

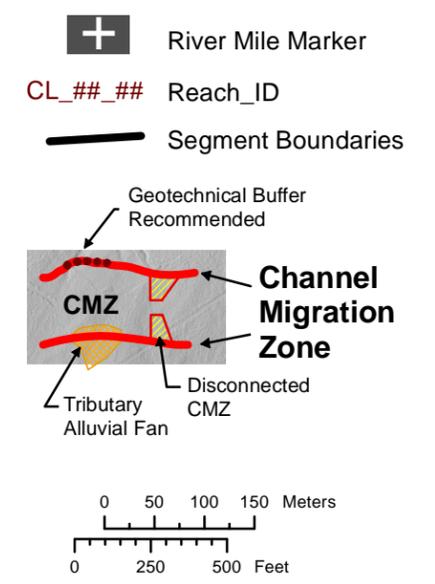
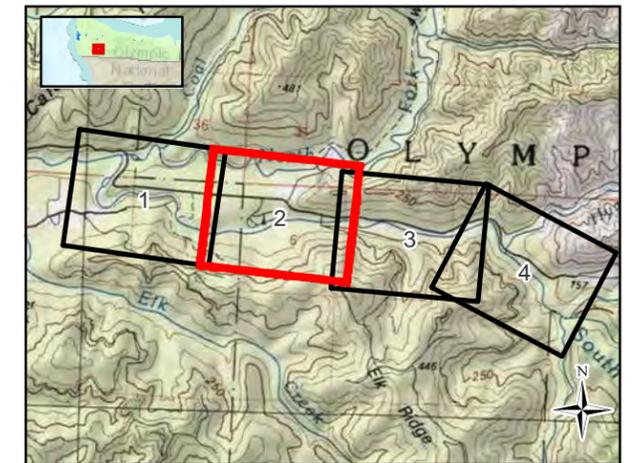
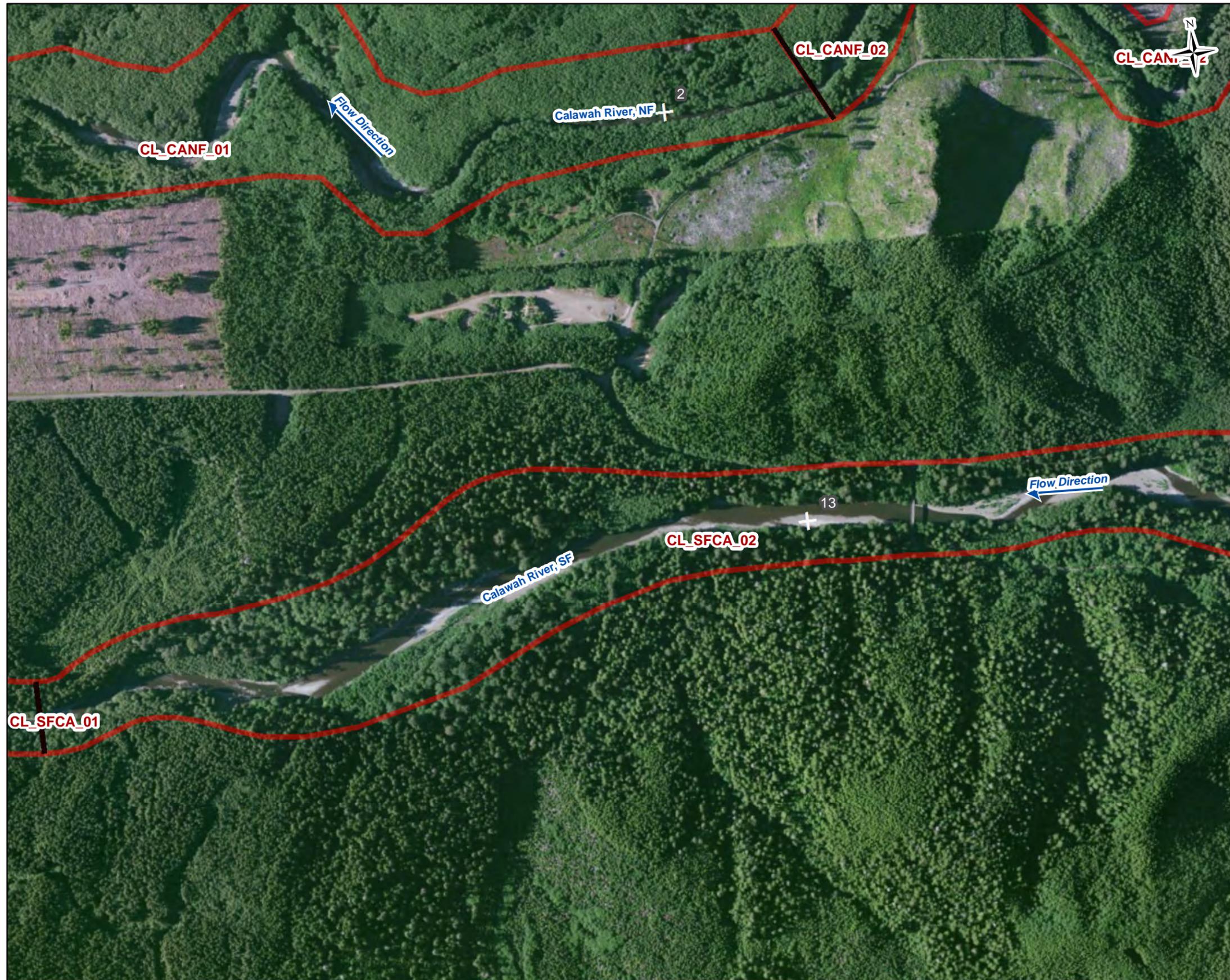
2010 aerial from Microsoft via ESRI World Imagery
 1:24,000 USGS DRG
 River miles calculated from NHD stream alignment (USGS)
 Roads from TIGER (US Census Bureau)
 Coordinate System: NAD83 State Plane Washington North

Analyzed by: Minda Troost, LG (GeoEngineers)
 Reviewed by: Mary Ann Reinhart, LG, LEG (GeoEngineers)
 and/or Patricia Olson, PhD, LHG, (WA Dept. of Ecology)



Channel Migration Assessment
*Prepared for the Shoreline Master Program Update
 Clallam County, Washington*

Calawah River, SF Map 1



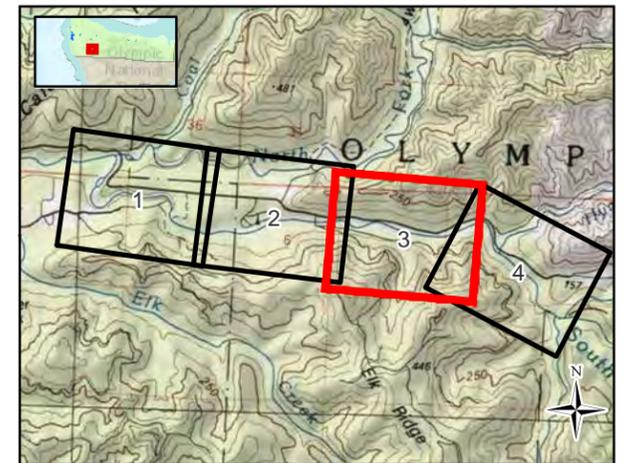
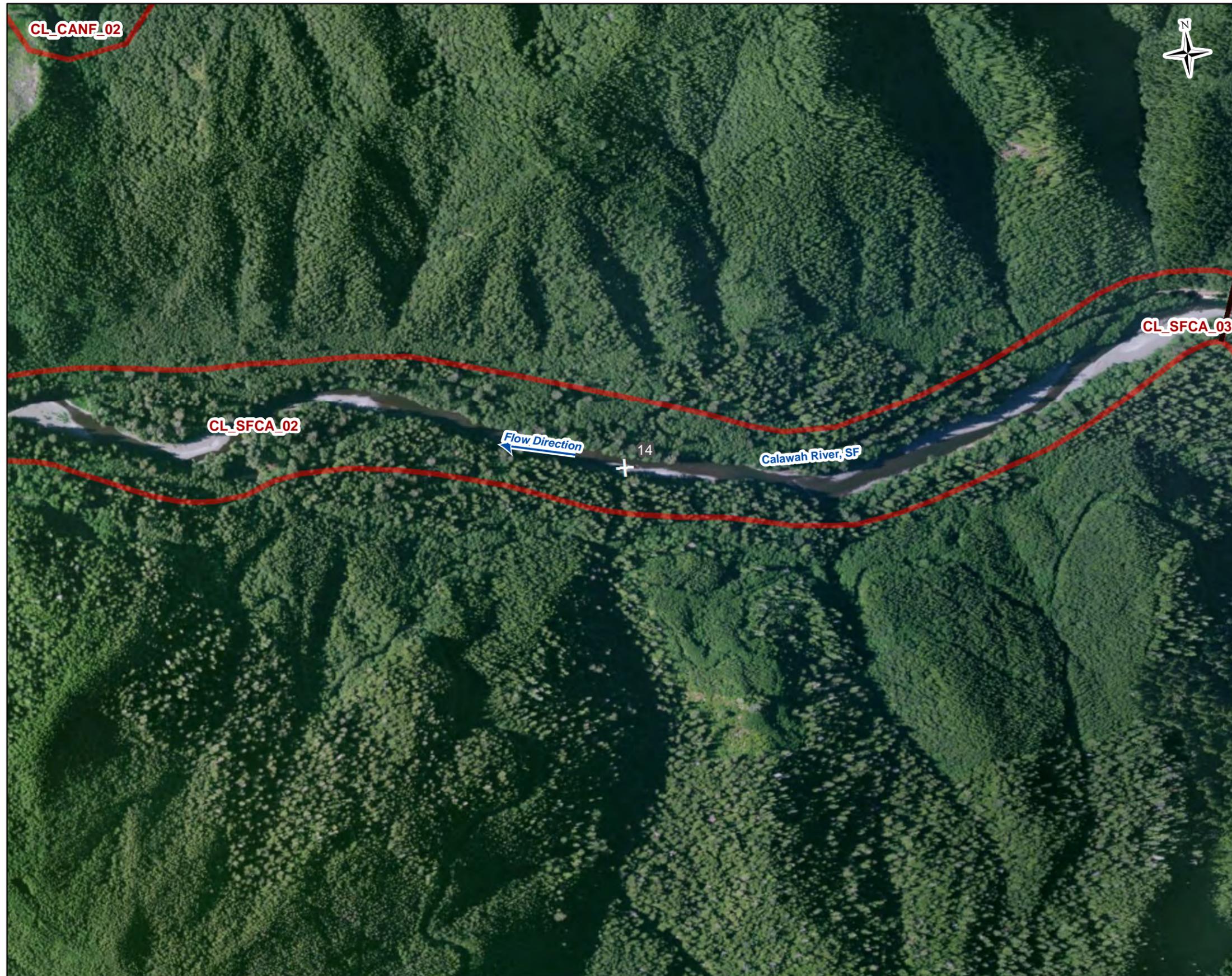
2010 aerial from Microsoft via ESRI World Imagery
 1:24,000 USGS DRG
 River miles calculated from NHD stream alignment (USGS)
 Roads from TIGER (US Census Bureau)
 Coordinate System: NAD83 State Plane Washington North

Analyzed by: Minda Troost, LG (GeoEngineers)
 Reviewed by: Mary Ann Reinhart, LG, LEG (GeoEngineers)
 and/or Patricia Olson, PhD, LHG, (WA Dept. of Ecology)

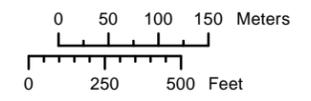
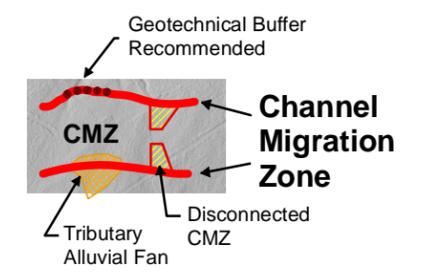


Channel Migration Assessment
*Prepared for the Shoreline Master Program Update
 Clallam County, Washington*

Calawah River, SF Map 2



-  River Mile Marker
- CL_##_## Reach_ID
-  Segment Boundaries



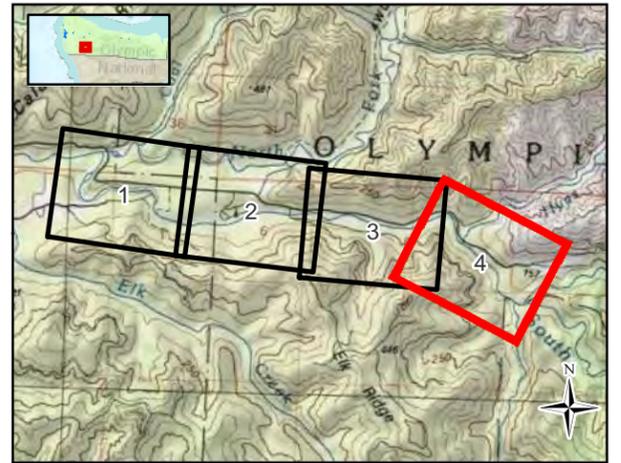
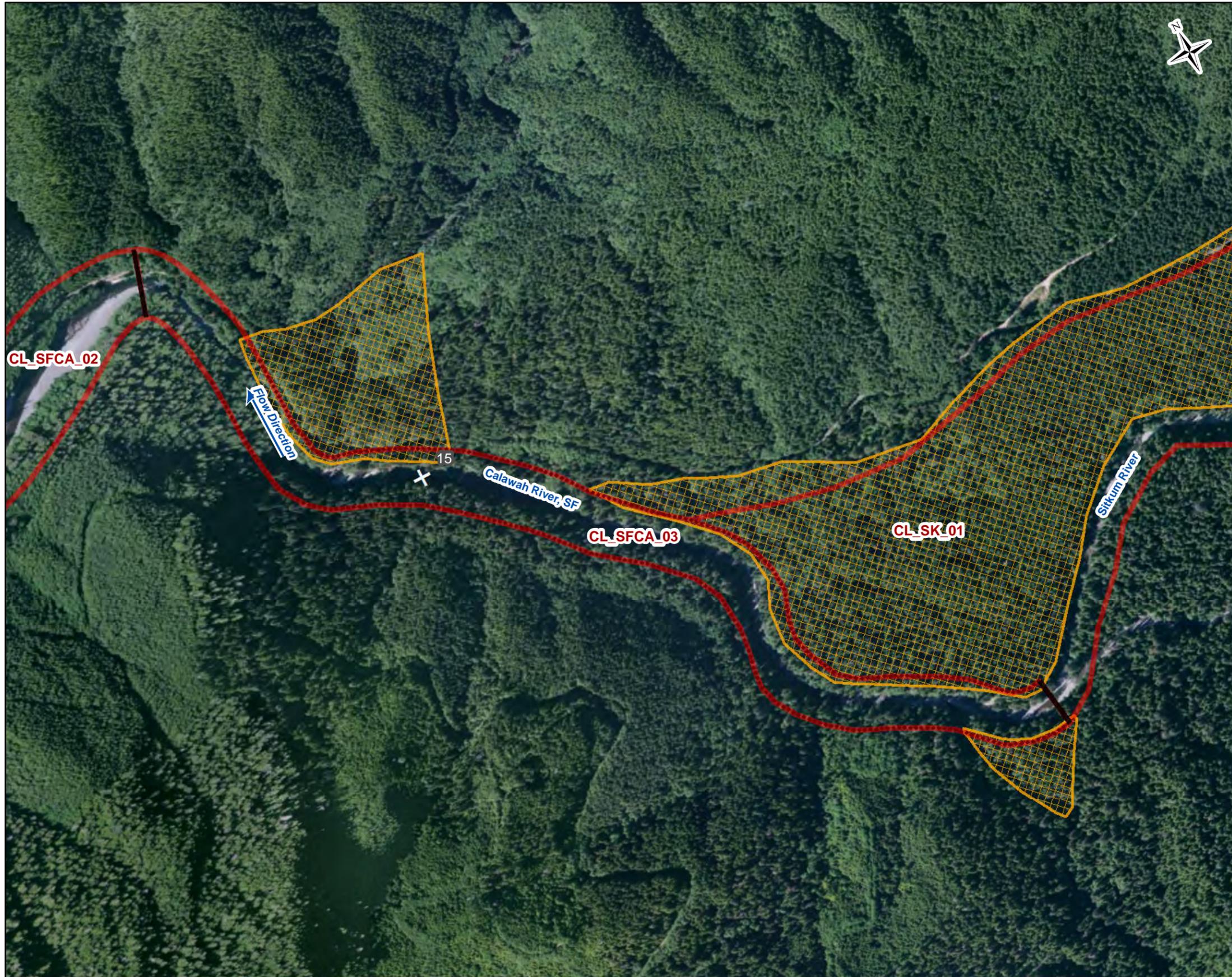
2010 aerial from Microsoft via ESRI World Imagery
 1:24,000 USGS DRG
 River miles calculated from NHD stream alignment (USGS)
 Roads from TIGER (US Census Bureau)
 Coordinate System: NAD83 State Plane Washington North

Analyzed by: Minda Troost, LG (GeoEngineers)
 Reviewed by: Mary Ann Reinhart, LG, LEG (GeoEngineers)
 and/or Patricia Olson, PhD, LHG, (WA Dept. of Ecology)

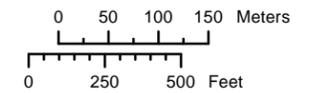
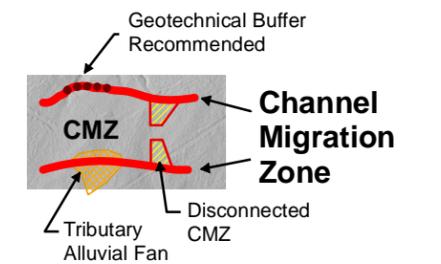


Channel Migration Assessment
*Prepared for the Shoreline Master Program Update
 Clallam County, Washington*

Calawah River, SF Map 3



- River Mile Marker
- CL_##_##** Reach_ID
- Segment Boundaries



2010 aerial from Microsoft via ESRI World Imagery
 1:24,000 USGS DRG
 River miles calculated from NHD stream alignment (USGS)
 Roads from TIGER (US Census Bureau)
 Coordinate System: NAD83 State Plane Washington North

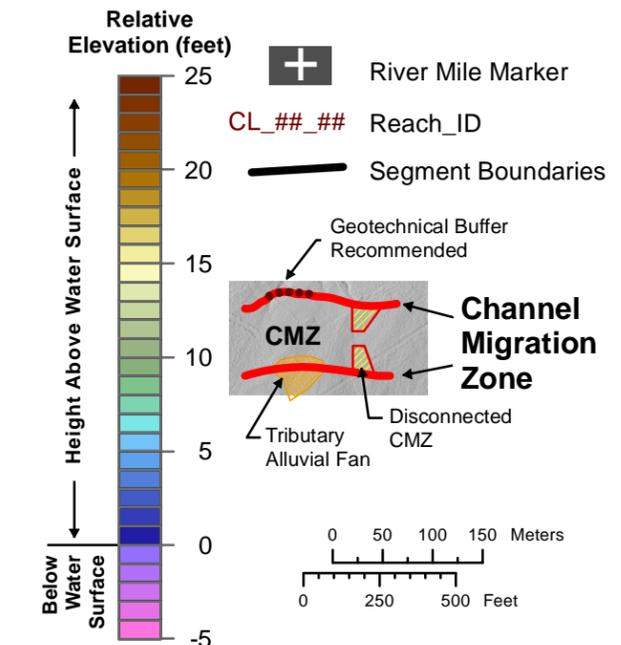
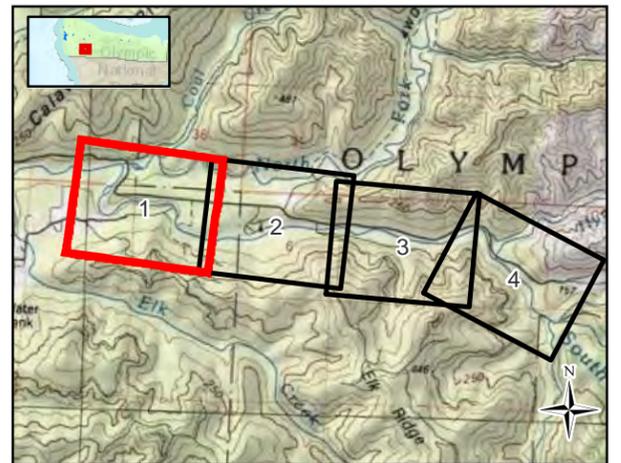
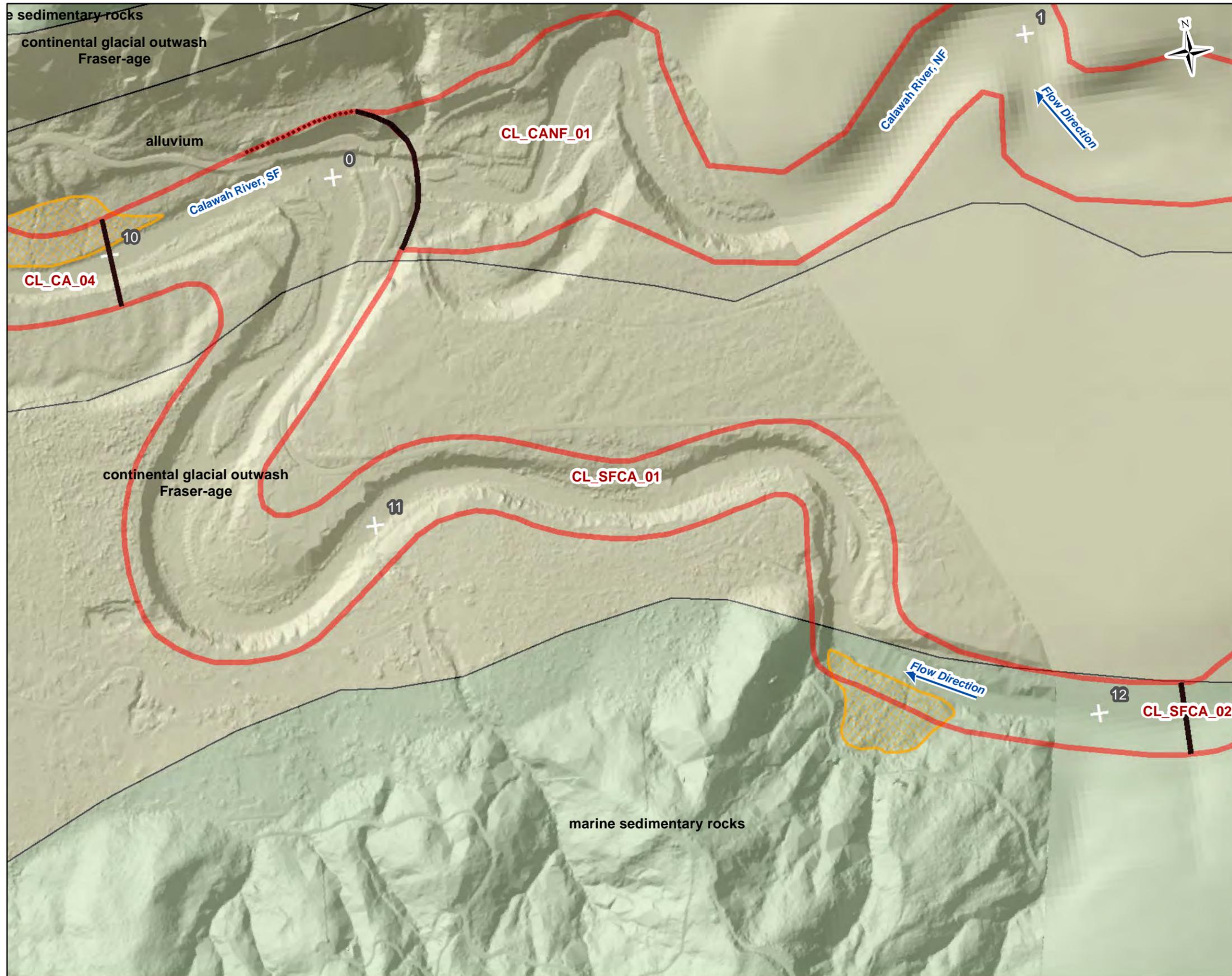
Analyzed by: Minda Troost, LG (GeoEngineers)
 Reviewed by: Mary Ann Reinhart, LG, LEG (GeoEngineers)
 and/or Patricia Olson, PhD, LHG, (WA Dept. of Ecology)



Channel Migration Assessment

*Prepared for the Shoreline Master Program Update
 Clallam County, Washington*

Calawah River, SF Map 4

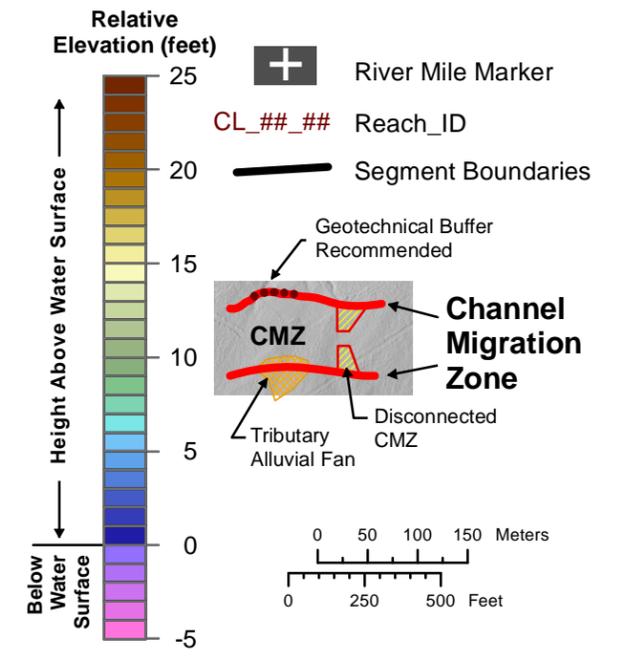
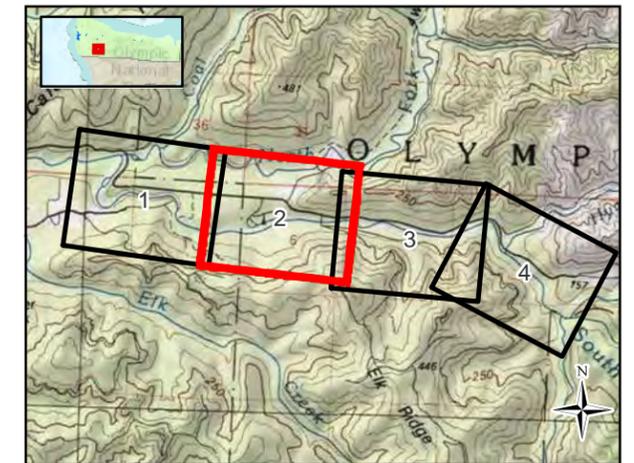


2002 LIDAR topography (Puget Sound LIDAR Consortium).
 10m DEM USGS
 1:24,000 USGS DRG
 WA State Dept. of Nat. Resources 1:100,000 Geology
 River miles calculated from NHD stream alignment (USGS)
 Roads from TIGER (US Census Bureau)
 Coordinate System: NAD83 State Plane Washington North
 Analyzed by: Minda Troost, LG (GeoEngineers)
 Reviewed by: Mary Ann Reinhart, LG, LEG (GeoEngineers)
 and/or Patricia Olson, PhD, LHG, (WA Dept. of Ecology)



Channel Migration Assessment
*Prepared for the Shoreline Master Program Update
 Clallam County, Washington*

Calawah River, SF Map 1

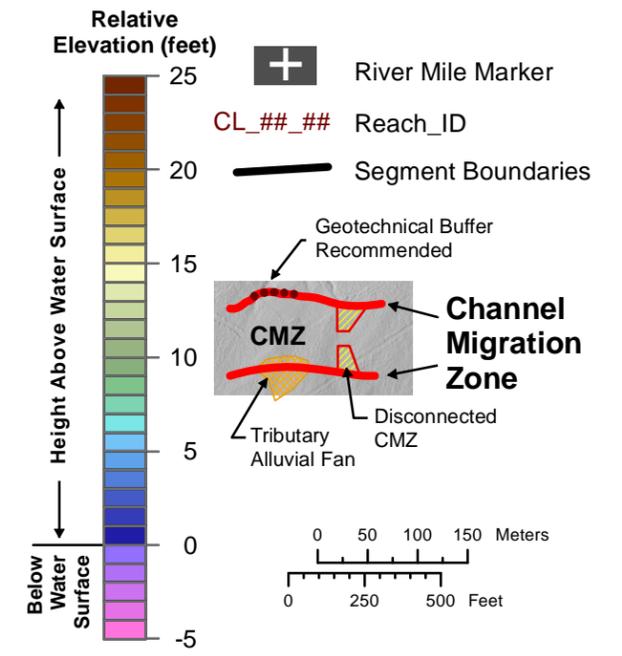
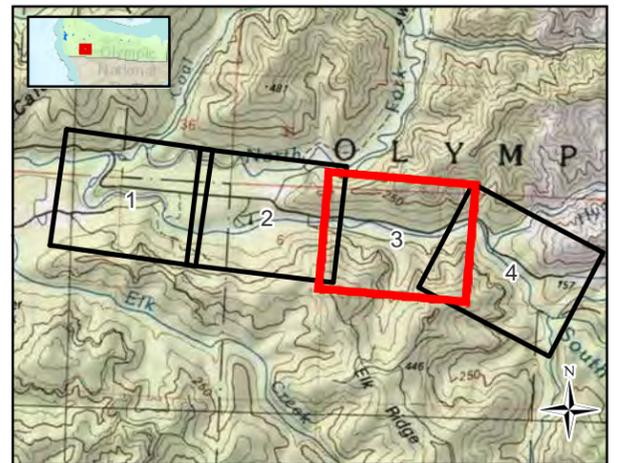


2002 LIDAR topography (Puget Sound LIDAR Consortium).
 10m DEM USGS
 1:24,000 USGS DRG
 WA State Dept. of Nat. Resources 1:100,000 Geology
 River miles calculated from NHD stream alignment (USGS)
 Roads from TIGER (US Census Bureau)
 Coordinate System: NAD83 State Plane Washington North
 Analyzed by: Minda Troost, LG (GeoEngineers)
 Reviewed by: Mary Ann Reinhart, LG, LEG (GeoEngineers)
 and/or Patricia Olson, PhD, LHG, (WA Dept. of Ecology)



Channel Migration Assessment
 Prepared for the Shoreline Master Program Update
 Clallam County, Washington

Calawah River, SF Map 2

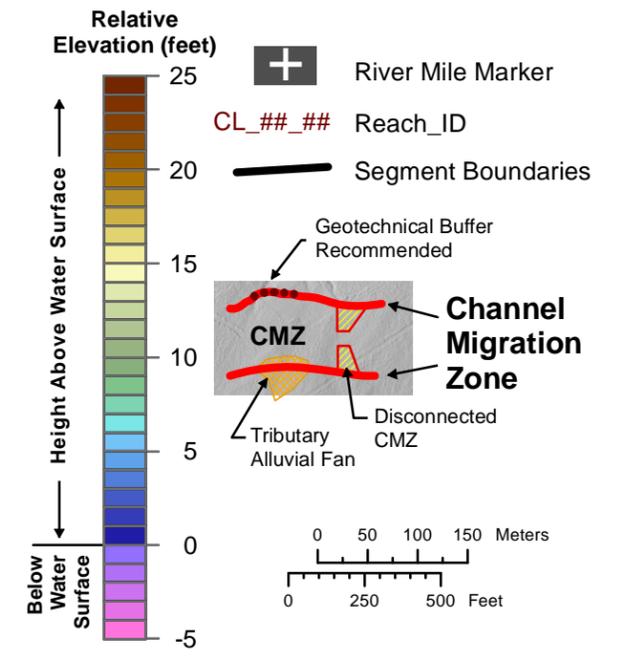
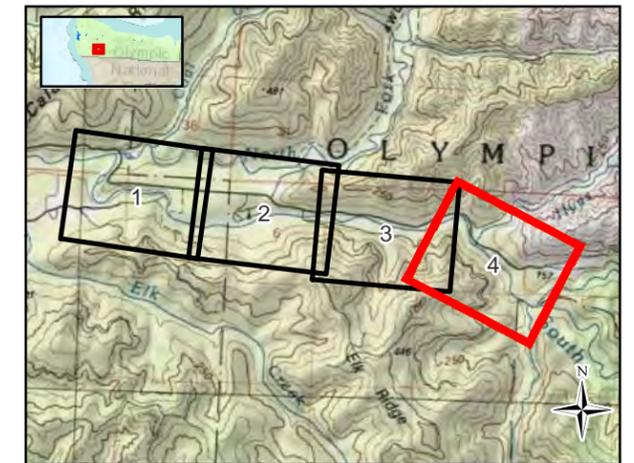
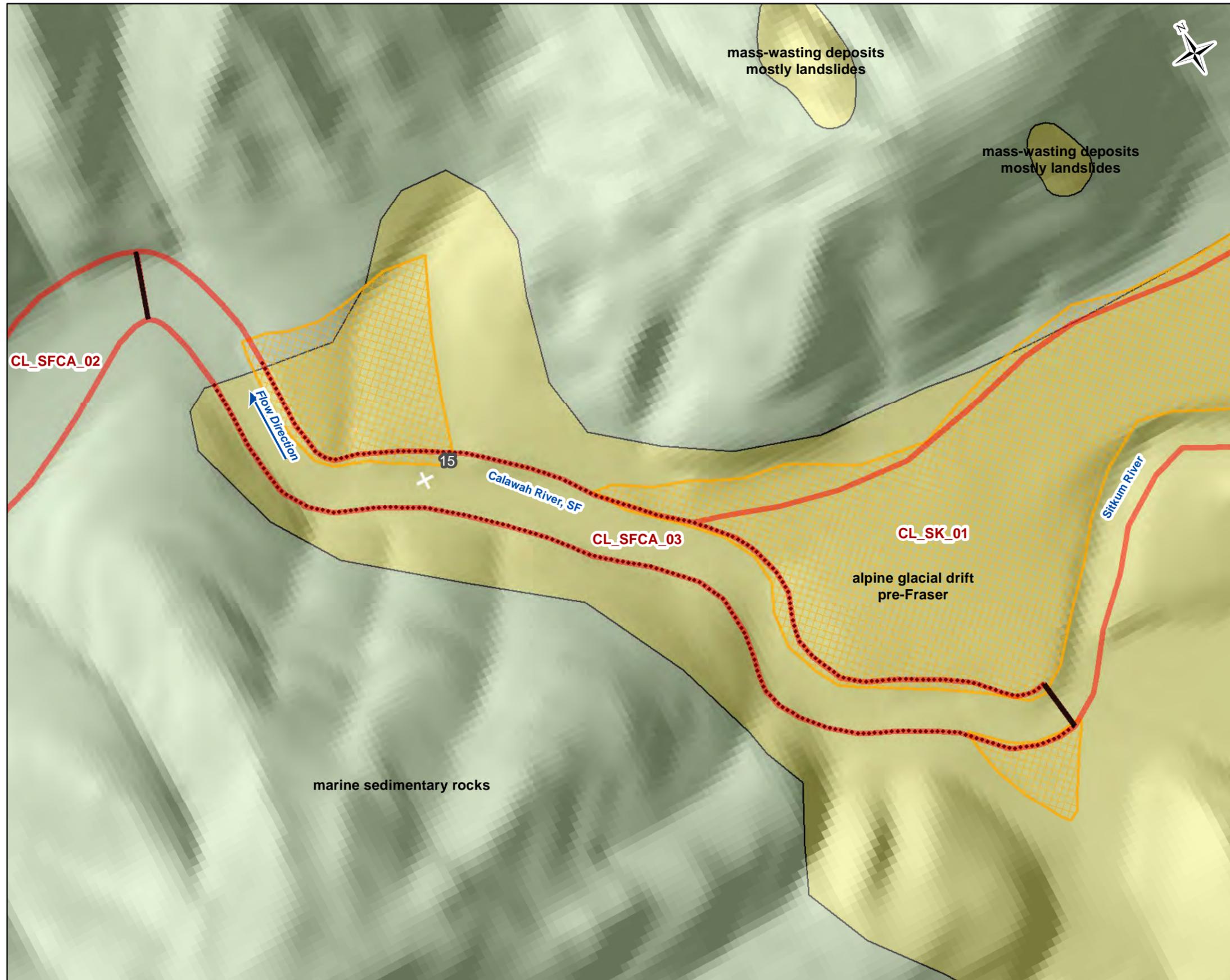


2002 LIDAR topography (Puget Sound LIDAR Consortium).
 10m DEM USGS
 1:24,000 USGS DRG
 WA State Dept. of Nat. Resources 1:100,000 Geology
 River miles calculated from NHD stream alignment (USGS)
 Roads from TIGER (US Census Bureau)
 Coordinate System: NAD83 State Plane Washington North
 Analyzed by: Minda Troost, LG (GeoEngineers)
 Reviewed by: Mary Ann Reinhart, LG, LEG (GeoEngineers)
 and/or Patricia Olson, PhD, LHG, (WA Dept. of Ecology)



Channel Migration Assessment
*Prepared for the Shoreline Master Program Update
 Clallam County, Washington*

Calawah River, SF Map 3

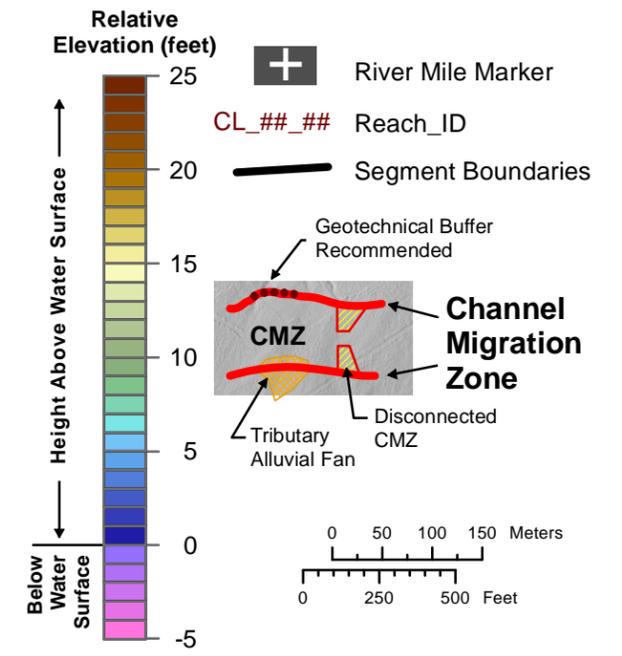
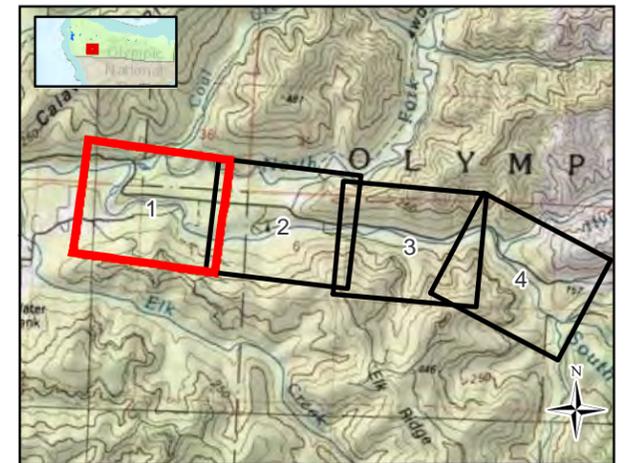
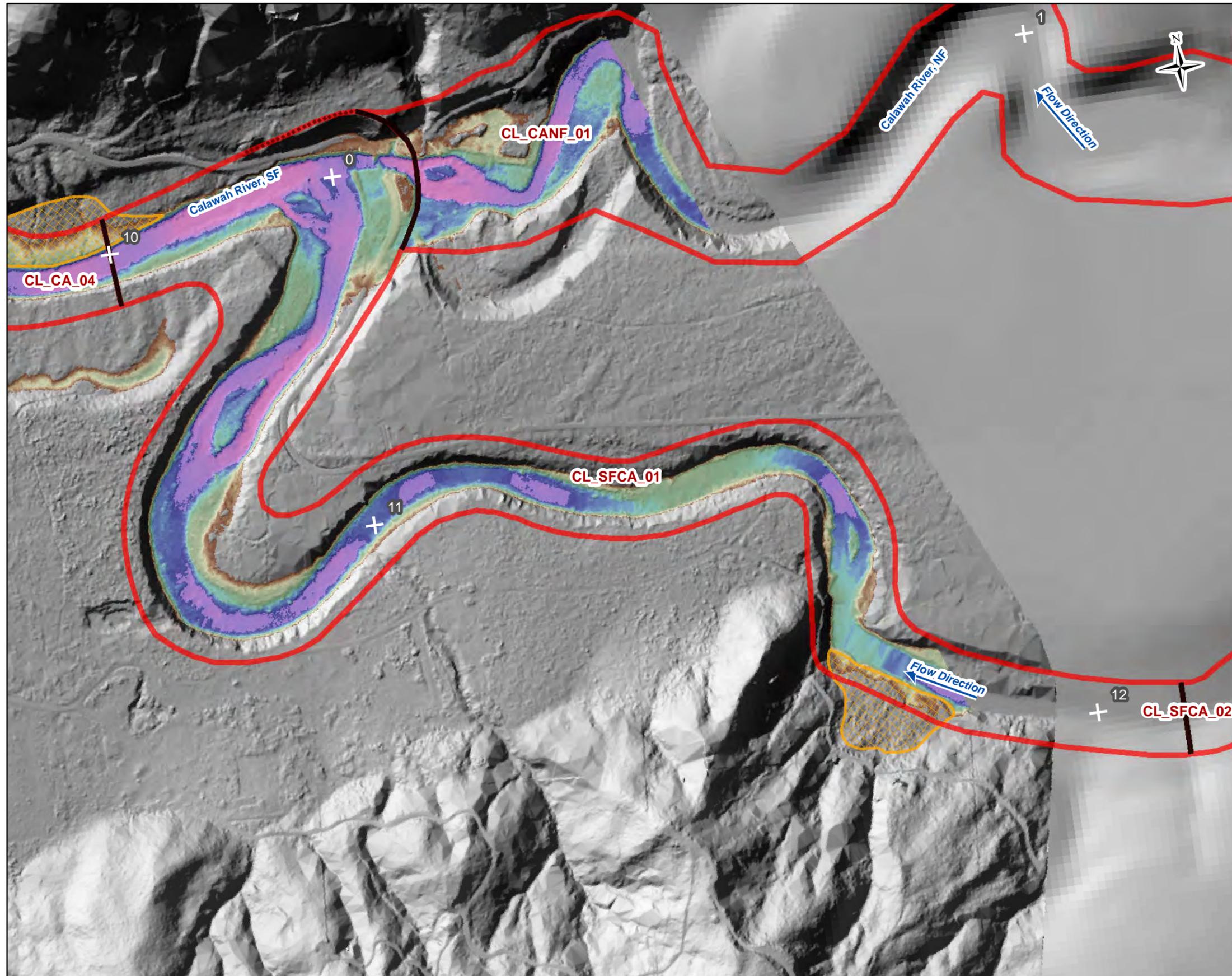


2002 LIDAR topography (Puget Sound LIDAR Consortium).
 10m DEM USGS
 1:24,000 USGS DRG
 WA State Dept. of Nat. Resources 1:100,000 Geology
 River miles calculated from NHD stream alignment (USGS)
 Roads from TIGER (US Census Bureau)
 Coordinate System: NAD83 State Plane Washington North
 Analyzed by: Minda Troost, LG (GeoEngineers)
 Reviewed by: Mary Ann Reinhart, LG, LEG (GeoEngineers)
 and/or Patricia Olson, PhD, LHG, (WA Dept. of Ecology)



Channel Migration Assessment
*Prepared for the Shoreline Master Program Update
 Clallam County, Washington*

Calawah River, SF Map 4

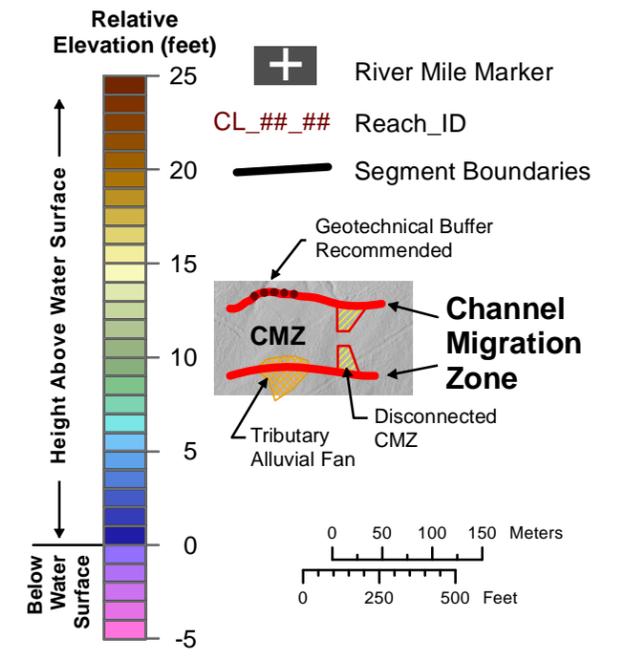
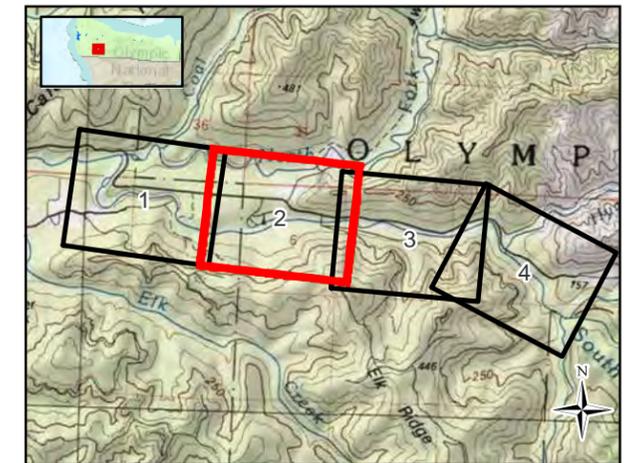


2002 LIDAR topography (Puget Sound LIDAR Consortium).
 10m DEM USGS
 1:24,000 USGS DRG
 River miles calculated from NHD stream alignment (USGS)
 Relative elevation surface from WA Department of Ecology
 Roads from TIGER (US Census Bureau)
 Coordinate System: State Plane Washington North
 Analyzed by: Minda Troost, LG (GeoEngineers)
 Reviewed by: Mary Ann Reinhart, LG, LEG (GeoEngineers)
 and/or Patricia Olson, PhD, LHG, (WA Dept. of Ecology)



Channel Migration Assessment
*Prepared for the Shoreline Master Program Update
 Clallam County, Washington*

Calawah River, SF Map 1

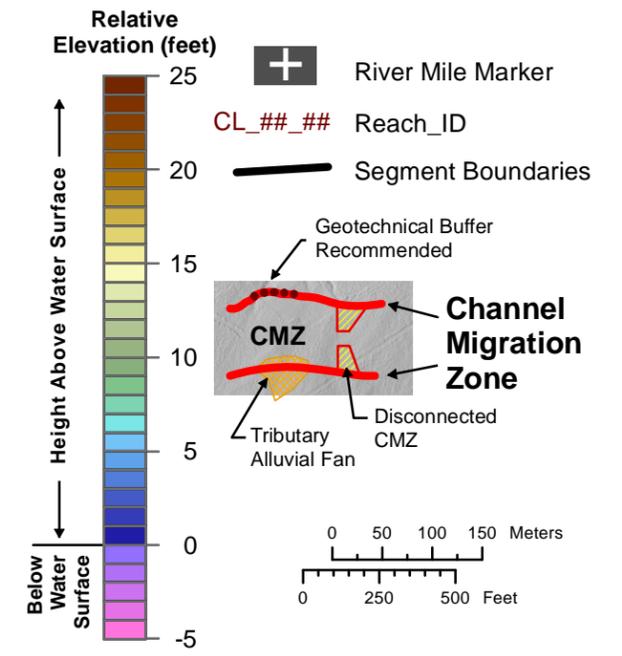
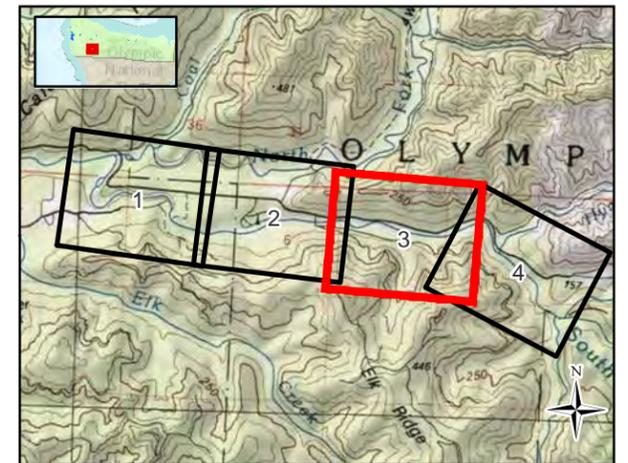
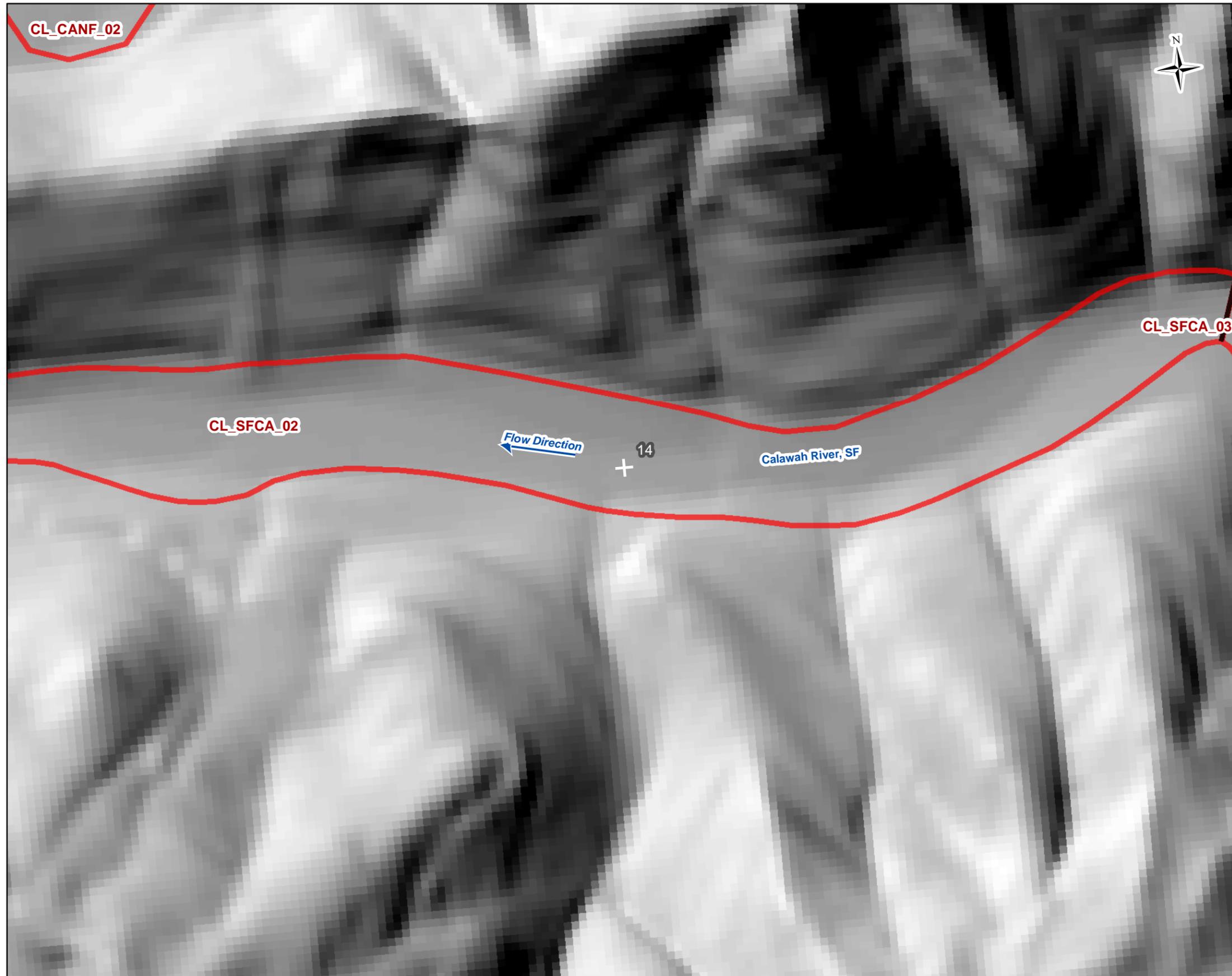


2002 LIDAR topography (Puget Sound LIDAR Consortium).
 10m DEM USGS
 1:24,000 USGS DRG
 River miles calculated from NHD stream alignment (USGS)
 Relative elevation surface from WA Department of Ecology
 Roads from TIGER (US Census Bureau)
 Coordinate System: State Plane Washington North
 Analyzed by: Minda Troost, LG (GeoEngineers)
 Reviewed by: Mary Ann Reinhart, LG, LEG (GeoEngineers)
 and/or Patricia Olson, PhD, LHG, (WA Dept. of Ecology)



Channel Migration Assessment
*Prepared for the Shoreline Master Program Update
 Clallam County, Washington*

Calawah River, SF Map 2

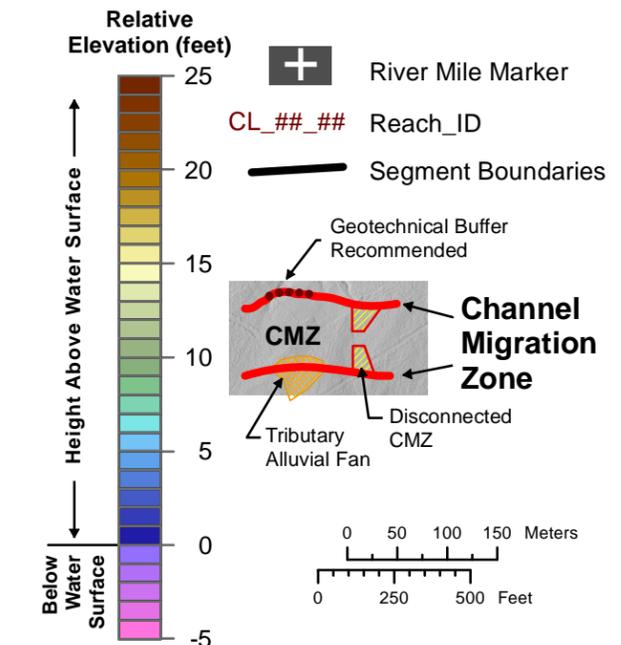
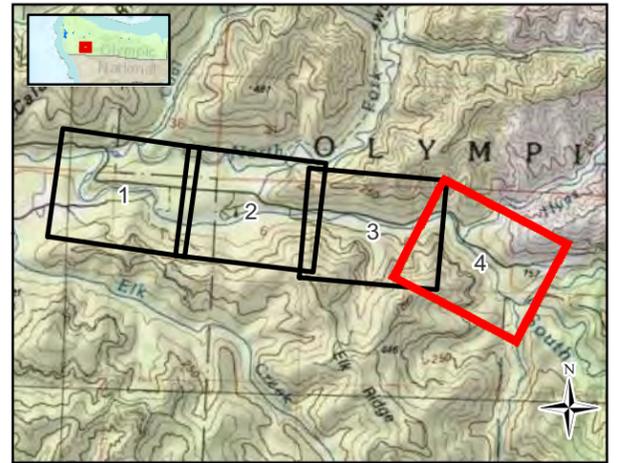
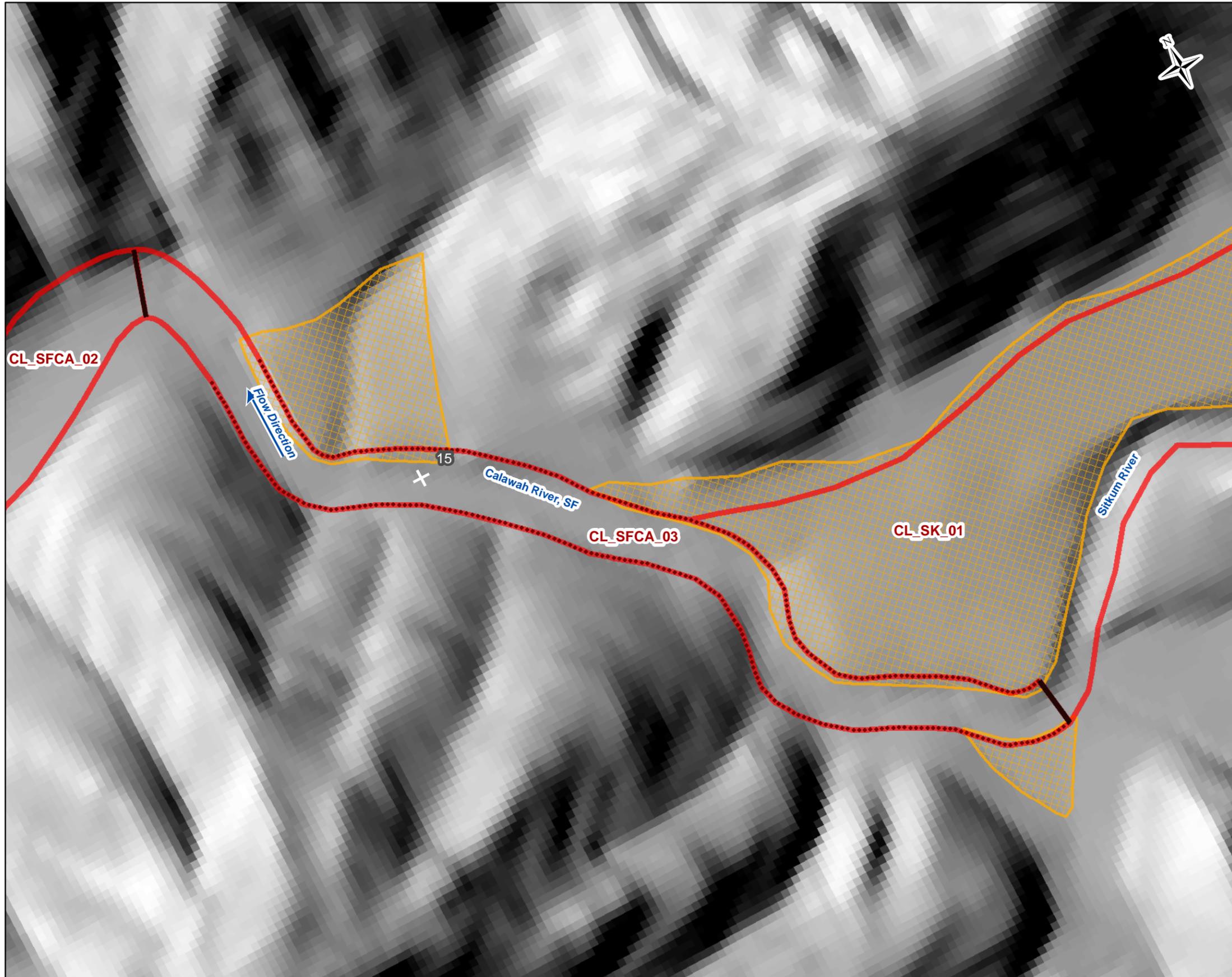


2002 LIDAR topography (Puget Sound LIDAR Consortium).
 10m DEM USGS
 1:24,000 USGS DRG
 River miles calculated from NHD stream alignment (USGS)
 Relative elevation surface from WA Department of Ecology
 Roads from TIGER (US Census Bureau)
 Coordinate System: State Plane Washington North
 Analyzed by: Minda Troost, LG (GeoEngineers)
 Reviewed by: Mary Ann Reinhart, LG, LEG (GeoEngineers)
 and/or Patricia Olson, PhD, LHG, (WA Dept. of Ecology)



Channel Migration Assessment
*Prepared for the Shoreline Master Program Update
 Clallam County, Washington*

Calawah River, SF Map 3



2002 LIDAR topography (Puget Sound LIDAR Consortium).
 10m DEM USGS
 1:24,000 USGS DRG
 River miles calculated from NHD stream alignment (USGS)
 Relative elevation surface from WA Department of Ecology
 Roads from TIGER (US Census Bureau)
 Coordinate System: State Plane Washington North
 Analyzed by: Minda Troost, LG (GeoEngineers)
 Reviewed by: Mary Ann Reinhart, LG, LEG (GeoEngineers)
 and/or Patricia Olson, PhD, LHG, (WA Dept. of Ecology)



Channel Migration Assessment
*Prepared for the Shoreline Master Program Update
 Clallam County, Washington*

Calawah River, SF Map 4