Background

Metro is evaluating the environmental impacts and mobility benefits of five alternatives for the Westside Subway Extension in the Draft Environmental Impact Statement/Environmental Impact Report (Draft EIS/EIR). The five alternatives were identified through the Alternatives Analysis (AA) Study conducted in 2007-08. They have been further developed through extensive analysis and public input during the Draft EIS/EIR that has been underway since early 2009.

Please review our other fact sheets for more maps and more information about the alternatives being evaluated. These can also be found online at metro.net/westside.

In the Fall of 2010, the Metro Board of Directors will be asked to select one of the alternatives as the Locally Preferred Alternative (LPA) to proceed into the Final EIS/EIR and Preliminary Engineering phase. We will also seek federal matching funds for construction, as well as input from the prior (AA) study conducted in 2007-08. Prior to action by the Metro Board of Directors, the Draft EIS/EIR will be released for public review. We will hold public hearing during this time. About another year would be needed to complete the Final EIS/EIR, Preliminary Engineering and secure funding.

Issues to be addressed in the EIS/EIR

Both construction and operational impacts and benefits will be assessed in the Draft EIS/EIR. Potential mitigation measures will also be discussed. Specific mitigation measures will be developed during the Final EIS/EIR based on the more detailed assessment of the Locally Preferred Alternative. The major issues being assessed in the EIS/EIR include:

- **Transportation:** Traffic, Transit, Parking
- **Socioeconomics**
- **Environmental Justice:** Economic/Fiscal Impacts, Communities/Neighborhoods
- **Land Use**
- **Geotechnical:** Seismic, Soils/Gassy ground, Hazardous Materials
- **Air Quality/Greenhouse Gases**
- **Noise & Vibration**
- **Safety and Security**
- **Historic Resources**
- **Archeology/Paleontology**
Tunneling in earthquake country

Many underground facilities – subway tunnels, sewers, storm drains and buildings – have been built in Los Angeles and throughout California near active fault lines. California has some of the strictest building standards when it comes to designing infrastructure to withstand earthquakes. One of the initial steps in planning a transportation project like a subway is to identify where faults are located and understand their characteristics. The goal in planning the subway is to avoid faults if possible. If that is not possible, then every effort is made to minimize exposure to the fault(s), often by crossing a fault in a perpendicular orientation. Running parallel increases the risk as more of the project is exposed to the fault. This can increase project costs as special engineering and construction techniques utilized in a fault zone must be employed along a greater portion of the project. Various special engineering techniques have been employed in fault zones to reduce the risk of damage, limit any damage that may occur, and allow for a swift return to regular operations should a seismic event take place. This can include constructing larger diameter tunnels or the use of enhanced tunnel linings and other measures to accommodate ground movement in fault zones, including after the Northridge earthquake in 1994. The Santa Monica fault runs through the Westside Subway Extension subway area. We are particularly focused on the fault in the area around Century City where its location may influence decisions regarding station and tunnel alignments. More testing and analysis will be conducted during the Final EIS/EIR and engineering phase to determine the best way to design and build the subway in this area.

Tunneling near oil fields

Greater Los Angeles is an oil producing area and there is significant local experience building here. During the draft environmental analysis, known oil fields and documented active or abandoned oil wells have been identified from oil well maps. This initial analysis indicated that the oil fields are much deeper than the potential subway tunnels. Shafts for active and abandoned oil wells are also located in the vicinity of project alignments along with other utilities such as sewer, water, gas and electric lines. These will be further mapped during Preliminary Engineering and relocated, if necessary, during the construction phase of the project. If any unmapped or unknown wells are encountered during construction, there are established procedures, regulated by government agencies, for dealing with them safely. Metro recently tunneled successfully through the former Boyle Heights oil field while constructing the Metro Gold Line Eastside Extension.

New Tunneling Technologies

Metro has enjoyed great success with the twin-bore tunnels used on the existing Metro system, particularly the recent tunnels on the Metro Gold Line Eastside Extension. These tunnels used the newest form of tunnel boring machine technology known as “earth pressure balance.” This technology maintains the pressure in the earth surrounding the tunnel. As a result, the tunnels for the Metro Gold Line Eastside Extension were constructed with no measurable surface subsidence and no substantiated property damage claims. They were also constructed on-time and on-budget.
Metro invites you to stay involved throughout the study. You can find information as the work progresses, leave comments, and let us know how to contact you so we can keep you informed of upcoming meetings and other milestones.

PUBLIC COMMENT
Provide verbal comments or submit written comments at public update meetings

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