

LIMITED ENVIRONMENTAL REVIEW

A. Project Identification

Name: City of Dayton WWTP
Rehabilitation and Improvements

Address: Thomas R. Schommer, Manager
Division of Wastewater Treatment
2800 Guthrie Road
Dayton, Ohio 45418

WPCLF No.: CS392446-01, CS392446-02

B. Existing Need

The City of Dayton is requesting a construction loan to rehabilitate the City's aging 72 million gallon per day (MGD) Advanced Wastewater Treatment Facility (aka WWTP) in order to maintain and improve the treatment system's capacity and thereby help protect the Great Miami River's water quality to the year 2018 and beyond. The design capacity of the plant will remain unchanged.

Dayton's WWTP is located at 2800 Guthrie Road in the City of Dayton, and provides sanitary sewer service to the City and surrounding areas. The proposed project will continue to serve residential, industrial, and commercial users in the service area, as described in the City's facility plan. The thrust of the rehabilitation project is not to increase the average design flow of 72 MGD, but rather to assure the City is in a position to maintain appropriate effluent standards for that capacity in response to increasing strength of influent loading (BOD), changing treatment requirements, and aging equipment.

Dayton's proposed improvements follow the City's previously-approved facility plan and flow evaluation report, which are on file with Ohio EPA. The facility plan was completed in 1978 and revised in 1981 by addendum. The City is currently in the process of revising the facility plan to add some additional service area. The revision, however, is not complete and will require review and concurrence from the Miami Valley Regional Planning Commission before submission to Ohio EPA.

C. Project Description

The proposed project will not increase the capacity of Dayton's WWTP. However, project construction will rehabilitate aging equipment in order to maintain and improve treatment capacity for the protection of water quality in the Great Miami River until at least the year 2018. This will be accomplished by doing the following:

- replacement of twenty (20) trickling filter distributors, arms, sluice gates, and associated walkway grating.
- replacement of all aluminum valves and other aluminum structures with stainless steel throughout the WWTP, to address severe corrosion.
- replacement of twenty (20) failing effluent filter backwash valves and actuators.
- replacement of obsolete and failing air compressor controls and instrumentation.
- installation of new piping to accommodate expected increase in solids loadings from industrial sources.
- repair of the hardware that supports effluent troughs in eight (8) final settling basins.
- replacement of three (3) digester gas-fired boilers and expansion of the existing boiler building.
- replacement of all internal mechanical components, including basin rakes, center drives, and effluent launders or troughs where backwash flows into and then to waste stream for four (4) of the intermediate settling basins.
- replacement of aluminum backwash trough media baffles in twenty (20) of the effluent filters to minimize media loss during backwashing operations.
- replacement of collapsed fiberglass ductpipe with new ductpipe which conveys odorous air from primary treatment facilities to an air scrubber system for odor removal prior to release to the atmosphere.
- replacement of the influent flocculation well aluminum bracing with new stainless steel bracing in final clarifiers 1 and 8.
- painting of the existing surfaces on all outdoor WWTP equipment.
- installation of transient voltage surge suppression for protection from electric utility aberrations and lightning strikes throughout the WWTP.

During construction, no undisturbed areas will experience any earthmoving activity, since the entire project will be located within the existing wastewater treatment plant site. Similarly, easement acquisitions will not be necessary. Since construction will be limited to the existing wastewater treatment plant site, traffic impacts to the surrounding area should be minimal.

D. Estimated Project Cost

The estimated cost of the proposed project is \$16,961,820. The City anticipates funding the project costs with a standard 20-year loan through the State of Ohio's Water Pollution Control Loan Fund (WPCLF), administered by Ohio EPA. The current interest rate on this below-market loan is 3.80%, effective through the end of this quarter (December 31, 2001). This rate may change as of January 1, 2002. Compared to the market rate (assume 5.55% for 20 years), a total savings of \$3,925,186 will be realized by financing through the WPCLF.

Dayton operates a city-wide sewer use charge system. Residential, commercial, and industrial users benefitting from the WWTP rehabilitation will pay for the project through monthly user charges. However, no additional increases to the current average residential user fees (i.e., \$48.07 per quarter) are anticipated at this time. A rate study is currently being done, but the City does not anticipate any rate increases until 2003 at the earliest.

E. Project Schedule

Opening of Bids	April 26, 2001
WPCLF Loan Award	October 25, 2001
Initiation of construction	July 9, 2001
Estimated Completion	October, 2002

F. Public Participation

Ohio EPA will issue a copy of its LER decision and Finding of No Significant Impact to interested parties. Supporting documentation for the LER decision is available for public inspection upon request at the following address:

City of Dayton
Division of Wastewater Treatment
2800 Guthrie Road
Dayton, Ohio 45418

G. Planning Review

The proposed project has been reviewed by the following agencies, and their findings support the Limited Environmental Review of this project:

- * Ohio EPA, Division of Environmental and Financial Assistance
- * Miami Valley Regional Planning Commission
- * Ohio Historic Preservation Office
- * Ohio Department of Natural Resources, Division of Natural Areas & Preserves

H. Conclusion

The planning activities for the proposed project have identified no potentially-significant adverse impacts. Specifically, the action is expected to have no significant short or long-term adverse impacts on the quality of the human environment or on sensitive resources such as: floodplains; wetlands; prime or unique agricultural lands; aquifer recharge zones; archaeologically or historically significant sites; or threatened or endangered species. The proposed project will maintain and improve treatment capacity to help protect water quality in the Great Miami River.

Because the project is sufficiently limited in scope and meets all applicable criteria, a limited environmental review (LER) is warranted. Specifically:

- * The proposed project will have no significant environmental effect, nor will it affect any special resource type, since the project is confined to the existing City of Dayton's Advanced Wastewater Treatment Plant site, where no special, high quality, or extensive environmental resources exist.
- * The proposed project will not require extensive general or specific impact mitigation, since the entire project is limited in scope and located in previously-disturbed areas.
- * The proposed project is clearly the cost-effective alternative for rehabilitating the aging WWTP works and upgrading equipment in light of changing treatment requirements, as documented in previous facilities planning work.
- * The proposed project is clearly noncontroversial, because it will not adversely impact the environment, or the users of the system; the \$16,961,820 loan is not expected to increase the quarterly wastewater service charge for at least the next 18 months, and even then, not significantly.
- * The proposed project will not create a new, or relocate an existing, discharge to surface or ground waters, since it is limited to replacement of existing equipment at the present WWTP; nor does it impact the current outfall.
- * The proposed project will not result in any overall increase in the volume of discharge or the loading of pollutants to the receiving waters from the project area, since it will have no impact on the hydraulic capacity of the existing WWTP, nor will it create a change in the existing discharge limits.
- * The proposed project will not provide capacity to serve a population

substantially greater than the existing population, since it merely involves the replacement of existing equipment and does not provide for additional capacity above the existing 72 MGD design.

The construction mitigation measures agreed to by the City of Dayton will further ensure that adverse impacts do not occur during construction of the project. These include erosion and sedimentation controls; the use of noise control devices on construction equipment; and maintenance of access for emergency vehicles and regular traffic.

I. For further information, please contact:

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