Development of an Implementation Plan to Improve the Quality of the Fox River

FRSG Annual Meeting
October 31, 2013
Fox River Implementation Plan

What is the FRSG FRIP?

It will be the roadmap for watershed decision makers that will define the reductions in pollutant discharges needed and in-stream projects to be executed that, when implemented, will improve the water quality of the Fox River.
Fox River Implementation Plan

What the FRIP is NOT

- Will NOT address all the pollutants in the IEPA 303(d) Listing
  - Example: Doesn’t address PCBs, Mercury, or Fecal Coliforms
- Will NOT identify site-specific NPS BMPs
- Will NOT identify individual, plant-specific capital projects for each WWTP (on the mainstem or tributaries)
- Is NOT being created by Bureaucrats far removed from the watershed
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Goals

- Resolve the dissolved oxygen and algal impairments which cause the Fox River to not meet its Designated Uses as defined by the IEPA [303(d) List].
- Replace a traditional TMDL plan.
- Recommendations developed based on good science with input from local decision makers.
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FRIP Development Team

- Fox River Study Group Board (& contributors)
- Consultant Team
  - LimnoTech / Crawford, Murphy, Tilly / Baetis Environmental
- ISWS (Advisory role to FRSG Board)
- IEPA Staff
- YOU
The 10 Step Program:

1. Kick-off Meeting
2. Review Water Quality Targets
3. Review WQ Models & Make Adjustments
4. Workshop 1 (Review & Discuss results of Tasks 2 & 3)
5. WQ Modeling Scenarios (build on ISWS work)
6. Develop and Assess Alternatives that Meet WQ Targets
7. Workshop 2 (Review & Discuss results of Tasks 5 & 6)
8. Prepare Draft FRIP document
9. Workshop 3 (Review & Discuss Draft FRIP – format, content, etc.)
10. Prepare Final FRIP document
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Kick-off Meeting

- Project Overview - Goals
- FRIP Scope & Schedule
- Deliverables
- Define additional information needed from stakeholders
Review Water Quality Targets

- Re-examine existing water quality standards
- Evaluate critical/design conditions needed to meet WQ targets
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Review WQ Models & Make Adjustments

- HSPF
  - Review the calibration

- QUAL2K
  - Evaluate sediment oxygen demand & sediment nutrient flux
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Workshop #1

Questions to be Answered:

- What water quality targets & critical conditions will be applied to support FRIP recommendations?
- Will we refine/re-calibrate the models?
- How will NPS loads be incorporated into the analysis?
- What range of control measures/alternative solutions & practices will be considered?
WQ Modeling Scenarios

- Complete any updates/refinements to HSPF/QUAL2K models
- Upwards of 60 QUAL2K scenarios to be evaluated.
  - Point Sources
  - Urban Non-point sources
  - Agricultural Non-point sources
  - Dam Removal
  - With Future Watershed development
  - Combinations of all of the above.
Develop and Assess Alternatives that Meet WQ Targets

- Define range of load reduction and in-stream improvement strategies (input gathered at Kick-off meeting & Workshop #1)
- Evaluate select preferred load-reduction and in-stream improvement strategies (such as dam removal).
- Develop planning-level cost estimates & concepts
- Assemble load reduction and in-stream improvement strategies into alternatives based on benefits, costs, and other considerations (i.e. – is it politically feasible? Is responsible party “at the table”?)
- Model the alternatives
- Conduct a comparative assessment of the alternatives
- Select final recommended alternatives
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Workshop #2

- Present results and recommendations
- Facilitate decisions regarding the recommended management actions
- Discuss final content/organization of the FRIP document
- Answer the questions:
  - Which alternatives should be included in the FRIP as final actions?
  - How much detail regarding the alternatives analysis should be included in the FRIP?

- Workshop Outcome:
  - Consensus on FRIP content & level of detail to be presented.
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Draft FRIP Document

- Annotated outline for content & organization review
- Supplemental information
  - Address issues that surface in Workshop #2
- Develop a framework for MS4s
- Develop recommendations for Agricultural BMPs
- Develop recommendations for WWTPs
- Develop a tracking tool
- Prepare O&M Info
Fox River Implementation Plan

Workshop #3

Review & Discuss Draft FRIP document

- Presentation on FRIP content
- Discussion
- Reach consensus on overall FRIP content & recommendations
Finalize FRIP Document

- Finalized Fox River Implementation Plan Document
- Supporting files & Information
  - Watershed Models
  - In-stream model
  - GIS Files
# Fox River Implementation Plan

## Schedule

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<th>Task No.</th>
<th>Task</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
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<td></td>
<td>Nov</td>
<td>Jan</td>
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<td>1</td>
<td>Kick-off meeting with FRSG</td>
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<td>2</td>
<td>Assess and define water quality targets</td>
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<td>Review model and recommend adjustments</td>
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<td>First workshop with FRSG</td>
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<td>5</td>
<td>Model revised loading scenarios</td>
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<td>Develop alternatives to attain water quality goals</td>
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<td>Second workshop with FRSG</td>
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<td>Prepare Draft WIP</td>
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<td>Third workshop with FRSG</td>
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<td>Prepare Final WIP</td>
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<td>11</td>
<td>Meetings, Presentations, Conferences Calls</td>
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<td>12</td>
<td>Develop Model Scenario Management Tool (Optional)</td>
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Schedule of meetings, etc. to be determined
**Fox River Implementation Plan**

**Key Dates**

- **Nov. 21** - Kick-off Meeting
- **Jan. 23, 2014** - Workshop #1 (Review & Discuss results of Tasks 2 & 3)
- **Oct. 23, 2014** - Workshop #2 (Review & Discuss results of Tasks 5 & 6)
- **Jan. 22, 2015** - Draft FRIP document available for review
- **Feb. 26, 2015** - Workshop #3 (Review & Discuss Draft FRIP – format, content, etc.)
- **June 1, 2015** Final FRIP document completed.
Science-based planning and decision making

Stakeholder involvement

www.foxriverstudygroup.org

Join Us!