Peer-reviewed Papers to Podcasts and Beyond:
Disseminating the Findings from a Long-term Monitoring Study

Camille Flinders,
Tim Hall, Robert Fisher, Seth Moser-Katz

National Council for Air and Stream Improvement
Background

• Pulp & paper mill effluent (PPME) is among the most studied industrial effluents

• Most PMME research focuses on short-term laboratory or mesocosm studies typically limited to a single biotic group

• A variety of effluent-related effects have been noted, with alterations in fish reproductive indicators receiving the most attention

• NCASI initiated a Long-term Receiving Water Study (LTRWS) in 1998 to examine receiving water community-level patterns related to PPME
Background cont’d

• Study designed to last >10 years, conducted in **four** representative receiving streams at multiple sites, in multiple seasons

• Multi-facetted approach:
  • laboratory bioassays (n=4),
  • in-stream biotic communities (fish, inverts, algae)
    • Community endpoints (n=14)
    • Biological metrics (n=79)
    • Community-environment relationships (n=14)
    • environmental assessments (water and habitat quality) (n=36)
  • relative risk assessments (n=4)

[Measured seasonally]
• Study scope (multiple rivers, seasons, endpoints) and duration is:
  • rare for in-stream studies,
  • unprecedented in examining PPME

• As such, LTRWS and findings are of interest to:
  • industry personnel,
  • stream researchers,
  • stakeholders,
  • regulators, and
  • policy-makers

How to reach such a varied set of audiences??

Undertake a multifaceted, and in some cases, unconventional, approach to disseminate objectives, framework, methods, and results to varied audiences with an appropriate level of technical language and detail
Industry Personnel

• Information disseminated in Technical Bulletins

• Technical reports summarizing background, relevant literature, methods, results and discussion

• Unlimited words/document size (i.e. 20 to >200 pages)

• Focuses on industry relevance, as well as broader scope

• Limited distribution (NCASI members only)

• 41 LTRWS Technical Bulletins to date
Industry Personnel (cont’d)

• Broader-based information dissemination through industry-focused meetings and publications

• Information limited to specific time period/pages

• Fewer details provided

• Focus remains on industry relevance, but may cover broader scope

• Broader distribution (industry reps and subscribers)

• >40 LTRWS presentations, 3 industry journal articles
Stream Researchers

- Information summarized and published in the peer-reviewed literature
- Specific number of pages limits details provided
- Focus on broader scope rather than industry relevance
- Broader distribution, but generally limited to “academics”
- 23 LTRWS peer-reviewed journal articles and books
Stream Researchers (cont’d)

• Presentations at professional meetings

• Information limited to specific time period so fewer details provided

• Focus on broader ecological scope

• Broader distribution (professionals/“academics”)

• >32 LTRWS presentations
• Information dissemination to industry personnel and researchers are fairly conventional, and may be appropriate for some stakeholders, policy makers, and regulators.

• However, unconventional methods used to reach these groups (as well as industry personnel and regulators).

**Podcasts**

• Downloadable recordings of researchers discussing aspects of the study.

• Generally ~5 minutes long, but can be longer, if necessary.

• Available to members, but distributed to others as appropriate.
Webcasts
• Interactive internet-based presentations/discussions

• Greater scope and detail than most industry and professional meeting presentations

• Jumping-off point for other methods of communication

Informational Pamphlet
• Currently being developed

• Layperson summary of study objectives and findings

• Limited scope and detail, but broadly distributable

• Intended audiences: industry personnel not familiar with study, stakeholders, local regulators, policy makers.
LTRWS Documentary

• Documentary-style video presenting the study objectives, methods, and results

• Footage includes rivers, mills, and sampling; discussion from experts/participants of patterns and results

• Intended for all audiences, but in particular: stakeholders, regulators, and policy makers (i.e. those not likely to have access to or understand more technical/scientific documents).

• DVDs to be distributed to mill managers, fishing/naturalist clubs near mills, state agencies, and public access TV stations near study mills
Summary

• Multifaceted approach that utilizes traditional and unconventional methods of sharing information:
  • Technical reports
  • Peer-reviewed literature
  • Conference presentations (industry and professional)
  • Podcasts
  • Webcasts
  • Informational pamphlet (layperson)
  • Documentary video

• Ensures that the knowledge gained from the study is accessible to all interested groups

• Messages conveyed to audiences with an appropriate level of technical language and detail