

PM Criteria Derivation Chart for Third Runway Embankment

Constituent	Ecology special criteria for drainage layer cover (mg/kg)	FWS drainage layer cover criteria (mg/lb)	Ecology criteria for remainder of embankment and other Port 404 Projects (mg/kg)	FINAL drainage layer cover criteria (most conservative of FWS and Ecology values) (mg/kg)	Drainage Layer Cover Meets 3 phase backcalculation from ambient water quality criteria or drinking water quality criteria when AWQC not available?	Ecology criteria for remainder of embankment and other Port 404 Projects (mg/kg)	Remainder of Embankment Meets 3 phase backcalculation from ambient water quality criteria or drinking water quality criteria when AWQC not available?
Antimony	NA	18	18	18	YES, DWQC backcalc, adjusted upward to P8 BG	18	YES, DWQC backcalc, adjusted upward to P8 BG
Arsenic	7	20	20	20	YES, AWQC backcalc, adjusted downward to P8 BG	20	YES, AWQC backcalc, adjusted downward to P8 BG
Barium	480	NA	480	480	YES, set at backcalc from DWQC	480	YES, set at backcalc from DWQC
Beryllium	NA	0.6	0.6	0.6	YES, DWQC backcalc, adjusted downward to P8 BG	0.6	YES, DWQC backcalc, adjusted downward to P8 BG
Cadmium	1	2	2	2	YES, AWQC backcalc, adjusted upward to P8 BG	2	YES, AWQC backcalc, adjusted upward to P8 BG
Chromium	42	48	2000	48	YES, adjusted downward to terrestrial eco criteria	48	YES, AWQC backcalc, adjusted upward to P8 BG
Copper	NA	38	38	38	YES, AWQC backcalc, adjusted upward to P8 BG	38	YES, AWQC backcalc, adjusted upward to P8 BG
Lead	220	24	250	24	YES, AWQC backcalc, adjusted downward P8 BG	24	YES, AWQC backcalc, adjusted downward to MITCA A
Mercury	0.07	2	0.07	0.07	YES, AWQC backcalc, adjusted upward to P8 BG	0.07	YES, AWQC backcalc, adjusted upward to P8 BG
Nickel	100	48	110	48	YES, AWQC backcalc, adjusted downward to P8 BG	48	YES, AWQC backcalc, adjusted upward to backcalc from DWQC
Selenium	5	5	5	5	YES, AWQC backcalc, adjusted upward to PQL	5	YES, AWQC backcalc, adjusted upward to PQL
Silver	5	5	5	5	YES, AWQC backcalc, adjusted upward to PQL	5	YES, AWQC backcalc, adjusted upward to PQL
Thallium	NA	2	2	2	YES, set at backcalc from DWQC	2	YES, set at backcalc from DWQC
Zinc	NA	65	65	65	YES, AWQC backcalc, adjusted downward to P8 BG	65	YES, AWQC backcalc, adjusted downward to P8 BG
Gasoline	NA	30	30	30	YES, DWQC 4 phase backcalc	30	YES, DWQC 4 phase backcalc
Diesel	NA	2000	2000	2000	YES, DWQC 4 phase backcalc, adjusted downward to eco criteria	2000	YES, DWQC 4 phase backcalc, adjusted downward to field set
Heavy Oils	NA	2000	2000	2000	YES, DWQC 4 phase backcalc, adjusted downward to field set	2000	YES, DWQC 4 phase backcalc, adjusted downward to field set

Notes/Abbreviations:

- AWQC Ambient Water Quality Criteria
- DWQC Drinking Water Quality Criteria
- P8 BG Puget Sound Background
- backcalc 3 phase backcalculation per WAC 173-340-747(3)(e)
- 4 phase backcalculation used for petroleum hydrocarbons per WAC 173-340-13)(c)
- Resid sat Residual Saturation
- FWS US Fish and Wildlife Service