Level I Antidegradation Review

Utah Divison of Water Quality **13-Jul-07**

Mayfield Town, Utah

Parameter of Interest: **TDS**

Receiving Water: **12 Mile Creek**

Classification: **3A**

Upstream Condition

Flow:	**18.40**	Yearly Average, cfs
	4.00	(Critical Low Flow, 7Q10 or 20th Percentile of all Data), cfs
Conc.:	**279.80**	(80th Percentile of all Data), mg/l
Load:	6,032.49	(Critical Low Flow) lbs/day
	1,100.93	tons/year

Upstream Conditions (Background) Above Discharge | Mixing Zone | Downstream After Mixing

Current Discharge

Design Flow:		MGD	-	cfs
Conc.:		mg/l		
Load	-	lbs/day		
	-	tons/year		

Projected Discharge

Design Flow:	**0.22**	MGD	0.334	cfs
Conc.:	**3,600.00**	mg/l		
Load	6,483.89	lbs/day		
	1,183.31	tons/year		

Discharge

	Critical	**Average**	
Stream Concentration after Mixing			
Flow:	**4.00**	18.40	cfs
Conc.:	**279.80**	279.80	mg/l
Load:	**6,032.49**	27,749.44	lbs/day
	1,100.93	5,064.27	tons/year

Projected Stream Concentration after Mixing

Flow:	**4.33**	18.73	cfs
Conc.:	**535.78**	339.02	mg/l
Load:	**12,516.37**	34,233.33	lbs/day
	2,284.24	6,247.58	tons/year

R317.4.b

1	Water Quality will not be lowered:	91%	No	Concentration increased 91%
2	Effluent Limits from a TMDL:		**No**	
3	Temporary Sediment Impact w/o Effect on Spawning:		**No**	
4	Assimiliative capacity is allocated:		**No**	
5	Temporary and Limited Impact (See a-e)		**No**	
6	Not Class 3A or 3B		**No**	
7	Poor Quality Fisheries [DNR Classifications]		**No**	
8	Receiving Water is on 303(d) list for parameter of concern:		**No**	
9	Proposed Discharge Conc. <= Current Discharge Conc:		**No**	
10	Water Quality Impacts are Minor:			
	(a) Increase in Project Loading < 20%:		No	
	(b) Increase in Pollution Loading is < 20% over Background:	107%	No	Loading increased 107%
11	Flow of Discharge vs. Flow of Stream is small:			
	Avg Stream Flow to Discharge Ratio > 100:1	55.06	No	
	7Q10 Stream Flow to Discharge Ratio > 25:1	11.97	No	
	Increase in 7Q10 Stream Concentration is < 10%:	91%	No	

Summary: **Level II Antidegradation Review Required**