Water Resources Stewardship in Yellowstone National Park
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National Park Service
Yellowstone Center for Resources
On March 1, 1872, Yellowstone became the world’s first national park, set aside in recognition of its unique hydrothermal features...
Roosevelt Arch, North Entrance, built 1903

- 5 entrances; 4+ million visitors/year
- 50% inc. in Memorial Day weekend visitation in 2021 vs. 2019

Yellowstone NP forms the core of the Greater Yellowstone Ecosystem and is a world leader in promoting large landscape conservation.
Mission

"... to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations."

– NPS Organic Act of 1916
View from the headwaters...

- 150 lakes, 278 streams, 45 waterfalls, and thousands of small wetland areas.
- 5.2 million automated streamflow measurements collected in 2020 with cooperation of USGS WY-MT Water Science Center
Water Resources Management

- Infrastructure & Civil Works Projects
  - Water Supply Planning
  - Federal Highways
- Transboundary Issues
  - Water Rights and Wild & Scenic Rivers Designation
  - Aquatic Invasive Species
  - Climate Change
- Water Quality
  - Spill Response & Clean-up
  - 303d Listings

CONTINENTAL DIVIDE
ELEVATION 8262
Water Supply

• The mis-classification of GWUDI sources as groundwater was determined to be a national issue based on the 6 Year Review of the Microbial Drinking Water regulations (EPA, 2016).

• Microscopic particulate analysis (MPA) alone may not be adequate to identify all sources that are GWUDI.

• EPA Region 8 study underway to determine the effectiveness of several potential indicator organisms that could be integrated (at the Region’s discretion) into the regional GWUDI determination process as either supplements or replacements for MPAs.
Federal Highways

• 452 miles of roads intersect 2,500 miles of rivers and streams in park

• Focus Area: Improve Parkwide Transportation Infrastructure
  • ~ $55 million in 3 road corridors over next 5 years
  • ~$450 million in projects in planning

• Project Highlights
  • Pelican Creek Bridge (Success Story)
  • Lost Creek Restoration (Planning)
Water Rights

- Three active diversions within Yellowstone National Park.
- The Snake River was designated a Wild and Scenic River under the 2008 Craig Thomas Snake Headwaters Legacy Act.
Water Quality

• Class I Outstanding Waters designation.

• Motor vehicle accident spilled over 3,000 gallons of fuel 100 ft from Yellowstone River with active response engagement by NPS, Wyoming DEQ, and U.S. EPA.

• In 2018, the State of Montana removed Soda Butte Creek from the 303(d) list of impaired waterways due to water quality improvements. This marks the first delisting of an impaired waterway in the State of Montana following any mine waste remediation effort.
Exhibition: What Lies Beneath: Exploring Yellowstone Lake’s Mysterious Vents

Draper Natural History Museum’s John Bunker Sands Photography Gallery

April 24 – August 8, 2021, and again from October 2, 2021 – May 1, 2022.

Photo: Chris Linder, Woods Hole Oceanographic Institution; hdylake.org
Thank you

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