**Biosolids Dewatering Facility**

The Metropolitan Wastewater Management Commission selected Carollo to design a new mechanical dewatering facility to be installed at the Regional Biosolids Management Facility. The facility processes biosolids from the agency's 49-mgd regional wastewater treatment plant. The new system will supplement the existing air drying beds that are used in conjunction with facultative sludge lagoons.

When complete, the facility will pump biosolids from the existing lagoons into two 350,000-gallon mixed-feed tanks, each of which will hold one day's production. From there, they will be pumped through strainers to three 2.0-meter belt filter presses. A screw conveyor will then carry cake to a truck loading facility with a 200-cubic-yard mechanical hopper. A confined slab area will provide auxiliary storage.

The client will operate the facility about five months per year on a schedule of seven days per week and two shifts per day. It will have a capacity of 420 gpm at 3.5 percent solids. Pilot studies indicated a cake with about 18 percent solids.

The new concrete block dewatering building will include a number of windows and skylights to maximize natural light. It will house the three presses, three feed pumps, three strainers, a dry polymer storage and mix system, polymer feed pumps, a motor control center, a control room, and a solids process laboratory.

The dewatering system will be controlled with an advanced control system that automatically modulates polymer feed and other critical operating parameters based on the quality of the press filtrate. It is designed to reduce operating costs and the level of operator attention.

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**Highlights**

- Mechanical dewatering facility with three belt filter presses.
- State-of-the-art cake hopper system with automatic loading controls.
- Sludge expert control system to automate operation, optimize cake quality, and minimize operations/labor costs.