FARM CREEK RESERVOIRS



(East Peoria, Illinois) **Illinois River**

U.S. ARMY CORPS OF ENGINEERS

Construction: 1948-51

Congressional District: IL-18

Description:

The Farm Creek Flood Control Project was authorized in 1944 with an estimated cost of \$3, 017,900. Originally, a five reservoir plan was proposed. However after further study, only two reservoirs and channel improvements were deemed necessary. Fondulac Reservoir, built by Central Engineering Company of



Davenport, IA, was completed in 1949. The larger Farmdale Reservoir was completed in 1951 by Acme Construction Company of Cleveland, OH. The US Army Corps of Engineers' Illinois Waterway Project Office in Peoria, IL has operational responsibility for Farmdale and Fondulac Reservoirs. The remainder of the project is maintained by the City of East Peoria.

Behind each dam, the Corps of Engineers owns the land that is subject to flooding. These areas will normally be empty of standing water. Farm Creek and Fondulac Creek flow through a culvert in the respective dams. When the flow in the creek exceeds the capacity of the culvert, water starts to back up into the reservoir area. The stored water is then released at a slow rate through the outlet culvert. One advantage of the dry reservoir concept is there are no moving parts. The water is held back and released automatically, without the need to close or open gates.

| Farmda | ale Dam |
|---------------------|------------------|
| Type- Rolled Earth | |
| Length at Crest | 1275' |
| Width at Crest | 20' |
| Maximum Height | 80' |
| Storage Capacity | 15,500 acre feet |
| | |
| Fondulac Dam | |
| Type – Rolled Earth | |
| Length at Crest | 1000' |
| Width at Crest | 20' |
| Maximum Height | 67' |

Storage

3780 acre feet

The Corps of Engineers owns a total of 973 acres of land in the Farm Creek Projects. The large majority of this land is available to the public for low-impact recreation use.

Flood Risk Management: Heavy rain in the Farm Creek watershed above Farmdale and Fondulac can produce flash flooding-a lot of water in a short time. Above the two reservoirs, the creeks are contained in small valleys so flood losses are small. In the lower reaches of Farm Creek the flood plain widens as it merges with the Illinois River floodplain. The potential for flood damage in this flat area is enormous. The affected area consists of residential and business development and an intensively developed industrial area comprising some 1200 acres.

Natural Resource Management: As the steward of public lands at Farmdale and Fondulac, the Corps of Engineers takes an active role in managing the natural resources of the areas. Open areas, formerly agricultural fields, have been turned into native tall grass prairies. Controlled fire, a major tool for ecological management, is used to eliminate encroaching woody vegetation and invasive species. Areas with mature trees are managed to preserve them as an Oak-Hickory forest.

Recreation: Active partnerships with three local not-for-profit groups have resulted in a network of trails to allow mountain bike, horseback and foot travel within the Farmdale Reservoir area. Each year, Farmdale Reservoir is the location for special events including mountain bike competitions, horseback riding, orienteering and trail running endurance events. An estimated 45,000 people visit Farmdale annually for outdoor recreation, providing economic impacts of \$705,562 to the local community in Fiscal Year 2011.

Goals

Flood Risk Management: Focus maintenance efforts on the two dams and reservoir areas to ensure they will function as designed. (USACE Goals #2 and 4)

- Remove trees and woody vegetation from growing in areas where the roots can cause damage.
- Eliminate vegetation that interferes with inspection of the various structures.
- Remove dead and downed timber to prevent blockages of outlet structures and reduce downstream damage potential during spillway flood event.
- Focus future year Flood Risk Management budget submissions supported by OCA ratings with scalable requirements.

Dam Safety: Upgrade the Fondulac Emergency Spillway to meet current dam construction specifications

• In the years since Fondulac was built, the nationwide standards for dam construction has changed. Modifications to the emergency spillway to bring it into compliance with the current standards are estimated at \$6.5 million. This upgrade is included in annual budget submissions.

Natural Resources Management: Provide safe, sustainable recreation opportunities that do not impact the Flood Risk Functions of the project. (USACE Goal #2)

- Promote safe use and public stewardship of USACE managed lands and waters through Interpretive Services and Outreach Program.
- Work with local partner organizations to maintain and improve recreational facilities.
- Aggressively support 5 regional special events while providing a safe and enjoyable environment

Environmental Stewardship: Manage USACOE owned property in accordance with applicable regulations and Best Management Practices.

- Maintain and/or improve bio-diversity with known native plant and animal species in forest, prairie, and savanna eco-systems.
- Minimize soil erosion.
- Control invasive and nuisance species
- Protect threatened, endangered and special status species
- Restore vegetation cover of non-woody vegetation-native grasses where appropriate.
- Continue using ES-BEST budget submission process to prioritize ES tasks based on criticality and consequences.

Facility Equipment Management System: Continue maturing FEMS to provide accurate planned maintenance and work order management while providing accurate tracking, costs & priorities. (USACE Goals #2 & 3)