
Internal Memorandum

DATE: June 16, 2015
TO: Mark Bishop, Don Demers
FROM: Brady Busselman, Earth Evans
SUBJECT: Executive Order 11988 Summary and Recommendations

The following memorandum provides a brief summary of the impacts to SWLRT of Executive Order 11988, Floodplain Management, May 24, 1977 as well as the Revised Guidelines for Implementing EO 11988 (draft dated 1/30/15). This document requires federal projects to minimize floodplain impacts.

Summary

Executive Order (EO) 11988 is in the process of being revised to incorporate the amendments issued on January 30, 2015. It requires the following 8-step process:

1. Determine if the proposed project is within the 100-year floodplain. The floodplain elevation is established by the Federal Emergency Management Agency (FEMA) in Flood Insurance Rate Maps (FIRMs) and Flood Insurance Studies (FISs). The base flood is defined as the flood which has a one percent chance of being equaled or exceeded any given year (also known as the 100-year flood). EO 11988 requires critical actions to evaluate the 500-year floodplain. Critical Actions are defined as any activity for which even a slight chance of flooding would be too great. It is assumed that SWLRT-related improvements are not Critical Actions.
2. Conduct public review and public notice.
3. Identify and evaluate alternatives for locating in the floodplain.
4. Identify the impacts of the proposed project.
5. Avoid impacts and if not feasible, identify methods to minimize impacts.
6. Reevaluate alternatives.
7. Present alternatives to the public.
8. Implement the project.

The intent of this memo is to identify the approach used by SWLRT to comply with EO 11988.

Implementation on SWLRT

Step 1: Determine proposed 100-year floodplain locations

There are eight locations along the SWLRT corridor that are near or adjacent to floodplains. The table below summarizes these locations. SWLRT Internal Memorandum regarding EO 13690 dated 7/15/15 summarizes project compliance with the revised Federal Flood Risk Management Standard (FFRMS) floodplain elevations.

| | FFRMS Elevation | Adjacent Top of Rail | Maximum Allowable HWL* | Note |
|---|-----------------|----------------------|------------------------|--|
| Purgatory Creek Crossing | 826.0 | 827.25 | 827.25** | Rail Station: 2074+81 FIS 27053C0430E |
| Flying Cloud Drive Crossing (South Fork Nine Mile Creek) | 849.0 | 879.6 | 877.0 | Rail Station: 2226+00 FIS 27053C0435E |
| Opus Hill (wetland MTA-MTA-09) | 883.6 | 895.0 | 892.4 | Rail Station: 2347+00 FIS 27053C0343E |
| North Fork Nine Mile Creek Crossing | 901.6 | 909.7 | 907.1 | Rail Station: 2439+00 FIS 27053C0341E |
| Cedar Lake Trail Crossing (Minnehaha Creek) | 901.2 | 912.2 | 909.6 | Rail Station: 2601+00 FIS 27053CV001A |
| Louisiana Station (Minnehaha Creek) | 890.7 | 891.6 | 889.4 | Rail Station:2644+90 FIS 27053CV001A, Not Hydraulically Connected |
| Beltline Station (Bass Lake) | 881.2 | 885.3 | 882.7 | Rail Station:2717+00, Not Hydraulically Connected |
| Bassett Creek | 809.9 | 820.4 | 817.9 | Rail Station: 2903+00 FIS 27053CV001A |

*Maximum Allowable HWL = 31" below top of rail for ballasted track

**Maximum Allowable HWL = 15" below top of rail for direct fixation track

Step 2: Conduct Public Review and Notice

Floodplain impacts due to the SWLRT have been identified in several environmental documents including:

- Scoping Summary Report January 2009
- Draft Environmental Impact Statement (DEIS) October 2012
- Supplement Draft Environmental Impact Statement (SDEIS) May 2015

Additionally, the floodplain impacts will be further refined with the pending Final Environmental Impact Statement (FEIS).

Steps 3- 6: Identify and Evaluate Alternatives for Locating in the Floodplain

The documents listed above contain alternative alignments evaluated for avoiding and minimizing floodplain impacts. To address the eight locations where the SWLRT locally preferred alternative (LPA) is within the floodplain a range of measures are proposed including:

- Grade separation of the track by bridging over the floodplain;
- Compensatory floodplain mitigation; and
- Constructed stormwater best management practices to improve water quality.

Step 7: Present Alternatives to the Public

The proposed floodplain impacts will be presented to the public with the pending FEIS. Additionally, there are ongoing discussions with local, state and federal regulatory authorities regarding floodplain impacts.

Step 8: Implement the project

The project is in the process of continuing to refine and reduce proposed floodplain impacts during the advanced design process.