STATE:	Louisiana
BORROWER NAME:	City of Dequincy
ENGINEERING FIRM:	Meyer and Associates, Inc.
RURAL DEVELOPMENT CONTACT:	Gerard Labat, Rural Development Specialist (318) 262-6611
CONGRESSIONAL INFORMATION:	District #7, Congressman Chris John
COUNTIES:	Calcasieu
Keywords	Equalization, Expansion

City of DeQuincy Wastewater Treatment Facility

DESCRIPTION OF PROBLEM/ISSUE:

The city's existing sewer system was placed in operation in 1961, and was using a 28.8 acre multi-cell oxidation pond without disinfection facilities. The system was designed to handle approximately 720,000 gpd. Presently, the city's population of 3,498 is using 1.1 million gpd. The system was not designed to meet the stringent effluent limitations required to receive permits from the Louisiana Department of Environmental Quality (DEQ) and the Environmental Protection Agency (EPA). As a result, the city received administrative orders from DEQ and EPA to upgrade the system.

SOLUTION:

To solve the problem, the construction of the following was completed:

1. A complete mechanical headworks system to handle 5.0 MGD.
2. An extended aeration basin to accommodate a maximum monthly flow of 1.1 MGD.
3. Secondary clarifier system to handle 2.1 MGD.
4. Tertiary filter system.
5. Sand and gravel sludge drying beds with 8,000 sq.ft. surface area, with recirculation pumps.
6. Wastewater disinfection system.
7. Post aeration system.
8. Sludge holding/thickening basin.
9. Office building, including water lines to the facility.

The new system assumes equalization of peak flows by diverting 2.9 MGD of maximum daily flow and peak flows to the existing oxidation pond for temporary storage until the diverted flow can be returned to the treatment facility during low flow conditions. Results from the system are BOD averaging 1 to 2, TSS below measurable amounts, fecal coliform less than 10 and nitrogen below measurable amounts.