



SAYLORVILLE LAKE DES MOINES RIVER



**US Army Corps
of Engineers**®
Rock Island District

RESERVOIR OPERATIONS — Saylorville Lake, built and maintained by the U.S. Army Corps of Engineers, Rock Island District, is operated as a multi-purpose reservoir. The primary purpose authorized by Congress (Public Law 85-500) is flood risk management for areas below the lake. Other authorized purposes include low flow augmentation, water supply, fish and wildlife management, and recreation (PL 78-534, PL 94-587). Saylorville maintains a permanent conservation pool to augment low flows during periods of drought and to provide state contracted water supply. Additionally, a fall pool raise is conducted to benefit migrating bird species. Recreation is an important and highly visible activity at Saylorville Lake. While access and facilities are provided for recreation, water is not controlled for this purpose.

Saylorville Lake is regulated to conform to a strict water control plan that is coordinated by the Corps of Engineers with local, state and federal agencies with water resources responsibilities. The water control plan includes regulation of releases during flood and drought periods. A summary of the water control plan for Saylorville Lake can be found on the back of this page.

Maximum seasonal release rates contained in the water control plan were determined in coordination with downstream stakeholders. For the reach of the Des Moines River downstream of Saylorville Lake, the channel capacity varies from approximately 16,000 cfs, just downstream of the project, to more than 28,000 cfs downstream of the confluence with the Raccoon River in Des Moines.

STORAGE ALLOCATION — Storage within the reservoir is allocated as follows:

- Conservation Storage – 52,500 acre-ft (8.4% of total storage)
- Water Supply Storage – 12,200 acre-ft (1.9% of total storage)
- Flood Risk Management Storage – 561,800 acre-ft (89.7% of total storage)

The storage below the permanent conservation pool elevation of 836 feet (NGVD) provides storage for low-flow augmentation (during periods of drought), and water supply. As sedimentation continues, the Corps will periodically assess remaining storage capacity and the need for operational changes necessary to ensure the reservoir continues to meet its authorized purposes. In the past, such operational changes have included raises in the conservation pool. The most recent pool raise (to 836 feet) occurred in 1982 to provide storage for the state contracted water supply.

Periodically, requests have been received to vacate conservation storage prior to spring snowmelt in order to increase the amount of flood risk management storage available in the reservoir. Implementation of such a seasonal drawdown would impact other authorized project purposes, natural resources, and the public; including:

- loss of conservation storage for low-flow augmentation during drought conditions
- need to maintain contracted (State of Iowa) water supply storage would prevent a complete drawdown
- mortality of exposed mussels
- interruption of spring fish spawning
- potential for fish kills in lake areas that become isolated by the drawdown
- reduction in habitat for migratory birds
- potential bank instability
- current infrastructure was not constructed for reduced lake levels, this will lead to interruption in other uses of the reservoir (boating, fishing, other recreation) and a reduction in regional economic activity related to these uses

WATER CONTROL PLAN — The Water Control Plan for Saylorville Lake can be viewed at:

<http://www.mvr.usace.army.mil/About/Offices/Programs-and-Project-Management/Des-Moines-River-Water-Control-Plan-Update/>

Saylorville Lake Flood Control Regulation Schedule

Conservation Pool Schedule

Date	Elevation (feet)	
December - Fall	Hold 836	
Fall - December	Hold 836 - 840	(Fall Pool Raise - Variable)

Normal Flood Control Operation: Pool elevation at or forecast between 836 and 875 feet

16 December - 20 April

Stage at, above, or forecast to exceed:
SE 6th Street, Des Moines: 24 feet

Balance storage with Lake Red Rock if
lake elevation is below 860 feet.

Maximum Release: 16,000 cfs
Minimum Release: 2,000 cfs

21 April - 15 December

Stage at, above, or forecast to exceed:
SE 6th Street, Des Moines: 24 feet

Balance storage with Lake Red Rock if
lake elevation is below 860 feet.

Max Release: 12,000 cfs (Lake Red Rock > 758 feet)
Max Release: 16,000 cfs (Lake Red Rock < 758 feet)
Minimum Release: 2,000 cfs

Large Magnitude Flood Operation: Pool elevation at or above 875, or forecast to exceed 884 feet

16 December - 20 April

Elevation (feet)	Release (cfs)
875	16,000
876	16,000
877	16,000
878	16,000
879	16,000
880	17,000
881	18,000
882	19,000
883	20,000
884 ¹	21,000
885	21,000
886	21,000
887	21,000
888	21,000
889 ²	Fully Open
890	Fully Open
above 890	Fully Open + Spillway

21 April - 15 December

Elevation (feet)	Release (cfs)
875	12,000
876	13,000
877	14,000
878	15,000
879	16,000
880	17,000
881	18,000
882	19,000
883	20,000
884 ¹	21,000
885	21,000
886	21,000
887	21,000
888	21,000
889 ²	Fully Open
890	Fully Open
above 890	Fully Open + Spillway

1. 884 feet is the concrete spillway crest, and is the trigger for raising the pneumatic crest gates.
2. If the lake level is forecast to exceed 890 feet, the pneumatic crest gates are lowered at 889 feet.