

January 30, 2012

Patrick S. Tierney, ACIP
Lake County Planning, Building, and Development
500 West Winchester Road
Libertyville, Illinois 60048-1331

Subject: Project No. 4768
Project: Clarifier Addition and Improvements to Des Plaines River WRF
Response to your December 23, 2011 Letter

Dear Mr. Tierney:

This letter is in response to your December 23, 2011 letter to Mr. Gordon White of the Lake County Department of Public Works (LCDPW). That letter summarized your agency's staff comments during discussions held during the December 20, 2011 Early Assistance Meeting with County staff and LCDPW's wetland consultant regarding this project. AECOM is providing design services to LCDPW for this project.

In your December 23, 2011 letter, under the section entitled "Division of Zoning and Development Services" you requested additional documentation on the proposed project. More specifically, you indicated "A letter will need to be submitted outlining the purpose for the expansion, what improvements are involved with the project, and how it fits in with the long term plan for the department." We have responded to your questions below.

Project Purpose

Des Plaines River Water Reclamation Facility (WRF) provides wastewater treatment for the Southeast Lake Facility Planning Area. The WRF currently receives an average flow of 10 to 12 million gallons per day (mgd). Flows are anticipated to increase to the current IEPA permitted value of 16.0 mgd by the year 2030. The WRF was placed into operation in 1972 with completion of the Battery A facilities. Expansion of the facility was completed in 1993 with construction of the Battery B facilities. Conditional Use Permit 91-249-RS was obtained for the 1993 construction project, which was the last major expansion of the facility. The primary project purpose is to upgrade the facility to provide reliable wastewater treatment services to the 2030 design year. Many of the improvements involve replacement of existing worn out equipment with new equipment.

Project Improvements

The following are the major improvements of this project:

- Add one new clarifier, 100 ft diameter, and same size as the five existing clarifiers. This is the only new structure being constructed as part of this project. All other work is being constructed within existing structures.
- New paint coating on submerged surfaces of existing clarifiers to combat corrosion.
- Add one new RAS pump in existing building for the new clarifier.
- Replace two existing raw wastewater pumps with two new pumps.

- Replace existing wastewater screening equipment with new equipment.
- Replace lighting system inside screening building with new more efficient lighting system.
- Add air control valves to existing piping in aeration tanks to reduce energy consumption and improve air distribution.
- Replace worn out water system equipment in existing Solids Handling Building.
- Structural and drainage piping improvements to existing excess flow storage basins in Battery A.
- Replace miscellaneous heating and ventilating equipment in existing buildings.


Long Term Plan

This project is Phase IIA of a four phase long term improvements plan for the WRF. The long range plan has been approved by the IEPA. Future phases will address other needed capacity improvements to treat wastewater to the 2030 design year and address future nutrient removal requirements that will be established by the IEPA.

If you have any questions please feel free to contact me.

Very truly yours,

AECOM



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Project Manager

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Cc: Charles DeGrave, Lake County Department of Public Works