



TransLink

Household Cost Savings From the Metro Vancouver Mayors' Transportation and Transit Plan

FINAL REPORT

February 2015

HIGHLIGHTS

- In 2030, improved transportation options resulting from the Mayors' Plan will save households an average of \$360 per year, even after the cost of the 0.5% Metro Vancouver Congestion Improvement tax.
- By 2045, after the Mayors' Plan improvements have been well-established, households will save an average of \$1,100 per year in transportation expenses and travel time, even after the cost of the Metro Vancouver Congestion Improvement tax.

All dollar values in this report are expressed in 2015 dollars.

BACKGROUND

As part of the development of the Regional Transportation Strategy and the Mayors' Transportation and Transit Plan, HDR Inc. undertook analysis on transportation costs incurred by households, focussing on those costs experienced by individuals in their daily lives: out of pocket transportation costs and travel time. The results of this analysis are provided in this report.

Household costs were estimated for 2030 and 2045 under two different scenarios: one where the Mayors' Plan is implemented and a Base Case where no new funding is available and the region does not make any substantial new investments in transportation.

HOUSEHOLD COSTS OF TRANSPORTATION

COMPONENTS OF HOUSEHOLD COST

The following components are included in out of pocket household costs:

- Vehicle depreciation and maintenance
- Fuel (including taxes), parking and tolls
- Vehicle licensing and insurance
- Transit fares

For 2030 and 2045, the travel time savings achieved by the Mayors' Plan, as a result of reduced congestion and faster transit service, were also estimated.

IMPACTS OF THE MAYORS' PLAN

2030 Household Impacts

If the Mayors' Plan is implemented, households are expected to save \$485 per year in out-of-pocket expenses and travel time by 2030. Subtracting the \$125 average incremental cost of the proposed tax to households means that the net savings per household is **\$360 each year**.

In the absence of new investment, out of pocket per-household transportation-related expenditures are projected to average \$7,680. Under the plan, these expenditures would be \$7,515, a direct monetary savings of \$165 per household per year. In addition, households are expected to save \$320 per year in travel time as a result of reduced congestion and faster driving times, and more frequent, faster transit services, for a total savings of \$485 before the Congestion Improvement Tax is deducted.

2045 Household Impacts

If the Mayors' Plan is implemented, households are expected to save \$1,225 each year in out-of-pocket expenses and travel time by 2045. Subtracting the \$125 average incremental cost of the proposed tax to households means that the net savings per household is **\$1,100 each year**.

In the absence of new investment and due to growing congestion, household out of pocket costs are expected to increase to an average of \$8,230 per household. Under the Mayors' Plan these costs would reduce to \$7,820, a savings of \$410 per year. In addition, the transportation improvements included in the plan would save households an average of \$815 per year in reduced travel times, for a total savings of \$1,225 before the Congestion Improvement Tax is deducted.

METHODOLOGY & ASSUMPTIONS

Household Out of Pocket Costs

The out-of-pocket costs of transportation were estimated based on the components of transportation costs paid for directly by households: auto depreciation and maintenance, fuel and taxes, vehicle registration and insurance, parking and tolls, cycling operating cost, and transit fares. Key data sources for household costs included the Statistics Canada household expenditure survey and TransLink fare revenue data. The household savings achieved by the Plan was calculated by calculating the difference in total household costs between the Base Case and the Mayors' Plan scenarios, and dividing by the number of households. The current number of households in the region was derived from BC Stats, and projected values from the Metro Vancouver Regional Growth Strategy. To estimate 2030 household costs, the 2045 model was adapted using outputs from the 2030 regional transportation model and scaling back all growth factors from 2030.

Household Time Savings

The Regional Transportation Model was used to estimate total travel time by households in 2030 and 2045, under the No Investment and Mayors' Plan scenarios. The difference between these scenarios in hours spent travelling was then multiplied by \$13.81 per hour (2015\$), and divided value of total travel time by the number of households (1,380,578 in 2030, and 1,439,499 in 2045).