

### ALLOWABLE EFFLUENT CONCENTRATION/LOADING FOR CONSERVATIVE SUBSTANCES

Date of Analysis: 9/9/2010

This Calculate the Allowable Effluent Concentration/Loading for  
Conservative Substances in a Receiving Water  
Assumption: Complete Mixing

Pressure relief discharges from 002

Conservative Substance:	Selenium
Acute or Chronic Standard	Chronic
Discharger:	JVWCD
Receiving Water:	Jordan River
Classification:	2B, 3A, 4
For the Season / Year	All Seasons

Receiving Water Information - Jordan River	
Flow, cfs	70.000
Flow, cfs (Acute)	35.000
Selenium, mg/l	0.00330
Selenium Load, lbs/day	1.25

Stream Standard	
Selenium, mg/l	0.0046
Allowable Loading Before Mix:	1.74 lbs/day
Acute / Chronic Standard [Toxics]	Chronic

Combined Effluent/Receiving Water Information	
Flow, cfs	71.547 cfs
Selenium, mg/l	0.00340 mg/l
Concentration Delta Increase, mg/l	0.00010 mg/l [Delta]
Percent Increase:	0.03 %
Selenium Load, lbs/day:	1.31 lbs/day
Allowable Loading After Mix:	1.77 lbs/day
Additional Loading Allowed:	0.46 lbs/day

Permitted Effluent Concentration:	0.063 mg/l	63.4 ug/l for : All Seasons
Permitted Effluent Loading:	0.52885 lbs/day	0.1 tons/year

Effluent Concentration Safety Factor:	0.0555 mg/l
Effluent Loading Safety Factor:	0.4630 lbs/day

Note: Whole Effluent Toxicity (WET) to be conducted on all toxic substances.  
Note: Waste Load Analysis may indicate unreasonably high allowed concentrations and loadings. Narrative standards, New Source Performance Standards, and BAT also apply.

Background Conc: 0.00330

Effluent Information [Proposed] JVWCD	
Flow, gal/min.	1.00000
Flow, MGD	1.547
Flow, cfe	1.547
Selenium, mg/l	0.00790
Selenium Load, lbs/day	0.07
Selenium Load, lbs/year	24.04
Selenium Load, tons/day	0.0000
TDS Load, tons/year	0.0
Percent of Receiving Stream = Dischs	0.02
Dilution Ratio: (to 1.0)	45.25
Percent of Stream Flow Used in Calc.	100%

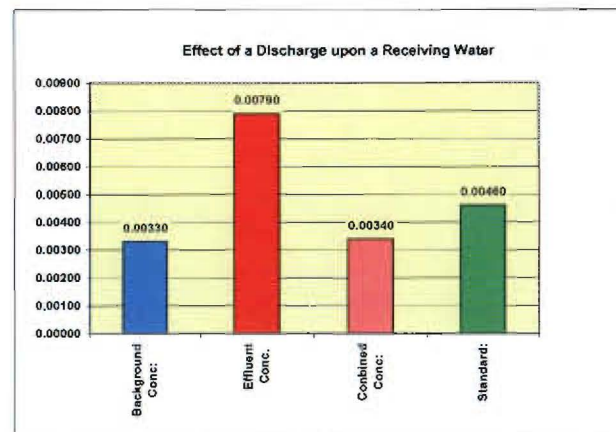
Current Permit Information	
Flow, MGD (per WLA)	0.0
Effluent Limitation (per WLA)	0.00000
Current Project Loading	0.0000

Assumptions:

1. Critical low flow is from previous wasteload prepared by Dr. Moellmer.
2. Selenium concentration of receiving water is based on a 7 year average of data collected at 7800 South, Storet Number 4994170.

Level I Antidegradation Review

Existing Project Loading	None lbs/day
Proposed Project Loading	0.0659 lbs/day
% Increase in Project Loading	0.0%
Current Stream Pollutant Loading	1.2451 lbs/day
Proposed Stream Pollutant Loadin	1.3110 lbs/day
% Increase in Stream Loading	5.3%
Current Stream Pollutant Conc.	0.0033 mg/l
Proposed Stream Pollutant Conc.	0.0034 mg/l
% Increase in Stream Conc.	3.0%



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Discharger:	JVWCD
Receiving Water:	Jordan River
Classification:	2B, 3A, 4
For the Season / Year	All Seasons

Receiving Water Information - Jordan River	
Flow, cfs	70.000
Flow, cfs (Acute)	35.000
Selenium, mg/l	0.00330
Selenium Load, lbs/day	1.25

Stream Standard	
Selenium, mg/l	0.0046
Allowable Loading Before Mix:	1.74 lbs/day
Acute / Chronic Standard [Toxics]	Chronic

Combined Effluent/Receiving Water Information	
Flow, cfs	77.116 cfs
Selenium, mg/l	0.00372 mg/l
Concentration Delta Increase, mg/l	0.00042 mg/l [Delta]
Percent Increase:	0.13 %
Selenium Load, lbs/day:	1.55 lbs/day
Allowable Loading After Mix:	1.91 lbs/day
Additional Loading Allowed:	0.36 lbs/day

Permitted Effluent Concentration:	0.017 mg/l	17.4 ug/l for : All Seasons
Permitted Effluent Loading:	0.66693 lbs/day	0.1 tons/year

Effluent Concentration Safety Factor:	0.0095 mg/l
Effluent Loading Safety Factor:	0.3839 lbs/day

Note: Whole Effluent Toxicity (WET) to be conducted on all toxic substances.  
Note: Waste Load Analysis may indicate unreasonably high allowed concentrations and loadings. Narrative standards, New Source Performance Standards, and BAT also apply.

Background Conc: 0.00330

Effluent Information [Proposed] JVWCD	
Flow, gal./min.	4.00000
Flow, MGD	7.116
Flow, cfs	0.00790
Selenium, mg/l	0.30
Selenium Load, lbs/day	110.60
Selenium Load, lbs/year	0.0002
Selenium Load, tons/day	0.1
TDS Load, tons/year	0.09
Percent of Receiving Stream = Discha	9.84
Dilution Ratio: (to 1.0)	100%
Percent of Stream Flow Used in Calc.	

Current Permit Information	
Flow, MGD (per WLA)	0.0
Effluent Limitation (per WLA)	0.00000
Current Project Loading	0.0000

**Assumptions:**

1. Critical low flow is from previous wasteload prepared by Dr. Moellmer.
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**Level I Antidegradation Review**

Existing Project Loading	None lbs/day
Propoed Project Loading	0.3030 lbs/day
% Increase in Project Loading	0.0%
Current Stream Pollutant Loading	1.2451 lbs/day
Proposed Stream Pollutant Loadin	1.5481 lbs/day
% Increase in Stream Loading	24.3%
Current Stream Pollutant Conc.	0.0033 mg/l
Proposed Stream Pollutant Conc.	0.0037 mg/l
% Increase in Stream Conc.	12.9%

