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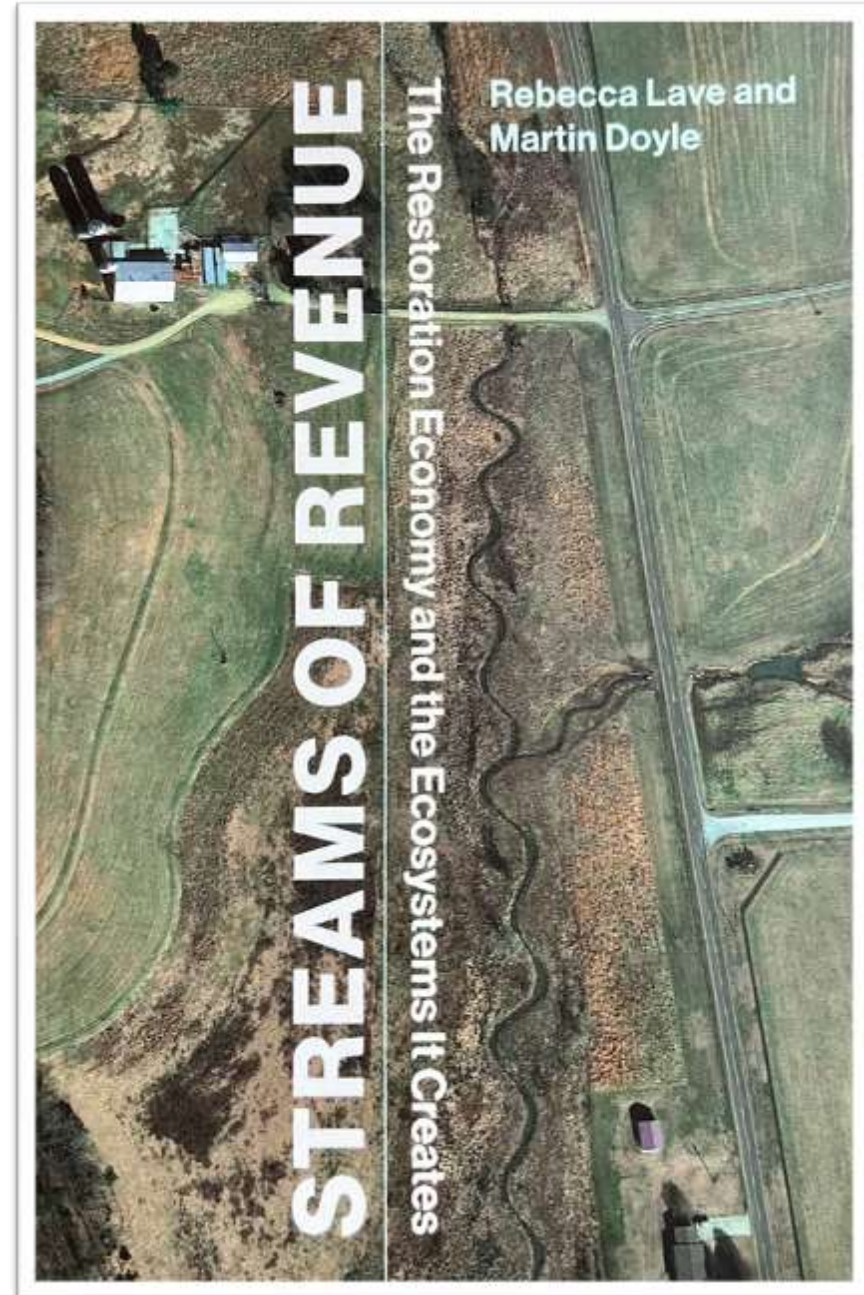
# Permitting Innovation: Challenges and Opportunities for Restoring Dynamic Stream Systems Under §404

August 23, 2023

National Stream Restoration Conference – Baltimore, MD

# Decades of Controversy

- Vocal opposition – just getting louder
- Past dialogue: 'right vs wrong', not common interests
- Streams of Revenue – the last match thrown at the tinderbox
- Walton Family Foundation & ERBA wanted to change the conversation



# Roundtable Overview

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- 25 stakeholder from multiple disciplines
  - Academics
  - Mitigation Bankers (includes technical stream experts)
  - In-Lieu Fee Programs
  - NGOs
  - State Government
  - EPA & Army Corps
- Held 2 multi-day in-person meetings and 4 virtual sessions
- Reached consensus on Problem Statement and Proposed Solutions
- Funded by Walton Family Foundation and ERBA
- Facilitated by the Meridian Institute and Moderated by Dr. Jim Salzman of UCLA Law





# Supporting Mitigation Outcomes Problem Statement Solutions

Section 404 of the Clean Water Act regulates navigable waters. Administering the 404 program issues permits that require appropriate mitigation nearby. Under the Section 404 stream conservation, which includes streams with wetlands. In recent years, new methodologies have been developed.

Between November 2022 and 2023, Meridian Institute, the Walton Family Foundation and Ecological Restoration Foundation, along with other non-profit organizations, and the Army Corps of Engineers, identified challenges to and opportunities for improving the Section 404 of the Clean Water Act. This Problem Statement articulates the mitigation program's operational goals.

This consensus document is intended to inform and propose a range of potential solutions. The Army Corps of Engineers and Meridian Institute will use the Problem Statement and Recommended Solutions to inform the mitigation program will require input from mitigation bankers, state and federal agencies, and others.

The following Problem Statement participants. The participants listed do not necessarily have a direct role in the mitigation program but members participated to inform the process.

## Participants

### PROBLEM STATEMENT CONSENSUS PARTICIPANTS

The following individuals participated in the 404 Stream Mitigation Roundtable process and reached consensus on the Problem Statement and Recommended Solutions.

#### Jeannette Blank

Project Manager  
Montana Stream and Wetland In-Lieu Fee Mitigation Program  
Montana Freshwater Partners

#### Brad Breslow

Senior Project Manager  
Davey Mitigation

#### Adam Davis

Managing Partner  
Ecosystem Investment Services

#### Martin Doyle

Professor, Nicholas School for the Environment  
Duke University

#### Matthew Gause

Director, Ecological Resources and Land Stewardship  
Westervelt Ecological Services

#### Brian Graber

American Rivers

#### Sara Johnson

Executive Director  
Ecological Restoration Business Association

#### Greg Kernohan

Conservation Director, Ecosystem Services  
Ducks Unlimited

#### Rebecca Lave

Professor, Department of Geography  
Indiana University  
President, American Association of Geographers

#### Tim Male

Executive Director  
Environmental Policy Innovation Center

#### Adam Riggsbee

President  
RiverBank Conservation

#### Eileen Shader

American Rivers

#### Bob Siegfried

Senior Project Manager  
Resource Environmental Solutions, LLC

#### Amy Singler

American Rivers

#### Peter Skidmore

Senior Program Officer  
Walton Family Foundation

#### Jeremy Sueltenfuss

Assistant Professor, Department of Forest, Rangeland Stewardship  
Colorado State University

#### Greg Sutter

General Manager, Emeritus  
Westervelt Ecological Services

#### David Urban

Managing Director  
Ecosystem Investment Partners

## FEDERAL AND STATE AGENCY PARTICIPANTS

The following Federal and State agency members participated in the 404 Stream Mitigation Roundtable to inform deliberations. They have not signed off on the documents from the consensus process; these findings and recommendations are being delivered by non-agency participants.

#### Tom Cavanaugh

Regulatory Program Manager  
US Army Corps of Engineers

#### Gordon Grant

Research Hydrologist, USDA Forest Service,  
PNW Research Station  
Courtesy Professor, OSU College of Earth Ocean  
and Atmospheric Sciences

#### Joe Morgan

Life Scientist, Water Division - Wetlands Section  
Environmental Protection Agency, Region 9

#### David Olson

Regulatory Program Manager  
US Army Corps of Engineers

#### Jim Stanfill

Deputy Director, Division of Mitigation Services  
North Carolina Department of Environmental  
Quality

#### Brian Topping

Environmental Protection Specialist, Office of  
Wetlands, Oceans and Watersheds  
US Environmental Protection Agency

#### Sarah Woodford

Mitigation Specialist  
Virginia Department of Environmental Quality

## FINANCIAL AND TECHNICAL SUPPORT

This consensus building process was financially supported by the Walton Family Foundation and Ecological Restoration Business Alliance. Facilitation and other support was provided by Meridian Institute, including the following individuals:

#### Carly Campana

Project Associate and Ruckelshaus Fellow  
Meridian Institute

#### Robyn Paulekas

Senior Mediator and Program Manager  
Meridian Institute

#### James Salzman

Bren Distinguished Professor of Law  
UCLA Law School  
UCSB Bren School of Environmental Science & Management

# Consensus Problem Statement

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- **Finding 1** – Full range of stream restoration approaches not being used in 404 program
- **Finding 2** – current emphasis on channel form and stability for mitigation review process creates barriers to proposing alternative approaches
- **Finding 3** – Current planning, monitoring and evaluation overemphasize metrics tied to channel form and stability instead of a suite of physical, biological, and chemical processes which support ecological outcomes
- **Finding 4** – Current mitigation training resources do not cover a broad range of stream restoration approaches
- **Finding 5** – Existing policy mechanisms allowing flexibility to apply a range of restoration approaches are underutilized

# Consensus Proposed Solutions

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- **A. Learning and Training**

- Build greater IRT awareness of alternative restoration approaches
- Develop training programs and resources

- **B. Measuring, Permitting, and Crediting**

- Ensure direct measurement of ecological processes
- Use ecological process performance on credit releases
- Prioritize restoration of ecological processes
- Incentivize a watershed approach

- **C. Regional and Watershed Approaches**

- Provide watershed approach guidance with permit writers
- Support watershed plan development



# Consensus Proposed Solutions Con't

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- D. Joint Guidance and/or Regulatory Guidance Letters

- Direct districts to develop policies and procedures for permitting alternative approaches for stream mitigation
- Incentivize early and durable achievement of ecological performance standards through credit release schedules
- Clarify the watershed approach, the bounds of in-kind mitigation considerations, the flexibility of the watershed approach, and how it can be applied to support alternative approaches to stream mitigation

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