



**Working with Agricultural Partners to Improve Water Quality in the CT River Valley  
Secondary Source Assessment Subcommittee Meeting**

December 20, 10am - 11am

1. Goals for subcommittee
  - a. Determine a [list of BMPs](#) for N reduction
  - b. Inform survey subcommittee
  - c. Inform steering committee
2. Knowledge sharing
  - a. What we need to know
    - i. Hydrological - TBP
  - b. What we [already know](#)
  - c. Potential barriers
    - i. Time constraints
    - ii. Financial
    - iii. Appropriate experts
    - iv. Data locations
    - v. Length of grant
    - vi. Scale
3. Next steps
  - a. Create list of BMPs of interest
  - b. Create a summary of reviewed data

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Meeting Summary:

- Overall goal of the project is to work with producers to identify successful BMPs to reduce Nitrogen runoff
  - Three subcommittees will meet: Secondary data sources, producer outreach, and survey development
  - This subcommittee will inform the other subcommittees and the steering committee on findings
  - Deliverables = list of BMPs and summarize secondary research findings
- Ryan has a water monitoring standpoint
  - Connecticut River Conservancy has a total nitrogen machine for the lab
    - Either total N or Kjeldahl is measured
    - Want to learn more about N monitoring to use this tool
  - Worked with USGS and others on monitoring along the Connecticut River. This work resulted in the SPARROW product

- Abby is familiar with on field and edge of field N testing
- Discussion of current data and monitoring needs:
  - Baseline concentrations and N loads
  - Data from Tactical Basin planning
  - Current percentage of agricultural land in the area
  - Within amount of agricultural land; perennial vs. annual crops
  - Different monitoring approaches
- Discussion of barriers:
  - Flood resilient monitoring
  - Length of the grant:
    - Continuous calibration and treatments would span 5 years
    - Shallow well sampling would span 3 years
  - Finances (ex: edge of field testing)
  - Need technical expertise for partners monitoring
  - Scale:
    - Use Tactical Basin Plans to identify hotpots
    - Also have different tiers of monitoring
      - This allows farmers to choose between more or less intensive monitoring on their property
      - Ex: Active water monitoring on property vs. separate from water monitoring
- Discussed how to collaborate with these resources
  - Work on a shared [drive](#)
  - Compile source information on [this doc](#)
  - Add new sources by February 1st
    - Add sources by topic on [this doc](#)
    - Include a summary of reviewed sources [here](#)
    - Isabel will create a summary for the February 7th steering committee meeting
    - Report will be sent to subcommittee for review
- Gaps in data/subcommittee knowledge:
  - Need to connect monitoring to restoration efforts
  - TMDL knowledge
    - Marie Caduto and Tactical Basin Plans will help inform
  - Hydrological aspects - identifying areas of high risk
    - Ground seepage for nitrates
- List of BMPs
  - Annual crop converted into hay/pasture land
  - Nitrogen management practices
  - Four R's (indicating timing, placing, source, rate)
  - Manure management
  - Other new products to help mitigate loss
  - Edge of field practices
  - New nitrogenation inhibitors

- Seems more attractive financially than for nitrogen runoff reduction
- Focus on the magnitude of nitrogen runoff
- Location issues:
  - We need to collect baseline data as data is lacking in this area
  - Not as many annual crops, making this data hard to come by
- Monitoring aspects:
  - CRC directs volunteers in the La Rosa program
    - Sites are mostly where people swim and known source areas
      - Ex: Williams River
    - Goal is to compare with state-collected data
    - Current focus is on E.coli, with nitrogen trailing behind
- Knowledge gaps:
  - How nitrogen is transported through impoundments and into the watershed
    - With dam removals, we used a by the book number, rather than on the ground
- Farm survey:
  - Abby worked on needs assessments
  - Want to know acreage uses
  - Identify farms interested in monitoring data
    - Ex: Edge of field, lysimeter
    - Location is important in terms of in watershed and nearby streams
    - To identify these farmers, the survey should include a short, quantitative section and the option to be contact for a longer, qualitative section (possibly a 10 minute conversation)
  - Increase participation in monitoring sites by promoting the cost-savings of reducing nitrogen runoff
  - Include what farmers already do for N runoff