

APPENDIX 11C – OREGON DEFAULT VALUES

This appendix provides recommended default values for the analysis of freeway segments and facilities in Oregon. The default values are intended to streamline analysis using the APM methodologies. Whenever possible, segment- and facility-specific values should be used instead of these defaults. Exhibit 1 presents Oregon default values, and indicates the source data for each value as applicable. Appendix 11E shows where these default values can be entered in various software packages.

Exhibit 1 Oregon Default Values for Freeway Analysis

| Required Data and Units | Source | Suggested Default Value | | |
|--|---|---|---------------|-------|
| Peak hour factor (PHF) | HCM 6 th Edition | Rural | 0.88 | |
| | | Urban | 0.94 | |
| Truck percentage | HCM 6 th Edition | Rural | 26% | |
| | | Small urban | 19% | |
| | | Medium urban | 10% | |
| | | Large urban | 7% | |
| Terrain type | HPMS, ODOT vertical grade information | Generally level, with a few exceptions in the Cascade Range and Blue Mountains (see Exhibit 11-28) | | |
| Area type | HPMS | No default, use urban or rural based on HPMS | | |
| Weave volumes | Traffic counts | $(\text{Ramp-to-ramp flow}) = [(\text{on-ramp flow}) / (\text{mainline flow})] \times (\text{off-ramp flow})$ | | |
| Capacity adjustment factors | PPEAG, HCM 6 th Edition, Exhibit 11-15 | CAF_{ramp} | 0.95 | |
| | | CAF_{weave} | 0.90 | |
| | | CAF_{meter} | 1.03 | |
| | | CAF_{pop} (rural) | 0.939 | |
| | | CAF_{pop} (urban) | 0.968 | |
| Acceleration lane length | ODOT 2012 HDM | 750 ft | | |
| Deceleration lane length | ODOT 2012 HDM | 500 ft | | |
| Free-flow speed | ODOT TransGIS | Speed limit or curve advisory speed + 5 mph | | |
| Ramp free-flow speed | HCM 6 th Edition, ODOT 2012 HDM | Loop ramps | 35 mph | |
| | | Diamond ramps | 45 mph | |
| Jam density | HCM 6 th Edition | 190 pc/mi/ln | | |
| Queue discharge capacity drop | HCM 6 th Edition | 7% | | |
| Bottleneck capacities (pc/h/ln) | Florida DOT defaults for freeway segments | Urban merge and diverge freeway segments | 3 lanes | 2,100 |
| | | | 2 or 4+ lanes | 2,000 |
| | | Urban weaving freeway segments | 3 lanes | 2,200 |
| | | | 2 or 4+ lanes | 2,100 |
| | | Rural merge and diverge segments | 3 lanes | 1,900 |
| | | | 2 or 4+ lanes | 1,800 |
| K- and D-factors, lane width, shoulder type/width, median type/width | ODOT TransGIS | No default, obtain from TransGIS | | |

For general terrain type, the HPMS database provides a useful reference for determining level (1), rolling (2), and mountainous (3) terrain types. The definitions used by HPMS are provided in Exhibit 2; note that these differ slightly from the HCM 6th Edition definitions. In addition, note that HPMS only provides terrain information for one direction of a highway and that the terrain

type could be considered “level” in the downhill direction, but “rolling” or “mountainous” in the uphill direction.

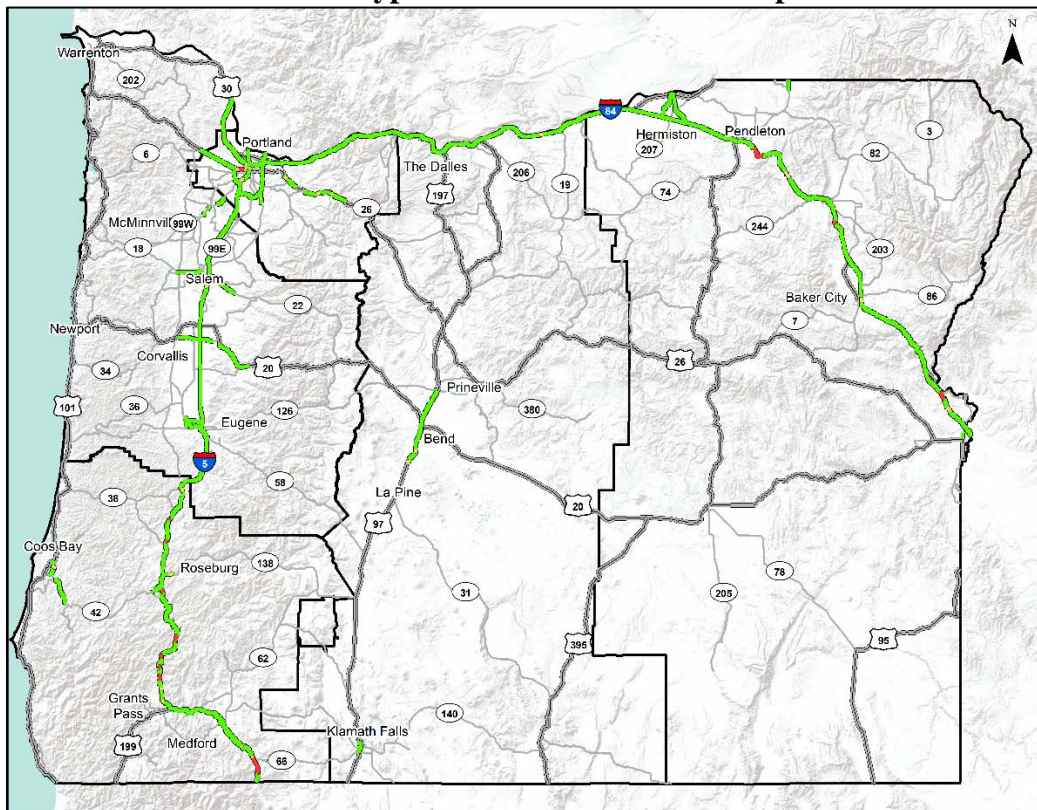
Exhibit 2 HPMS Definitions of Terrain Types

| Code | Description |
|------|--|
| 1 | Level: Any combination of grades and horizontal or vertical alignment that permits heavy vehicles to maintain the same speed as passenger cars; this generally includes short grades of no more than 2 percent. |
| 2 | Rolling: Any combination of grades and horizontal or vertical alignment that causes heavy vehicles to reduce their speeds substantially below those of passenger cars but that does not cause heavy vehicles to operate at crawl speeds for any significant length of time. |
| 3 | Mountainous: Any combination of grades and horizontal or vertical alignment that causes heavy vehicles to operate at extremely low speeds for significant distances or at frequent intervals. |

Exhibit 3 provides a color-coded map of the 2015 Oregon HPMS GIS shapefile for the three terrain types. For a more detailed assessment, ODOT’s vertical grade information can be used to obtain facility-specific grades:

http://highway.odot.state.or.us/cf/highwayreports/elevation_parms_xls.cfm.

Exhibit 3 HPMS Terrain Type for Interstates and Principal Arterials



Note: **Green** = level terrain, **yellow** = rolling terrain, **red** = mountainous terrain.

Reliability Default Values

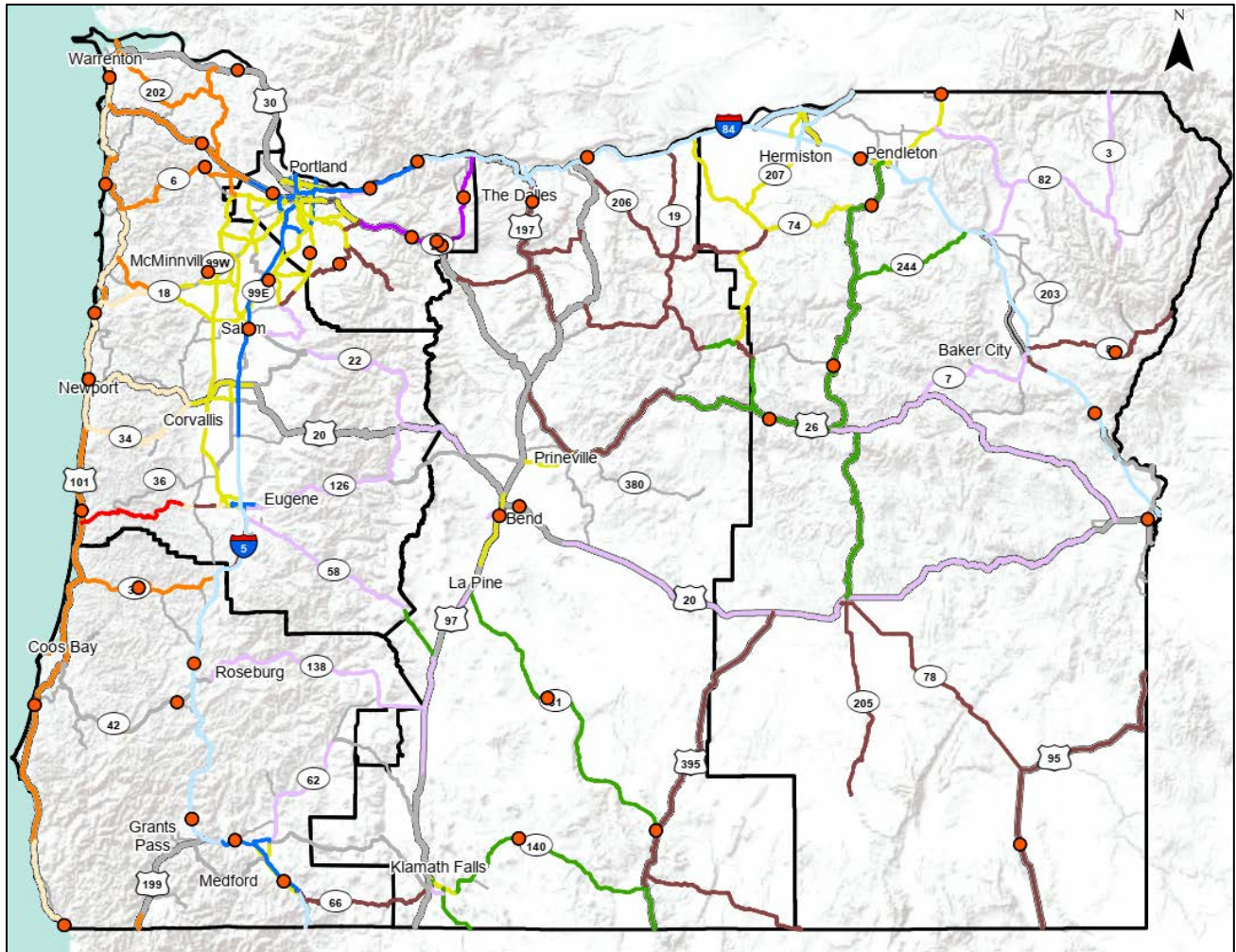
Default Demand Factors

Annual travel demand varies between freeway facilities based on how and why the facility is used by the travelling public. ODOT has developed 11 distinct thematic travel demand trends to represent the various types of annual volume profiles present throughout the state. Exhibit 4 illustrates the thematic trends of all roadways within the national and state highway system in Oregon, with additional information provided in Chapter 5. These thematic trends include:

- Agricultural.
- Coastal Destination.
- Coastal Destination Route.
- Commuter.
- Interstate—Nonurbanized.
- Interstate—Urbanized.
- Recreational—Summer.
- Recreational—Summer and Winter.
- Recreational—Winter.
- Summer.
- Summer < 2,500 AADT.

Default reliability demand multiplier factors were developed for each thematic trend by obtaining continuously collected traffic counts from Automatic Traffic Recorders (ATR) at various locations across the state. Default demand factors assume a reference day of Sunday in January. Exhibit 5 summarizes the default demand factors for each thematic trend based on ATR data.

Exhibit 4: ODOT Thematic Trend Classification



Legend

- ATR station used to generate demand factors
- Agricultural
- Coastal Destination
- Coastal Destination Route
- Commuter
- Fixed
- Interstate - Non-Urbanized
- Interstate - Urbanized
- Recreational - Summer
- Recreational - Summer and Winter
- Recreational - Winter
- Summer
- Summer < 2,500 AADT

Exhibit 5: Default Demand Factors based on Thematic Trends

| | AGRICULTURAL | | | | | | | COASTAL DESTINATION | | | | | | | COASTAL DESTINATION ROUTE | | | | | | |
|-----------|-----------------------|------|------|------|------|------|------|------------------------------|------|------|------|------|------|------|---------------------------|------|------|------|------|------|------|
| | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
| January | 1.00 | 1.17 | 1.24 | 1.08 | 1.26 | 1.39 | 1.17 | 1.00 | 1.20 | 1.25 | 1.16 | 1.26 | 1.38 | 1.16 | 1.00 | 1.06 | 1.01 | 0.86 | 1.01 | 1.22 | 1.07 |
| February | 1.25 | 1.42 | 1.47 | 1.43 | 1.49 | 1.71 | 1.45 | 1.18 | 1.30 | 1.34 | 1.29 | 1.30 | 1.48 | 1.48 | 1.25 | 1.15 | 1.11 | 1.07 | 1.09 | 1.33 | 1.46 |
| March | 1.59 | 1.63 | 1.69 | 1.74 | 1.88 | 2.10 | 1.73 | 1.33 | 1.41 | 1.43 | 1.42 | 1.48 | 1.63 | 1.47 | 1.65 | 1.25 | 1.25 | 1.23 | 1.38 | 1.70 | 1.47 |
| April | 2.03 | 1.89 | 1.91 | 1.94 | 2.04 | 2.34 | 2.14 | 1.36 | 1.47 | 1.50 | 1.47 | 1.54 | 1.71 | 1.63 | 1.69 | 1.30 | 1.29 | 1.25 | 1.32 | 1.67 | 1.72 |
| May | 2.51 | 2.49 | 2.26 | 2.36 | 2.51 | 2.93 | 2.55 | 1.64 | 1.59 | 1.54 | 1.56 | 1.57 | 1.78 | 1.71 | 2.27 | 1.72 | 1.42 | 1.48 | 1.51 | 1.91 | 2.03 |
| June | 2.87 | 2.61 | 2.63 | 2.66 | 2.85 | 3.20 | 2.71 | 1.67 | 1.73 | 1.74 | 1.78 | 1.73 | 1.92 | 1.81 | 2.41 | 1.77 | 1.66 | 1.73 | 1.72 | 2.14 | 2.29 |
| July | 3.07 | 2.80 | 2.67 | 2.89 | 3.00 | 3.29 | 2.95 | 1.90 | 2.02 | 1.91 | 2.03 | 2.01 | 2.13 | 2.04 | 2.71 | 2.17 | 2.02 | 2.18 | 2.12 | 2.47 | 2.67 |
| August | 3.75 | 2.80 | 3.22 | 2.90 | 3.08 | 3.55 | 3.43 | 1.85 | 1.98 | 2.00 | 2.03 | 2.06 | 2.14 | 2.00 | 2.65 | 2.17 | 2.06 | 2.18 | 2.28 | 2.57 | 2.65 |
| September | 3.03 | 3.02 | 2.74 | 2.81 | 3.10 | 3.64 | 2.92 | 1.73 | 1.77 | 1.78 | 1.79 | 1.79 | 1.98 | 1.87 | 2.48 | 2.08 | 1.73 | 1.74 | 1.76 | 2.22 | 2.32 |
| October | 2.69 | 2.63 | 2.52 | 2.51 | 2.56 | 2.85 | 2.43 | 1.34 | 1.51 | 1.51 | 1.53 | 1.55 | 1.71 | 1.52 | 1.76 | 1.48 | 1.40 | 1.44 | 1.50 | 1.87 | 1.74 |
| November | 1.88 | 2.02 | 2.00 | 2.20 | 2.04 | 2.34 | 1.96 | 1.12 | 1.33 | 1.35 | 1.38 | 1.28 | 1.56 | 1.38 | 1.42 | 1.24 | 1.22 | 1.29 | 1.22 | 1.62 | 1.53 |
| December | 1.27 | 1.48 | 1.74 | 1.69 | 1.78 | 1.86 | 1.62 | 1.12 | 1.16 | 1.32 | 1.38 | 1.41 | 1.44 | 1.32 | 1.21 | 1.10 | 1.19 | 1.23 | 1.27 | 1.38 | 1.36 |
| | COMMUTER | | | | | | | INTERSTATE - NONURBANIZED | | | | | | | INTERSTATE - URBANIZED | | | | | | |
| | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
| January | 1.00 | 1.45 | 1.51 | 1.38 | 1.58 | 1.71 | 1.23 | 1.00 | 1.26 | 1.25 | 1.05 | 1.32 | 1.44 | 1.03 | 1.00 | 1.42 | 1.49 | 1.29 | 1.48 | 1.63 | 1.17 |
| February | 1.21 | 1.66 | 1.70 | 1.67 | 1.68 | 1.81 | 1.47 | 1.22 | 1.43 | 1.41 | 1.40 | 1.50 | 1.61 | 1.30 | 1.27 | 1.62 | 1.68 | 1.65 | 1.71 | 1.75 | 1.53 |
| March | 1.33 | 1.73 | 1.80 | 1.81 | 1.83 | 1.96 | 1.54 | 1.53 | 1.52 | 1.59 | 1.64 | 1.76 | 1.97 | 1.55 | 1.44 | 1.67 | 1.74 | 1.77 | 1.84 | 1.93 | 1.61 |
| April | 1.47 | 1.85 | 1.91 | 1.91 | 1.94 | 2.08 | 1.72 | 1.96 | 1.90 | 1.87 | 1.91 | 2.06 | 2.23 | 1.89 | 1.56 | 1.78 | 1.80 | 1.82 | 1.89 | 1.98 | 1.71 |
| May | 1.61 | 1.89 | 1.98 | 2.02 | 2.04 | 2.19 | 1.80 | 1.47 | 1.50 | 1.37 | 1.41 | 1.57 | 1.78 | 1.36 | 1.63 | 1.79 | 1.83 | 1.89 | 1.94 | 2.07 | 1.74 |
| June | 1.68 | 2.03 | 2.10 | 2.11 | 2.15 | 2.29 | 1.88 | 1.73 | 1.61 | 1.54 | 1.59 | 1.74 | 1.98 | 1.54 | 1.73 | 1.93 | 1.95 | 1.99 | 2.02 | 2.14 | 1.82 |
| July | 1.79 | 2.14 | 2.05 | 2.19 | 2.24 | 2.34 | 1.98 | 2.19 | 2.00 | 1.88 | 2.09 | 2.23 | 2.39 | 2.14 | 1.79 | 1.97 | 1.84 | 2.03 | 2.10 | 2.16 | 1.88 |
| August | 1.75 | 2.07 | 2.16 | 2.15 | 2.18 | 2.29 | 1.94 | 2.20 | 2.01 | 1.99 | 1.96 | 2.19 | 2.36 | 2.05 | 1.75 | 1.99 | 2.00 | 2.02 | 2.09 | 2.16 | 1.86 |
| September | 1.56 | 1.86 | 2.00 | 2.01 | 2.05 | 2.20 | 1.81 | 1.75 | 1.93 | 1.72 | 1.64 | 1.88 | 2.22 | 1.78 | 1.53 | 1.70 | 1.75 | 1.77 | 1.82 | 1.99 | 1.70 |
| October | 1.51 | 1.91 | 1.96 | 1.97 | 1.99 | 2.10 | 1.75 | 1.88 | 1.88 | 1.83 | 1.89 | 2.06 | 2.28 | 1.75 | 1.57 | 1.81 | 1.81 | 1.84 | 1.90 | 2.03 | 1.73 |
| November | 1.30 | 1.80 | 1.86 | 1.89 | 1.73 | 1.90 | 1.59 | 1.61 | 1.51 | 1.58 | 1.73 | 1.53 | 1.68 | 1.50 | 1.44 | 1.74 | 1.79 | 1.83 | 1.74 | 1.86 | 1.65 |
| December | 1.26 | 1.54 | 1.74 | 1.77 | 1.81 | 1.90 | 1.55 | 1.12 | 1.25 | 1.52 | 1.55 | 1.67 | 1.68 | 1.39 | 1.23 | 1.52 | 1.71 | 1.76 | 1.81 | 1.84 | 1.54 |
| | RECREATIONAL - SUMMER | | | | | | | RECREATIONAL - SUMMER/WINTER | | | | | | | RECREATIONAL - WINTER | | | | | | |
| | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
| January | 1.00 | 1.11 | 1.04 | 0.98 | 1.11 | 1.25 | 0.96 | 1.00 | 0.57 | 0.27 | 0.36 | 0.46 | 0.57 | 1.06 | 1.00 | 0.69 | 0.41 | 0.41 | 0.55 | 0.79 | 1.03 |
| February | 1.17 | 1.21 | 1.20 | 1.21 | 1.25 | 1.38 | 1.22 | 1.00 | 0.44 | 0.37 | 0.29 | 0.23 | 0.51 | 1.14 | 1.10 | 0.61 | 0.49 | 0.42 | 0.44 | 0.77 | 1.19 |
| March | 1.44 | 1.31 | 1.36 | 1.39 | 1.48 | 1.68 | 1.33 | 0.94 | 0.31 | 0.26 | 0.29 | 0.34 | 0.48 | 0.73 | 1.12 | 0.52 | 0.47 | 0.46 | 0.57 | 0.82 | 0.92 |
| April | 1.70 | 1.52 | 1.49 | 1.50 | 1.61 | 1.82 | 1.60 | 0.59 | 0.22 | 0.19 | 0.15 | 0.18 | 0.43 | 0.65 | 0.96 | 0.49 | 0.45 | 0.41 | 0.48 | 0.81 | 0.93 |
| May | 2.00 | 1.91 | 1.69 | 1.77 | 1.86 | 2.15 | 1.79 | 0.38 | 0.25 | 0.17 | 0.20 | 0.20 | 0.28 | 0.44 | 0.90 | 0.64 | 0.49 | 0.53 | 0.59 | 0.85 | 0.84 |
| June | 2.30 | 2.04 | 1.98 | 2.02 | 2.10 | 2.43 | 2.04 | 0.47 | 0.32 | 0.29 | 0.31 | 0.30 | 0.37 | 0.40 | 1.50 | 0.89 | 0.79 | 0.85 | 0.88 | 1.24 | 1.21 |
| July | 2.68 | 2.27 | 2.10 | 2.23 | 2.30 | 2.59 | 2.45 | 0.63 | 0.43 | 0.39 | 0.40 | 0.40 | 0.51 | 0.60 | 1.87 | 1.17 | 1.05 | 1.10 | 1.16 | 1.53 | 1.67 |
| August | 2.53 | 2.20 | 2.26 | 2.22 | 2.36 | 2.60 | 2.35 | 0.53 | 0.37 | 0.38 | 0.37 | 0.40 | 0.45 | 0.56 | 1.68 | 1.05 | 1.09 | 1.10 | 1.20 | 1.47 | 1.55 |
| September | 2.01 | 1.95 | 1.83 | 1.88 | 1.97 | 2.33 | 1.90 | 0.65 | 0.62 | 0.68 | 0.66 | 0.72 | 0.74 | 0.67 | 1.17 | 0.98 | 0.85 | 0.85 | 0.93 | 1.12 | 1.06 |
| October | 1.72 | 1.65 | 1.63 | 1.68 | 1.74 | 1.91 | 1.51 | 0.38 | 0.26 | 0.22 | 0.23 | 0.23 | 0.27 | 0.33 | 0.84 | 0.53 | 0.46 | 0.46 | 0.51 | 0.69 | 0.75 |
| November | 1.37 | 1.38 | 1.39 | 1.52 | 1.36 | 1.54 | 1.34 | 0.29 | 0.12 | 0.12 | 0.15 | 0.13 | 0.19 | 0.37 | 0.79 | 0.37 | 0.37 | 0.43 | 0.41 | 0.66 | 0.83 |
| December | 1.17 | 1.19 | 1.35 | 1.33 | 1.39 | 1.48 | 1.25 | 0.72 | 0.35 | 0.40 | 0.53 | 0.48 | 0.34 | 0.77 | 1.03 | 0.61 | 0.68 | 0.75 | 0.79 | 0.75 | 1.12 |

| | SUMMER | | | | | | | SUMMER < 2500 AADT | | | | | | |
|-----------|--------|------|------|------|------|------|------|--------------------|------|------|------|------|------|------|
| | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat |
| January | 1.00 | 1.26 | 1.30 | 1.12 | 1.29 | 1.46 | 1.10 | 1.00 | 1.34 | 1.46 | 1.22 | 1.50 | 1.65 | 1.14 |
| February | 1.23 | 1.43 | 1.43 | 1.43 | 1.43 | 1.64 | 1.45 | 1.31 | 1.73 | 1.81 | 1.70 | 1.75 | 1.88 | 1.56 |
| March | 1.43 | 1.47 | 1.50 | 1.51 | 1.58 | 1.82 | 1.48 | 1.69 | 1.90 | 2.02 | 2.04 | 2.13 | 2.31 | 1.82 |
| April | 1.55 | 1.57 | 1.58 | 1.58 | 1.67 | 1.89 | 1.65 | 2.02 | 2.16 | 2.18 | 2.18 | 2.29 | 2.47 | 2.18 |
| May | 1.70 | 1.72 | 1.65 | 1.68 | 1.72 | 1.98 | 1.68 | 2.24 | 2.39 | 2.32 | 2.41 | 2.55 | 2.79 | 2.24 |
| June | 1.77 | 1.77 | 1.73 | 1.77 | 1.81 | 2.07 | 1.80 | 2.42 | 2.58 | 2.49 | 2.56 | 2.68 | 2.96 | 2.38 |
| July | 1.87 | 1.92 | 1.78 | 1.93 | 1.92 | 2.12 | 1.93 | 2.65 | 2.65 | 2.53 | 2.68 | 2.77 | 3.05 | 2.74 |
| August | 1.87 | 1.92 | 1.90 | 1.94 | 2.00 | 2.19 | 1.95 | 3.01 | 2.69 | 2.93 | 2.80 | 3.03 | 3.21 | 2.99 |
| September | 1.75 | 1.79 | 1.76 | 1.75 | 1.81 | 2.10 | 1.80 | 2.47 | 2.77 | 2.93 | 2.99 | 3.11 | 3.27 | 2.63 |
| October | 1.52 | 1.63 | 1.62 | 1.63 | 1.69 | 1.90 | 1.56 | 1.99 | 2.30 | 2.31 | 2.33 | 2.46 | 2.63 | 2.04 |
| November | 1.32 | 1.49 | 1.50 | 1.57 | 1.47 | 1.70 | 1.45 | 1.83 | 2.08 | 2.20 | 2.24 | 2.06 | 2.24 | 1.95 |
| December | 1.18 | 1.32 | 1.45 | 1.47 | 1.49 | 1.62 | 1.34 | 1.42 | 1.70 | 1.95 | 1.97 | 2.03 | 2.14 | 1.76 |

Default Incident Rates

Oregon-specific default values for incident rates and duration are currently not developed due to the lack of available data. Furthermore, incident rates are highly variable based on the geometry and other physical characteristics for a given freeway segment. It is recommended that facility-specific incident rates are developed using the procedures described in Appendix 11F.

If data is not currently available, Exhibit 6 summarizes the national default incident rates provided in the Highway Capacity Manual 6th Edition (HCM6).

Exhibit 6: HCM6 Edition Default Freeway Incident Severity Distribution and Duration Parameters

| Parameter | Incident Severity Type | | | | |
|----------------------|------------------------|----------------|----------------|----------------|----------------|
| | Shoulder Closure | 1 Lane Closure | 2 Lane Closure | 3 Lane Closure | 4 Lane Closure |
| Distribution (%) | 75.4 | 19.6 | 3.1 | 1.9 | 0.0 |
| Duration (mean) | 34.0 | 34.6 | 53.6 | 67.9 | 67.9 |
| Duration (std. dev.) | 15.1 | 13.8 | 13.9 | 21.9 | 21.9 |
| Duration (min) | 8.7 | 16.0 | 30.5 | 36.0 | 36.0 |
| Duration (max) | 58.0 | 58.2 | 66.9 | 93.3 | 93.3 |

Capacity adjustment factors for various incident severity types are provided in Appendix 11B.

Default Weather Data

Oregon-specific default values were developed using data from weather stations located across the state.

Exhibit 7 summarizes the freeway/geographic area and the corresponding weather stations used to develop Oregon-specific default weather data. Exhibit 8 through Exhibit 20 summarize Oregon-specific default weather data for each of the weather stations.

Exhibit 7: Weather stations and the corresponding freeway/geographic area

| Weather stations | Freeway/Geographic Area |
|---|--|
| Portland, Portland-Troutdale Airport (KTTD) | I-84 in Multnomah County |
| Dallesport FAA Airport (KDLS) | I-84 in Hood River County, Wasco County, and Sherman County |
| Pearson Field Airport (KVUO) | I-5, I-405, OR-217, and US-26 in ODOT Region 1 |
| Eugene, Mahlon Sweet Field (KEUG) | I-5 in Lane County and Linn County; I-105 |
| Salem, McNary Field (KSLE) | I-5 in Marion County |
| Rogue Valley International Airport (KMFR) | I-5 in Josephine County and Jackson County |
| Roseburg, Roseburg Regional Airport (KRBG) | I-5 in Douglas County |
| Sexton Summit (KSXT) | I-5 Mountain passes in Region 3 |
| Hermiston, Hermiston Municipal Airport (KHRI) | I-84 in Gilliam, Morrow, Umatilla County; I-82 |
| La Grande/Union County Airport (KLGD) | I-84 in Union and Baker County |
| Meacham (KMEH) | I-84 in Mountain passes in Region 5 |
| Ontario Municipal Airport (KONO) | I-84 in Malheur County |
| Bend Airport AWOS (KBDN) | US 97 Freeway sections in Deschutes County and Klamath Falls |

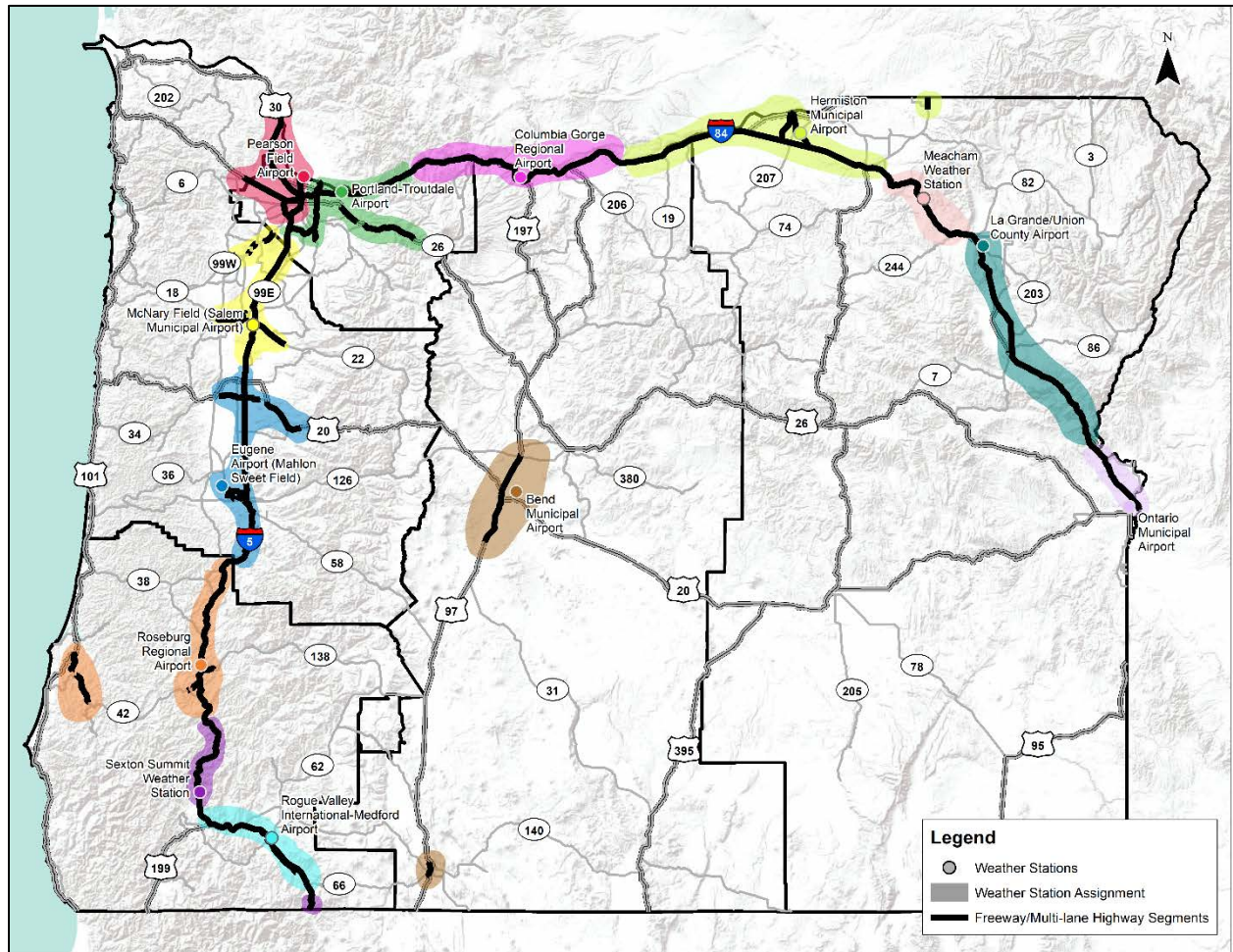


Exhibit 8: Default Weather Inputs from Portland-Troutdale Airport (KTTD)

| | Month | Medium Rain | Heavy Rain | Light Snow | Light/ Medium Snow | Medium/ Heavy Snow | Heavy Snow | Severe Cold | Low Visibility | Very Low Visibility | Minimum Visibility | Normal Weather |
|----------------------------|-----------|-------------|------------|------------|--------------------|--------------------|------------|-------------|----------------|---------------------|--------------------|----------------|
| Weather Probability | January | 0.85% | 0.03% | 0.74% | 0.09% | 0.01% | 0.00% | 0.00% | 1.32% | 1.22% | 0.01% | 95.73% |
| | February | 0.57% | 0.01% | 0.49% | 0.03% | 0.00% | 0.00% | 0.00% | 0.33% | 0.55% | 0.00% | 98.02% |
| | March | 1.02% | 0.00% | 0.16% | 0.12% | 0.00% | 0.00% | 0.00% | 0.16% | 0.17% | 0.00% | 98.36% |
| | April | 0.65% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.13% | 0.17% | 0.00% | 99.04% |
| | May | 0.66% | 0.07% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.03% | 0.04% | 0.00% | 99.21% |
| | June | 0.58% | 0.07% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.03% | 0.00% | 0.00% | 99.32% |
| | July | 0.12% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.88% |
| | August | 0.05% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.93% |
| | September | 0.50% | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.13% | 0.08% | 0.00% | 99.26% |
| | October | 1.29% | 0.17% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.43% | 0.51% | 0.00% | 97.59% |
| | November | 1.53% | 0.13% | 0.11% | 0.00% | 0.00% | 0.00% | 0.00% | 0.49% | 0.46% | 0.00% | 97.29% |
| | December | 0.78% | 0.07% | 1.56% | 0.01% | 0.01% | 0.00% | 0.00% | 0.90% | 0.51% | 0.00% | 96.16% |
| Average Duration (minutes) | | 86.2 | 67.0 | 143.2 | 38.1 | 12.0 | 0.0 | 0.0 | 83.0 | 108.3 | 6.0 | - |

Exhibit 9: Default Weather Inputs from Columbia Gorge Regional Airport (KDLS)

| | Month | Medium Rain | Heavy Rain | Light Snow | Light/ Medium Snow | Medium/ Heavy Snow | Heavy Snow | Severe Cold | Low Visibility | Very Low Visibility | Minimum Visibility | Normal Weather |
|----------------------------|-----------|-------------|------------|------------|--------------------|--------------------|------------|-------------|----------------|---------------------|--------------------|----------------|
| Weather Probability | January | 0.46% | 0.00% | 2.43% | 0.29% | 0.05% | 0.00% | 0.00% | 1.29% | 0.81% | 0.00% | 94.68% |
| | February | 0.13% | 0.00% | 1.50% | 0.07% | 0.00% | 0.00% | 0.00% | 0.53% | 0.43% | 0.00% | 97.34% |
| | March | 0.12% | 0.00% | 0.31% | 0.03% | 0.00% | 0.00% | 0.00% | 0.15% | 0.08% | 0.00% | 99.31% |
| | April | 0.14% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | 0.00% | 0.00% | 99.85% |
| | May | 0.13% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.87% |
| | June | 0.08% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.90% |
| | July | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.99% |
| | August | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.99% |
| | September | 0.07% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.04% | 0.00% | 0.00% | 99.89% |
| | October | 0.19% | 0.00% | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.11% | 0.13% | 0.00% | 99.54% |
| | November | 0.17% | 0.00% | 0.58% | 0.04% | 0.00% | 0.00% | 0.00% | 0.28% | 0.25% | 0.00% | 98.69% |
| | December | 0.47% | 0.01% | 3.83% | 0.42% | 0.12% | 0.00% | 0.00% | 1.36% | 1.29% | 0.00% | 92.51% |
| Average Duration (minutes) | | 77.6 | 77.6 | 6.0 | 169.0 | 89.2 | 38.0 | 0.0 | 0.0 | 90.7 | 108.4 | 0.0 |

Exhibit 10: Default Weather Inputs from Pearson Field Airport (KVUO)

| Month | Medium Rain | Heavy Rain | Light Snow | Light/ Medium Snow | Medium/ Heavy Snow | Heavy Snow | Severe Cold | Low Visibility | Very Low Visibility | Minimum Visibility | Normal Weather | |
|----------------------------|-------------|------------|------------|--------------------|--------------------|------------|-------------|----------------|---------------------|--------------------|----------------|--------|
| Weather Probability | January | 1.12% | 0.04% | 0.66% | 0.04% | 0.05% | 0.00% | 0.00% | 2.32% | 2.31% | 0.00% | 93.46% |
| | February | 0.78% | 0.01% | 0.51% | 0.07% | 0.01% | 0.00% | 0.00% | 0.78% | 0.83% | 0.00% | 97.00% |
| | March | 1.03% | 0.01% | 0.15% | 0.04% | 0.00% | 0.00% | 0.00% | 0.31% | 0.30% | 0.00% | 98.16% |
| | April | 0.49% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.18% | 0.10% | 0.00% | 99.22% |
| | May | 0.52% | 0.07% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | 0.00% | 0.00% | 99.40% |
| | June | 0.40% | 0.07% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.53% |
| | July | 0.10% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.88% |
| | August | 0.05% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.93% |
| | September | 0.46% | 0.07% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.11% | 0.06% | 0.00% | 99.31% |
| | October | 1.05% | 0.12% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.70% | 0.52% | 0.00% | 97.61% |
| | November | 1.32% | 0.06% | 0.08% | 0.00% | 0.00% | 0.00% | 0.00% | 1.07% | 0.54% | 0.00% | 96.93% |
| December | 1.49% | 0.09% | 1.25% | 0.03% | 0.00% | 0.00% | 0.00% | 1.52% | 0.93% | 0.00% | 94.69% | |
| Average Duration (minutes) | 0.0 | 84.2 | 71.5 | 168.5 | 38.9 | 30.0 | 0.0 | 0.0 | 91.1 | 103.5 | - | |

Exhibit 11: Default Weather Inputs from Eugene, Mahlon Sweet Field (KEUG)

| Month | Medium Rain | Heavy Rain | Light Snow | Light/ Medium Snow | Medium/ Heavy Snow | Heavy Snow | Severe Cold | Low Visibility | Very Low Visibility | Minimum Visibility | Normal Weather | |
|----------------------------|-------------|------------|------------|--------------------|--------------------|------------|-------------|----------------|---------------------|--------------------|----------------|--------|
| Weather Probability | January | 1.07% | 0.01% | 0.56% | 0.13% | 0.03% | 0.00% | 0.00% | 4.45% | 6.75% | 2.50% | 84.49% |
| | February | 1.32% | 0.04% | 0.52% | 0.15% | 0.03% | 0.00% | 0.00% | 2.23% | 2.75% | 0.63% | 92.32% |
| | March | 1.11% | 0.01% | 0.32% | 0.25% | 0.11% | 0.00% | 0.00% | 0.64% | 0.55% | 0.27% | 96.74% |
| | April | 0.57% | 0.00% | 0.04% | 0.00% | 0.00% | 0.00% | 0.00% | 0.68% | 0.39% | 0.13% | 98.20% |
| | May | 0.32% | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.18% | 0.12% | 0.04% | 99.31% |
| | June | 0.26% | 0.04% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.22% | 0.07% | 0.06% | 99.35% |
| | July | 0.07% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.07% | 0.00% | 0.00% | 99.85% |
| | August | 0.08% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.08% | 0.01% | 0.00% | 99.81% |
| | September | 0.40% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.64% | 0.46% | 0.08% | 98.40% |
| | October | 0.99% | 0.13% | 0.01% | 0.00% | 0.01% | 0.00% | 0.00% | 2.33% | 2.33% | 1.01% | 93.19% |
| | November | 1.40% | 0.08% | 0.11% | 0.00% | 0.00% | 0.00% | 0.00% | 2.37% | 3.11% | 1.39% | 91.53% |
| December | 1.60% | 0.07% | 0.83% | 0.05% | 0.04% | 0.00% | 0.05% | 3.63% | 5.09% | 1.64% | 87.00% | |
| Average Duration (minutes) | 86.1 | 63.6 | 103.1 | 57.2 | 49.0 | 0.0 | 12.0 | 89.0 | 130.7 | 126.5 | - | |

Exhibit 12: Default Weather Inputs from Salem, McNary Field (KSLE)

| Month | Medium Rain | Heavy Rain | Light Snow | Light/ Medium Snow | Medium/ Heavy Snow | Heavy Snow | Severe Cold | Low Visibility | Very Low Visibility | Minimum Visibility | Normal Weather | |
|----------------------------|-------------|------------|------------|--------------------|--------------------|------------|-------------|----------------|---------------------|--------------------|----------------|--------|
| Weather Probability | January | 1.14% | 0.01% | 0.81% | 0.07% | 0.04% | 0.00% | 0.00% | 3.72% | 3.48% | 0.00% | 90.73% |
| | February | 0.89% | 0.03% | 0.77% | 0.09% | 0.03% | 0.00% | 0.00% | 0.86% | 1.17% | 0.00% | 96.17% |
| | March | 1.20% | 0.01% | 0.44% | 0.23% | 0.04% | 0.00% | 0.00% | 0.30% | 0.32% | 0.01% | 97.45% |
| | April | 0.58% | 0.03% | 0.04% | 0.00% | 0.00% | 0.00% | 0.00% | 0.18% | 0.13% | 0.00% | 99.04% |
| | May | 0.47% | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.04% | 0.04% | 0.00% | 99.42% |
| | June | 0.28% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.06% | 0.00% | 99.67% |
| | July | 0.04% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.95% |
| | August | 0.09% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.91% |
| | September | 0.33% | 0.04% | 0.04% | 0.00% | 0.00% | 0.00% | 0.00% | 0.18% | 0.08% | 0.00% | 99.32% |
| | October | 1.14% | 0.08% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 1.12% | 1.49% | 0.00% | 96.16% |
| | November | 1.49% | 0.14% | 0.13% | 0.00% | 0.00% | 0.00% | 0.00% | 1.99% | 1.73% | 0.00% | 94.53% |
| | December | 1.42% | 0.04% | 0.87% | 0.17% | 0.03% | 0.00% | 0.00% | 2.65% | 2.45% | 0.00% | 92.37% |
| Average Duration (minutes) | 81.3 | 47.9 | 98.2 | 62.7 | 31.5 | 0.0 | 0.0 | 90.9 | 135.2 | 6.0 | - | |

Exhibit 13: Default Weather Inputs from Rogue Valley International Airport (KMFR)

| Month | Medium Rain | Heavy Rain | Light Snow | Light/ Medium Snow | Medium/ Heavy Snow | Heavy Snow | Severe Cold | Low Visibility | Very Low Visibility | Minimum Visibility | Normal Weather | |
|----------------------------|-------------|------------|------------|--------------------|--------------------|------------|-------------|----------------|---------------------|--------------------|----------------|--------|
| Weather Probability | January | 0.60% | 0.01% | 0.89% | 0.16% | 0.03% | 0.00% | 0.00% | 3.67% | 8.82% | 0.00% | 85.82% |
| | February | 0.61% | 0.01% | 0.56% | 0.06% | 0.00% | 0.00% | 0.00% | 1.15% | 2.12% | 0.00% | 95.49% |
| | March | 0.46% | 0.03% | 0.12% | 0.00% | 0.01% | 0.00% | 0.00% | 0.23% | 0.31% | 0.00% | 98.85% |
| | April | 0.29% | 0.00% | 0.06% | 0.00% | 0.00% | 0.00% | 0.00% | 0.06% | 0.01% | 0.00% | 99.58% |
| | May | 0.21% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | 0.03% | 0.00% | 99.73% |
| | June | 0.18% | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.79% |
| | July | 0.04% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.08% | 0.01% | 0.00% | 99.85% |
| | August | 0.05% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.17% | 0.00% | 0.00% | 99.77% |
| | September | 0.19% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.65% | 0.01% | 0.00% | 99.12% |
| | October | 0.48% | 0.03% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.34% | 0.44% | 0.00% | 98.70% |
| | November | 0.53% | 0.04% | 0.10% | 0.00% | 0.00% | 0.00% | 0.00% | 2.30% | 4.29% | 0.00% | 92.74% |
| | December | 0.70% | 0.04% | 1.42% | 0.04% | 0.01% | 0.00% | 0.00% | 3.99% | 7.61% | 0.00% | 86.19% |
| Average Duration (minutes) | 82.6 | 42.0 | 87.4 | 55.5 | 24.0 | 0.0 | 0.0 | 89.7 | 174.5 | 0.0 | - | |

Exhibit 14: Default Weather Inputs from Roseburg, Roseburg Regional Airport (KRBG)

| | Month | Medium Rain | Heavy Rain | Light Snow | Light/ Medium Snow | Medium/ Heavy Snow | Heavy Snow | Severe Cold | Low Visibility | Very Low Visibility | Minimum Visibility | Normal Weather |
|----------------------------|-----------|-------------|------------|------------|--------------------|--------------------|------------|-------------|----------------|---------------------|--------------------|----------------|
| Weather Probability | January | 1.10% | 0.03% | 0.51% | 0.12% | 0.05% | 0.00% | 0.00% | 3.38% | 7.54% | 0.00% | 87.26% |
| | February | 1.11% | 0.04% | 0.25% | 0.04% | 0.00% | 0.00% | 0.00% | 1.42% | 2.49% | 0.00% | 94.64% |
| | March | 1.14% | 0.00% | 0.05% | 0.03% | 0.01% | 0.00% | 0.00% | 0.85% | 1.28% | 0.00% | 96.64% |
| | April | 0.38% | 0.00% | 0.10% | 0.01% | 0.00% | 0.00% | 0.00% | 0.18% | 0.33% | 0.00% | 99.00% |
| | May | 0.24% | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | 0.00% | 99.72% |
| | June | 0.19% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.04% | 0.04% | 0.00% | 99.71% |
| | July | 0.11% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | 0.01% | 0.00% | 99.85% |
| | August | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.97% |
| | September | 0.33% | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.47% | 0.17% | 0.00% | 99.00% |
| | October | 0.73% | 0.01% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.97% | 2.59% | 0.00% | 95.68% |
| | November | 1.25% | 0.04% | 0.17% | 0.00% | 0.00% | 0.00% | 0.00% | 2.68% | 5.05% | 0.00% | 90.81% |
| | December | 1.55% | 0.04% | 0.51% | 0.05% | 0.04% | 0.00% | 0.00% | 3.36% | 5.98% | 0.00% | 88.47% |
| Average Duration (minutes) | | 92.2 | 50.0 | 77.0 | 44.0 | 27.0 | 0.0 | 0.0 | 91.0 | 178.9 | 0.0 | - |

Exhibit 15: Default Weather Inputs from Sexton Summit (KSXT)

| | Month | Medium Rain | Heavy Rain | Light Snow | Light/ Medium Snow | Medium/ Heavy Snow | Heavy Snow | Severe Cold | Low Visibility | Very Low Visibility | Minimum Visibility | Normal Weather |
|----------------------------|-----------|-------------|------------|------------|--------------------|--------------------|------------|-------------|----------------|---------------------|--------------------|----------------|
| Weather Probability | January | 0.59% | 0.05% | 6.34% | 0.70% | 0.58% | 0.00% | 0.00% | 4.81% | 16.63% | 0.00% | 70.30% |
| | February | 0.81% | 0.09% | 6.79% | 0.89% | 0.59% | 0.00% | 0.00% | 5.13% | 18.28% | 0.00% | 67.42% |
| | March | 0.60% | 0.03% | 8.29% | 1.24% | 0.89% | 0.00% | 0.00% | 5.40% | 20.45% | 0.00% | 63.11% |
| | April | 0.26% | 0.01% | 6.11% | 0.63% | 0.25% | 0.00% | 0.00% | 4.96% | 14.77% | 0.00% | 73.01% |
| | May | 0.29% | 0.03% | 1.07% | 0.15% | 0.04% | 0.00% | 0.00% | 3.41% | 14.89% | 0.00% | 80.11% |
| | June | 0.22% | 0.03% | 0.04% | 0.01% | 0.01% | 0.00% | 0.00% | 2.25% | 9.93% | 0.00% | 87.49% |
| | July | 0.09% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 1.12% | 3.97% | 0.00% | 94.82% |
| | August | 0.07% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.67% | 2.31% | 0.00% | 96.95% |
| | September | 0.31% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 2.82% | 5.59% | 0.00% | 91.27% |
| | October | 0.57% | 0.04% | 0.71% | 0.12% | 0.11% | 0.00% | 0.00% | 3.32% | 16.02% | 0.00% | 79.11% |
| | November | 0.83% | 0.10% | 3.96% | 0.71% | 0.43% | 0.00% | 0.00% | 5.28% | 25.37% | 0.00% | 63.32% |
| | December | 0.88% | 0.08% | 9.18% | 1.25% | 0.80% | 0.00% | 0.00% | 5.74% | 19.22% | 0.00% | 62.85% |
| Average Duration (minutes) | | 84.3 | 57.7 | 120.1 | 77.9 | 83.8 | 0.8 | 0.0 | 85.3 | 223.3 | 0.0 | - |

Exhibit 16: Default Weather Inputs from Hermiston, Hermiston Municipal Airport (KHRI)

| Month | | Medium Rain | Heavy Rain | Light Snow | Light/ Medium Snow | Medium/ Heavy Snow | Heavy Snow | Severe Cold | Low Visibility | Very Low Visibility | Minimum Visibility | Normal Weather |
|----------------------------|-----------|-------------|------------|------------|--------------------|--------------------|------------|-------------|----------------|---------------------|--------------------|----------------|
| Weather Probability | January | 0.04% | 0.00% | 2.20% | 0.11% | 0.01% | 0.00% | 0.19% | 1.67% | 1.87% | 0.00% | 93.91% |
| | February | 0.01% | 0.00% | 1.36% | 0.00% | 0.00% | 0.00% | 0.00% | 0.68% | 2.23% | 0.00% | 95.71% |
| | March | 0.18% | 0.00% | 0.08% | 0.01% | 0.00% | 0.00% | 0.00% | 0.11% | 0.24% | 0.00% | 99.38% |
| | April | 0.07% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.04% | 0.01% | 0.00% | 99.88% |
| | May | 0.17% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.81% |
| | June | 0.11% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.87% |
| | July | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.97% |
| | August | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | 0.00% | 0.00% | 99.97% |
| | September | 0.07% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.04% | 0.00% | 0.00% | 99.89% |
| | October | 0.15% | 0.00% | 0.05% | 0.00% | 0.00% | 0.00% | 0.00% | 0.25% | 0.38% | 0.00% | 99.17% |
| | November | 0.03% | 0.00% | 0.67% | 0.00% | 0.00% | 0.00% | 0.00% | 1.54% | 1.37% | 0.00% | 96.39% |
| | December | 0.11% | 0.00% | 3.15% | 0.09% | 0.01% | 0.00% | 0.34% | 1.86% | 4.33% | 0.00% | 90.12% |
| Average Duration (minutes) | | 59.9 | 12.0 | 182.3 | 53.0 | 12.0 | 0.0 | 92.0 | 84.4 | 170.0 | 0.0 | - |

Exhibit 17: Default Weather Inputs from La Grande/Union County Airport (KLGD)

| Month | | Medium Rain | Heavy Rain | Light Snow | Light/ Medium Snow | Medium/ Heavy Snow | Heavy Snow | Severe Cold | Low Visibility | Very Low Visibility | Minimum Visibility | Normal Weather |
|----------------------------|-----------|-------------|------------|------------|--------------------|--------------------|------------|-------------|----------------|---------------------|--------------------|----------------|
| Weather Probability | January | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.27% | 0.64% | 0.57% | 0.00% | 98.51% |
| | February | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.29% | 0.14% | 0.00% | 99.57% |
| | March | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.22% | 0.18% | 0.00% | 99.60% |
| | April | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.06% | 0.10% | 0.00% | 99.84% |
| | May | 0.01% | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.08% | 0.04% | 0.00% | 99.84% |
| | June | 0.03% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.12% | 0.11% | 0.00% | 99.73% |
| | July | 0.02% | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.03% | 0.03% | 0.00% | 99.89% |
| | August | 0.01% | 0.02% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.03% | 0.05% | 0.00% | 99.89% |
| | September | 0.00% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.09% | 0.06% | 0.00% | 99.84% |
| | October | 0.02% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.56% | 0.53% | 0.00% | 98.89% |
| | November | 0.02% | 0.00% | 0.03% | 0.01% | 0.00% | 0.00% | 0.11% | 0.17% | 0.29% | 0.00% | 99.38% |
| | December | 0.03% | 0.00% | 0.89% | 0.06% | 0.02% | 0.00% | 0.40% | 0.56% | 0.43% | 0.00% | 97.61% |
| Average Duration (minutes) | | 19.9 | 16.7 | 10.2 | 1.7 | 0.9 | 0.2 | 73.0 | 30.7 | 50.7 | 0.0 | - |

Exhibit 18: Default Weather Inputs from Meacham (KMEH)

| Month | | Medium Rain | Heavy Rain | Light Snow | Light/ Medium Snow | Medium/ Heavy Snow | Heavy Snow | Severe Cold | Low Visibility | Very Low Visibility | Minimum Visibility | Normal Weather |
|----------------------------|-----------|-------------|------------|------------|--------------------|--------------------|------------|-------------|----------------|---------------------|--------------------|----------------|
| Weather Probability | January | 1.04% | 0.00% | 8.32% | 1.69% | 0.42% | 0.00% | 1.21% | 0.50% | 0.08% | 0.00% | 86.74% |
| | February | 0.55% | 0.00% | 8.69% | 1.02% | 0.42% | 0.00% | 0.48% | 0.68% | 0.31% | 0.00% | 87.85% |
| | March | 1.21% | 0.00% | 7.28% | 1.43% | 0.74% | 0.00% | 0.16% | 0.39% | 0.09% | 0.00% | 88.70% |
| | April | 1.01% | 0.08% | 5.90% | 0.80% | 0.20% | 0.00% | 0.00% | 0.24% | 0.07% | 0.00% | 91.69% |
| | May | 0.89% | 0.08% | 1.21% | 0.15% | 0.18% | 0.00% | 0.00% | 0.26% | 0.05% | 0.00% | 97.18% |
| | June | 0.82% | 0.07% | 0.04% | 0.06% | 0.17% | 0.00% | 0.00% | 0.10% | 0.01% | 0.00% | 98.74% |
| | July | 0.05% | 0.05% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.04% | 0.07% | 0.00% | 99.78% |
| | August | 0.24% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | 0.00% | 0.00% | 99.74% |
| | September | 0.40% | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.06% | 0.06% | 0.00% | 99.46% |
| | October | 0.83% | 0.05% | 0.98% | 0.19% | 0.13% | 0.00% | 0.00% | 0.44% | 0.28% | 0.00% | 97.10% |
| | November | 1.03% | 0.08% | 5.79% | 1.11% | 0.40% | 0.00% | 0.50% | 0.26% | 0.18% | 0.00% | 90.65% |
| | December | 1.43% | 0.07% | 11.20 % | 2.08% | 0.95% | 0.00% | 1.87% | 0.46% | 0.25% | 0.00% | 81.69% |
| Average Duration (minutes) | | 92.0 | 65.9 | 146.8 | 94.8 | 95.7 | 0.4 | 430.0 | 73.9 | 84.9 | 0.0 | - |

Exhibit 19: Default Weather Inputs from Ontario Municipal Airport (KONO)

| Month | | Medium Rain | Heavy Rain | Light Snow | Light/ Medium Snow | Medium/ Heavy Snow | Heavy Snow | Severe Cold | Low Visibility | Very Low Visibility | Minimum Visibility | Normal Weather |
|----------------------------|-----------|-------------|------------|------------|--------------------|--------------------|------------|-------------|----------------|---------------------|--------------------|----------------|
| Weather Probability | January | 0.07% | 0.00% | 4.00% | 0.28% | 0.07% | 0.00% | 0.86% | 2.45% | 5.65% | 0.00% | 86.64% |
| | February | 0.01% | 0.00% | 2.09% | 0.13% | 0.01% | 0.00% | 0.00% | 0.81% | 1.84% | 0.00% | 95.10% |
| | March | 0.11% | 0.00% | 0.20% | 0.03% | 0.00% | 0.00% | 0.00% | 0.13% | 0.22% | 0.00% | 99.31% |
| | April | 0.07% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | 0.00% | 0.00% | 99.91% |
| | May | 0.16% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.82% |
| | June | 0.11% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.89% |
| | July | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.99% |
| | August | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.03% | 0.00% | 0.00% | 99.95% |
| | September | 0.04% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | 0.00% | 0.00% | 99.94% |
| | October | 0.13% | 0.00% | 0.07% | 0.00% | 0.00% | 0.00% | 0.00% | 0.09% | 0.28% | 0.00% | 99.42% |
| | November | 0.13% | 0.00% | 1.81% | 0.03% | 0.00% | 0.00% | 0.00% | 0.49% | 1.08% | 0.00% | 96.47% |
| | December | 0.09% | 0.00% | 4.61% | 0.28% | 0.01% | 0.00% | 0.42% | 2.16% | 3.73% | 0.00% | 88.70% |
| Average Duration (minutes) | | 70.3 | 6.0 | 163.8 | 79.4 | 11.9 | 0.0 | 87.9 | 85.5 | 181.3 | 0.0 | - |

Exhibit 20: Default Weather Inputs from Bend Airport AWOS (KBDN)

| | Month | Medium Rain | Heavy Rain | Light Snow | Light/ Medium Snow | Medium/ Heavy Snow | Heavy Snow | Severe Cold | Low Visibility | Very Low Visibility | Minimum Visibility | Normal Weather |
|----------------------------|-----------|-------------|------------|------------|--------------------|--------------------|------------|-------------|----------------|---------------------|--------------------|----------------|
| Weather Probability | January | 0.04% | 0.02% | 3.53% | 0.06% | 0.10% | 0.00% | 0.00% | 0.90% | 1.82% | 0.00% | 93.53% |
| | February | 0.03% | 0.03% | 4.15% | 0.02% | 0.02% | 0.00% | 0.01% | 0.79% | 1.28% | 0.00% | 93.66% |
| | March | 0.03% | 0.01% | 1.49% | 0.00% | 0.00% | 0.00% | 0.00% | 0.10% | 0.35% | 0.00% | 98.04% |
| | April | 0.04% | 0.01% | 1.07% | 0.01% | 0.01% | 0.00% | 0.00% | 0.03% | 0.00% | 0.00% | 98.84% |
| | May | 0.11% | 0.03% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.02% | 0.02% | 0.00% | 99.80% |
| | June | 0.05% | 0.02% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.02% | 0.01% | 0.00% | 99.90% |
| | July | 0.00% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.99% |
| | August | 0.02% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 99.97% |
| | September | 0.02% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | 0.01% | 0.00% | 99.97% |
| | October | 0.12% | 0.05% | 0.19% | 0.00% | 0.00% | 0.00% | 0.00% | 0.17% | 0.14% | 0.00% | 99.33% |
| | November | 0.02% | 0.01% | 1.21% | 0.01% | 0.06% | 0.22% | 0.03% | 0.25% | 0.41% | 0.00% | 97.78% |
| | December | 0.05% | 0.01% | 3.95% | 0.07% | 0.17% | 0.17% | 0.76% | 0.93% | 1.95% | 0.00% | 91.95% |
| Average Duration (minutes) | | 14.7 | 11.9 | 79.8 | 13.1 | 12.5 | 8.9 | 83.0 | 37.4 | 90.3 | 0.0 | - |