Technical Support to the Spokane River Regional Toxics Task Force

Project Kickoff Meeting
April 3, 2013

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Agenda

- Project Phasing
- Overview of Phase 1
- Near-Term Activities
  - Phase 2-4 Preliminary Work Plan
  - Draft Data Request Memo
- Discussion

Project Phasing

- Phase 1
  - Gather existing data, identify data gaps
  - Recommend modeling tool
  - Prepare a monitoring plan
- Phase 2
  - Collect new data
- Phase 3
  - Analyze data and characterize sources
- Phase 4
  - Assess potential BMPs and develop Comprehensive Plan

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Phase 1 Tasks

- Technical Consultant Work Plan
- Data Request Memo
- Standard Operating Procedures
- Collection of Existing Data
- Data Review and Evaluation
- Data Gap Identification
- Review of Modeling Tools
- Data Collection Strategy
- Quality Assurance Project Plan/Sampling and Analysis Plan
- Scoping for Future Phases

Task 1: Technical Consultant Work Plan

- Update the existing SRRTTF First Draft Work Plan to make it a formal Technical Consultant Work Plan
- Include a detailed scope of work, budget, and schedule for Phase 1 work
- Provide a more general description of tasks for Phases 2 through 4
  - Specific tasks for each phase
  - Planning-level budgets estimates for each phase
  - Estimated schedule corresponding to completion of all work by the end of 2016

Task 2: Data Request Memo

- Technical memorandum listing all of the information required to define existing PCB and dioxin sources, loads and sinks
- Divide data needs into broad categories and sub-categories
  - List the information needs required to define the magnitude of each category and sub-category
- Identify all data that has already been obtained, as well as other known and potential sources

Task 3: Standard Operating Procedures

- Review the standard operating procedures for data analysis and collection currently employed by all agencies collecting data that may be used during this project
- Identify any procedures that will not produce suitable data quality

Task 4: Collection of Existing Data

- Contact all data sources identified in the final Data Request memorandum
  - Identify other sources of information or other relevant contacts
  - Initial contacts will be made by phone; face-to-face visits as necessary
- Maintain log documenting all calls/e-mails/visits and the information obtained from each source contacted

Task 5: Data Review and Evaluation

- Evaluate the quality and credibility of the data relative to satisfying the data needs identified in Task 2
- Define the process to be used for determining data acceptability
- Review data for inconsistencies and/or unusual results
  - If any of these occur, the data will be traced back to look for possible causes of the error
- Summarize results in a technical memorandum
- Place all data in a database

Task 6: Data Gap Identification

- Review data, determine where information gaps exist
- Develop conceptual models, defining:
  - Pollutant sources, delivery, surface water processes, sediment processes
- Estimate magnitude (and uncertainty) of each component in the initial conceptual model
- Identify data gaps that must be filled to accurately quantify pollutant sources and sinks

Task 7: Review of Modeling Tools

- Compile all relevant models
- Describe each model's capabilities, data needs, advantages, and disadvantages.
- Provide recommendations regarding which models are most suitable for use in future phases

Task 8:Data Collection Strategy

- Data collection strategy will depend upon many local decisions
  - Prepare memorandum documenting all management-oriented objectives that need to be clarified
    - How small is insignificant?
    - How accurate does each source characterization need to be?
  - Hold meeting to obtain consensus on these objectives
- Develop strategy based on these objectives
  - Define sampling parameters, locations, frequency, and parties responsible for collection of the data

Task 9: QAPP/Sampling and Analysis Plan

- Quality Assurance Project Plan (QAPP) will be the basis for ensuring the type and quality of data needed for supporting decision-making
  - Describe the quality procedures, criteria and corrective actions associated with the sampling and analysis program.
- Sampling and Analysis Plan (SAP) describes the objectives, sampling locations, sampling methods, analytical parameters and protocols, and data management

Task 10: Scoping for Future Phases

- Prepare detailed scope, schedule, budget for Phase 2
  - Consistent with information contained in the QAPP and SAP
- Provide refined schedules and budgets for Phases 3 and 4
  - Update the estimates from Task 1 with information gained during the course of the first phase

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Phases 2-4: Preliminary Work Plan

- SRRTTF desires high-level budget estimates of the later phases of the project
  - Allow members to start getting allocations into their municipal budgets and rates
- Subsequent Phases
  2. Implementation of Sampling and Analysis Plan
  3. Detailed Inventory of Sources and Sinks
  4. Comprehensive Plan

Phase 2 Tasks

1. Preparation for Field Activities
   - Training of field crews
2. Conduct Field Monitoring
3. Laboratory Analysis
4. Data Processing
   - Validation
   - Entry into database
5. Meetings and Coordination

Phase 3 Tasks

1. Analysis of Field Data
   - Process data for use as model input
2. Application of Model
   - Calibrate model
   - Generate information on sources and sinks
3. Development of Inventory
   - Process model results into inventory of sources and sinks
     - by source category, by watershed geographic areas, and by river segments
4. Meetings and Coordination

Phase 4 Tasks

1. Evaluation of BMPs
   - Identify range of potentially applicable BMPs
   - Assess costs and effectiveness
2. Assessment of Alternatives
   - Determine effectiveness of different combinations of BMPs to meet targets
3. Development of Comprehensive Plan
   - Select and document preferred alternative
4. Meetings and Coordination

Budget Estimate

- Largest cost (and largest uncertainty) corresponds to amount of data needed to credibly address management objectives
- Important potential modifiers
  - How small of sources do we need to identify?
  - How accurate does our source identification need to be?
  - How much focus on dioxin?

Phase 2 Budget Estimate

1.	Prep. for Field Activities	$10,000
2.	Field Monitoring	$80,000 - $160,000
3.	Laboratory Analysis	$250,000 - $1,000,000
4.	Data Processing	$25,000
5.	Meetings and Coordination	$35,000
	Total	$400,000 - $1,230,000

Phase 3 Budget Estimate

1.	Analysis of Field Data	$20,000
2.	Application of Model	$80,000 - $280,000
3.	Development of Inventory	$25,000
4.	Meetings and Coordination	$35,000
	Total	$160,000 - $360,000

Phase 4 Budget Estimate

1.	Evaluation of BMPs	$20,000
2.	Assessment of Alternatives	$50,000
3.	Development of Comprehensive Plan	$40,000
4.	Meetings and Coordination	$35,000
	Total	$145,000

Schedule

Phase/Task	Completion Date
2-1: Preparation for Field Activities	June, 2014
2-2: Field Monitoring	May, 2015
2-3: Laboratory Analysis	June, 2015
2-4: Meetings and Coordination	Ongoing
3-1: Analysis of Field Data	September, 2015
3-2: Application of Model	December, 2015
3-3: Development of Inventory	February, 2016
3-4: Meetings and Coordination	Ongoing
4-1: Evaluation of BMPs	April, 2016
4-2: Assessment of Alternatives	September, 2016
4-3: Development of Comprehensive Plan	December, 2016
4-4: Meetings and Coordination	Ongoing

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Task 2: Data Request Memo

- List of all of the information desired to define existing PCB and dioxin sources and sinks
- Divided into broad categories
  - Point sources
  - Non-point sources
  - Environmental sinks
- Further divided into sub-categories
  - e.g. atmosphere, contaminated industrial areas, building demolition

Task 2: Data Request Memo

- Describes alternative methods for estimating loads, e.g.
  - Direct measurement of run-off load at edge of parcel
  - Measurement of soil PCB, estimate of erosion rate
- Describes the specific types of information necessary to support above assessments
- Identifies all data that we have already obtained
- Identifies potential sources that may possess data

Task 2: Data Request Memo

- Memo represent a “wish list” more than a “must have”
  - If relevant information exists, we want it
- Comments requested on draft memo in two weeks
  - Sources of information to contact

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