

CAPITAL IMPROVEMENT PROGRAM
City of Missoula CIP Project Request Form FY 2016-2020

Program Category:	Project Title:	14 Project #	15 Project #	16 Project #
Public Safety	Boat Ramp Design & Permit			PS-06

Description and justification of project and funding sources:

Removal of the Milltown Dam has increase sediment deposits at base of existing boat ramp making launching of rescue water craft difficult and dangerous. Current project will provide design work for sediment removal, bank stabilization, and extension of the boat ramp. Cost also includes aquisition of required permits for construction. Phase II will involve the actual construction work estimated at \$30,000. If the current project is authorized, it is imperative that Phase II be authorized and funded in FY17 due to permit expiration timelines.

Is this equipment prioritized on an equipment replacement schedule?

Yes

No

NA

x

Are there any site requirements:

N/A

How is this project going to be funded:

REVENUE	Funding Source	Accounting Code	FY16	FY17	FY18	FY19	FY20	Funded in Prior Years
	General Fund		10,900					
General Fund				30,000				
			10,900	30,000	-	-	-	-

How is this project going to be spent:

EXPENSE	Budgeted Funds	Accounting Code	FY16	FY17	FY18	FY19	FY20	Spent in Prior Years
	A. Land Cost							
B. Construction Cost				30,000				
C. Contingencies (10% of B)								
D. Design & Engineering (15% of B)			10,900					
E. Percent for Art (1% of B)								
F. Equipment Costs								
G. Other								
			10,900	30,000	-	-	-	-

Does this project have any additional impact on the operating budget:

OPERATING BUDGET COSTS	Expense Object	Accounting Code	FY16	FY17	FY18	FY19	FY20	Spent in Prior Years
	Personnel							
Supplies								
Purchased Services								
Fixed Charges								
Capital Outlay								
Debt Service								
			-	-	-	-	-	-

Description of additional operating budget impact:

Responsible Person:	Responsible Department:	Date Submitted to Finance	Today's Date and Time	Preparer's Initials	Total Score
Jason Diehl	Fire			cs	52

CAPITAL IMPROVEMENT PROGRAM

Project Rating

(See C.I.P. Instructions For Explanation of Criteria)

Program Category:	Project Title:				10 Project #	
Public Safety	Boat Ramp Design & Permit				PS-06	
Qualitative Analysis		Yes	No	Comments		
1. Is the project necessary to meet federal, state, or local legal requirements? This criterion includes projects mandated by Court Order to meet requirements of law or other requirements. Of special concern is that the project be accessible to the handicapped.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Design work is necessary to obtain required permits for extension of boat ramp and river bank stabilization.		
2. Is the project necessary to fulfill a contractual requirement? This criterion includes Federal or State grants which require local participation. Indicate the Grant name and number in the comment column.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	NA		
3. Is this project urgently required? Will delay result in curtailment of an essential service? This statement should be checked "Yes" only if an emergency is clearly indicated; otherwise, answer "No". If "Yes", be sure to give full justification.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Improvements in boat ramp are necessary to maintain emergency response capabilities.		
4. Does the project provide for and/or improve public health and/or public safety? This criterion should be answered "No" unless public health and/or safety can be shown to be an urgent or critical factor.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Yes. The boat ramp is essential for the provision of river rescue and other services which rely on deployment of rescue water craft.		
Quantitative Analysis		Raw Score Range	Comments		Weight	Total Score
5. Does the project result in maximum benefit to the community from the investment dollar?		(0-3) 3	Yes. Project will reduce workers compensation and liability exposure for the City. We have incurred two workers compensation injuries amounting to \$20,387.22.		5	15
6. Does the project require speedy implementation in order to assure its maximum effectiveness?		(0-3) 2	Due to permitting requirements, speedy implementation is not possible. However, steady progress is necessary for maximum effectiveness.		4	8
7. Does the project conserve energy, cultural or natural resources, or reduce pollution?		(0-3) 3	The river bank stabilization associated with this project will reduce erosion therefore conserve natural resources and reduce pollution.		3	9
8. Does the project improve or expand upon essential City services where such services are recognized and accepted as being necessary and effective?		(0-2) 2	Yes. Project will improve rapid deployment of water rescue craft and improve firefighter and community safety.		4	8
9. Does the project specifically relate to the City's strategic planning priorities or other plans?		(0-3) 3	Yes. Project will directly relate to the City's strategic plan through improved public safety and reduced risk to firefighter health and safety.		4	12
Total Score					52	



January 8, 2015

Mr. Jason Diehl, Fire Chief
Missoula Fire Department
625 E. Pine Street
Missoula, MT 59802

RE: Preliminary Scope of Work for Design and Permitting of Boat Ramp Extension and Adjacent Riverbank Stabilization

Dear Chief Diehl:

The team of New Wave Environmental Consulting, LLC (New Wave) and RESPEC are pleased to provide the attached preliminary work scope and budget estimate to design and complete regulatory permitting for the extension of an existing boat ramp that is used by the Missoula Fire Department (MFD (client)) for rescue watercraft (RWC) access to the river. The subject ramp is located on the north side of McCormick Park and the south (left) bank of the Clark Fork River. The lower end of the existing, concrete ramp terminates at a point that makes launching and loading of RWC difficult during low flow conditions in the river. During a site visit on November 10, 2014, we observed the conditions of the riverbank and channel in the immediate vicinity of the boat ramp. Based on our observations, we also recommend some minor adjustments to the existing bank geometry and application of bank stabilization treatments as part of the ramp extension. This proposed bank stabilization will help to maximize functionality of the boat ramp through a range of flow levels within the river and minimize anticipated maintenance of the structure. Proposed bank stabilization methods will incorporate context-appropriate elements that are designed to promote long-term stability of the ramp and riverbank and provide ecological function through the use of bio-engineering and native vegetation.

The following work task descriptions are presented as a logical progression through the design and permitting processes. At the request of the MFD, this preliminary scope of services and estimate of costs has been prepared for planning purposes only, so as to provide an estimate for the efforts outlined below. It is assumed that a final version of this scope and cost will be prepared and submitted to MFD prior to commencement of the identified project activities. We propose a time and materials type contract where the total amount billed for the project is not to exceed the sum of the task budgets without prior approval from the client.

TASK 1 – PRELIMINARY DESIGN ANALYSIS AND PLAN PREPARATION

This task will include review of all existing information such as river flows and stage, site layout, and design criteria and applicable ordinances for work within the river environment. Project design elements will be developed to a preliminary level (approximately 60% complete) that supports evaluation of the design by the client and facilitates preparation of permit applications for regulatory compliance. A hydraulic model (HEC-RAS) will be developed using available LiDAR data and existing channel geometry from the recent FEMA flood re-study for Missoula County. This model will be utilized to better understand hydraulic characteristics near the boat ramp and determine design elevations for proposed bank treatment prescriptions and specific material types.

The format for presentation of the preliminary design will be a set of 11" x 17" drawings that includes the following components:

- Cover Sheet: includes project title and administrative information, vicinity/site map, and sheet index)
- Plan/Profile Sheet: includes plan view of the ramp extension and the immediately surrounding river channel and bank, profile view(s) of the ramp extension and river channel
- Cross-sections Sheet: includes cross-sections of the river channel/bank (as necessary), and typical sections of the ramp structure
- Typical Details Sheet(s): includes typical details and notes for construction of the boat ramp and bank stabilization elements, including specifications for concrete and reinforcement steel, rock, and bio-engineered components (erosion fabrics/geotextiles, soil, plants, and seeding).
 - NOTE: The details and notes for project construction will likely comprise 1 – 3 drawing sheets.

We anticipate a total of 4 – 6 design sheets for the project.

Task 1 Budget: \$5,100

TASK 2 – PREPARATION/SUBMITTAL OF REGULATORY PERMIT APPLICATIONS

This task includes preparation and submittal of permit applications necessary for regulatory compliance. In association with the proposed boat ramp extension and bank stabilization measures, a Joint Application for *Proposed Work in Montana's Streams, Wetlands, Floodplains, and Other Water Bodies* (Joint Application) will be required for submittal to U.S. Army Corps of Engineers (USACE), Montana Department of Environmental Quality (MDEQ), and Montana, Fish Wildlife and Parks (MFWP). The Joint Application is a combination of federal, state, and local regulatory requirements. The following list identifies the regulatory requirement and anticipated effort associated with the proposed extensions of the boat ramp. The preliminary design details will be included in the documentation in support of the Joint Application.

- **USACE – Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act**
 - A Joint Application, as well as the cover letter will be prepared for MFD signature and submittal to USACE.
 - It is anticipated that all coordination with USACE will be achieved via mail, email, or telephone and no on-site consultation with USACE will be required.
 - It is anticipated that USACE will coordinate with MDEQ for completion of the CWA Section 401 Water Quality Certificate.
 - It is assumed that no wetland delineation or delineation report will be required for the proposed project.
 - It is assumed that project impacts will not exceed the threshold for the requirement of mitigation and will be permissible under a USACE Nationwide Permit. This Scope and Cost does not include a level of effort for the preparation and submittal of an Individual Permit or identification of mitigation measures.
 - It is anticipated it will take USACE approximately 60 days to review and process the Joint Application.
- **MDEQ - 318 Authorization for Short-term Water Quality Standard for Turbidity**
 - A Joint Application, as well as the cover letter, will be prepared for MFD signature. The signed permit application with the appropriate application processing fee (estimated to be approximately \$250) will be submitted to MDEQ.
- **MFWP - Montana Natural Streambed and Land Preservation Act (124 Permit)**
 - A Joint Application, as well as the cover letter will be prepared for MFD signature and submittal to MFWP.
 - It is anticipated that MFWP will request on-site consultation for review of the proposed activities is included.

Department of Natural Resources and Conservation

The City of Missoula currently pays an annual fee to the Department of Natural Resources and Conservation (DNRC) for the existing ramp. The current annual fee is \$150 per year. The proposed extension to the existing boat ramp will require an amendment to the existing license with the DNRC. The process will require submittal of the Joint Application and all permit approvals associated with the project. DNRC will require has agreed to waive the amendment processing fee (\$25). It is assumed that the information that will be available and included in the Joint Application will be sufficient for the DNRC and amending the existing license. It is also assumed that the City of Missoula will pay for the associated license fees.

Missoula County Floodplain Regulations

With regards to the proposed extension of the existing boat ramp, the City of Missoula Floodplain Regulations specifically define boat ramps as a “*Private and public recreational use.....*” that does not require a permit (City of Missoula Floodplain Regulations, Amended December 1, 2004 [#3267], Chapter V, Section 5.02A, p. 16). However, associated bank stabilization work that is proposed will likely require submittal of a floodplain permit. The floodplain permit may also require demonstration of “no-rise” in the 1%-annual chance (a.k.a. 100-year) flood event, which would be accomplished by comparing existing hydraulic conditions with post-construction hydraulic conditions using the HEC-RAS model. As necessary,

a Floodplain Permit Supplement would accompany the Joint Application and include a certification of the analysis by a Professional Engineer, which is a requirement for issuance of a floodplain development permit.

Task 2 Budget: \$3,500

This proposed task budget does not include application fees associated with the listed permits; total application fees for all of the permits identified in this work scope are estimated to be \$250 - \$800, depending on the applicability of certain permits to the project. The permitted construction activities identified in this preliminary scope and cost are assumed to be for the 2015 calendar year and not require modifications or extensions. Pending results from hydraulic modeling, the potential exists that a Letter of Map Revision (LOMR) could be required from the Federal Emergency Management Agency (FEMA). Since a LOMR requirement is not anticipated for this type of project, this task budget does not include preparation and submission of a LOMR for the proposed work.

TASK 3 – FINAL DESIGN AND CONSTRUCTION DOCUMENT PREPARATION

This task includes final preparation of construction-ready plans and specifications. Pertinent comments received from the client and/or regulatory permitting agencies following review of the preliminary (60%) design documents will be addressed and changes incorporated into the design drawings as necessary. This task also includes development of an Opinion of Probable Construction Cost (engineer's cost estimate) for construction of the project.

Task 3 Budget: \$2,300

Note: At this time we have not included tasks for Construction Management (assistance with project bidding, etc.) and/or Construction Oversight, however this could be added at a later date.

TASK SUMMARY - TIMELINE

<u>Description</u>	<u>Timeline</u>	<u>Estimated Cost</u>
Task 1 – Preliminary Design	Winter/Spring 2015	\$5,100
Task 2 – Prepare/Submit Permit Application	Spring/Summer 2015	\$3,500
Task 3 – Final Design/Construction Documents	Summer/Fall 2015	\$2,300
	Total =	\$10,900

ESTIMATED SCHEDULE

An estimate schedule has been prepared to provide an overview of the tasks required prior to construction and the estimated time to complete each task. The schedule below assumes a contract has been executed and notice to proceed has been authorized prior to commencing with Preliminary Design. The schedule also assumes October 2015 is the target date to start construction. The following table identifies each phase of the project, including preliminary design phase, preparation and submittal of permit application(s), agency permit application review and approval process, final design, submittal of bid package and contracting, and construction, as well as the estimated time frame to complete each phase. Note that the permit application review process may range between 90 to 134 days. This time frame includes the maximum period for each agency to review the permit application. Therefore, the

duration allotted for agency review of the permit application(s) may be reduced depending on their work load, but for planning purposes, we have identified the maximum time frame.

Milestone	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
Preliminary Design (30 d)										
Permit Application Preparation and Submittal (14 d)										
Permit Review Process (90 – 134 d)										
Final Design (30 d)										
Bid/Contract (60 d)										
Construction (14 - 21 d)										

SUMMARY

As mentioned, we propose a time and materials contract whereby the client will be billed only for time worked, and not to exceed \$10,900. Any deviations from the work scope and budget will be discussed with the client and approved prior to execution.

If you have any questions, please contact Kristi Webb at 406.239.4884 or kwebb@nw-enviro.com or Mike Rotar at 406.570.1035 or mike.rotar@respec.com. Thank you for the opportunity to assist MFD with this effort - we look forward to completion of a successful project.

Sincerely,



Michael Rotar, P.E., CFM
Group Manager/Water Resources Engineer



Kristi Webb
Principal Scientist