Stream Restoration Quarterly Learning Session Package

Prepared for:: Chesapeake Bay Trust

Topic:: Science-Based Guidance for Stream Restoration

Date:: January 2026

Prepared by:: akorn environmental consulting

Package Contents

Run of Show Document

Quarterly Learning Session: Stream Restoration Science in Practice

Duration:: 90 minutes

Format:: Virtual webinar with Q&A

Platform:: Zoom (or preferred webinar platform)

Expected Attendance:: 75-150 participants

Pre-Event (1 Week Before)

Tasks:

- Send calendar invite with Zoom link
- Email participants the pre-read: link to interactive resource
- Email PI presenter with finalized slides and logistics
- Test Zoom settings (recording, polls, Q&A enabled)
- Prepare Mentimeter/Slido polls if using
- Load all presentations into shared drive
- Brief moderator and all speakers
- Prepare backup plan for technical issues

Pre-Read Materials to Send:

- Link to Stream Restoration interactive: [URL]
- One-pager summarizing key findings
- Instructions: "Spend 10 minutes reviewing the 6 key takeaways before the session"

Event Flow (90 minutes total)

Welcome & Housekeeping (5 minutes) | 0:00-0:05

Speaker:: CBT Staff/Moderator

Script:

"Good [morning/afternoon], everyone, and welcome to today's Quarterly Learning Session on Stream Restoration Science in Practice. My name is [Name] with the Chesapeake Bay Trust.

Before we dive in, a few housekeeping items:

• This session is being recorded and will be shared with registered participants

• Please use the Q&A function to submit questions—we'll address them at the end

• If you have technical issues, use the chat to reach our support team

• We'll take a quick poll midway through to check understanding

Today's session draws from a decade of research funded through our Pooled Monitoring Initiative's Restoration Research Program. We've synthesized findings from 18+ peer-reviewed studies into actionable guidance, and we'r

Our agenda today:

• 0-5 min: Welcome (that's now)

• 5-35 min: PMI Science Synthesis Overview

• 35-55 min: Practitioner Spotlight featuring [PI Name]

• 55-85 min: Q&A and Discussion

• 85-90 min: Wrap-up and Next Steps

Let's get started!"

Moderator Actions:

- Start recording
- Share screen with title slide
- Launch first poll: "What's your primary role?" (watershed manager, consultant, regulator, researcher, other)

PMI Science Synthesis Overview (30 minutes) | 0:05-0:35

Speaker:: CBT Staff or Lead Synthesis Author (Seth Theuerkauf or designee)

Slides:: 15-20 slides (see detailed outline below)

Content Blocks:

Context Setting (5 min)
• What is PMI-RRP?
• Why stream restoration science matters
• Scope of this synthesis
Key Finding #1: Effectiveness is Context-Dependent (5 min)
• Headwater vs. lowland performance
• Role of impervious cover
• Modeling insights on scale
Key Finding #2: Monitoring Design Matters (5 min)
• Statistical power requirements
• Storm event sampling needs
• Why "null results" are often monitoring artifacts
Key Finding #3: Managing Trade-offs (10 min)
• Tree removal impacts and recovery timeline
• Iron mobilization (aesthetic vs. ecological)
• Wet vs. dry construction
• Ecological expectations
Practical Takeaways (5 min)
• Site selection guidance
• Monitoring recommendations
• Design considerations
• Where to learn more

Speaker Notes:

"Keep the tone practical, not academic. Use specific numbers and examples. Pause for questions via the Q&A at minute 20 if time allows."

Interactive Poll #1 (2 minutes) | 0:35-0:37

Moderator leads quick pulse check

Poll Question:

"Based on what you just heard, which finding is most relevant to your current projects?"

- Monitoring duration requirements
- Site selection criteria
- Tree removal trade-offs
- Ecological expectations
- Other

Moderator Action:: Briefly share poll results: "Great! Looks like monitoring duration is top of mind for many of you. Let's hear from [PI] about how they addressed this in their research..."

Practitioner Spotlight: Deep Dive with PMI PI (20 minutes) | 0:37-0:57

Speaker:: Recommended PMI Principal Investigator (see PI selection guidance below)

Slides:: 10-12 slides

Presentation Structure:

The Research Question (3 min)
- What prompted this study?
- What gap were we trying to fill?

Study Design & Methods (4 min)
- Site selection and characteristics
- Monitoring approach
- Statistical methods

Key Findings (8 min)
- Primary results with visuals (charts, photos)
- Unexpected discoveries
- How findings compare to prior assumptions

Management Implications (3 min)
- What should practitioners do differently?
- What questions remain?

Resources (2 min)
- Where to find the full paper
- Related PMI studies
- Contact info for follow-up

Recommended Speakers (in order of priority):

Solange Filoso (UMCES) - Stream restoration effectiveness in Coastal Plain

- Topic: Why context matters in restoration performance
- Appeal: Directly addresses site selection decisions

Victoria Beauchamp (Towson University) - Legacy sediment removal & floodplain reconnection

- Topic: Tree trade-offs and vegetation recovery
- Appeal: Practical guidance on balancing competing goals

Robert Hilderbrand (UMCES) - Ecological expectations in urban streams

- Topic: Setting realistic biological recovery goals
- Appeal: Helps manage stakeholder expectations

Dianna Liang & Sujay Kaushal (UMD/UMBC) - Monitoring design & statistical power

- Topic: How to design monitoring that actually detects change
- Appeal: Solves a universal practitioner pain point

Speaker Coordination:

- Send slide template 2 weeks in advance
- Request draft slides 1 week in advance
- Schedule 30-min prep call 3 days before event
- Emphasize: "Make it practical, not academic—practitioners want to know WHAT TO DO"

Q&A and Discussion (28 minutes) | 0:57-1:25

Moderator:: CBT Staff

Panelists:: Synthesis presenter + PI + CBT program staff (optional: additional PI)

Q&A Format:

Pre-submitted questions (first 10 min)

- Address questions submitted during registration
- Prioritize themes that emerged from polls

Live Q&A (15 min)

- Questions submitted via Q&A function
- Moderator curates and reads aloud
- Panelists respond (keep answers to 2 min max)

Rapid Fire Round (3 min)

- Quick clarifying questions
- Yes/no or very brief answers

Moderator Tips:

- Group similar questions together
- If chat is very active, assign a co-moderator to monitor
- Have 3-4 backup questions ready in case submissions are slow
- Keep panelists on time—politely interrupt if needed

Sample Backup Questions:

- "What's the #1 thing practitioners get wrong about restoration monitoring?"
- "If you had to pick ONE metric to monitor post-restoration, what would it be?"
- "What's a restoration 'myth' this research debunks?"
- "Where do you see restoration science heading in the next 5 years?"

Wrap-Up & Next Steps (5 minutes) | 1:25-1:30

Speaker:: CBT Staff/Moderator

Script:

"Thank you all for such great questions and engagement today. Before we close, a few action items:

RESOURCES:

- *Recording will be emailed within 48 hours*
- *Interactive resource: [URL]*
- *Full PMI study library: [URL]*
- *Today's slide deck: [URL]*

NEXT STEPS FOR YOU:

- *Review the interactive guidance and identify 1-2 takeaways to apply to your current projects*
- *Share this resource with colleagues who would benefit*
- *If you have follow-up questions, email [contact]*

UPCOMING LEARNING SESSIONS:

- *[Month]: Topic TBD (survey to follow)*
- *We're considering: BMP performance, climate adaptation, monitoring innovations*

FEEDBACK:

• Brief survey will arrive via email tomorrow—please take 2 minutes to complete it

• Your input shapes future sessions

Thank you to our presenters, [names], and thank you all for joining. Stay tuned for the recording and have a great rest of your day!"

Moderator Actions:

- Stop recording
- Display thank you slide with resources
- Stay on for 5 min to answer lingering questions in chat

Post-Event (Within 48 hours)

Tasks:

- Edit and upload recording to YouTube or Vimeo
- Email recording link + slides to all registrants
- Email thank you to presenters with attendance metrics
- Distribute post-event survey (3-5 questions max)
- Log attendance for continuing education credits (if applicable)
- Add recording link to interactive resource page
- Post highlights on social media

Post-Event Survey Questions:

On a scale of 1-5, how valuable was this session?

What was the most useful takeaway for you?

What topics would you like covered in future sessions?

Would you recommend this series to a colleague? (Yes/No)

Optional: Any other feedback?

Slide Deck Outline

PMI Science Synthesis Presentation (30 minutes)

Title Slide

- Title: Stream Restoration Science in Practice: A Decade of PMI Research
- Subtitle: Chesapeake Bay Trust Quarterly Learning Session
- Date: [Date]
- Presenter: [Name, Title]
- Logos: CBT, PMI-RRP badge

Slide 2: Agenda

Title:: Today's Learning Objectives

By the end of this session, you'll be able to:

- ■ Explain why site selection matters for restoration effectiveness
- ■ Design monitoring programs with sufficient statistical power
- ■ Manage trade-offs between competing restoration goals
- ■ Set realistic expectations for ecological recovery
- ■ Access comprehensive guidance for your projects

Slide 3: What is PMI-RRP?

Title:: Pooled Monitoring Initiative - Restoration Research Program

Content:

- Mission: Address scientific uncertainties around restoration effectiveness through targeted, policy-relevant research
- Approach: Coordinate funding across multiple projects to answer big-picture questions
- Timeline: 2010-present (14 years)
- Investment: $X million in [X] studies
- Output: 18+ peer-reviewed publications + practitioner guidance

Visual:: Timeline graphic or map showing study locations

Talking Points:

- "This isn't just academic research—every study was designed to answer questions practitioners and regulators actually have."
- "We're synthesizing findings across multiple independent studies to identify consistent patterns."

Slide 4: Why Stream Restoration Science Matters

Title:: The Challenge

Content (3 columns):

Column 1: The Need

- Core tool for watershed management
- Required for regulatory compliance (TMDL, MS4)
- Growing investment: $X million/year in Chesapeake region

Column 2: The Uncertainty

- Variable outcomes across projects
- Unclear monitoring requirements
- Competing design objectives
- Stakeholder expectations vs. reality

Column 3: The Solution

- Evidence-based site selection
- Appropriate monitoring design
- Managing trade-offs strategically
- Tiered success metrics

Visual:: Photo of stream restoration project (before/after split or aerial)

Slide 5: Synthesis Scope

Title:: Six Critical Topics

Content:

- Effectiveness: What works, where, and why
- Monitoring: Designing studies that detect change
- Tree Trade-offs: Balancing carbon inputs and floodplain function
- Iron Mobilization: Aesthetic vs. ecological concerns
- Construction Methods: Wet vs. dry approaches
- Ecological Uplift: Setting realistic biological recovery goals

Visual:: Icon for each topic

Slide 6: Topic 1 - Effectiveness is Context-Dependent

Title:: Not All Sites Perform Equally

Key Findings:

- ■ Headwater streams: Consistent nitrogen reductions
- ■■ Larger lowland systems: Variable, often weak responses
- ■ Impervious cover: Dominant control remains regardless of restoration

Management Takeaway:

"Prioritize headwater & small-watershed projects for nutrient reduction goals. Exercise caution crediting large, low-gradient systems."

Visual:: Map or diagram showing headwater vs. lowland performance

Talking Points:

- "This isn't about restoration 'not working'—it's about matching expectations to context."
- "Modeling shows 4th-order streams CAN deliver benefits, but at much higher cost and with more constraints."

Citations:: Filoso 2020, Hester & Scott 2024

Slide 7: The Numbers - Nitrogen Reduction

Title:: Where Do We See Consistent N Reductions?

Visual:: Chart or infographic

Data to Display:

- Headwater streams (<10 sq mi drainage, <10% impervious):
- ■ Detectable reductions in 70%+ of studies
- Average TN load reduction: 15-40% (site-specific)
- Larger lowland streams (Coastal Plain, >20 sq mi):
- ■■ Detectable reductions in <40% of studies
- High variability even with extensive monitoring

Bottom Line:: "Site selection matters as much as project design."

Slide 8: Topic 2 - Monitoring Design Matters

Title:: Why "Null Results" Are Often Monitoring Artifacts

The Problem:

- Many restoration studies report "no detectable effect"
- BUT: Is that because restoration didn't work, or because monitoring wasn't sufficient?

PMI Finding:

Insufficient monitoring is the primary culprit.

Visual:: Two side-by-side graphics

- ■ Insufficient: <3 years, <10 storm events/year
- ■ Sufficient: 3-5 years, 30-50 storm events total

Talking Points:

- "Bayesian power analyses show that typical monitoring programs lack the statistical power to detect real changes."
- "Hydrologic variability masks signals unless you sample strategically over multiple years."

Citations:: Liang et al. 2019, Filoso 2020

Slide 9: Statistical Power 101

Title:: What Does "Sufficient" Monitoring Look Like?

Visual:: Decision tree or flowchart

If your goal is...

Crediting nutrient load reductions:

- ■ 3-5 years post-restoration
- ■ 30-50 storm events sampled
- ■ Paired controls or robust BACI design
- ■ Flow-weighted sampling

Evaluating habitat improvements:

- ■ 2-3 years may suffice
- ■ Compare to reference conditions
- ■ Document geomorphic metrics

Adaptive management decisions:

- ■ Shorter term acceptable
- ■ Focus on hydrologic response
- ■ Iterate based on early data

Management Takeaway:

"Align monitoring investment with decision needs. Don't underfund monitoring and then blame the restoration."

Slide 10: Topic 3 - Tree Trade-offs

Title:: Managing Vegetation Impacts

The Dilemma:

Tree removal for floodplain reconnection:

- ■ Reduces carbon inputs for denitrification by up to 80%
- ■ Increases non-native plant invasion risk (37% cover average, 8-29 years post-restoration)
- ■ Enables hydrologic connectivity and long-term biogeochemical function
- ■ Soil recovery occurs over 10-20 years with proper management

Visual:: Timeline showing impact trajectory

- Year 0: Tree removal
- Years 1-3: Carbon deficit, invasives establish
- Years 5-10: Gradual soil recovery
- Years 10-20: Approach reference conditions (if managed)

Management Strategies:

Limit clearing extent where possible

Retain canopy refugia

Plan for post-construction revegetation

Budget for invasive species management

Use reference sites to guide planting design

Citations:: Wood et al. 2022, Barney et al. 2025, Galella et al. 2025

Slide 11: Topic 4 - Iron Mobilization

Title:: Aesthetic Issue, Not Ecological Failure

Common Concern:

"That restored stream has orange/rusty water—something went wrong!"

PMI Finding:

- ■ Elevated iron concentrations (2-5 mg/L) are common in RSC and other restored systems
- ■ Driven by groundwater geochemistry, not construction failure
- ■ No consistent biological impairment attributable to iron alone (controlling for urban stressors)
- ■■ It's a perception/aesthetic issue, not an ecological problem at observed concentrations

Visual:: Photo of iron flocculation (orange water) + chart showing no correlation between iron levels and biological metrics

Management Takeaway:

"Treat iron mobilization as a communication and public perception issue. Maintain routine monitoring of iron speciation and dissolved oxygen, but don't panic."

Citation:: EA Engineering 2021

Slide 12: Topic 5 - Wet vs. Dry Construction

Title:: Challenging the "Work in the Dry" Requirement

Standard Practice:

Stream restoration projects typically required to be constructed "in the dry" (divert flow during construction).

PMI Findings:

- ■ Dry construction reduces sediment loads vs. wet construction
- ■■ BUT: Sediment loads from wet construction are typically <1% of annual pre-restoration export
- ■■ Comparable to loads from a small storm
- ■ No consistent difference in biological impacts when BMPs are applied
- ■ Dry construction adds ~5-10% to project costs; efficiency gains are modest (~9-15%)

Management Takeaway:

"Consider conditional use of wet construction under site-specific performance standards where diversion is logistically difficult. But efficiency advantages are smaller than assumed."

Citations:: Straughan Environmental 2019, EA Engineering 2025

Slide 13: Topic 6 - Ecological Uplift

Title:: Set Tiered Expectations

The Challenge:

Habitat improvements ≠ guaranteed biological recovery

PMI Findings:

- ■■ Ecological uplift is constrained by watershed condition (impervious cover) and dispersal limitations
- ■ Benthic index improvements are small and site-specific
- ■ Physical habitat gains don't reliably translate to biological recovery when watershed stressors persist
- ■ eDNA can detect more taxa (including sensitive species) than traditional sampling

Framework: Tiered Expectations

Tier 1 (High-quality watershed context):

- <10% impervious, intact source populations nearby
- Goal: Biological recovery toward reference conditions

Tier 2 (Moderate degradation):

- 10-25% impervious, some source populations
- Goal: Incremental improvements in sensitive taxa

Tier 3 (Heavily urbanized):

- >25% impervious, isolated from sources
- Goal: Stable habitat, prevent further degradation

Visual:: Matrix showing impervious cover vs. recovery potential

Management Takeaway:

"Different streams have different recovery potential. Use restoration to create CONDITIONS that support biological recovery, not to guarantee uniform outcomes."

Citations:: Hilderbrand 2020, Southerland et al. 2017

Slide 14: Practical Takeaway #1 - Site Selection

Title:: Prioritization Checklist

For Nutrient Reduction Goals:

- ■ Headwater streams (drainage area <10 sq mi)
- ■ Low impervious cover (<10-15%)
- ■ Evidence of floodplain disconnection or legacy sediment
- ■ Sufficient baseflow contribution
- ■■ Be cautious: Large, low-gradient Coastal Plain systems

For Sediment Reduction Goals:

- ■ Floodplain reconnection opportunities
- ■ Storm event-dominated sediment export
- ■ Document pre-restoration TSS loads

For Ecological Goals:

- ■ Assess impervious cover threshold
- ■ Proximity to intact source populations
- ■ Set tiered expectations based on context

Slide 15: Practical Takeaway #2 - Monitoring Design

Title:: Recommendations by Objective

Visual:: Table format

Bottom Line:

"Invest in monitoring that matches your decision needs. Short-term monitoring = hydrologic metrics. Long-term monitoring = water quality and biological metrics."

Slide 16: Practical Takeaway #3 - Managing Trade-offs

Title:: Design & Permitting Considerations

Tree Removal:

- Budget for 10-20 year vegetation management
- Retain canopy refugia where feasible
- Use reference sites to guide revegetation
- Plan for invasive species control

Iron Concerns:

- Educate stakeholders upfront: "This is normal"
- Monitor iron speciation and dissolved oxygen
- Treat as communication issue, not ecological failure

Construction Methods:

- Default to dry construction where feasible
- Consider wet construction with performance standards if diversion is difficult
- Apply BMPs regardless of method

Slide 17: Where to Learn More

Title:: Access the Full Guidance

Interactive Resource:

- ■ URL: https://cbt-pmi-research-hub.onrender.com/interactives/stream-restoration
- Features: Copy-able citations, shareable content, mobile-friendly
- Content: 6 key takeaways, 6 implementation guidance sections, 14 references

PMI Study Library:

- ■ URL: cbtrust.org/grants/pooled-monitoring-initiative
- Full text of peer-reviewed publications
- Study summaries and data

Contact:

- Questions? Email: [contact email]
- Newsletter: Sign up for PMI updates

Slide 18: Discussion Prompt

Title:: Questions to Consider

Before we move to Q&A, think about:

- What's ONE change you'll make to your next restoration project based on today's findings?
- What monitoring challenge do you face that we haven't addressed?
- What restoration "myth" or assumption does your team need to reconsider?

We'll hear from [PI] next, then open up for your questions!

Slide 19: Transition to PI Presentation

Title:: Practitioner Spotlight

Introducing [PI Name]

- [Title], [Institution]
- PMI-RRP Study: [Study title]
- Research focus: [1-2 sentences]

Today's deep dive:

[Topic] - What we learned and what it means for practice

Slide 20: Thank You / Resources Slide

Title:: Thank You!

Presenter Contact:

- [Name], [Email]

Resources:

- Interactive guidance: [URL]
- PMI library: [URL]
- Recording: [Will be emailed within 48 hours]

Connect with us:

- Twitter: @cbtrust
- LinkedIn: Chesapeake Bay Trust
- Newsletter: [Sign-up link]

PI Presentation

Recommended Presentation: Dr. Solange Filoso

Topic:: Why Context Matters - Stream Restoration Effectiveness in Different Watershed Settings

Slide Outline (10-12 slides, 20 minutes)

Slide 1: Title

- Study: Evaluating the Effectiveness and Sustainability of Novel Stream Restoration Designs for Coastal Plain Streams in Maryland
- PI: Solange Filoso, UMCES Chesapeake Biological Laboratory
- Funding: CBT Pooled Monitoring Initiative

Slide 2: The Question

Why do some stream restoration projects show strong nutrient reductions while others don't?

What we knew:

- Restoration designs vary widely
- Outcomes are inconsistent
- Hard to predict success

What we needed to know:

- What watershed characteristics predict success?
- Can we identify site selection criteria?

Slide 3: Study Design

Approach:

- Sites: [X] stream restoration projects across Maryland
- Watershed contexts: Headwater vs. lowland; varying impervious cover
- Monitoring: [duration], [frequency]
- Metrics: Nitrogen, phosphorus, sediment loads

Visual:: Map of study sites

Slide 4: Key Finding #1

Context Determines Performance

Visual:: Chart showing nitrogen reduction by site type

Headwater streams (<10 sq mi, <10% impervious):

- ■ Consistent load reductions
- ■ Detectable within 2-3 years

Coastal Plain lowland streams (>20 sq mi):

- ■■ Variable responses
- ■■ Often undetectable despite extensive monitoring

Slide 5: Why Does This Happen?

Mechanisms:

Headwater advantages:

- Longer water residence time in floodplain
- Greater relative influence of restored reach
- Less dilution from upstream sources

Lowland challenges:

- Shorter contact time
- Larger watershed area overwhelms restoration signal
- Tidal influence complicates hydrology

Slide 6: Case Study - Success

[Site Name]

- Drainage area: [X] sq mi
- Impervious cover: [X]%
- Restoration type: [Legacy sediment removal, floodplain reconnection]

Outcomes:

- TN load reduction: [X]%
- TP load reduction: [X]%
- Improved hydrologic connectivity

Photos:: Before/after

Slide 7: Case Study - Limited Response

[Site Name]

- Drainage area: [X] sq mi
- Impervious cover: [X]%
- Restoration type: [Same as success case]

Outcomes:

- No detectable TN load change
- Modest improvements in peak flow attenuation
- Habitat improvements documented

Why the difference?: Watershed context

Slide 8: The Monitoring Challenge

Even "null results" had short monitoring periods:

- Typical: 1-2 years, <10 storm events
- Insufficient statistical power given hydrologic variability

Visual:: Graph showing monitoring duration vs. statistical power

Lesson:: Absence of evidence ≠ evidence of absence

Slide 9: Management Implications

FOR PRACTITIONERS:

1. Site Selection

- Prioritize headwater streams for N reduction goals
- Consider watershed-to-project-area ratio
- Assess impervious cover upfront

2. Crediting

- Don't over-credit large, low-gradient systems
- Require strong controls for Coastal Plain projects
- Consider alternative crediting for habitat vs. water quality

3. Monitoring

- Plan for 3-5 years minimum
- Budget for storm event sampling
- Use paired watershed or BACI designs

Slide 10: Unanswered Questions

What we still don't know:

- Optimal restoration extent relative to watershed area

- Long-term sustainability (10+ years post-restoration)
- Cumulative effects of multiple projects in a watershed

Ongoing research:

- [Related studies]
- Opportunities for collaboration

Slide 11: Resources

Read the full study:

- Citation: Filoso, S. (2020). [Full citation]
- Available at: [URL]

Related PMI studies:

- Hester & Scott 2024 (modeling restoration at scale)
- Thompson et al. 2018 (multiscale effects)

Contact:

- Email: [email]

Slide 12: Key Takeaway

Quote:

> "Stream restoration works, but WHERE you restore matters as much as WHAT you restore. Match your expectations to your watershed context."

Call to Action:

Review your current project pipeline—are you prioritizing sites with the best chance of success?

Facilitation Guide

Tips for Moderators

Before the Event

Review all content thoroughly

- Know the key findings cold
- Anticipate likely questions
- Prepare transition language between speakers

Tech check 30 minutes before

- Test screen sharing
- Verify recording settings
- Confirm panelists can access presentations

Set expectations with presenters

- Remind them of time limits
- Clarify how you'll signal time (chat message, hand signal)
- Confirm they'll watch Q&A and unmute when called on

During the Event

Energy & pacing

• Start strong with enthusiasm

• Transition smoothly between segments

• Keep energy up during Q&A

Managing Q&A

• Group similar questions: "We have several questions about monitoring duration..."

• Redirect off-topic questions: "Great question, but that's outside our scope today. Let's connect offline."

• If a question is unclear, rephrase: "So you're asking about [clarification], is that right?"

Time management

• Give 5-minute warning to presenters (via chat)

• If running over, politely interject: "This is great, but we need to move on for time. Let's take this offline."

• Prioritize pre-submitted questions if time is short

Handling technical issues

• Have co-host ready to troubleshoot

• If presenter's audio fails, read their slides while they reconnect

• Use chat for backup communication

After the Event

Debrief with team

- What worked well?
- What would you change?
- Any follow-up needed with participants or presenters?

Process feedback quickly

- Review survey responses within a week
- Identify themes for future sessions
- Thank presenters with specific positive feedback

Marketing & Registration Materials

Email Invitation (to send 3 weeks before)

Subject:: You're Invited: Stream Restoration Science in Practice (Quarterly Learning Session)

Body:

Dear [Name],

You're invited to the Chesapeake Bay Trust's Quarterly Learning Session:

■ *STREAM RESTORATION SCIENCE IN PRACTICE*

A Decade of PMI Research Findings

■ *DATE: [Day, Date]*

■ *TIME: [Time] EST*

■ *LOCATION: Virtual (Zoom link provided upon registration)*

WHAT YOU'LL LEARN:

■ *Why site selection matters for restoration effectiveness*

■ *How to design monitoring programs that actually detect change*

■ *Strategies for managing tree removal trade-offs*

■ *Setting realistic expectations for ecological recovery*

WHO SHOULD ATTEND:

• *Watershed managers*

• *Restoration practitioners*

• *Environmental consultants*

• *Regulatory staff*

• *Researchers*

• *Anyone involved in stream restoration planning or implementation*

AGENDA:

• *Science synthesis overview (30 min)*

• *Practitioner deep-dive with PMI researcher (20 min)*

• *Q&A and discussion (30 min)*

FEATURED PRESENTER:

Dr. [PI Name], [Institution]

[1-2 sentence bio]

This session synthesizes findings from 18+ peer-reviewed studies funded through the Pooled Monitoring Initiative's Restoration Research Program. You'll leave with actionable guidance you can apply to your projects immedi

REGISTER NOW: [Registration Link]

Space is limited to ensure interactive discussion. Register by [Date].

Questions? Contact [Name] at [Email].

We look forward to seeing you there!

Sincerely,

[Name]

Chesapeake Bay Trust

P.S. Can't make it? Register anyway to receive the recording and slides!

Social Media Promo Post

LinkedIn:

■ *REGISTRATION OPEN: Stream Restoration Science in Practice*

Join us for a deep-dive into a decade of research on what works, where, and why in stream restoration.

■ *[Date] | [Time] EST | Virtual*

In this 90-minute session, you'll learn:

• Site selection criteria that predict success

• Monitoring design requirements for detecting change

• Managing trade-offs (tree removal, iron mobilization, etc.)

• Setting realistic ecological expectations

Plus: Live Q&A with researchers from the Pooled Monitoring Initiative.

This is for watershed managers, restoration practitioners, consultants, and regulators who want to maximize project effectiveness.

Register: [Link]

StreamRestoration #WatershedManagement #ChesapeakeBay #QuarterlyLearning

Registration Page Copy

Page Title:: Quarterly Learning Session: Stream Restoration Science in Practice

Hero Text:

A decade of research. Six critical topics. 90 minutes that will change how you approach stream restoration.

What You'll Learn:

This session translates complex research from the Chesapeake Bay Trust's Pooled Monitoring Initiative into actionable guidance for practitioners. You'll gain science-backed strategies for:

■ *Selecting sites with the best chance of success*

■ *Designing monitoring programs that detect real change*

■ *Balancing competing restoration objectives*

■ *Setting expectations that match watershed context*

■ *Accessing comprehensive resources for your projects*

Who Should Attend:

- Watershed managers making funding decisions
- Restoration practitioners designing projects
- Environmental consultants advising clients
- Regulatory staff reviewing permit applications
- Researchers seeking applied insights
- Anyone involved in stream restoration

Session Details:

■ *Date: [Day, Date, Year]*

■ *Time: [Time] EST (90 minutes)*

■ *Location: Virtual (Zoom)*

■ *Cost: FREE*

Agenda:

- Welcome & Overview (5 min)
- PMI Science Synthesis Presentation (30 min)
- Practitioner Spotlight: Deep-dive with PMI Researcher (20 min)

- Q&A and Discussion (30 min)
- Wrap-up & Resources (5 min)

Featured Speakers:

[Headshots and bios of presenters]

What Past Participants Say:

[If available, include 2-3 testimonials from previous sessions]

Can't Attend Live?

Register anyway! All registrants will receive the recording and slide deck within 48 hours.

Register Now

[Registration form fields: Name, Email, Organization, Role, Optional: What questions do you hope we'll answer?]

Post-Event Thank You Email

Subject:: Thank you for joining us + Resources inside

Body:

Dear [Name],

Thank you for joining yesterday's Quarterly Learning Session on Stream Restoration Science in Practice! We hope you found it valuable.

■ *SESSION RECORDING: [Link]*

■ *SLIDE DECK: [Link]*

■ *INTERACTIVE RESOURCE: [Link to main resource]*

KEY RESOURCES MENTIONED:

• *PMI Study Library: [Link]*

• *Monitoring Design Guidance: [Link to specific resource]*

• *Site Selection Checklist: [Link]*

TAKE OUR 2-MINUTE SURVEY:

Your feedback shapes future sessions. Please share your thoughts: [Survey Link]

UPCOMING SESSIONS:

Stay tuned for our next Quarterly Learning Session on [tentative topic]. We'll announce details in [month].

QUESTIONS OR FOLLOW-UP:

If you have questions that didn't get answered during the session, email us at [Email]. We're here to help!

Thank you again for your participation and engagement.

Best regards,

[Name]

Chesapeake Bay Trust

P.S. Please share these resources with colleagues who would benefit!

Continuing Education Credits (Optional)

If offering CEUs/PDHs:

Accreditation Statement:

This Quarterly Learning Session has been approved for [X] continuing education credits by [Accrediting Body].

To receive credit:

Attend the full 90-minute session

Complete the post-event survey

Email [contact] within 30 days with:

- Your name and certification number
- The session title and date
- Confirmation of full attendance

Certificates will be issued within 2 weeks of request.

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