



## WESTSIDE SUBWAY EXTENSION PROJECT

# Addendum to the Hydrology and Water Quality Technical Report



August 2011

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## SUMMARY

On October 28, 2010, the Metro Board selected the Westwood/VA Hospital Extension (Alternative 2 in the Draft EIS/EIR) as the Locally Preferred Alternative (LPA) and authorized the preparation of the *Westside Subway Extension Final EIS/EIR* (the Final EIS/EIR) to analyze the LPA. This alternative would extend HRT, in subway, approximately nine-miles from the existing Metro Purple Line Wilshire/Western Station to a Westwood/VA Hospital Station. A detailed description of the LPA is provided in Chapter 2 of the Final EIS/EIR.

This addendum supplements materials in the *Westside Subway Extension Project Hydrology and Water Quality Technical Report* (the Report) dated August 2010 and supports the Final EIS/EIR. The LPA is referred to as Alternative 2 in this addendum and the Report. Modifications to the Report incorporated into this addendum reflect responses to comments on the Draft EIS/EIR and refinements to Alternative 2 as described in Chapter 2 of the Final EIS/EIR.

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## 1.0 INTRODUCTION

No change.

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## 2.0 PROJECT DESCRIPTION

*Change* The Project description has been refined as part of the Final EIS/EIR.

On October 28, 2010, the Metro Board selected the Westwood/VA Hospital Extension (Alternative 2 in the Draft EIS/EIR) as the Locally Preferred Alternative (LPA) and authorized the preparation of the *Westside Subway Extension Final EIS/EIR* (the Final EIS/EIR) to analyze the LPA. This alternative would extend HRT, in subway, approximately nine-miles from the existing Metro Purple Line Wilshire/Western Station to a Westwood/VA Hospital Station. The extension would include a total of seven new stations:

- Wilshire/La Brea
- Wilshire/Fairfax
- Wilshire/La Cienega
- Wilshire/Rodeo
- Century City (Century City Santa Monica or Century City Constellation)
- Westwood/UCLA (Westwood/UCLA On-Street or Westwood/UCLA Off-Street)
- Westwood/VA Hospital (Westwood/VA Hospital South or Westwood/VA Hospital North)

The estimated one-way running time for the project would be approximately 15 minutes from the Wilshire/Western Station to the Westwood/VA Hospital Station. The extension would operate at headways of 4 minutes during peak periods and 10



minutes during off-peak periods. As part of the project, Metro is also planning several enhancements to the Division 20 Maintenance and Storage Facility.

The construction schedule for the Project is partially dependent on the timing of Federal funding availability. Two LPA construction scenarios are considered. Both scenarios will contain the same elements with differences only in the timing of when they are built and operational. The first construction scenario assumes that under the America Fast Forward (30/10) Scenario (Concurrent Construction), the LPA would open in its entirety to the Westwood/VA Hospital Station in 2022 with the three construction segments built concurrently (Wilshire/Western to Wilshire/La Cienega, Wilshire/La Cienega to Century City and Century City to Westwood/VA Hospital). The second construction scenario assumes that under the Metro Long Range Transportation Plan (LRTP) Scenario (Phased Construction), the LPA would open in three consecutive phases (Phase 1 to Wilshire/La Cienega, Phase 2 to Century City, and Phase 3 to Westwood/VA Hospital), with the entire LPA operational to the Westwood/VA Hospital Station in 2036.

A detailed description of the LPA is provided in Chapter 2 of the Final EIS/EIR.

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### **3.0 REGULATORY FRAMEWORK**

No change.

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### **4.0 AFFECTED ENVIRONMENT**

*Change* The following is a modification of and replaces Section 4.5.1.

#### **Build Alternatives**

Areas along the alignment of the Build Alternatives contain 500-year and 100-year floodplain (FIRMs: 06037C1580F, 06037C1557F, 06037C1556F, 06037C1552F, 06037C1288F, 06037C1290F, 06037C1295F, 06037C1551F, 06037C1532F, 06037C1533F, 06037C1529F, 06037C1528F, 06037C1536F, 06037C1517F, 06037C1519F).

Most of the alignments of the Build Alternatives are within the FEMA-designated floodplains Zone X and Zone X (shaded). Zone X is defined as areas of minimal flood hazard, usually depicted on FEMA flood zone maps as above the 500-year flood level; Zone X (shaded) is defined as areas of moderate flood hazard, usually depicted in FEMA flood zone maps as above the 500 year flood level.

Areas of 100-year floodplain occur along North La Cienega Boulevard to the north and south of the intersection at Burton Way. The 100-year floodplain in this area is designated as AO, which means it is subject to a one percent annual chance of shallow flooding hazards in the form of sheet flow (average depths ranging from 1 to 3 feet). Another 100-year flood plain lies adjacent to Santa Monica Boulevard south of the intersection with Wilshire Boulevard. This area is designated as AH, which means it is subject to one percent annual chance of shallow ponding (average depths range from 1 to 3 feet). Figure 4-5 shows these floodplain areas along the Build Alternatives.

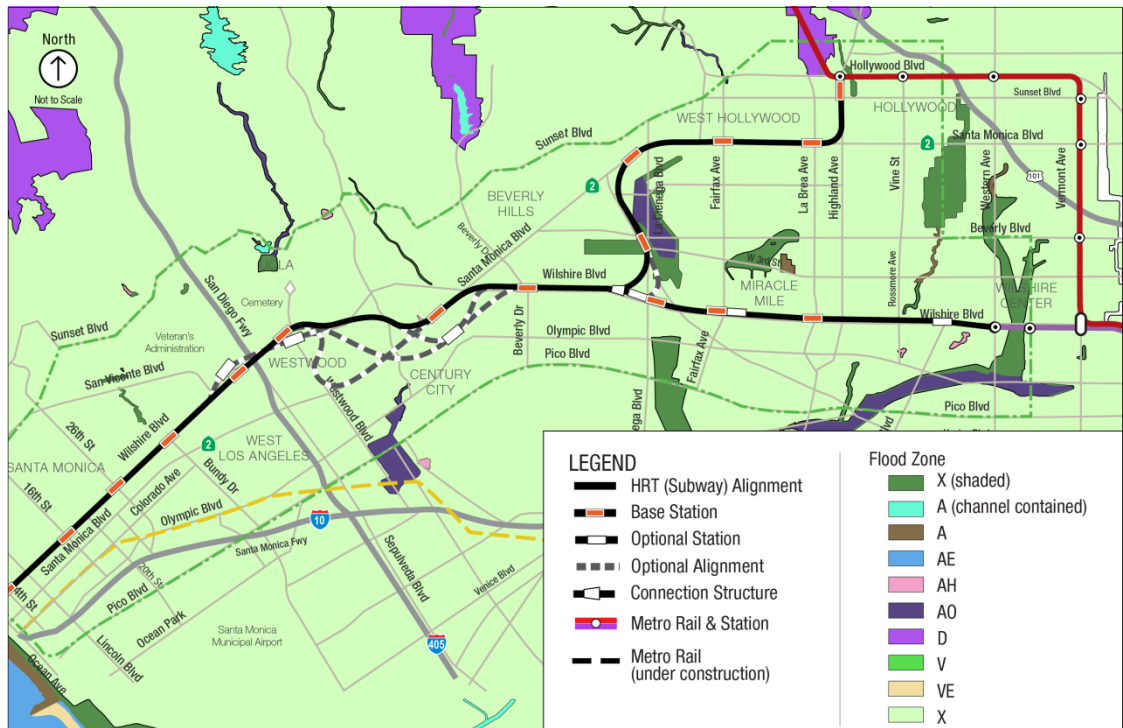


Figure 4-5. FEMA Floodplains in the Vicinity of the Build Alternative

**Change** The following is a modification of and replaces Section 4.5.2.

**Rail Operations Center**

The Rail Operations Center (ROC)/ Bus Operations Center is located in an area of minimal flood hazard (Zone X). The nearest floodplain is Compton Creek, a channel-contained 100-year flood Zone A located approximately 1 mile to the west. (Figure 4-6).



Figure 4-6. FEMA Floodplains in the Vicinity of the Rail Operations Center

**Change** The following is a modification of and replaces Section 4.5.3.

In the vicinity of the proposed maintenance yards, the Los Angeles River has been channelized and/or culverted and serves primarily as a storm runoff channel. The current flood plain for much of the river is contained in the channel, and the flood zone is designated Zone A (channel contained) by FEMA (FIRM 06037C1636F). Part of the proposed maintenance yard located at the Union Pacific Railroad—Los Angeles Transportation Center Railroad is located in flood Zone AE (Figure 4-7). Flood Zone AE is designated as areas in the 100-year floodplain where base flood elevations (BFEs) have been derived from detailed analysis. The base flood, also known as the 100-year flood, is defined as having a one percent chance of being equaled or exceeded in any given year. Therefore, BFEs are the determined elevation to which floodwater is anticipated to rise during a base flood. The BFE is the regulatory requirement for the elevation or floodproofing of structures (FEMA 2010). The remaining part of the proposed Union Pacific Railroad—Los Angeles Transportation Center Railyard as well as the proposed Division 20 Maintenance Yard are located in the Los Angeles River 100-year floodplain, Zone X.



Figure 4-7. FEMA Floodplains in the Vicinity of the Proposed Maintenance Yards

## 5.0 ENVIRONMENTAL IMPACT/ENVIRONMENTAL CONSEQUENCES

*Change* The following is a modification of and replaces the first paragraph of Section 5.6.13.

### Maintenance Yards

The potential location of the Division 20 Maintenance Yard is within the FEMA-designated floodplains Zone X. The selection of this location will not increase impervious cover at the facility or result in runoff that exceeds the current drainage and flood control capacity of the storm drain system. As a result, the Division 20 facility will not impede or redirect flood flows. Drainage will be conveyed properly to avoid ponding or flooding on Division 20 or adjacent properties. Implementing measure WQ1 will further ensure there will be no adverse impacts related to flooding.

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## 6.0 MITIGATION MEASURES

*Change* The following is a modification of and replaces Section 6.3.3.5.

### WQ8

The following permanent treatment BMPs are recommended for incorporation into the proposed project:

#### **Infiltration basins/trenches**

Infiltration basins are surface ponds which capture first-flush stormwater and treat it by allowing it to percolate into the ground and through permeable soils. Infiltration trenches are excavated trenches that have been lined with filter fabric and backfilled with stone to form an underground basin that allows runoff to infiltrate into the soil. As the water percolates through the ground, physical, chemical, and biological processes occur to remove both sediments and soluble pollutants. Pollutants are trapped in the upper layers of the soil, and the water is released to groundwater. Infiltration basins are generally dry except immediately following storms, but a low-flow channel may be necessary if a constant base flow is present.

#### **Porous pavement**

Porous pavement can be either asphalt-based pavement or pre-casted permeable concrete pavers. The permeable concrete paver is a preferred feature of the City of Los Angeles' Green Street Policy. Both concrete pavers and asphalt-based paving material allows stormwater to quickly infiltrate the surface pavement layer to enter into a high-void aggregate sub-base layer. The captured runoff is stored in this "reservoir" layer until it either infiltrates into the underlying soil strata or is routed through an under drain system to a conventional stormwater conveyance system. Porous pavement is typically applicable only in low-traffic areas.

#### **Vegetated filter planters**

These are newly adopted bio-parkway or flow-through planters engineered in accordance to the City of Los Angeles' Green Street Policy. They are planters with selected vegetations and engineered soils to treat and filter storm-water from street and / or roof runoff. The design storm First-Flush polluted storm-water will be treated and filtered. At large storm events, clean storm-water will be by-passed to normal drainage facilities. These devices are most suitable to urban environment such as the current study area corridor.

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## 7.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT DETERMINATION



*Change* The following is a modification of and replaces Section 6.4.1

**No Build Alternative**

The No Build Alternative would have no significant impact on water resources.

*Change* The following is a modification of and replaces Section 6.4.4

**Alternative 2—Westwood/VA Hospital Extension**

Alternative 2 will not result in any significant impacts to water quality based on the CEQA significant criteria discussed in Section 3.5.1. The Study Area is already densely urbanized with extensive impervious surfaces, and any added runoff would be minor. Alternative 2 will not substantially alter drainage patterns and will comply with NPDES permit requirements as well as measures described in greater detail in WQ1 through WQ8 to further ensure that any potential impacts remain at a less-than-significant level.

*Change* The following is a modification of and replaces Section 6.4.12

**Rail Operations Center**

ROC operation will not result in significant adverse water resources impacts. Compliance with applicable permits and regulations and implementation of measures WQ1 through WQ8, as applicable, will further ensure that potential impacts remain at less-than-significant levels.