

Upper Gallatin Watershed TMDL: Phase I
Attachment A
DEQ Contract no. 205052

Task 1: Description: Project Coordination

Contractor will coordinate the TMDL activities between the Blue Water Task Force, Montana DEQ, other agencies, subcontractors, landowners, and stakeholders. Schedule and facilitate Blue Water Task Force and the Upper Gallatin TMDL Technical Advisory Committee as needed. Provide review and comment on subcontractor-provided TMDL documents and assessments. Provide coordination and communication among stakeholder individuals and organizations.

Product/Deliverable:

- Establish a Technical Advisory Committee (TAC) to review data, assessments, and technical issues associated with TMDL development. TAC members shall include but not be limited to: landowners and stewards, state and federal agencies, public and commercial organizations, resource professionals.
- Coordinate monthly watershed group meetings and TAC meetings as needed and provide written meeting minutes.
- Written review and comment on subcontractor-provided deliverables on all subcontracts.
- Written annual report on water quality condition and TMDL project progress.

Timeframe:

Deliverables will be completed by June 30th, 2006

Acceptance Criteria:

Acceptance of this task is contingent upon approval of billing statements for coordination tasks and DEQ acceptance of meeting minutes. Written products will be professional documents in MSWord format and will be delivered in both electronic and hardcopy format.

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| Task 1 Cost (319 Funds) | \$12,000 |
| Task 1 Cost (In-Kind Match) | \$20,000 |
| Task 1 Cost Total | \$32,000 |

Task 2: Description: Aerial Assessment

Contractor will conduct an aerial assessment of the Upper Gallatin River watershed with the primary objective to assess the physical and riparian attributes of the Upper Gallatin River and its tributaries. Aerial photography, satellite imagery, historical aerial photography, and any additional aerial imagery will be used to qualitatively and quantitatively (where possible) describe parameters such as channel type and condition, riparian composition and condition, and adjacent land use. Stream segments will be divided into separate reaches based on this information and results will be compiled and tabulated for each reach.

Product/Deliverable:

- A written summary report of the aerial assessment including application of results to TMDL development. Included in the report will be: tables (excel files) of all segmented reaches and associated data, maps of reach breaks and reach names, description of methodology and criteria used to derive data products.
- GIS project file with all associated databases and shapefiles in Montana State Plane NAD83.

Timeframe:

Deliverables shall be received no later than Dec 31st, 2005.

Acceptance Criteria:

Timely delivery of an Aerial Assessment Report in both hard copy and digital format (MSWord) that meets requirements set forth under *Product/Deliverable*
Digital GIS project and data files in ArcGIS 8.3, MSP NAD83.

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| Task 2 Cost (319 Funds) | \$12,000 |
| Task 2 Cost (In-Kind Match) | \$2,000 |
| Task 2 Cost Total | \$14,000 |

Task 3: Description: QAPP

Contractor will develop a Quality Assurance Project Plan (QAPP) that fully describes the approach and chronological steps that will fulfill each of the following REQUIRED TMDL “elements” and ultimately result in an EPA approvable Water Quality Restoration Plan (WQRP) - TMDL document:

- *Final Water Quality Impairment Status*
- *WQ Targets, Source Assessment*
- *Load Allocations*
- *TMDLs*
- *Uncertainty associated with each element*
- *Margin of Safety and Seasonality*
- *Implementation Strategy*
- *Monitoring Strategy.*

This QAPP shall display methods and rationale used for the development of each element above and further explain how proposed fieldwork/data collection and subsequent data analysis will be used to develop each TMDL element listed above. The preceding task descriptions will conform to the following published EPA guidance regarding development of TMDLs for sediment and pathogens:

- *Protocol for Developing Sediment TMDLs*, October 1999, First Edition, EPA 841-B-99-004
- *Protocol for Developing Pathogen TMDLs*, October 1999, First Edition, EPA 841-B-99-004

Upon completion and DEQ approval of the QAPP developed under this task, DEQ will issue a **Notice to Proceed** (NTP) as a contract modification that allows work to begin on successive tasks.

Product/Deliverable:

A written Quality Assurance Project Plan document that meets the requirements set forth in above description

Timeframe:

A draft QAPP shall be submitted to DEQ for review and comment no later than Dec 31st, 2005.

The final QAPP shall be submitted to DEQ no later than March 1st, 2006.

Acceptance Criteria:

The QAPP must clearly demonstrate how each of the aforementioned elements will be addressed and finalized in the tasks that follow. The QAPP will describe the approach for returning a STORET compatible deliverable as described in in the STORET Guidance located at

http://www.deq.state.mt.us/wqinfo/datamgmt/STORET_SIM_Support.asp.

Acceptance of this product will be based solely on DEQ written approval. It is expected that the contractor communicates either in person, via telephone and/or emails to ensure that Task 3 product expectations are met.

Written reports must be received in MSWord format in both hardcopy and electronic formats.

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| Task 3 Cost (319 Funds) | \$12,000 |
| Task 3 Cost (In-Kind Match) | \$4,000 |
| Task 3 Cost Total | \$16,000 |

Task 4: Description: Water Quality Sampling and Assessment

Collect water quality data, biologic samples and conduct assessments as defined in the QAPP developed under Task 3. Site location, sampling parameters, sampling frequency, timing, methods and additional information regarding data collection will be defined in the QAPP. Synthesize and summarize data for use in impairment determinations, establishment of reference condition, and load estimates.

Product/Deliverable:

- MSAccess database of all data results (formatted for SIM as defined in Attachment D)
- All original field sheets or electronic field data (if originally collected in electronic format)
- Electronic copies of digital photographs and an electronic photo log in MS Excel cross-referencing each photo to a sampling site (lat/long) and date.
- Hardcopy and electronic reports of all biological assessments
- Written summary report of data findings and conclusions.

Timeframe:

Deliverables shall be received no later than Jan 1st, 2007.

Acceptance Criteria:

Electronic Data Deliverables (EDD) must meet the acceptance criteria set forth in the Montana STORET Guidance located at:

http://www.deq.state.mt.us/wqinfo/datamgmt/STORET_SIM_Support.asp. Written

reports must be received in MSWord format in both hardcopy and electronic formats. Acceptance of this product will be based solely on DEQ written approval. It is expected that the contractor communicates either in person, via telephone and/or emails to ensure that Task 4 product expectations are met.

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| Task 4 Cost (319 Funds) | \$28,000 |
| Task 4 Cost (In-Kind Match) | \$19,000 |
| Task 4 Cost Total | \$47,000 |

Task 5: Description: Impairment Status, Reference Condition and Preliminary Water Quality Targets

Develop reference conditions and preliminary water quality targets for sediment and pathogen impaired streams in the Upper Gallatin TPA using empirical data, modeled approaches, literature values and/or other appropriate means. Assess the water quality impairment status of streams in the UGTPA by comparing them to reference and target conditions.

Product/Deliverable:

- Written document describing reference conditions and the method(s) used to develop or derive reference for streams in the Upper Gallatin TPA.
- Written document presenting appropriate water quality targets, and rationale and justification for choosing selected indicators and targets.
- Water Quality Impairment Status document that evaluates the impairment status of streams in the UGTPA in comparison to reference condition and water quality targets

Timeframe:

Deliverables shall be received no later than June 30th, 2006.

Acceptance Criteria:

The preceding task descriptions will conform to the following published EPA guidance regarding development of TMDLs for nutrients:

- *Protocol for Developing Sediment TMDLs*, October 1999, First Edition, EPA 841-B-99-004

Written reports must be received in MSWord format in both hardcopy and electronic formats. Acceptance of this product will be based solely on DEQ written approval. It is expected that the contractor communicates either in person, via telephone and/or emails to ensure that Task 5 product expectations are met.

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| Task 5 Cost (319 Funds) | \$8,000 |
| Task 5 Cost (In-Kind Match - Landowners) | \$8,333 |
| Task 5 Cost Total | \$16,333 |

Task 6: **Description:**

Contractor will provide contract management, invoice review, financial reports, and progress reports as described in SECTION I: SERVICES of this 319 funds agreement.

Product/Deliverable:

Contract management, written progress reports, written budget reports in accordance with Attachment B to this agreement and grant tracking process detailing the status of the project.

Timeframe:

Task shall be completed by June 30th, 2006

Acceptance Criteria:

Acceptance criteria for contract administration deliverables is defined in SECTION I: SERVICES of the 319 funds agreement, DEQ contract #205XXX.

Task 6 Cost (319 Funds)

\$8,000