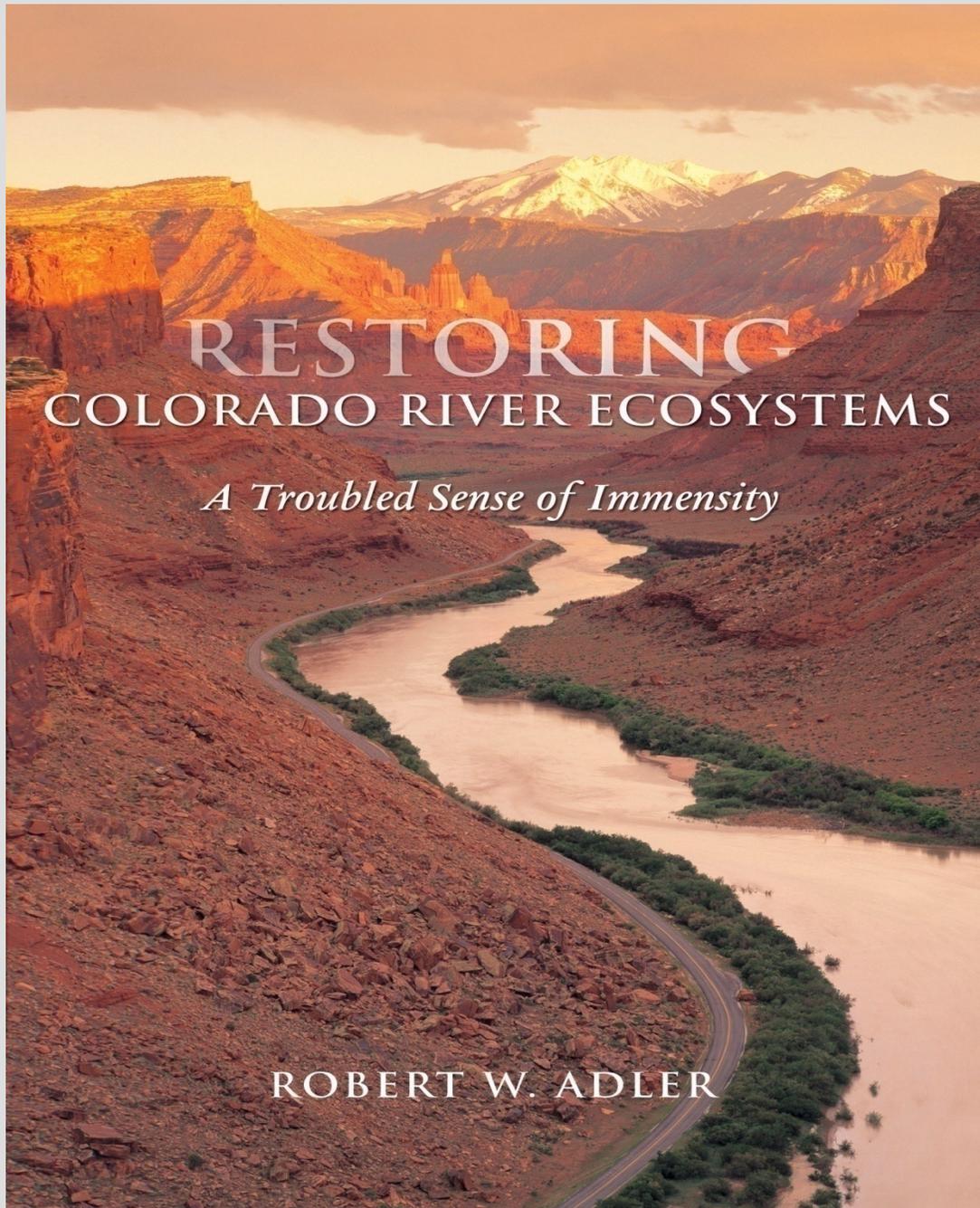


**WALLACE STEGNER LECTURE
LAW AND THE LIVING
COLORADO RIVER**

- **Robert W. Adler**
 - **Distinguished Professor of Law**
 - **University of Utah, S.J. Quinney College of Law**
- **Wallace Stegner Center for Land, Resources, and the Environment**



Robert W. Adler

*TOWARD ENVIRONMENTAL
AMENDMENTS TO THE COLORADO
RIVER COMPACT*

FORTHCOMING IN

**CORNERSTONE: A CENTURY OF THE
COLORADO RIVER COMPACT**

**(UNIV. ARIZ. PRESS,
JASON ROBISON, ED.)**

OUTLINE

- Law as a reflection of society's values
- Law of the Colorado: reflection of past values
- Law of the Colorado: incorporating new values to acknowledge the Colorado as a living river

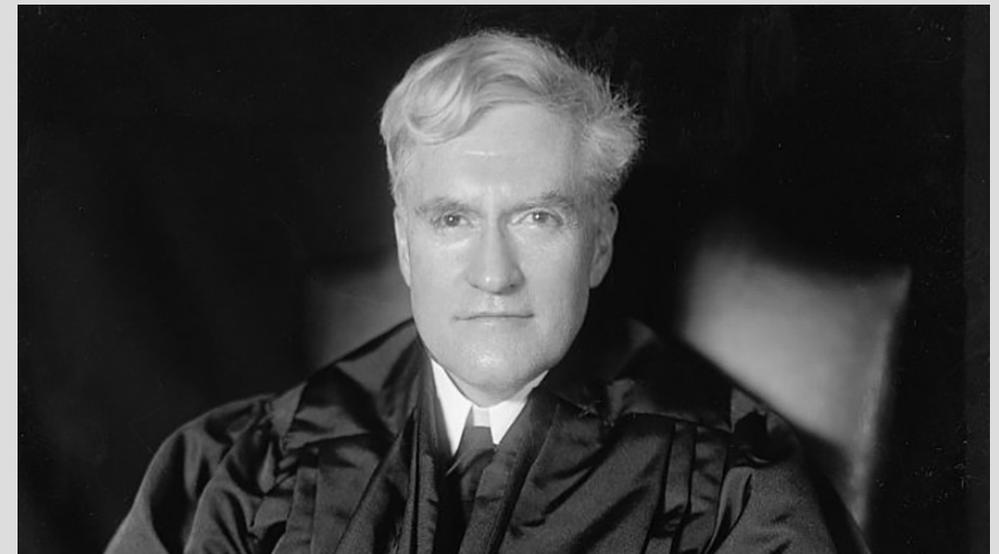
LAW REFLECTS SOCIETY'S COLLECTIVE VALUES



James Madison (*The Federalist No. 43*):
“...The **safety and happiness of society** are the objects at which all political institutions aim”

Benjamin Cardozo:

“The final cause of law is **the welfare of society.**”



ROSCOE POUND

“The law must be stable, but it must not stand still.”



HOW TO
DIVIDE WATER
IN THE BASIN?



NEGOTIATING INTERESTS (1922)

Upper Basin States

- Developing slower than lower basin
- Preserve future rights under prior appropriation law

Lower Basin States

- Federally funded dams and canals
- Assure continued water supply

United States

- Interstate agreement as condition for federal \$\$\$

No one

- Environment
 - Tribes, environmental groups not involved

COLORADO RIVER COMPACT ART. I

“The major purposes of this compact are”

- equitable division and apportionment of [water]
- the relative importance of different beneficial uses of water*
- promote interstate comity
- expeditious agricultural and industrial development
- protection of life and property from floods

* Defined as human uses

PURPOSES
ADDED BY
LATER LEGAL
AUTHORITIES

Authority	Purposes Added	Qualifications
Upper Colorado River Basin Compact	None (identical to Colo. River Compact)	N/A
Boulder Canyon Project Act (Hoover Dam; All-American Canal)	Hydropower	<u>Subsidiary to Compact</u>
Colo. River Storage Project Act of 1956 (Glen Canyon Dam +)	Natural resources on public lands on which dams built	<u>Subsidiary to Compact</u>
Colo. River Basin Project Act of 1965 (Central Arizona Project +)	Fish & wildlife, water quality, public recreation	<u>Subsidiary to Compact</u>

GRAND CANYON PROTECTION ACT

Operate Glen Canyon Dam “in such a manner as to protect, mitigate adverse impacts to, and improve the values for which Grand Canyon National Park [was] established....” BUT:

Implement the Act “in a manner fully consistent with and subject to” Colorado River Compact and other components of the Law of the River.



WHAT ABOUT OUR GENERAL ENVIRONMENTAL LAWS?

- Endangered Species Act and NEPA programs have helped but:
- U.S. Supreme Court: and U.S. Court of Appeals:
 - Colorado River Compact has primacy over the National Environmental Policy Act and the Endangered Species Act.





COLORADO RIVER COMPACT:
“THE RING THAT RULES THEM ALL”
J.R.R. TOLKIEN

Colorado River plumbing system



Glen Canyon Dam



Hoover Dam



All-American Canal



Levees and
channelization

and many more projects



ECOSYSTEM IMPACTS

- Reservoirs inundate riparian habitat
- Less water for native species and ecosystems
- Changed annual flow patterns (impact on sloughs, riparian wetlands, sandbars)
- Interrupted flow of sediment, biotic material
- Non-native species dominate in many places
- Extirpated some native species; threatened and endangered others (fish, plants, birds)

ONGOING ECOSYSTEM MITIGATION AND RESTORATION EFFORTS

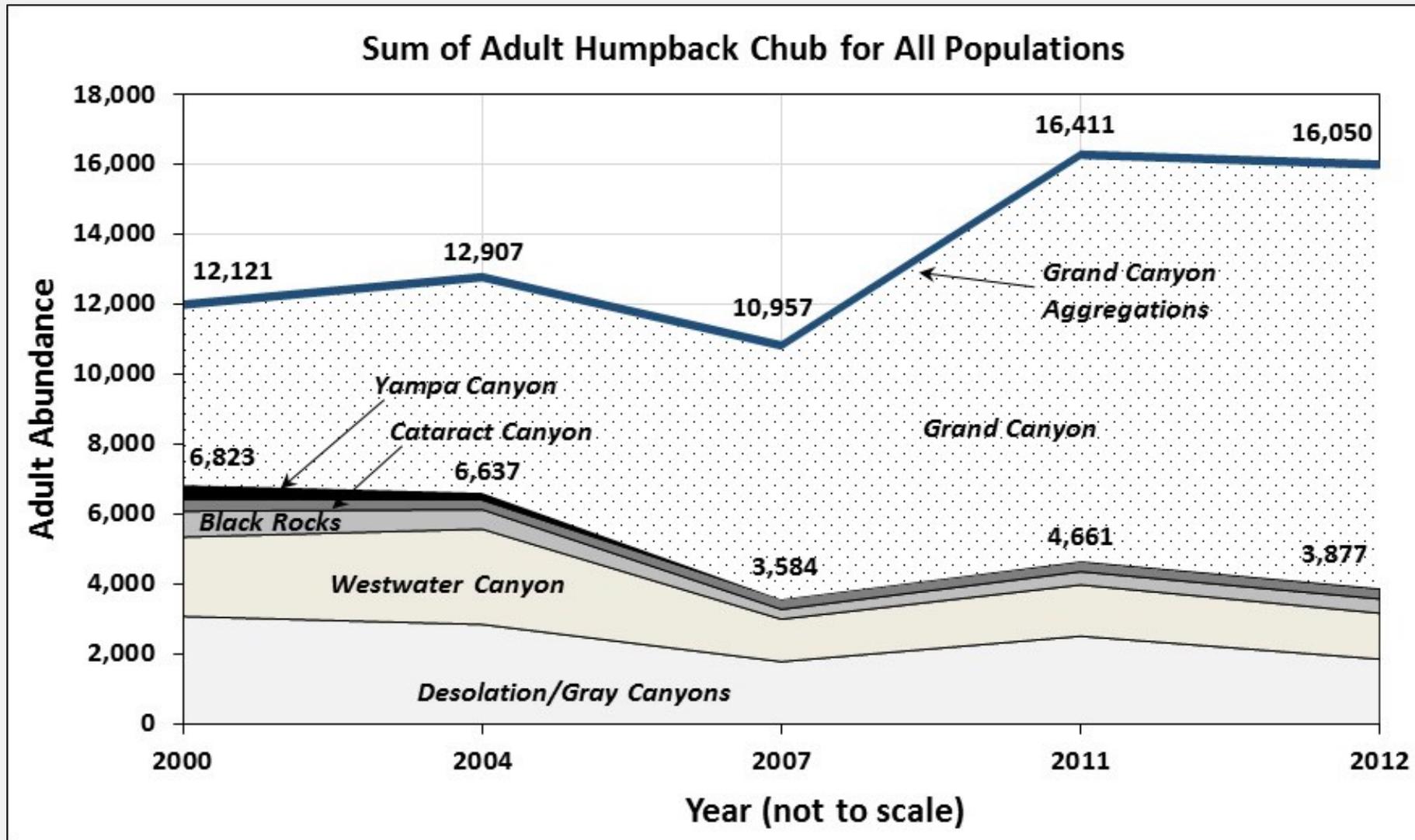
- Upper Colorado River Endangered Fish Recovery Program
- San Juan River Basin Recovery Implementation Program
- Glen Canyon Dam Adaptive Management Program
- Lower Colorado River Multi-Species Conservation Program
- Collaborative Efforts with Mexico to restore Colorado River Delta



HUMPBACK CHUB

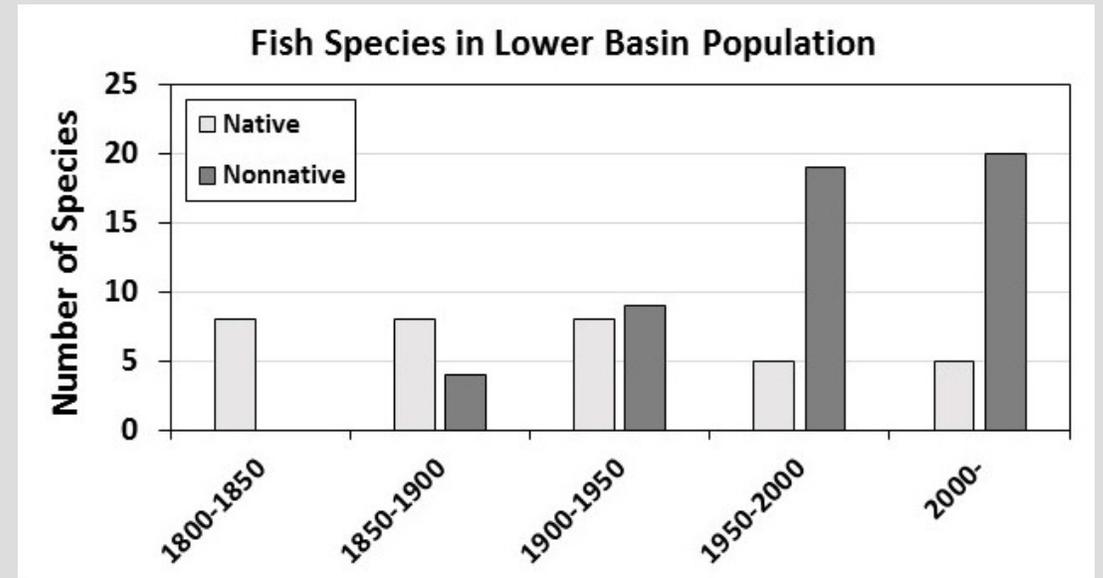
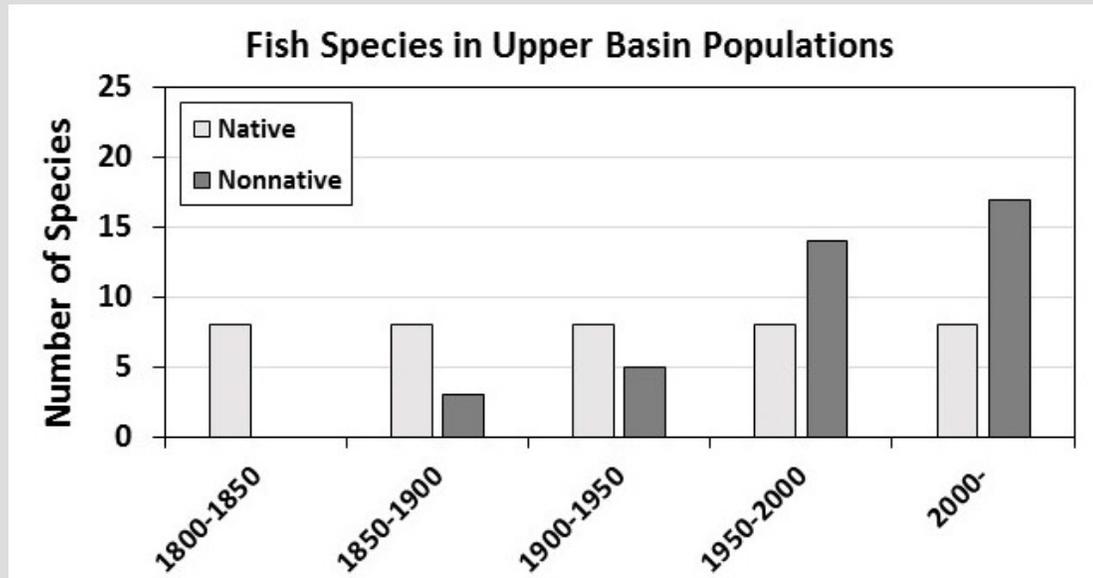
Down-listed from
endangered to
threatened in 2021





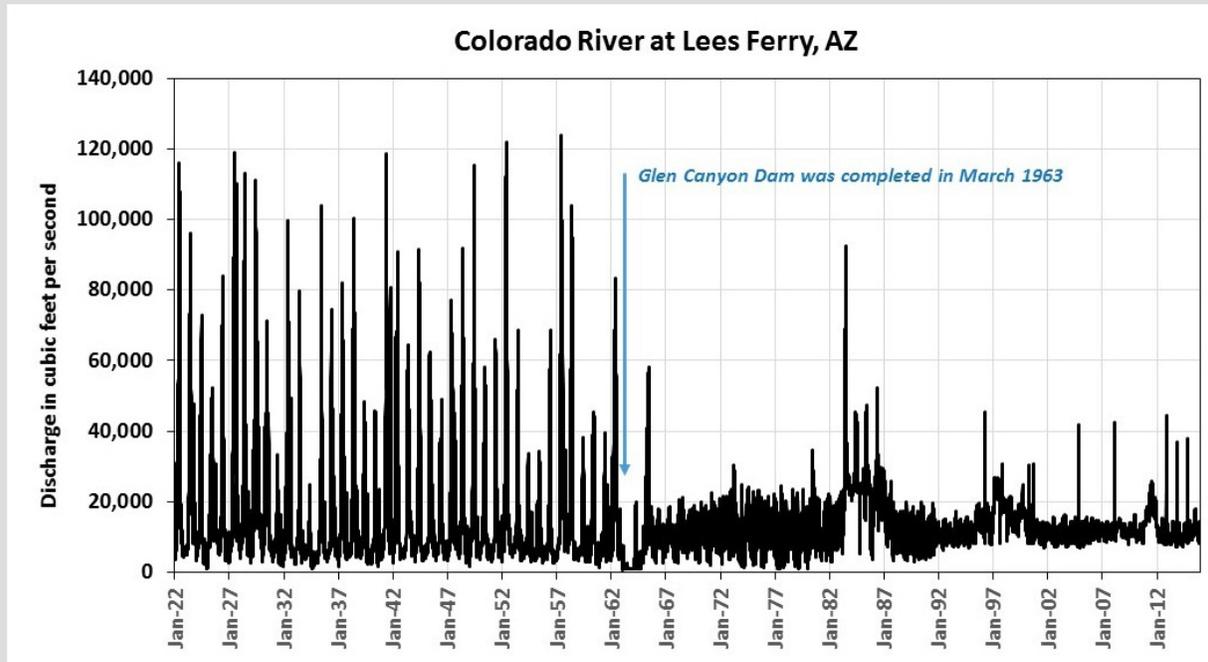
U.S. Fish and Wildlife Service Status Assessment (2018) – large increase in GC populations may be misleading, as earlier estimates may have been negatively biased.

NATIVE VERSUS NONNATIVE FISH SPECIES

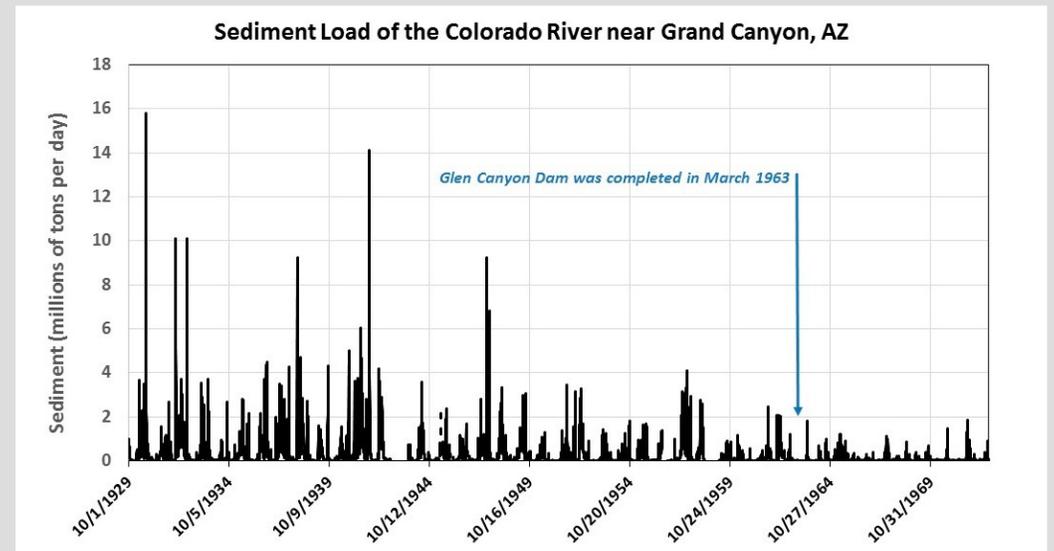
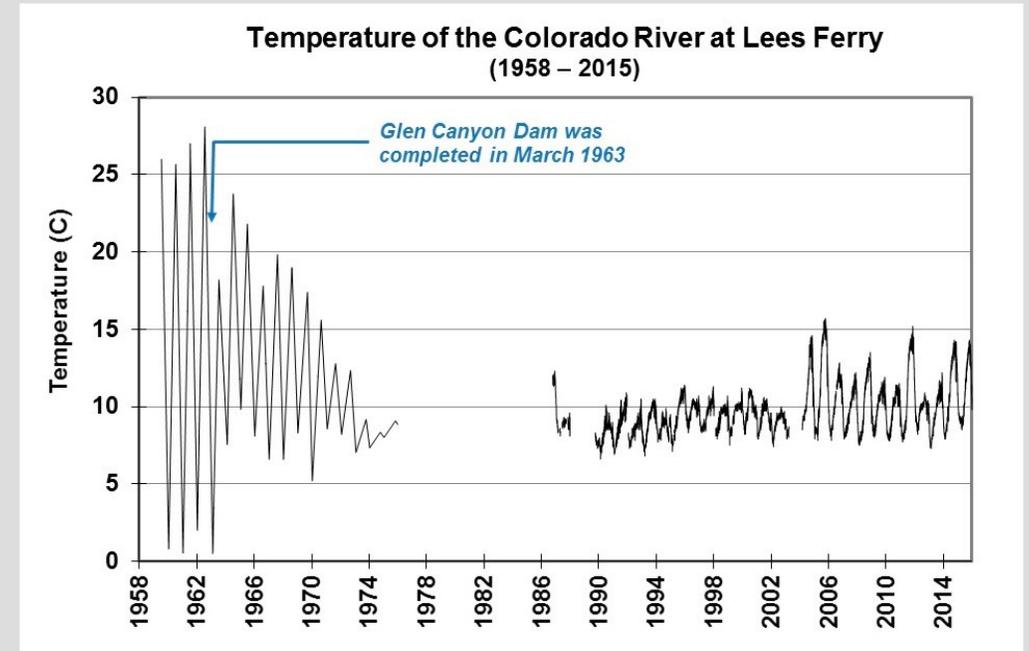


U.S. Fish and Wildlife Service Status Assessment (2018)

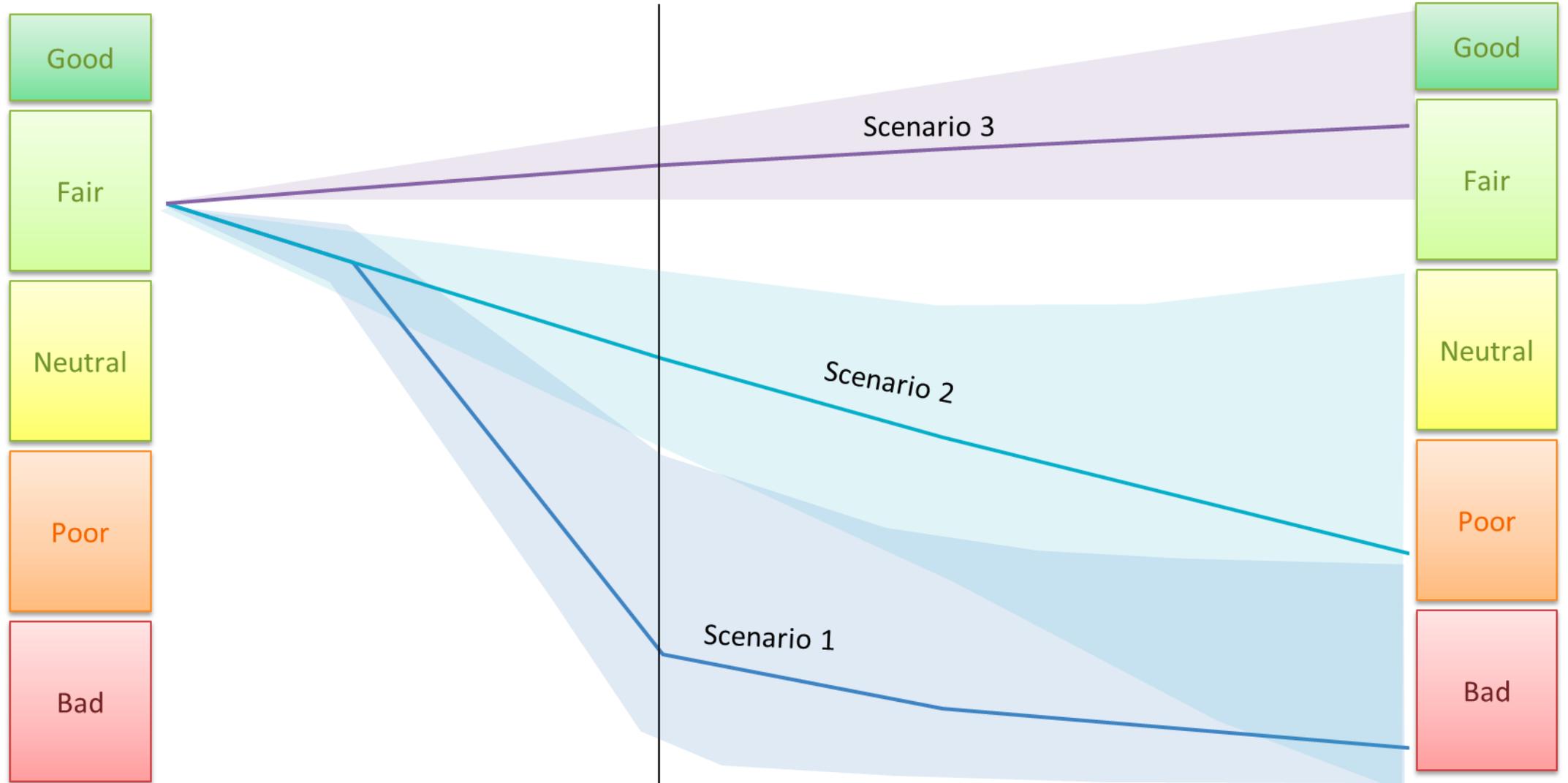
Post-dam changes in river conditions



U.S. Fish and Wildlife Service Status Assessment (2018)



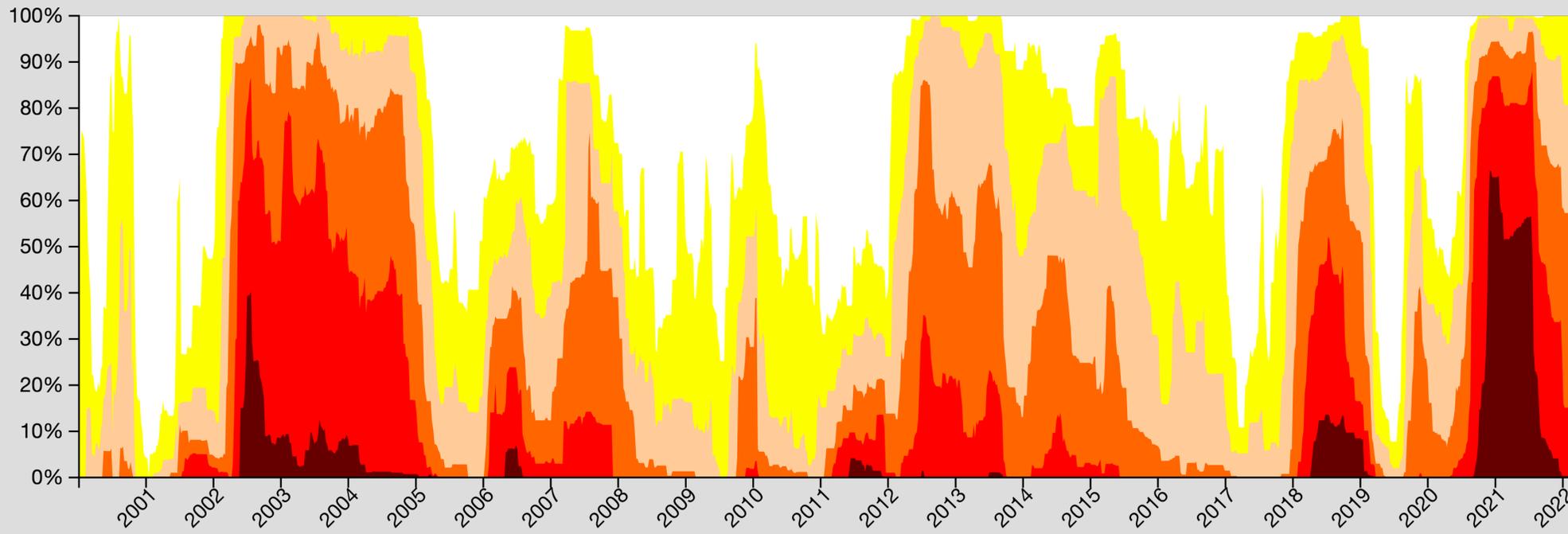
Humpback Chub Viability



0
Current Condition
(see Table 7)

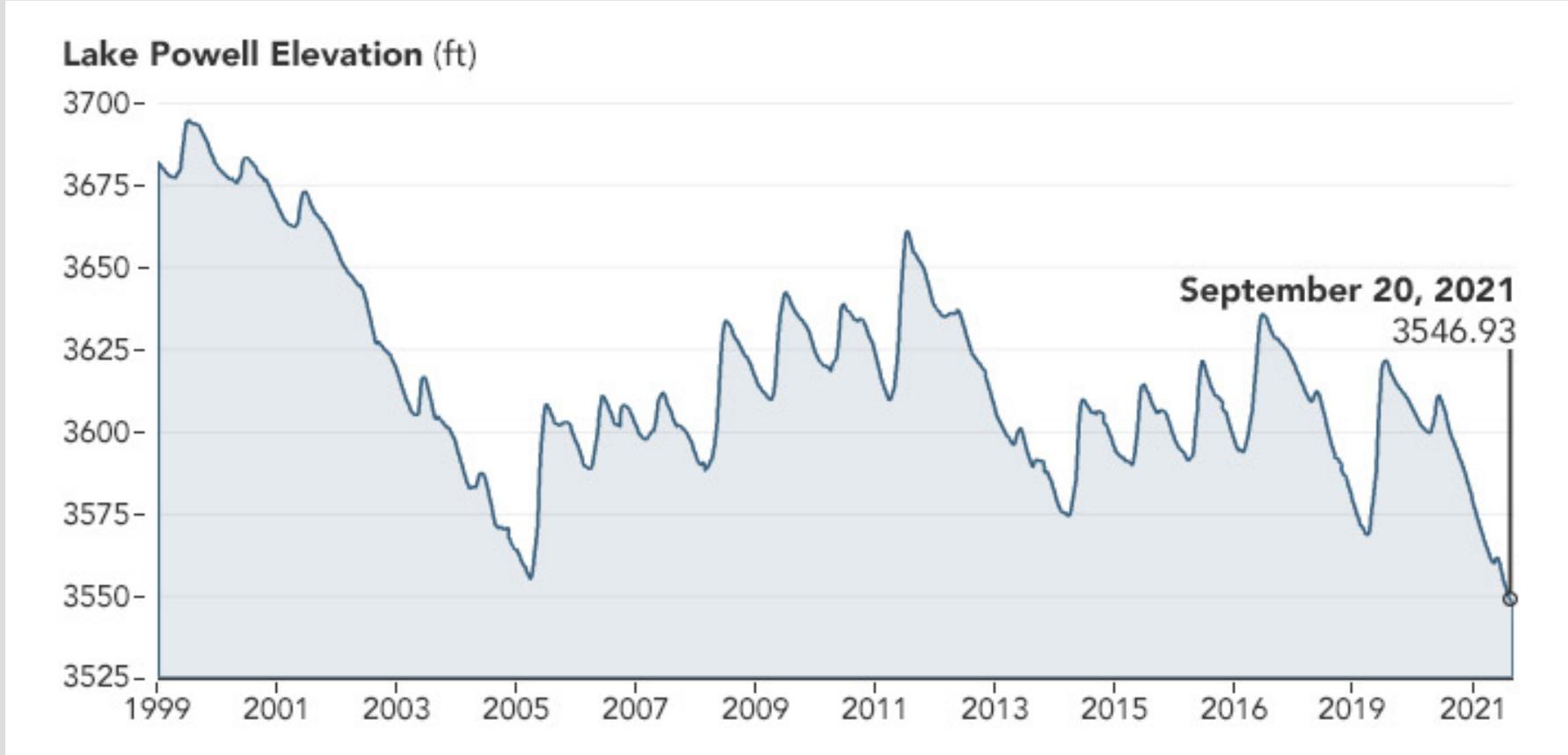
16
Biologically Meaningful
Timeframe of 16 years
(see Tables 19 and 20)

Time (years in future)



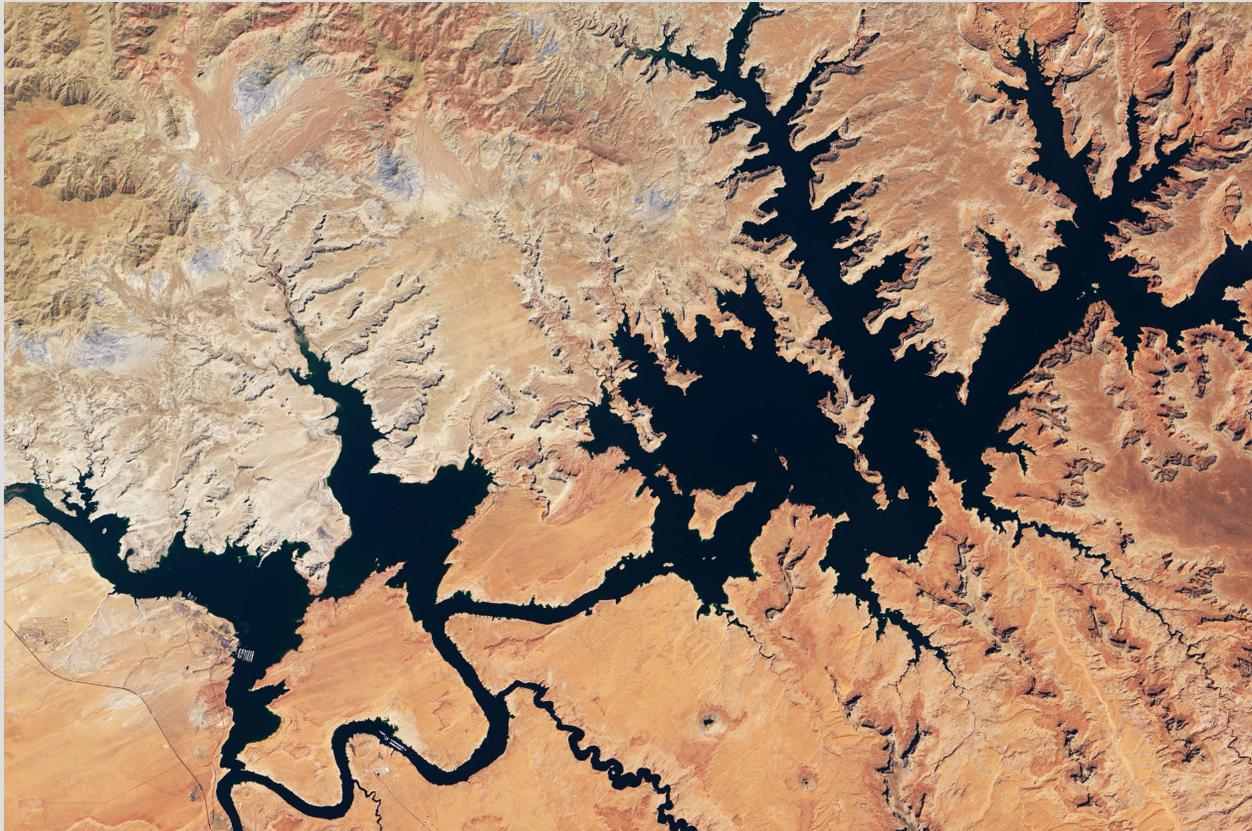
D0 D1 D2 D3 D4

U.S. Drought Monitor
Colorado River Basin

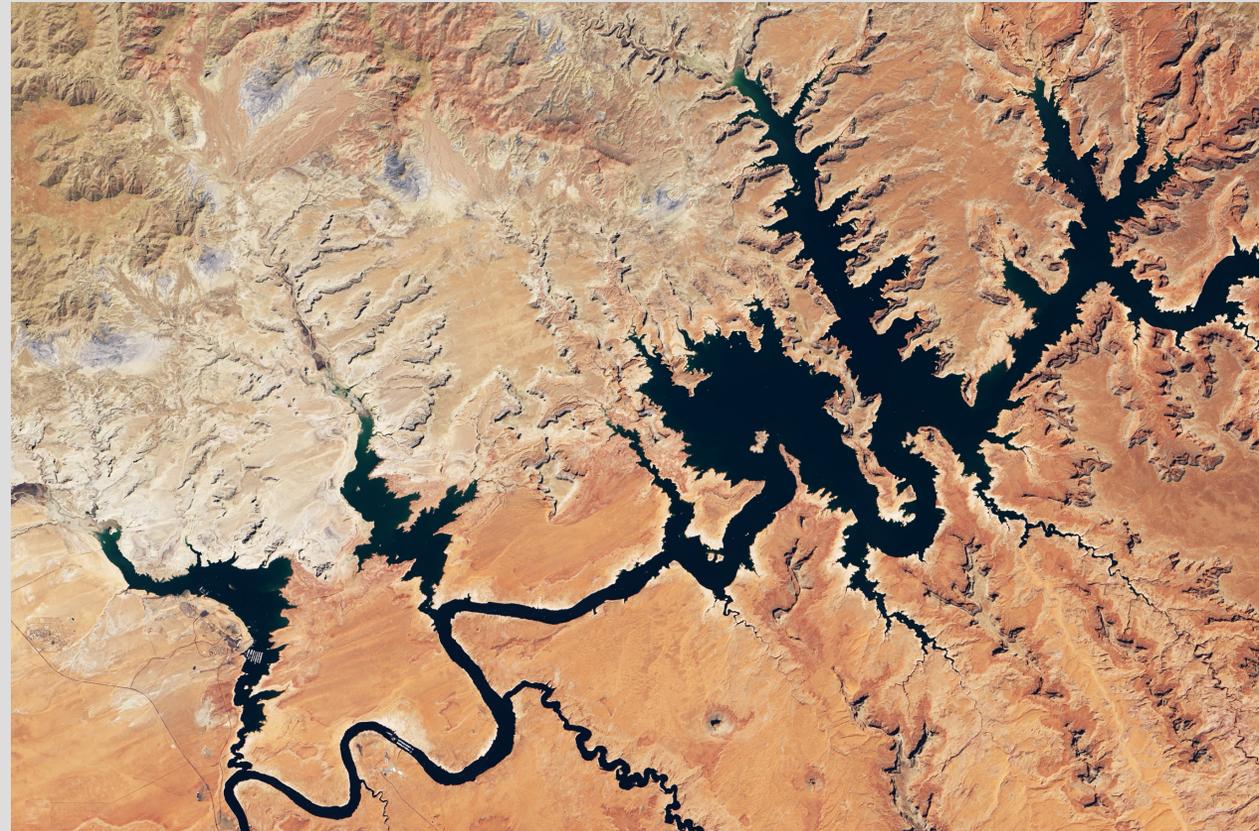


Source: NASA Earth Observatory

NASA Satellite images of Lake Powell in:

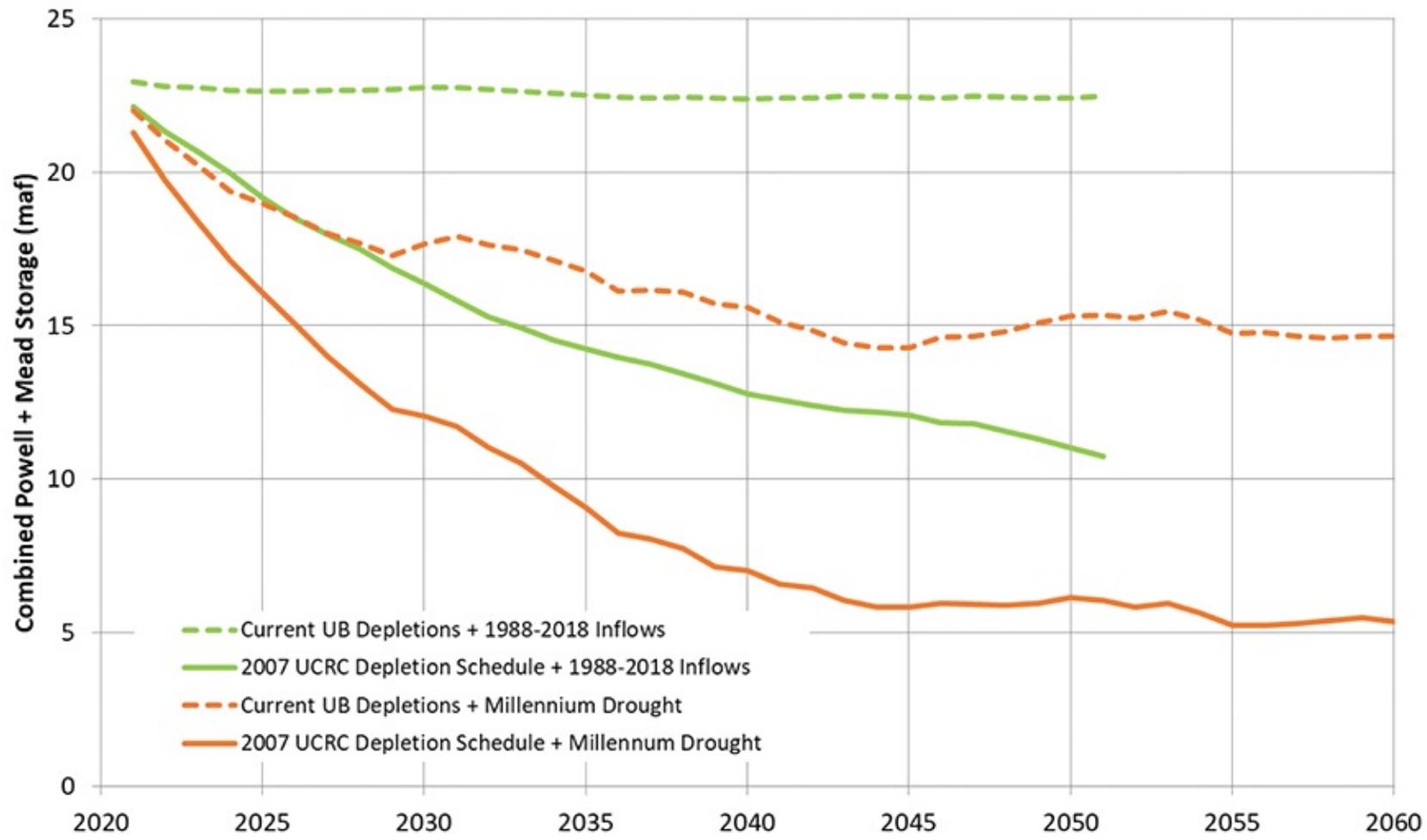


2017



2021

Combined reservoir storage comparing current depletions and 2007 UCRC Upper Basin depletion schedules under recent hydrologic conditions



Source: Wheeler et al., USU Center for Colorado River Studies (2021)

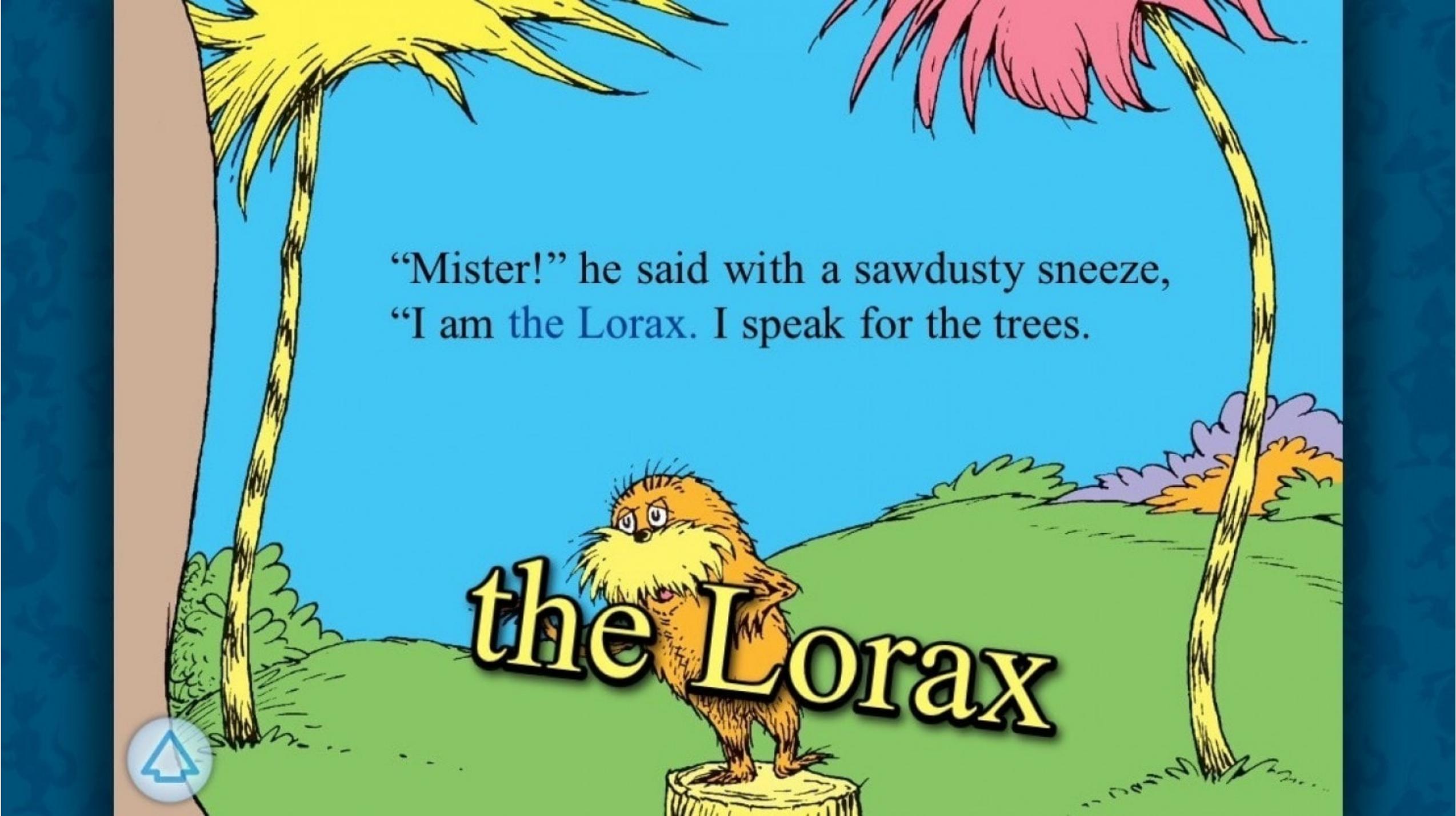
ASSESSMENT OF RESTORATION EFFORTS

- **Stopped the bleeding** but haven't restored the patient's health
 - **Fragmented** rather than basin wide approach
 - **Some efforts episodic** (especially occasional restoration flows)
- **Constrained** by the status quo:
 - Physical infrastructure
 - Climate (can't address in Colorado River Basin alone)
 - ***Legal primacy of the Colorado River Compact and its human goals.***

RIGHTS OF NATURE THEORY

- Components of nature (species, ecosystems) have rights that deserve legal recognition and protection.
- Key legal issues:
 - At what level(s): individual animals v. species v. assemblages of species v. ecosystem components (rivers, lakes)?
 - What protection relative to other legally recognized rights?
 - Who represents and vindicates?

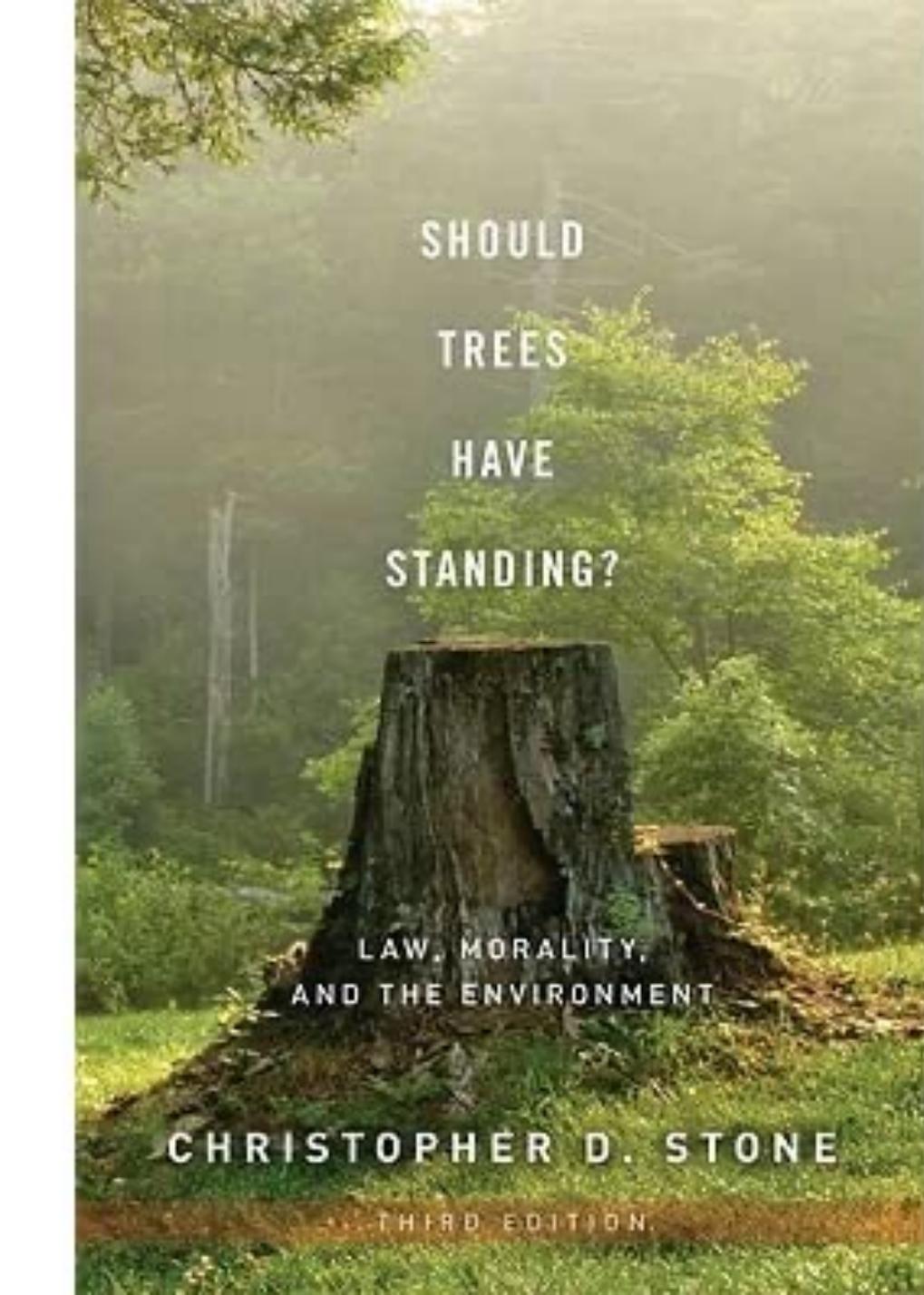


The illustration shows the Lorax, a small, brown, furry creature with a large white beard, standing on a tree stump. He is looking towards the viewer with a serious expression. In the background, there are two trees: one with yellow leaves on the left and one with pink leaves on the right. The ground is green with some bushes. The sky is blue.

“Mister!” he said with a sawdusty sneeze,
“I am the Lorax. I speak for the trees.

the Lorax





SHOULD
TREES
HAVE
STANDING?

LAW, MORALITY,
AND THE ENVIRONMENT

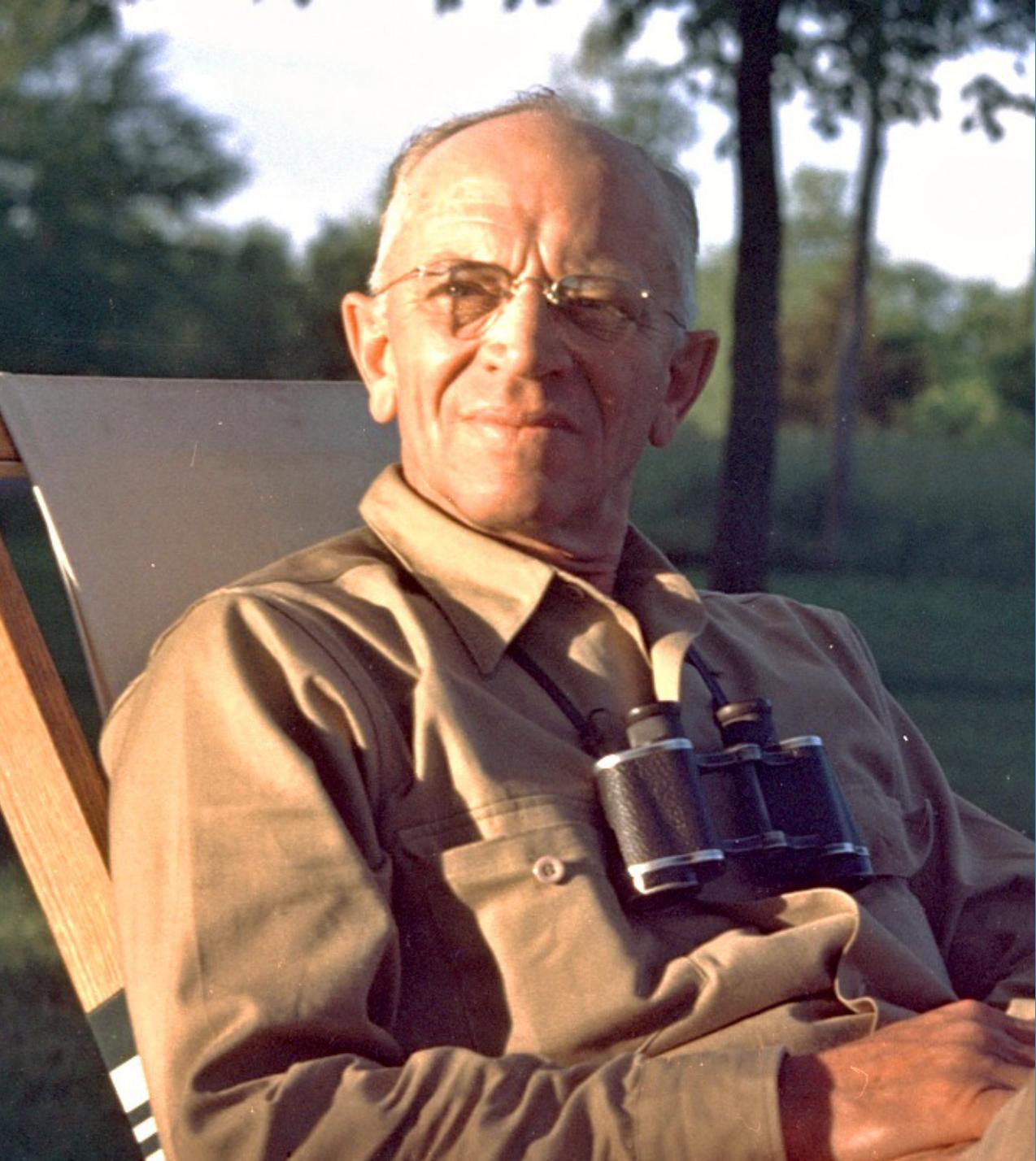
CHRISTOPHER D. STONE

THIRD EDITION

CHRISTOPHER STONE
*SHOULD TREES HAVE
STANDING?* (1972)

“Throughout legal history, each successive extension of rights to some new entity has been, theretofore, a bit unthinkable.”

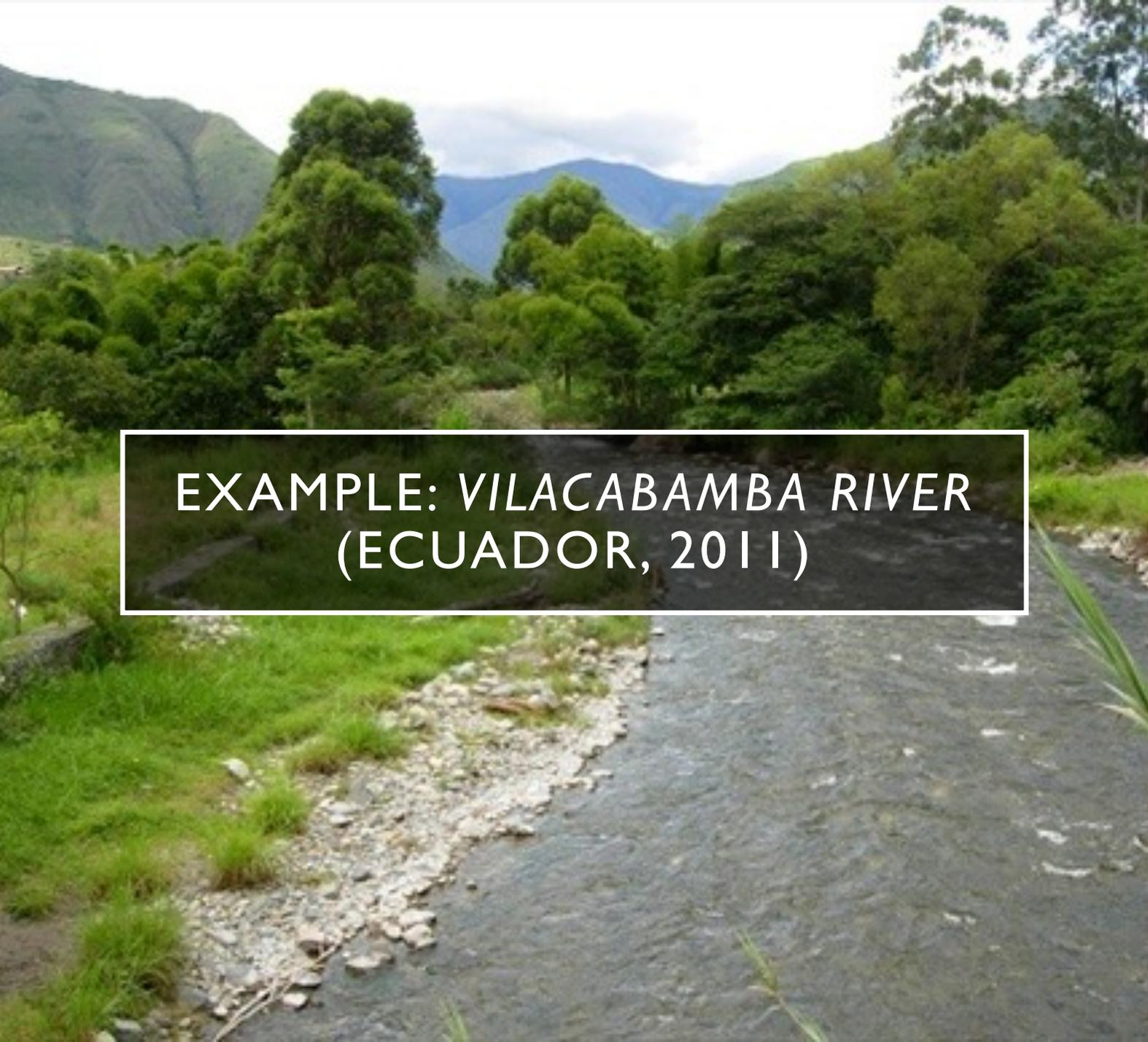
“I am quite seriously proposing that we give legal rights to forests, oceans, rivers, and other so-called ‘natural objects’ in the environment—indeed, to the natural environment as a whole”



ALDO LEOPOLD,
“THE LAND ETHIC”
FROM A SAND COUNTY ALMANAC
(1949)

“... Odysseus ... hanged all on one rope a dozen slave-girls of his household whom he suspected of misbehaving ... The girls were property. The disposal of property was then, as now, a matter of expediency, not of right and wrong.”

“There is yet no ethic dealing with man’s relation to land [and water] and to the animals and plants which grow upon it. Land [and water], like Odysseus’ slave-girls, is still property. The land-relation is still strictly economic”



**EXAMPLE: *VILACABAMBA RIVER*
(ECUADOR, 2011)**

Ecuadorian Constitution
ratifies rights of nature
recognized by indigenous
people:

Requires precautionary
measures

Shifts burden of proof to
polluters to demonstrate
lack of significant harm



EXAMPLE: WHANGANUI RIVER
(NEW ZEALAND, TE AWA
TUPUA ACT, 2017)

Grants the river the “rights, duties, powers, and liabilities of a legal person.”

Designates guardians to act as landowners of river bed (similar to U.S. public trust law) and to act and speak on behalf of the river.

United States District Court, D. Colorado.
**THE COLORADO RIVER ECOSYSTEM, a/n/f Deep Green Resistance, The Southwest
Coalition, Deanna Meyer, Jennifer Murnan, Fred Gibson, Susan Hyatt, Will Falk,**
Plaintiff,

v.

STATE OF COLORADO, Defendant.

No. 1:17-cv-02316.

September 25, 2017.

Complaint for Declaratory Relief

(Voluntarily dismissed)



COLORADO RIVER COMPACT PREDATED MODERN TRANSBOUNDARY WATER LAW

- 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (*Water Convention*)
- 1997 Convention on the Law of the Non-Navigational Uses of International Watercourses (*International Watercourses Convention*)
- 1997 Model Water Compact (Utton Transboundary Resources Center, UNM) (*Model Water Compact*)

PROPOSAL I: ADD PROTECTION AND RESTORATION GOALS

SOURCE

- *1992 Water Convention*: “ensure that transboundary waters are used with the aim of **ecologically sound and rational water management, conservation of water** resources and environmental protection” and to “ensure conservation and, where necessary, **restoration of ecosystems.**”

COMPACT AMENDMENTS

- Amend Art. I to add: “to **restore and protect the fish, wildlife, and other environmental resources** of the Colorado River system and its ecosystems.”
- Change “the storage of its waters” to “the **conservation** and storage of its waters.”

PROPOSAL 2: EQUALIZE COMPACT GOALS

SOURCE

- *1997 International Watercourses Convention*: “The weight to be given to each factor is to be determined by its importance in comparison with that of other relevant factors ... **all relevant factors are to be considered together** and a conclusion reached on the basis of the whole.”

COMPACT AMENDMENTS

- “The water use and allocation provisions of this Compact shall be implemented in ways that provide **equal consideration to** its basinwide **conservation, restoration, and protection** provisions.”

PROPOSAL 3: CREATE AN INCLUSIVE BASINWIDE COMMISSION

SOURCE

- *1997 International Watercourses Convention*: encourages “joint mechanisms or commissions” to promote and implement **comprehensive, collaborative basinwide management and protection**.

COMPACT AMENDMENTS

- Create **Colorado River Basin Commission**:
 - Basinwide conservation and restoration programs
 - Representation: international, federal, state, and tribal officials; environmental, recreation, water and power use, other key interests

PROPOSAL 4: REQUIRE INSTREAM FLOWS (AMOUNT AND TIMING)

SOURCE

- *1997 Model Water Compact*: suggests that states or interstate bodies define **minimum instream flows** to maintain “a health and productive Basinwide ecosystem in designated reaches of the system.”

COMPACT AMENDMENTS

- Amend Art. III to require the new basinwide commission to “develop and meet **targets for instream flow volumes and timing** to restore and protect the river’s ecosystems.”

PROPOSAL 5: EXPAND “BENEFICIAL USE”

SOURCE

- *1997 International Watercourses Convention*: states “shall, individually and, where appropriate, jointly, **protect and preserve** the **ecosystems** of international watercourses.”

COMPACT AMENDMENTS

- “The States of the Upper Division shall not withhold water, and the States of the Lower Division shall not require the delivery of water, which cannot reasonably be applied to beneficial use.”
- **Expand definition of “beneficial use” to include restoration and maintenance of fish and wildlife habitat.**

“GLEN CANYON SUBMERSUS” (1969)

”Silt pockets out of reach of flood were gardens of fern and redbud; every talus and rockslide gave footing to cottonwood and willow and single-leafed ash; ponded places were solid with watercress; maidenhair hung from seepage cracks in the cliffs.”

“In gaining the lovely and the usable, we have given up the incomparable. ... The wildlife that used to live comfortably in Glen Canyon is not there ... this reservoir ... leaves no home for beaver or waterbird,”

