

# Environmental Remediation Work at DFC Downing Reservoir



Colorado Department  
of Public Health  
and Environment

The Denver Federal Center (DFC) is a federal office park complete with laboratory, storage and office space. The DFC is operated by the U.S. General Services Administration (GSA) and houses more than 28 different government agencies. During World War II, the DFC was the site of the Denver Ordnance Plant, a munitions manufacturing plant for the war effort. Due to the variety of prior activities on the campus and its long history, the Colorado Department of Public Health and Environment and GSA formally agreed to investigate whether these prior activities had any detrimental or lasting impact on the environment and remediate impacts as needed.



## Downing Reservoir Background

Downing Reservoir is a man-made pond located on the west side of Kipling Street, across from Fletcher Miller School and the Jefferson County Stadium. During World War II (1941–45) the pond was used for disposal of industrial wastewater and wastewater treatment plant sludge from ammunition manufacturing.

From 1945 until the early 2000s, the pond was used as a storm water run-off pond with building material disposal above the sludge disposal beds on the west side of the pond. Since the early 2000s, there has been no water discharge from the pond because the only water it receives is from precipitation falling immediately around the pond.

While the Downing Reservoir area has a park-like look, the pond and surrounding area have for many years been partially fenced off with limited access to prevent the people from being exposed to the soil and sediment contamination. In accordance with the federal and state formal agreement, the contaminated sediment sludge and building materials have to be removed from Downing Reservoir. Once the contamination has been removed, the pond will be reconstructed to hold storm water and the surrounding area will be safe for all uses. The project is being funded by the GSA as an environmental remediation activity.

## What kind of contamination exists in Downing Reservoir?

A significant impact to the environment in and around the pond from wastewater disposal was found during investigations

conducted the early 2000s. The sediment and sludge in the pond contain elevated levels of metals such as copper, zinc, lead, silver and chromium. The sediment also contains petroleum related chemicals washed off of roadways, parking lots and building roofs by the precipitation runoff that was stored in the pond. Some of the World War II era construction material in the landfill above the sludge layer contains asbestos.

Once the contamination has been removed, the pond will be reconstructed to hold irrigation water, temporary stormwater retention, provide waterfowl nesting habitat, and a place for employees to enjoy.

### **What's Next?**

**Tree Removal:** December 2014–February 2015. The trees and brush are being removed this winter in preparation for the clean-up of Downing Reservoir. The work is being performed this winter so that returning migratory birds do not nest in trees which would be disturbed by the clean-up taking place next summer.

**Heavy Construction Equipment:** Starting summer 2015. Pond and landfill excavation will involve multiple large tracked excavators, bulldozers and wheeled front end loaders.

**Signage:** We will have the construction area posted with signs. Please do not go into the construction area. This is for your own safety.

**Heavy Truck Traffic:** Tractor trailer sized dump trucks will enter the DFC to haul away contaminated sediment and bring clean soil on-site. There may be up to 25 trucks entering and leaving the DFC every day via gates on Kipling Street.

**Workers in Protective Clothing and Respirators:** The primary means of protecting workers from exposure to chemicals is to minimize direct contact by using heavy equipment and minimizing dust by keeping the waste moist during movement. As an extra safety precaution, workers who may be in direct contact with the waste will be wearing white or yellow protective suits and respirators.

**Dust Control:** Dust control measures will be used during all aspects of the project. This includes during the excavation and reconstruction of the pond. Along with dust control, air monitoring during active asbestos in soil will be performed to assure safety of the workers, tenants and public.

### **What will be done to protect the public?**

**Dust Control Measures:** The only way the contaminants from the site can harm humans is via direct contact or inhaling/ingesting contaminated dust. GSA will be conducting dust control measures during the entire project to maintain the safety. Water sprays will be used to minimize dust at all locations where equipment is excavating material from the pond or landfill.

**Signs and fences:** Use of these will prevent the public coming into contact with contaminated soil and sediment.

**Air Monitoring:** All members of the project team will be vigilant in identifying and eliminating visible dust emissions during the project. Additionally, air monitoring will be conducted during disturbance of asbestos contamination to assure worker safety and that of our tenants and the public. Measures will be taken to ensure that dirt from the site is not tracked onto public or DFC roadways.

### **Who can you contact with questions or concerns?**

**Sally Mayberry, GSA Regional Public Affairs Officer, 303.236.2583 [sally.mayberry@gsa.gov](mailto:sally.mayberry@gsa.gov)**

**David Walker, State of Colorado, 303.692.3354 [david.walker@state.co.us](mailto:david.walker@state.co.us)**

**General Customer Service Questions: 303.236.8000, 7 a.m.–4:30 p.m. Monday through Friday**