RECLAMATION

Managing Water in the West

Rio Grande Silvery Minnow Sanctuary

Middle Grande Project – Collaborative Program

May 2009

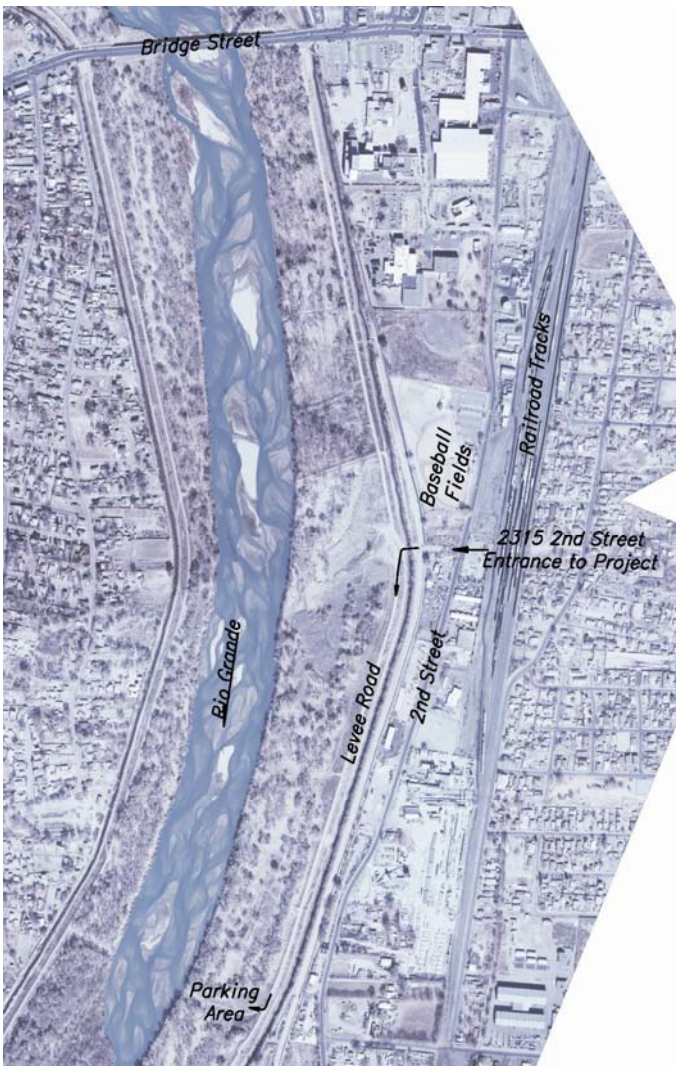
The Rio Grande Silvery Minnow Sanctuary (RGSMS) was conceived by former Senator Pete Domenici. Mr. Domenici proposed this idea to Reclamation and cooperating agencies about the possibility of creating a habitat for the Rio Grande silvery minnow *"Hybognathus amarus"* (RGSM) along the Rio Grande bosque near Albuquerque, New Mexico.

After investigating potential locations along the Rio Grande, the final location was selected in southwest Albuquerque approximately 2 miles south of Bridge Street, just off 2nd Street SW. See "General Location Map" for additional details.

The Middle Rio Grande Conservancy District (MRGCD) acquired water from the Albuquerque Riverside Drain through the State Engineer's Office for the project. The U.S. Fish & Wildlife Service (USFWS) will be operating and managing the facility. During construction Reclamation will provide technical guidance and oversight for the project. Albuquerque Open Space will provide guidance in how the RGSM naturalized channel will integrate into the Rio Grande Valley State Park.

The Rio Grande Silvery Minnow Sanctuary consists of the following four major features:

- Intake Pump Building.
- Filter Building.
- 1,400 linear feet of naturalized channel.
- Outlet Building.



General Location Map

Intake Pump Building.– This facility is located along side the Albuquerque Riverside Drain and houses two 40 HP vertical axial pumps which lift the water out of the Riverside Drain and push it through the levee in a PVC pipe to the Filter Building.

Filter Building.– This facility is located approximately 250 feet west of the Intake Pump Building and houses the large rotating drum filter. This bio-filter is optimized to meet the environment requirements for the RGSM.

Naturalized Channel.– The 1,400 linear feet of channel consists of sand bottom and cobble side slopes and will have boulders and tree trunks placed through the channel, creating habitat for the RGSM. USFWS will use this facility for investigating naturalized rearing strategies, life history aspects, and community education, etc. to assist in RGSM recovery.

Outlet Building.– This facility is located south of the Filter Building and houses the controls for circulating water and sediment back to the filter building. Also, housed in this building are the rotating drum screens that keep the RGSM confined within the naturalized channel and provide water discharge methods to the Rio Grande and Albuquerque Riverside Drain.

The RGSMS was constructed in the following phases:

Phase I.– This work consists of constructing the Intake Pump Building foundation and weir at the Albuquerque Riverside Drain. Phase I was constructed by contract with AJAC, Inc.

Phase II.– Construction of the Naturalized Channel was performed by the Reclamation's Socorro Field Division while working directly with local USFWS personnel.

Phase III.– This work consists of constructing the Intake Building structure, Filter Building foundation and structure, Outlet Building foundation and structure, pipelines and various other mechanical features. The work was performed under a construction contract with Smithco Construction, Inc.

It is anticipated that USFWS will begin operation of the facility summer of 2009. It is anticipated that USFWS will introduce RGSM into the naturalized channel after the facility systems are tested and operation parameters have been established.

Intake Pump Building foundation and weir.

Start of layout for the naturalized channel prior to construction activities.

Outlet Building approximately 90% complete looking upstream on the outlet channel to the Rio Grande.