



## Muir Woods Water/Wastewater Service Lines Replacement Scoping Announcement – February 2017

### INTRODUCTION

The Golden Gate National Recreation Area (GGNRA), a unit of the National Park Service (NPS), is initiating preparation of an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) to replace aging water and wastewater lines servicing Muir Woods National Monument.

Since a segment of the new water system will be located on adjacent Mount Tamalpais State park lands, GGNRA is working closely with State Parks to obtain their approval.

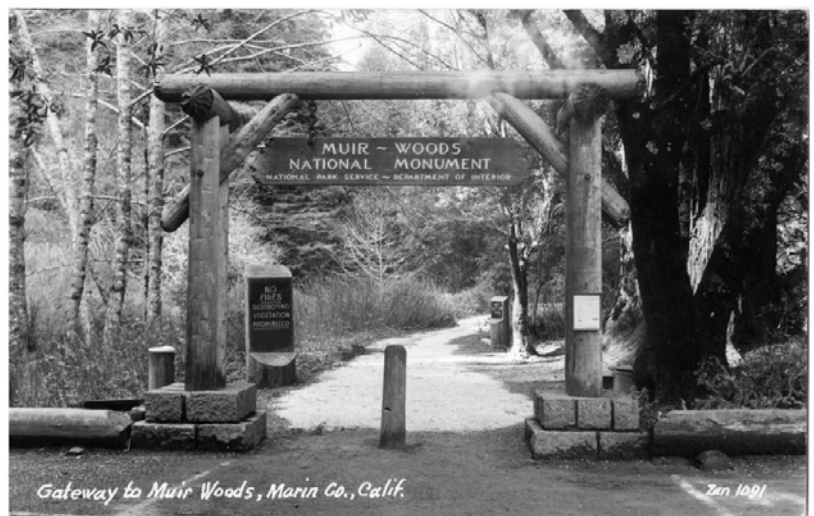
### PURPOSE AND NEED

The project is necessary in order to provide reliable water and wastewater services at Muir Woods to meet current codes for potable water and waste water collection services; and to address fire flow demands, potable water quality issues, visitor and employee health and safety, and locating wastewater infrastructure out of the Redwood Creek corridor.

Components of the existing infrastructure are past their service life and show signs of corrosion and structural deterioration, and the water tank no longer meets code requirement for three day storage capacity for domestic potable water use and National Fire Protection Agency (NFPA) code requirements for fire storage.

The existing water line needs to be replaced because it requires an excessive amount of maintenance effort and resources in order to maintain potable water. Currently, maintaining potable water requires frequent disinfection of the water tank and uses a significant quantity of water to flush the lines.

The existing wastewater line is deteriorated also requires high levels of maintenance. Part of the line is in close proximity to Redwood Creek making it susceptible to erosion or scour from flood flows. Relocation of the wastewater line will ensure it is safe distance from Redwood Creek and would safeguard public health and protect water quality important to sensitive natural resources including Coho salmon, steelhead trout, and California red-legged frogs.



Golden Gate NRA, Park Archives, Muir Woods Collection, GOGA 3240

## **PROPOSED PROJECT**

The project when completed would serve two public comfort stations, two employee concessions private unisex restrooms, park visitor center, administration offices, concessions building, and one permanent employee residence.

### ***Water Lines***

See Figure 1 below for the project location. The new water lines would include the following components (see also Figure 2):

- Replace existing 2" water pipeline with a 8" high-density polyethylene (HDPE) water line to connect domestic water service to the Marin Municipal Water District (MMWD) system at the Tourist Club and with MMWD approval, upgrade the current 1" domestic water meter to a 4" meter to supply all MUWO water needs, including domestic and fire flows;
- Remove the existing MUWO 40,000 gallon water tank and replace with a 6" Pressure Reducing Valve (PRV) station (during construction, the water tank will remain in service to reduce system outages/shut downs);
- Extend the 8" high-density polyethylene (HDPE) water main pipeline downhill from the MMWD service connection on the Tourist Club Road to the new PRV station;
- Extend the 8" water main from the PRV station to an existing MUWO 6" water main, approximately 80 feet from the tank pad;
- Construct a 2" domestic service connection with NPS water meter at the paved access road below the former tank site. The domestic water main will be separated from the fire main at this point, with the existing 6" water main becoming a dedicated fire main.
- Install secondary chlorine analyzer at end of use point located inside the maintenance building to determine in-line supplemental dosing of upstream injection pump.
- Construct 2" HDPE domestic water main from NPS water meter to all domestic water services within MUWO. Separate all domestic water services from the 6" fire main since it will now be classified as a non-potable, dedicated fire main.
- Extend 6" fire main approximately 500 feet from existing end fire hydrant to maintenance building using 8" (6.917" inside diameter) HDPE. This may or may not be included with this project depending on funding.

### ***Water System Goals***

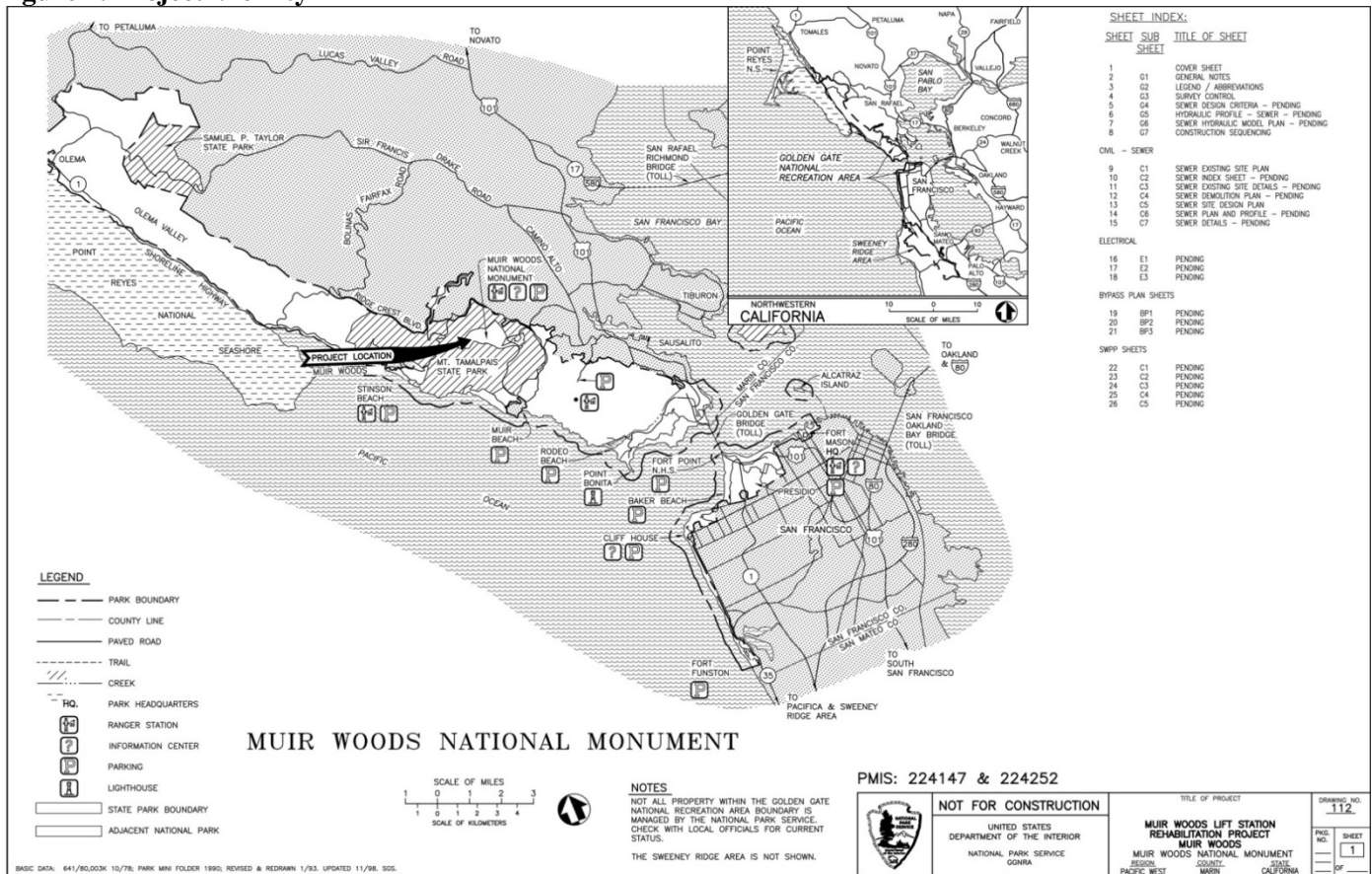
- Eliminate aged and poorly functioning system components
- Reduce the amount of operation and maintenance by removing tank, reducing disinfection requirements.
- Remove the need to flush significant quantities of water to maintain water quality.

### ***Wastewater Lines***

The new wastewater lines would include the following components (See Figure 2):

- Rehabilitate or replace 5 manholes.
- Install 12 new manholes.
- Remove, replace and rehabilitate bedding through spot repair approximately 100 linear feet of 6" defective gravity sewer main with 6" 4710 HDPE.
- Install approximately 1,800 linear feet of 8" PVC gravity sewer main by open trench.
- Maximum bury depths of approximately 6 feet in the 8" PVC gravity sewer main.
- New sewer main located in same road corridor as water main.

**Figure 1. Project Vicinity**



- Provide new lateral connection to Lower Comfort Station.
- Maximum bury depths of approximately 14 feet in Muir Woods Road below the NPS Maintenance building.
- Abandonment in place of existing gravity sewer main except portion used for connection to Lower Comfort Station.
- New sewer main located through partial area of lower parking lot (Annex) to connect to existing sewer main alignment with pipe bursting to upsize to 8" main to Lift Station #1.
- Provide new lateral connection to existing NPS Maintenance building and residence (Old Inn and Ed Lab).
- Maximum bury depths of approximately 14 feet in the lower parking lot.

### **Wastewater System Goals**

- Eliminate aged and poorly functioning components.
- Relocate sewer line infrastructure to provide sewer separation located farther from Redwood Creek to help safeguard public health and protect sensitive natural resources including Coho salmon, steelhead trout, and California red-legged frogs.
- Maintain current sewer alignment within the greater surrounding critical infrastructure such as the visitor's center and the boardwalk where the NPS has a significant interest in preserving these cultural resources.

### **Telecommunications System Rehabilitation**

- During trenching and asphalt repairs for the new water and wastewater systems, the project scope would include

installation of telecommunication conduits, pull boxes, and cable.

- The installed conduit would terminate in a box at the exterior of each building to receive telecommunications in a later project.

## **ENVIRONMENTAL REVIEW**

The EA will be prepared in accordance with the National Environmental Policy Act of 1969 and regulations of the Council on Environmental Quality (40 CFR 1508.9), the 2006 NPS Management Policies, and the 2015 NPS Director's Order No. 12, NPS NEPA Handbook . This assessment will evaluate the potential effects of the project on the environment, including effects on natural resources, cultural resources, visitor use and experience. Mitigation measures will be identified to avoid or reduce any adverse environmental effects from this project. A Draft EA is expected to be released for public review by Spring 2017.

## **SCOPING COMMENTS**

The primary goal of scoping is to determine the range of issues and alternatives to be addressed regarding the proposed project. You are invited to submit scoping comments that consider the following:

- Alternative approaches and ideas for accomplishing project goals;
- The range of issues that need to be considered;
- Other potential projects that might affect or be affected by this project;
- Effects that should be considered and why; and
- Information on resources within or adjacent to this area that your agency has jurisdiction

## **SUBMITTING COMMENTS**

The public is invited to submit comments on this proposed project to the NPS from Friday, February 24 through Friday, March 17, 2017. Interested individuals, organizations, and agencies should submit comments online at: [https://parkplanning.nps.gov/muwo\\_water\\_wastewater](https://parkplanning.nps.gov/muwo_water_wastewater), or by mail to:

Superintendent  
Golden Gate National Recreation Area  
Attn: Muir Woods Water/Wastewater Project  
Fort Mason, Building 201  
San Francisco, CA 94123

For more information or to be added to the mailing list, e-mail: [goga\\_planning@nps.gov](mailto:goga_planning@nps.gov).



