

**Final Report**  
**for**  
**2017 Jordan River Discharge Monitoring**

**Prepared For:**

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## SUMMARY

Great Lakes Environmental Center, Inc. (GLEC) has completed stream discharge monitoring on the Jordan River at two study sites:

1. Upstream of the Jordan River Fish Hatchery, off of Jordan River Road:  
45.03271, -84.96581
2. Off of Jordan Valley Road, downstream of the road-stream crossing:  
45.064253, -84.925370

GLEC deployed water pressure loggers (Solinst® Leveloggers) at both locations. The Leveloggers recorded total pressure (water pressure + barometric pressure) just below the water surface every 15 minutes while they were deployed. A Solinst® Barologger (barometric pressure logger) was deployed above water in the vicinity of the sites. The data from the Barologger was used to subtract the barometric pressure component from the total pressure recorded with the Leveloggers, resulting in water pressure only. Water pressure fluctuated as river water levels increased and decreased. GLEC took physical measurements of stream discharge following standard USGS procedures over a range of water levels at both sites. Those measurements were paired with the water pressure recorded at the time the measurements were taken and used to develop a linear equation for each site. These equations were used to compute stream discharge for each 15 minute interval that the loggers were collecting data.

The Levelogger located at the site on the Jordan River upstream of the fish hatchery was deployed on May 22, 2017 and removed on October 5, 2017. The Levelogger located at the site on the Jordan River downstream of Jordan Valley Road was deployed on May 5, 2017 and removed on October 5, 2017.

Results, in cubic feet per second, of physical stream discharge measurements:

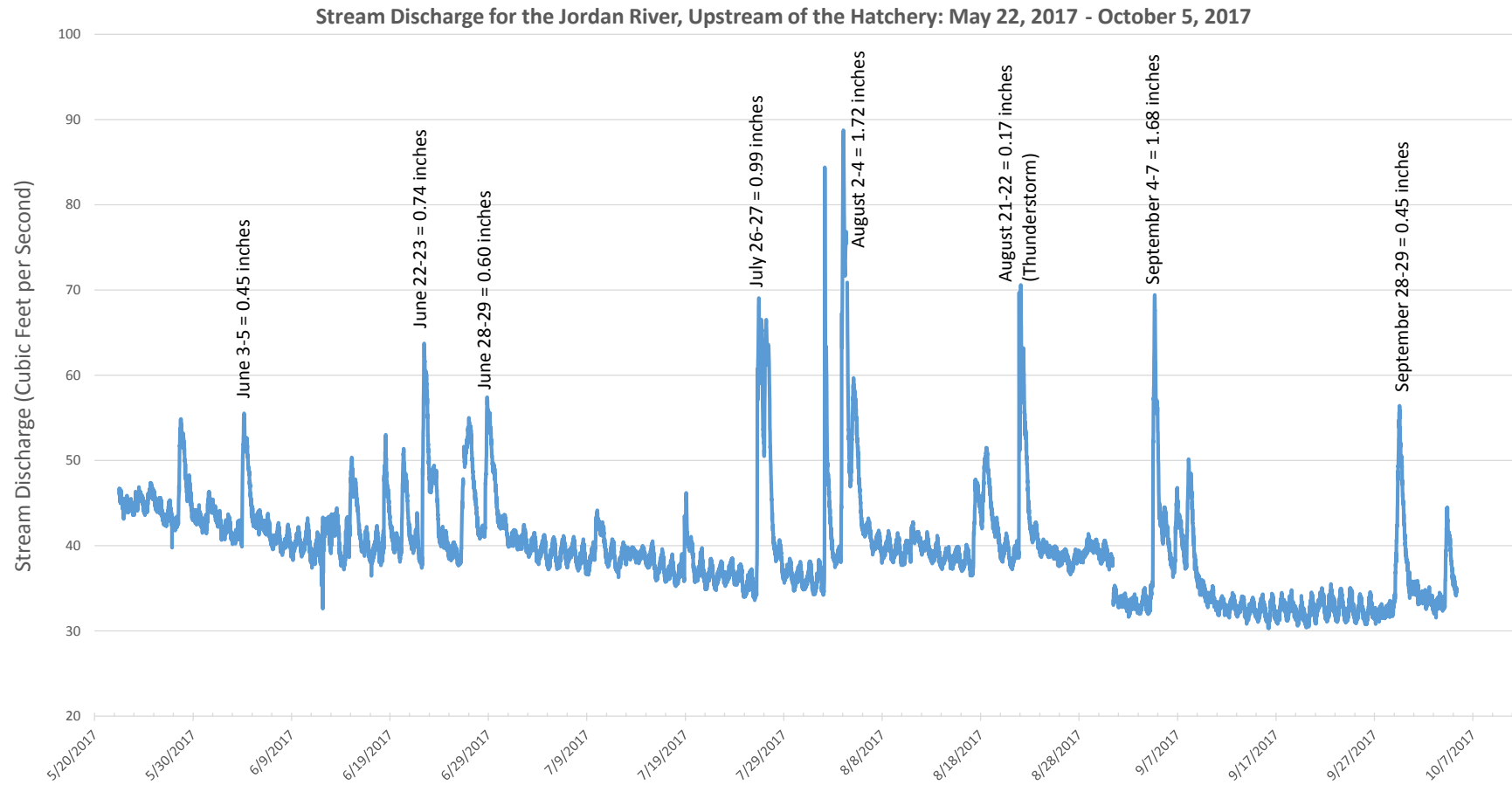
<b>Date</b>	<b>Jordan River site upstream of the hatchery</b>	<b>Jordan River site downstream of Jordan Valley Road</b>
5/5/17	Not measured	1.47 cfs
5/22/17	44.93 cfs	1.35 cfs
6/26/17	52.17 cfs	1.46 cfs
8/4/17	74.79 cfs	1.16 cfs
8/31/17	35.93 cfs	1.34 cfs
10/5/17	35.01 cfs	1.31 cfs

Average, maximum, and minimum computed stream discharge:

<b>Computed Stream Discharge</b>	<b>Jordan River site upstream of the hatchery</b>	<b>Jordan River site downstream of Jordan Valley Road</b>
<b>Average</b>	39.97 cfs	1.32 cfs
<b>Minimum</b>	30.29 cfs	1.14 cfs
<b>Maximum</b>	88.74 cfs	1.79 cfs

The following graphs show the computed continuous stream discharge for the entire study period. Rain event totals are from the precipitation records for the Gaylord airport, found using the Weather Underground website:

[https://www.wunderground.com/history/airport/KGLR/2017/5/5/CustomHistory.html?dayend=5&monthend=10&yearend=2017&req\\_city=&req\\_state=&req\\_statename=&reqdb.zip=&reqdb.magic=&reqdb.wmo=](https://www.wunderground.com/history/airport/KGLR/2017/5/5/CustomHistory.html?dayend=5&monthend=10&yearend=2017&req_city=&req_state=&req_statename=&reqdb.zip=&reqdb.magic=&reqdb.wmo=)



Stream Discharge for the Jordan River, Downstream of Jordan Valley Road: May 5, 2017 - October 5, 2017

