

**FRA-62-4.90
PID NO. 119042
FRANKLIN COUNTY, OHIO**

STAGE 3 HYDRAULIC REPORT

***Prepared For:*
ODOT District Six
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Delaware, Ohio 43015**

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Rii Project # W-23-141

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SECTION 1 – REPORT NARRATIVE

U. S. Route 62 – Drainage Improvements

The purpose of this analysis is to evaluate two separate drainage improvements along U. S. Route 62 south of Grove City, Franklin County, Ohio. The two improvements are located in different watersheds and involve construction of drainage facilities inside the right-of-way of U. S. Route 62 and/or in rights-of-way owned by Grove City, Ohio. The first location is along the west side of U. S. Route 62 south of Demorest Road and involves replacement of existing drainage pipes and structures, some of which are nearly 100 years old. The second location is along U. S. Route 62 north of Demorest Road and involves improving the hydraulic capacity at the end of a box culvert to alleviate flooding east of U. S. Route 62.

Drainage Improvement 1 – Replacing Existing Infrastructure

The first drainage improvement location involves replacement of storm sewer pipes adjacent to the roadway and under the roadway. The existing system consists of a short 36" storm sewer inlet pipe admitting flow from the northwest. This inlet pipe then connects to a 36" vitrified clay pipe running parallel to the west side of U. S. Route 62. The inlet pipe was constructed as part of the "State Highway 50, Sections H-2 and H-3" project dated May 1932. When constructed, it connected to the 36" clay pipe which was existing at the time and is of unknown age. This 36" clay pipe flows 500 feet to the southwest to an inlet structure, where it connects to a 42" pipe under U. S. Route 62, which was also installed as part of the 1932 project.



Pipe Replacement – U. S. Route 62



This project will replace the 36" storm sewer inlet pipe, the 36" clay pipe, and the 42" pipe under U. S. Route 62. The only changes from the existing system are that a new structure will be placed at the current location of the 36" pipe bend at the north end of the system, the existing inlet at the downstream end of the 36" pipe will be replaced with a Catch Basin No. 2-5, and the 42" pipe will be

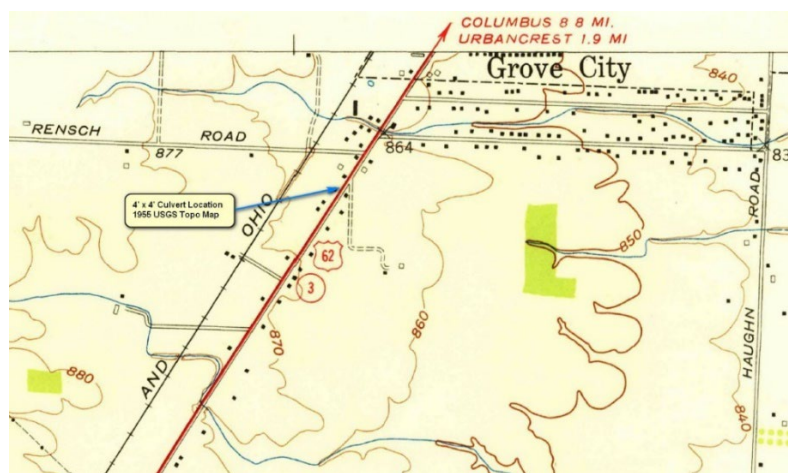
replaced by a depressed invert 48" pipe exiting the Catch Basin No. 2-5. The inlet end of the system will consist of a 36" Type C pipe with half-height headwall. This pipe will flow about 6 feet southeast to a new manhole structure, where the 36" pipe will exit southwest and parallel the roadway. This pipe enters an existing inlet which will be replaced with the Catch Basin No. 2-5. The proposed 48" pipe will exit southeast and follow the alignment of the existing 42" pipe under U. S. Route 62. This pipe will be depressed six inches and run at a flat slope to allow for natural silting-in of the pipe invert.

Drainage Improvement 2 – Culvert Outlet Capacity Improvement

The second part of this drainage analysis evaluates the effects of installing a 24" pipe on the east side of U. S. Route 62 in Grove City, Franklin County, Ohio. The project is located several hundred feet southwest of the intersection of U. S. Route 62 and Rensch Road. The existing drainage consists of a 4' x 4' concrete culvert under U. S. Route 62, constructed in the 1930's, that conveys drainage from areas west of U. S. Route 62 under the roadway. Subsequent construction of the Hoover Park subdivision in the 1990's routed the drainage from the end of the 4' x 4' culvert to the subdivision's two retention ponds. This project proposes adding a 24" storm sewer pipe to help alleviate flooding east of U. S. Route 62 and to determine what effect adding the pipe will have on the subdivision retention ponds and what additional modifications, if any, are needed to address the impact of the 24" pipe upon the ponds.

Patzen Ditch Watershed

The drainage area generally flows from west to east along the south side of Grove City. Initially, the railroad line divided the drainage area with the western portion of the area acting as a detention area for storm water runoff since the only conduit through the railroad embankment at the time was a single 18" pipe. Around 1912, Franklin County established the Patzer Ditch to drain the watershed. U. S. Route 62 was constructed in the 1930's and provided a roadway on a slightly lower embankment that also detained water west of the embankment. The construction of the roadway provided the 4' x 4' box culvert to convey storm water under the roadway to Patzer Ditch.



U. S. Route 62 Culvert, 1955 USGS Topo Map

The development of the Hoover Park subdivision in 1995 introduced two retention ponds into the easternmost part of the Patzer Ditch by adding two sequential ponds – one located east of and adjacent to U. S. Route 62 and a second pond further east at the east end of Hoover Park. Drainage studies and reports generally refer to the pond adjacent to U. S. Route 62 as the “Upper Basin” and refer to the pond at the east end of the subdivision as the “Lower Basin.” The ponds are connected by a storm sewer pipe. Discharge from the regulator structure from the upper pond combines with storm water runoff from the subdivision to flow into the lower pond. The contribution of flow from the upper pond is regulated by the elevation discharge curve of the upper pond.

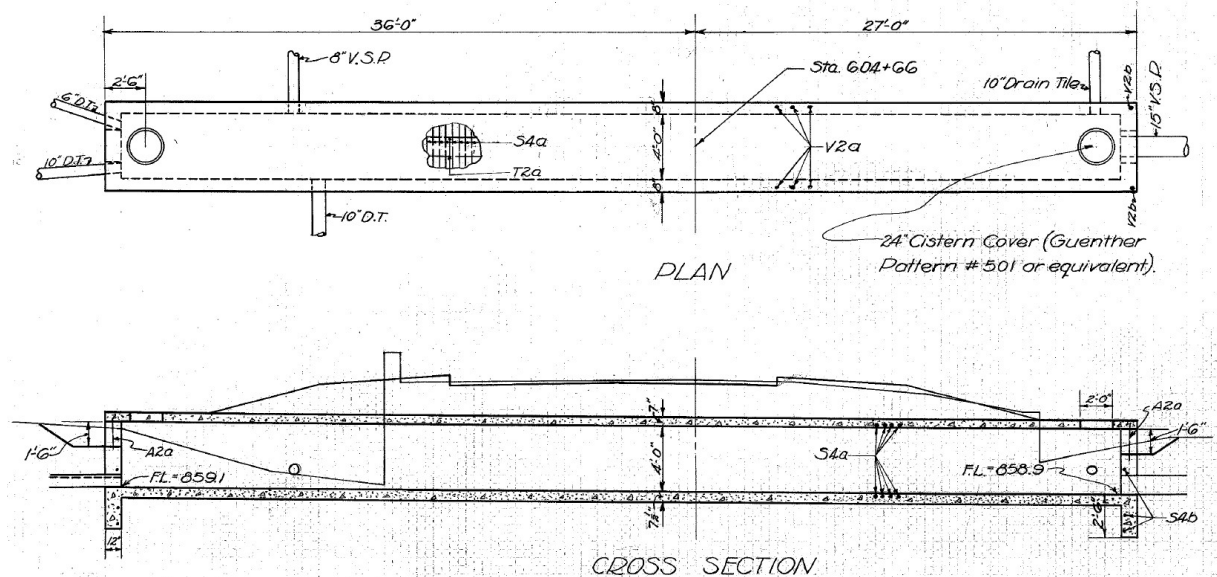
With the completion of Hoover Park, the drainage area effectively has two de facto detention (flooding) areas and two retention ponds, all in sequence: the largely undeveloped agricultural areas west of the railroad; the lightly developed area between the railroad and U. S. Route 62; the upper basin of Hoover Park; and the lower basin of Hoover Park.

In 2017, at the request of a homeowner on Rensch Road west of the railroad, the railroad installed a 24” culvert near the existing 18” pipe under the railroad embankment just south of the crossing at Rensch Road. This increased the amount of water able to pass under the railroad and into the area between the railroad embankment and U. S. Route 62.

Operation of the Existing 4’ x 4’ Culvert

The existing 4’ x 4’ culvert, constructed in the 1930’s under construction plans for “State Highway 50, Sections H-2 and H-3” dated May 1932, is not a traditional open-ended culvert structure. The upstream end has a bulkhead 36’ left of the centerline from elevation 859.1 to the culvert top slab of 863.1. Two existing drainage tiles flow through the bulkhead from the west near the invert of the culvert at 859.1. Two additional drain tiles flow through the side wall of the culvert, one from the north and one from the south. At the top of the bulkhead is a 2’-0” wide by 1’-6” high window with a metal grate to accommodate low flows. The window invert is approximately 861.6. Approximately 3’ from the location of the bulkhead, a storm sewer grate opening is cast into the culvert top slab, presumably as a direct collection point for roadway ditch flow and also to assist with drainage from the west during high flow events.





"State Highway 50, Sections H-2 and H-3" (May 1932)

The downstream end has a similar bulkhead and top slab arrangement. 27 feet right of the centerline, the culvert end has a bulkhead from the culvert invert of 858.9 to the top slab of 862.9. A similar 2'-0" wide by 1'-6" high window is at the top of the bulkhead with a window invert of 857.4. As with the upstream end, the top slab has a storm sewer inlet opening about three feet from the culvert end to accept roadside ditch flow. The 1932 plans show a 15" VCP flowing east from the bulkhead at the culvert invert of 858.9, presumably to outlet in Patzen Ditch. At some point subsequent to the original construction and likely during construction of the Hoover Park subdivision, this pipe was replaced with an 18" storm sewer pipe and extended to redirect flow to the upper basin of Hoover Park.

The 4' x 4' culvert has not been materially modified since the original construction. The storm sewer grates on the top slab on each end have likely been replaced over the years and the openings near the windows occasionally cleaned out. The Hoover Park subdivision is likely the cause of replacing the 15" VCP with the 18" storm sewer pipe that flows east then north to the upper basin. No new existing storm sewer connections to the culvert are suspected to exist, however the Grove City plan for the improvement of the U. S. Route 62 and Demorest Road intersection does propose a new 12" storm sewer line that will enter the downstream side wall of the culvert about five feet upstream of the downstream bulkhead. The AECOM 2022 drainage study noted that the windows on both ends have sediment buildup that partially blocks some of the bottom part of each window.

Flooding Issues Along U. S. Route 62

During less frequent storm events (4% AEP and less frequent), water overtops the U. S. Route 62 roadway near the location of the upper basin of Hoover Park. The railroad embankment prevents the runoff from the western part of the Patzen Ditch watershed from directly reaching the U. S. Route 62

culvert. However, with the addition of the new 24" pipe under the embankment in 2017, a higher quantity of storm water runoff is allowed under the railroad toward the 4' x 4' box culvert.

More frequent events than the 4% AEP do cause flooding west of the roadway. The 4' x 4' box culvert window and top slab grate has the capacity to clear the flooding before overtopping the roadway, but flooding generally occurs in the immediate vicinity of the culvert inlet and extending west toward the railroad culverts and both north and south along the roadside ditch and catch basins adjacent to southbound U. S. Route 62. The flooding is not contained by any detention facility and extends across several private properties as well as the roadside ditch areas.

Grove City is currently developing intersection improvements to the intersection between U. S. Route 62 and Demorest Road south of the 4' x 4' box culvert that will increase the storm sewer capacity along the west side of U. S. Route 62. Studies have also been completed by AECOM in 2022 to investigate the possibility of adding detention facilities east of the railroad and west of U. S. Route 62. These will help manage storm water quantity and provide designated storage areas for storm water.

Flooding and Conveyance Issues East of U. S. Route 62

In addition to the flooding west of U. S. Route 62, flooding has been reported along Williams Nook in the Hoover Park subdivision east of U. S. Route 62. The backyard areas along the westernmost Williams Nook properties are east of the outlet end of the 4' x 4' culvert. The flow exiting the 4' x 4' culvert initially flows through a single 18" storm sewer east then north to the Hoover Park upper basin. The window in the east bulkhead allows high flows to exit the structure when the culvert is flowing full and flow overland to the east and north. AECOM's drainage study noted that the location of the windows do not provide adequate direction of the flow into the roadside ditch to the north and that the flow appears to simply head east into adjacent properties, including Williams Nook lots. Storm sewer inlets serve the backyard areas of Williams Nook, conveying the storm water east to the Hoover Park storm sewer system downstream of the upper basin but do not appear designed to account for overflows from the downstream window of the culvert.

In practice, the additional flow through the culvert is ponding just east of the culvert. Some flows to the northeast into the roadside ditch as intended, but excess storm water ponds near the junction chamber and spreads to the east into the Williams Nook backyards. The goal of this study is to improve the conveyance of drainage from the end of the 4' x 4' culvert to the retention pond, preferably with a storm sewer pipe, so that the water exiting the culvert is not permitted to pond at the outlet of the culvert. This new pipe would be in addition to the 18" pipe in order to provide additional conveyance capacity.

Hydraulic Analysis of New Pipe

The new pipe consists of two sections of storm sewer with a manhole located near the Hoover Park pond to provide the final bend into the discharge point at the pond. The pipe is not a traditional storm sewer, as the flow at the inlet end is regulated by the flow passing through the 4' x 4' box culvert. The



flow through the new pipe is the storm water delivered through the culvert, the inflow from the future 12" storm sewer from the south to be constructed by the Demorest Road project, and inflow from the grate at the proposed inlet junction chamber. This flow will be reduced by the flow that exits the 18" pipe to the east. For the purpose of this analysis, the outlet capacity of the 18" pipe to the east will be assumed to be similar and offset the contributing flow from the south and the grate.

Manning's equation can be used to estimate the flow entering the inlet from the culvert while flowing full. The 4' x 4' culvert is 63 feet long with a drop of 0.2' from west to east, for a slope of 0.0032. Assuming the culvert is flowing full, the area of flow is 16 square feet with a wetted perimeter of 16 feet for a hydraulic radius of 1.0. The culvert material is aged concrete, so a roughness coefficient of 0.015 is reasonable for a culvert of its age. This results in the following approximation of the velocity:

$$V = (1.49/0.015) * (1.0)^{0.667} * (0.0032)^{0.5}$$

$$V = 99.33 * 1.0 * 0.057$$

$$V = 5.66 \text{ ft/s.}$$

Using the flow area of 16 square feet, the flow (Q) is:

$$Q = V * A$$

$$Q = 5.66 \text{ ft/s} * 16 \text{ sq. ft.}$$

$$Q = 90.56$$

The 24" pipe, set at a slope of 0.0041 ft/ft, has a capacity of approximately 13.5 cfs flowing full. This will drain some of the incoming flow but not enough to prevent overflow of the inlet. If the pipe is flowing full with a depth of 2 feet of water to the crown of the pipe, the area of flow in the culvert is 8 square feet, the wetted perimeter is 8 feet, resulting in a hydraulic radius of 1 and the same velocity as full flow conditions in the culvert. With a velocity of 5.66 ft/s and a flow area of 8 square feet, the incoming culvert flow is 45.28 cfs. The new pipe will be able to carry about 30% of the incoming culvert flow under these conditions. The primary benefit of the new 24" pipe is to provide additional relief for lower storm events and reduce the frequency of flooding for these smaller events.

The new pipe was evaluated as a culvert in the attached CDSS culvert analysis. The analysis demonstrates that the pipe by itself is insufficient to fully handle the flow from the 4' x 4' box culvert.

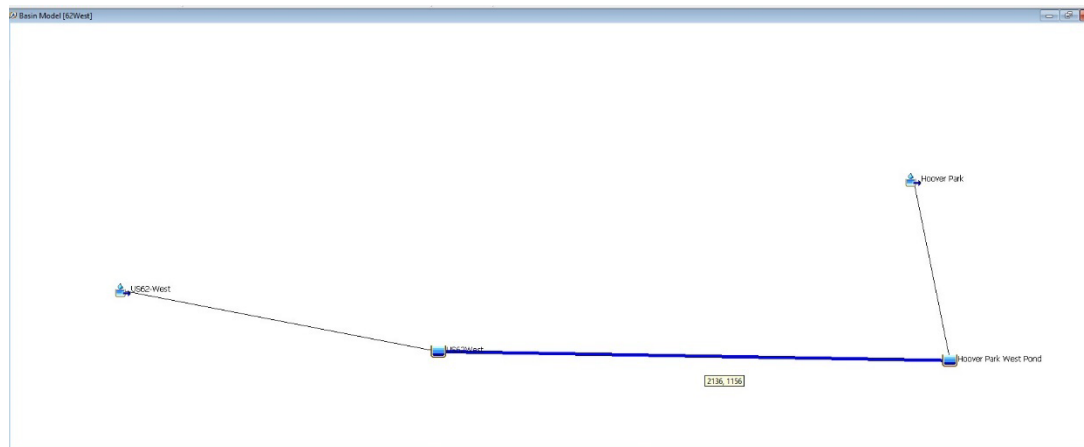
Effect of New Pipe on the Hoover Park West Retention Pond

Grove City requested that the hydraulic effect of the new pipe be analyzed since it will increase the low flow capacity of storm water conveyed under U. S. Route 62 and alter the inflow hydrograph of water from west of U. S. Route 62. This system was analyzed in 2004 as part of the Hoover Park subdivision development. The area west of U. S. Route 62 was modeled as a detention area with an approximation of 11.72 acre-feet of available storage area at elevation 867. The 2004 study modeled the area as a



single 18" pipe culvert outlet structure and a broad-crested weir overtopping the roadway. This analysis will treat the area west of U. S. Route 62 as an initial detention facility feeding into the Hoover Park retention pond as a second sequential retention facility, but will enhance the analysis of the U. S. Route 62 area with an expanded analysis of the ways stormwater is discharged through the 4' x 4' box culvert.

The proposed approach will establish existing conditions as a series of two detention facilities in sequence. The first facility is the area impounded by U. S. Route 62. For this area, the hydrologic approach will be to use the same TR-55 curve number approach the 2004 study used with the same area, time of concentration, and curve numbers as the original. This will be the contributing flow to the initial detention area west of U. S. Route 62. The outlet hydrograph of this facility will be one of the inflow hydrographs for the Hoover Park retention pond. The other contributing hydrograph for the Hoover Park pond will be the on-site Hoover Park area directed to the pond. This will use the same area, time of concentration, and curve number as the 2004 study. The retention pond will then be analyzed and an existing conditions model developed. The figure below is a schematic of the HEC-HMS model indicating the sequence of the sub-basins and ponds.



The model of the U. S. Route 62 basin will treat the roadway as the impoundment embankment with three principal outlets. Two of the outlets are at the downstream end of the 4' x 4' box culvert and consist of the existing 18" pipe flowing east from the downstream end of the culvert and the window of the catch basin at the downstream end of the culvert. In the HEC-HMS model, the 18" pipe will be modeled as a culvert pipe and the catch basin window modeled as an orifice. The third outlet is the overtopping of U. S. Route 62, which will be treated as a broad crested weir in the same manner analyzed in the 2004 study. The outflow hydrograph of all three of these outlets is then routed to the Hoover Park retention pond.

The Hoover Park pond is modeled as a reservoir with two contributing sources of flow – the flow under or through U. S. Route 62 and the flow directed to the pond by the subdivision storm sewer system. This pond has three outlets – a 24" diameter outlet pipe, one catch basin grate opening, and a trapezoidal overflow spillway. The 24" pipe is set at a slope of 0.9% with an invert at the permanent pool elevation of 858.0 and will be modeled as a culvert pipe outlet in HEC-HMS. The catch basin grate

will be modeled as a single weir with an invert elevation of 862.25. The overflow spillway is a 20-foot wide by 1-foot deep trapezoidal notch in the embankment of the pond and will be modeled in HEC-HMS as a broad crested weir. The stage-storage curve for this pond will be the same as the original in the 2004 study.

The results for existing conditions will not exactly match the 2004 results, mainly because of the reconfiguration of the outlets for U. S. 62 through the addition of the catch basin window. The 2004 study did not account for the flow using the window and thus underestimated the low flows for the 100% to 4% AEP events.

Table 1 below presents the original 2004 Hoover Park pond outlet rates and the outlet rates and water surface elevations from this HEC-HMS analysis. The 2004 Hoover Park analysis did not provide water surface elevations except for noting that the 100-year elevation in the pond is 862.73.

Table 1

Storm Event	2004 Hoover Park Study	2024 HEC-HMS Analysis		
	Peak Outflow	Peak Inflow	Peak Outflow	Pond WSEL
	(cfs)	(cfs)	(cfs)	(ft)
100% AEP	11.4	19.26	10.58	859.89
50% AEP	11.9	22.34	13.14	860.16
20% AEP	12.84	29.70	18.76	860.75
10% AEP	13.37	35.11	21.96	861.28
4% AEP	20.09	40.57	24.45	861.84
2% AEP	25.04	44.97	26.64	862.35
1% AEP	32.73	48.70	32.63	862.59

The 2024 analysis shows peak flow rates that are higher than the 2004 study. The most probable cause of the difference between the two analyses is the underestimation of flow passing under U. S. 62 and existing the window of the catch basin at the downstream end of the 4' x 4' box culvert. For less frequent storm events (100% AEP to 10% AEP), this is a significant amount of flow passing under U. S. Route 62 that is not accounted for by the 2004 model. As U. S. Route 62 begins to overtop with the 4% AEP and less frequent storm events, the flow over the roadway reduces the effect the underestimation has on the inflow from areas west of U. S. Route 62 since most incoming flow is now coming over the roadway and not through the 4' x 4' box culvert.

Modeling the New 24" Pipe

The proposed addition of the 24" pipe provides an additional means to transmit storm water from the end of the 4' x 4' culvert to the Hoover Park pond. For the purposes of this model, the addition of this pipe will be modeled as an additional outfall from the U. S. Route 62 detention area west of the roadway. Instead of one pipe outlet, one orifice outlet, and the roadway acting as a weir, the detention area will have a second pipe outlet added. This 24" pipe will have an upstream invert of 858.76 and an



outlet elevation of 857.50. This added pipe will give the U. S. 62 detention area additional low-flow capacity for transmitting storm water directly to the Hoover Park pond. All other features of the U. S. Route 62 detention area and the Hoover Park retention pond remain the same for the proposed analysis. Table 2 below compares existing and proposed conditions.

Table 2

Storm Event	Existing Conditions			Proposed Conditions (new 24" pipe)		
	Peak Inflow	Peak Outflow	Pond WSEL	Peak Inflow	Peak Outflow	Pond WSEL
	(cfs)	(cfs)	(ft)	(cfs)	(cfs)	(ft)
100% AEP	19.26	10.58	859.89	19.26	10.55	859.88
50% AEP	22.34	13.14	860.16	22.34	13.06	860.15
20% AEP	29.70	18.76	860.75	29.70	18.93	860.78
10% AEP	35.11	21.96	861.28	35.11	22.02	861.29
4% AEP	40.57	24.45	861.84	40.57	24.48	861.86
2% AEP	44.97	26.64	862.35	44.98	26.87	862.36
1% AEP	48.70	32.63	862.59	48.89	32.67	862.59

The comparison in Table 2 above shows that the addition of the new pipe will not have a significant effect upon the operation of the Hoover Park pond. The added capacity to convey water under U. S. Route 62 causes a very slight decrease in the outflow for higher probability events and a very slight increase in the outflow rates for the less frequent storm events. For the increased water surface elevations, the increased flow is no more than 0.1 to 0.2 cubic feet per second. The higher water surface elevations are limited to 0.01 to 0.03 feet, a negligible increase. The 1% AEP retains the same water surface elevation and continues to pass through the pond without reaching the emergency spillway at elevation 863.0. The additional 0.1 to 0.2 cubic feet per second of peak flow will not cause an issue for the eastern pond in Hoover Park, as the increased flow rates are all well under one percent of the existing flow rates (the 2% AEP has the highest increase at 0.86%). The low-flow flooding relief for the residential parcels just east of U. S. Route 62 and the downstream end of the 4' x 4' box culvert outweighs the negligible increase in outflow from the Hoover Park western retention pond.



SECTION 2

HEC-HMS – EXISTING CONDITIONS

Project: US62_TaskL
Simulation Run: 1-Year Simulation
Simulation Start: 31 May 2024, 24:00
Simulation End: 2 June 2024, 00:05

HMS Version: 4.12
Executed: 11 June 2024, 17:04

Global Parameter Summary - Subbasin

Area (MI ²)	
Element Name	Area (MI ²)
US62 - West	0.07
Hoover Park	0.02

Downstream	
Element Name	Downstream
US62 - West	U S 62 West
Hoover Park	Hoover Park West Pond

Loss Rate: Scs			
Element Name	Percent Impervious Area	Curve Number	Initial Abstraction
US62 - West	20	80	0.5
Hoover Park	40	91	0.2

Transform: Scs		
Element Name	Lag	Unitgraph Type
US62 - West	75	Standard
Hoover Park	14	Standard

Global Parameter Summary - Reach

Downstream	
Element Name	Downstream
Hoover Park West	Hoover Park West Pond

Route: Lag			
Element Name	Method	Initial Variable	Lag
Hoover Park West	Lag	Combined Inflow	75

Global Results Summary

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
US62 - West	0.07	13.96	01Jun2024, 13:15	1.03
U S 62 West	0.07	13.58	01Jun2024, 13:25	1.03
Hoover Park West	0.07	13.58	01Jun2024, 14:40	1
Hoover Park	0.02	18.57	01Jun2024, 12:05	1.77
Hoover Park West Pond	0.09	10.58	01Jun2024, 15:15	1.05

Subbasin: US62-West

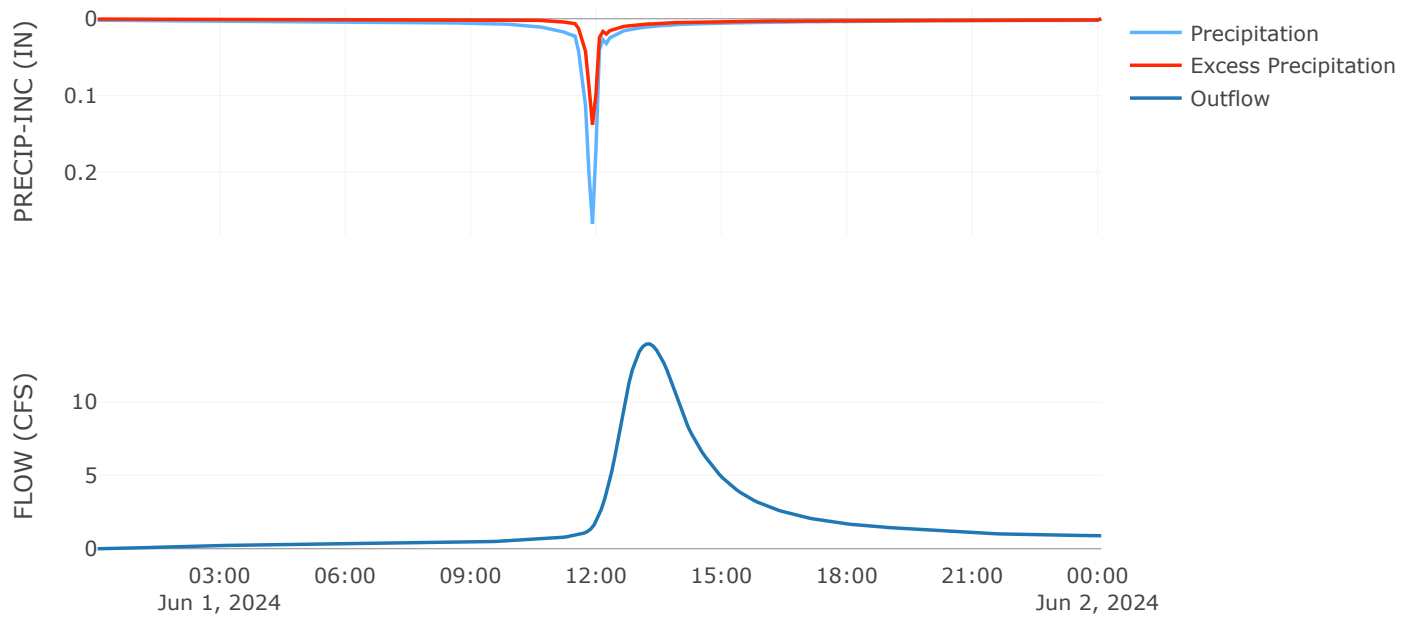
Area (MI²) : 0.07
Downstream : U S 62 West

Loss Rate: SCS	
Percent Impervious Area	20
Curve Number	80
Initial Abstraction	0.5

Transform: SCS	
Lag	75
Unitgraph Type	Standard

Results: US62-West	
Peak Discharge (CFS)	13.96
Time of Peak Discharge	01Jun2024, 13:15
Volume (IN)	1.03
Precipitation Volume (AC - FT)	8.59
Loss Volume (AC - FT)	4.62
Excess Volume (AC - FT)	3.97
Direct Runoff Volume (AC - FT)	3.86
Baseflow Volume (AC - FT)	0

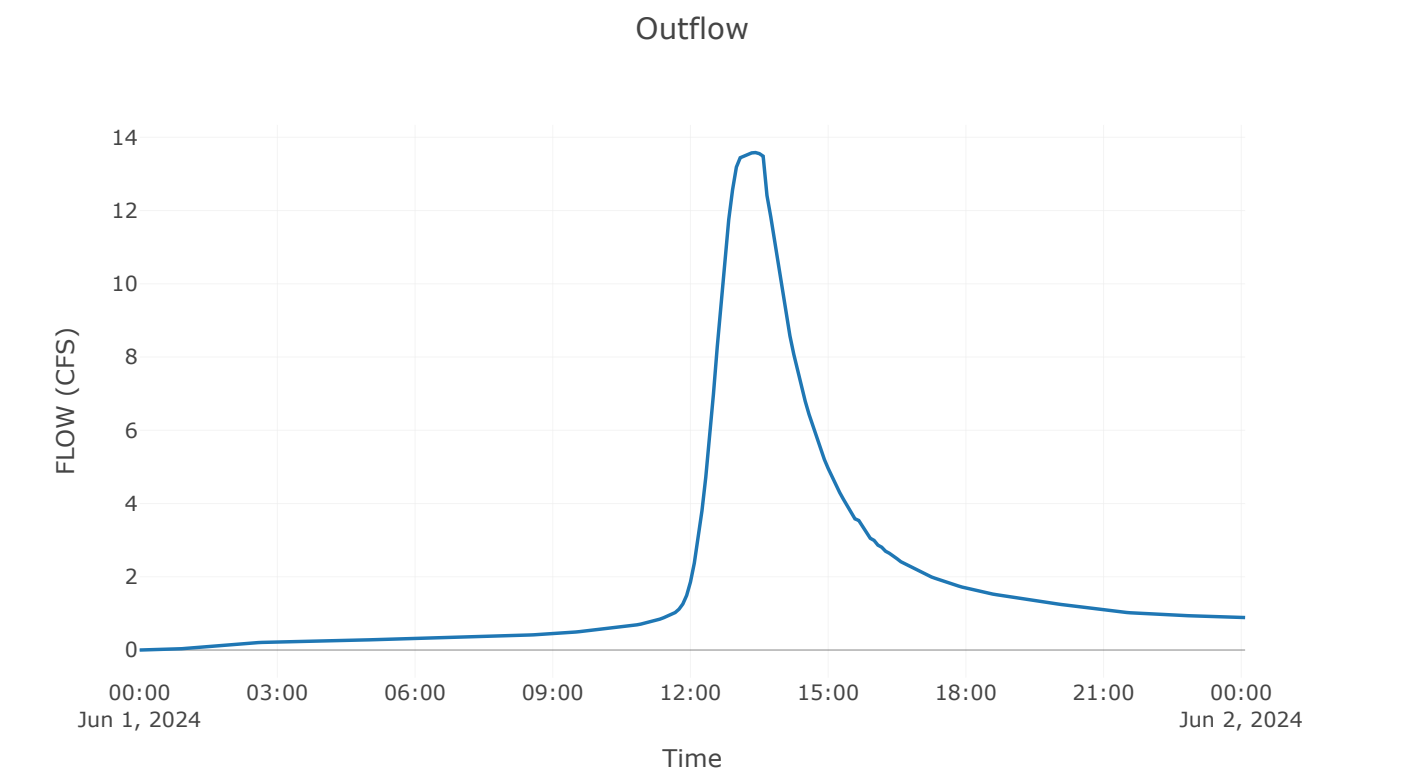
Precipitation and Outflow



Reservoir: US62West

Downstream : Hoover Park West

Results: US62West	
Peak Discharge (CFS)	13.58
Time of Peak Discharge	01Jun2024, 13:25
Volume (IN)	1.03
Peak Inflow (CFS)	13.96
Time of Peak Inflow	01Jun2024, 13:15
Inflow Volume (AC - FT)	3.86
Maximum Storage (AC - FT)	0.01
Peak Elevation (FT)	862.08
Discharge Volume (AC - FT)	3.85

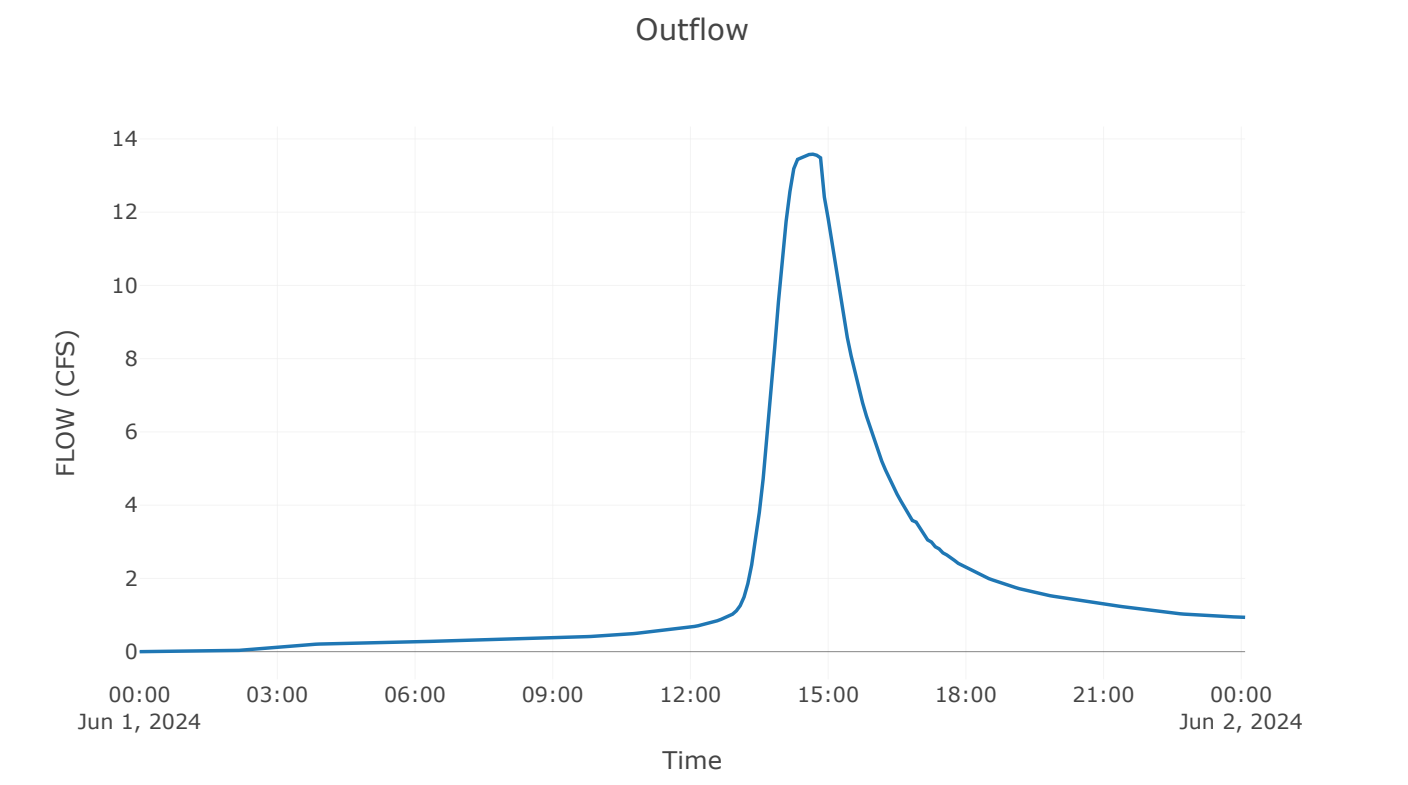


Reach: Hoover Park West

Downstream : Hoover Park West Pond

Route: Lag	
Method	Lag
Initial Variable	Combined Inflow
Lag	75

Results: Hoover Park West	
Peak Discharge (CFS)	13.58
Time of Peak Discharge	01Jun2024, 14:40
Volume (IN)	1
Peak Inflow (CFS)	13.58
Inflow Volume (AC - FT)	3.85



Subbasin: Hoover Park

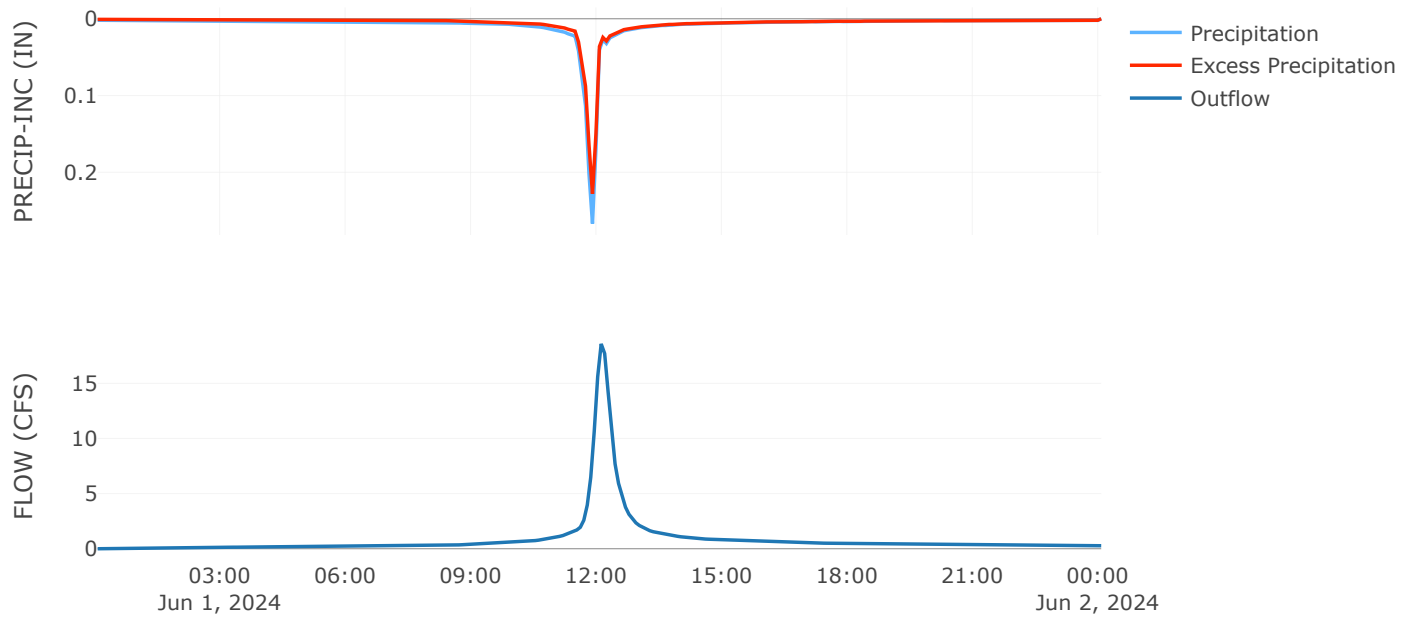
Area (MI²) : 0.02
Downstream : Hoover Park West Pond

Loss Rate: SCS	
Percent Impervious Area	40
Curve Number	91
Initial Abstraction	0.2

Transform: SCS	
Lag	14
Unitgraph Type	Standard

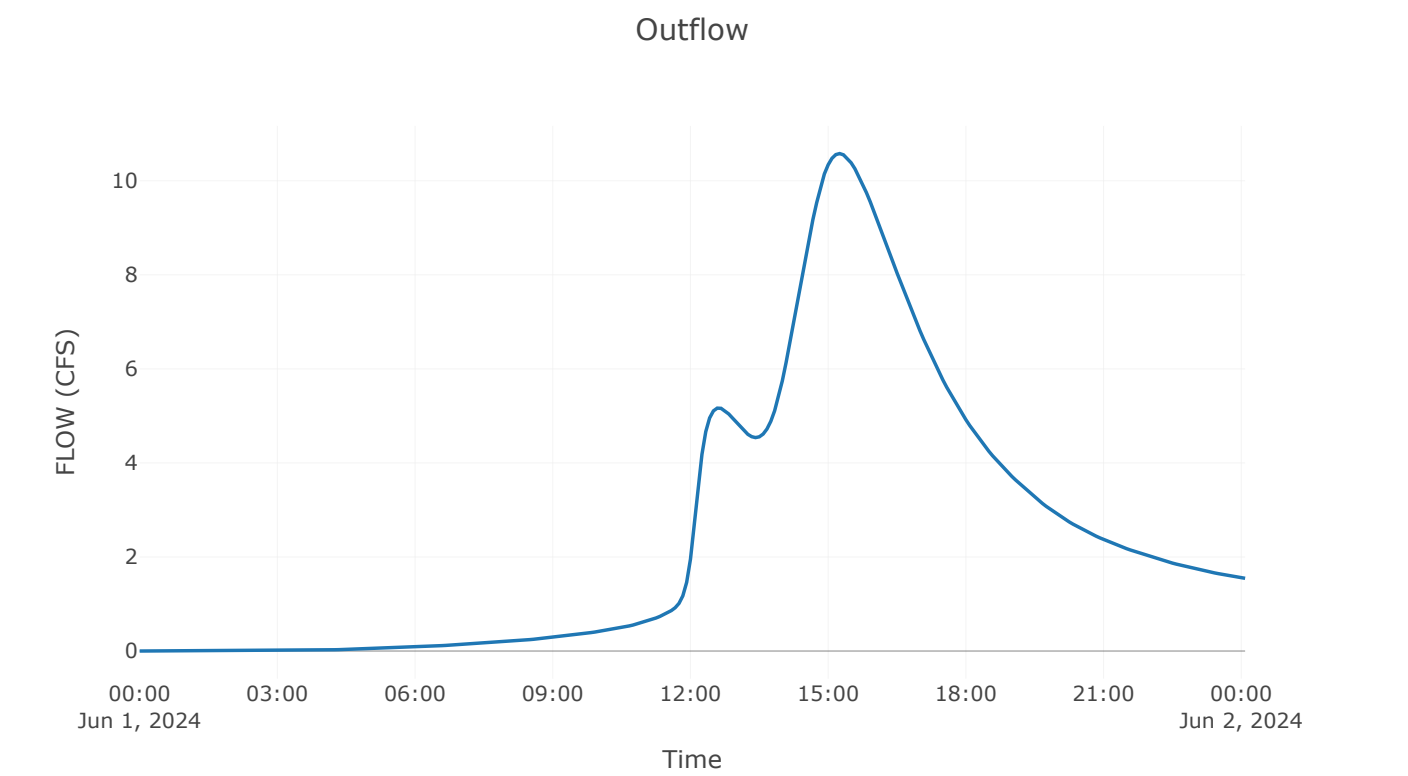
Results: Hoover Park	
Peak Discharge (CFS)	18.57
Time of Peak Discharge	01Jun2024, 12:05
Volume (IN)	1.77
Precipitation Volume (AC - FT)	2.24
Loss Volume (AC - FT)	0.51
Excess Volume (AC - FT)	1.73
Direct Runoff Volume (AC - FT)	1.73
Baseflow Volume (AC - FT)	0

Precipitation and Outflow



Reservoir: Hoover Park West Pond

Results: Hoover Park West Pond	
Peak Discharge (CFS)	10.58
Time of Peak Discharge	01Jun2024, 15:15
Volume (IN)	1.05
Peak Inflow (CFS)	19.26
Time of Peak Inflow	01Jun2024, 12:05
Inflow Volume (AC - FT)	5.48
Maximum Storage (AC - FT)	1.56
Peak Elevation (FT)	859.89
Discharge Volume (AC - FT)	4.96



Project: US62_TaskL
Simulation Run: 2-Year Simulation
Simulation Start: 31 May 2024, 24:00
Simulation End: 2 June 2024, 00:05

HMS Version: 4.12
Executed: 11 June 2024, 17:05

Global Parameter Summary - Subbasin

Area (MI2)	
Element Name	Area (MI2)
US62 - West	0.07
Hoover Park	0.02

Downstream	
Element Name	Downstream
US62 - West	U S 62 West
Hoover Park	Hoover Park West Pond

Loss Rate: Scs			
Element Name	Percent Impervious Area	Curve Number	Initial Abstraction
US62 - West	20	80	0.5
Hoover Park	40	91	0.2

Transform: Scs		
Element Name	Lag	Unitgraph Type
US62 - West	75	Standard
Hoover Park	14	Standard

Global Parameter Summary - Reach

Downstream	
Element Name	Downstream
Hoover Park West	Hoover Park West Pond

Route: Lag			
Element Name	Method	Initial Variable	Lag
Hoover Park West	Lag	Combined Inflow	75

Global Results Summary

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
US62 - West	0.07	17.21	01Jun2024, 13:15	1.25
U S 62 West	0.07	17.37	01Jun2024, 13:10	1.25
Hoover Park West	0.07	17.37	01Jun2024, 14:25	1.22
Hoover Park	0.02	21.56	01Jun2024, 12:05	2.05
Hoover Park West Pond	0.09	13.14	01Jun2024, 15:20	1.27

Subbasin: US62-West

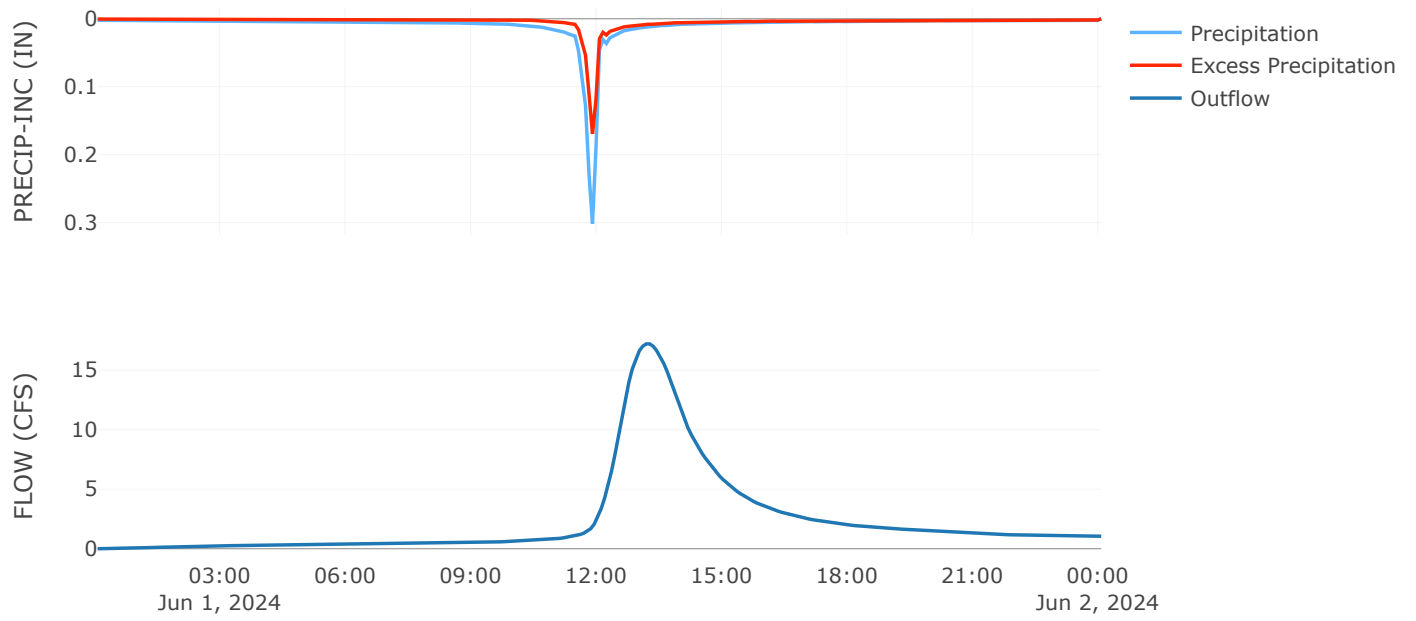
Area (MI²) : 0.07
Downstream : U S 62 West

Loss Rate: SCS	
Percent Impervious Area	20
Curve Number	80
Initial Abstraction	0.5

Transform: SCS	
Lag	75
Unitgraph Type	Standard

Results: US62-West	
Peak Discharge (CFS)	17.21
Time of Peak Discharge	01Jun2024, 13:15
Volume (IN)	1.25
Precipitation Volume (AC - FT)	9.71
Loss Volume (AC - FT)	4.9
Excess Volume (AC - FT)	4.8
Direct Runoff Volume (AC - FT)	4.67
Baseflow Volume (AC - FT)	0

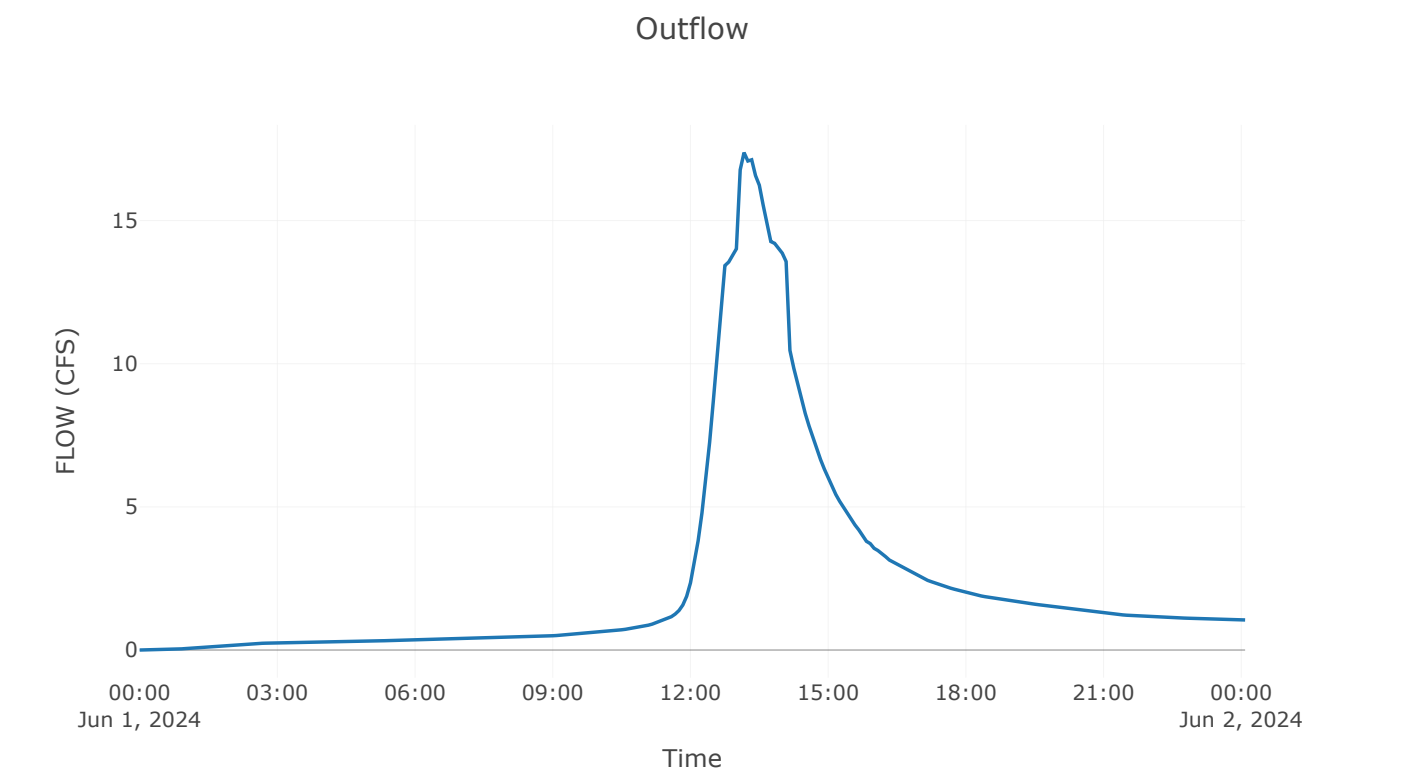
Precipitation and Outflow



Reservoir: US62West

Downstream : Hoover Park West

Results: US62West	
Peak Discharge (CFS)	17.37
Time of Peak Discharge	01Jun2024, 13:10
Volume (IN)	1.25
Peak Inflow (CFS)	17.21
Time of Peak Inflow	01Jun2024, 13:15
Inflow Volume (AC - FT)	4.67
Maximum Storage (AC - FT)	0.06
Peak Elevation (FT)	862.45
Discharge Volume (AC - FT)	4.66

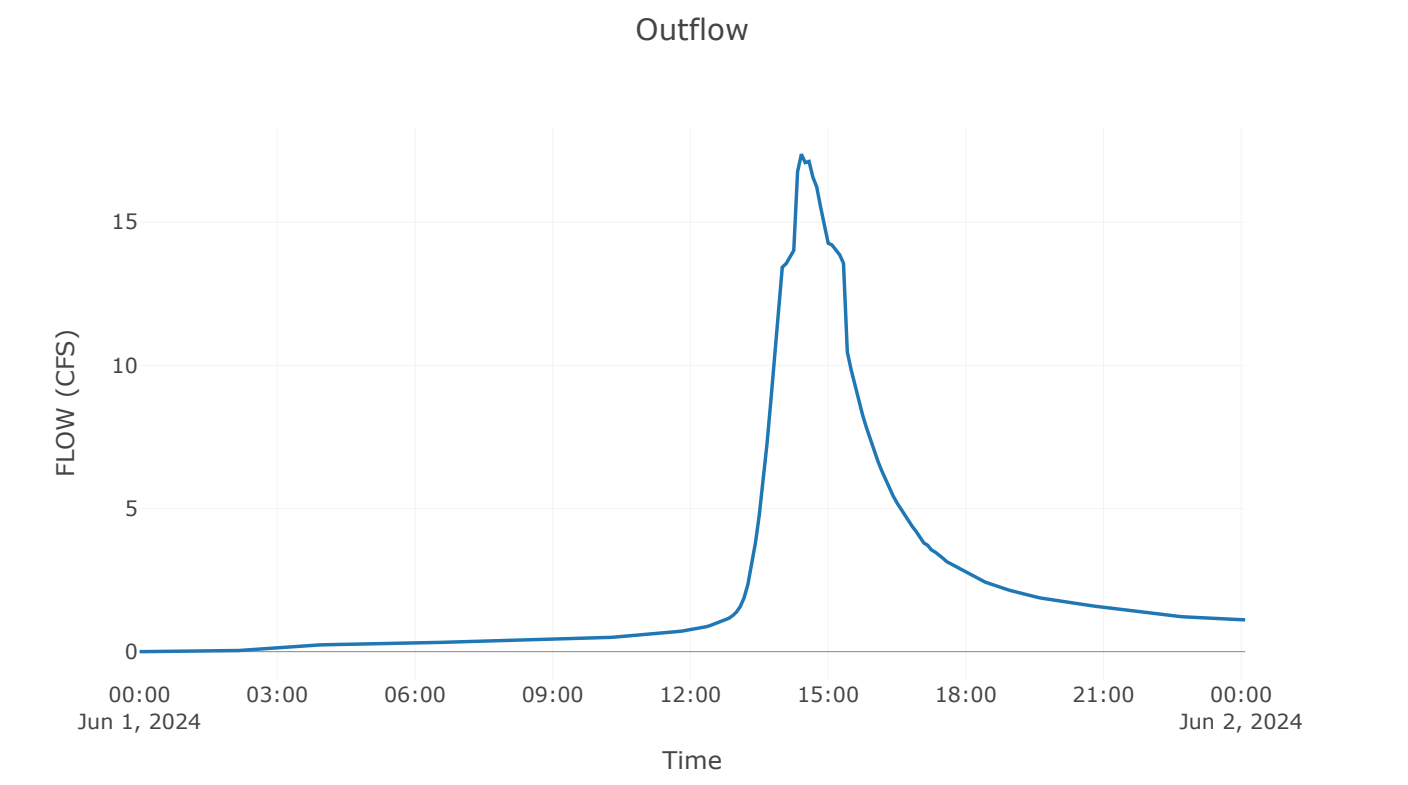


Reach: Hoover Park West

Downstream : Hoover Park West Pond

Route: Lag	
Method	Lag
Initial Variable	Combined Inflow
Lag	75

Results: Hoover Park West	
Peak Discharge (CFS)	17.37
Time of Peak Discharge	01Jun2024, 14:25
Volume (IN)	1.22
Peak Inflow (CFS)	17.37
Inflow Volume (AC - FT)	4.66



Subbasin: Hoover Park

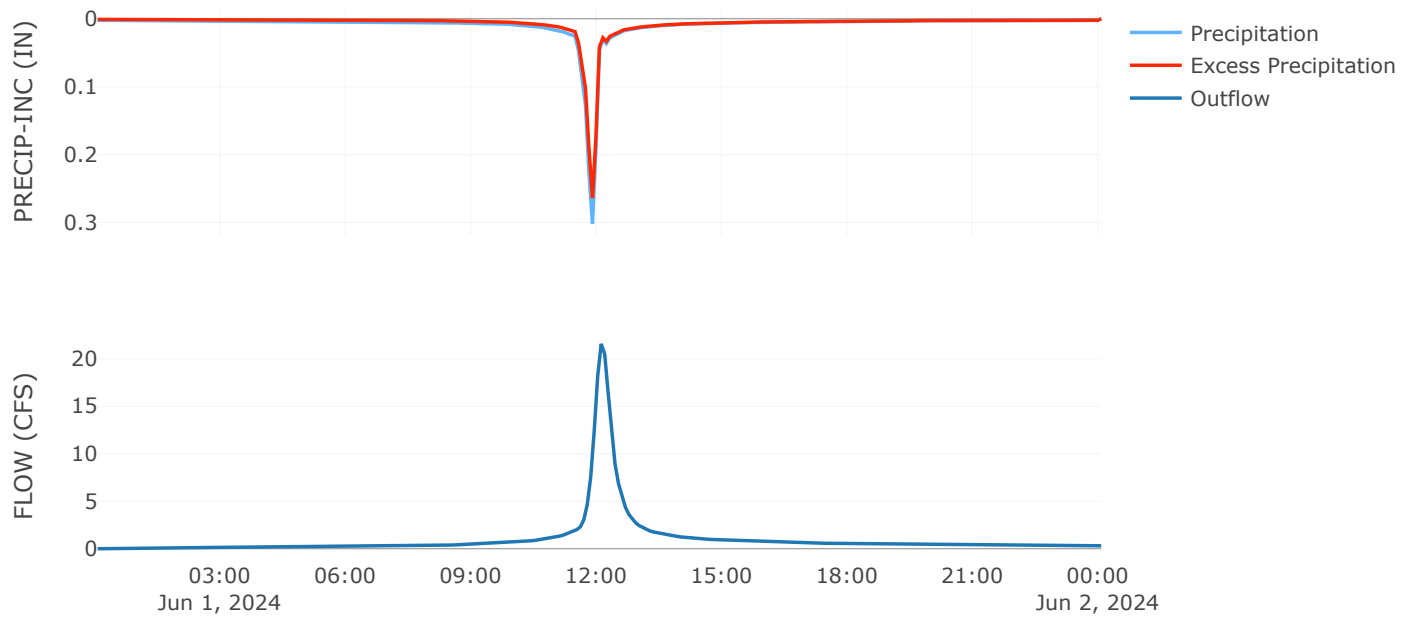
Area (MI²) : 0.02
Downstream : Hoover Park West Pond

Loss Rate: SCS	
Percent Impervious Area	40
Curve Number	91
Initial Abstraction	0.2

Transform: SCS	
Lag	14
Unitgraph Type	Standard

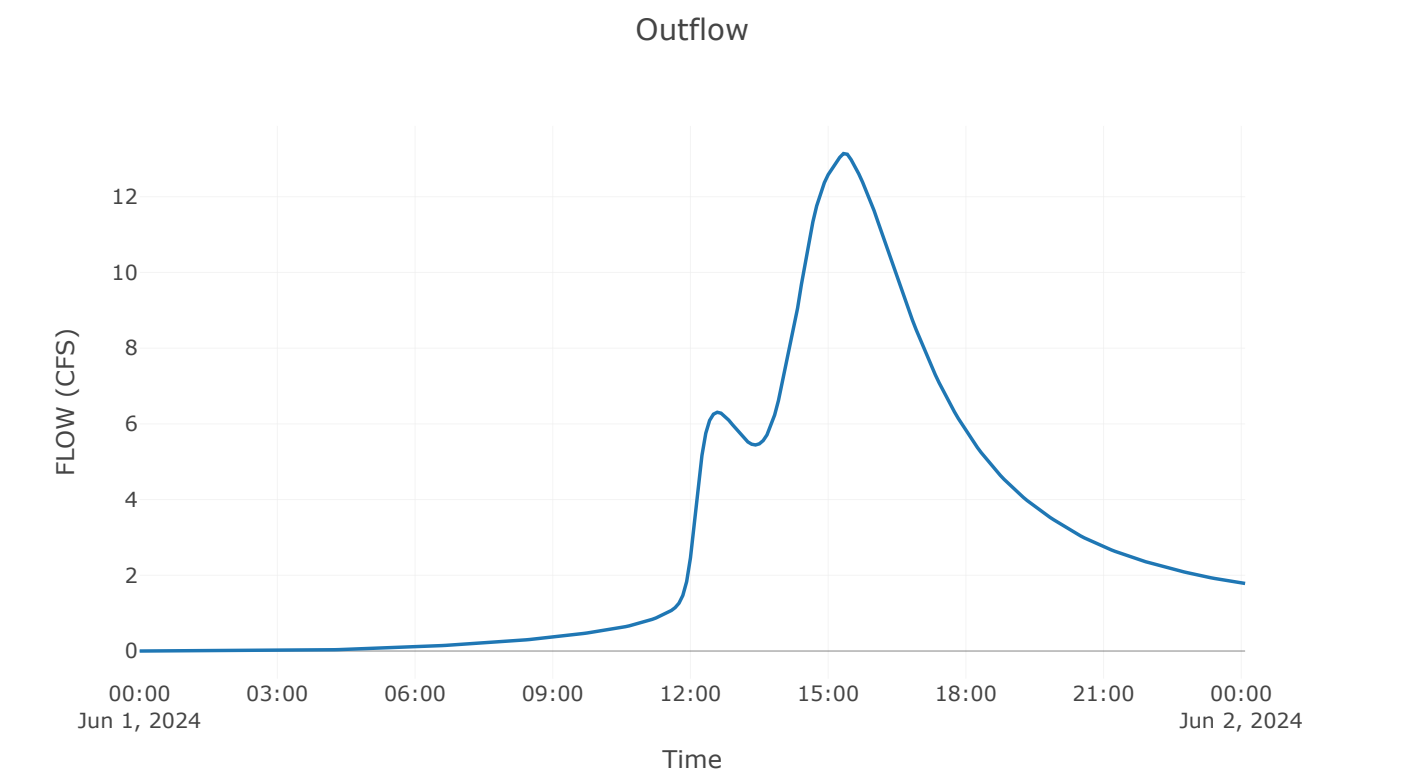
Results: Hoover Park	
Peak Discharge (CFS)	21.56
Time of Peak Discharge	01Jun2024, 12:05
Volume (IN)	2.05
Precipitation Volume (AC - FT)	2.54
Loss Volume (AC - FT)	0.53
Excess Volume (AC - FT)	2.01
Direct Runoff Volume (AC - FT)	2.01
Baseflow Volume (AC - FT)	0

Precipitation and Outflow



Reservoir: Hoover Park West Pond

Results: Hoover Park West Pond	
Peak Discharge (CFS)	13.14
Time of Peak Discharge	01Jun2024, 15:20
Volume (IN)	1.27
Peak Inflow (CFS)	22.34
Time of Peak Inflow	01Jun2024, 12:05
Inflow Volume (AC - FT)	6.56
Maximum Storage (AC - FT)	1.81
Peak Elevation (FT)	860.16
Discharge Volume (AC - FT)	6



Project: US62_TaskL
Simulation Run: 5-Year Simulation
Simulation Start: 31 May 2024, 24:00
Simulation End: 2 June 2024, 00:05

HMS Version: 4.12
Executed: 11 June 2024, 17:05

Global Parameter Summary - Subbasin

Area (MI2)	
Element Name	Area (MI2)
US62 - West	0.07
Hoover Park	0.02

Downstream	
Element Name	Downstream
US62 - West	U S 62 West
Hoover Park	Hoover Park West Pond

Loss Rate: Scs			
Element Name	Percent Impervious Area	Curve Number	Initial Abstraction
US62 - West	20	80	0.5
Hoover Park	40	91	0.2

Transform: Scs		
Element Name	Lag	Unitgraph Type
US62 - West	75	Standard
Hoover Park	14	Standard

Global Parameter Summary - Reach

Downstream	
Element Name	Downstream
Hoover Park West	Hoover Park West Pond

Route: Lag			
Element Name	Method	Initial Variable	Lag
Hoover Park West	Lag	Combined Inflow	75

Global Results Summary

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
US62 - West	0.07	25.35	01Jun2024, 13:10	1.8
U S 62 West	0.07	25.34	01Jun2024, 13:15	1.79
Hoover Park West	0.07	25.34	01Jun2024, 14:30	1.75
Hoover Park	0.02	28.56	01Jun2024, 12:05	2.72
Hoover Park West Pond	0.09	18.76	01Jun2024, 15:10	1.81

Subbasin: US62-West

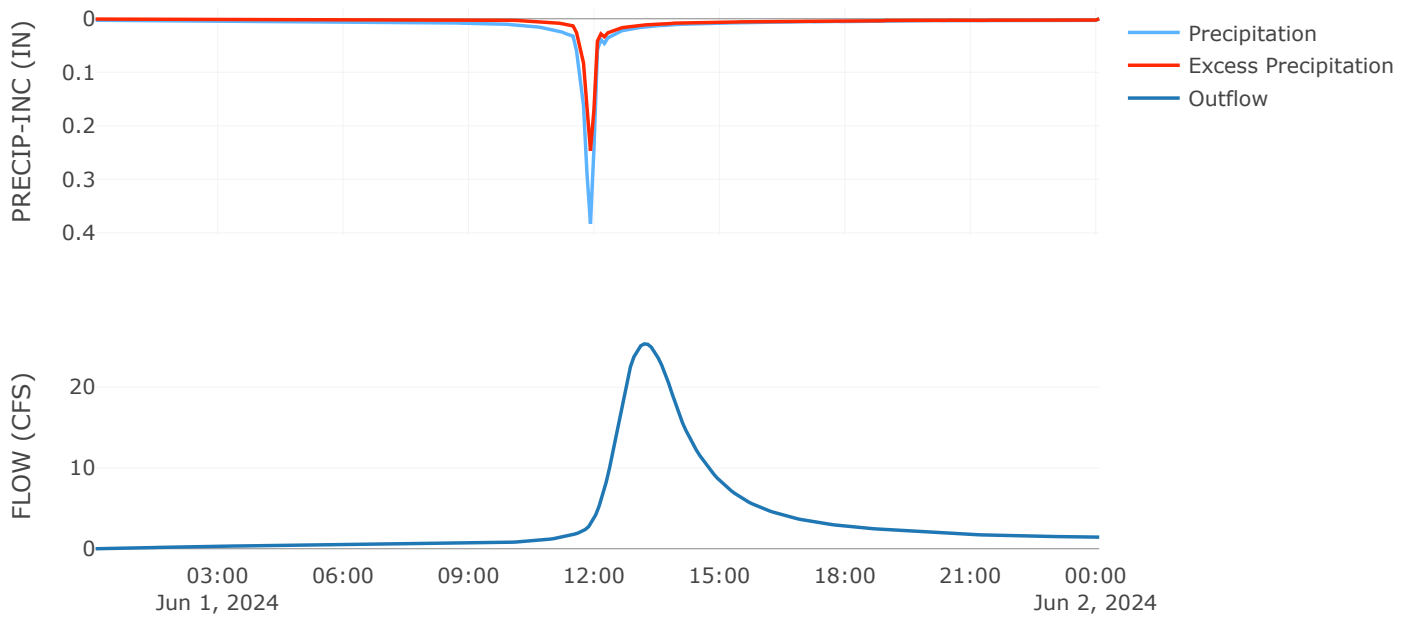
Area (MI²) : 0.07
Downstream : U S 62 West

Loss Rate: SCS	
Percent Impervious Area	20
Curve Number	80
Initial Abstraction	0.5

Transform: SCS	
Lag	75
Unitgraph Type	Standard

Results: US62-West	
Peak Discharge (CFS)	25.35
Time of Peak Discharge	01Jun2024, 13:10
Volume (IN)	1.8
Precipitation Volume (AC - FT)	12.32
Loss Volume (AC - FT)	5.44
Excess Volume (AC - FT)	6.88
Direct Runoff Volume (AC - FT)	6.7
Baseflow Volume (AC - FT)	0

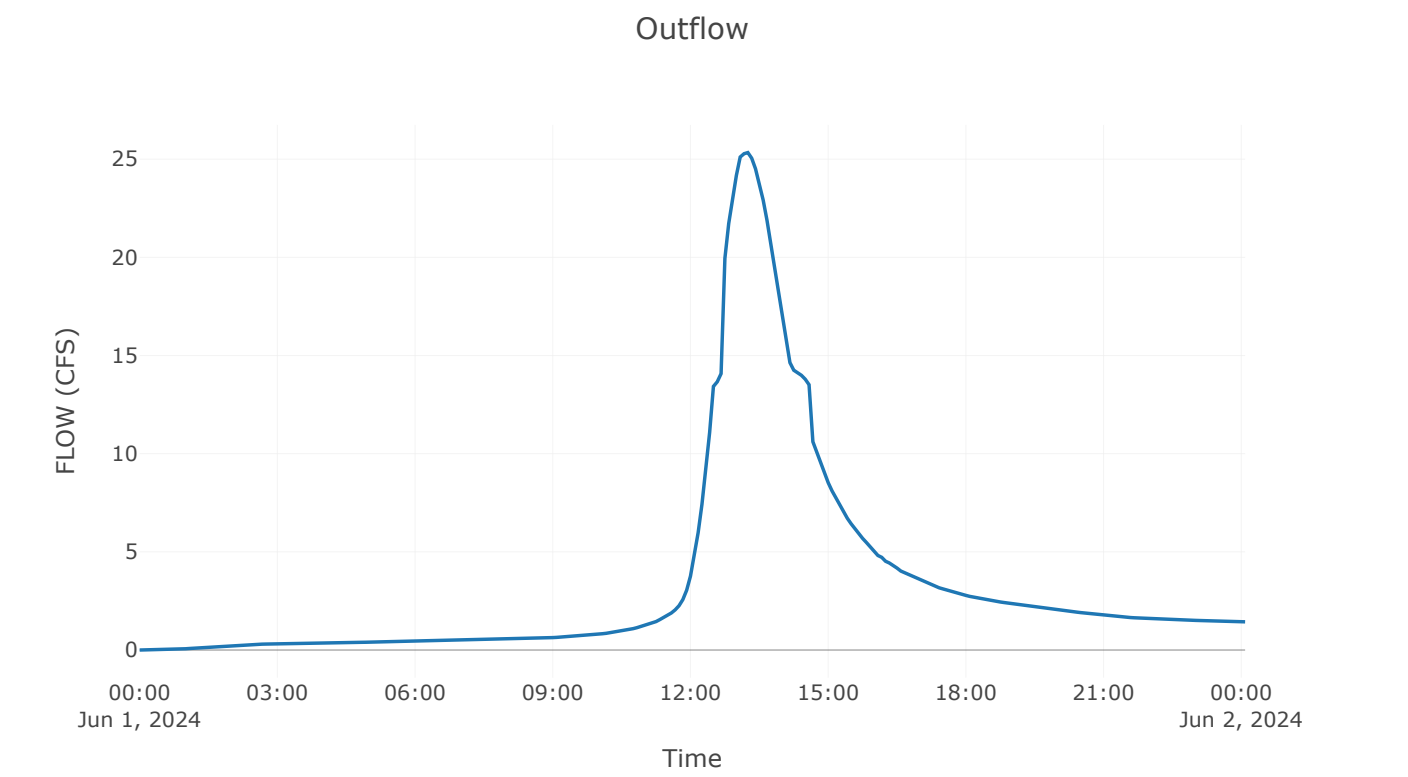
Precipitation and Outflow



Reservoir: US62West

Downstream : Hoover Park West

Results: US62West	
Peak Discharge (CFS)	25.34
Time of Peak Discharge	01Jun2024, 13:15
Volume (IN)	1.79
Peak Inflow (CFS)	25.35
Time of Peak Inflow	01Jun2024, 13:10
Inflow Volume (AC - FT)	6.7
Maximum Storage (AC - FT)	0.07
Peak Elevation (FT)	862.52
Discharge Volume (AC - FT)	6.67

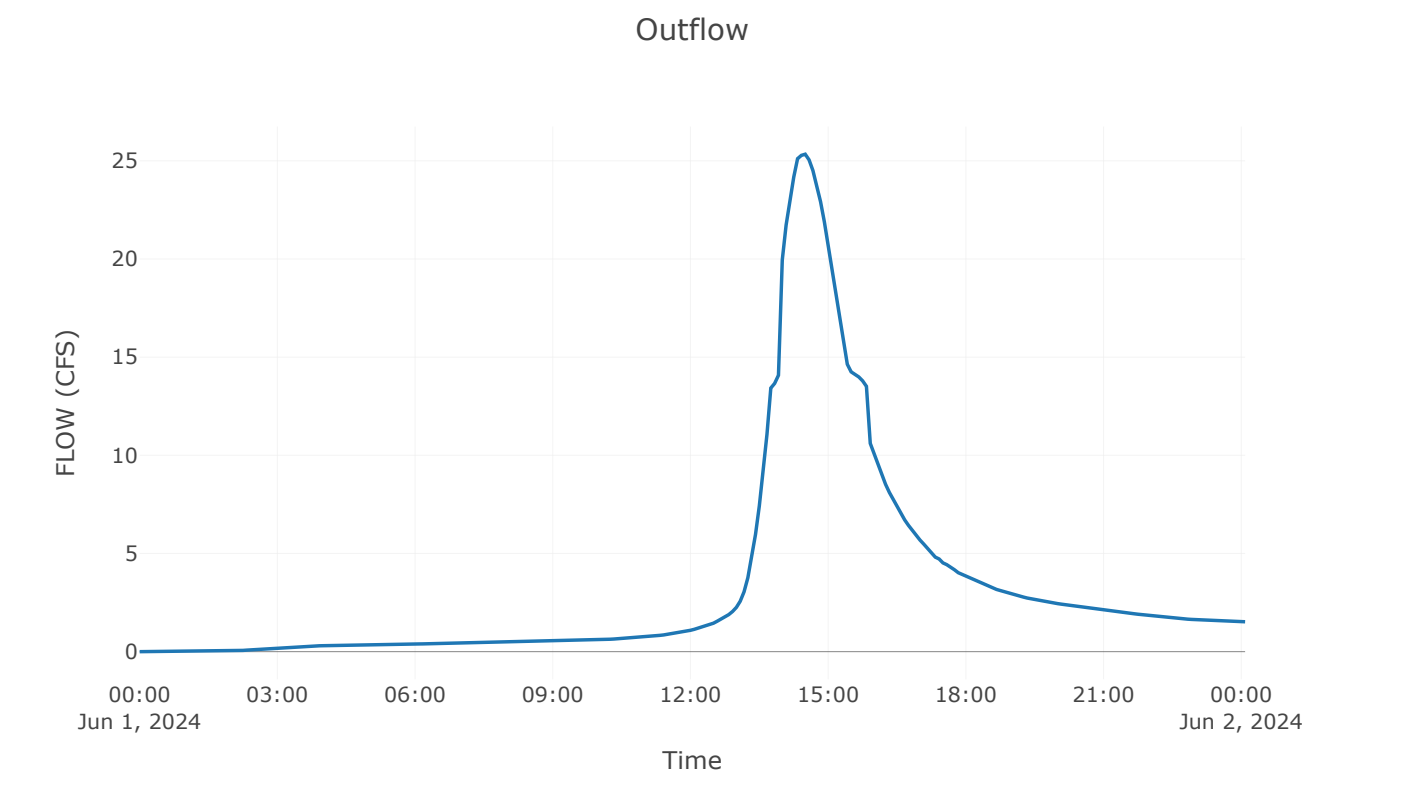


Reach: Hoover Park West

Downstream : Hoover Park West Pond

Route: Lag	
Method	Lag
Initial Variable	Combined Inflow
Lag	75

Results: Hoover Park West	
Peak Discharge (CFS)	25.34
Time of Peak Discharge	01Jun2024, 14:30
Volume (IN)	1.75
Peak Inflow (CFS)	25.34
Inflow Volume (AC - FT)	6.67



Subbasin: Hoover Park

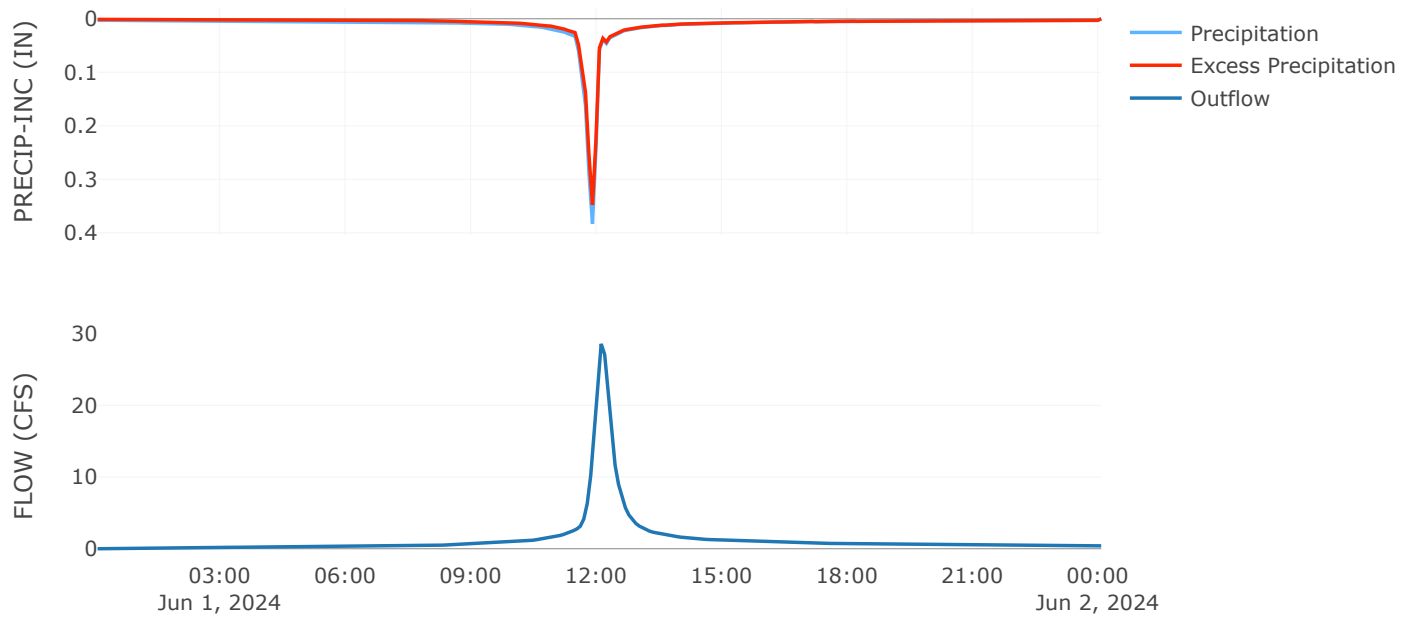
Area (MI²) : 0.02
Downstream : Hoover Park West Pond

Loss Rate: SCS	
Percent Impervious Area	40
Curve Number	91
Initial Abstraction	0.2

Transform: SCS	
Lag	14
Unitgraph Type	Standard

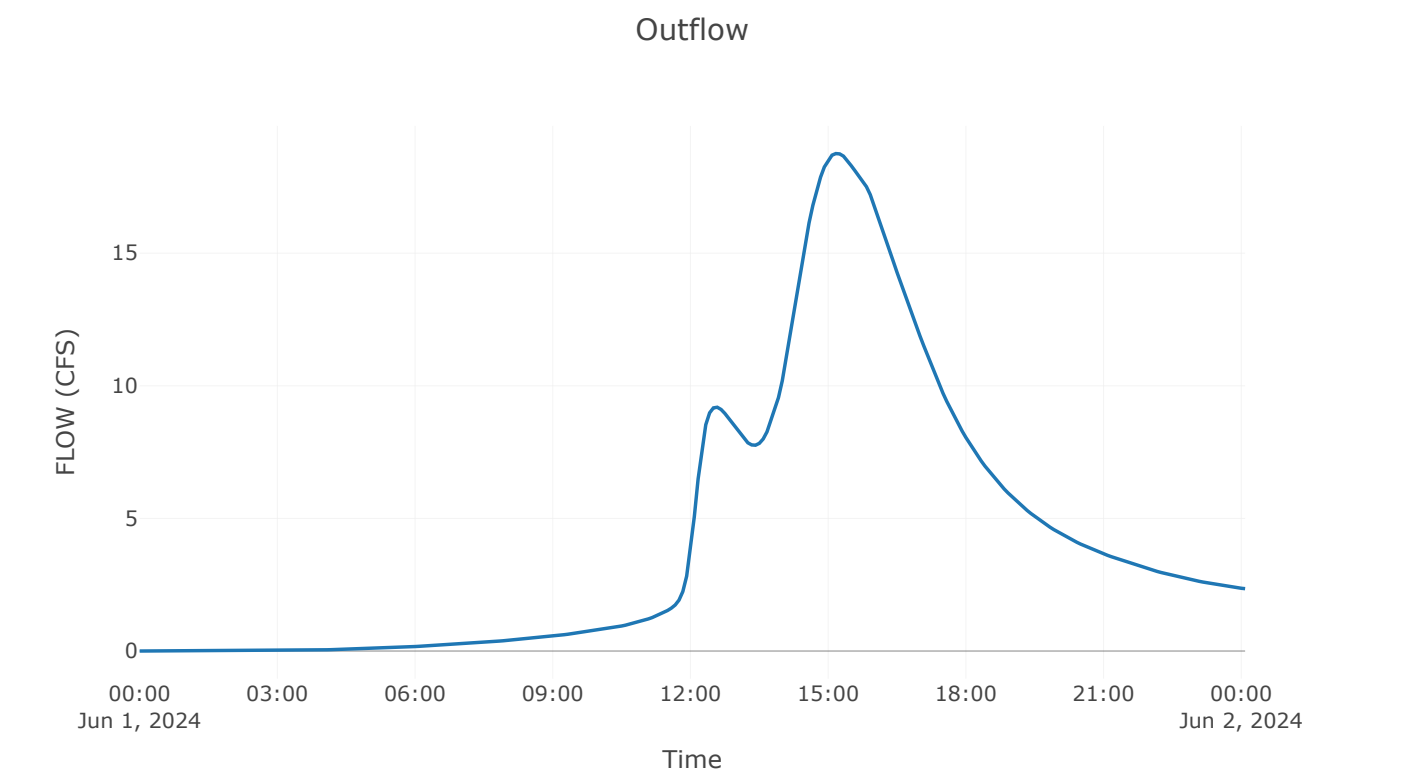
Results: Hoover Park	
Peak Discharge (CFS)	28.56
Time of Peak Discharge	01Jun2024, 12:05
Volume (IN)	2.72
Precipitation Volume (AC - FT)	3.22
Loss Volume (AC - FT)	0.56
Excess Volume (AC - FT)	2.67
Direct Runoff Volume (AC - FT)	2.66
Baseflow Volume (AC - FT)	0

Precipitation and Outflow



Reservoir: Hoover Park West Pond

Results: Hoover Park West Pond	
Peak Discharge (CFS)	18.76
Time of Peak Discharge	01Jun2024, 15:10
Volume (IN)	1.81
Peak Inflow (CFS)	29.7
Time of Peak Inflow	01Jun2024, 12:05
Inflow Volume (AC - FT)	9.18
Maximum Storage (AC - FT)	2.37
Peak Elevation (FT)	860.75
Discharge Volume (AC - FT)	8.53



Project: US62_TaskL
Simulation Run: 10-Year Simulation
Simulation Start: 31 May 2024, 24:00
Simulation End: 2 June 2024, 00:05

HMS Version: 4.12
Executed: 11 June 2024, 17:06

Global Parameter Summary - Subbasin

Area (MI ²)	
Element Name	Area (MI ²)
US62 - West	0.07
Hoover Park	0.02

Downstream	
Element Name	Downstream
US62 - West	U S 62 West
Hoover Park	Hoover Park West Pond

Loss Rate: Scs			
Element Name	Percent Impervious Area	Curve Number	Initial Abstraction
US62 - West	20	80	0.5
Hoover Park	40	91	0.2

Transform: Scs		
Element Name	Lag	Unitgraph Type
US62 - West	75	Standard
Hoover Park	14	Standard

Global Parameter Summary - Reach

Downstream	
Element Name	Downstream
Hoover Park West	Hoover Park West Pond

Route: Lag			
Element Name	Method	Initial Variable	Lag
Hoover Park West	Lag	Combined Inflow	75

Global Results Summary

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
US62 - West	0.07	31.47	01Jun2024, 13:10	2.2
U S 62 West	0.07	31.42	01Jun2024, 13:15	2.21
Hoover Park West	0.07	31.42	01Jun2024, 14:30	2.16
Hoover Park	0.02	33.57	01Jun2024, 12:05	3.21
Hoover Park West Pond	0.09	21.96	01Jun2024, 15:15	2.22

Subbasin: US62-West

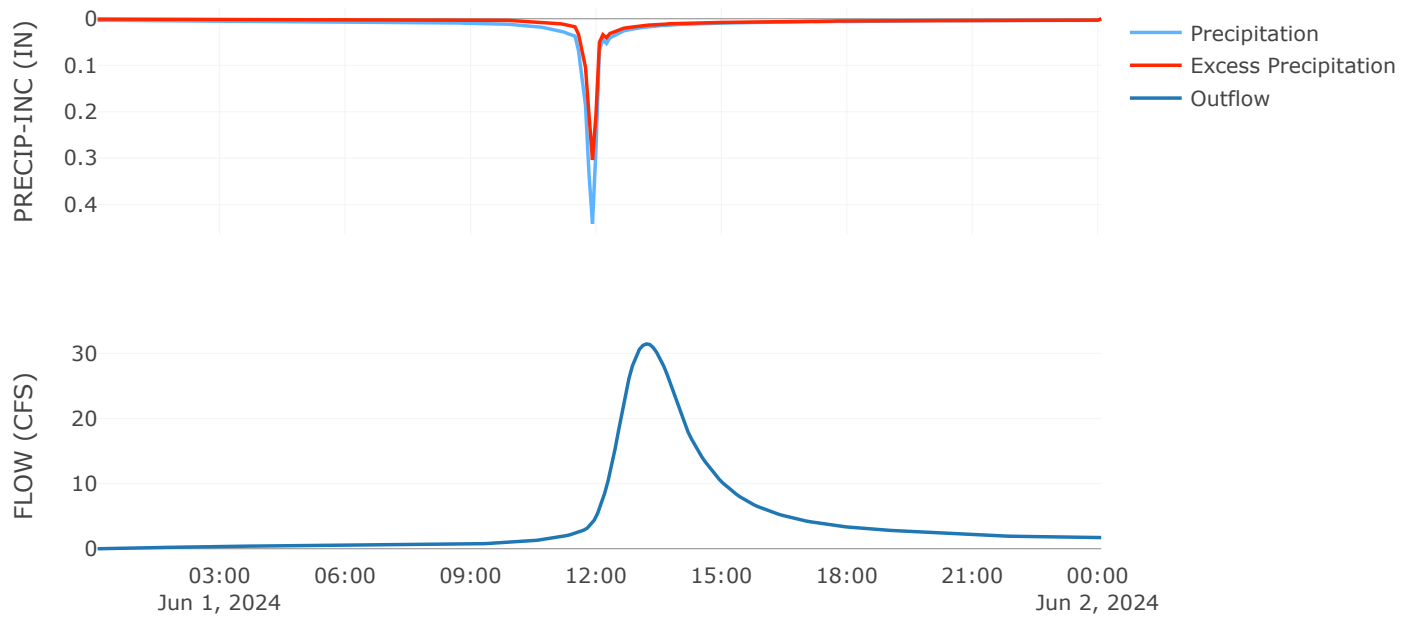
Area (MI²) : 0.07
Downstream : U S 62 West

Loss Rate: SCS	
Percent Impervious Area	20
Curve Number	80
Initial Abstraction	0.5

Transform: SCS	
Lag	75
Unitgraph Type	Standard

Results: US62-West	
Peak Discharge (CFS)	31.47
Time of Peak Discharge	01Jun2024, 13:10
Volume (IN)	2.2
Precipitation Volume (AC - FT)	14.19
Loss Volume (AC - FT)	5.74
Excess Volume (AC - FT)	8.45
Direct Runoff Volume (AC - FT)	8.23
Baseflow Volume (AC - FT)	0

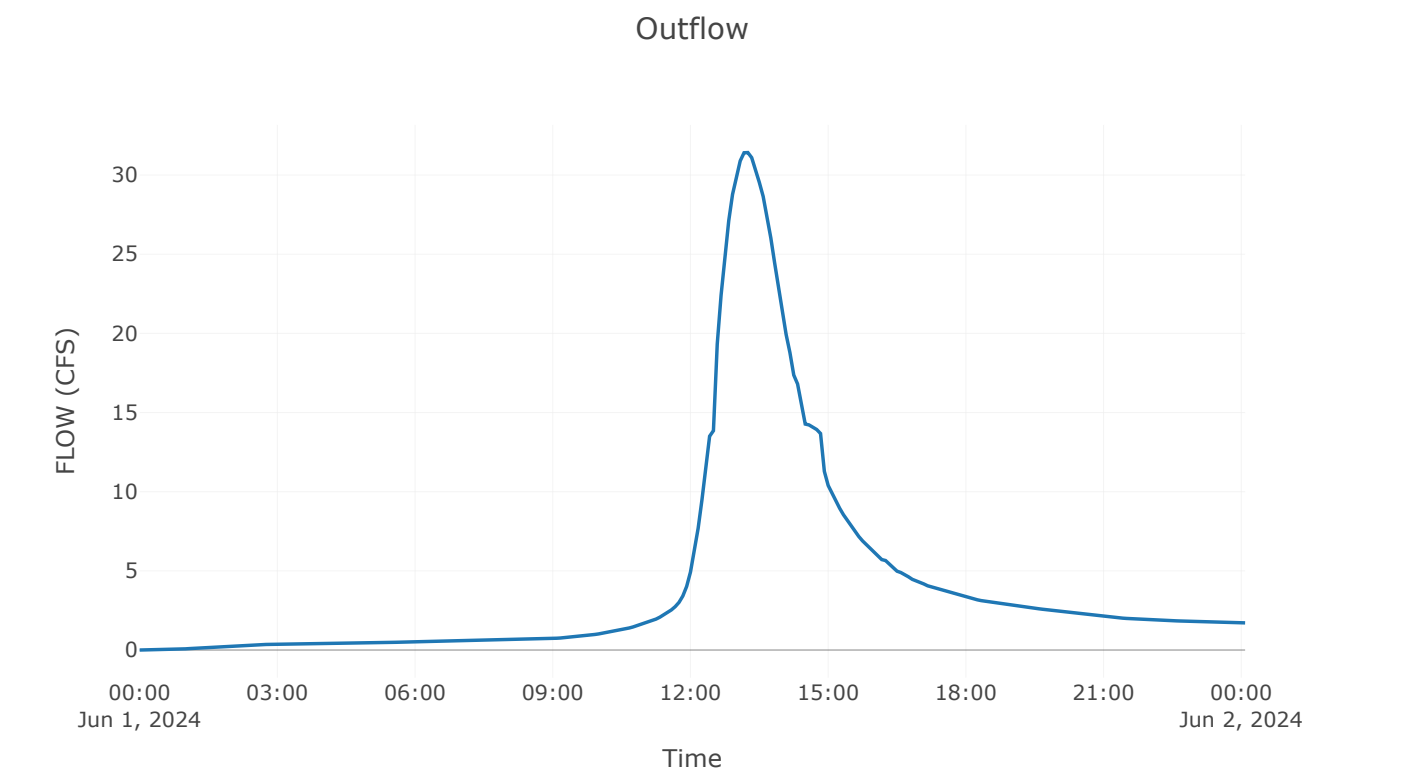
Precipitation and Outflow



Reservoir: US62West

Downstream : Hoover Park West

Results: US62West	
Peak Discharge (CFS)	31.42
Time of Peak Discharge	01Jun2024, 13:15
Volume (IN)	2.21
Peak Inflow (CFS)	31.47
Time of Peak Inflow	01Jun2024, 13:10
Inflow Volume (AC - FT)	8.23
Maximum Storage (AC - FT)	0.08
Peak Elevation (FT)	862.63
Discharge Volume (AC - FT)	8.23

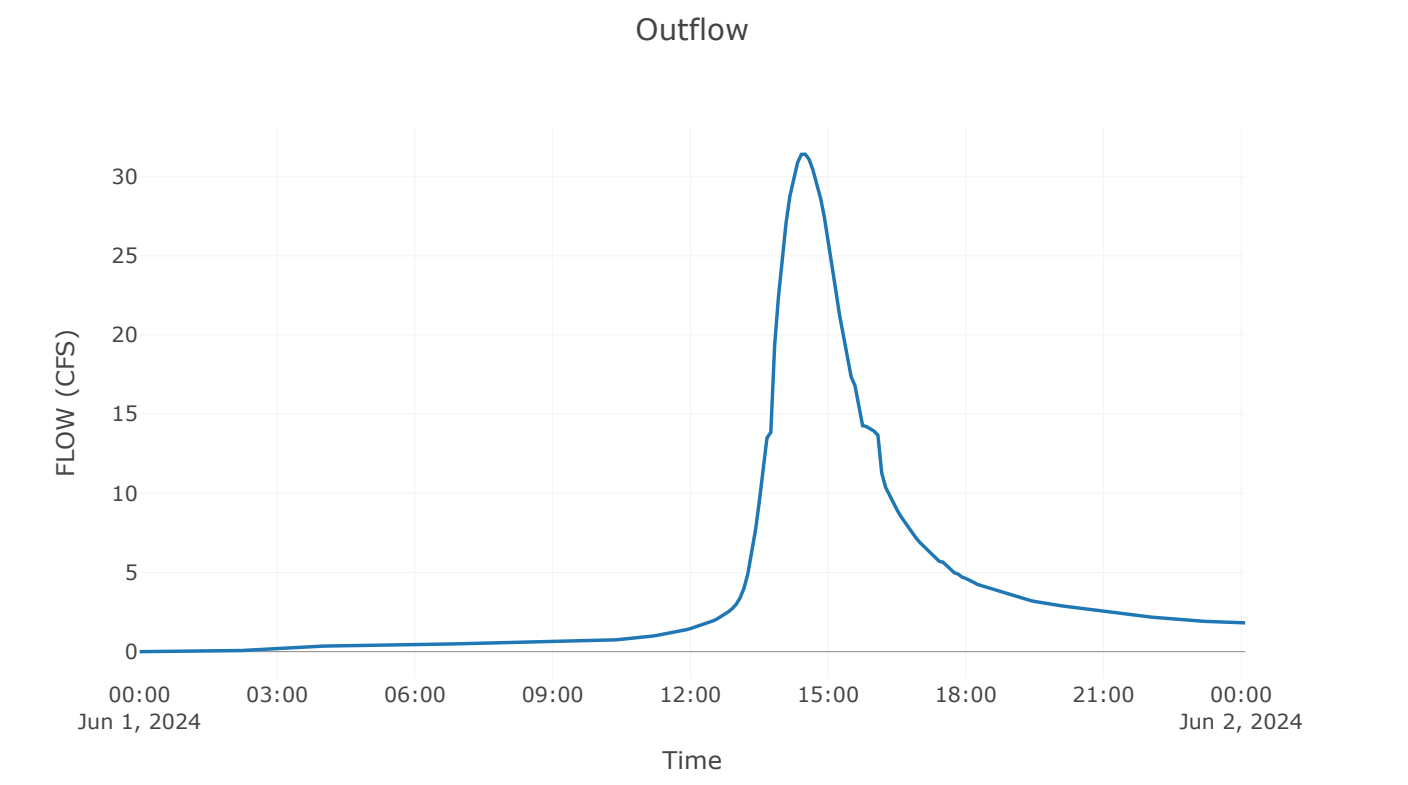


Reach: Hoover Park West

Downstream : Hoover Park West Pond

Route: Lag	
Method	Lag
Initial Variable	Combined Inflow
Lag	75

Results: Hoover Park West	
Peak Discharge (CFS)	31.42
Time of Peak Discharge	01Jun2024, 14:30
Volume (IN)	2.16
Peak Inflow (CFS)	31.42
Inflow Volume (AC - FT)	8.23



Subbasin: Hoover Park

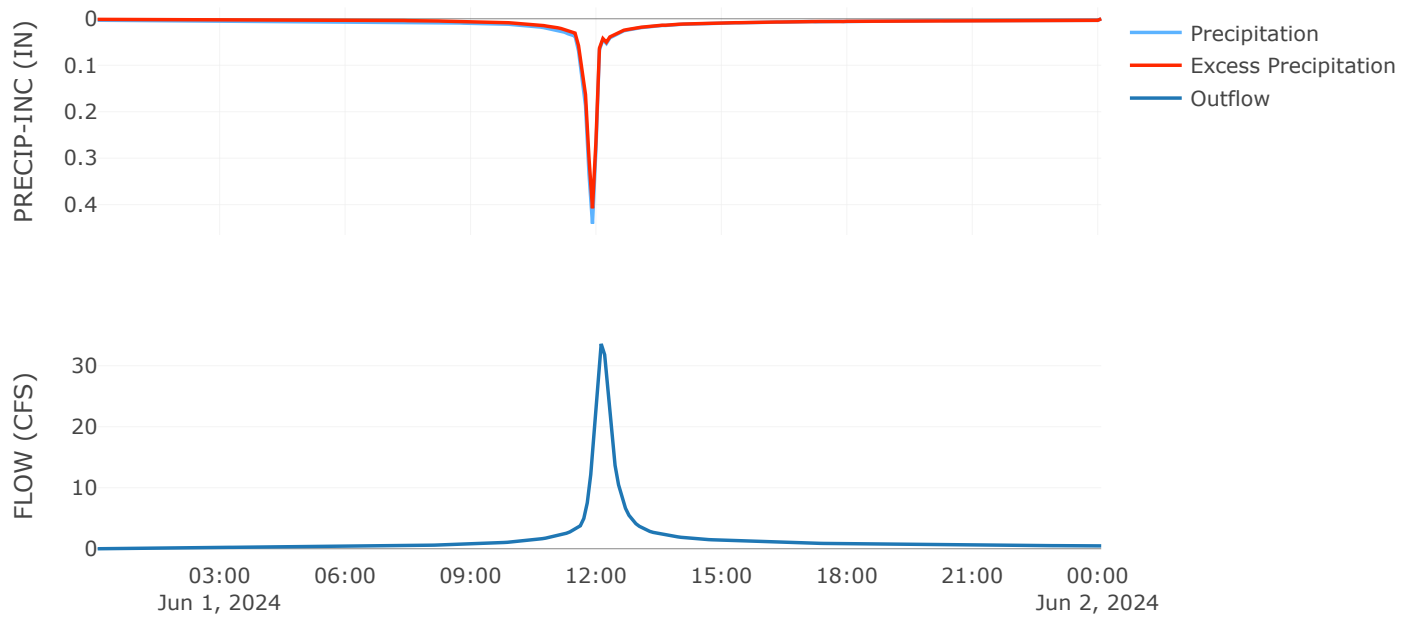
Area (MI²) : 0.02
Downstream : Hoover Park West Pond

Loss Rate: SCS	
Percent Impervious Area	40
Curve Number	91
Initial Abstraction	0.2

Transform: SCS	
Lag	14
Unitgraph Type	Standard

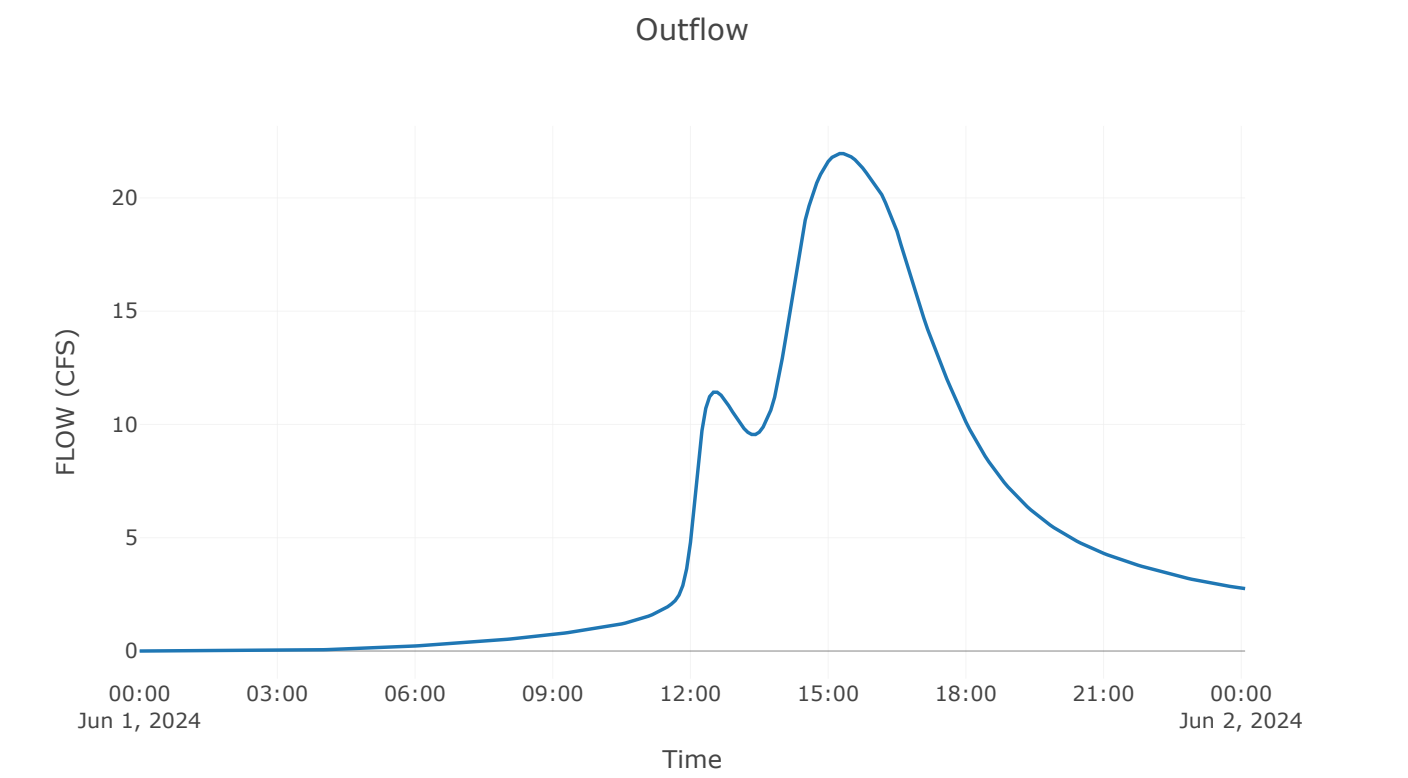
Results: Hoover Park	
Peak Discharge (CFS)	33.57
Time of Peak Discharge	01Jun2024, 12:05
Volume (IN)	3.21
Precipitation Volume (AC - FT)	3.71
Loss Volume (AC - FT)	0.57
Excess Volume (AC - FT)	3.14
Direct Runoff Volume (AC - FT)	3.13
Baseflow Volume (AC - FT)	0

Precipitation and Outflow



Reservoir: Hoover Park West Pond

Results: Hoover Park West Pond	
Peak Discharge (CFS)	21.96
Time of Peak Discharge	01Jun2024, 15:15
Volume (IN)	2.22
Peak Inflow (CFS)	35.11
Time of Peak Inflow	01Jun2024, 12:05
Inflow Volume (AC - FT)	11.18
Maximum Storage (AC - FT)	2.9
Peak Elevation (FT)	861.28
Discharge Volume (AC - FT)	10.48



Project: US62_TaskL
Simulation Run: 25-Year Simulation
Simulation Start: 31 May 2024, 24:00
Simulation End: 2 June 2024, 00:05

HMS Version: 4.12
Executed: 11 June 2024, 17:06

Global Parameter Summary - Subbasin

Area (MI2)	
Element Name	Area (MI2)
US62 - West	0.07
Hoover Park	0.02

Downstream	
Element Name	Downstream
US62 - West	U S 62 West
Hoover Park	Hoover Park West Pond

Loss Rate: Scs			
Element Name	Percent Impervious Area	Curve Number	Initial Abstraction
US62 - West	20	80	0.5
Hoover Park	40	91	0.2

Transform: Scs		
Element Name	Lag	Unitgraph Type
US62 - West	75	Standard
Hoover Park	14	Standard

Global Parameter Summary - Reach

Downstream	
Element Name	Downstream
Hoover Park West	Hoover Park West Pond

Route: Lag			
Element Name	Method	Initial Variable	Lag
Hoover Park West	Lag	Combined Inflow	75

Global Results Summary

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
US62 - West	0.07	37.76	01Jun2024, 13:10	2.63
U S 62 West	0.07	37.69	01Jun2024, 13:15	2.63
Hoover Park West	0.07	37.69	01Jun2024, 14:30	2.57
Hoover Park	0.02	38.58	01Jun2024, 12:05	3.69
Hoover Park West Pond	0.09	24.45	01Jun2024, 15:20	2.64

Subbasin: US62-West

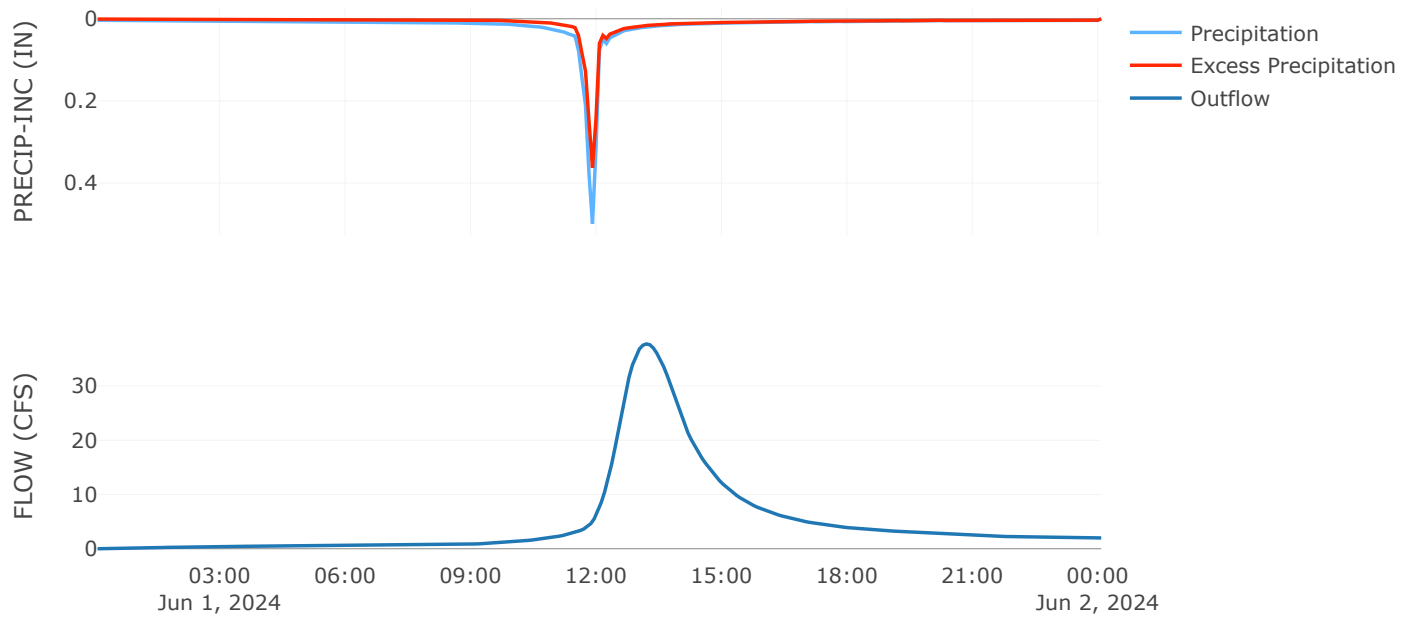
Area (MI²) : 0.07
Downstream : U S 62 West

Loss Rate: SCS	
Percent Impervious Area	20
Curve Number	80
Initial Abstraction	0.5

Transform: SCS	
Lag	75
Unitgraph Type	Standard

Results: US62-West	
Peak Discharge (CFS)	37.76
Time of Peak Discharge	01Jun2024, 13:10
Volume (IN)	2.63
Precipitation Volume (AC - FT)	16.05
Loss Volume (AC - FT)	6
Excess Volume (AC - FT)	10.06
Direct Runoff Volume (AC - FT)	9.81
Baseflow Volume (AC - FT)	0

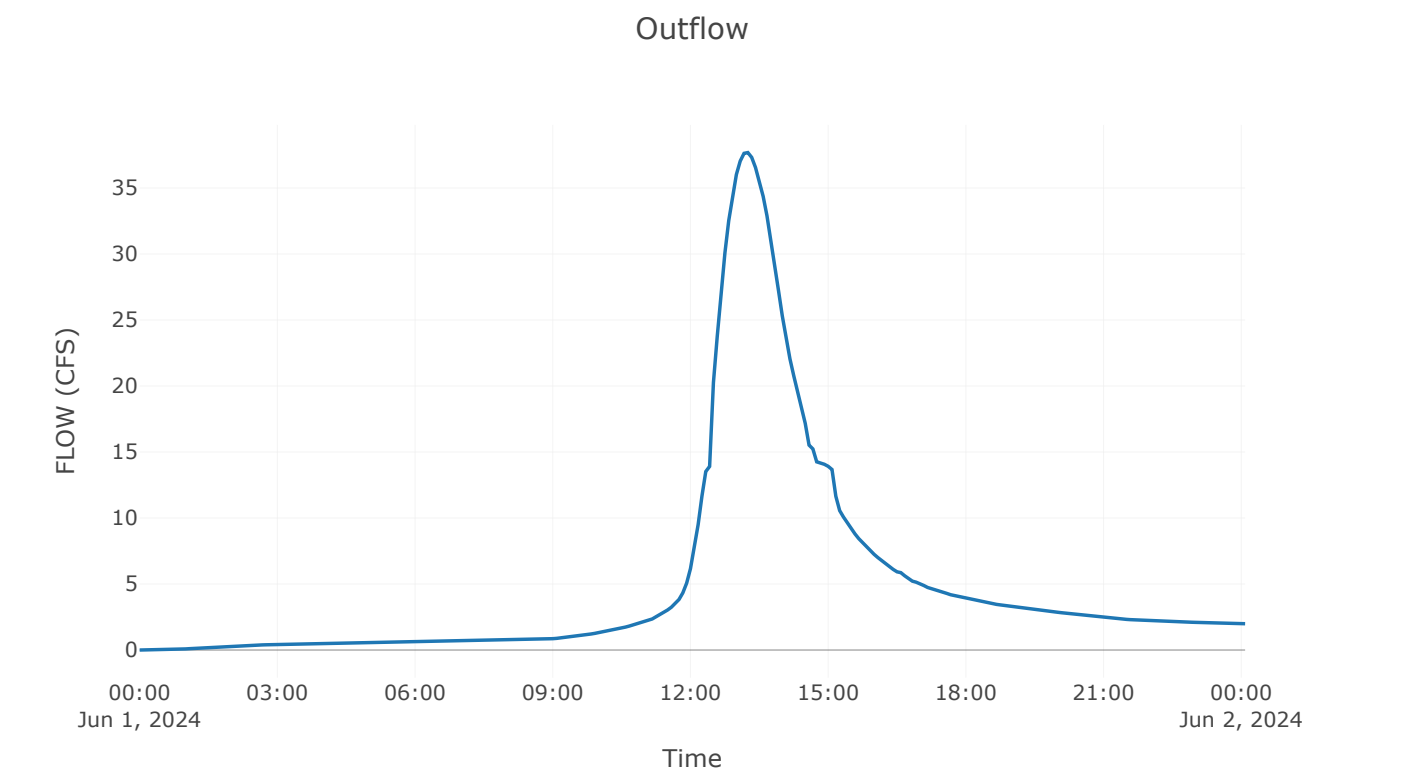
Precipitation and Outflow



Reservoir: US62West

Downstream : Hoover Park West

Results: US62West	
Peak Discharge (CFS)	37.69
Time of Peak Discharge	01Jun2024, 13:15
Volume (IN)	2.63
Peak Inflow (CFS)	37.76
Time of Peak Inflow	01Jun2024, 13:10
Inflow Volume (AC - FT)	9.81
Maximum Storage (AC - FT)	0.1
Peak Elevation (FT)	862.79
Discharge Volume (AC - FT)	9.8

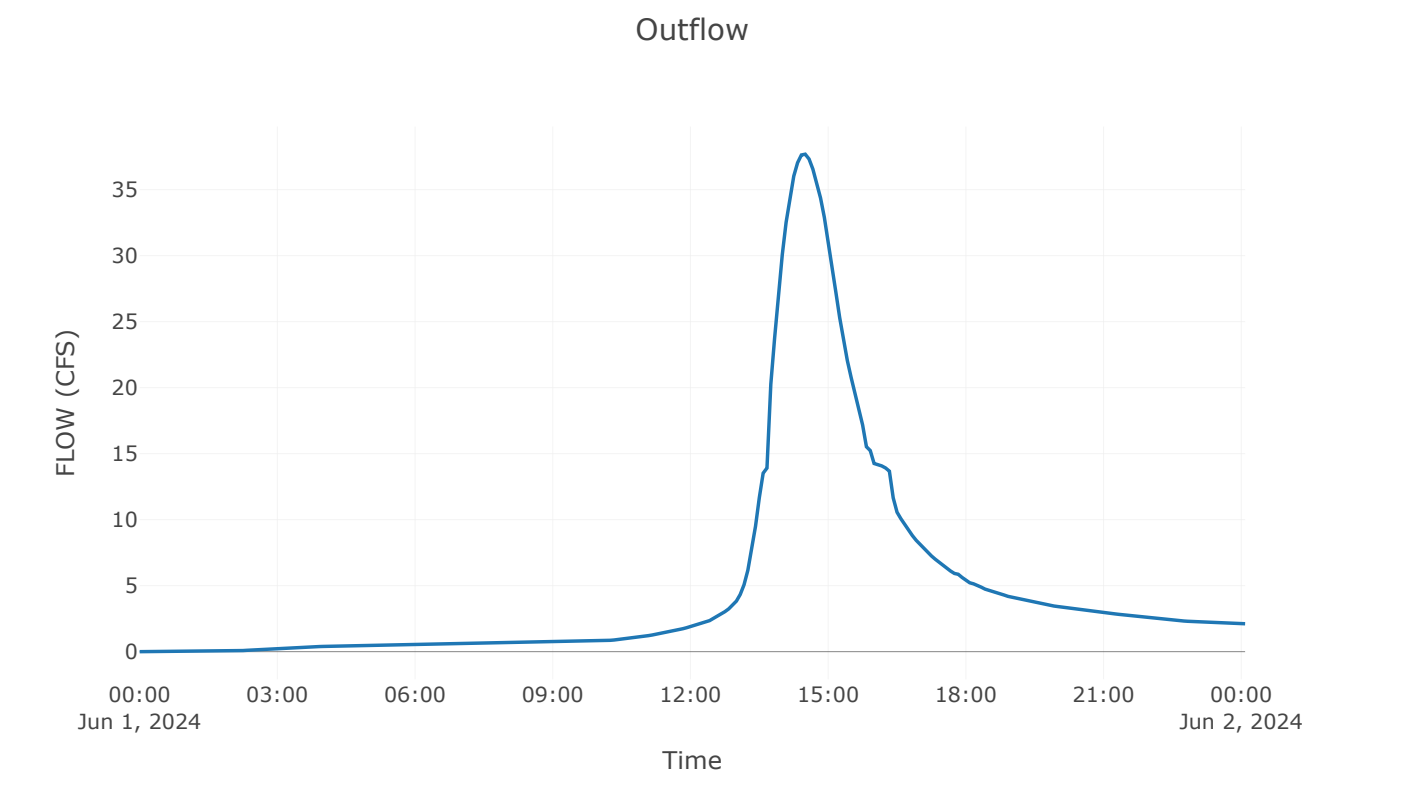


Reach: Hoover Park West

Downstream : Hoover Park West Pond

Route: Lag	
Method	Lag
Initial Variable	Combined Inflow
Lag	75

Results: Hoover Park West	
Peak Discharge (CFS)	37.69
Time of Peak Discharge	01Jun2024, 14:30
Volume (IN)	2.57
Peak Inflow (CFS)	37.69
Inflow Volume (AC - FT)	9.8



Subbasin: Hoover Park

Area (MI²) : 0.02

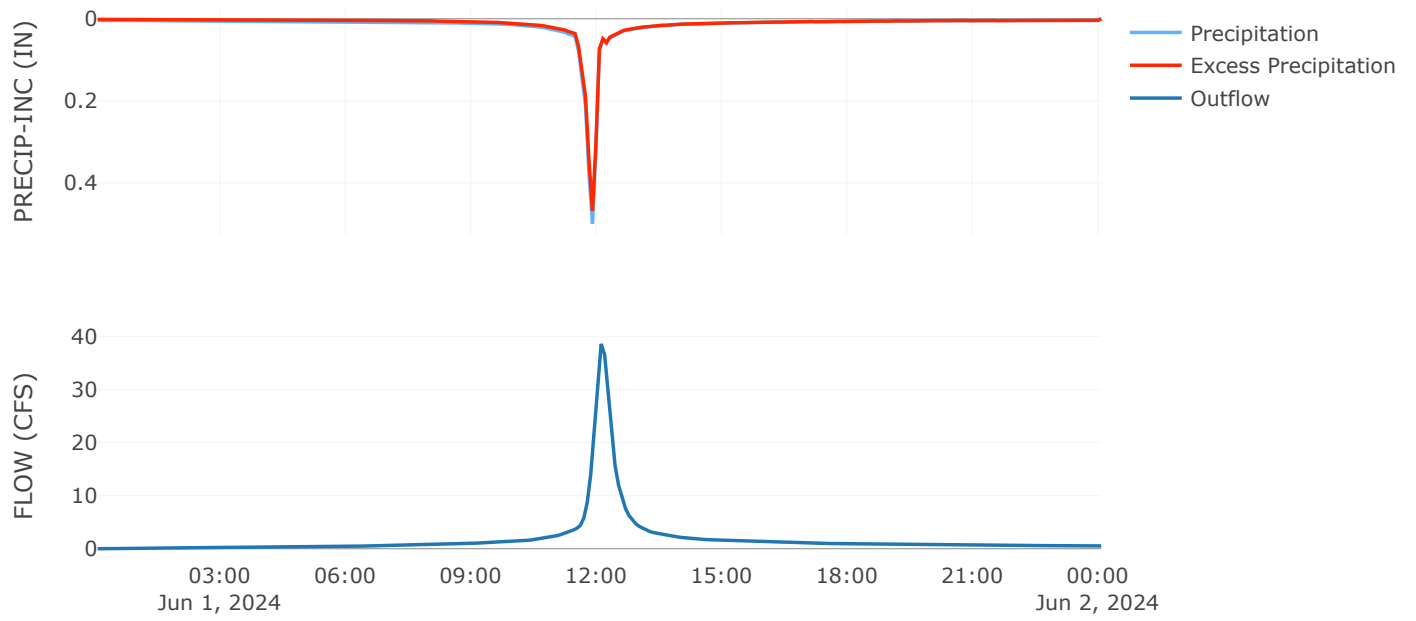
Downstream : Hoover Park West Pond

Loss Rate: SCS	
Percent Impervious Area	40
Curve Number	91
Initial Abstraction	0.2

Transform: SCS	
Lag	14
Unitgraph Type	Standard

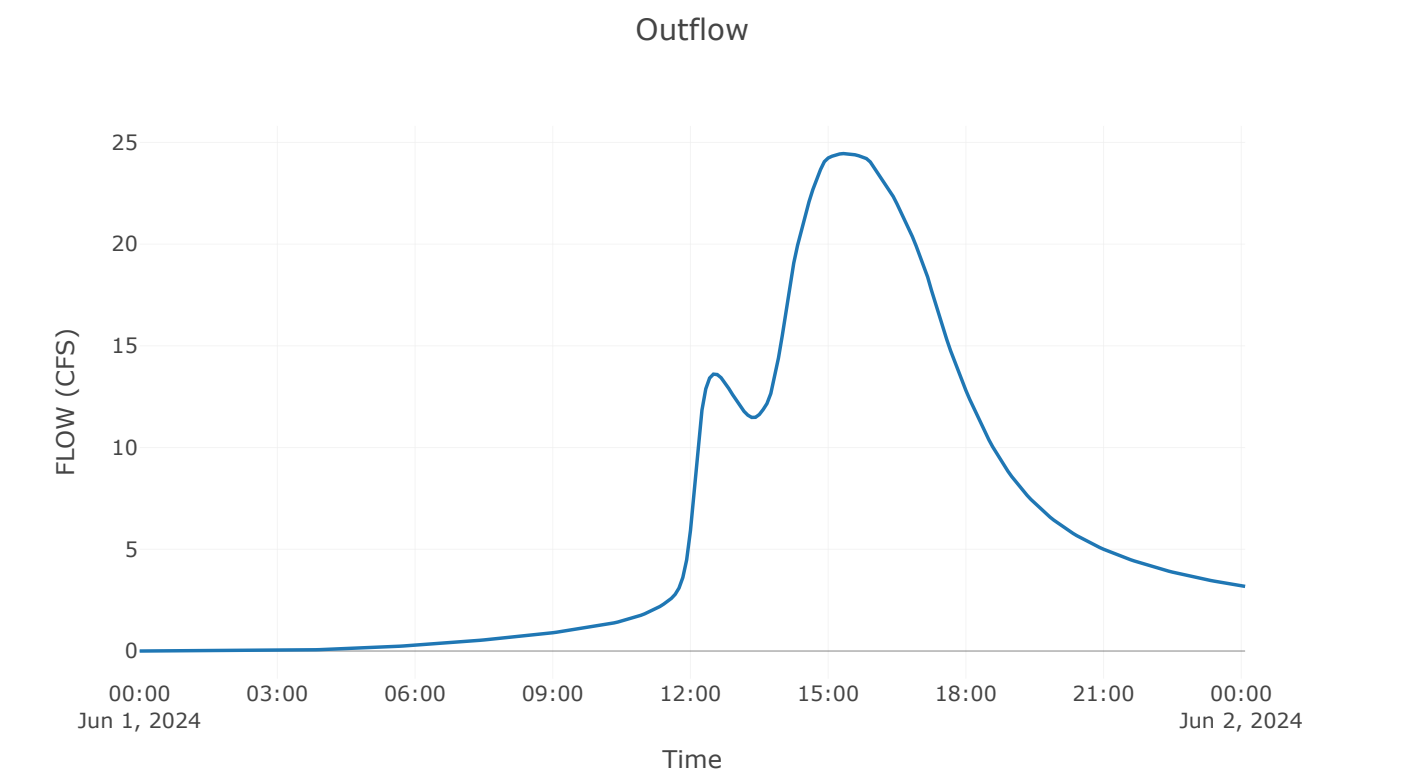
Results: Hoover Park	
Peak Discharge (CFS)	38.58
Time of Peak Discharge	01Jun2024, 12:05
Volume (IN)	3.69
Precipitation Volume (AC - FT)	4.2
Loss Volume (AC - FT)	0.58
Excess Volume (AC - FT)	3.61
Direct Runoff Volume (AC - FT)	3.6
Baseflow Volume (AC - FT)	0

Precipitation and Outflow



Reservoir: Hoover Park West Pond

Results: Hoover Park West Pond	
Peak Discharge (CFS)	24.45
Time of Peak Discharge	01Jun2024, 15:20
Volume (IN)	2.64
Peak Inflow (CFS)	40.57
Time of Peak Inflow	01Jun2024, 12:05
Inflow Volume (AC - FT)	13.19
Maximum Storage (AC - FT)	3.5
Peak Elevation (FT)	861.84
Discharge Volume (AC - FT)	12.43



Project: US62_TaskL
Simulation Run: 50-Year Simulation
Simulation Start: 31 May 2024, 24:00
Simulation End: 2 June 2024, 00:05

HMS Version: 4.12
Executed: 11 June 2024, 17:06

Global Parameter Summary - Subbasin

Area (MI2)	
Element Name	Area (MI2)
US62 - West	0.07
Hoover Park	0.02

Downstream	
Element Name	Downstream
US62 - West	U S 62 West
Hoover Park	Hoover Park West Pond

Loss Rate: Scs			
Element Name	Percent Impervious Area	Curve Number	Initial Abstraction
US62 - West	20	80	0.5
Hoover Park	40	91	0.2

Transform: Scs		
Element Name	Lag	Unitgraph Type
US62 - West	75	Standard
Hoover Park	14	Standard

Global Parameter Summary - Reach

Downstream	
Element Name	Downstream
Hoover Park West	Hoover Park West Pond

Route: Lag			
Element Name	Method	Initial Variable	Lag
Hoover Park West	Lag	Combined Inflow	75

Global Results Summary

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
US62 - West	0.07	42.89	01Jun2024, 13:10	2.97
U S 62 West	0.07	42.78	01Jun2024, 13:15	2.97
Hoover Park West	0.07	42.78	01Jun2024, 14:30	2.91
Hoover Park	0.02	42.58	01Jun2024, 12:05	4.08
Hoover Park West Pond	0.09	26.64	01Jun2024, 15:25	2.98

Subbasin: US62-West

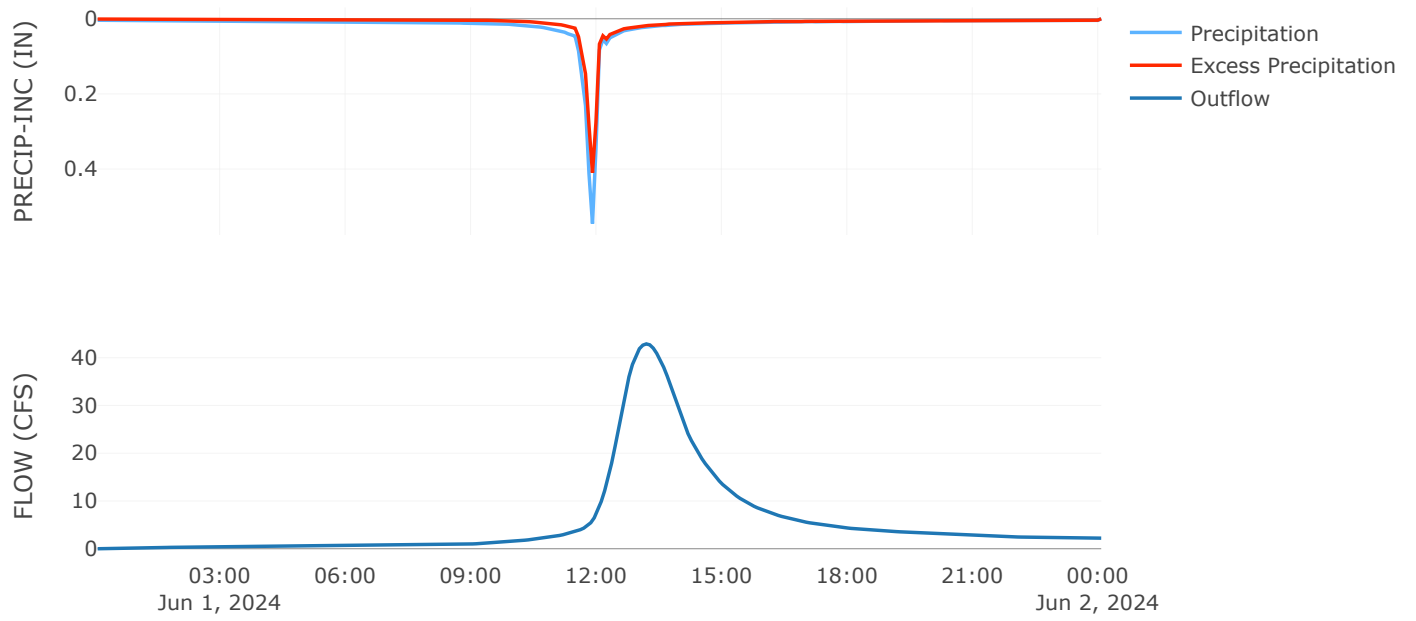
Area (MI²) : 0.07
Downstream : U S 62 West

Loss Rate: SCS	
Percent Impervious Area	20
Curve Number	80
Initial Abstraction	0.5

Transform: SCS	
Lag	75
Unitgraph Type	Standard

Results: US62-West	
Peak Discharge (CFS)	42.89
Time of Peak Discharge	01Jun2024, 13:10
Volume (IN)	2.97
Precipitation Volume (AC - FT)	17.55
Loss Volume (AC - FT)	6.17
Excess Volume (AC - FT)	11.37
Direct Runoff Volume (AC - FT)	11.1
Baseflow Volume (AC - FT)	0

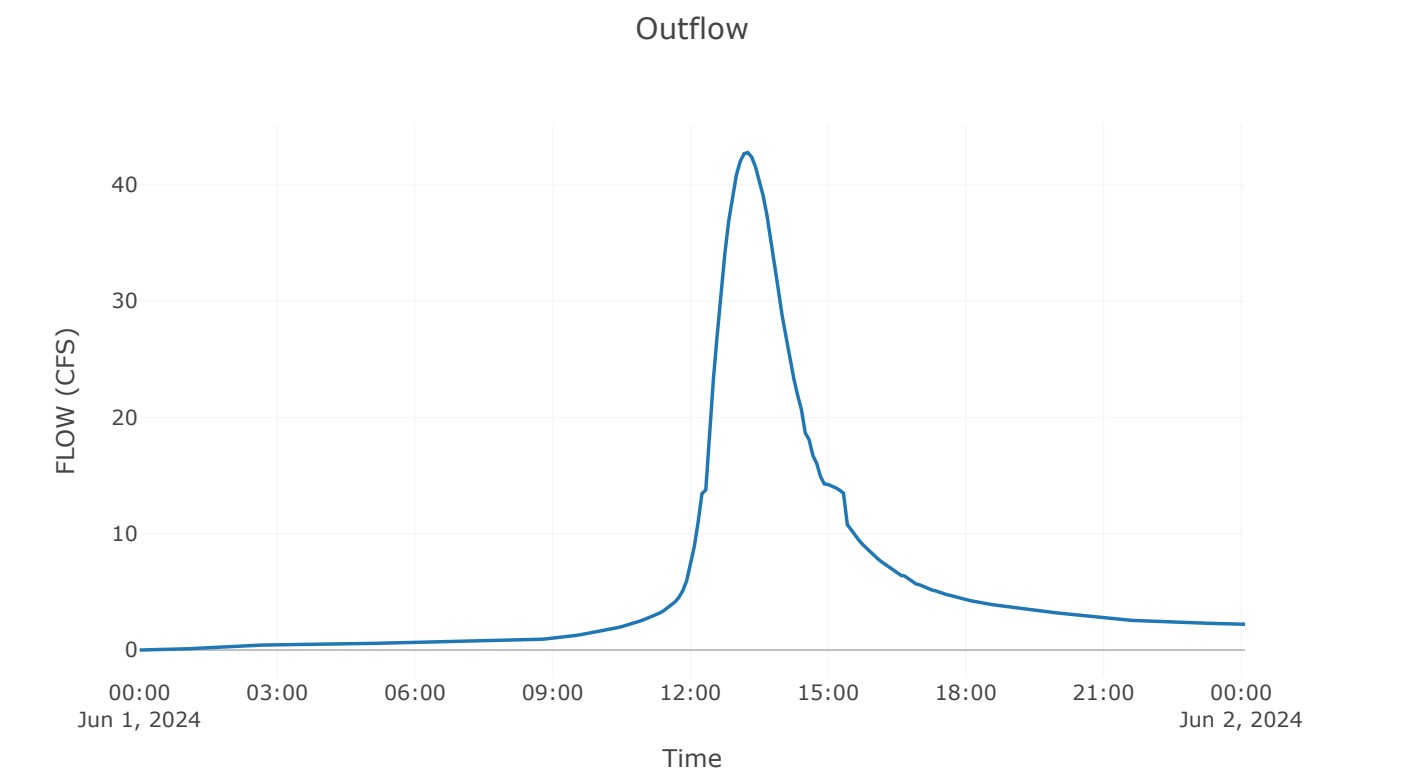
Precipitation and Outflow



Reservoir: US62West

Downstream : Hoover Park West

Results: US62West	
Peak Discharge (CFS)	42.78
Time of Peak Discharge	01Jun2024, 13:15
Volume (IN)	2.97
Peak Inflow (CFS)	42.89
Time of Peak Inflow	01Jun2024, 13:10
Inflow Volume (AC - FT)	11.1
Maximum Storage (AC - FT)	0.12
Peak Elevation (FT)	862.95
Discharge Volume (AC - FT)	11.09

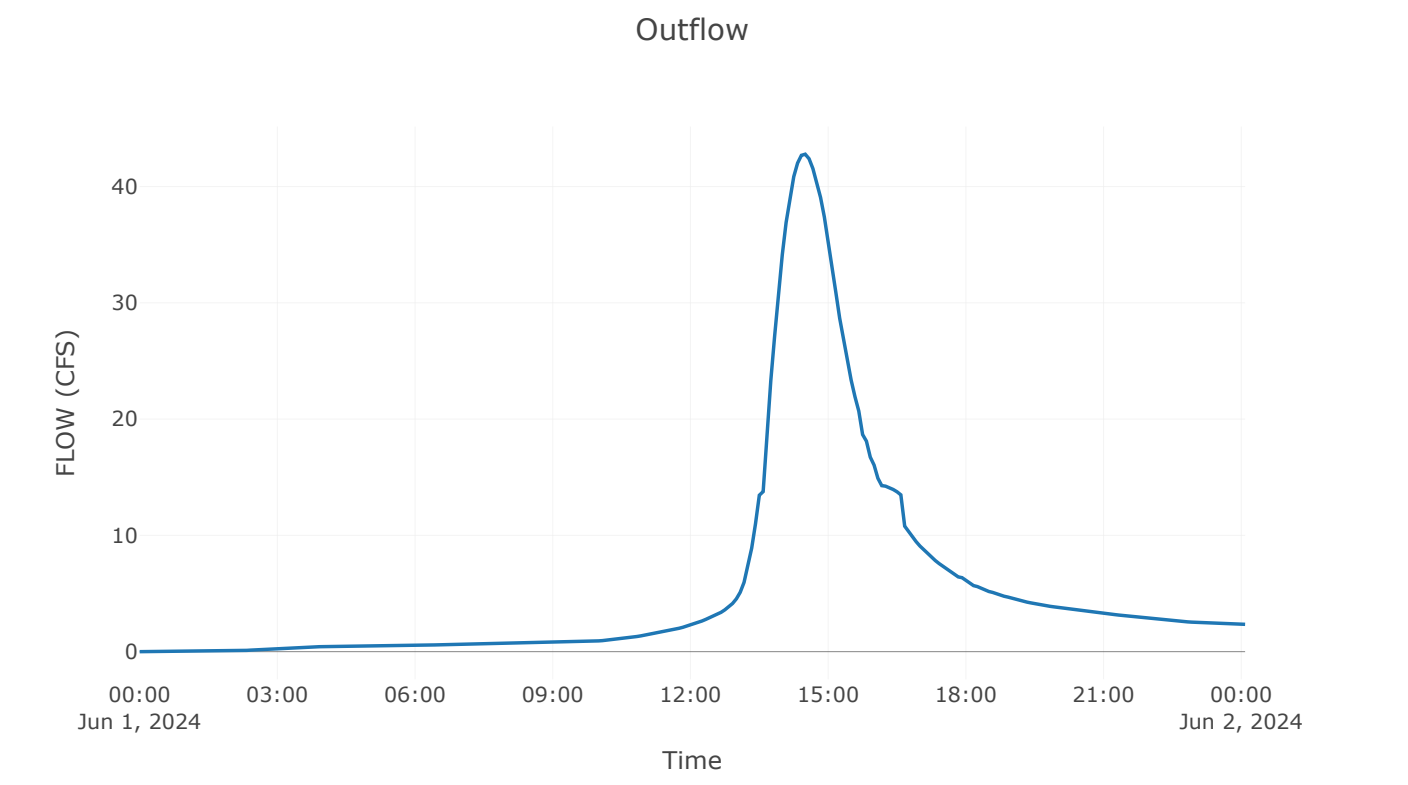


Reach: Hoover Park West

Downstream : Hoover Park West Pond

Route: Lag	
Method	Lag
Initial Variable	Combined Inflow
Lag	75

Results: Hoover Park West	
Peak Discharge (CFS)	42.78
Time of Peak Discharge	01Jun2024, 14:30
Volume (IN)	2.91
Peak Inflow (CFS)	42.78
Inflow Volume (AC - FT)	11.09



Subbasin: Hoover Park

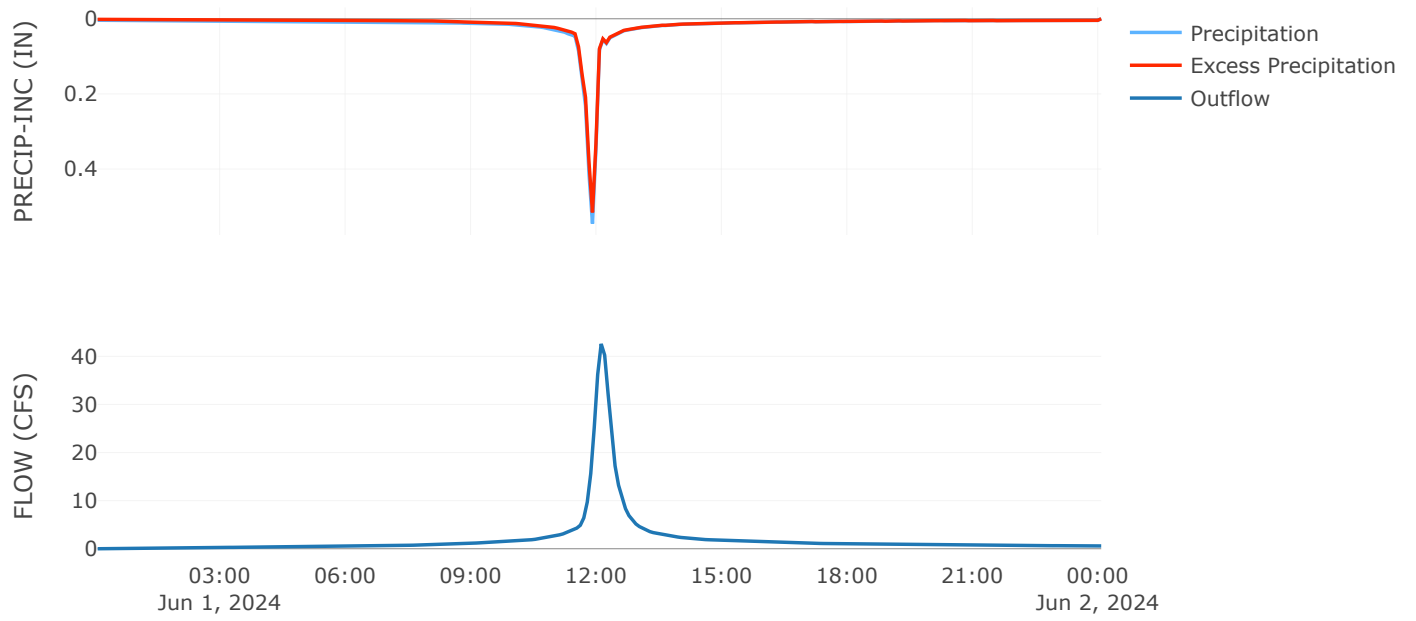
Area (MI²) : 0.02
Downstream : Hoover Park West Pond

Loss Rate: SCS	
Percent Impervious Area	40
Curve Number	91
Initial Abstraction	0.2

Transform: SCS	
Lag	14
Unitgraph Type	Standard

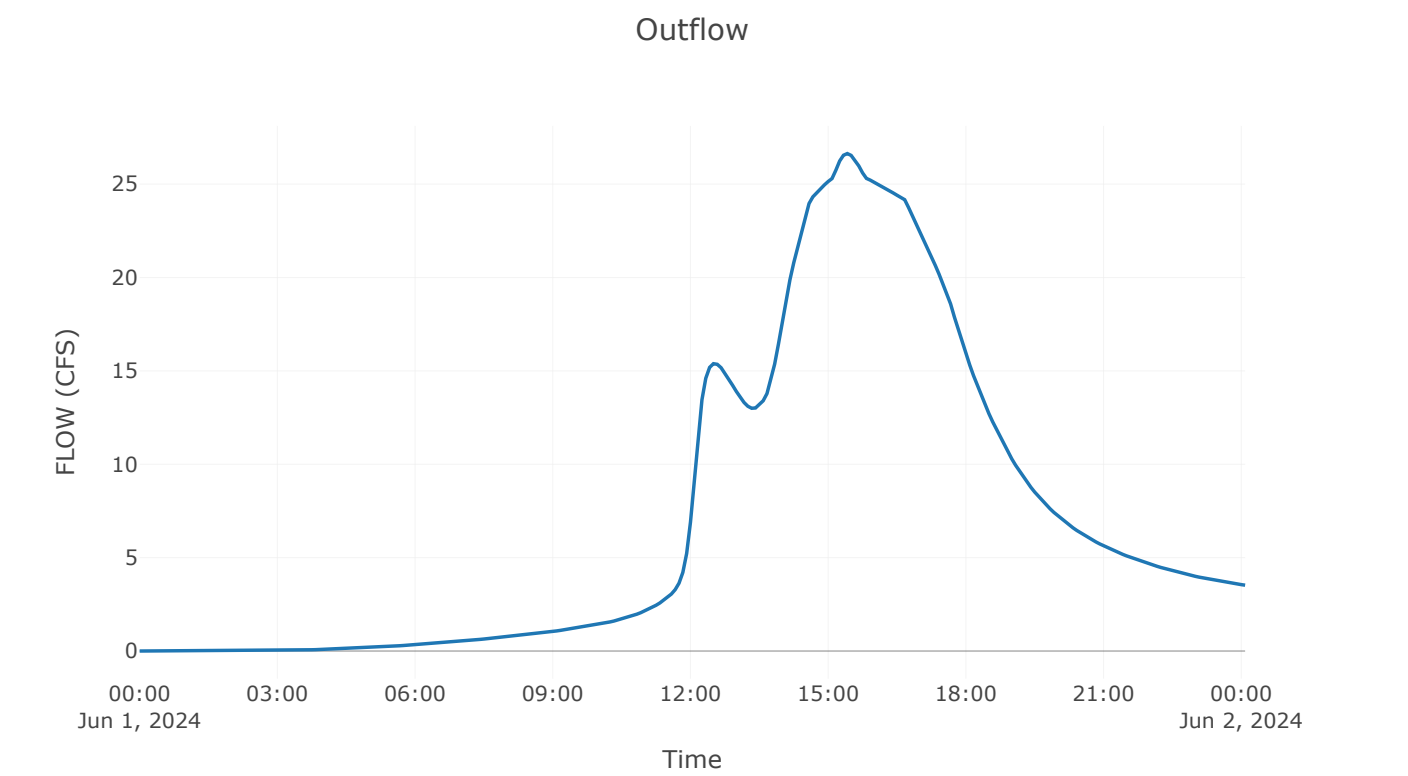
Results: Hoover Park	
Peak Discharge (CFS)	42.58
Time of Peak Discharge	01Jun2024, 12:05
Volume (IN)	4.08
Precipitation Volume (AC - FT)	4.59
Loss Volume (AC - FT)	0.59
Excess Volume (AC - FT)	4
Direct Runoff Volume (AC - FT)	3.98
Baseflow Volume (AC - FT)	0

Precipitation and Outflow



Reservoir: Hoover Park West Pond

Results: Hoover Park West Pond	
Peak Discharge (CFS)	26.64
Time of Peak Discharge	01Jun2024, 15:25
Volume (IN)	2.98
Peak Inflow (CFS)	44.97
Time of Peak Inflow	01Jun2024, 12:05
Inflow Volume (AC - FT)	14.84
Maximum Storage (AC - FT)	4.06
Peak Elevation (FT)	862.35
Discharge Volume (AC - FT)	14.03



Project: US62_TaskL
Simulation Run: 100-Year Simulation
Simulation Start: 31 May 2024, 24:00
Simulation End: 2 June 2024, 00:05

HMS Version: 4.12
Executed: 11 June 2024, 17:07

Global Parameter Summary - Subbasin

Area (MI ²)	
Element Name	Area (MI ²)
US62 - West	0.07
Hoover Park	0.02

Downstream	
Element Name	Downstream
US62 - West	U S 62 West
Hoover Park	Hoover Park West Pond

Loss Rate: Scs			
Element Name	Percent Impervious Area	Curve Number	Initial Abstraction
US62 - West	20	80	0.5
Hoover Park	40	91	0.2

Transform: Scs		
Element Name	Lag	Unitgraph Type
US62 - West	75	Standard
Hoover Park	14	Standard

Global Parameter Summary - Reach

Downstream	
Element Name	Downstream
Hoover Park West	Hoover Park West Pond

Route: Lag			
Element Name	Method	Initial Variable	Lag
Hoover Park West	Lag	Combined Inflow	75

Global Results Summary

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
US62 - West	0.07	46.78	01Jun2024, 13:10	3.23
U S 62 West	0.07	46.63	01Jun2024, 13:15	3.23
Hoover Park West	0.07	46.63	01Jun2024, 14:30	3.16
Hoover Park	0.02	45.58	01Jun2024, 12:05	4.38
Hoover Park West Pond	0.09	32.63	01Jun2024, 15:15	3.23

Subbasin: US62-West

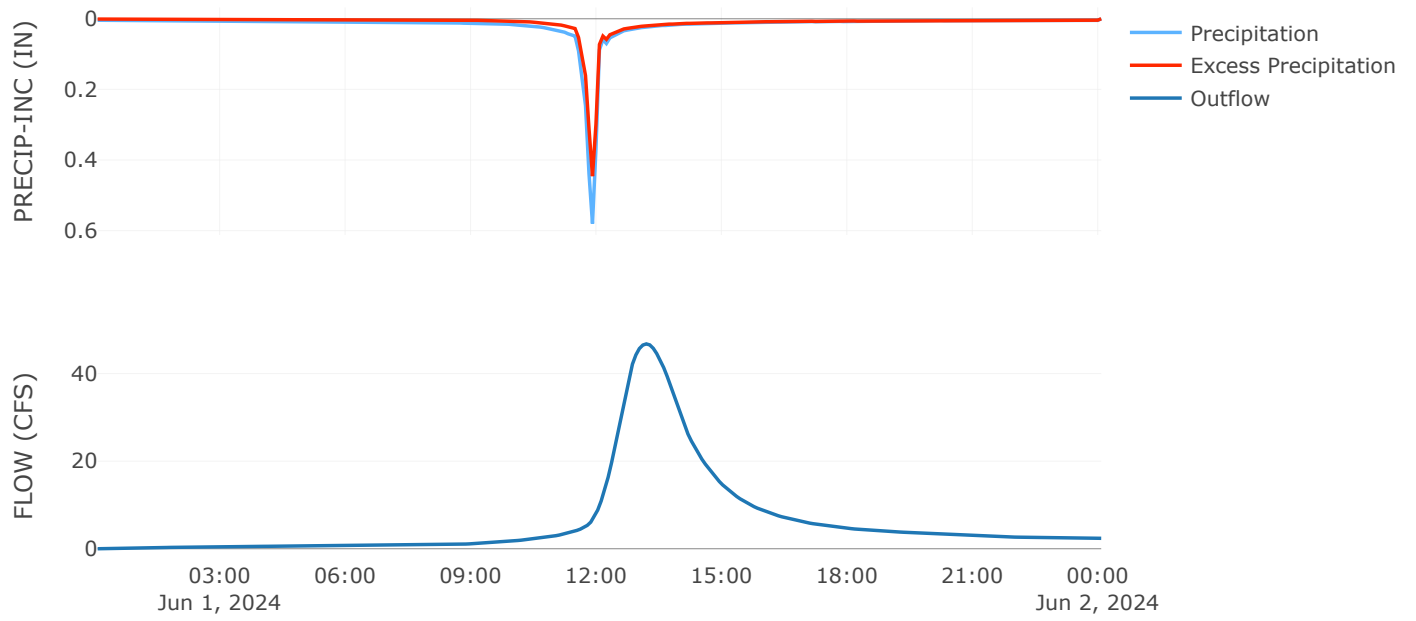
Area (MI²) : 0.07
Downstream : U S 62 West

Loss Rate: SCS	
Percent Impervious Area	20
Curve Number	80
Initial Abstraction	0.5

Transform: SCS	
Lag	75
Unitgraph Type	Standard

Results: US62-West	
Peak Discharge (CFS)	46.78
Time of Peak Discharge	01Jun2024, 13:10
Volume (IN)	3.23
Precipitation Volume (AC - FT)	18.67
Loss Volume (AC - FT)	6.29
Excess Volume (AC - FT)	12.37
Direct Runoff Volume (AC - FT)	12.08
Baseflow Volume (AC - FT)	0

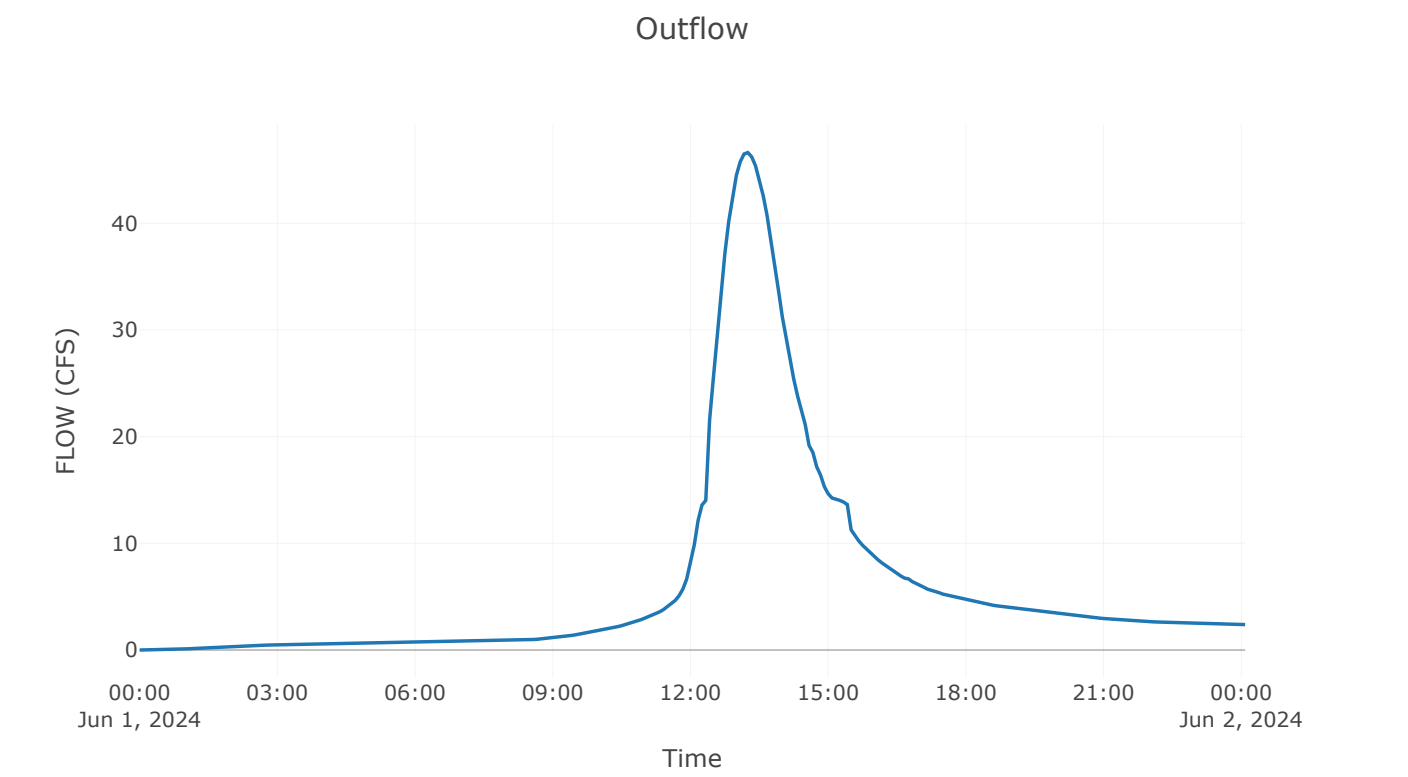
Precipitation and Outflow



Reservoir: US62West

Downstream : Hoover Park West

Results: US62West	
Peak Discharge (CFS)	46.63
Time of Peak Discharge	01Jun2024, 13:15
Volume (IN)	3.23
Peak Inflow (CFS)	46.78
Time of Peak Inflow	01Jun2024, 13:10
Inflow Volume (AC - FT)	12.08
Maximum Storage (AC - FT)	0.14
Peak Elevation (FT)	863.1
Discharge Volume (AC - FT)	12.05

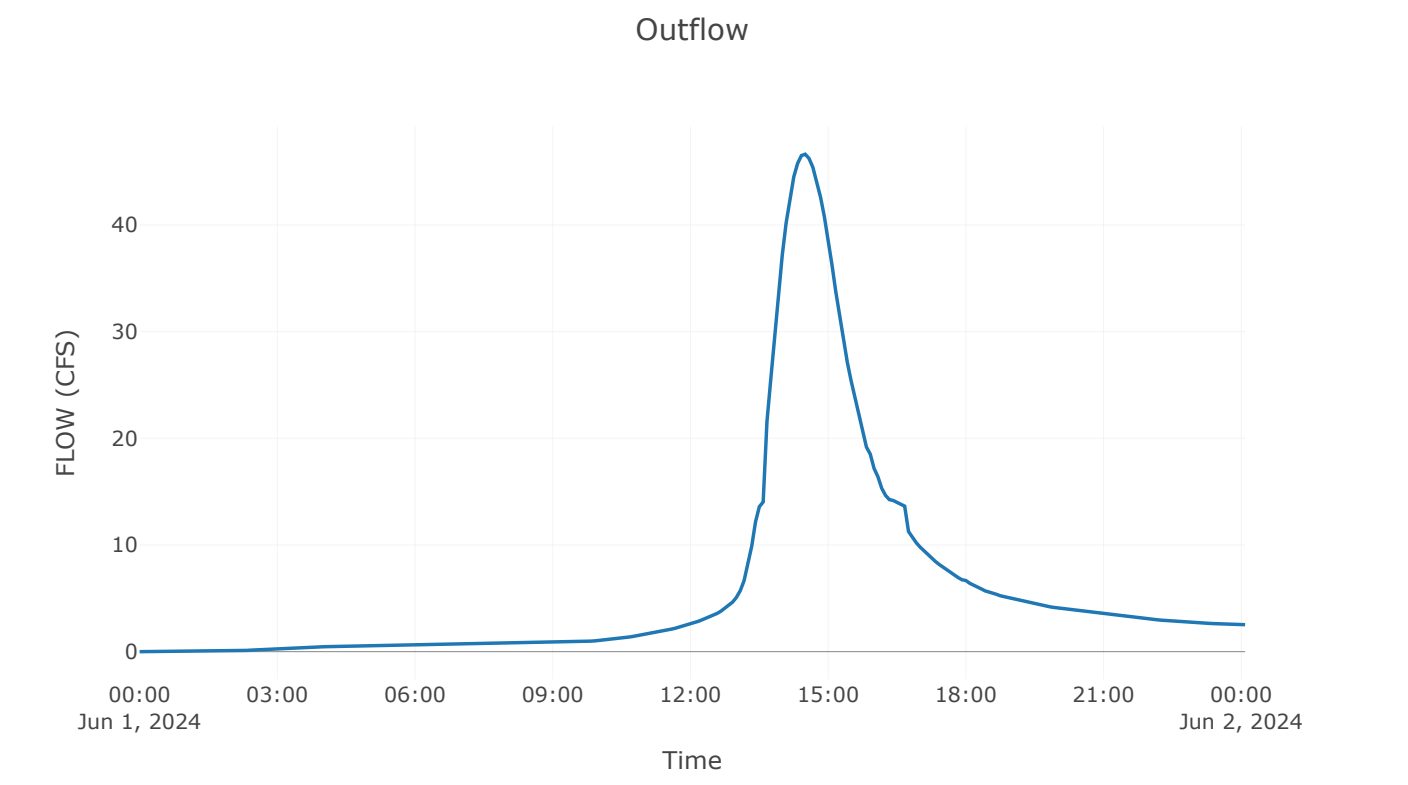


Reach: Hoover Park West

Downstream : Hoover Park West Pond

Route: Lag	
Method	Lag
Initial Variable	Combined Inflow
Lag	75

Results: Hoover Park West	
Peak Discharge (CFS)	46.63
Time of Peak Discharge	01Jun2024, 14:30
Volume (IN)	3.16
Peak Inflow (CFS)	46.63
Inflow Volume (AC - FT)	12.05



Subbasin: Hoover Park

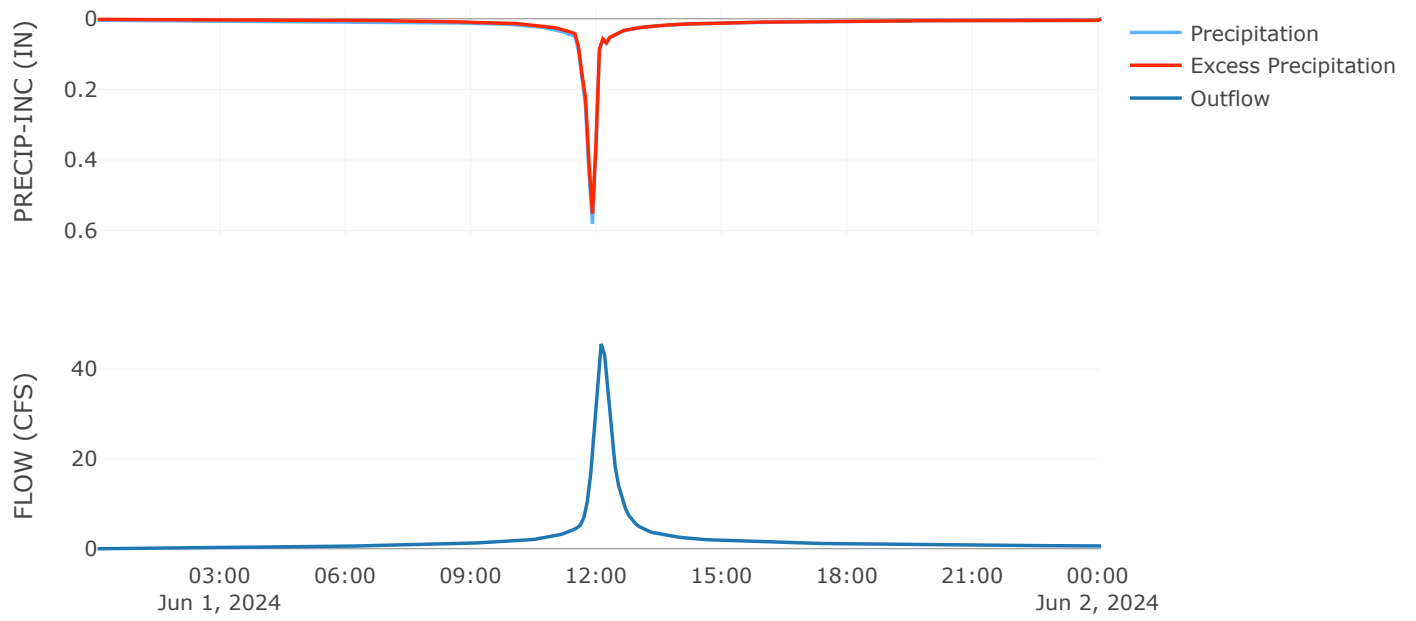
Area (MI²) : 0.02
Downstream : Hoover Park West Pond

Loss Rate: SCS	
Percent Impervious Area	40
Curve Number	91
Initial Abstraction	0.2

Transform: SCS	
Lag	14
Unitgraph Type	Standard

Results: Hoover Park	
Peak Discharge (CFS)	45.58
Time of Peak Discharge	01Jun2024, 12:05
Volume (IN)	4.38
Precipitation Volume (AC - FT)	4.88
Loss Volume (AC - FT)	0.6
Excess Volume (AC - FT)	4.28
Direct Runoff Volume (AC - FT)	4.27
Baseflow Volume (AC - FT)	0

Precipitation and Outflow

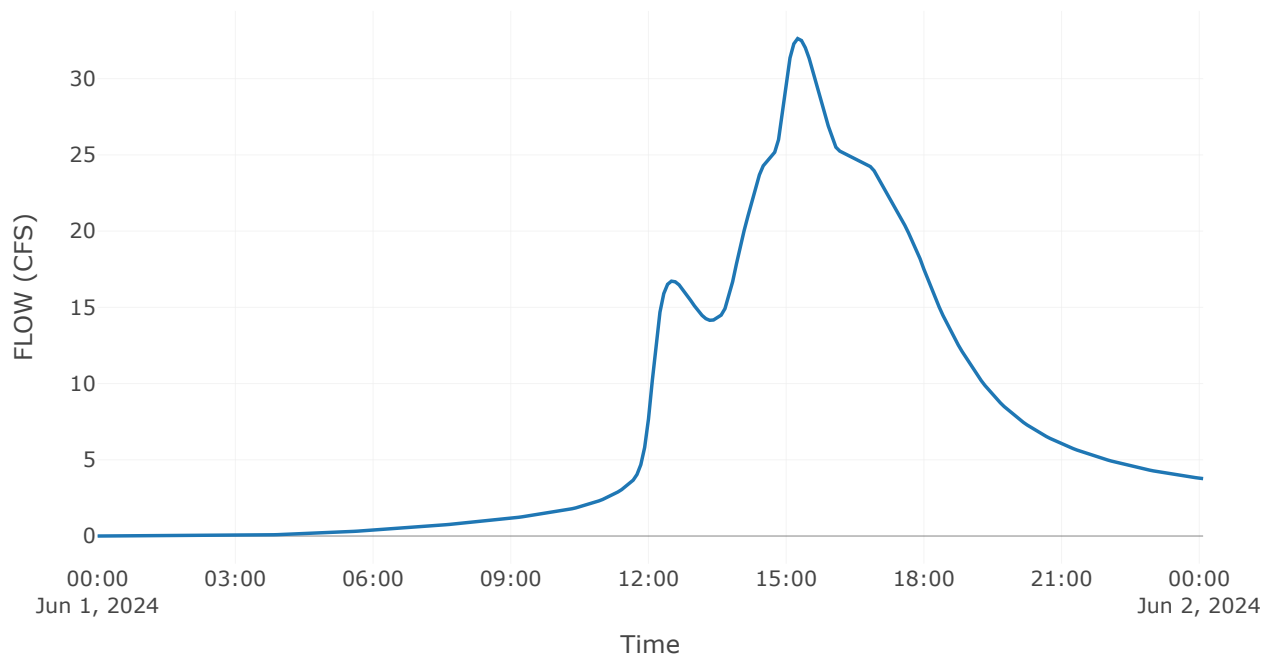


Reservoir: Hoover Park West Pond

Results: Hoover Park West Pond

Peak Discharge (CFS)	32.63
Time of Peak Discharge	01Jun2024, 15:15
Volume (IN)	3.23
Peak Inflow (CFS)	48.7
Time of Peak Inflow	01Jun2024, 14:30
Inflow Volume (AC - FT)	16.06
Maximum Storage (AC - FT)	4.32
Peak Elevation (FT)	862.59
Discharge Volume (AC - FT)	15.23

Outflow



SECTION 3

HEC-HMS – PROPOSED CONDITIONS

Project: US62_TaskL_Prop
Simulation Run: 1-Year Simulation
Simulation Start: 31 May 2024, 24:00
Simulation End: 2 June 2024, 00:05

HMS Version: 4.12
Executed: 11 June 2024, 17:14

Global Parameter Summary - Subbasin

Area (MI ²)	
Element Name	Area (MI ²)
US62 - West	0.07
Hoover Park	0.02

Downstream	
Element Name	Downstream
US62 - West	U S 62 West
Hoover Park	Hoover Park West Pond

Loss Rate: Scs			
Element Name	Percent Impervious Area	Curve Number	Initial Abstraction
US62 - West	20	80	0.5
Hoover Park	40	91	0.2

Transform: Scs		
Element Name	Lag	Unitgraph Type
US62 - West	75	Standard
Hoover Park	14	Standard

Global Parameter Summary - Reach

Downstream	
Element Name	Downstream
Hoover Park West	Hoover Park West Pond

Route: Lag			
Element Name	Method	Initial Variable	Lag
Hoover Park West	Lag	Combined Inflow	75

Global Results Summary

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
US62 - West	0.07	13.96	01Jun2024, 13:15	1.03
U S 62 West	0.07	14	01Jun2024, 13:15	1.03
Hoover Park West	0.07	14	01Jun2024, 14:30	1
Hoover Park	0.02	18.57	01Jun2024, 12:05	1.77
Hoover Park West Pond	0.09	10.55	01Jun2024, 15:15	1.05

Subbasin: US62-West

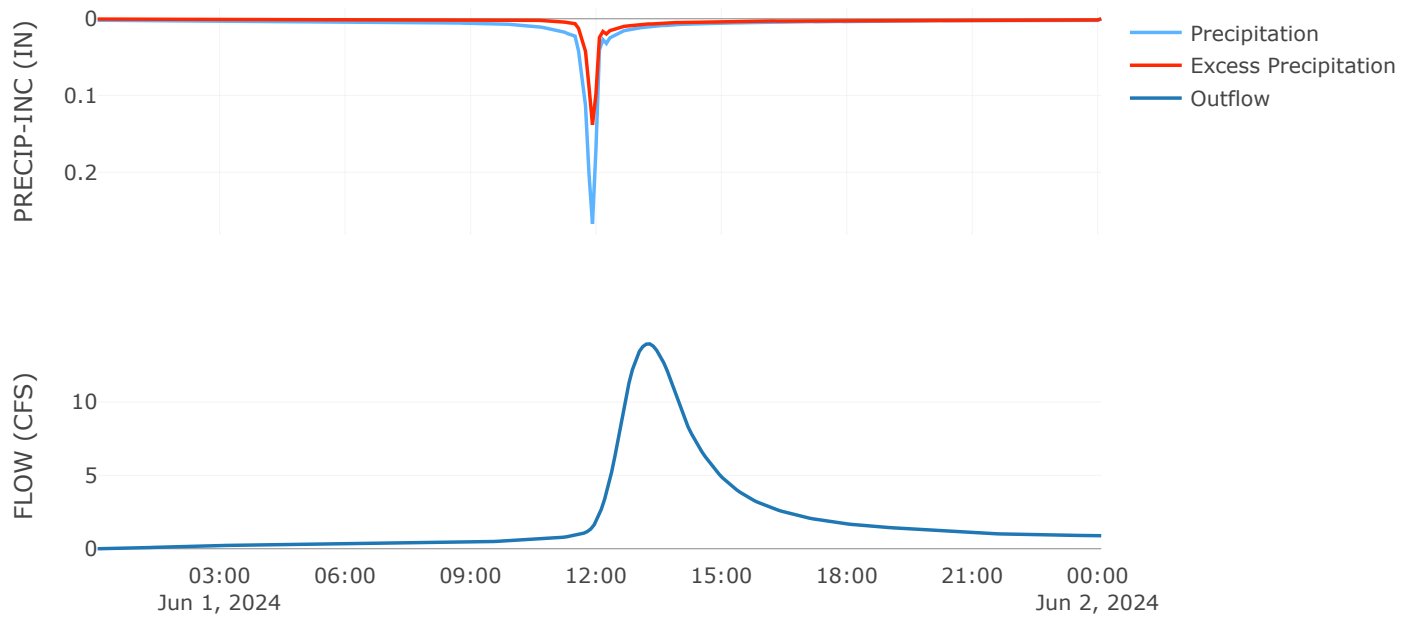
Area (MI²) : 0.07
Downstream : U S 62 West

Loss Rate: SCS	
Percent Impervious Area	20
Curve Number	80
Initial Abstraction	0.5

Transform: SCS	
Lag	75
Unitgraph Type	Standard

Results: US62-West	
Peak Discharge (CFS)	13.96
Time of Peak Discharge	01Jun2024, 13:15
Volume (IN)	1.03
Precipitation Volume (AC - FT)	8.59
Loss Volume (AC - FT)	4.62
Excess Volume (AC - FT)	3.97
Direct Runoff Volume (AC - FT)	3.86
Baseflow Volume (AC - FT)	0

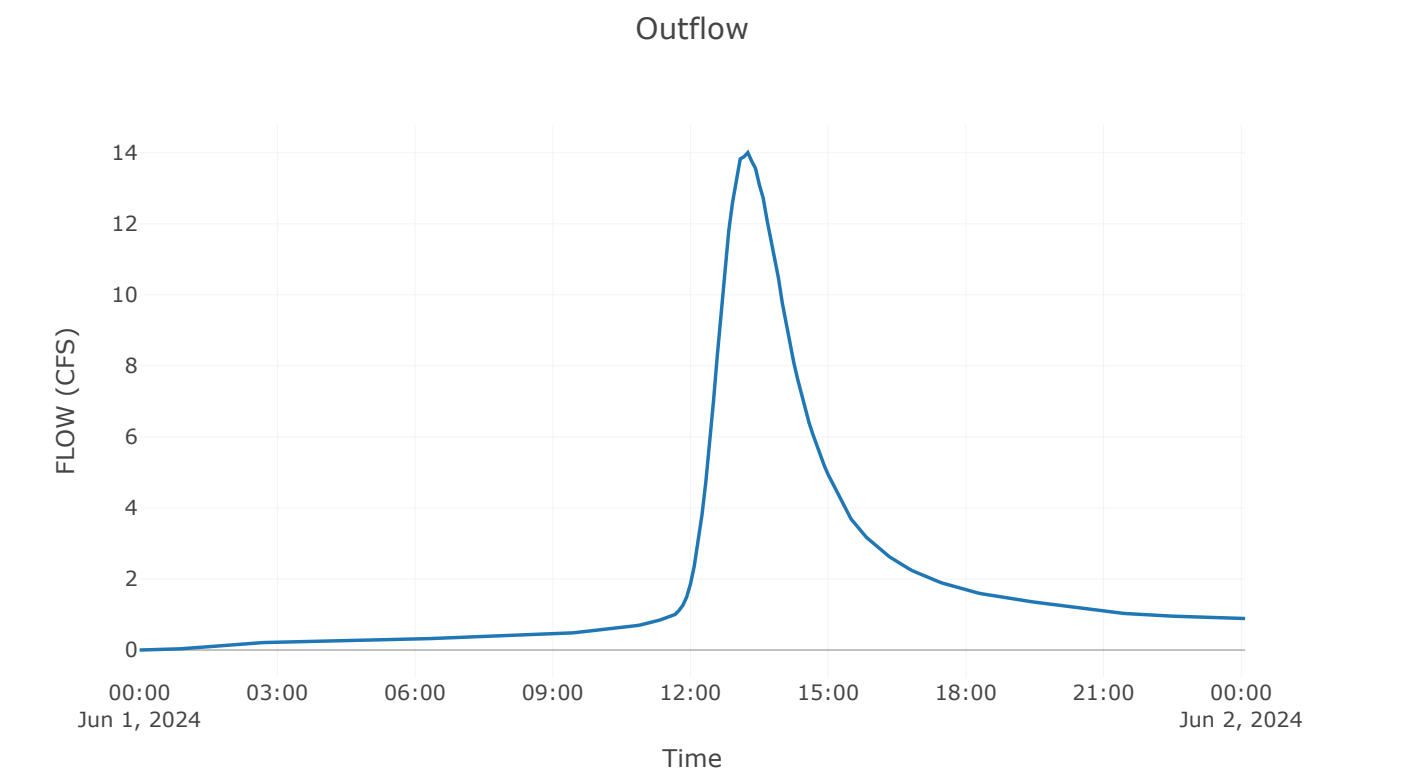
Precipitation and Outflow



Reservoir: US62West

Downstream : Hoover Park West

Results: US62West	
Peak Discharge (CFS)	14
Time of Peak Discharge	01Jun2024, 13:15
Volume (IN)	1.03
Peak Inflow (CFS)	13.96
Time of Peak Inflow	01Jun2024, 13:15
Inflow Volume (AC - FT)	3.86
Maximum Storage (AC - FT)	0
Peak Elevation (FT)	860.21
Discharge Volume (AC - FT)	3.84

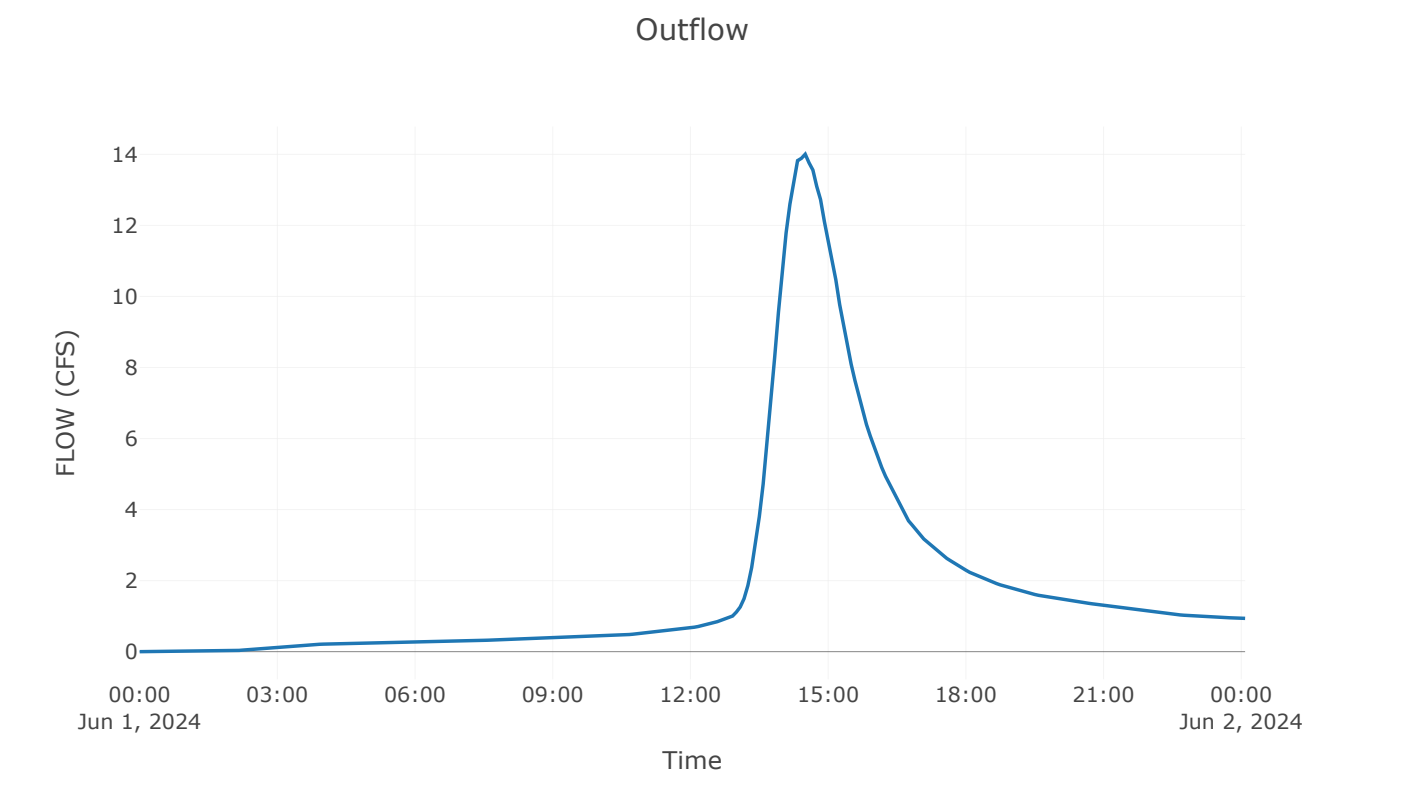


Reach: Hoover Park West

Downstream : Hoover Park West Pond

Route: Lag	
Method	Lag
Initial Variable	Combined Inflow
Lag	75

Results: Hoover Park West	
Peak Discharge (CFS)	14
Time of Peak Discharge	01Jun2024, 14:30
Volume (IN)	1
Peak Inflow (CFS)	14
Inflow Volume (AC - FT)	3.84



Subbasin: Hoover Park

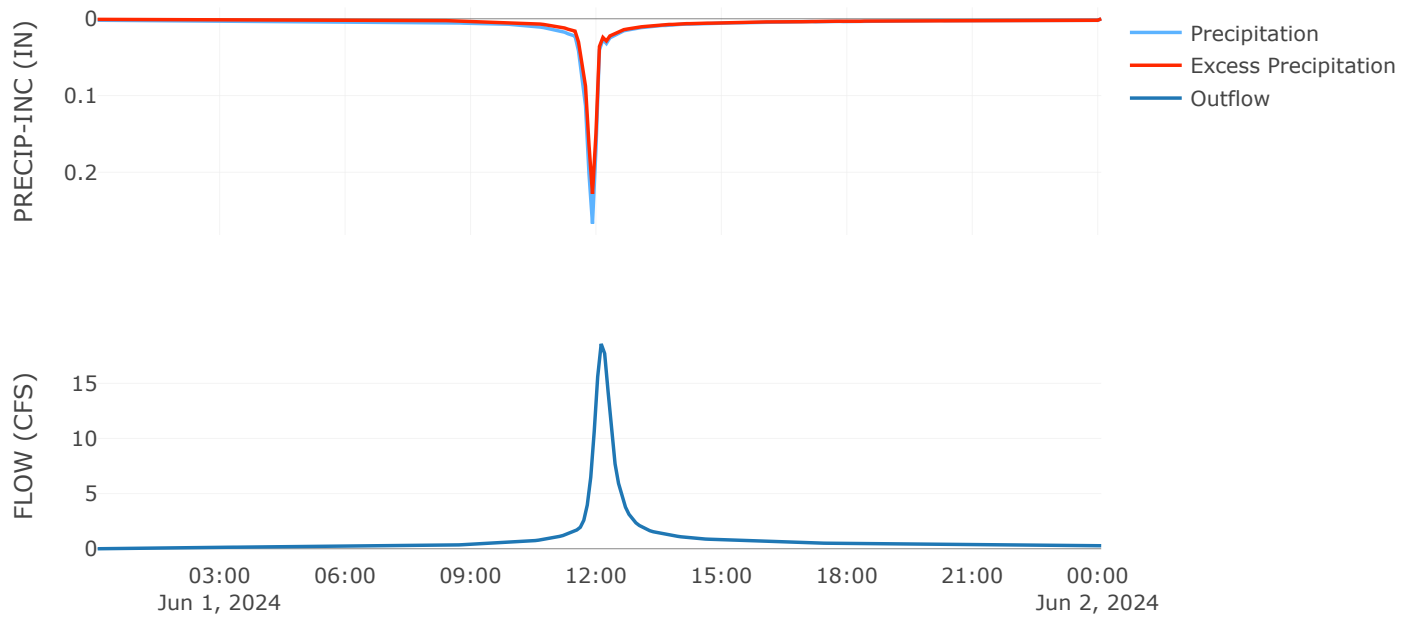
Area (MI²) : 0.02
Downstream : Hoover Park West Pond

Loss Rate: SCS	
Percent Impervious Area	40
Curve Number	91
Initial Abstraction	0.2

Transform: SCS	
Lag	14
Unitgraph Type	Standard

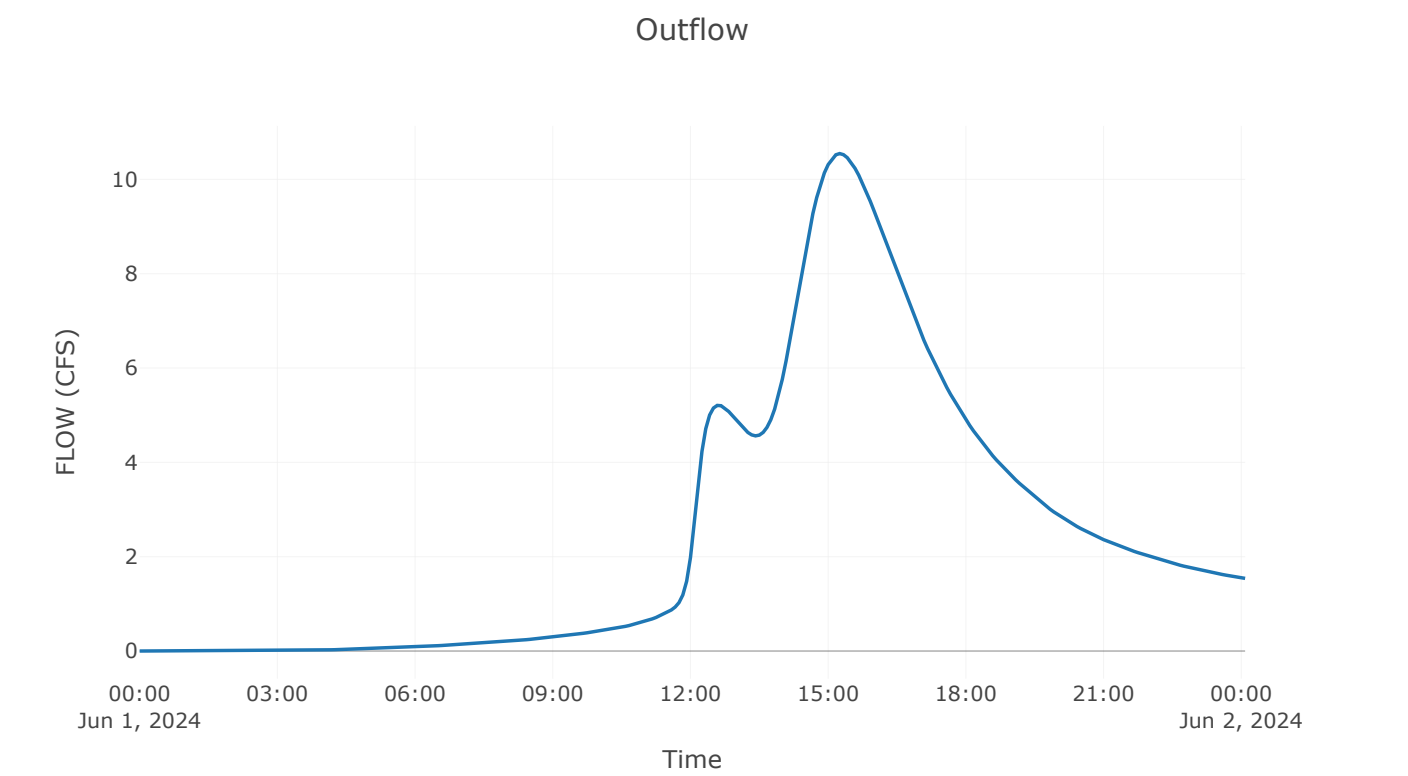
Results: Hoover Park	
Peak Discharge (CFS)	18.57
Time of Peak Discharge	01Jun2024, 12:05
Volume (IN)	1.77
Precipitation Volume (AC - FT)	2.24
Loss Volume (AC - FT)	0.51
Excess Volume (AC - FT)	1.73
Direct Runoff Volume (AC - FT)	1.73
Baseflow Volume (AC - FT)	0

Precipitation and Outflow



Reservoir: Hoover Park West Pond

Results: Hoover Park West Pond	
Peak Discharge (CFS)	10.55
Time of Peak Discharge	01Jun2024, 15:15
Volume (IN)	1.05
Peak Inflow (CFS)	19.26
Time of Peak Inflow	01Jun2024, 12:05
Inflow Volume (AC - FT)	5.48
Maximum Storage (AC - FT)	1.56
Peak Elevation (FT)	859.88
Discharge Volume (AC - FT)	4.97



Project: US62_TaskL_Prop
Simulation Run: 2-Year Simulation
Simulation Start: 31 May 2024, 24:00
Simulation End: 2 June 2024, 00:05

HMS Version: 4.12
Executed: 11 June 2024, 17:15

Global Parameter Summary - Subbasin

Area (MI ²)	
Element Name	Area (MI ²)
US62 - West	0.07
Hoover Park	0.02

Downstream	
Element Name	Downstream
US62 - West	U S 62 West
Hoover Park	Hoover Park West Pond

Loss Rate: SCS			
Element Name	Percent Impervious Area	Curve Number	Initial Abstraction
US62 - West	20	80	0.5
Hoover Park	40	91	0.2

Transform: SCS		
Element Name	Lag	Unitgraph Type
US62 - West	75	Standard
Hoover Park	14	Standard

Global Parameter Summary - Reach

Downstream	
Element Name	Downstream
Hoover Park West	Hoover Park West Pond

Route: Lag			
Element Name	Method	Initial Variable	Lag
Hoover Park West	Lag	Combined Inflow	75

Global Results Summary

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
US62 - West	0.07	17.21	01Jun2024, 13:15	1.25
U S 62 West	0.07	17.27	01Jun2024, 13:15	1.25
Hoover Park West	0.07	17.27	01Jun2024, 14:30	1.22
Hoover Park	0.02	21.56	01Jun2024, 12:05	2.05
Hoover Park West Pond	0.09	13.06	01Jun2024, 15:15	1.27

Subbasin: US62-West

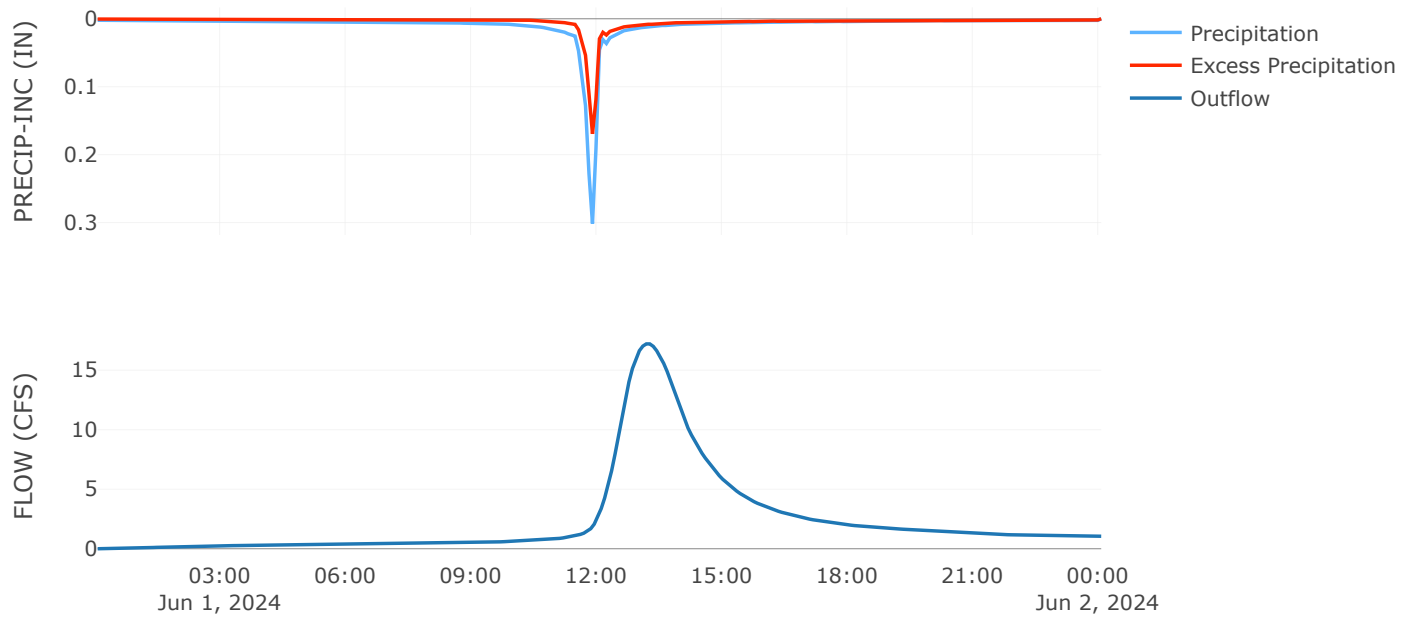
Area (MI²) : 0.07
Downstream : U S 62 West

Loss Rate: SCS	
Percent Impervious Area	20
Curve Number	80
Initial Abstraction	0.5

Transform: SCS	
Lag	75
Unitgraph Type	Standard

Results: US62-West	
Peak Discharge (CFS)	17.21
Time of Peak Discharge	01Jun2024, 13:15
Volume (IN)	1.25
Precipitation Volume (AC - FT)	9.71
Loss Volume (AC - FT)	4.9
Excess Volume (AC - FT)	4.8
Direct Runoff Volume (AC - FT)	4.67
Baseflow Volume (AC - FT)	0

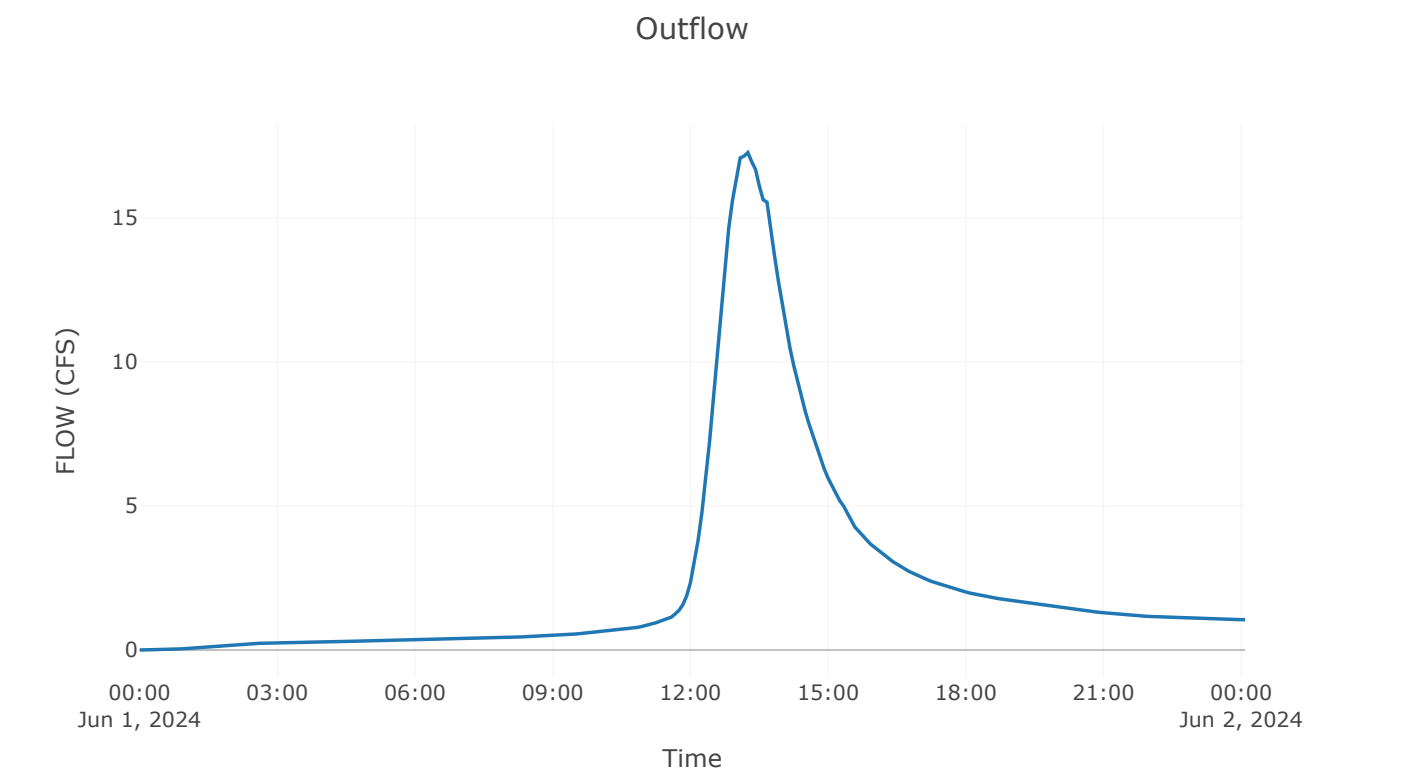
Precipitation and Outflow



Reservoir: US62West

Downstream : Hoover Park West

Results: US62West	
Peak Discharge (CFS)	17.27
Time of Peak Discharge	01Jun2024, 13:15
Volume (IN)	1.25
Peak Inflow (CFS)	17.21
Time of Peak Inflow	01Jun2024, 13:15
Inflow Volume (AC - FT)	4.67
Maximum Storage (AC - FT)	0
Peak Elevation (FT)	860.44
Discharge Volume (AC - FT)	4.66

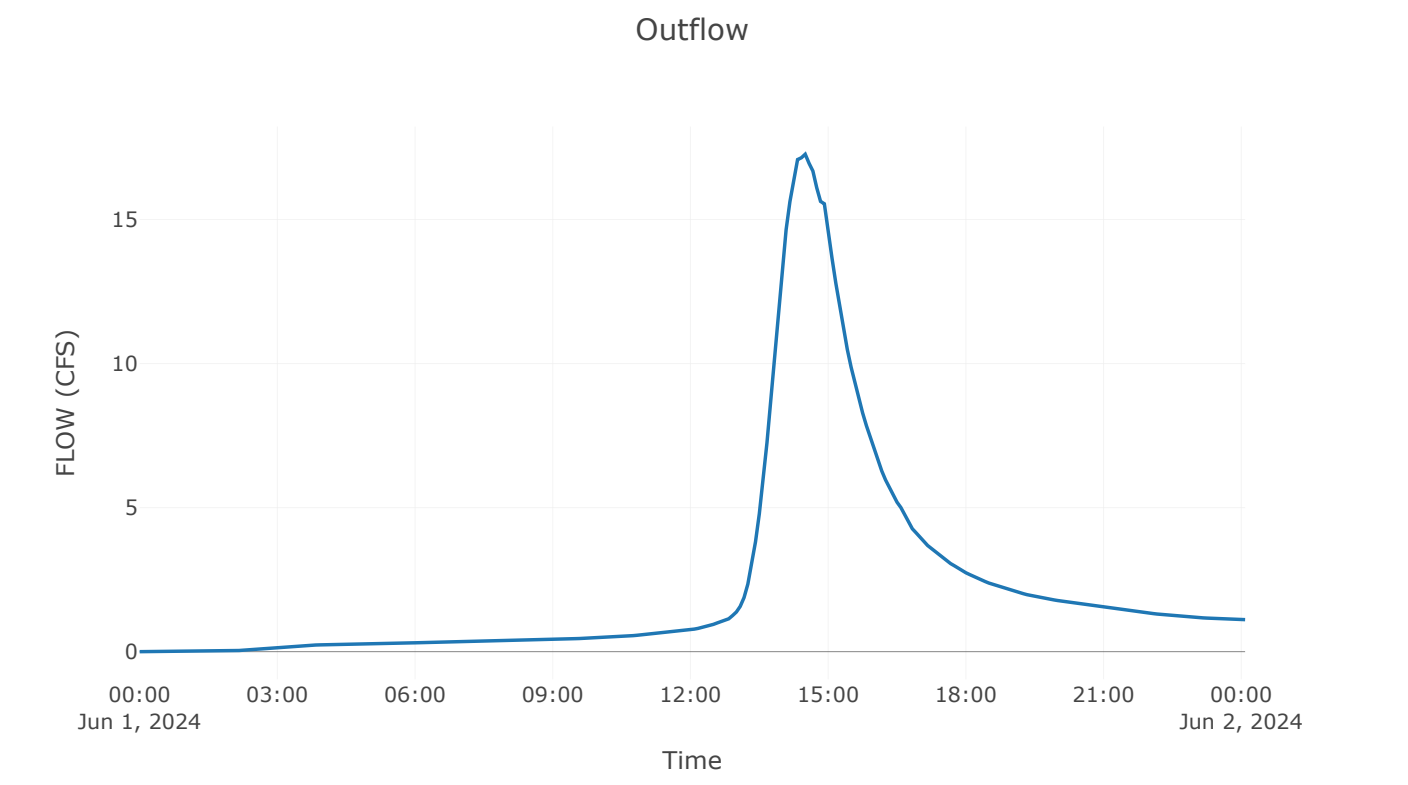


Reach: Hoover Park West

Downstream : Hoover Park West Pond

Route: Lag	
Method	Lag
Initial Variable	Combined Inflow
Lag	75

Results: Hoover Park West	
Peak Discharge (CFS)	17.27
Time of Peak Discharge	01Jun2024, 14:30
Volume (IN)	1.22
Peak Inflow (CFS)	17.27
Inflow Volume (AC - FT)	4.66



Subbasin: Hoover Park

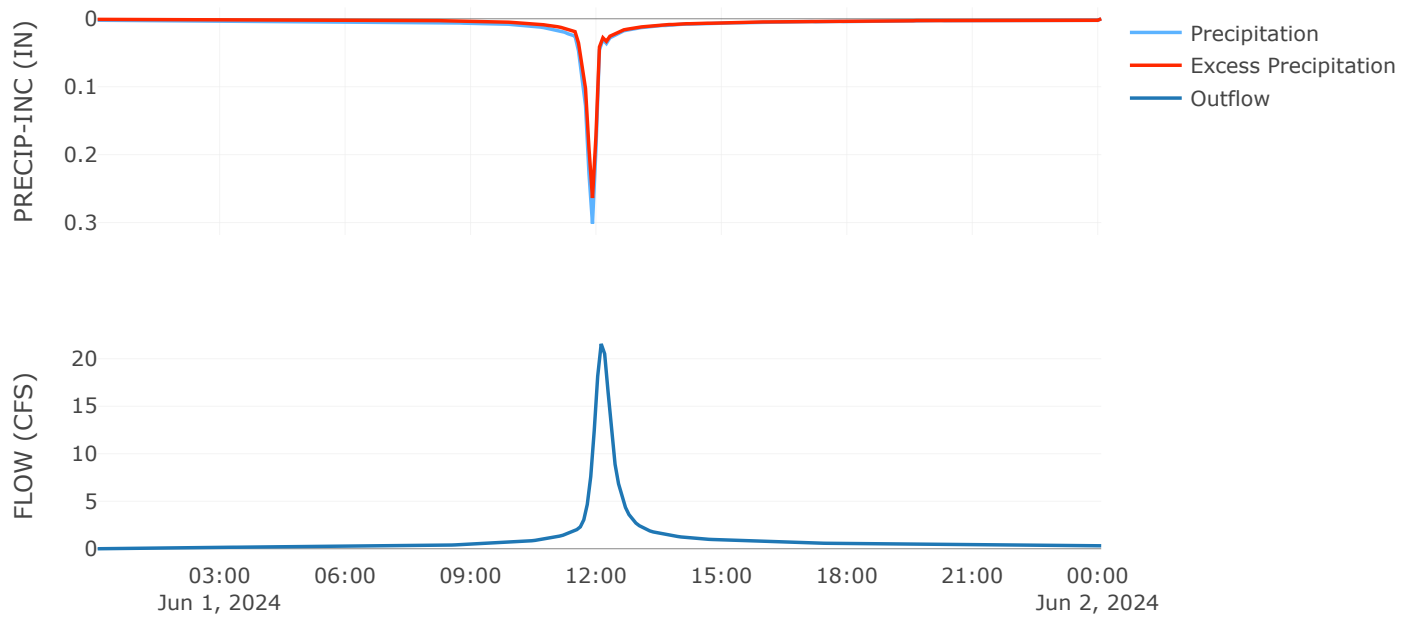
Area (MI²) : 0.02
Downstream : Hoover Park West Pond

Loss Rate: SCS	
Percent Impervious Area	40
Curve Number	91
Initial Abstraction	0.2

Transform: SCS	
Lag	14
Unitgraph Type	Standard

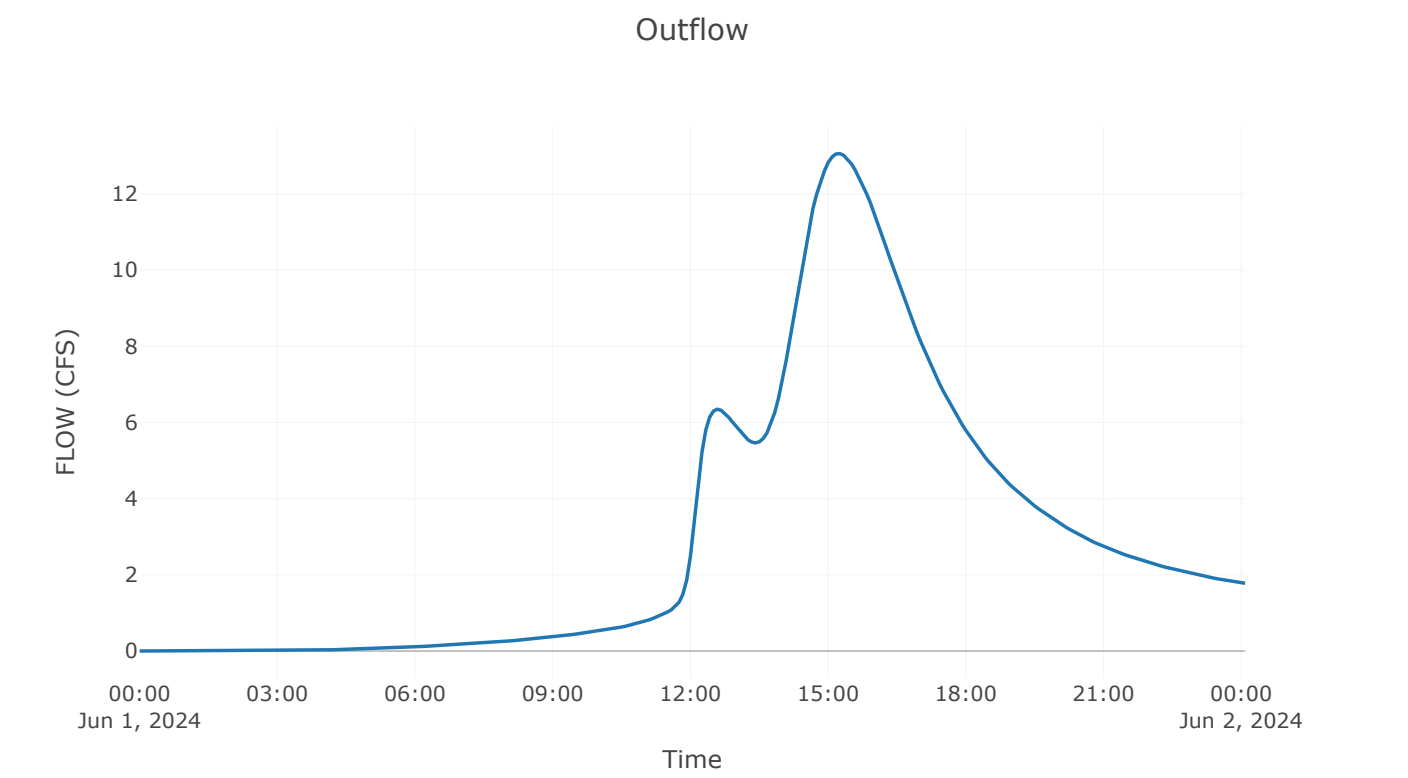
Results: Hoover Park	
Peak Discharge (CFS)	21.56
Time of Peak Discharge	01Jun2024, 12:05
Volume (IN)	2.05
Precipitation Volume (AC - FT)	2.54
Loss Volume (AC - FT)	0.53
Excess Volume (AC - FT)	2.01
Direct Runoff Volume (AC - FT)	2.01
Baseflow Volume (AC - FT)	0

Precipitation and Outflow



Reservoir: Hoover Park West Pond

Results: Hoover Park West Pond	
Peak Discharge (CFS)	13.06
Time of Peak Discharge	01Jun2024, 15:15
Volume (IN)	1.27
Peak Inflow (CFS)	22.34
Time of Peak Inflow	01Jun2024, 12:05
Inflow Volume (AC - FT)	6.56
Maximum Storage (AC - FT)	1.8
Peak Elevation (FT)	860.15
Discharge Volume (AC - FT)	6



Project: US62_TaskL_Prop
Simulation Run: 5-Year Simulation
Simulation Start: 31 May 2024, 24:00
Simulation End: 2 June 2024, 00:05

HMS Version: 4.12
Executed: 11 June 2024, 17:15

Global Parameter Summary - Subbasin

Area (MI2)	
Element Name	Area (MI2)
US62 - West	0.07
Hoover Park	0.02

Downstream	
Element Name	Downstream
US62 - West	U S 62 West
Hoover Park	Hoover Park West Pond

Loss Rate: Scs			
Element Name	Percent Impervious Area	Curve Number	Initial Abstraction
US62 - West	20	80	0.5
Hoover Park	40	91	0.2

Transform: Scs		
Element Name	Lag	Unitgraph Type
US62 - West	75	Standard
Hoover Park	14	Standard

Global Parameter Summary - Reach

Downstream	
Element Name	Downstream
Hoover Park West	Hoover Park West Pond

Route: Lag			
Element Name	Method	Initial Variable	Lag
Hoover Park West	Lag	Combined Inflow	75

Global Results Summary

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
US62 - West	0.07	25.35	01Jun2024, 13:10	1.8
U S 62 West	0.07	25.54	01Jun2024, 13:10	1.79
Hoover Park West	0.07	25.54	01Jun2024, 14:25	1.75
Hoover Park	0.02	28.56	01Jun2024, 12:05	2.72
Hoover Park West Pond	0.09	18.93	01Jun2024, 15:15	1.82

Subbasin: US62-West

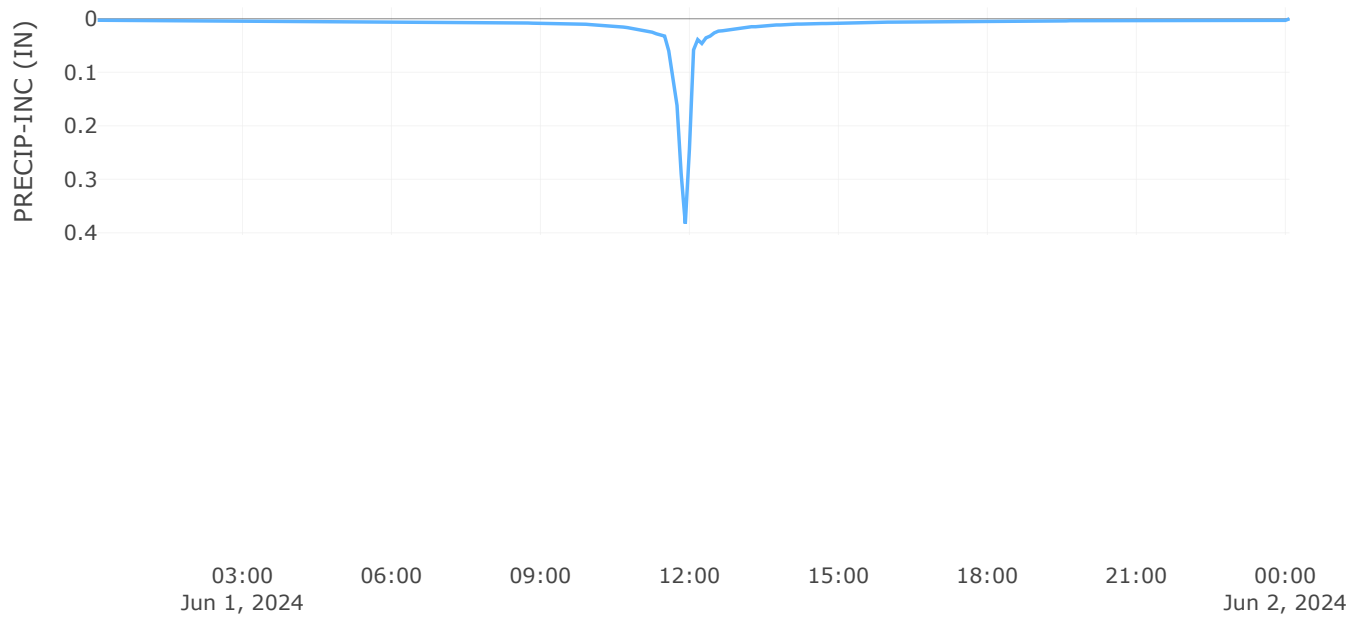
Area (MI²) : 0.07
Downstream : U S 62 West

Loss Rate: Scs	
Percent Impervious Area	20
Curve Number	80
Initial Abstraction	0.5

Transform: Scs	
Lag	75
Unitgraph Type	Standard

Results: US62-West	
Peak Discharge (CFS)	25.35
Time of Peak Discharge	01Jun2024, 13:10
Volume (IN)	1.8
Precipitation Volume (AC - FT)	12.32
Loss Volume (AC - FT)	5.44
Excess Volume (AC - FT)	6.88
Direct Runoff Volume (AC - FT)	6.7
Baseflow Volume (AC - FT)	0

Precipitation and Outflow



Reservoir: US62West

Downstream : Hoover Park West

Results: US62West	
Peak Discharge (CFS)	25.54
Time of Peak Discharge	01Jun2024, 13:10
Volume (IN)	1.79
Peak Inflow (CFS)	25.35
Time of Peak Inflow	01Jun2024, 13:10
Inflow Volume (AC - FT)	6.7
Maximum Storage (AC - FT)	0
Peak Elevation (FT)	861.16
Discharge Volume (AC - FT)	6.69

Reach: Hoover Park West

Downstream : Hoover Park West Pond

Route: Lag	
Method	Lag
Initial Variable	Combined Inflow
Lag	75

Results: Hoover Park West	
Peak Discharge (CFS)	25.54
Time of Peak Discharge	01Jun2024, 14:25
Volume (IN)	1.75
Peak Inflow (CFS)	25.54
Inflow Volume (AC - FT)	6.69

Subbasin: Hoover Park

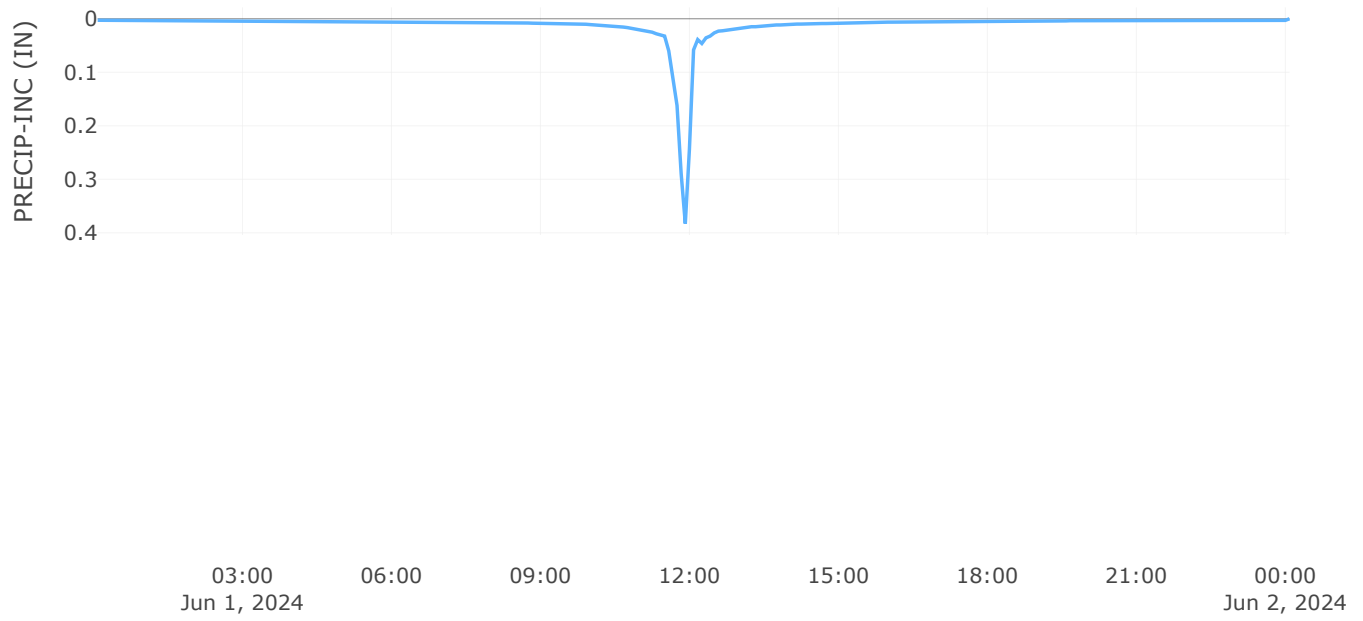
Area (MI²) : 0.02
Downstream : Hoover Park West Pond

Loss Rate: SCS	
Percent Impervious Area	40
Curve Number	91
Initial Abstraction	0.2

Transform: SCS	
Lag	14
Unitgraph Type	Standard

Results: Hoover Park	
Peak Discharge (CFS)	28.56
Time of Peak Discharge	01Jun2024, 12:05
Volume (IN)	2.72
Precipitation Volume (AC - FT)	3.22
Loss Volume (AC - FT)	0.56
Excess Volume (AC - FT)	2.67
Direct Runoff Volume (AC - FT)	2.66
Baseflow Volume (AC - FT)	0

Precipitation and Outflow



Reservoir: Hoover Park West Pond

Results: Hoover Park West Pond	
Peak Discharge (CFS)	18.93
Time of Peak Discharge	01Jun2024, 15:15
Volume (IN)	1.82
Peak Inflow (CFS)	29.7
Time of Peak Inflow	01Jun2024, 12:05
Inflow Volume (AC - FT)	9.19
Maximum Storage (AC - FT)	2.4
Peak Elevation (FT)	860.78
Discharge Volume (AC - FT)	8.56

Project: US62_TaskL_Prop
Simulation Run: 10-Year Simulation
Simulation Start: 31 May 2024, 24:00
Simulation End: 2 June 2024, 00:05

HMS Version: 4.12
Executed: 11 June 2024, 17:15

Global Parameter Summary - Subbasin

Area (MI ²)	
Element Name	Area (MI ²)
US62 - West	0.07
Hoover Park	0.02

Downstream	
Element Name	Downstream
US62 - West	U S 62 West
Hoover Park	Hoover Park West Pond

Loss Rate: Scs			
Element Name	Percent Impervious Area	Curve Number	Initial Abstraction
US62 - West	20	80	0.5
Hoover Park	40	91	0.2

Transform: Scs		
Element Name	Lag	Unitgraph Type
US62 - West	75	Standard
Hoover Park	14	Standard

Global Parameter Summary - Reach

Downstream	
Element Name	Downstream
Hoover Park West	Hoover Park West Pond

Route: Lag			
Element Name	Method	Initial Variable	Lag
Hoover Park West	Lag	Combined Inflow	75

Global Results Summary

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
US62 - West	0.07	31.47	01Jun2024, 13:10	2.2
U S 62 West	0.07	30.75	01Jun2024, 13:20	2.2
Hoover Park West	0.07	30.75	01Jun2024, 14:35	2.15
Hoover Park	0.02	33.57	01Jun2024, 12:05	3.21
Hoover Park West Pond	0.09	22.02	01Jun2024, 15:15	2.22

Subbasin: US62-West

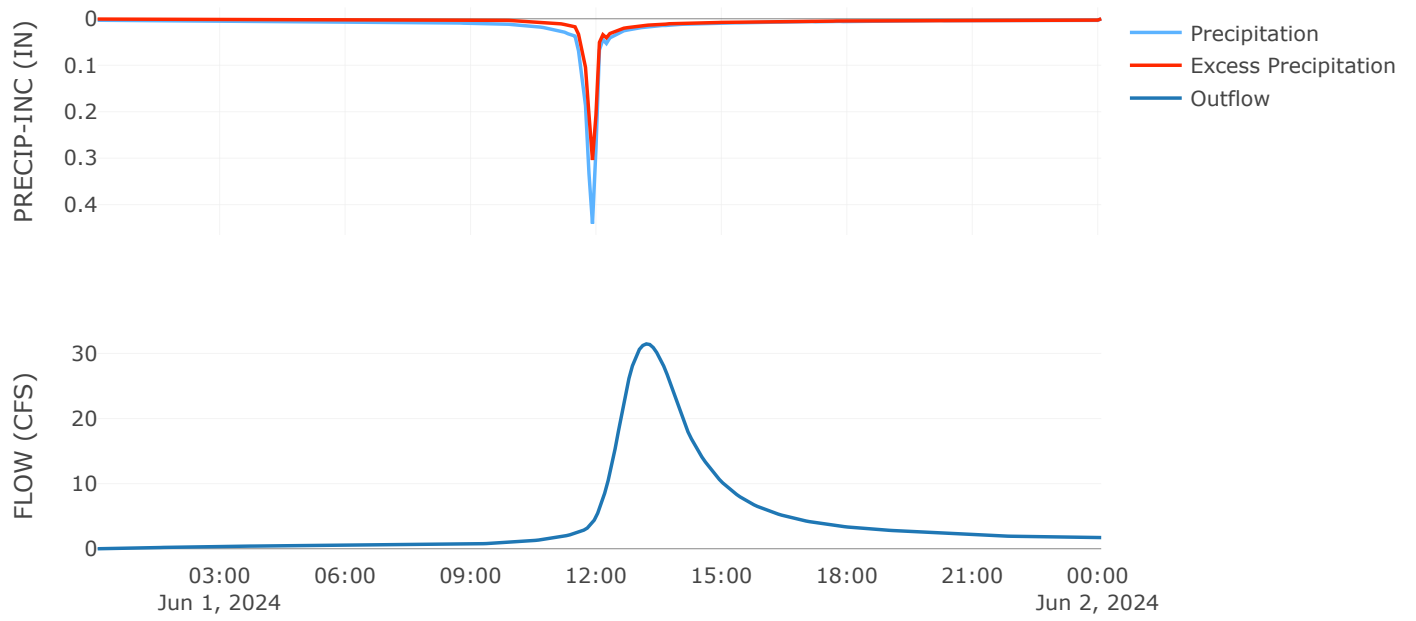
Area (MI²) : 0.07
Downstream : U S 62 West

Loss Rate: SCS	
Percent Impervious Area	20
Curve Number	80
Initial Abstraction	0.5

Transform: SCS	
Lag	75
Unitgraph Type	Standard

Results: US62-West	
Peak Discharge (CFS)	31.47
Time of Peak Discharge	01Jun2024, 13:10
Volume (IN)	2.2
Precipitation Volume (AC - FT)	14.19
Loss Volume (AC - FT)	5.74
Excess Volume (AC - FT)	8.45
Direct Runoff Volume (AC - FT)	8.23
Baseflow Volume (AC - FT)	0

Precipitation and Outflow

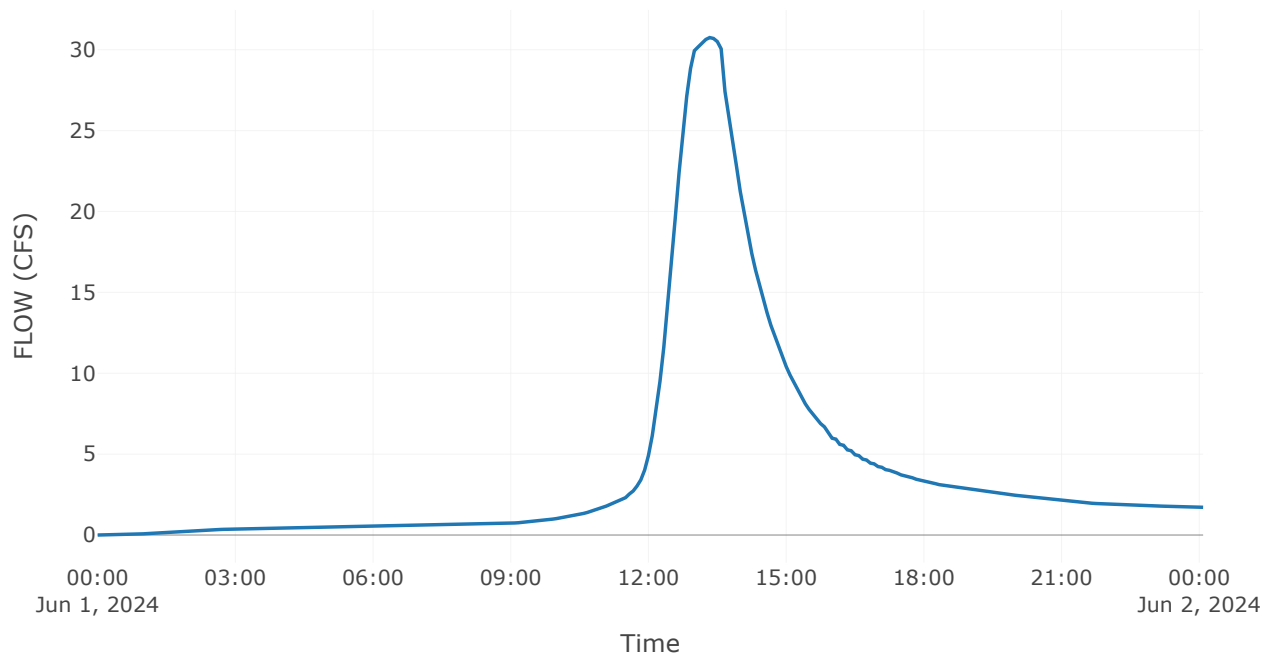


Reservoir: US62West

Downstream : Hoover Park West

Results: US62West	
Peak Discharge (CFS)	30.75
Time of Peak Discharge	01Jun2024, 13:20
Volume (IN)	2.2
Peak Inflow (CFS)	31.47
Time of Peak Inflow	01Jun2024, 13:10
Inflow Volume (AC - FT)	8.23
Maximum Storage (AC - FT)	0.03
Peak Elevation (FT)	862.19
Discharge Volume (AC - FT)	8.21

Outflow

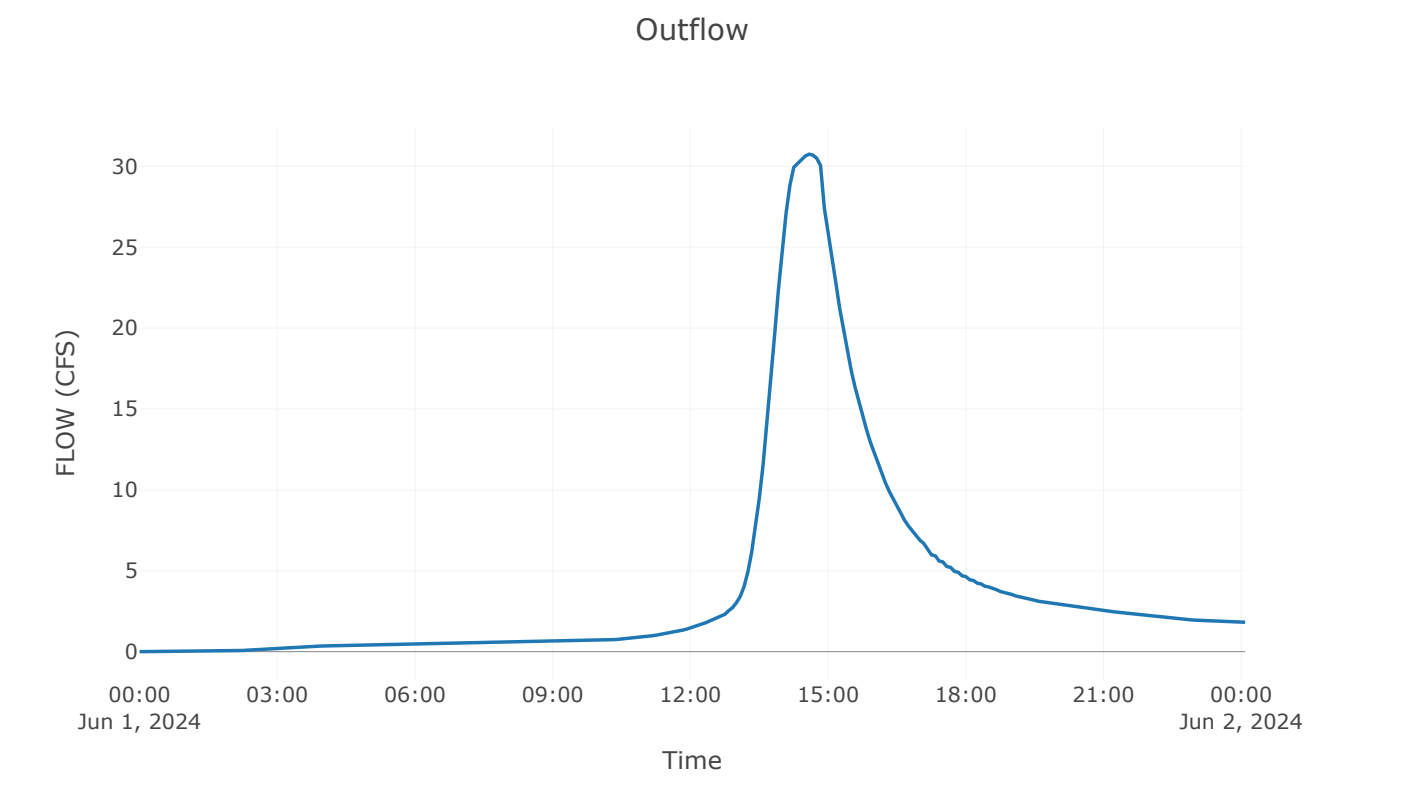


Reach: Hoover Park West

Downstream : Hoover Park West Pond

Route: Lag	
Method	Lag
Initial Variable	Combined Inflow
Lag	75

Results: Hoover Park West	
Peak Discharge (CFS)	30.75
Time of Peak Discharge	01Jun2024, 14:35
Volume (IN)	2.15
Peak Inflow (CFS)	30.75
Inflow Volume (AC - FT)	8.21



Subbasin: Hoover Park

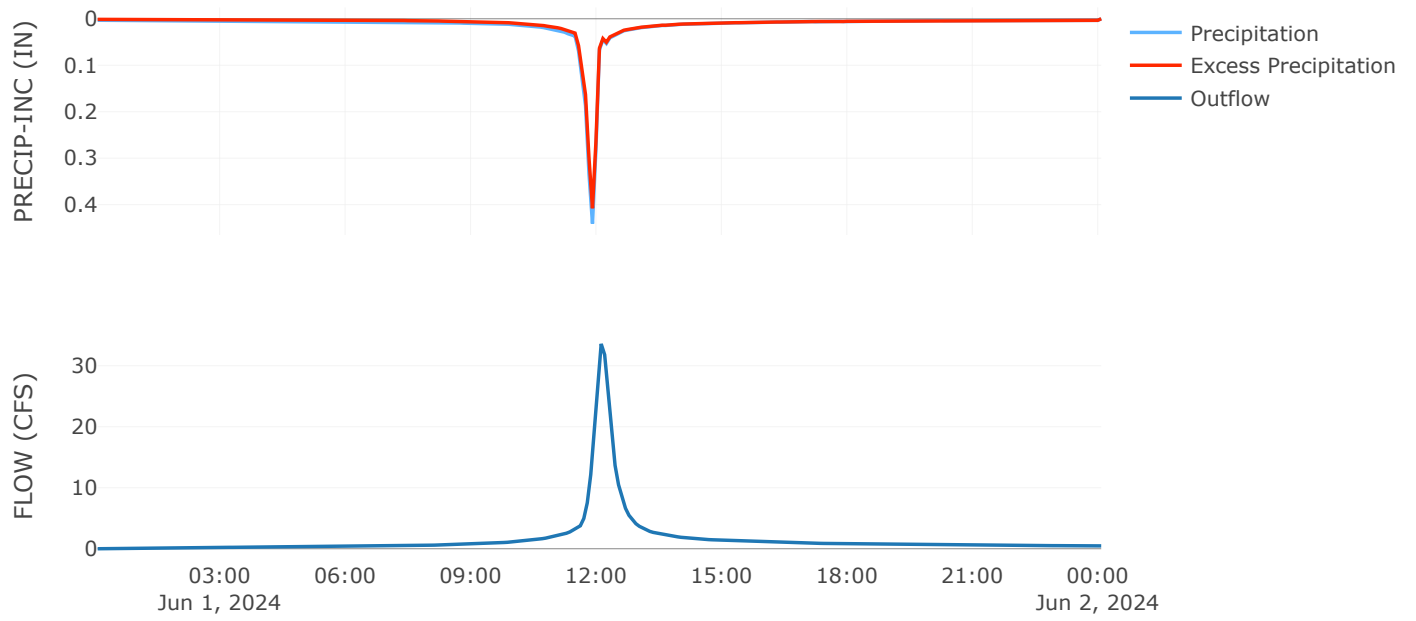
Area (MI²) : 0.02
Downstream : Hoover Park West Pond

Loss Rate: SCS	
Percent Impervious Area	40
Curve Number	91
Initial Abstraction	0.2

Transform: SCS	
Lag	14
Unitgraph Type	Standard

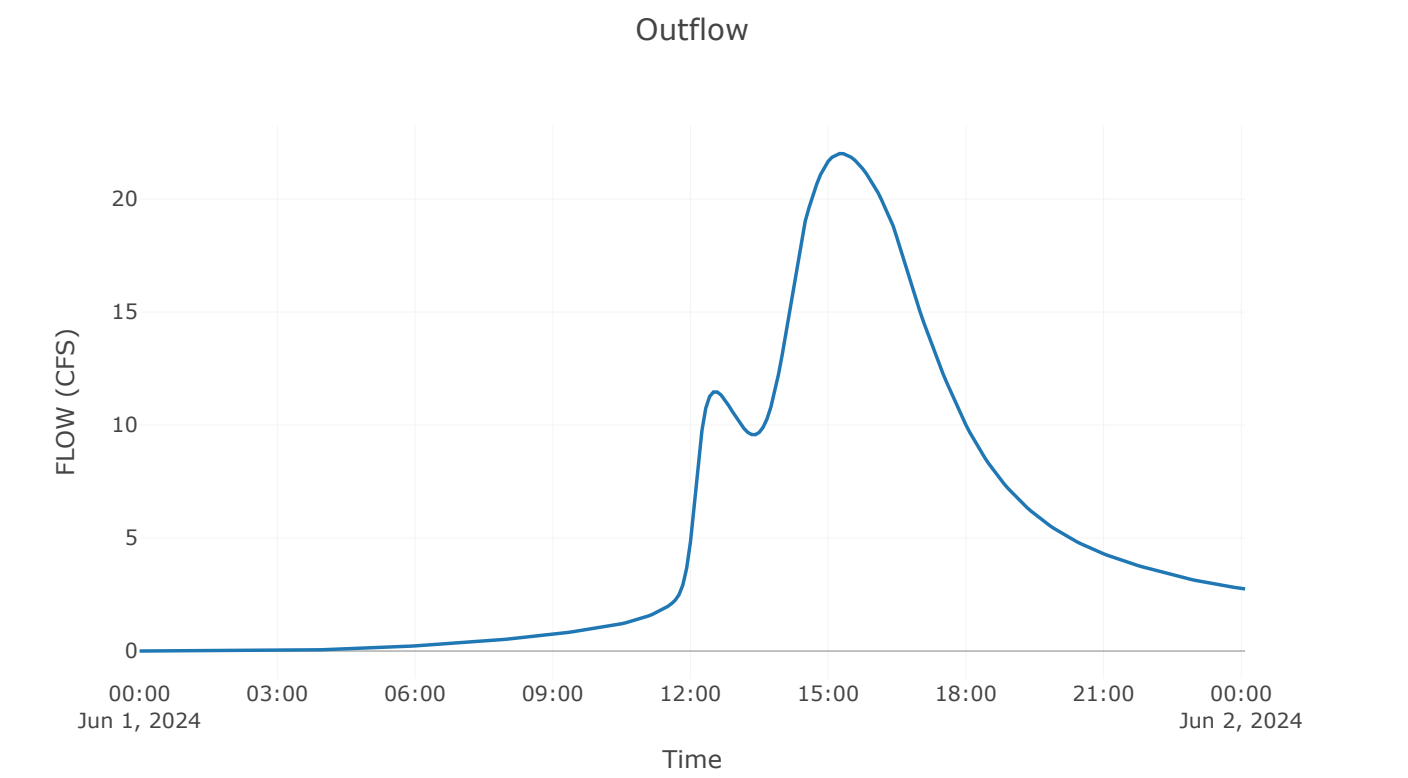
Results: Hoover Park	
Peak Discharge (CFS)	33.57
Time of Peak Discharge	01Jun2024, 12:05
Volume (IN)	3.21
Precipitation Volume (AC - FT)	3.71
Loss Volume (AC - FT)	0.57
Excess Volume (AC - FT)	3.14
Direct Runoff Volume (AC - FT)	3.13
Baseflow Volume (AC - FT)	0

Precipitation and Outflow



Reservoir: Hoover Park West Pond

Results: Hoover Park West Pond	
Peak Discharge (CFS)	22.02
Time of Peak Discharge	01Jun2024, 15:15
Volume (IN)	2.22
Peak Inflow (CFS)	35.11
Time of Peak Inflow	01Jun2024, 12:05
Inflow Volume (AC - FT)	11.16
Maximum Storage (AC - FT)	2.91
Peak Elevation (FT)	861.29
Discharge Volume (AC - FT)	10.47



Project: US62_TaskL_Prop
Simulation Run: 25-Year Simulation
Simulation Start: 31 May 2024, 24:00
Simulation End: 2 June 2024, 00:05

HMS Version: 4.12
Executed: 11 June 2024, 17:16

Global Parameter Summary - Subbasin

Area (MI ²)	
Element Name	Area (MI ²)
US62 - West	0.07
Hoover Park	0.02

Downstream	
Element Name	Downstream
US62 - West	U S 62 West
Hoover Park	Hoover Park West Pond

Loss Rate: Scs			
Element Name	Percent Impervious Area	Curve Number	Initial Abstraction
US62 - West	20	80	0.5
Hoover Park	40	91	0.2

Transform: Scs		
Element Name	Lag	Unitgraph Type
US62 - West	75	Standard
Hoover Park	14	Standard

Global Parameter Summary - Reach

Downstream	
Element Name	Downstream
Hoover Park West	Hoover Park West Pond

Route: Lag			
Element Name	Method	Initial Variable	Lag
Hoover Park West	Lag	Combined Inflow	75

Global Results Summary

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
US62 - West	0.07	37.76	01Jun2024, 13:10	2.63
U S 62 West	0.07	37.76	01Jun2024, 13:15	2.62
Hoover Park West	0.07	37.76	01Jun2024, 14:30	2.56
Hoover Park	0.02	38.58	01Jun2024, 12:05	3.69
Hoover Park West Pond	0.09	24.48	01Jun2024, 15:20	2.64

Subbasin: US62-West

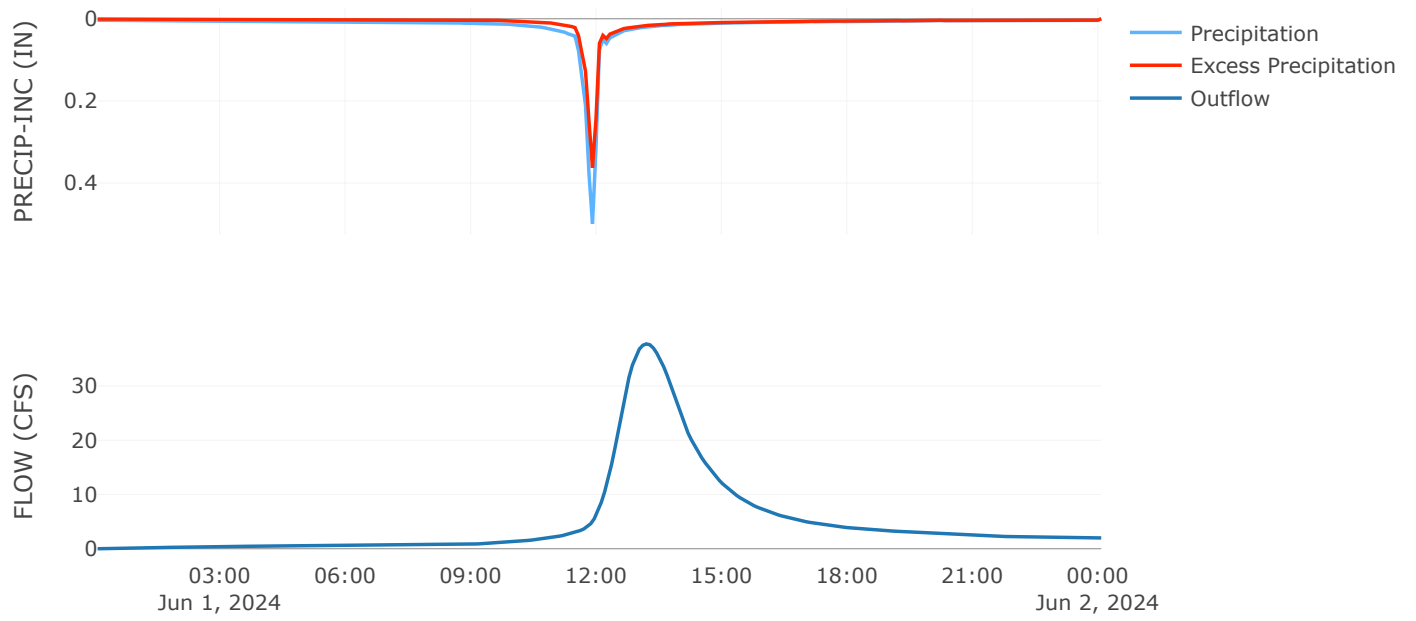
Area (MI²) : 0.07
Downstream : U S 62 West

Loss Rate: SCS	
Percent Impervious Area	20
Curve Number	80
Initial Abstraction	0.5

Transform: SCS	
Lag	75
Unitgraph Type	Standard

Results: US62-West	
Peak Discharge (CFS)	37.76
Time of Peak Discharge	01Jun2024, 13:10
Volume (IN)	2.63
Precipitation Volume (AC - FT)	16.05
Loss Volume (AC - FT)	6
Excess Volume (AC - FT)	10.06
Direct Runoff Volume (AC - FT)	9.81
Baseflow Volume (AC - FT)	0

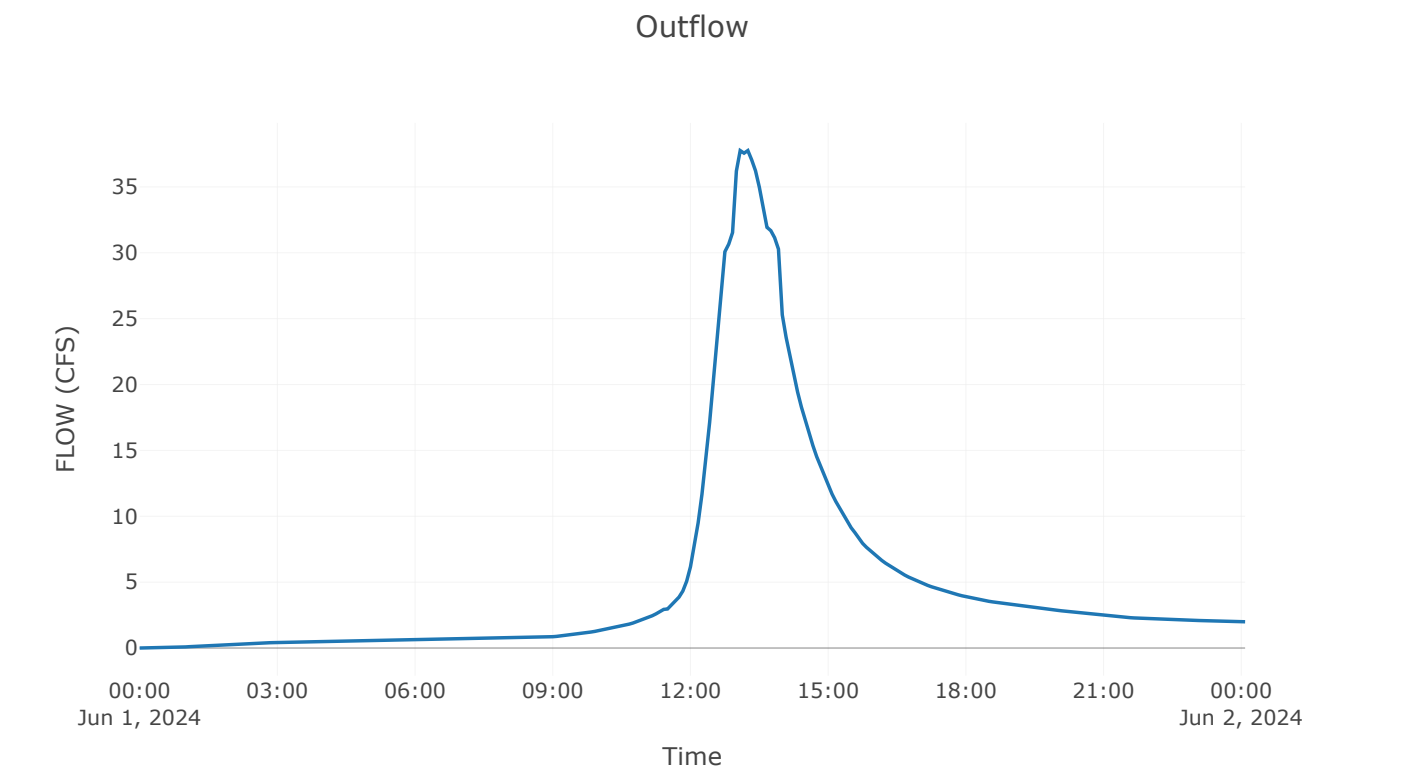
Precipitation and Outflow



Reservoir: US62West

Downstream : Hoover Park West

Results: US62West	
Peak Discharge (CFS)	37.76
Time of Peak Discharge	01Jun2024, 13:15
Volume (IN)	2.62
Peak Inflow (CFS)	37.76
Time of Peak Inflow	01Jun2024, 13:10
Inflow Volume (AC - FT)	9.81
Maximum Storage (AC - FT)	0.06
Peak Elevation (FT)	862.46
Discharge Volume (AC - FT)	9.78

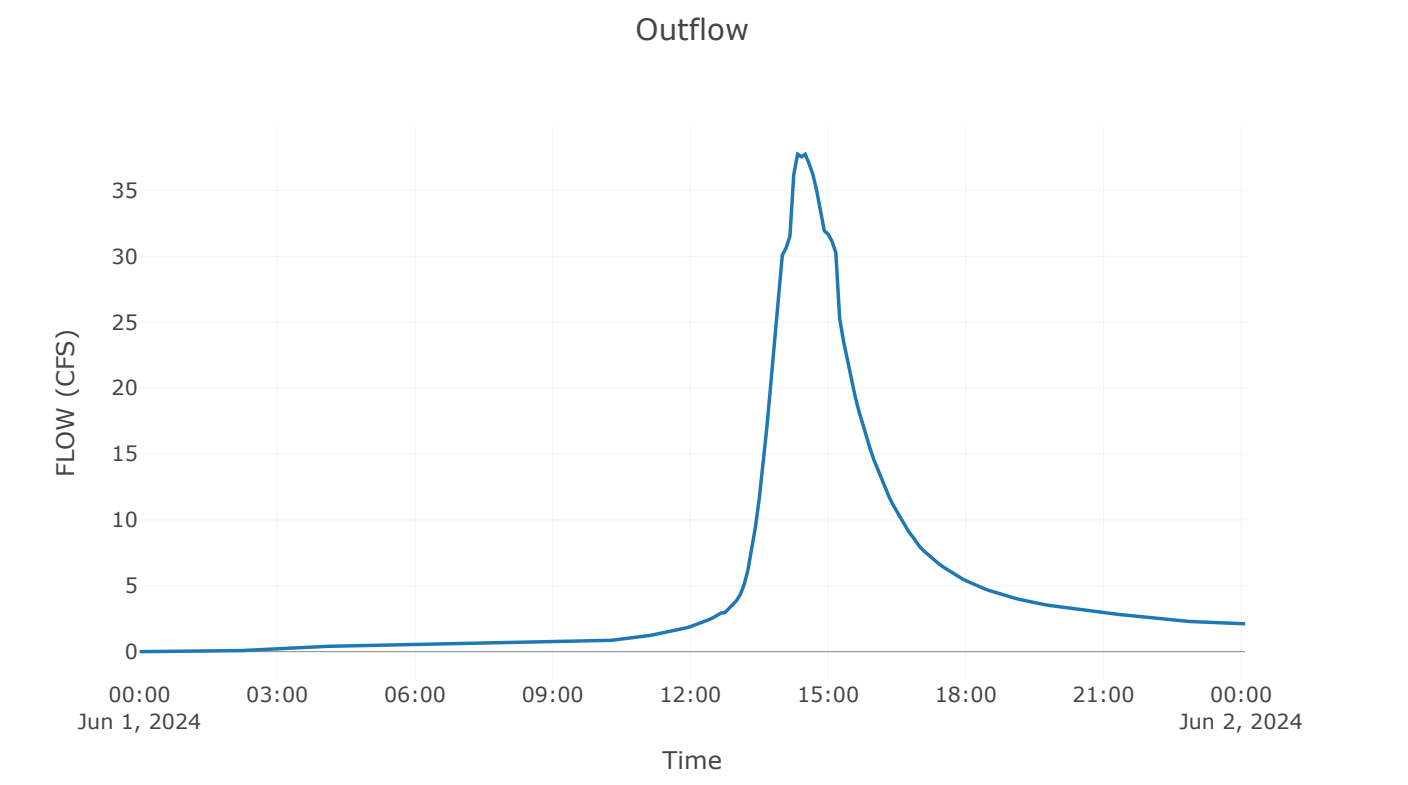


Reach: Hoover Park West

Downstream : Hoover Park West Pond

Route: Lag	
Method	Lag
Initial Variable	Combined Inflow
Lag	75

Results: Hoover Park West	
Peak Discharge (CFS)	37.76
Time of Peak Discharge	01Jun2024, 14:30
Volume (IN)	2.56
Peak Inflow (CFS)	37.76
Inflow Volume (AC - FT)	9.78



Subbasin: Hoover Park

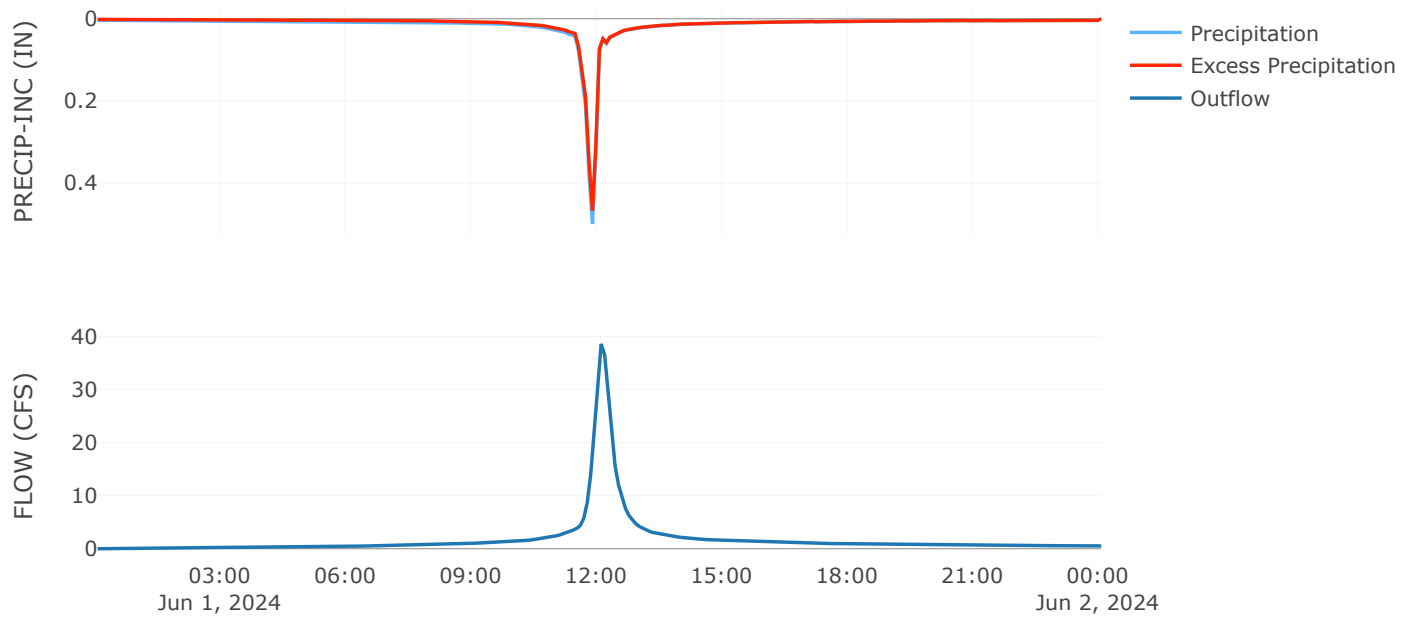
Area (MI²) : 0.02
Downstream : Hoover Park West Pond

Loss Rate: SCS	
Percent Impervious Area	40
Curve Number	91
Initial Abstraction	0.2

Transform: SCS	
Lag	14
Unitgraph Type	Standard

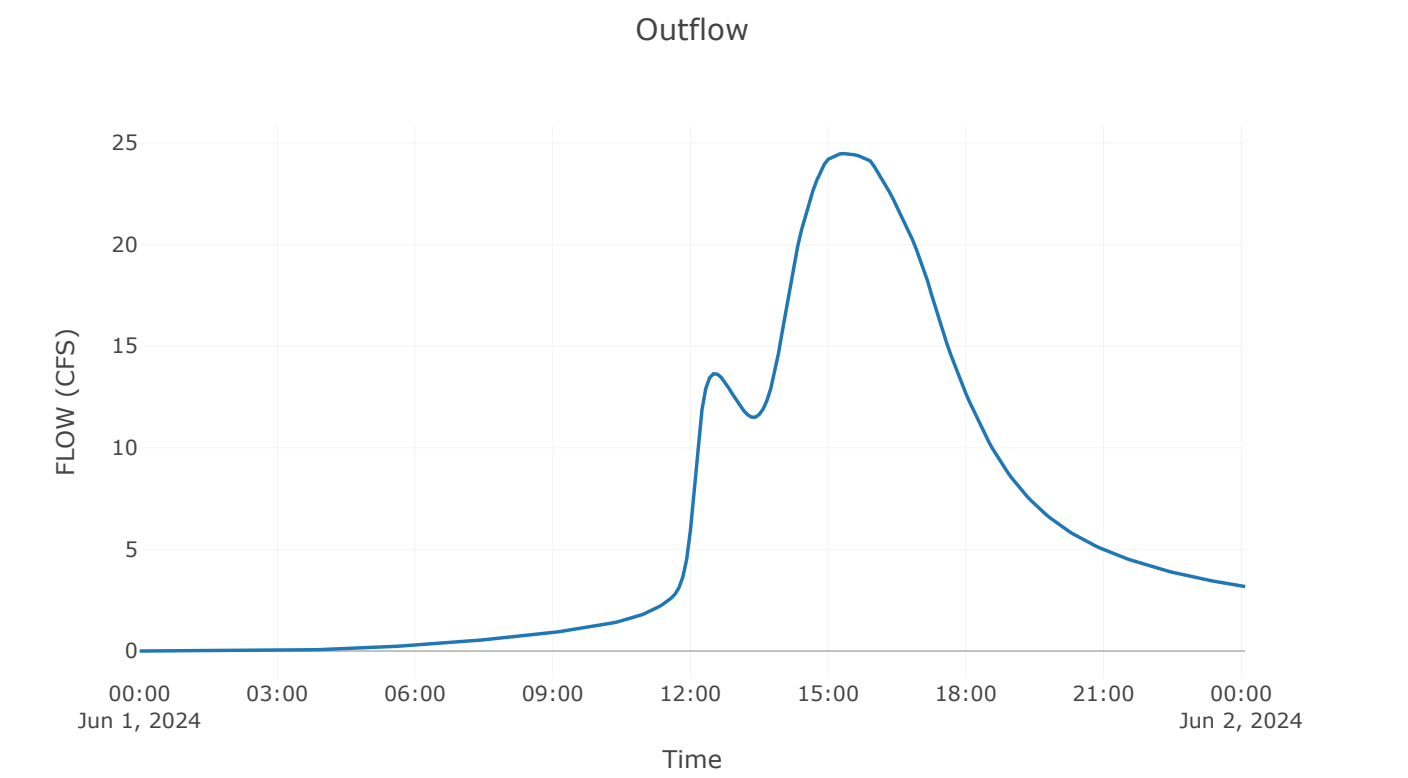
Results: Hoover Park	
Peak Discharge (CFS)	38.58
Time of Peak Discharge	01Jun2024, 12:05
Volume (IN)	3.69
Precipitation Volume (AC - FT)	4.2
Loss Volume (AC - FT)	0.58
Excess Volume (AC - FT)	3.61
Direct Runoff Volume (AC - FT)	3.6
Baseflow Volume (AC - FT)	0

Precipitation and Outflow



Reservoir: Hoover Park West Pond

Results: Hoover Park West Pond	
Peak Discharge (CFS)	24.48
Time of Peak Discharge	01Jun2024, 15:20
Volume (IN)	2.64
Peak Inflow (CFS)	40.57
Time of Peak Inflow	01Jun2024, 12:05
Inflow Volume (AC - FT)	13.17
Maximum Storage (AC - FT)	3.51
Peak Elevation (FT)	861.86
Discharge Volume (AC - FT)	12.42



Project: US62_TaskL_Prop
Simulation Run: 50-Year Simulation
Simulation Start: 31 May 2024, 24:00
Simulation End: 2 June 2024, 00:05

HMS Version: 4.12
Executed: 11 June 2024, 17:16

Global Parameter Summary - Subbasin

Area (MI ²)	
Element Name	Area (MI ²)
US62 - West	0.07
Hoover Park	0.02

Downstream	
Element Name	Downstream
US62 - West	U S 62 West
Hoover Park	Hoover Park West Pond

Loss Rate: Scs			
Element Name	Percent Impervious Area	Curve Number	Initial Abstraction
US62 - West	20	80	0.5
Hoover Park	40	91	0.2

Transform: Scs		
Element Name	Lag	Unitgraph Type
US62 - West	75	Standard
Hoover Park	14	Standard

Global Parameter Summary - Reach

Downstream	
Element Name	Downstream
Hoover Park West	Hoover Park West Pond

Route: Lag			
Element Name	Method	Initial Variable	Lag
Hoover Park West	Lag	Combined Inflow	75

Global Results Summary

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
US62 - West	0.07	42.89	01Jun2024, 13:10	2.97
U S 62 West	0.07	42.94	01Jun2024, 13:10	2.96
Hoover Park West	0.07	42.94	01Jun2024, 14:25	2.9
Hoover Park	0.02	42.58	01Jun2024, 12:05	4.08
Hoover Park West Pond	0.09	26.87	01Jun2024, 15:25	2.98

Subbasin: US62-West

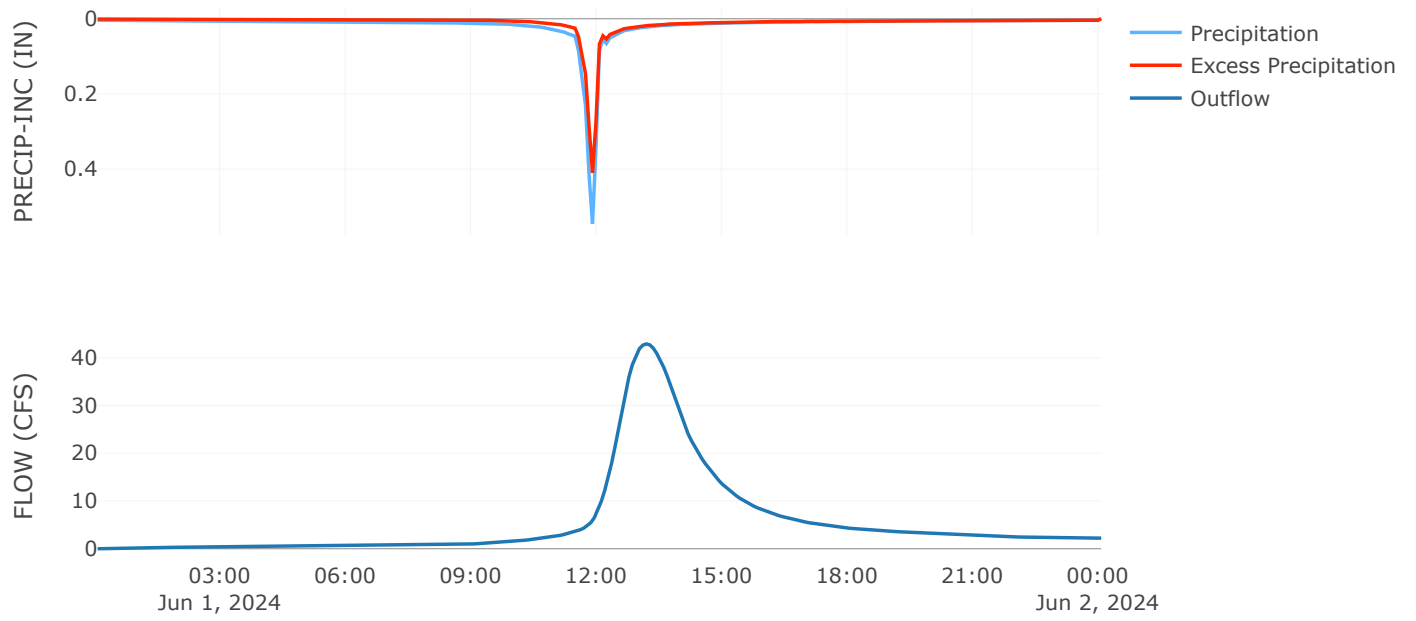
Area (MI²) : 0.07
Downstream : U S 62 West

Loss Rate: SCS	
Percent Impervious Area	20
Curve Number	80
Initial Abstraction	0.5

Transform: SCS	
Lag	75
Unitgraph Type	Standard

Results: US62-West	
Peak Discharge (CFS)	42.89
Time of Peak Discharge	01Jun2024, 13:10
Volume (IN)	2.97
Precipitation Volume (AC - FT)	17.55
Loss Volume (AC - FT)	6.17
Excess Volume (AC - FT)	11.37
Direct Runoff Volume (AC - FT)	11.1
Baseflow Volume (AC - FT)	0

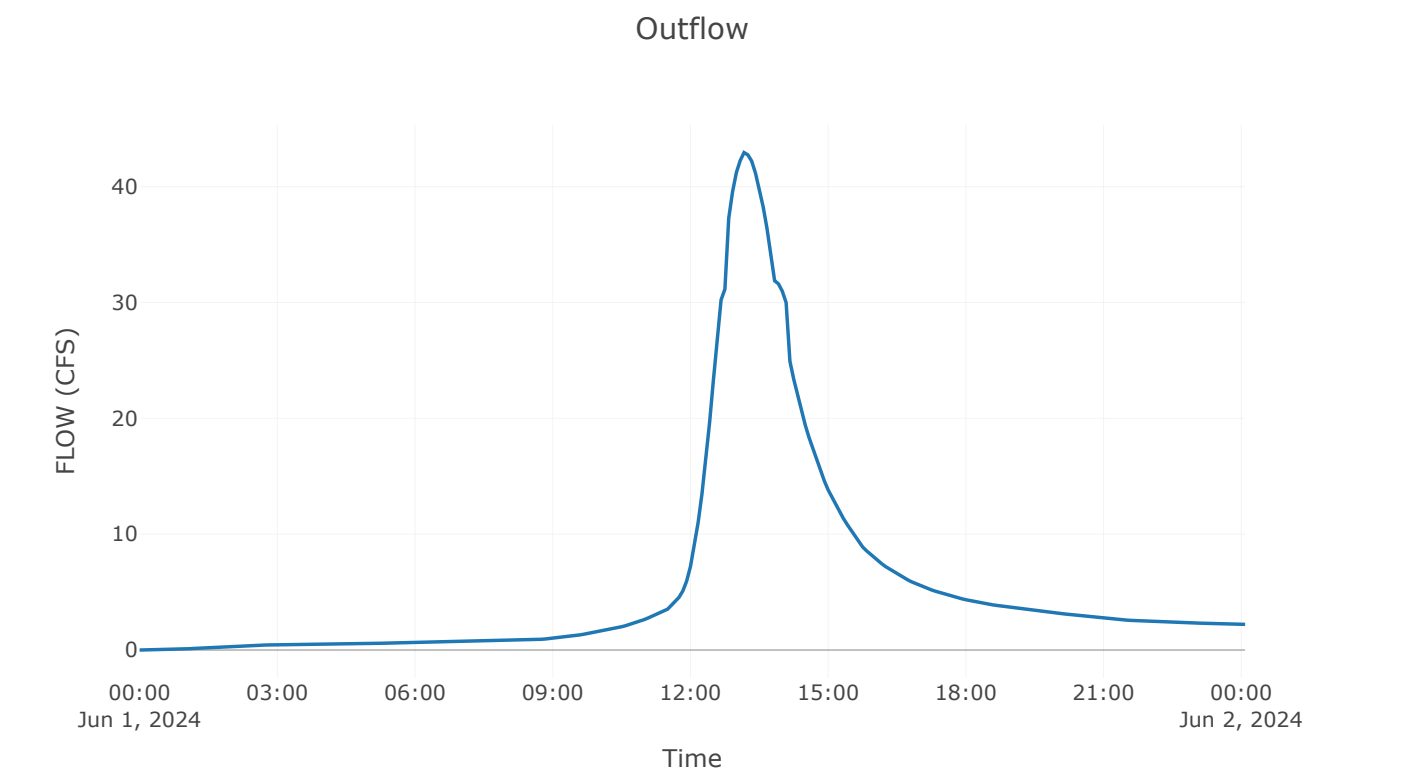
Precipitation and Outflow



Reservoir: US62West

Downstream : Hoover Park West

Results: US62West	
Peak Discharge (CFS)	42.94
Time of Peak Discharge	01Jun2024, 13:10
Volume (IN)	2.96
Peak Inflow (CFS)	42.89
Time of Peak Inflow	01Jun2024, 13:10
Inflow Volume (AC - FT)	11.1
Maximum Storage (AC - FT)	0.07
Peak Elevation (FT)	862.52
Discharge Volume (AC - FT)	11.07

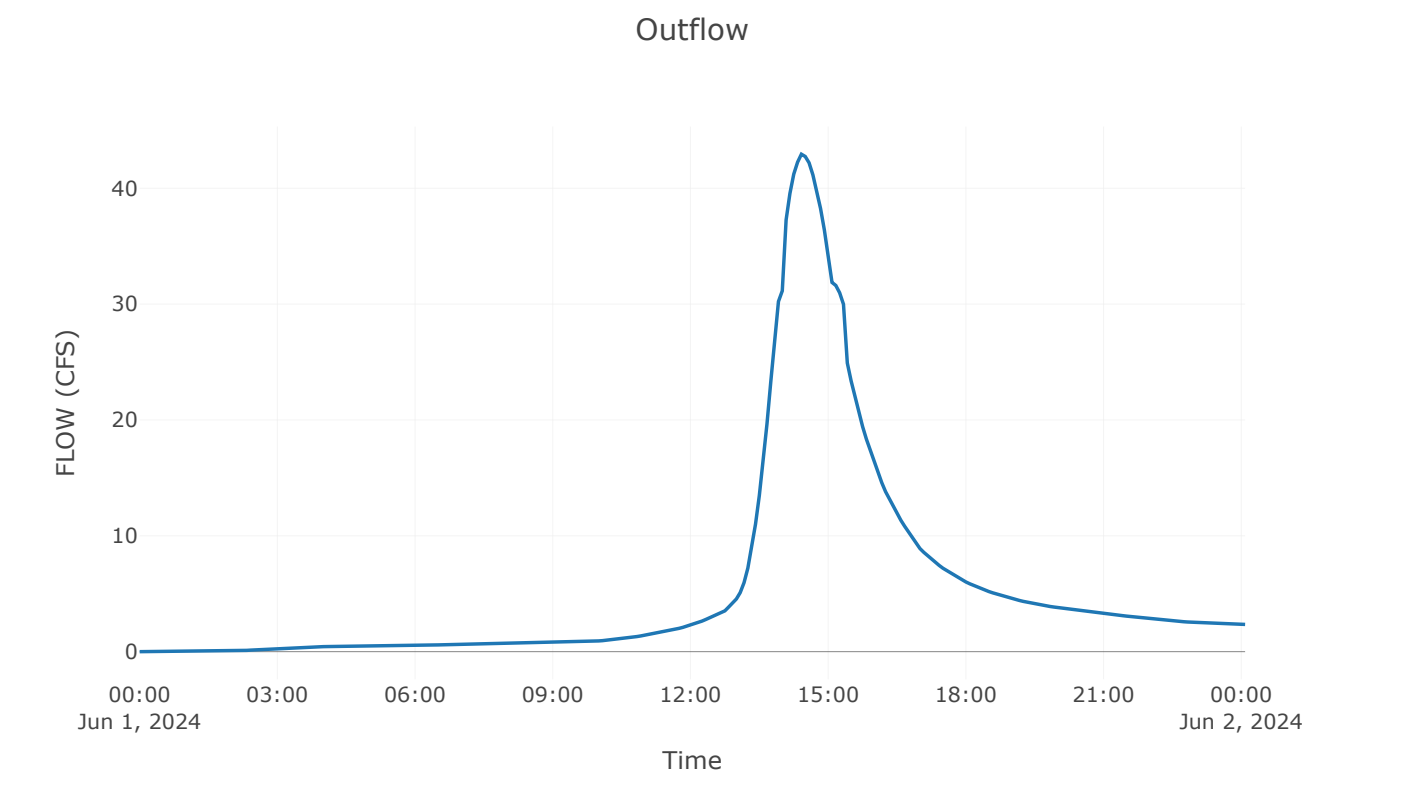


Reach: Hoover Park West

Downstream : Hoover Park West Pond

Route: Lag	
Method	Lag
Initial Variable	Combined Inflow
Lag	75

Results: Hoover Park West	
Peak Discharge (CFS)	42.94
Time of Peak Discharge	01Jun2024, 14:25
Volume (IN)	2.9
Peak Inflow (CFS)	42.94
Inflow Volume (AC - FT)	11.07



Subbasin: Hoover Park

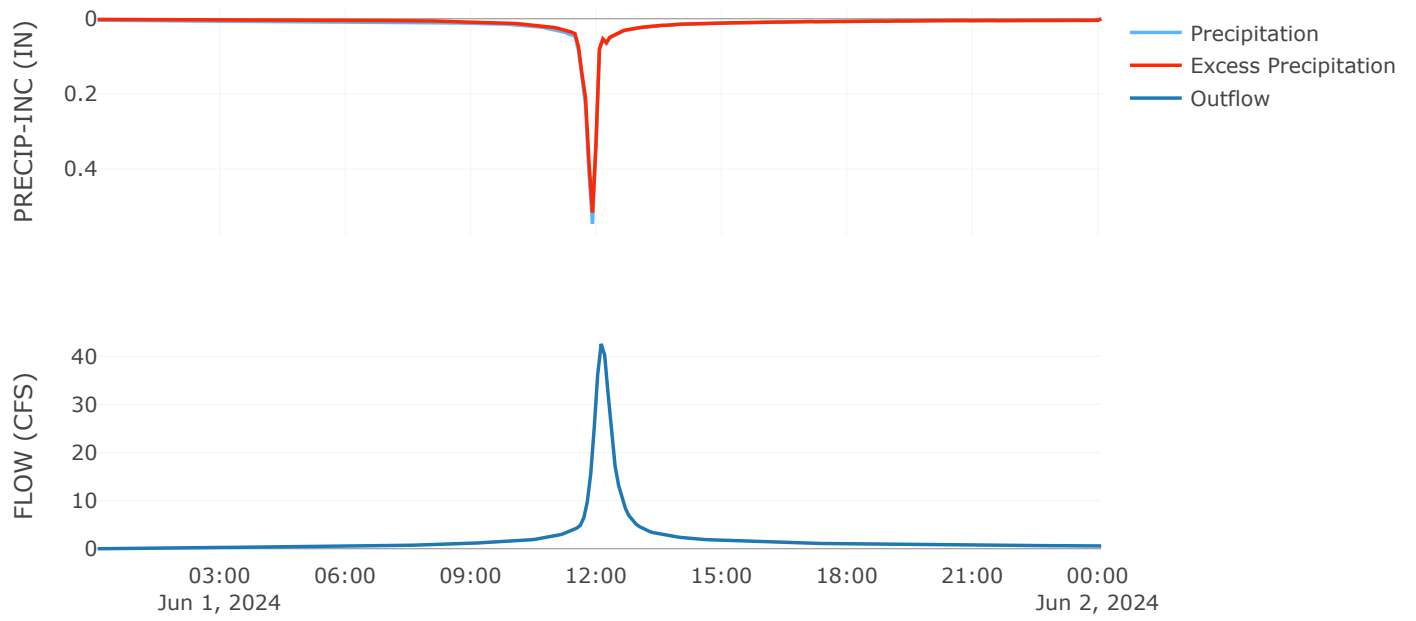
Area (MI²) : 0.02
Downstream : Hoover Park West Pond

Loss Rate: SCS	
Percent Impervious Area	40
Curve Number	91
Initial Abstraction	0.2

Transform: SCS	
Lag	14
Unitgraph Type	Standard

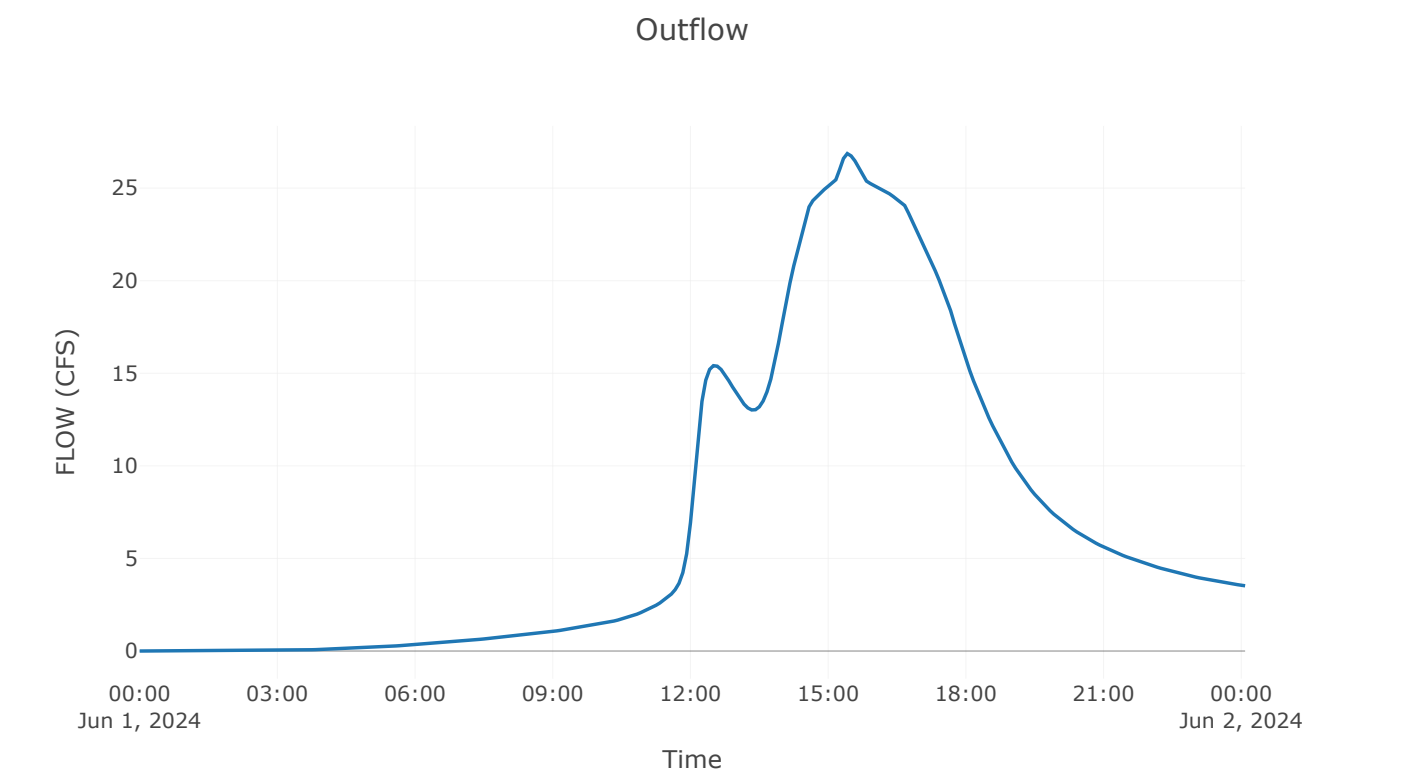
Results: Hoover Park	
Peak Discharge (CFS)	42.58
Time of Peak Discharge	01Jun2024, 12:05
Volume (IN)	4.08
Precipitation Volume (AC - FT)	4.59
Loss Volume (AC - FT)	0.59
Excess Volume (AC - FT)	4
Direct Runoff Volume (AC - FT)	3.98
Baseflow Volume (AC - FT)	0

Precipitation and Outflow



Reservoir: Hoover Park West Pond

Results: Hoover Park West Pond	
Peak Discharge (CFS)	26.87
Time of Peak Discharge	01Jun2024, 15:25
Volume (IN)	2.98
Peak Inflow (CFS)	44.98
Time of Peak Inflow	01Jun2024, 12:05
Inflow Volume (AC - FT)	14.82
Maximum Storage (AC - FT)	4.07
Peak Elevation (FT)	862.36
Discharge Volume (AC - FT)	14.02



Project: US62_TaskL_Prop
Simulation Run: 100-Year Simulation
Simulation Start: 31 May 2024, 24:00
Simulation End: 2 June 2024, 00:05

HMS Version: 4.12
Executed: 11 June 2024, 17:17

Global Parameter Summary - Subbasin

Area (MI2)	
Element Name	Area (MI2)
US62 - West	0.07
Hoover Park	0.02

Downstream	
Element Name	Downstream
US62 - West	U S 62 West
Hoover Park	Hoover Park West Pond

Loss Rate: Scs			
Element Name	Percent Impervious Area	Curve Number	Initial Abstraction
US62 - West	20	80	0.5
Hoover Park	40	91	0.2

Transform: Scs		
Element Name	Lag	Unitgraph Type
US62 - West	75	Standard
Hoover Park	14	Standard

Global Parameter Summary - Reach

Downstream	
Element Name	Downstream
Hoover Park West	Hoover Park West Pond

Route: Lag			
Element Name	Method	Initial Variable	Lag
Hoover Park West	Lag	Combined Inflow	75

Global Results Summary

Hydrologic Element	Drainage Area (MI ²)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
US62 - West	0.07	46.78	01Jun2024, 13:10	3.23
U S 62 West	0.07	46.77	01Jun2024, 13:10	3.23
Hoover Park West	0.07	46.77	01Jun2024, 14:25	3.17
Hoover Park	0.02	45.58	01Jun2024, 12:05	4.38
Hoover Park West Pond	0.09	32.67	01Jun2024, 15:20	3.24

Subbasin: US62-West

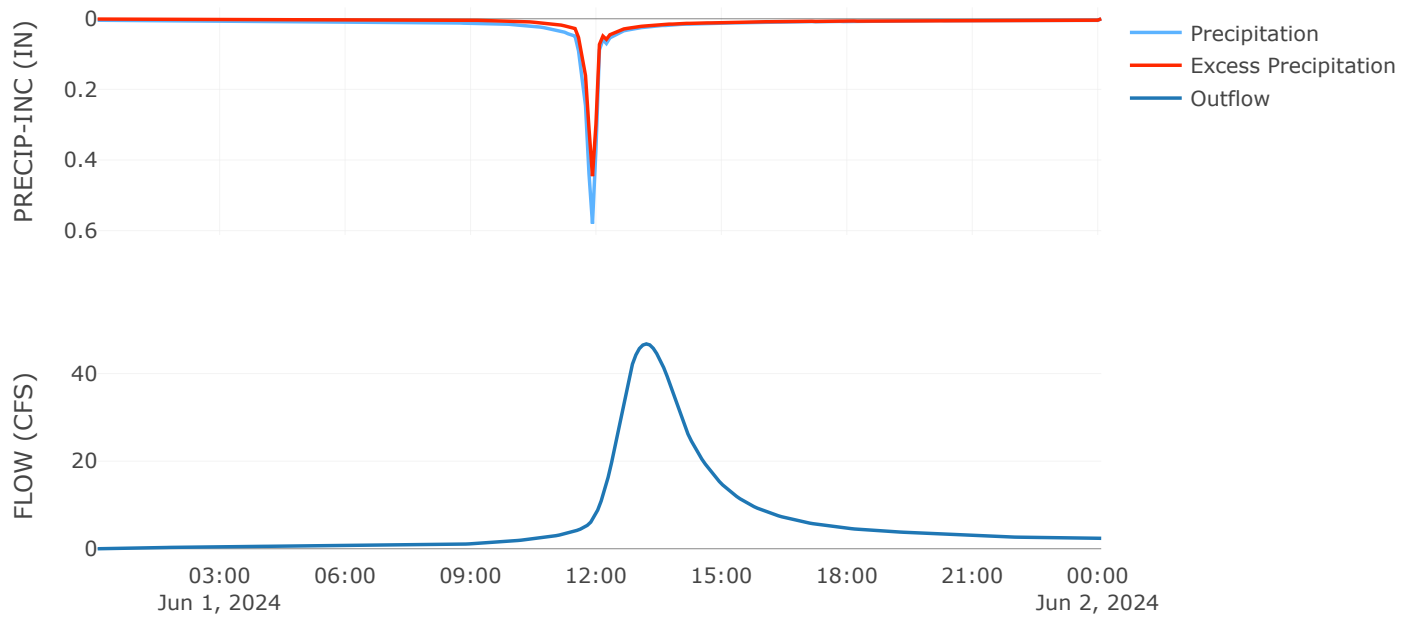
Area (MI²) : 0.07
Downstream : U S 62 West

Loss Rate: SCS	
Percent Impervious Area	20
Curve Number	80
Initial Abstraction	0.5

Transform: SCS	
Lag	75
Unitgraph Type	Standard

Results: US62-West	
Peak Discharge (CFS)	46.78
Time of Peak Discharge	01Jun2024, 13:10
Volume (IN)	3.23
Precipitation Volume (AC - FT)	18.67
Loss Volume (AC - FT)	6.29
Excess Volume (AC - FT)	12.37
Direct Runoff Volume (AC - FT)	12.08
Baseflow Volume (AC - FT)	0

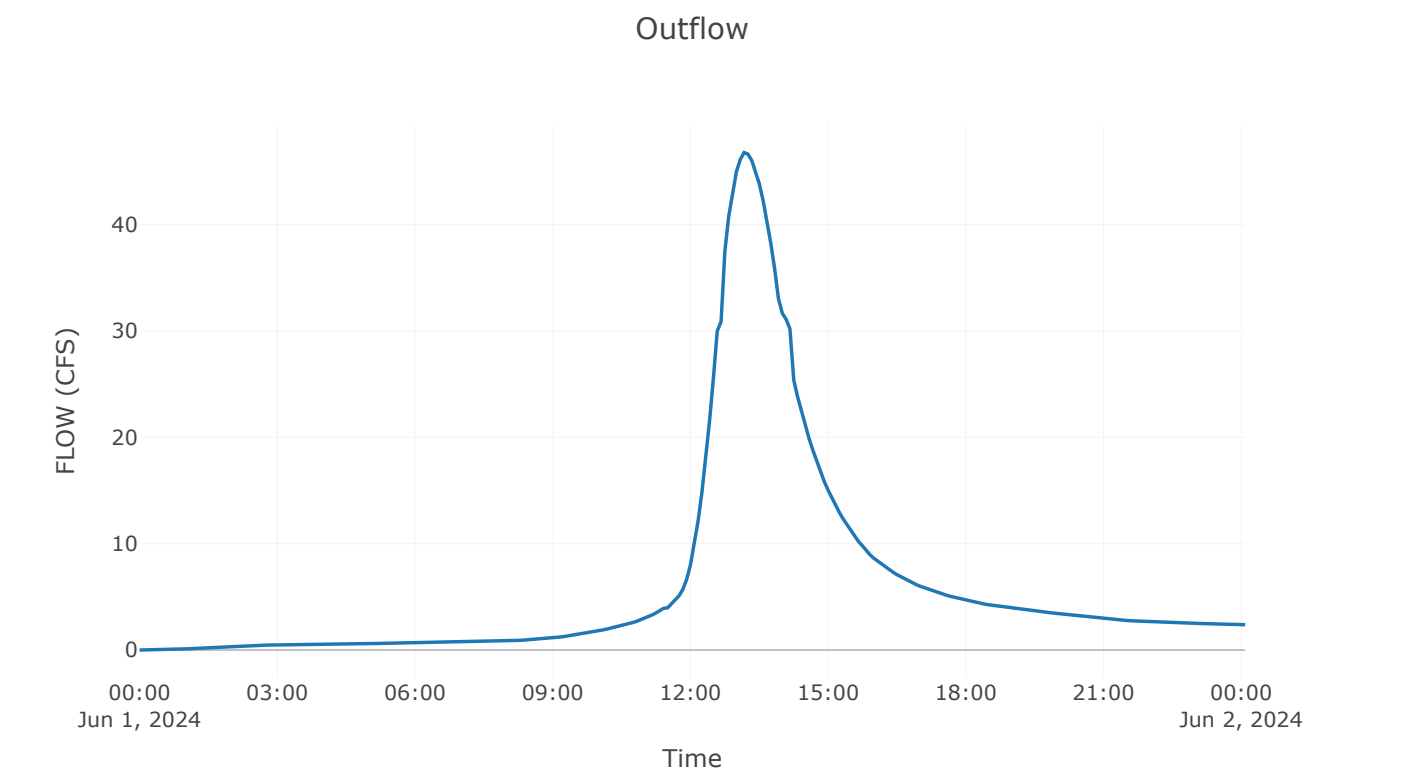
Precipitation and Outflow



Reservoir: US62West

Downstream : Hoover Park West

Results: US62West	
Peak Discharge (CFS)	46.77
Time of Peak Discharge	01Jun2024, 13:10
Volume (IN)	3.23
Peak Inflow (CFS)	46.78
Time of Peak Inflow	01Jun2024, 13:10
Inflow Volume (AC - FT)	12.08
Maximum Storage (AC - FT)	0.08
Peak Elevation (FT)	862.58
Discharge Volume (AC - FT)	12.07

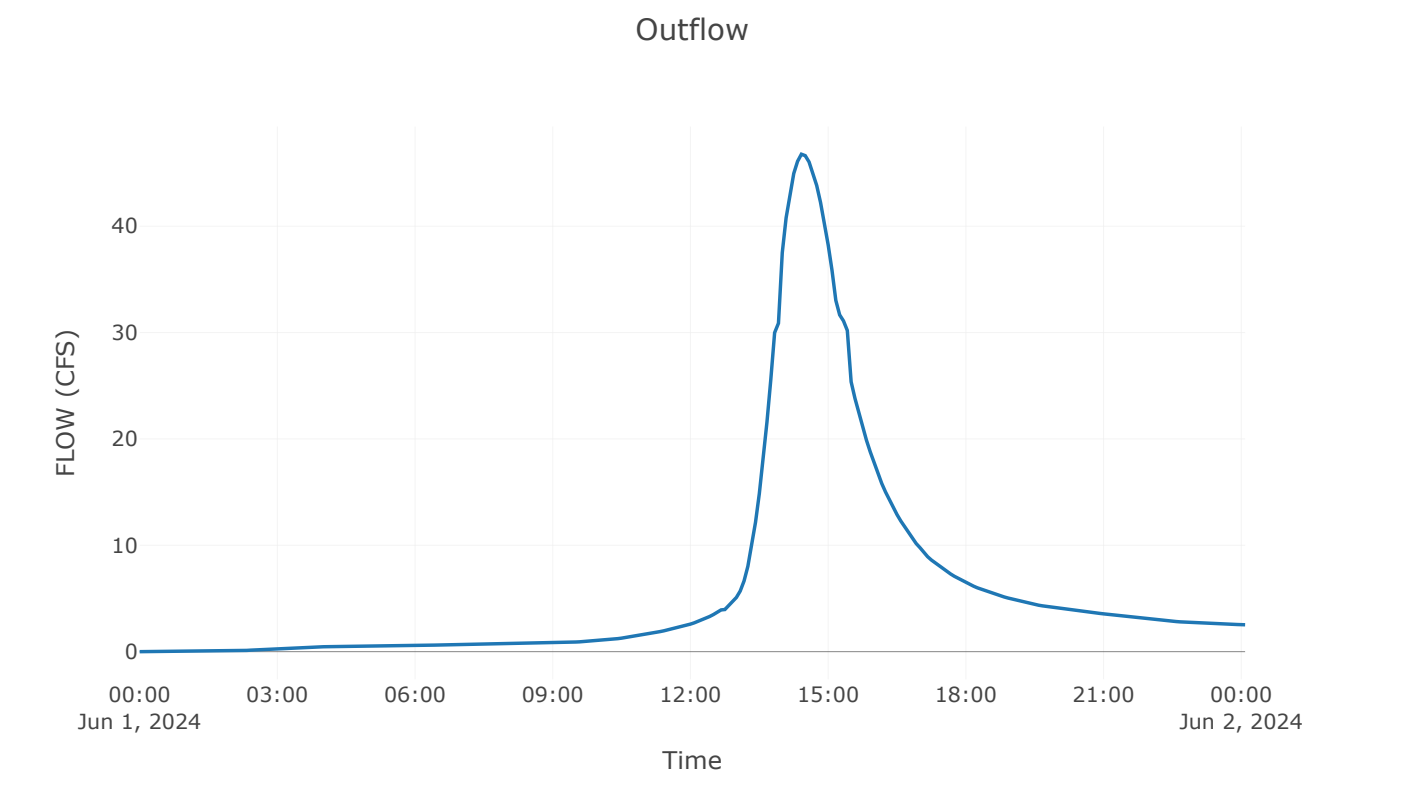


Reach: Hoover Park West

Downstream : Hoover Park West Pond

Route: Lag	
Method	Lag
Initial Variable	Combined Inflow
Lag	75

Results: Hoover Park West	
Peak Discharge (CFS)	46.77
Time of Peak Discharge	01Jun2024, 14:25
Volume (IN)	3.17
Peak Inflow (CFS)	46.77
Inflow Volume (AC - FT)	12.07



Subbasin: Hoover Park

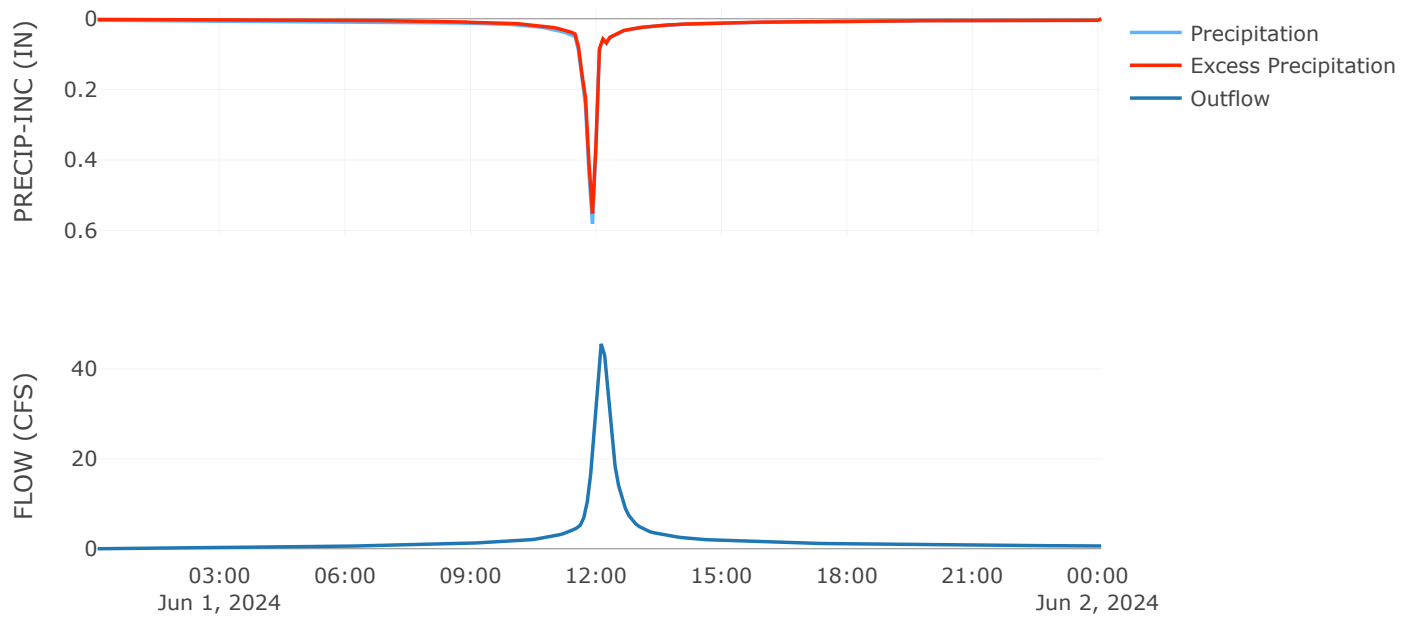
Area (MI²) : 0.02
Downstream : Hoover Park West Pond

Loss Rate: SCS	
Percent Impervious Area	40
Curve Number	91
Initial Abstraction	0.2

Transform: SCS	
Lag	14
Unitgraph Type	Standard

Results: Hoover Park	
Peak Discharge (CFS)	45.58
Time of Peak Discharge	01Jun2024, 12:05
Volume (IN)	4.38
Precipitation Volume (AC - FT)	4.88
Loss Volume (AC - FT)	0.6
Excess Volume (AC - FT)	4.28
Direct Runoff Volume (AC - FT)	4.27
Baseflow Volume (AC - FT)	0

Precipitation and Outflow



Reservoir: Hoover Park West Pond

Results: Hoover Park West Pond

Peak Discharge (CFS)	32.67
Time of Peak Discharge	01Jun2024, 15:20
Volume (IN)	3.24
Peak Inflow (CFS)	48.89
Time of Peak Inflow	01Jun2024, 14:25
Inflow Volume (AC - FT)	16.09
Maximum Storage (AC - FT)	4.32
Peak Elevation (FT)	862.59
Discharge Volume (AC - FT)	15.26

Outflow

