FIGURE 12. SURFICIAL GEOLOGY

Cowlitz County Partnership
Shoreline Master Program Update
COWLITZ COUNTY • CASTLE ROCK • KALAMA • KELSO • WOODLAND

COWLITZ COUNTY SHORELINE MASTER PROGRAM

DRAFT

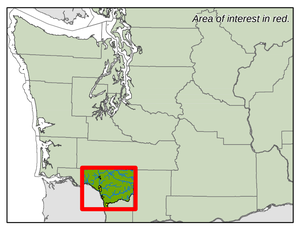
- SMP Stream
- SMP Waterbody
- City Boundary
- Proposed Shoreline Jurisidiction
- Potentially Associated Wetland
- UGA/UGB/PAB
- County Boundary

Date: 4/11/2014
Name: Fig12_surficial_geology

Data sources:
Cowlitz County, Department of Natural Resources, Department of Ecology, The Watershed Company.

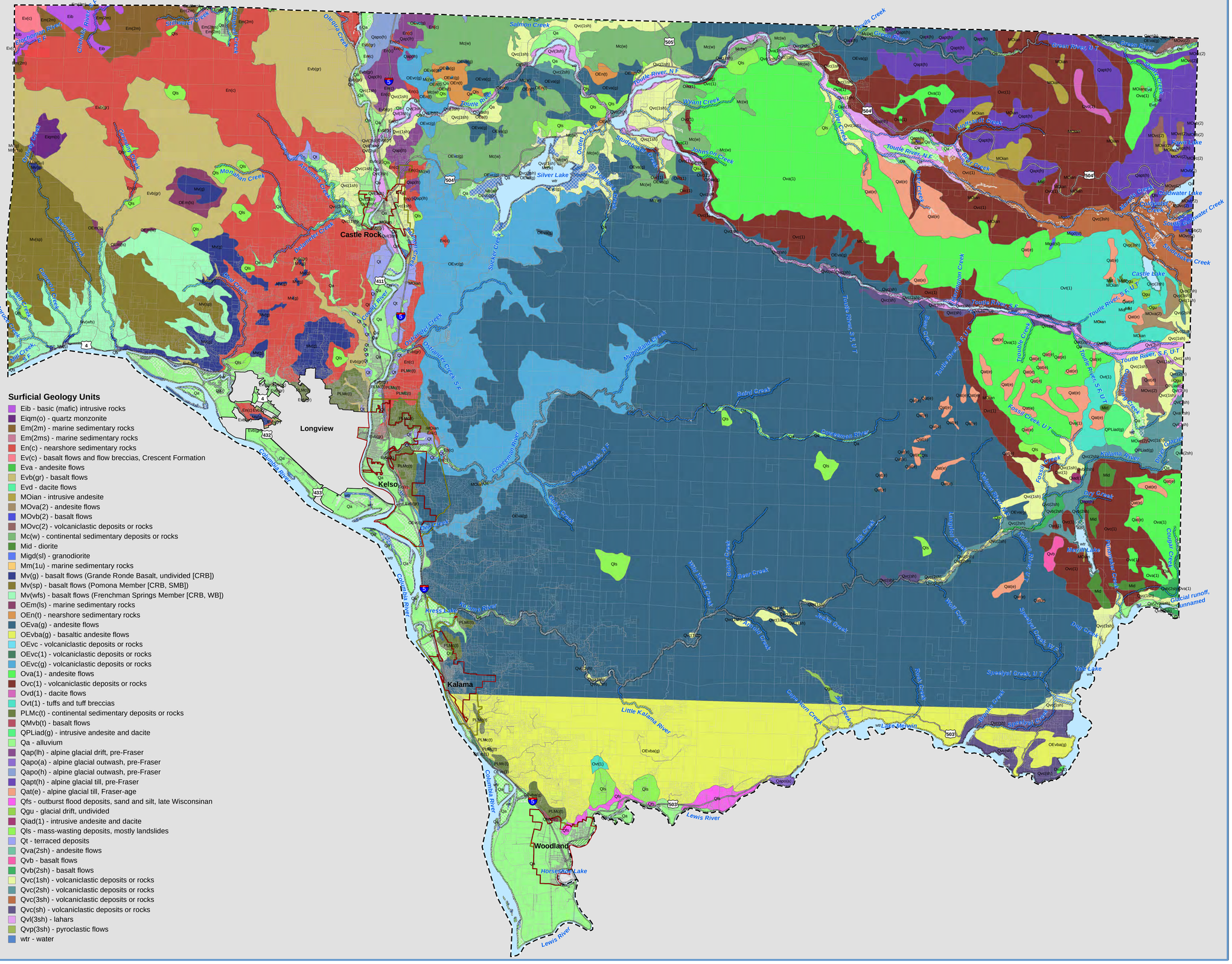
0 8,000 16,000 32,000 Feet

Original Scale=1:108,000 @ 24 x 36 layout. Please scale accordingly.



THE WATERSHED COMPANY
Parametrix

All features depicted on this map are approximate. They have not been formally delineated or surveyed and are intended for planning purposes only. Additional site-specific evaluation may be needed to confirm/ verify information shown on this map.



Surficial Geology Units

- Eib - basic (mafic) intrusive rocks
- Eiqm(o) - quartz monzonite
- Em(2m) - marine sedimentary rocks
- Em(2ms) - marine sedimentary rocks
- En(c) - nearshore sedimentary rocks
- Ev(c) - basalt flows and flow breccias, Crescent Formation
- Eva - andesite flows
- Evb(gr) - basalt flows
- Evd - dacite flows
- MOian - intrusive andesite
- MOva(2) - andesite flows
- MOvb(2) - basalt flows
- MOvc(2) - volcaniclastic deposits or rocks
- Mc(w) - continental sedimentary deposits or rocks
- Mid - diorite
- Migd(sl) - granodiorite
- Mm(1u) - marine sedimentary rocks
- Mv(g) - basalt flows (Grande Ronde Basalt, undivided [CRB])
- Mv(sp) - basalt flows (Pomona Member [CRB, SMB])
- Mv(wfs) - basalt flows (Frenchman Springs Member [CRB, WB])
- OEm(ls) - marine sedimentary rocks
- OEn(t) - nearshore sedimentary rocks
- OEva(g) - andesite flows
- OEvba(g) - basaltic andesite flows
- OEvc - volcaniclastic deposits or rocks
- OEvc(1) - volcaniclastic deposits or rocks
- OEvc(g) - volcaniclastic deposits or rocks
- Ova(1) - andesite flows
- Ovc(1) - volcaniclastic deposits or rocks
- Ovd(1) - dacite flows
- Ovt(1) - tuffs and tuff breccias
- PLMc(t) - continental sedimentary deposits or rocks
- QMvb(t) - basalt flows
- QPLiad(g) - intrusive andesite and dacite
- Qa - alluvium
- Qap(lh) - alpine glacial drift, pre-Fraser
- Qapo(a) - alpine glacial outwash, pre-Fraser
- Qapo(h) - alpine glacial outwash, pre-Fraser
- Qapt(h) - alpine glacial till, pre-Fraser
- Qat(e) - alpine glacial till, Fraser-age
- Qfs - outburst flood deposits, sand and silt, late Wisconsinan
- Qgu - glacial drift, undivided
- Qiad(1) - intrusive andesite and dacite
- Qls - mass-wasting deposits, mostly landslides
- Qt - terraced deposits
- Qva(2sh) - andesite flows
- Qvb - basalt flows
- Qvb(2sh) - basalt flows
- Qvc(1sh) - volcaniclastic deposits or rocks
- Qvc(2sh) - volcaniclastic deposits or rocks
- Qvc(3sh) - volcaniclastic deposits or rocks
- Qvc(sh) - volcaniclastic deposits or rocks
- Qvl(3sh) - lahars
- Qvp(3sh) - pyroclastic flows
- wtr - water