

# **Impairment Determinations**

IR Category	Waterbody ID	Waterbody Name	Assessment Segment Description	Cycle	Designated Use Impaired	Cause / Stressor for 2004 303(d) list	Rationale for 303(d) listing	Data Source
5a	IA 06-WEM-00235-L_0	Lake Manawa	entire lake	2004	primary contact	algae	aesthetically objectionable conditions: chlorophyll-a TSI = 65 Nebraska issued fish consumption advisory	ISU statewide lake survey
5a	IA 06-WEM-00265-L_0	Carter Lake	entire lake	2004	fish consumption	PCBs	Geometric means of indicator bacteria > state WQ Standard.	Nebraska DEQ
5a	IA 06-WEM-00265-L_0	Carter Lake	entire lake	2004	primary contact	algae	aesthetically objectionable conditions: Secchi TSI = 78; chlorophyll-a TSI = 77	ISU statewide lake survey
5a	IA 06-WEM-00265-L_0	Carter Lake	entire lake	2004	primary contact	algae	aesthetically objectionable conditions: Secchi TSI = 66 (chlorophyll-a TSI = 60)	ISU statewide lake survey
5a	IA 06-WEM-00340-L_0	Desoto Bend	entire lake	2004	primary contact	turbidity	aesthetically objectionable conditions: Secchi TSI = 71	ISU statewide lake survey
5a	IA 06-WEM-00445-L_0	Blue Lake (aka, Lewis And Clark Lake)	entire lake	2004	primary contact	turbidity	aesthetically objectionable conditions: chlorophyll-a TSI = 65	ISU statewide lake survey
5a	IA 06-WEM-00445-L_0	Blue Lake (aka, Lewis And Clark Lake)	entire lake	2004	primary contact	algae		ISU statewide lake survey

## **Missouri Tributaries Basin – Hydrologic Units 10170101, 10230001 and 10230006**

The Missouri Tributaries Basin includes 136 designated stream segments and 27 designated lakes. The waterbody assessment also included a lake that has not been identified in Title 117 – Nebraska Surface Water Quality Standards.

***Sreams*** – 4 segments within the Missouri Tributaries basin have been assigned the recreation beneficial use, 3 segments have been assigned the Coldwater B aquatic life use, 15 segments have been assigned the Warmwater A aquatic life use and 118 segments have been assigned the Warmwater Class B aquatic life use. All of the segments have been assigned the Agriculture waters supply and aesthetics beneficial use. 2 segments have been assigned the public drinking water use and segment has been assigned the industrial water supply beneficial use. The waterbody assessments yielded 2 Category 2 waterbodies, 129 Category 3 waterbodies and 5 Category 5 waterbodies. The pollutants causing the impairment or the parameters identified as impaired are: fecal coliform (2), Dieltrin (4) and PCBs (4).

***Lakes/Reservoirs*** – All of the lakes/reservoirs in the Missouri Tributaries basin have been assigned primary contact recreation, Warmwater A aquatic life agriculture water supply and aesthetics beneficial uses. One lake/reservoir is assigned the public drinking water and industrial beneficial uses. The waterbody assessment yielded 5 Category 2 waterbodies, 16 Category 3 waterbodies and 7 Category 5 waterbodies. The pollutants causing the impairment or the parameters identified as impaired are: mercury (4), sediment (3), nutrients (2), fecal coliform (1) and PCBs (1).

### ***Changes (Delistings) from 2002 Section 303(d) list***

**Undesignated Tributary to MT1-10000** – The segment was listed on the 2002 Section 303(d) list as impaired by excessive total residual chlorine with the supporting data being generated from NPDES permittee self-monitoring. A review of the data submitted by the permittee on the discharge monitoring reports indicates the NPDES permit limits have not been exceeded since September 2001. Based upon this the waterbody will be delisted.

**MT1-L0150** – Summit Lake was included on the 2002 Section 303(d) list as impaired by excessive nutrients. Past assessments utilized a trophic state index (TSI) to determine whether nutrient levels were acceptable with aesthetics being the beneficial use targeted. In lieu of using a broad scale, generalized assessment tool such as the TSI, the Department has developed numeric nutrient values/goals based on regional environmental conditions to assess beneficial use support. In the future, the intent is to convert these goals to water quality criteria. Assessment of the applicable data from Summit Lake to the goal indicates the waterbody is supporting the use. Based upon this the waterbody will be delisted.

**MT1-L0030** – Wehrspann Lake was included on the 2002 Section 303(d) list as impaired by excessive nutrients. Past assessments utilized a trophic state index (TSI) to determine whether nutrient levels were acceptable with aesthetics being the beneficial use targeted. In lieu of using a broad scale, generalized assessment tool such as the TSI, the Department has developed numeric nutrient values/goals based on regional environmental conditions to assess beneficial use support. In the future, the intent is to convert these goals to water quality criteria. Assessment of the applicable data from Wehrspann Lake to the goal indicates the waterbody is supporting the use. Based upon this the parameter will be delisted.

**MT1-I0120** – Glenn Cunningham Lake was included on the 2002 Section 303(d) list as impaired by excessive nutrients. Past assessments utilized a trophic state index (TSI) to determine whether nutrient levels were acceptable with aesthetics being the beneficial use targeted. In lieu of using a broad scale, generalized assessment tool such as the TSI, the Department has developed numeric nutrient values/goals based on regional environmental conditions to assess beneficial use support. In the future, the intent is to convert these goals to water quality criteria. Assessment of the applicable data from Glenn Cunningham Lake to the goal indicates the waterbody is supporting the use. Based upon this the parameter will be delisted.

Waterbody ID	Waterbody Name <sup>1</sup>	Beneficial Uses						Waterbody Assessment Category	Parameter(s) Impairing use	Comments
		Primary Contact Recreation	Aquatic Life Use	Public Drinking Water Supply	Agriculture Water Supply	Industrial Water Supply	Aesthetics			
MT2-L0040	Lewis And Clark Lake	S		S		S		2		
MT1-L0010	Offutt Lake							3		
MT1-L0020	Haworth Park Lake							3		
MT1-L0040	Hitchcock Park Lake							3		
MT1-L0060	Hanscom Park Lake							3		
MT1-L0070	Fontenelle Park Lake							3		
MT1-L0080	Benson Park Lake							3		
MT1-L0110	Miller Park Lake							3		
MT1-L0130	Papio D-4 Lake							3		
MT1-L0140	Desoto Lake							3		
MT1-L0160	Mud Creek SCS Pond							3		
MT1-L0170	Middle Decatur Bend Lake							3		
MT1-L0180	Omadi Bend Lake							3		
MT1-L0190	Gateway Lake							3		
MT2-L0020	Chalkrock Lake							3		
MT2-L0050	Crofton City Lake							3		
MT2-L0060	Plainview Country Club Lake							3		
MT1-L0030	Wehrspann Lake		I		S		S	5	Mercury	Fish Tissue Advisory Issued
MT1-L0050	Ed Zorinsky Lake	S	I		S		S	5	Mercury	TMDLs for sediment, nutrients and dissolved oxygen approved September 2002. Fish Tissue Advisory Issued
MT1-L0090	Carter Lake	I	I		S		I	5	PCBs, Fecal coliform, pH & Nutrients	Fish Tissue Advisory Issued

1. Title 117 - Nebraska Water Quality Standards may include a legal location or descriptive text within the waterbody name. Please refer to Title 117 for these details