Los Angeles County
Metropolitan Transportation Authority

SEPTEMBER 2010

Westside Subway Extension

Draft

Environmental Impact Statement/Environmental Impact Report—Volume 1

State Clearinghouse No. 2009031083

Metro®

U.S. Department of Transportation
Federal Transit Administration

Draft Environmental Impact Statement/ Draft Environmental Impact Report

for the

Westside Subway Extension

prepared by the

U.S. Department of Transportation
Federal Transit Administration

and the

Los Angeles County
Metropolitan Transportation Authority

pursuant to

National Environmental Policy Act (42 USC 4332), 49 USC 53, 49 USC 303, 16 USC 470, 23 CFR 771, 23 CFR 450, Executive Order 12898 Section 6002 SAFETEA-LU, 40 CFR 1500-1508, and California Environmental Quality Act, PRC 21000 *et seq.*; and the State of California CEQA Guidelines, California Administrative Code, 15000 *et seq.*

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8-26-2010
Date

Arthur T. Leahy
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8-25-2010
Date

DRAFT ENVIRONMENTAL IMPACT STATEMENT/ ENVIRONMENTAL IMPACT REPORT

LEAD AGENCIES—Federal Transit Administration of the U.S. Department of Transportation and the Los Angeles County Metropolitan Transportation Authority

STATE CLEARINGHOUSE NO—2009031083

TITLE OF PROPOSED ACTION—Westside Subway Extension Transit Corridor Project

ABSTRACT—The Los Angeles County Metropolitan Transportation Authority (Metro) proposes to implement a heavy rail subway that would operate as an extension of the Metro Purple Line/Metro Red Line heavy rail subway system from its current western termini at Wilshire/Western Station and Hollywood/Highland Station to a new western terminus either in Westwood near the University of California, Los Angeles (UCLA), the West Los Angeles Veterans Affairs (VA) Hospital, or the City of Santa Monica. The Westside Subway Extension Transit Corridor Study Area is in western Los Angeles County and encompasses approximately 38 square miles. The Study Area is east-west oriented and includes portions of five jurisdictions: the Cities of Los Angeles, West Hollywood, Beverly Hills, Santa Monica, as well as portions of unincorporated Los Angeles County. The boundaries of the Study Area generally extend north to the base of the Santa Monica Mountains along Hollywood, Sunset, and San Vicente Boulevards, east to the Metro Rail stations at Hollywood/Highland and Wilshire/Western, south to Pico Boulevard, and west to the Pacific Ocean.

Alternatives under consideration include a No Build Alternative, a Transportation Systems Management (TSM) Alternative, five Build Alternatives with six options, and two minimum operable segments (MOS) as follows:

- No Build
- TSM
- Alternative 1—Westwood/UCLA Extension
- Alternative 2—Westwood/VA Hospital Extension
- Alternative 3—Santa Monica Extension
- Alternative 4—Westwood/VA Hospital Extension plus West Hollywood Extension
- Alternative 5—Santa Monica Extension Plus West Hollywood Extension
- MOS 1—Fairfax Station Interim Terminus
- MOS 2—Century City Interim Terminus

This report is a combined Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR), satisfying the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). The Draft EIS/EIR defines the alternatives under consideration and describes each alternative's associated potential transportation and environmental impacts, operating and maintenance and capital costs, and potential funding sources. Potential areas of impact include transit; traffic; parking; land use/neighborhoods; land acquisition; displacement and relocation; equity and

environmental justice considerations; visual quality; air quality; noise and vibration; geology, soils and seismicity; exposure to hazardous substances; water resources; biological resources; energy resources; safety and security; historic, archaeological, and paleontological resources; community facilities and parklands; construction impacts; and other CEQA determinations. Mitigation measures for the impacts of the alternatives are also identified. The information contained in this document will be used by the Metro Board of Directors to decide whether to implement the Project and to select, from among the alternatives, alignment options, and station options under consideration, a Locally Preferred Alternative for implementation.

Additional written comments and/or questions concerning this document should be directed to the following:

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PREFACE

The Federal Transit Administration (FTA) and the Los Angeles County Metropolitan Transportation Authority (Metro) have prepared this Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) to solicit agency and public comment on a proposed major transit investment in Los Angeles County, California. The Proposed Action is an extension of the existing Metro Purple Line and Metro Red Line heavy rail subway system west from its westernmost current termini at the Wilshire/Western Station and Hollywood/Highland Station toward west Los Angeles and the City of Santa Monica.

The Project results from nearly 30 years of planning and environmental review. In January 2009, Metro completed an Alternatives Analysis that evaluated transit mode and alignment alternatives in the Westside Corridor. This resulted in Metro's selection of a heavy rail subway extension as the preferred transit mode for this corridor. The Westside Subway Extension Transit Corridor Project is included in Metro's Long Range Transportation Plan and is part of the Regional Transportation Plan adopted by the Southern California Association of Governments, the designated Metropolitan Planning Organization, in 2008.

This Draft EIS/EIR is designed to take the decision process one step further by evaluating heavy rail subway extension alternatives in greater detail, including the following:

- **Project alternatives**—Five heavy rail subway alternatives are analyzed, representing different project lengths and termini
- **Station and alignment location options**—Consideration whether to include certain stations, as well as the location of stations where options exist; comparison of optional routes for connecting station locations
- **Other components**—Other decisions to be made based on the Draft EIS/EIR, such as the location for the vehicle maintenance and storage facility
- **Phasing options**—Two minimum operable segments (MOSs) with potential interim termini are considered to support decisions on the project segment to be built first

This Draft EIS/EIR also presents a No Build Alternative and a relatively low cost Transportation System Management (TSM) Alternative.

This Draft EIS/EIR presents the results of a comprehensive analysis of these alternatives. In Chapter 1, the Draft EIS/EIR presents the Purpose and Need for a transit investment within the Westside Corridor. Chapter 2 summarizes the alternatives considered, including physical features and operating characteristics. Chapter 3 summarizes the transportation benefits and impacts of each alternative. Environmental factors, impacts, and mitigation are discussed in Chapters 4 and 5. Chapter 6 addresses each alternative's cost and financial feasibility. Chapter 7 provides a comprehensive evaluation focused on the decisions at hand. Chapter 8 addresses public outreach. More

detailed technical documentation is available for those interested in the analysis methodology and results.

During the Draft EIS/EIR circulation period, Metro will hold public hearings in the summer of 2010 to receive oral and written testimony on the document from the general public. It is anticipated that five public hearings will be held throughout the study corridor. Metro will provide a notice of these public involvement meetings in compliance with CEQA and NEPA. A comprehensive effort to inform the public with email, mail, print, broadcast and digital media, flyers, social networking, and other means will be undertaken on a similar scale with previous rounds of meetings.

After the 45-day circulation period closes, the Metro Board will consider the adoption of a Locally Preferred Alternative (LPA) after considering the alternatives and evaluation results in this Draft EIS/EIR, written comments on the document, and testimony received at public hearings. The LPA project definition scope will then be submitted to FTA for approval into New Starts Preliminary Engineering (PE) phase of project development. During PE, the Project will be further refined as more detailed decisions are made within the adopted project scope. The PE phase will also include completing the NEPA and CEQA processes with a Final EIS/EIR and a Record of Decision (ROD). A Federal commitment to fund the Project would not be made until after the ROD and after the Project completes the PE design phase.

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ACRONYMS AND ABBREVIATIONS

$\mu g/m^3$	micrograms per cubic meter
AA	Alternatives Analysis
AB	State of California Assembly Bill
ACHP	Federal Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act of 1990
AMSL	above mean sea level
ANSI	American National Standards Institute
APE	Area of Potential Effect
APTA	American Public Transportation Association
AQMD	Air Quality Management District
BBB	Santa Monica Big Blue Bus
BMP	best management practice(s)
BRT	bus rapid transit
BTU	British thermal unit
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CARB	California Air Resource Board
CBD	Los Angeles Central Business District
CE	Conceptual Engineering
CEI	cost effectiveness index
CEQA	*California Environmental Quality Act* (PRC 21000-21177)
CERCLA	*Comprehensive Environmental Response, Compensation and Liability Act of 1980*
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CFC	chlorofluorocarbons
CFR	Code of Federal Regulations
CGS	California Geological Surveys
CH_4	methane
CMAQ	Congestion Management and Air Quality
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CORE	Congressionally Ordered Re-engineering
Cortese	Hazardous Waste and Substance Sites List
DASH	Downtown Area Shuttle
dB	decibels
dBA	A-weighted decibels
DIL	dynamic insertion loss
EIS/EIR	environmental impact statement/environmental impact report

EJ	environmental justice.
EMFAC	Emission Factor Model
EMI	Emissions Inventory Data
EPA	U.S. Environmental Protection Agency
ESA	environmental site assessment
FHWA	Federal Highway Administration
FINDS	Facility Index System/Facility Registry System
FTA	Federal Transit Administration
g	gravity
GBN	ground-borne noise
GBV	ground-borne vibration
GHG	greenhouse gas
GWP	global warming potential
H_2S	hydrogen sulfide
HABS	Historic American Building Survey
Haznet	Facility and Manifest Data
HCFC	hydrochlorofluorocarbons
HCM	*Highway Capacity Manual*
HDPE	high-density polyethylene
HFC	hydrofluorocarbons
HFE	hydrofluorinated ether
HIST UST	Historical Record Hazardous Substance Storage Container Database
HOV	high-occupancy vehicle
HRT	heavy rail transit
Kg	kilogram
kWh	kilowatt-hour
LACTC	Los Angeles County Transportation Commission
LADOT	Los Angeles Department of Transportation
LATC	Los Angeles Transportation Center
L_{dn}	average day-night noise level
L_{eq}	equivalent sound level
$L_{eq(h)}$	hourly equivalent sound level
L_{max}	maximum noise level during an event
LONP	Letters of No Prejudice
LOS	level of service
LPA	Locally Preferred Alternative
LRT	light rail transit
LRTP	*Long Range Transportation Plan*
LTF	Local Transportation Fund
LUST	leaking underground storage tanks
MDE	maximum design earthquake

Metro	Los Angeles County Metropolitan Transportation Authority
MIS	Major Investment Study
MOS	minimum operable segments
mph	miles per hour
MPO	metropolitan planning organization
MSAT	mobile source air toxics
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NASA	National Aeronautics and Space Administration
NEPA	*National Environmental Policy Act* (42 USC 4321-4347)
NF_3	nitrogen trifluoride
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOAA/FS	National Oceanic and Atmospheric Administration/Fisheries Service
NOI	notice of intent
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRHP	National Register of Historic Places
O&M	operating and maintenance
O_3	ozone
ODE	operating design earthquake
OPR	The Governor's Office of Planning and Research
PFC	perfluorocarbons
PGA	peak ground acceleration
PM_{10}	particulate matter smaller than or equal to 10 microns in size
$PM_{2.5}$	particulate matter smaller than or equal to 2.5 microns in size
ppm	parts per million
PPV	peak particle velocity
PRC	State of California Public Resources Code
PSHA	*probabilistic seismic hazard analysis*
RMS	*root mean squared*
ROC	*Rail Operations Center*
ROW	*right-of-way*
RPP	*residential permit parking*
RTAA	*Regional Transit Alternatives*
RTIP	Regional Transportation Improvement Plan
RTP	*Regional Transportation Plan*
SAFETEA-LU	*Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (U.S. Public Law 109-59)

SB	State of California Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCC	standardized cost categories
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Office/Officer
SLIC	spills, leaks, investigations, and cleanup
SO_2	sulfur dioxide
TBM	tunnel boring machine
TDA	Transportation Development Act
TDM	travel demand management
TIP	transportation improvement plan
TOD	transit-oriented development
TPSS	traction power substation
TSM	Transportation Systems Management
UCLA	University of California, Los Angeles
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Surveys
USHHS	U.S. Department of Health and Human Services
UST	underground storage tank
VA	Veterans Affairs
VdB	vibration decibels
VHT	vehicle hours traveled
VMT	vehicle miles traveled
WBHL	West Beverly Hills Lineament