

DONNA RESERVOIR AND CANAL SUPERFUND SITE

Donna, Hidalgo County, Texas

SITE STATUS SUMMARY

U.S. Environmental Protection Agency (Region 6)

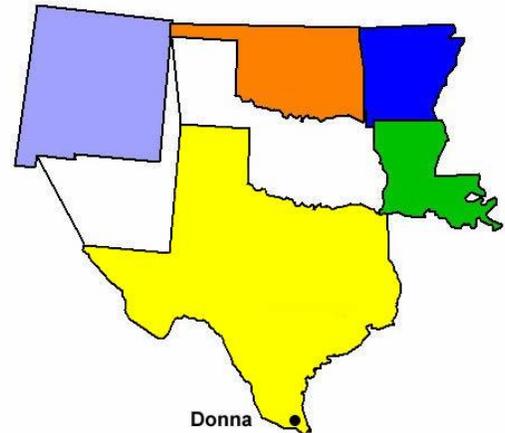
EPA ID: TX0000605363

Site ID: 0605363

U.S. Congressional District: 15

Contact: Rafael Casanova, P.G. (214) 665-7437

Last Updated: May 2013



Background

The Donna Reservoir and Canal Superfund Site (hereinafter “the Site”) is located southwest of Donna, Hidalgo County, Texas. The reservoir and canal system are owned and operated by the Donna Irrigation District #1. The Site (see the “Site Map” section of this Site Status Summary) begins at the district’s pump house, which draws water from the Rio Grande River, and extends north for approximately 8 miles along the Donna Main Canal which leads to the Donna Reservoir located along Valley View Road.

DONNA WEST RESERVOIR **(Looking Southwest Towards Mexico From Valley View Road, 08/05/11)**



**PORTION OF DONNA MAIN CANAL
(Looking North Towards Donna, Texas, From Highway 281 Bridge, 08/05/11)**



HEALTH ADVISORY AT THE CANAL (08/05/11)



The fish in the reservoir and canal system are known to be contaminated with polychlorinated biphenyls (PCBs) from an unknown source. The reservoir system encompasses approximately 400 acres in four separate interconnected segments. The Donna Reservoir supplies drinking water to the cities of Donna and North Alamo. The reservoir and canal system also provide irrigation water to the surrounding agricultural areas. The canal segments are above grade, except for siphons to carry water under the Arroyo Colorado and some roads. The canal levees are of earthen construction with no liner, except for a 1.75 mile section immediately south of the reservoir system which is concrete-lined. Several concrete control structures are located along the canal and are used to direct and control the flow of water. Water is pumped into the canal from the Rio Grande River and flows by gravity to the reservoir system. Pumps at the reservoir system distribute water to the east and west main canals north of the reservoir system for further distribution. The reservoir system is surrounded by levees which prevent surface runoff from entering the reservoir system, limiting the reservoir system to water pumped from the Rio Grande River and rainfall directly into the reservoir system.

The Site is bordered primarily by agricultural properties, although residential development is occurring to the north of the reservoir system, and especially to the northwest of the system. FM 1423 (Valley View Road) passes between the two active segments of the reservoir system, which are designated the east and west reservoirs. Access to the canal and reservoir system is not restricted, and signs have been placed along this system notifying the public of the contaminated fish.

The EPA first detected PCBs in fish from the Donna Canal in 1993. Multiple reports indicated that high levels of PCBs were found in fish at the reservoir and canal system. As a result, a fish possession ban was placed on the reservoir and canal system. People continue to catch and consume the contaminated fish, even though this ban has been in effect since 1994. The EPA performed removal actions in August 2008 and February/August 2009, and again in September 2012. During this time, approximately 38,940 fish which were potentially contaminated with PCBs were removed from portions of the reservoir and canal system by using electro-shocking techniques and gill nets.

In 2009 and 2011, the EPA and the Texas Department of State Health Services performed door-to-door campaigns, in the City of Donna, to inform the local residents about the risks associated with eating the contaminated fish. Several residents indicated that they were eating the fish caught from the Site and knew of other people that eat the fish. Another door-to-door campaign was conducted the week of February 6, 2012, in the City of Alamo, which is located northwest of the Donna Reservoir. This campaign consisted of five two-person teams. Each team included a Spanish-speaker whom effectively communicated with the mostly non-English speaking residents. The residents were informed about the risks associated with eating the contaminated fish and were given brochures, printed in English and Spanish, that summarized the issues associated with the Site.

Current Status

The EPA is currently conducting a Remedial Investigation and Feasibility Study (RI/FS) for the Site. The purpose of the RI/FS is to determine the nature and extent of contamination and to gather sufficient information about the Site to support an informed risk management decision regarding which remedy is the most appropriate for the Site. Field sampling activities began on September 17, 2012. Land- and water-based electromagnetic surveys have been completed. The EPA is currently reviewing the analytical data to determine additional field work that may be required for 2013. The RI/FS is expected to be completed in the latter part of 2013.

Benefits

The investigation and cleanup of the Site will ensure the protection of human health and the environment. Specific cleanup benefits will be identified during the RI/FS and the “Human Health” and “Ecological Risk Assessments” planned for the Site.

The removal action will possibly prevent an estimated 29,568 adults and children living in Donna and Alamo, Texas, and the surrounding areas, from being exposed to the contaminated fish caught from the Site which they could have possibly consumed. The fish removals have resulted in less PCB-contaminated fish available for public consumption. Public awareness campaigns initiated by federal, state, and local agencies have resulted in an increased knowledge of the fish ban and dangers associated with eating fish contaminated with PCBs from the Site. The principal pollutants at the Site, based on the currently available data, are PCBs. The “Health Considerations” section of this Site Status Summary discusses the health effects of PCBs.

National Priorities List History

The National Priorities List (NPL) is a list of national priorities among the known or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation to assess the nature and extent of public health and environmental risks associated with a release of hazardous substances.

Proposal Date: September 19, 2007

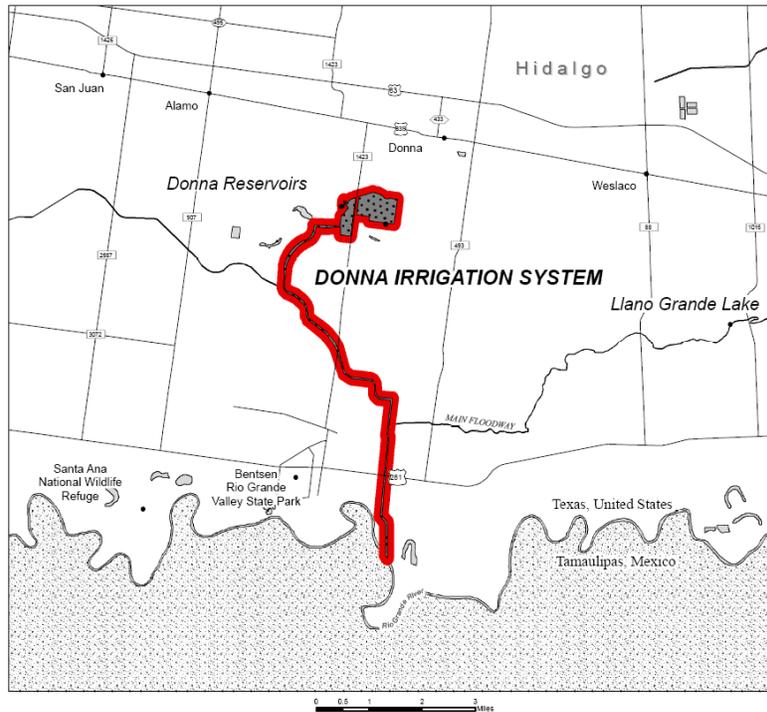
Final Listing Date: March 19, 2008

Population: The population of the City of Donna, according to the 2010 census, was 15,798.

Setting: The Donna Reservoir is a 400-acre impoundment located southwest of the city of Donna in southeast Hidalgo County, within the Arroyo Colorado watershed. Water for the reservoir is pumped from the Rio Grande River, through an eight mile elevated earthen Main Canal to the reservoir, which is used for water supply and irrigation storage by the City of Donna and surrounding areas. The areas surrounding the reservoir and canal are primarily irrigated crops and pastureland, with scattered residences.

Hydrology: Ground water flow through the Lower Rio Grande Valley is from the northwest to the southeast at approximately 492 feet per year. Depth to ground water is approximately 10 feet below the ground’s surface. The hydrology of the immediate vicinity of the Site will be determined during the RI/FS.

Site Map*



**Donna Reservoir and Canal outlined in “red.”*

Wastes and Volumes

The types and volumes of wastes currently present at the Site, or possibly released from the Site, have not been determined. This information will be obtained during the RI/FS for the Site. The principal pollutants at the Site, based on the currently available data, are PCBs. The “Health Considerations” section of this Site Status Summary discusses the health effects of PCBs.

Health Considerations

Human Health and Ecological Risk Assessments will be performed during the RI/FS for the Site. These risk assessments are an integral part of the RI/FS.

A Human Health Risk Assessment estimates the current and possible future risks if no action were taken to clean up a site. The EPA’s Superfund risk assessors, and Remedial Project Managers, determine how threatening a hazardous waste site is to human health and the environment. They seek to determine a safe level for each potentially dangerous contaminant present (e.g., a level at which ill health effects are unlikely and the probability of cancer is very small). Living near a Superfund site does not automatically place a person at risk, that depends on the chemicals present and the ways people are exposed to them.

An Ecological Risk Assessment is defined as a process that evaluates the likelihood that adverse ecological effects are occurring or may occur as a result of exposure to one or more stressors. A stressor is any physical, chemical, or biological entity that can induce an adverse ecological response. Adverse responses can range from sublethal chronic effects in individual organisms to a loss of ecosystem function.

The principal pollutants at the Site are PCBs which are a group of synthetic organic chemicals that can cause a number of different harmful effects in humans. There are no known natural sources of PCBs in the environment. The primary risk to human health from PCBs is from suspended sediment in the water and the consumption of contaminated fish. The major hazards from exposure to PCBs relate to their toxicological properties. As a group they are generally thought to be carcinogenic by ingestion, and readily accumulated in the body. There is evidence to suggest that PCBs may also cause reproductive disorders and behavioral defects in newborns and infants. The primary target organ is the liver. Effects of overexposure may include skin acne and cancer. Effects on animals and aquatic life are thought to be similar, and food and other aquatic organisms bioaccumulate PCBs and pass them up to consumers, including larger predators and humans.

Record of Decision

The final remedy (cleanup alternative) for a site is published in a Record of Decision (ROD). The ROD is the official documentation of how the EPA considered the remedial alternatives and why the EPA selected the final remedy. Before a ROD can be finalized, the EPA must provide a Proposed Plan for public review and comment. This plan summarizes the remedial alternatives presented in the analysis of the RI/FS and identifies the preferred alternative, the rationale for that preferred alternative, and the documents that support the EPA's decision. A ROD has not been signed for the Site. The ROD is expected to be issued in the early part of 2014.

Community Involvement

Community Involvement Plan:

The Community Involvement Plan (CIP) specifies the community involvement activities that the EPA expects to undertake during the remedial activities planned for the Site. A CIP, based on community interviews and other relevant information about the Site, has been prepared and is available for review at the Site's Information Repository. The purpose of the repository is to provide the public a location near their community to review and copy background and current information about the Site. The Site's repository is located at:

Donna Public Library
301 S. Main
Donna, TX 78538

Anyone who would like to be placed on the mailing list to receive current information about the Site is encouraged to call Rafael Casanova at (214) 665-7437 or 1-800-533-3508.

Open Houses and Other Meetings:

On November 17, 2007, the EPA's representatives, along with representatives from other Federal and State agencies, met with City officials to discuss the contamination of the reservoir and canal.

On August 12, 2008, the EPA sponsored a community meeting to discuss fish depopulation of the canal with the residents and City officials. The meeting began with an introduction by Mayor Simmons, of the City of Donna, along with representatives from the Donna Irrigation District. The main message given during the meeting was that the fish from the Donna Canal should not be consumed because of health concerns. The EPA also informed the meeting participants that the Site had been placed on the NPL.

On February 19, 2009, the EPA sponsored another community meeting to discuss the beginning of Phase 2 of the fish depopulation of the canal and the results of Phase 1 with the residents and City officials.

In 2011 and February 2012, respectively, the EPA met with officials from the cities of Donna and Alamo to discuss the door-to-door campaigns and the status of the investigation of the Site.

The EPA held community meetings on March 27 and March 29, 2012, in Donna and Alamo Texas, respectively, to inform the residents about the contaminated fish and the planned activities for the RI/FS. The meeting in Alamo was conducted in Spanish.

Other community meetings will be scheduled in February or March 2013 to provide the public an update on the current activities at the Site and the data gathered thus far. Fact sheets have been prepared, and will continue to be prepared, as necessary during the planning and implementation of the RI/FS. These fact sheets have been filed at the Site's repository and distributed to people on the mailing list.

Proposed Plan:

A Proposed Plan has not been issued for the Site. Before a ROD can be finalized, the EPA must provide a Proposed Plan for public review and comment. This plan summarizes the remedial alternatives presented in the analysis of the RI/FS and identifies the preferred alternative, the rationale for that preferred alternative, and documents that support the EPA's decision. A Proposed Plan is expected to be issued in the latter part of 2013.

Public Meeting:

A formal public meeting will be scheduled after issuance of the Proposed Plan for the Site so that the public can provide input into the EPA's proposed final decision for the Site.

Technical Assistance Grant:

A Technical Assistance Grant (TAG) is for a local citizens' group to secure the services of a technical advisor to increase citizen understanding of information that will be developed about the Site during the Superfund process. To be eligible for a grant, a group must incorporate. Also, the applicant must meet a 20 percent matching requirement, which may be in cash or donated services. If you are interested in applying for a TAG, please call Janetta Coats (TAG Coordinator) at (214) 665-7308 or toll-free at 1-800-533-3508. An "Availability Notice" for a TAG has not been published for this Site.

Site Contacts

U.S. Environmental Protection Agency (Region 6)

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