

Managing Water Levels on the Upper Miss

SEPTEMBER 19, 2019

NATIONAL WATERWAYS CONFERENCE



Upper Mississippi River
Basin Association

UMRBA

- Regional interstate organization formed in 1981
- Facilitate dialogue and cooperative action
 - Navigation
 - Ecosystem health
 - Flooding
 - Clean Water



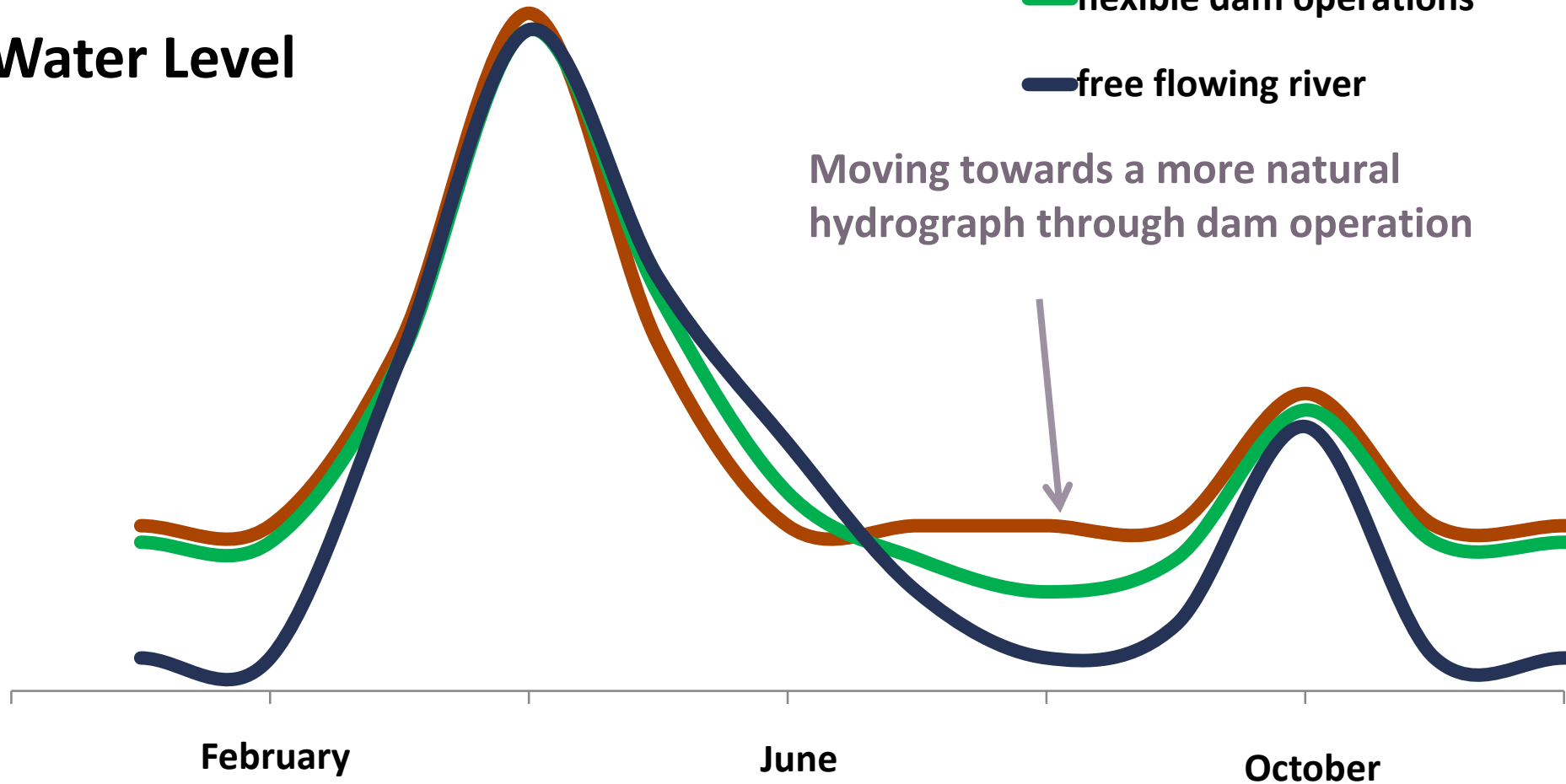
Managing Water Levels on the Upper Miss

1. 9-Foot Navigation Channel Remains
2. We've Got This
3. Arbitrary Hurdles are Inhibiting
4. Let's Work Smarter, Not Harder

Water Level

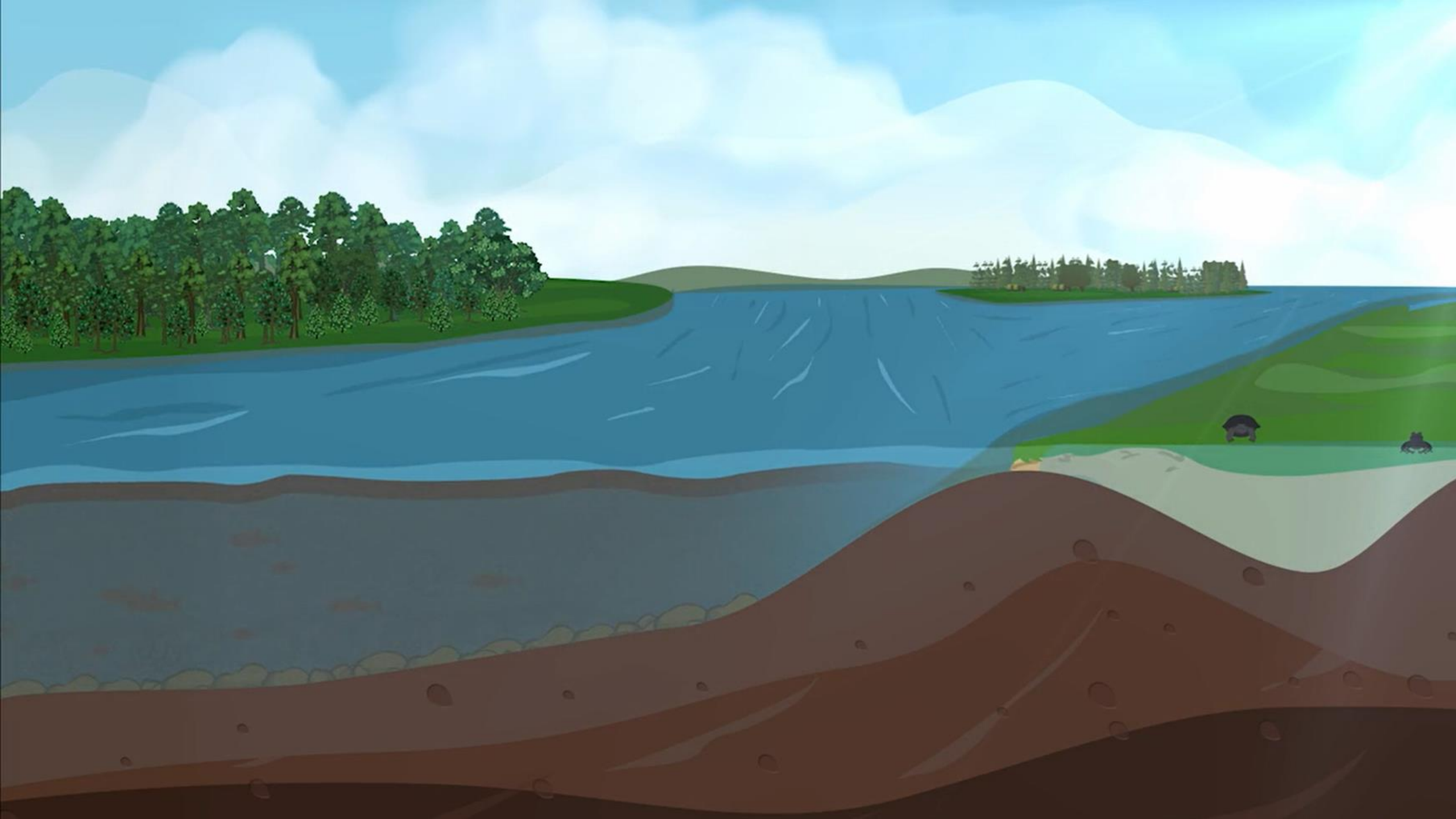
- current dam operations
- flexible dam operations
- free flowing river

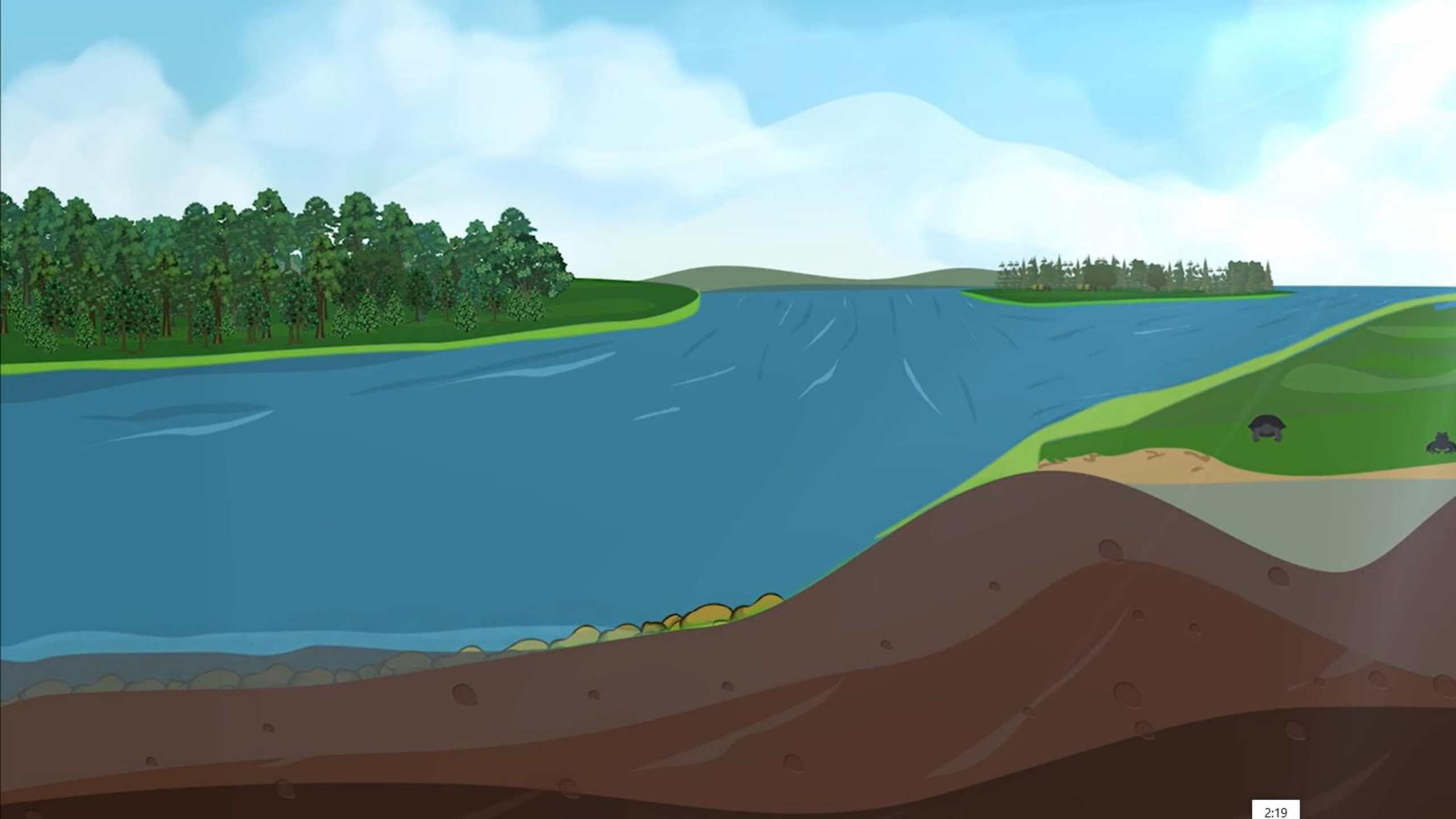
Moving towards a more natural hydrograph through dam operation



Rules

- 9-foot navigation channel remains primary purpose
 - High enough discharge needed
 - Dredging may be required (not paid by navigation)
- Environmental pool management cannot be done during floods
- Deviations from pool plans require environmental review



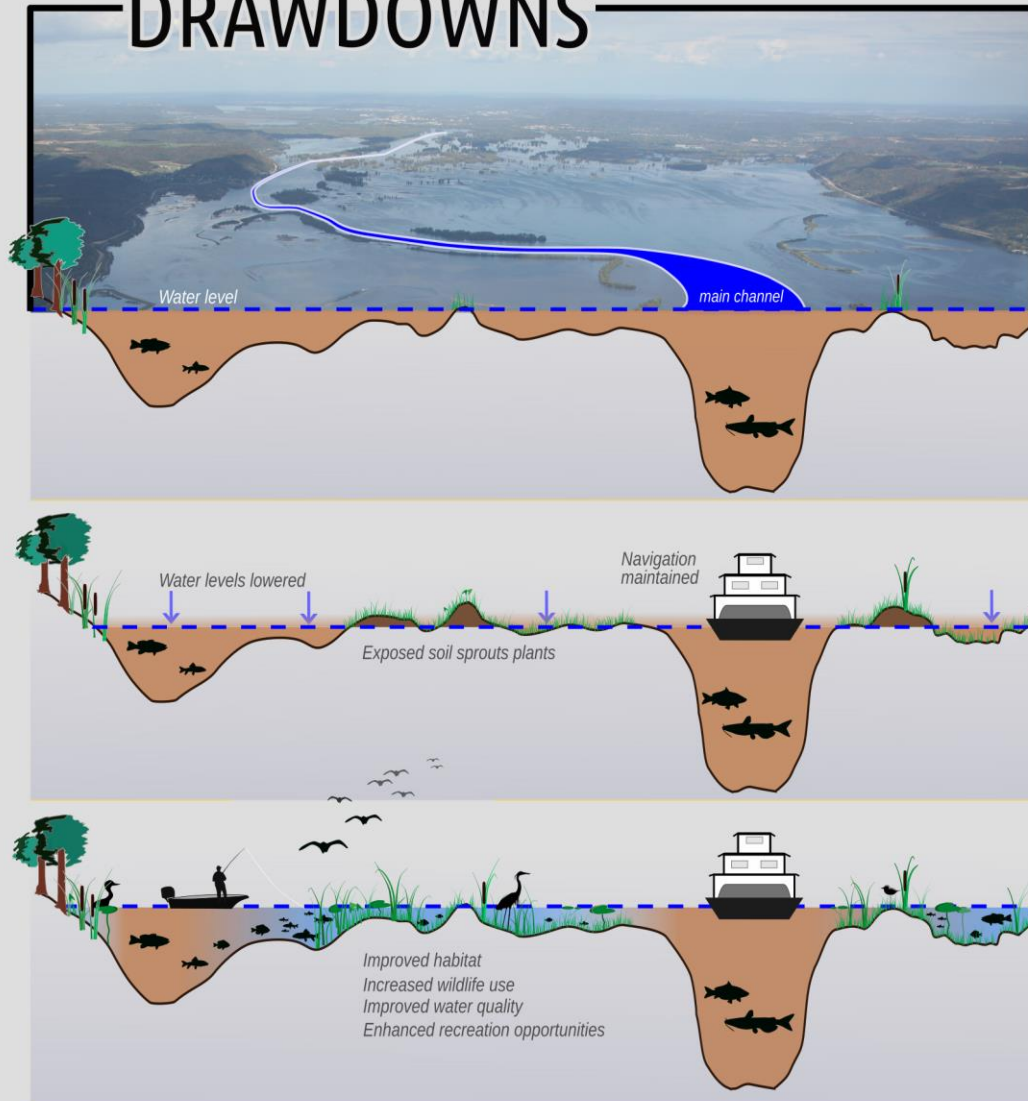






BENEFITS
of growing season

DRAWDOWNS



TYPICAL DRAWDOWN CYCLE

These figures show how a drawdown improves the river for humans, plants, and animals.

EXISTING CONDITIONS

Elevated, controlled water levels lead to large areas of shallow, open water



DRAWDOWN

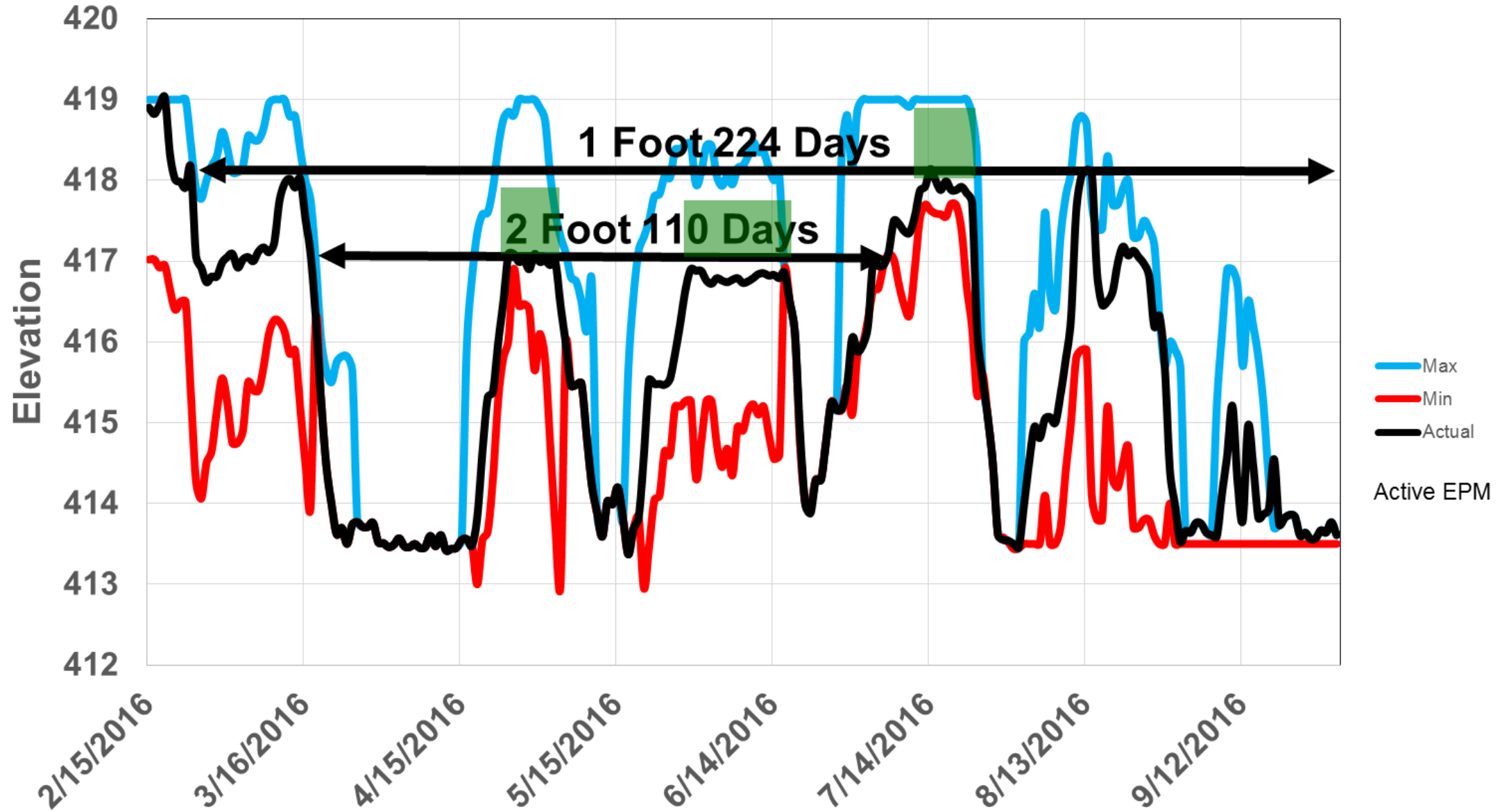
Water levels are lowered during the summer to increase variation in water levels and expose soils, while accommodating navigation



RESULTS

Water levels are restored.
Seeds germinate, plants filter water and provide habitat for fish and wildlife

Pool 26



One year, 3 pools = Over 1,500 acres of habitat



Engineering Regulation 1110-2-240

- Environmental Operating Principles
 - Foster sustainability as a way of life throughout the organization
 - Proactively consider environmental consequences of all Corps activities and act accordingly
 - Create mutually supporting economic and environmentally sustainable solutions

Policy Hurdles

- Deviation allowances
- Accounting for dredging
- Inflexible policy determinations

Let's Do Better

- An incremental, low-cost change to managing water levels can have a tremendous ecological benefit



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