.34	0.000
2.38	0.000	2.38	0.000
2.41	0.000	2.41	0.000
2.45	0.000	2.45	0.000
2.49	0.000	2.49	0.000
2.53	0.000	2.53	0.000
2.57	0.000	2.57	0.000
2.61	0.000	2.61	0.000
2.65	0.000	2.65	0.000
2.70	0.000	2.70	0.000
2.75	0.000	2.75	0.000
2.80	0.000	2.80	0.000
2.85	0.000	2.85	0.000
2.90	0.000	2.90	0.000
2.95	0.000	2.95	0.000
3.01	0.000	3.01	0.000
3.07	0.000	3.07	0.000
3.13	0.000	3.13	0.000
3.19	0.000	3.19	0.000
3.26	0.000	3.26	0.000
3.32	0.000	3.32	0.000
3.40	0.000	3.40	0.000
3.47	0.000	3.47	0.000
3.55	0.000	3.55	0.000
3.63	0.000	3.63	0.000
3.72	0.000	3.72	0.000
3.80	0.000	3.80	0.000
3.90	0.000	3.90	0.000
4.00	0.000	4.00	0.000
4.10	0.000	4.10	0.000
4.21	0.000	4.21	0.000

4.32	0.000	4.32	0.000
4.45	0.000	4.45	0.000
4.58	0.000	4.58	0.000
4.71	0.000	4.71	0.000
4.86	0.000	4.86	0.000
5.01	0.000	5.01	0.000
5.17	0.000	5.17	0.000
5.35	0.000	5.35	0.000
5.54	0.000	5.54	0.000
5.74	0.000	5.74	0.000
5.95	0.000	5.95	0.000
6.19	0.000	6.19	0.000
6.44	0.000	6.44	0.000
6.71	0.000	6.71	0.000
7.01	0.000	7.01	0.000
7.33	0.000	7.33	0.000
7.69	0.000	7.69	0.000
8.08	0.000	8.08	0.000
8.52	0.000	8.52	0.000
9.00	0.000	9.00	0.000
9.55	0.000	9.55	0.000
10.16	0.000	10.16	0.000
10.86	0.000	10.86	0.000
11.66	0.000	11.66	0.000
12.59	0.000	12.59	0.000
13.68	0.000	13.68	0.000
14.97	0.000	14.97	0.000
16.54	0.000	16.54	0.000
18.47	0.000	18.47	0.000
20.92	0.000	20.92	0.000
24.10	0.000	24.10	0.000
28.44	1.014E-04	28.44	0.000E+00
34.68	1.066E-04	34.68	0.000E+00
44.42	1.091E-04	44.42	0.000E+00
61.77	1.427E-04	61.77	0.000E+00
101.36	1.765E-04	101.36	0.000E+00
282.36	3.079E-04	282.36	0.000E+00

***** Point of Compliance Flow Frequency Data *****

Recurrence Interval Computed Using Gringorten Plotting Position

Predevelopment Runoff		Postdevelopment Runoff	
Tr (Years)	Discharge (cfs)	Tr (Years)	Discharge (cfs)
2-Year	2.482E-05	2-Year	1.952E-07
5-Year	2.559E-05	5-Year	3.260E-07
10-Year	2.578E-05	10-Year	4.346E-07
25-Year	9.688E-05	25-Year	6.961E-07
50-Year	1.212E-04	50-Year	9.420E-07
100-Year	1.756E-04	100-Year	1.224E-06
200-Year	2.637E-04	200-Year	1.414E-06

** Record too Short to Compute Peak Discharge for These Recurrence Intervals

***** Point of Compliance Flow Duration Data *****

Predevelopment Runoff Postdevelopment Runoff

Discharge (cfs)	Exceedance Probability	Discharge (cfs)	Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
1.540E-06	1.3028E-02	0.000E+00	9.2530E-01
3.079E-06	5.7410E-03	0.000E+00	8.5618E-01
4.619E-06	3.1871E-03	0.000E+00	7.9222E-01
6.159E-06	2.1698E-03	0.000E+00	7.3304E-01
7.699E-06	1.6516E-03	0.000E+00	6.7828E-01
9.238E-06	1.2456E-03	0.000E+00	6.2762E-01
1.078E-05	9.4690E-04	0.000E+00	5.8073E-01
1.241E-05	7.0946E-04	0.000E+00	5.3735E-01
1.386E-05	5.5089E-04	0.000E+00	4.9721E-01
1.540E-05	4.2544E-04	0.000E+00	4.6007E-01
1.694E-05	3.3068E-04	0.000E+00	4.2570E-01
1.848E-05	2.4981E-04	0.000E+00	3.9390E-01
2.002E-05	1.7978E-04	0.000E+00	3.6448E-01
2.156E-05	1.2292E-04	0.000E+00	3.3725E-01
2.310E-05	7.3644E-05	0.000E+00	3.1206E-01
2.482E-05	2.8054E-05	0.000E+00	2.8875E-01
2.559E-05	1.3774E-05	0.000E+00	2.6718E-01
2.772E-05	7.4005E-06	0.000E+00	2.4722E-01
2.925E-05	7.4005E-06	0.000E+00	2.2875E-01
3.079E-05	6.8590E-06	0.000E+00	2.1166E-01
3.233E-05	6.4980E-06	0.000E+00	1.9585E-01
3.387E-05	5.7760E-06	0.000E+00	1.8122E-01
3.541E-05	5.4150E-06	0.000E+00	1.6769E-01
3.695E-05	4.8735E-06	0.000E+00	1.5516E-01
3.849E-05	4.6930E-06	0.000E+00	1.4357E-01
4.003E-05	4.5125E-06	0.000E+00	1.3284E-01
4.157E-05	4.3320E-06	0.000E+00	1.2292E-01
4.311E-05	4.3320E-06	0.000E+00	1.1374E-01
4.465E-05	4.3320E-06	0.000E+00	1.0524E-01
4.619E-05	4.1515E-06	0.000E+00	9.7380E-02
4.773E-05	4.1515E-06	0.000E+00	9.0106E-02
4.927E-05	4.1515E-06	0.000E+00	8.3375E-02
5.081E-05	3.9710E-06	0.000E+00	7.7147E-02
5.235E-05	3.7905E-06	0.000E+00	7.1384E-02
5.389E-05	3.7905E-06	0.000E+00	6.6052E-02
5.543E-05	3.7905E-06	0.000E+00	6.1118E-02
5.697E-05	3.6100E-06	0.000E+00	5.6552E-02
5.851E-05	3.6100E-06	0.000E+00	5.2328E-02
6.005E-05	3.4295E-06	0.000E+00	4.8419E-02
6.159E-05	3.2490E-06	0.000E+00	4.4802E-02
6.313E-05	3.0685E-06	0.000E+00	4.1455E-02
6.467E-05	2.8880E-06	0.000E+00	3.8358E-02
6.621E-05	2.8880E-06	0.000E+00	3.5493E-02
6.775E-05	2.7075E-06	0.000E+00	3.2842E-02
6.929E-05	2.7075E-06	0.000E+00	3.0388E-02
7.083E-05	2.7075E-06	0.000E+00	2.8118E-02
7.237E-05	2.7075E-06	0.000E+00	2.6018E-02
7.391E-05	2.7075E-06	0.000E+00	2.4074E-02
7.545E-05	2.7075E-06	0.000E+00	2.2276E-02
7.699E-05	2.7075E-06	0.000E+00	2.0612E-02

7.853E-05	2.7075E-06	0.000E+00	1.9072E-02
8.007E-05	2.7075E-06	0.000E+00	1.7648E-02
8.161E-05	2.7075E-06	0.000E+00	1.6329E-02
8.315E-05	2.5270E-06	0.000E+00	1.5109E-02
8.468E-05	2.5270E-06	0.000E+00	1.3981E-02
8.622E-05	2.5270E-06	0.000E+00	1.2936E-02
8.776E-05	2.3465E-06	0.000E+00	1.1970E-02
8.930E-05	2.3465E-06	0.000E+00	1.1076E-02
9.084E-05	2.1660E-06	0.000E+00	1.0249E-02
9.238E-05	2.1660E-06	0.000E+00	9.4829E-03
9.392E-05	2.1660E-06	0.000E+00	8.7746E-03
9.546E-05	1.9855E-06	0.000E+00	8.1191E-03
9.700E-05	1.8050E-06	0.000E+00	7.5126E-03
9.854E-05	1.8050E-06	0.000E+00	6.9514E-03
1.001E-04	1.8050E-06	0.000E+00	6.4321E-03
1.016E-04	1.6245E-06	0.000E+00	5.9517E-03
1.032E-04	1.4440E-06	0.000E+00	5.5071E-03
1.047E-04	1.4440E-06	0.000E+00	5.0957E-03
1.062E-04	1.4440E-06	0.000E+00	4.7150E-03
1.078E-04	1.2635E-06	0.000E+00	4.3628E-03
1.093E-04	1.0830E-06	0.000E+00	4.0369E-03
1.109E-04	1.0830E-06	0.000E+00	3.7354E-03
1.124E-04	1.0830E-06	0.000E+00	3.4563E-03
1.139E-04	1.0830E-06	0.000E+00	3.1981E-03
1.155E-04	1.0830E-06	0.000E+00	2.9592E-03
1.170E-04	1.0830E-06	0.000E+00	2.7382E-03
1.186E-04	1.0830E-06	0.000E+00	2.5336E-03
1.201E-04	1.0830E-06	0.000E+00	2.3444E-03
1.212E-04	1.0830E-06	0.000E+00	2.1692E-03
1.232E-04	1.0830E-06	0.000E+00	2.0072E-03
1.247E-04	1.0830E-06	0.000E+00	1.8573E-03
1.263E-04	1.0830E-06	0.000E+00	1.7185E-03
1.278E-04	1.0830E-06	0.000E+00	1.5902E-03
1.293E-04	1.0830E-06	0.000E+00	1.4714E-03
1.309E-04	1.0830E-06	0.000E+00	1.3615E-03
1.324E-04	1.0830E-06	0.000E+00	1.2598E-03
1.340E-04	1.0830E-06	0.000E+00	1.1656E-03
1.355E-04	1.0830E-06	0.000E+00	1.0786E-03
1.370E-04	9.0250E-07	0.000E+00	9.9801E-04
1.386E-04	9.0250E-07	0.000E+00	9.2345E-04
1.401E-04	9.0250E-07	0.000E+00	8.5447E-04
1.417E-04	9.0250E-07	0.000E+00	7.9064E-04
1.432E-04	7.2200E-07	0.000E+00	7.3158E-04
1.447E-04	7.2200E-07	0.000E+00	6.7693E-04
1.463E-04	7.2200E-07	0.000E+00	6.2636E-04
1.478E-04	7.2200E-07	0.000E+00	5.7957E-04
1.494E-04	7.2200E-07	0.000E+00	5.3628E-04
1.509E-04	7.2200E-07	0.000E+00	4.9622E-04
1.524E-04	7.2200E-07	0.000E+00	4.5915E-04
1.540E-04	7.2200E-07	0.000E+00	4.2485E-04
1.555E-04	7.2200E-07	0.000E+00	3.9312E-04
1.571E-04	7.2200E-07	0.000E+00	3.6375E-04
1.586E-04	7.2200E-07	0.000E+00	3.3658E-04
1.601E-04	7.2200E-07	0.000E+00	3.1144E-04
1.617E-04	7.2200E-07	0.000E+00	2.8817E-04
1.632E-04	7.2200E-07	0.000E+00	2.6664E-04

1.648E-04	7.2200E-07	0.000E+00	2.4673E-04
1.663E-04	7.2200E-07	0.000E+00	2.2830E-04
1.678E-04	7.2200E-07	0.000E+00	2.1124E-04
1.694E-04	7.2200E-07	0.000E+00	1.9546E-04
1.709E-04	7.2200E-07	0.000E+00	1.8086E-04
1.724E-04	7.2200E-07	0.000E+00	1.6735E-04
1.740E-04	7.2200E-07	0.000E+00	1.5485E-04
1.755E-04	7.2200E-07	0.000E+00	1.4328E-04
1.771E-04	5.4150E-07	0.000E+00	1.3258E-04
1.786E-04	5.4150E-07	0.000E+00	1.2268E-04
1.801E-04	5.4150E-07	0.000E+00	1.1351E-04
1.817E-04	5.4150E-07	0.000E+00	1.0503E-04
1.832E-04	5.4150E-07	0.000E+00	9.7186E-05
1.848E-04	5.4150E-07	0.000E+00	8.9926E-05
1.863E-04	5.4150E-07	0.000E+00	8.3209E-05
1.878E-04	5.4150E-07	0.000E+00	7.6993E-05
1.894E-04	5.4150E-07	0.000E+00	7.1242E-05
1.909E-04	5.4150E-07	0.000E+00	6.5920E-05
1.925E-04	5.4150E-07	0.000E+00	6.0996E-05
1.940E-04	5.4150E-07	0.000E+00	5.6439E-05
1.955E-04	5.4150E-07	0.000E+00	5.2223E-05
1.971E-04	5.4150E-07	0.000E+00	4.8322E-05
1.986E-04	5.4150E-07	0.000E+00	4.4712E-05
2.002E-04	5.4150E-07	0.000E+00	4.1372E-05
2.017E-04	3.6100E-07	0.000E+00	3.8282E-05
2.032E-04	3.6100E-07	0.000E+00	3.5422E-05
2.048E-04	3.6100E-07	0.000E+00	3.2776E-05
2.063E-04	3.6100E-07	0.000E+00	3.0328E-05
2.079E-04	3.6100E-07	0.000E+00	2.8062E-05
2.094E-04	3.6100E-07	0.000E+00	2.5966E-05
2.109E-04	3.6100E-07	0.000E+00	2.4026E-05
2.125E-04	3.6100E-07	0.000E+00	2.2232E-05
2.140E-04	3.6100E-07	0.000E+00	2.0571E-05
2.156E-04	3.6100E-07	0.000E+00	1.9034E-05
2.171E-04	3.6100E-07	0.000E+00	1.7612E-05
2.186E-04	3.6100E-07	0.000E+00	1.6297E-05
2.202E-04	3.6100E-07	0.000E+00	1.5079E-05
2.217E-04	3.6100E-07	0.000E+00	1.3953E-05
2.233E-04	3.6100E-07	0.000E+00	1.2911E-05
2.248E-04	3.6100E-07	0.000E+00	1.1946E-05
2.263E-04	3.6100E-07	0.000E+00	1.1054E-05
2.279E-04	3.6100E-07	0.000E+00	1.0228E-05
2.294E-04	3.6100E-07	0.000E+00	9.4640E-06
2.310E-04	3.6100E-07	0.000E+00	8.7571E-06
2.325E-04	3.6100E-07	0.000E+00	8.1029E-06
2.340E-04	3.6100E-07	0.000E+00	7.4976E-06
2.356E-04	3.6100E-07	0.000E+00	6.9375E-06
2.371E-04	3.6100E-07	0.000E+00	6.4193E-06
2.387E-04	3.6100E-07	0.000E+00	5.9398E-06
2.402E-04	3.6100E-07	0.000E+00	5.4961E-06
2.417E-04	3.6100E-07	0.000E+00	5.0855E-06
2.433E-04	3.6100E-07	0.000E+00	4.7056E-06
2.448E-04	3.6100E-07	0.000E+00	4.3541E-06
2.464E-04	3.6100E-07	0.000E+00	4.0289E-06
2.479E-04	3.6100E-07	0.000E+00	3.7279E-06
2.494E-04	3.6100E-07	0.000E+00	3.4494E-06

2.510E-04	3.6100E-07	0.000E+00	3.1918E-06
2.525E-04	3.6100E-07	0.000E+00	2.9533E-06
2.541E-04	3.6100E-07	0.000E+00	2.7327E-06
2.556E-04	3.6100E-07	0.000E+00	2.5286E-06
2.571E-04	3.6100E-07	0.000E+00	2.3397E-06
2.587E-04	3.6100E-07	0.000E+00	2.1649E-06
2.602E-04	1.8050E-07	0.000E+00	2.0032E-06
2.618E-04	1.8050E-07	0.000E+00	1.8536E-06
2.633E-04	1.8050E-07	0.000E+00	1.7151E-06
2.648E-04	1.8050E-07	0.000E+00	1.5870E-06
2.664E-04	1.8050E-07	0.000E+00	1.4684E-06
2.679E-04	1.8050E-07	0.000E+00	1.3587E-06
2.695E-04	1.8050E-07	0.000E+00	1.2572E-06
2.710E-04	1.8050E-07	0.000E+00	1.1633E-06
2.725E-04	1.8050E-07	0.000E+00	1.0764E-06
2.741E-04	1.8050E-07	0.000E+00	9.9601E-07
2.756E-04	1.8050E-07	0.000E+00	9.2161E-07
2.772E-04	1.8050E-07	0.000E+00	8.5277E-07
2.787E-04	1.8050E-07	0.000E+00	7.8906E-07
2.802E-04	1.8050E-07	0.000E+00	7.3012E-07
2.818E-04	1.8050E-07	0.000E+00	6.7558E-07
2.833E-04	1.8050E-07	0.000E+00	6.2511E-07
2.848E-04	1.8050E-07	0.000E+00	5.7842E-07
2.864E-04	1.8050E-07	0.000E+00	5.3521E-07
2.879E-04	1.8050E-07	0.000E+00	4.9523E-07
2.895E-04	1.8050E-07	0.000E+00	4.5824E-07
2.910E-04	1.8050E-07	0.000E+00	4.2401E-07
2.925E-04	1.8050E-07	0.000E+00	3.9233E-07
2.941E-04	1.8050E-07	0.000E+00	3.6303E-07
2.956E-04	1.8050E-07	0.000E+00	3.3591E-07
2.972E-04	1.8050E-07	0.000E+00	3.1081E-07
2.987E-04	1.8050E-07	0.000E+00	2.8760E-07
3.002E-04	1.8050E-07	0.000E+00	2.6611E-07
3.018E-04	1.8050E-07	0.000E+00	2.4623E-07
3.033E-04	1.8050E-07	0.000E+00	2.2784E-07
3.049E-04	1.8050E-07	0.000E+00	2.1082E-07
3.064E-04	1.8050E-07	0.000E+00	1.9507E-07
3.079E-04	1.8050E-07	2.000E-04	1.8050E-07

****** Flow Duration Performance According to Dept. of Ecology Criteria ******

Excursion at Predeveloped ½Q2 (Must be Less Than 0%):	0.0%	PASS
Maximum Excursion from ½Q2 to Q2 (Must be Less Than 0%):	0.0%	PASS
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	0.0%	PASS
Percent Excursion from Q2 to Q50 (Must be less than 50%):	0.0%	PASS

POND MEETS ALL DURATION DESIGN CRITERIA: PASS

APPENDIX E SWPP PLAN

APPENDIX G OPERATION AND MAINTENANCE MANUAL

OPERTATIONS AND MAINTENANCE CONTACT:

CONTACT: Duane Wilcoxon
ADDRESS: 23022 155TH Ave SE
Snohomish, WA 98296
PHONE: 425.418.3680

OPERATIONS AND MAINTENANCE ADDITIONAL REQUIREMENTS:

1. If ponding lasts more than 24 hours in the infiltration facilities after a storm event the facility must be maintained as outlined in the Operations and Maintenance guidelines attached.

No. 2 – Infiltration

Maintenance Component	Defect	Conditions When Maintenance Is Needed	Results Expected When Maintenance Is Performed
General	Trash & Debris	See "Detention Ponds" (No. 1).	See "Detention Ponds" (No. 1).
	Poisonous/Noxious Vegetation	See "Detention Ponds" (No. 1).	See "Detention Ponds" (No. 1).
	Contaminants and Pollution	See "Detention Ponds" (No. 1).	See "Detention Ponds" (No. 1).
	Rodent Holes	See "Detention Ponds" (No. 1).	See "Detention Ponds" (No. 1)
Storage Area	Sediment	Water ponding in infiltration pond after rainfall ceases and appropriate time allowed for infiltration. (A percolation test pit or test of facility indicates facility is only working at 90% of its designed capabilities. If two inches or more sediment is present, remove).	Sediment is removed and/or facility is cleaned so that infiltration system works according to design.
Filter Bags (if applicable)	Filled with Sediment and Debris	Sediment and debris fill bag more than 1/2 full.	Filter bag is replaced or system is redesigned.
Rock Filters	Sediment and Debris	By visual inspection, little or no water flows through filter during heavy rain storms.	Gravel in rock filter is replaced.
Side Slopes of Pond	Erosion	See "Detention Ponds" (No. 1).	See "Detention Ponds" (No. 1).
Emergency Overflow Spillway and Berms over 4 feet in height.	Tree Growth	See "Detention Ponds" (No. 1).	See "Detention Ponds" (No. 1).
	Piping	See "Detention Ponds" (No. 1).	See "Detention Ponds" (No. 1).
Emergency Overflow Spillway	Rock Missing	See "Detention Ponds" (No. 1).	See "Detention Ponds" (No. 1).
	Erosion	See "Detention Ponds" (No. 1).	See "Detention Ponds" (No. 1).
Pre-settling Ponds and Vaults	Facility or sump filled with Sediment and/or debris	6" or designed sediment trap depth of sediment.	Sediment is removed.

No. 4 – Control Structure/Flow Restrictor

Maintenance Component	Defect	Condition When Maintenance is Needed	Results Expected When Maintenance is Performed
General	Trash and Debris (Includes Sediment)	Material exceeds 25% of sump depth or 1 foot below orifice plate.	Control structure orifice is not blocked. All trash and debris removed.
	Structural Damage	Structure is not securely attached to manhole wall.	Structure securely attached to wall and outlet pipe.
		Structure is not in upright position (allow up to 10% from plumb).	Structure in correct position.
		Connections to outlet pipe are not watertight and show signs of rust.	Connections to outlet pipe are water tight; structure repaired or replaced and works as designed.
		Any holes--other than designed holes--in the structure.	Structure has no holes other than designed holes.
Cleanout Gate	Damaged or Missing	Cleanout gate is not watertight or is missing.	Gate is watertight and works as designed.
		Gate cannot be moved up and down by one maintenance person.	Gate moves up and down easily and is watertight.
		Chain/rod leading to gate is missing or damaged.	Chain is in place and works as designed.
		Gate is rusted over 50% of its surface area.	Gate is repaired or replaced to meet design standards.
Orifice Plate	Damaged or Missing	Control device is not working properly due to missing, out of place, or bent orifice plate.	Plate is in place and works as designed.
	Obstructions	Any trash, debris, sediment, or vegetation blocking the plate.	Plate is free of all obstructions and works as designed.
Overflow Pipe	Obstructions	Any trash or debris blocking (or having the potential of blocking) the overflow pipe.	Pipe is free of all obstructions and works as designed.
Manhole	See “Closed Detention Systems” (No. 3).	See “Closed Detention Systems” (No. 3).	See “Closed Detention Systems” (No. 3).
Catch Basin	See “Catch Basins” (No. 5).	See “Catch Basins” (No. 5).	See “Catch Basins” (No. 5).

No. 5 – Catch Basins

Maintenance Component	Defect	Conditions When Maintenance is Needed	Results Expected When Maintenance is performed
General	Trash & Debris	Trash or debris which is located immediately in front of the catch basin opening or is blocking inletting capacity of the basin by more than 10%.	No Trash or debris located immediately in front of catch basin or on grate opening.
		Trash or debris (in the basin) that exceeds 60 percent of the sump depth as measured from the bottom of basin to invert of the lowest pipe into or out of the basin, but in no case less than a minimum of six inches clearance from the debris surface to the invert of the lowest pipe.	No trash or debris in the catch basin.
		Trash or debris in any inlet or outlet pipe blocking more than 1/3 of its height.	Inlet and outlet pipes free of trash or debris.
		Dead animals or vegetation that could generate odors that could cause complaints or dangerous gases (e.g., methane).	No dead animals or vegetation present within the catch basin.
	Sediment	Sediment (in the basin) that exceeds 60 percent of the sump depth as measured from the bottom of basin to invert of the lowest pipe into or out of the basin, but in no case less than a minimum of 6 inches clearance from the sediment surface to the invert of the lowest pipe.	No sediment in the catch basin
	Structure Damage to Frame and/or Top Slab	Top slab has holes larger than 2 square inches or cracks wider than 1/4 inch (Intent is to make sure no material is running into basin).	Top slab is free of holes and cracks.
		Frame not sitting flush on top slab, i.e., separation of more than 3/4 inch of the frame from the top slab. Frame not securely attached	Frame is sitting flush on the riser rings or top slab and firmly attached.
	Fractures or Cracks in Basin Walls/ Bottom	Maintenance person judges that structure is unsound.	Basin replaced or repaired to design standards.
		Grout fillet has separated or cracked wider than 1/2 inch and longer than 1 foot at the joint of any inlet/outlet pipe or any evidence of soil particles entering catch basin through cracks.	Pipe is regrouted and secure at basin wall.
	Settlement/ Misalignment	If failure of basin has created a safety, function, or design problem.	Basin replaced or repaired to design standards.
	Vegetation	Vegetation growing across and blocking more than 10% of the basin opening.	No vegetation blocking opening to basin.
		Vegetation growing in inlet/outlet pipe joints that is more than six inches tall and less than six inches apart.	No vegetation or root growth present.

No. 5 – Catch Basins

Maintenance Component	Defect	Conditions When Maintenance is Needed	Results Expected When Maintenance is performed
	Contamination and Pollution	See "Detention Ponds" (No. 1).	No pollution present.
Catch Basin Cover	Cover Not in Place	Cover is missing or only partially in place. Any open catch basin requires maintenance.	Catch basin cover is closed
	Locking Mechanism Not Working	Mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than 1/2 inch of thread.	Mechanism opens with proper tools.
	Cover Difficult to Remove	One maintenance person cannot remove lid after applying normal lifting pressure. (Intent is keep cover from sealing off access to maintenance.)	Cover can be removed by one maintenance person.
Ladder	Ladder Rungs Unsafe	Ladder is unsafe due to missing rungs, not securely attached to basin wall, misalignment, rust, cracks, or sharp edges.	Ladder meets design standards and allows maintenance person safe access.
Metal Grates (If Applicable)	Grate opening Unsafe	Grate with opening wider than 7/8 inch.	Grate opening meets design standards.
	Trash and Debris	Trash and debris that is blocking more than 20% of grate surface inletting capacity.	Grate free of trash and debris.
	Damaged or Missing.	Grate missing or broken member(s) of the grate.	Grate is in place and meets design standards.

No. 6 – Debris Barriers (e.g., Trash Racks)

Maintenance Components	Defect	Condition When Maintenance is Needed	Results Expected When Maintenance is Performed
General	Trash and Debris	Trash or debris that is plugging more than 20% of the openings in the barrier.	Barrier cleared to design flow capacity.
Metal	Damaged/ Missing Bars.	Bars are bent out of shape more than 3 inches.	Bars in place with no bends more than 3/4 inch.
		Bars are missing or entire barrier missing.	Bars in place according to design.
		Bars are loose and rust is causing 50% deterioration to any part of barrier.	Barrier replaced or repaired to design standards.
	Inlet/Outlet Pipe	Debris barrier missing or not attached to pipe	Barrier firmly attached to pipe

No. 7 – Energy Dissipaters

Maintenance Components	Defect	Conditions When Maintenance is Needed	Results Expected When Maintenance is Performed
External:			
Rock Pad	Missing or Moved Rock	Only one layer of rock exists above native soil in area five square feet or larger, or any exposure of native soil.	Rock pad replaced to design standards.
	Erosion	Soil erosion in or adjacent to rock pad.	Rock pad replaced to design standards.
Dispersion Trench	Pipe Plugged with Sediment	Accumulated sediment that exceeds 20% of the design depth.	Pipe cleaned/flushed so that it matches design.
	Not Discharging Water Properly	Visual evidence of water discharging at concentrated points along trench (normal condition is a “sheet flow” of water along trench). Intent is to prevent erosion damage.	Trench redesigned or rebuilt to standards.
	Perforations Plugged.	Over 1/2 of perforations in pipe are plugged with debris and sediment.	Perforated pipe cleaned or replaced.
	Water Flows Out Top of “Distributor” Catch Basin.	Maintenance person observes or receives credible report of water flowing out during any storm less than the design storm or its causing or appears likely to cause damage.	Facility rebuilt or redesigned to standards.
	Receiving Area Over-Saturated	Water in receiving area is causing or has potential of causing landslide problems.	No danger of landslides.
Internal:			
Manhole/Chamber	Worn or Damaged Post, Baffles, Side of Chamber	Structure dissipating flow deteriorates to 1/2 of original size or any concentrated worn spot exceeding one square foot which would make structure unsound.	Structure replaced to design standards.
	Other Defects	See “Catch Basins” (No. 5).	See “Catch Basins” (No. 5).

No. 10 – Filter Strips

Maintenance Component	Defect or Problem	Condition When Maintenance is Needed	Recommended Maintenance to Correct Problem
General	Sediment Accumulation on Grass	Sediment depth exceeds 2 inches.	Remove sediment deposits, re-level so slope is even and flows pass evenly through strip.
	Vegetation	When the grass becomes excessively tall (greater than 10-inches); when nuisance weeds and other vegetation starts to take over.	Mow grass, control nuisance vegetation, such that flow not impeded. Grass should be mowed to a height between 3-4 inches.
	Trash and Debris Accumulation	Trash and debris accumulated on the filter strip.	Remove trash and Debris from filter.
	Erosion/Scouring	Eroded or scoured areas due to flow channelization, or higher flows.	For ruts or bare areas less than 12 inches wide, repair the damaged area by filling with crushed gravel. The grass will creep in over the rock in time. If bare areas are large, generally greater than 12 inches wide, the filter strip should be re-graded and re-seeded. For smaller bare areas, overseed when bare spots are evident.
	Flow spreader	Flow spreader uneven or clogged so that flows are not uniformly distributed through entire filter width.	Level the spreader and clean so that flows are spread evenly over entire filter width.