

# Adam T. Bower Memorial Dam Project Updates

Bag #6 Replacement Project



# Summary

- The Adam T. Bower Memorial Dam is an inflatable dam that is comprised of seven, 8-foot-tall inflatable air bags, totaling 2,100 feet long.
- Bag 6 was scheduled to be replaced in the fall of 2021.
- Due to unfavorable conditions, the replacement project has been postponed until river and weather conditions allow work to resume in 2022.
- Lake Augusta can not be filled to its summer pool without the new bag #6 installed.
- Shikellamy State Park marina docks and boat ramp docks will not be installed for the 2022 season.
- Depending on the project timeline, a partial boating season may occur with Lake Augusta at full pool late in the season.

# Bag #6 Replacement

- The existing bag suffered damage in 2019 from multiple high-water events requiring emergency repairs.
- Inspections revealed premature wear and tear and necessitated the bag's replacement.
- Planning was initiated for fall 2021 replacement.



# Fall 2021 Project Work Progression



- Site prep began late August 2021.
- Lake Augusta and Shikellamy State Park marina season ended Sept 7th, 2021.
- Flashboards (temporary coffer dam) installed on schedule.



# Temporary Flashboard Cofferd Dam





# Temporary Causeway Road

- An essential project component— a rip rap and gravel roadway needed to access the work site within the river.
- Construction began on schedule in mid-September but was quickly delayed.
- Working with equipment is only permitted with river conditions at 9.5-feet or under.



# Preparing for Highwater

- Here the Park Crew is preparing for high water by reinforcing the flashboard system.





# Bag # 6 successfully removed

- Water receded just long enough for the staff to remove bag 6.
- The damaged areas are highlighted below.



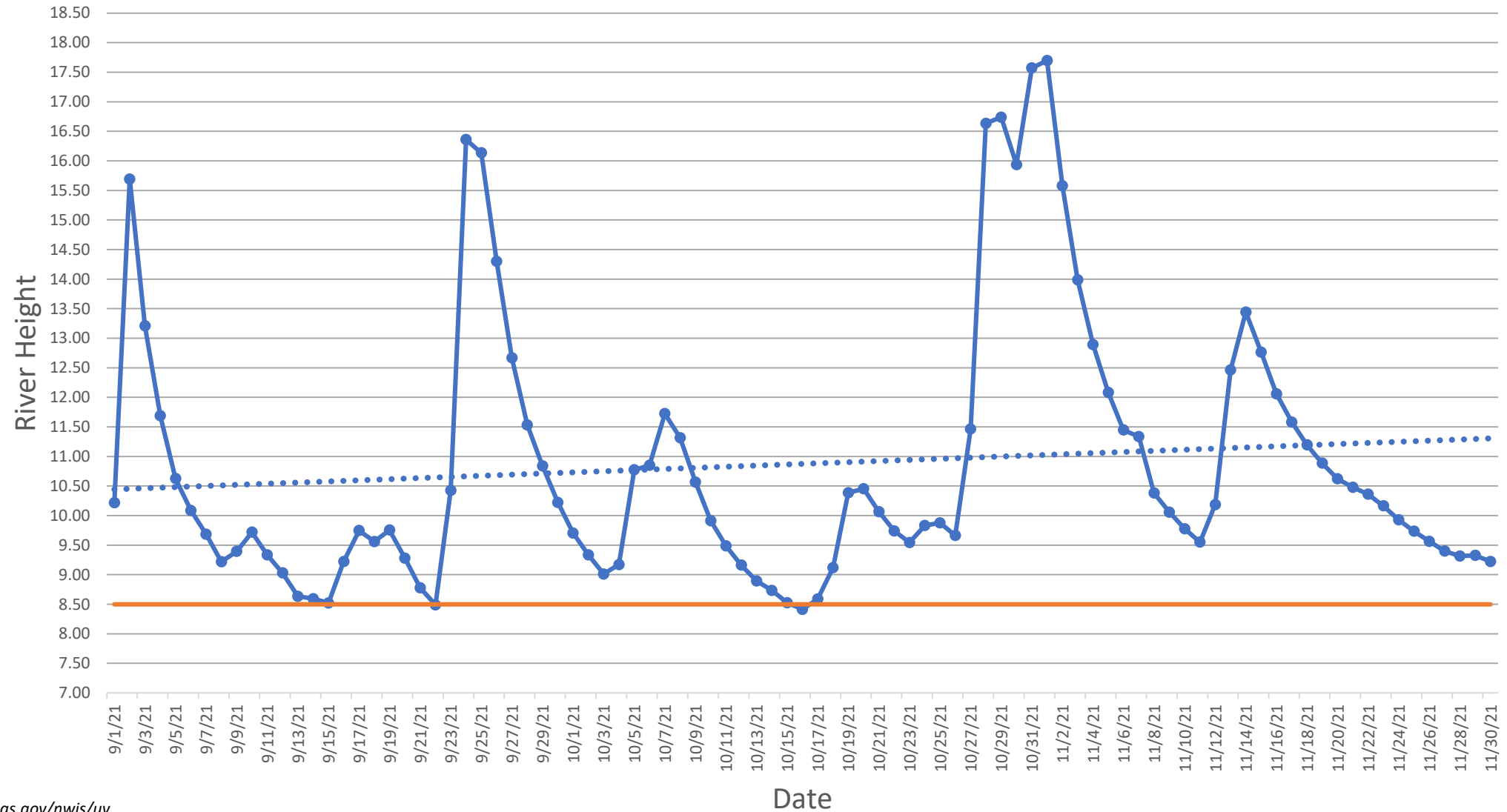


# Preparing for Install



- Work Conditions Required:
  - Susquehanna River height at 8.5 feet or below.
  - Air temperatures at 55°F or above for the bonding agents and materials to cure properly.
  - Low precipitation events to accommodate permitted working river height conditions.

# Daily River Height Average (Sunbury USGS River Gauge ID: 01554000)



Data Source:  
[https://waterdata.usgs.gov/nwis/uv?cb\\_00065=on&format=rdb&site\\_no=01554000&period=&begin\\_date=2021-09-01&end\\_date=2021-11-30](https://waterdata.usgs.gov/nwis/uv?cb_00065=on&format=rdb&site_no=01554000&period=&begin_date=2021-09-01&end_date=2021-11-30)

—●— Daily River Height Average      — Maximum Worksite River Height      ..... River Gauge Trendline (Linear)















# Additional Work Found



- During the removal of bag 6 it was discovered that some of the clamping plates came loose.
- River conditions became too high to fully evaluate their condition.
- The plates will be inspected and tested in 2022 when conditions allow.



# Ending 2021

- Dropping air temperatures and sustained, high river conditions caused the postponement of the project.
- Temporary causeway was removed as required.
- Temporary flashboard coffer dam was removed before ice and/or high river conditions threaten additional infrastructure damage.



# Project Postponement

- Prior to, and during the project, two tropical storms and a tropical depression hit the region in a short period of time; Fred, Henri and Ida. These three events set the stage for a wetter-than-average fall.
- Multiple attempts were made to keep the project going, but with the high river levels, continued rainy weather, and dropping temperatures, DCNR was left with no alternative but to postpone the project. Continued work would have risked further damage to the dam infrastructure and river conditions were becoming a safety issue for workers.
- DCNR understands this is disappointing news to the park visitors, local communities, and the boaters who use Lake Augusta.



# Starting 2022



- New bag #6 is in storage and the project is ready to resume in 2022.
- DCNR will provide an updated construction schedule once further assessments have been made. Typically, conditions will start to become favorable in July.
- New causeway and coffer dam construction will start at the first opportunity of favorable river conditions and weather forecasts.
- Barring no unforeseen circumstances, estimated completion would be late summer 2022.
- While we don't anticipate being able to create Lake Augusta in 2022, if the project can be completed ahead of schedule, there is a slight chance of a short boating season in late summer/early fall with the lake at full pool.

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## Questions?

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**pennsylvania**

DEPARTMENT OF CONSERVATION  
AND NATURAL RESOURCES