

<b>Evaluation of Alternatives</b>	<b>Alternative 1 - No Action:</b> Dam will breach. Downstream channel will headcut the reservoir eventually reverting back into a prairie pothole. Existing diversion breach will widen until natural character of stream is restored.		<b>Alternative 2: Decommission Dam &amp; Diversion:</b> Dam decommissioned and footprint restored to a natural prairie pothole. Diversion decommissioned and footprint restored to a natural intermittent stream channel.		<b>Alternative 3: Rehabilitate Dam &amp; Decommission Diversion:</b> Dam rehabilitation following NRCS plans. Diversion decommissioned and footprint restored to a natural intermittent stream channel.		<b>Alternative 4: Rehabilitate Dam &amp; Diversion:</b> Dam rehabilitation following NRCS plans. Diversion rehabilitation following NRCS plans.	
	Dam Breached	Natural Diversion Flow	Natural Prairie Pothole	Natural Diversion Flow	Dam Rehabilitated	Natural Diversion Flow	Dam Rehabilitated	Diversion Rehabilitated
<b>ENGINEERING</b>								
Total Construction Cost (\$)	\$0	\$0	\$218,672	\$122,145	\$1,116,136	\$122,145	\$1,116,136	\$882,040
Annual O&M Cost (\$)	\$0	\$0	0	\$0	\$13,373	\$0	\$20,251	\$8,820
Annual Net Economic Benefit Of Irrigation (\$ Based on DNRC \$30 per AF)	\$0	\$0	\$0	\$0	\$4,424	\$0	\$60,570	\$2,724
Annual Net Economic Benefit Of Stockwater (\$ Based on \$1.00 Gain per Calf)	\$650	\$0	\$650	\$0	\$650	\$0	\$650	\$0
Water Produced by Watershed (Acre-Feet Based on USGS 14.56" Annually)* **	10,124	31,100	10,124	31,100	10,124	31,100	10,124	31,100
Total Water Delivered to Lake 17 from Watershed (AF)* **	3,103	0	3,103	0	3,103	0	3,103	91
Lake 17 Storage Volume (AF)	351	-	351	-	934	-	4038	-
Potential Water Available for Irrigation (AF)	0	-	0	-	467	-	2,019	-
Potential Water Available for Irrigation (Acres Based on 19" per Alfalfa Cutting)	0	-	0	-	147	-	606	*457 Acres can be sustained, methods increase potential
Potential Water Available for Livestock (AF-Year)	351	-	351	-	934	-	2,019	-
Potential Water Available for Livestock (Number of Cow-Calf Pairs Based on NRCS 25 gal/day)	12,534	*Max Cow-Calf Pair for Grazing Acreage = 650	12,534	*Max Cow-Calf Pair for Grazing Acreage = 650	33,353	*Max Cow-Calf Pair for Grazing Acreage = 650	72,098	*Max Cow-Calf Pair for Grazing Acreage = 650
Vegetated Wetland Habitat (NRCS Data)	123 Acres	-	123 Acres	-	72 Acres	-	254 Acres	-
Open Water Habitat (Acres)	54 Acres	-	54 Acres	-	279 Acres	-	740 Acres	-
Shoreline Distance (Miles)	4.3 Miles	-	4.3 Miles	-	9.1 Miles	-	20 Miles	-
Intermittently Exposed Shoreline (Acres)	132 Acres	-	132 Acres	-	349 Acres	-	258 Acres	-
Maximum Ponding Depth (Feet)	3.5 Feet	-	3.5 Feet	-	6 Feet	-	12 Feet	-
<b>ENVIRONMENTAL</b>								
<b>Land use impacts</b>	Poor	Poor	Fair	Poor	Good	Poor	Good	Good
<b>Conservation easement impacts</b>	Poor	Poor	Fair	Fair	Good	Fair	Good	Good
<b>Waters of the US- Section 10</b>	Poor	Poor	Fair	Poor	Fair	Good	Good	Good
<b>Wetlands- CWA 404</b>	Fair	Poor	Fair	Poor	Good	Poor	Good	Fair
<b>Wildlife &amp; Migratory Species</b>	Poor to Fair	Poor to Fair	Poor to Fair	Poor to Fair	Mostly Good	Poor to Fair	Good	Mostly Good
Threatened and Endangered Species	Poor	Poor	Fair	Fair	Good	Fair	Good	Good
Montana Listed Species of Concern	Fair	Fair	Fair	Fair	Good	Fair	Good	Good
Migratory Species Critical Habitat	Poor	Poor	Poor	Poor	Fair	Fair	Good	Good
Wildlife Corridors	Poor	Poor	Poor	Poor	Good	Poor	Good	Good
Riparian habitat	Fair	Fair	Fair	Fair	Good	Poor	Good	Good
Wildlife habitat	Fair	Fair	Fair	Fair	Good	Poor	Good	Good
<b>Fisheries and Aquatic Resources</b>	Fair	Fair	Poor	Fair	Fair	Good	Good	Fair
<b>Cultural Resources</b>	Good	Good	Fair	Fair	Fair	Fair	Fair	Fair
<b>Socioeconomic Impacts</b>	Poor	Poor	Fair	Fair	Good	Fair	Good	Good
<b>Visual Resources</b>	Poor	Poor	Fair	Fair	Good	Fair	Good	Good
<b>Permits and Compliance Requirements</b>	Good	Good	Fair	Fair	Poor	Fair	Poor	Poor
<b>O &amp; M Costs</b>	Good	Fair	Good	Good	Fair	Good	Fair	Fair
<b>Public and agency comment</b>								
<b>Meets Purpose and Need</b>	Poor	Poor	Fair	Fair	Fair	Fair	Good	Good

\*Conveyance Loss = 4.97 cfs per mile = 9.86 acre-feet per day per mile

\*\*Evapotranspiration = 42 inches per year