Potential Tongue River EC TMDL Allocations and Flow Modification; Example Based on Data from Early May 2016

Column 1	Column 2	Column 3	Column 4	Column 5
Scenario	**Source Loading Change**	**Tongue River Salinity Loading Impact**	**% Reduction at Brandenberg**	**Brandenberg EC (µS/cm)**
Baseline - Actual Data (5/3/2016)	No Changes	Baseline	Baseline (0%)	1,275
Wyoming Reduction at the Border	8 to 10%	7 to 9% reduction from reservoir	3.17	1,235
Decker Discharges Reduction	50%	3% reduction from reservoir	1.19	1,260
Montana CBM Reduction	25 to 75 %	0.5% reduction from reservoir	0.20	1,272
Agriculture in Montana Reduction	6 to 10 %	1.5% reduction below reservoir (Spring)	0.91	1,263
Ashland County Water & Sewer District WWTP Reduction	75 to 100% (Spring)	1% reduction below reservoir (Spring)	0.60	1,267
Northern Cheyenne Agriculture Increase	Currently no load	0.5% increase below reservoir (Spring)	-0.30	1,279
All Load Changes Combined	Varies by source	Combination of reductions from and below reservoir	5.76	1,202
Increased Reservoir Release Flow of 80 cfs; No Reductions (Baseline Loading Condition)		Increase of "cleaner" water from reservoir, dilutes high EC inputs downstream	16.24	1,034
All Load Changes Combined with Increased Reservoir Release Flow			24.88	958

Color Key	Reduction from reservoir	The loading reduction is applied only to water discharged from the reservoir dam
	Reduction or increase below reservoir	The loading change is only applied to inflows between the reservoir and Brandenburg during the Spring
	Measured value*	All other values are calculated
	Meets the standard**	Value that satisfies the EC standard of 1,000

* In addition to the measured EC value of 1,275 µS/cm at Brandenberg, other measured values for this analysis include a flow of 111 cfs at Brandenberg, a reservoir discharge flow of 80 cfs and a reservoir discharge EC of 700 µS/cm.

** Note that both the flow increase and most source reductions are needed to satisfy the EC standard in this May 2016 scenario. This timeframe represents a period of some of the higher measured EC values at Brandenberg, suggesting that the combination of increased flow and source load reductions could consistently result in satisfying the EC standard at this location.