



Memorandum

DATE: 6 June 2014

TO: Jeff Morales, Bob Magnuson, Dennis Trujillo, Michael Pimentel,

FROM: Margaret Cederoth, Sustainability Manager, Program Management Team

SUBJECT: Preliminary Range of GHG Results based on 2014 Business Plan

This memo explains updates to greenhouse gas emissions forecasts based on outputs from the ridership model developed to support the 2014 Business Plan.

In June 2013, the Authority published their greenhouse gas emissions forecast and inventory: *Contribution of the High-Speed Rail Program to Reducing California's Greenhouse Gas Emission Levels*. That report relied on the ridership model runs carried out to inform the analysis in the 2012 Business Plan. For the 2014 Business Plan, adopted by the Authority Board on 10 April 2014, modelling of the high-speed rail system was refined, per suggestions from the Ridership Technical Advisory Panel and the US Government Accountability Office. The 2014 ridership model produced an updated data set of vehicle miles travelled (VMT) and air trips reduced. Methodologies, calculations, and emissions factors for greenhouse gas emissions analysis were held constant from 2013 to 2014.

The VMT and air trip reduction outputs from a “medium scenario”, received in March 2014, represent the low end of the range reported in the tables below. VMT and air trip reduction outputs from the “75th Percentile” model runs, received in May 2014, were used to develop the high range in the tables below.

Annual Savings for Key Milestones in metric tons of carbon dioxide equivalent (MTCO_{2e})

	2022 Initial Operating Section	2026 Full Ridership for the IOS	2029 Phase 1 Service Begins	2035 Full Ridership for Phase 1 Service	2040 Phase 1 Service
HIGH	230,000	612,000	1,005,000	1,267,000	1,377,000
LOW	140,000	378,000	575,000	802,000	866,000

Cumulative Savings (Million MTCO_{2e})

	2030	2040	2050	2072
HIGH	5.7	18.3	32.3	65.6
LOW	3.4	11.5	20.7	44

Illustration of Range of Cumulative Improvements in a time series.

