

## Project Purpose and General Background

### Purpose

The Town of Grand Lake “Town” is accepting proposals for a Stormwater Management Plan for the west side of Town, the purpose of which is to improve the quality of water reaching our adjacent lakes. Stormwater solutions that involve natural resource management interventions are preferred. Soil boring, percolation tests, topography, water quality, and data collection of existing runoff conditions for full comprehension of stormwater interventions to be required throughout the site.

### General Information

The area of interest for this project is shown in figure 1 and is further described here. The water from the Little Columbine Creek flows from north of Town, across wetlands, through private ponds, along highway 34, through culverts into the north side of the Grand Lake Estates HOA marina. This water has been impacted by the East Troublesome fire and along with other factors, is contributing to the sediment deposits in Shadow Mountain Reservoir. Additionally, runoff from the Woodpecker Hill area flows steeply down the face of the hill, and along Park Avenue, through a very flat area of Town via roadside ditches and culverts, which eventually drain into the east side of Grand Lake Estates HOA marina, which is Shadow Mountain Reservoir.

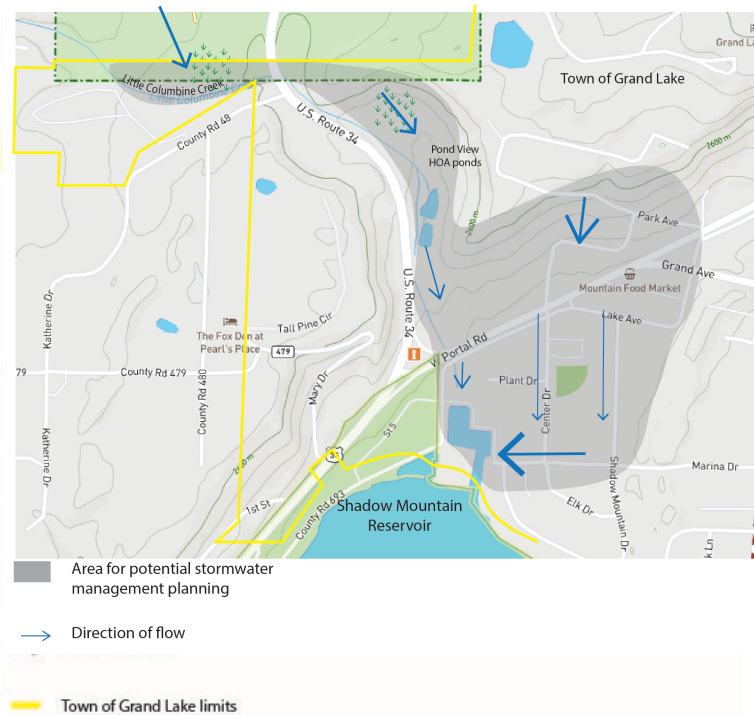


Figure 1- Geographic Area

Successful proposals will balance the following design principles with cost-effective stormwater management solutions that meet required stormwater standards:

- Emphasize low impact development (LID) techniques that seek to mimic the natural hydrologic processes of the site and are context sensitive. Try to maximize treatment of stormwater on-site.
- Promote stormwater management practices that maintain predevelopment hydrology through site design, site development, building design and landscape design techniques that infiltrate, filter, store, evaporate and detain stormwater close to its source.
- Promote public safety from: contaminants in the reservoir; reduce public expenditures in removing sediment from stormwater drainage systems and natural resource areas.

## Scope of Work

The selected consultant will be expected to provide a full range of planning and engineering services in order to meet the goals of the Town listed above. This scope of services will include, but not be limited to the following:

- Communication – The chosen consultant shall meet and engage with all necessary Town and Three Lakes Watershed Association staff (collectively known as “the Team”) in order to fully understand existing infrastructure and determine areas of concern within the Town of Grand Lake.
- Public engagement – While much of this planning process will be directed by the knowledge and experience of the Team, planning should never occur without the input of the community. Therefore, some level of public engagement should be considered in this planning process. That input may be garnered from community meetings, community surveys, or other means deemed appropriate by the planning team. The consultant shall address how they intend to engage the public in their proposal. This proposed public involvement plan will be reviewed and approved during the negotiation of a final contract.
- Mapping – The Town of Grand Lake has very limited mapping resources. The chosen consultant shall provide adequate mapping and GIS data sets for hydrologic analysis of existing drainage ways, including topography of the area. Additional on the ground analysis may be necessary to fully map and analyze all current infrastructure and drainage ways, including facilities on private property.
- Data Collection – It is vital that there is baseline water quality data collected prior to implementing any stormwater solutions. This data will be used to quantify the effects of these strategies on the local watershed. Some of the required parameters to be collected will be total suspended solids, bacteria count/identification, dissolved oxygen, pH, temperature, and clarity. Other parameters can be suggested by the consultant. The Team will require soil bore collection and analysis, topography, and other parameters necessary to make decisions on the feasibility of low impact development solutions and other best management practices.
- Monitoring – The chosen consultant shall recommend locations and quantities of monitoring equipment necessary to provide ongoing water quality data upstream and downstream of proposed stormwater solutions. The data collected shall be analyzed and compiled in a final report illustrating any effects of the stormwater interventions on water quality, such as nutrient loading or reductions.
- Design solutions – The chosen consultant will be able to use the data collected from the soil boring and topography to recommend solutions to improve stormwater quality before reaching the Shadow Mountain Reservoir. The consultant will look at the feasibility of low impact development solutions before settling on more engineered solutions. They will be able to evaluate water quality and develop a preliminary Stormwater Management Plan.
- Reporting – The consultant team should provide a 50% review copy to Town staff and a 75% draft plan for public comment. The final report shall fully address all items listed in this SOW as well as feedback received from both Town staff and public comment.
- Inventory and Analysis of Existing Infrastructure – The consultant will create a comprehensive evaluation of the existing facilities related to stormwater runoff.
- Sustainability – The Town’s goals are to implement low impact design solutions and integrated management practices that serve the stormwater needs of the Town while improving quality of life, and lowering the impacts on Town resources and the surrounding environment. The chosen consultant will be able to work within these goals as the hydrogeomorphology allows.
- Maintenance – The consultant shall provide a summary of maintenance items to be frequently addressed in order to maintain the functionality of the recommended design solutions.
- Funding Options– The consultant shall provide a summary of the available grants and loan options from various agencies for recommended design solutions and associated BMPs.

## Tasks

### Task 1 Inventory:

- Baseline data collection of site and project area
- Meeting with Team

### Task 1 Deliverables:

- Pre-Construction Water Quality Report
- Topographic map -GIS
- Soils report
- Monthly invoices and supporting written progress reports
- Progress meeting minutes
- Schedule updates

### Task 2 Analysis:

- Analyze existing stormwater system
- Evaluate water quality needs
- Evaluate monitoring locations and needs
- Develop proposed stormwater solutions
- Develop public outreach plan

### Task 2 Deliverables:

- Graphics/maps illustrating existing conditions
- Water quality needs report
- Propose Monitoring locations and needs
- Report and map of proposed stormwater solutions and locations
- Public outreach plan

### Task 3 Stormwater Management Plan Preliminary Design

The work performed under this task will be to develop a Stormwater Management Plan for the project area:

- Develop preliminary Stormwater Management Plan
- Develop preliminary Stormwater Management Construction Documents including plans, details, specifications, quantities, and costs.
- Develop preliminary Stormwater Management Plan Report
- Create proposed plan presentation

### Task 3 Deliverables:

- Preliminary Stormwater Management Plan
- Preliminary Stormwater Management Report
- Preliminary Construction Documents
- Present proposed plan for a public meeting

### Task 4 Stormwater Management Plan Final Design

The work performed under this task will be to finalize stormwater management plans for the project area:

- Address preliminary design comments from Team and public

- Finalize Stormwater Management Plan
- Finalize Stormwater Management Construction Documents including plans, details, specifications, quantities, and costs.
- Finalize Stormwater Management Report
- Develop Operations and Maintenance plan

Task 3 Deliverables:

- Final Stormwater Management Plans
- Final Stormwater Management Report
- Final Construction Documents
- Final Operations and Maintenance Manual
- Available Funding Options

### **Codes and Code Compliance**

The awardee is required to comply with the Town of Grand Lake approved codes. Code review and compliance is subject to