



JSRIP Research Activities

Utah Lake Science Panel: March 11, 2019

Michael Mills



JUNE SUCKER RECOVERY
IMPLEMENTATION PROGRAM

JSRIP Formation

- Cooperative efforts between state, federal, and local agencies
- Comply with the Endangered Species Act
- Goals
 - Recover the June sucker
 - Allow for current and future water development and use





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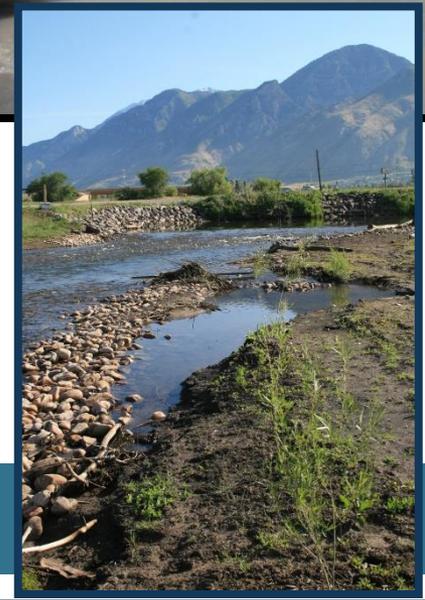
JSRIP Partners

- U.S. Fish and Wildlife Service
- Utah Department of Natural Resources
- Utah Reclamation, Mitigation, and Conservation Commission
- U.S. Department of Interior – CUPCA Office
- Central Utah Water Conservancy District
- U.S. Bureau of Reclamation
- Provo Reservoir Water Users Company
- Provo River Water Users Association
- Outdoor and Environmental Interests



JUNE SUCKER RECOVERY
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Ecosystem Approach to Recovery

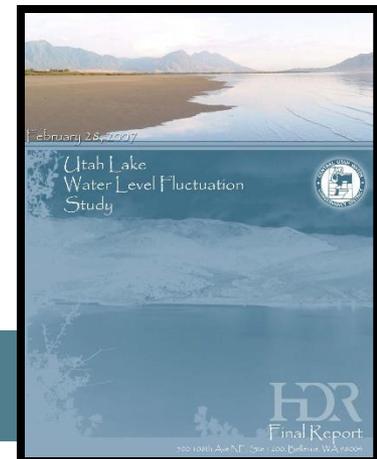




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Past Research Highlights

- Impacts of non-native fish on June sucker recovery
 - Initiated development of carp control strategy
- Assessment of Utah Lake tributaries
 - Led to ongoing habitat work on Hobble Creek
- Flow recommendations for Provo River and Hobble Creek
 - Guide the release of supplemental flows in both tributaries
- Utah Lake Level Fluctuation Study
 - Fluctuations reduced as reach full demand
- Utah Lake Food Web
 - Predicting carp removal responses





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Past Research Highlights Continued

- June sucker culture research
 - Temperature, diet, rearing densities
 - Stocking survival
 - Use of grow out facilities
- Genetic health of June sucker
- June sucker life history
 - Movement
 - Spawning needs
 - Early life history needs
- Public opinion survey
 - Messaging effectiveness





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Ongoing Research

- Northern pike impacts in Utah Lake
 - Bioenergetics model and diet
 - Movement
 - Management strategy
- Carp population research/monitoring
 - Annual monitoring of carp density
 - Control methods research (YY Technology, species specific piscicides)
 - Population modeling





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Ongoing Research Continued

- Flow monitoring
 - USGS gauges in Hobble Creek and Provo River
- June sucker population research and monitoring
 - Annual monitoring of spawning runs
 - Population viability analysis preparations
 - Origins of unmarked June sucker





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Ongoing Research Continued

- Ecosystem Monitoring
 - Monitoring of variables in response to management actions
 - Water quality, zooplankton, macrophytes, macroinvertebrates, fishes
 - Primarily conducted by Utah State University with assistance from UDWR and UDWQ
 - Various approaches, but consistent datasets since 2011





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2019 Water Quality Related Research

- Paleo habitat shifts and implications for June sucker
 - Through Utah State University
 - Analysis of sediment cores
- Harmful Algal Bloom effect on June sucker
 - Initial literature review
 - Past research conducted through USGS in Upper Klamath Lake





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Ecosystem Approach to Recovery

- Maintain a broad based program
- Willing to cooperate on research funding moving forward
 - Answer additional questions
- Annual assessment meeting held each spring
 - 2019: April 9th and 10th at DNR building

