

Published Journal Articles, Reports, News Articles, Videos, and Webinars

NRSST Journal Articles

- “Sediment Mismanagement Puts Reservoirs and Ecosystems at Risk” (Desirée Tullos, Peter Nelson, Rollin Hotchkiss, Dave Wegner). *Eos* (2021): [Sediment Mismanagement Puts Reservoirs and Ecosystems at Risk - Eos](#)
- “Sustaining United States Reservoir Storage Capacity: Need for a New Paradigm” (Tim Randle, Greg Morris, Desirée Tullos, Frank Weirich, Matt Knodolf, Daniel Moriasi, George Annandale, Jon Fripp, Toby Minear, David Wegner). *Hydrology* (2021): <https://www.sciencedirect.com/science/article/abs/pii/S0022169421007344>
- “New Economic Paradigm for Sustainable Reservoir Sediment Management” (Razieh Anari, Todd Gaston, Tim Randle, Rollin Hotchkiss). *Journal of Water Resources Planning and Management* (2023): <https://ascelibrary.org/doi/full/10.1061/%28ASCE%29WR.1943-5452.0001614>

Relevant Publications

- “Satellites reveal widespread decline in global lake water storage” (Fangfang Yao, Ben Livneh, Balaji Rajagopalan, Jida Wang, Jean-François Crétaux, Yoshihide Wada, Muriel Berge-Nguyen). *Science* (2023): <https://www.science.org/doi/abs/10.1126/science.abo2812>
- “A Framework for Estimating Global River Discharge from the Surface Water and Ocean Topography Satellite Mission” (Michael Durand et al) *Water Resources Research* (2023): <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2021WR031614>
- Reservoir Sedimentation Economics Model (RSEM) (Randle, Gaston, Anari, 2023) Bureau of Reclamation: <https://www.usbr.gov/tsc/techreferences/computer%20software/models/rsem/index.html>
 - Razieh Anari, Tim Randle, Todd Gaston, & Rollin Hotchkiss are applying RSEM to Lewis and Clark Reservoir, behind Gavins Point Dam, as a demonstration

NRSST White Paper

- Reservoir Sediment Management: Building a Legacy of Sustainable Water Storage Reservoirs (National Reservoir Sedimentation and Sustainability Team White Paper, June 12, 2019), SEDHYD website: <https://www.sedhyd.org/reservoir-sedimentation/National%20Res%20Sed%20White%20Paper%202019-06-21.pdf>
- Development of Basic Cost Model for Removal of Sediment from Reservoirs (Anchor QEA, LLC, 2020): SEDHYD website: <https://www.sedhyd.org/reservoir-sedimentation/Reservoir%20Sediment%20Removal%20Cost%20Model%20-%20Anchor%20QEA%20February%202020.pdf>

Published News Articles

- USSD *Dams and Levees Bulletin*, “Reservoir Sedimentation and Sustainable Management”

(https://www.usddamsandleveesbulletin-digital.com/damq/0122_spring_2022/MobilePagedArticle.action?articleId=1776703#articleId1776703)

- Bureau of Reclamation's *Water Operations and Maintenance Bulletin*, "Reservoir Sedimentation," Fall 2022, No. 257
(<https://www.usbr.gov/assetmanagement/docs/257-508-Fall-2022.pdf>)
- Regional Sediment Management (RSM) River Mechanics Podcast hosted by Stanford Gibson
(<https://podcasts.apple.com/us/podcast/rsm-river-mechanics-podcast/id1650989239>)
- ASCE, *Civil Engineering Magazine*, "A dwindling water supply caused by reservoir sedimentation troubles engineers" by Michael Whelan & Rollin Hotchkiss
(https://www.asce.org/publications-and-news/civil-engineering-source/civil-engineering-magazine/issues/magazine-issue/article/2024/03/a-dwindling-water-supply-caused-by-reservoir-sedimentation-troubles-engineers?utm_medium=email&utm_source=rasa_io&utm_campaign=newsletter)
- Süddeutsche Zeitung, "The dark side of Hydropower," by Tobias Landwehr, Christoph von Eichhorn, Elisa von Grafenstein, Jonas Jetzig, Markus Hametner, Stefan Kloiber, Isabel Kronenberger and Sören Müller-Hansen, November 24, 2023
(<https://www.sueddeutsche.de/projekte/artikel/wissen/energy-hydropower-statistics-erosion-china-brazil-e650240/>) [click the "Ich bin eiverstanden" highlighted button at the bottom for English]

Introductory Video about Sedimentation

- <https://www.youtube.com/watch?v=HQ-Y8CIEpgw&feature=youtu.be>

NRSST Recorded Webinars:

- **Reservoir Sedimentation Management – Big Deal! Why should we even care about it?**
- Dr. George Annandale, P.E.
- <https://cires.colorado.edu/events/reservoir-sedimentation-management-big-deal-why-should-we-even-care-about-it>
- **Sedimentation Management Alternatives at Reservoirs**
- Dr. Greg Morris, P.E.
- <https://cires.colorado.edu/events/reservoir-sedimentation-management-options-and-data-needs>
- **Sedimentation Management for Multi-Purpose Reservoirs: A Federal Perspective**
- Dr. Tim Randle, P.E. and Dr. Paul Boyd, P.E.

- <https://cires.colorado.edu/events/sedimentation-management-multi-purpose-reservoirs-federal-perspective>
- [**Permitting for reservoir sediment management**](#)
- Dr. Rollin Hotchkiss, P.E. and David Olson
- <https://cires.colorado.edu/events/permitting-reservoir-sedimentation-management>
- [**Reservoir sedimentation monitoring**](#)
- Dr. Greg Morris, P.E.
- <https://cires.colorado.edu/events/sedimentation-monitoring>
- [**Economics of Sustainable Reservoir Sediment Management**](#)
- Dr. George Annandale, P.E. and
- Dr. Rollin Hotchkiss, P.E.
- [**https://cires.colorado.edu/events/economics-sustainable-reservoir-sediment-management**](https://cires.colorado.edu/events/economics-sustainable-reservoir-sediment-management)
- [**Building a Legacy of Sustainable Water Storage Reservoirs**](#)
Missouri Sedimentation Action Coalition
Webinar Recorded December 12, 2019
Duration: 60 Minutes
Dr. Tim Randle, P.E., D.WRE.

NRSST [Frequently Asked Questions](#)

- https://acwi.gov/sos/faqs_2017-05-30.pdf