



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

December 19, 2014

FINDING OF NO SIGNIFICANT IMPACT
TO ALL INTERESTED CITIZENS, ORGANIZATIONS,
AND GOVERNMENT AGENCIES

City of Toledo
Lucas County

Short-Term Powdered Activated Carbon and Potassium Permanganate Feed
Improvements Project to Address Harmful Algal Blooms
Loan No. FS390915-0117

The purpose of this notice is to seek public input and comments on the Ohio EPA's preliminary decision that a Supplemental Environmental Study is not required to implement the recommendations discussed in the attached Environmental Assessment of the water treatment plant and pump station upgrade project submitted by the municipality mentioned above.

How were environmental
issues considered?

The Water Supply Revolving Loan Account program requires the inclusion of environmental factors in the decision-making process. Ohio EPA has done this by incorporating a detailed analysis of the environmental effects of the proposed alternatives in its review and approval process. Environmental information was developed as part of the general plan and associated documents, as well as through the general plan review process and during site inspections. The Agency's preliminary Environmental Assessment found that the project does not require the preparation of a Supplemental Environmental Study.

Why is a Supplemental
Environmental Study not required?

Our environmental review concluded that significant environmental impacts will not result from the action. Any adverse impacts have either been eliminated by changes in the general plan or have been reduced by the implementation of the mitigative measures discussed in the attached Assessment.

How do I get more information?

A map depicting the location of the project is included as part of the Environmental Assessment. The Environmental Assessment presents additional information on the project, alternatives that were considered, impacts of the action and the basis for our decision. Further information can be obtained by calling or writing the contact person listed in the back of the Environmental Assessment.

How do I submit comments?

Any comments supporting or disagreeing with this preliminary decision should be submitted to me at the letterhead address. We will not take any action on this facilities plan for 30 calendar days from the date of this notice in order to receive and consider any comments.

What happens next?

In the absence of substantive comments during this period, our preliminary decision will become final. The municipality will then be eligible to receive loan assistance from this agency.

Please bring any information that you feel should be considered to our attention. We appreciate your interest in the environmental review process.

Sincerely,



Alauddin A. Alauddin, Chief
Division of Environmental &
Financial Assistance

AAA/JB/jb

Attachment

ENVIRONMENTAL ASSESSMENT
For
City of Toledo
Short-Term Powdered Activated Carbon and Potassium Permanganate Feed
Improvements Project to Address Harmful Algal Blooms
WSRLA Loan Number: FS390915-0117

Applicant: The Honorable D. Michael Collins, Mayor
City of Toledo
One Government Center, Suite 2200
Toledo, OH 43604

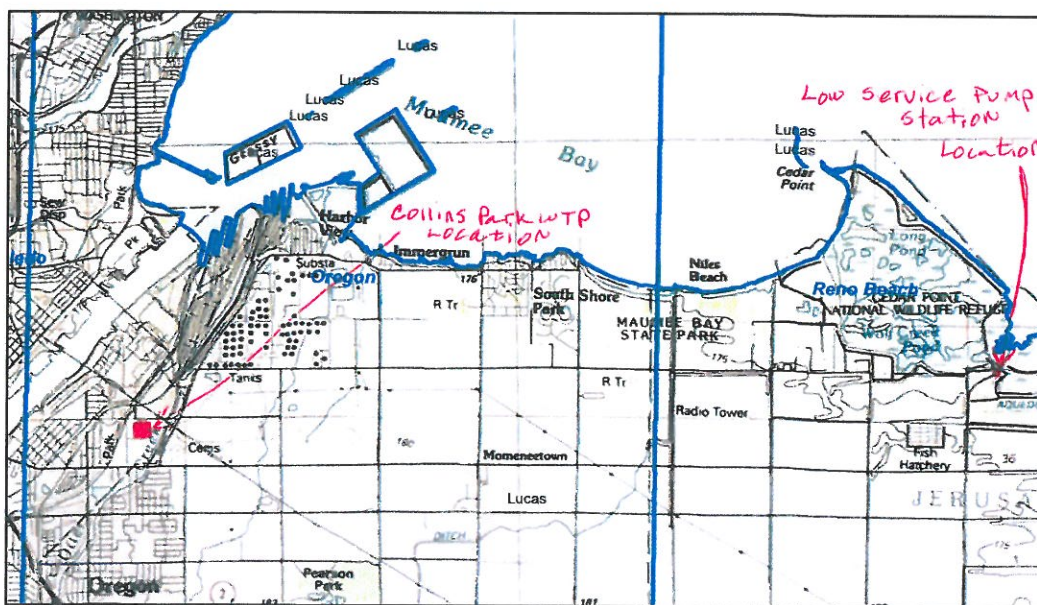
Project Summary

The City of Toledo owns and operates the Collins Park Water Treatment Plant (Collins Park), which provides drinking water to a service population of approximately 500,000 in Toledo and surrounding areas. Collins Park draws its raw water from Lake Erie via a Low Service Pump Station located adjacent to the Cedar Point National Wildlife Refuge in Jerusalem Township, Lucas County. In August, 2014, the treated water supply from Collins Park became contaminated with algal toxins, resulting in a temporary “Do Not Drink” advisory to the regional service area.

To avoid a similar situation in the upcoming summer, Toledo proposes short-term improvements aimed at removing algal toxins during the harmful algal bloom (HAB) season. The short term improvements will include the expansion of potassium permanganate and powdered activated carbon (PAC) treatment at the Low Service Pump Station and PAC treatment at Collins Park. This will provide immediate abatement of the health risk associated with algal toxins while Toledo prepares a long-term General Plan of HAB treatment for Collins Park. The research for the General Plan of HAB treatment is underway, with a long-term cost-effective alternative to be selected in 2015 and construction in subsequent years.

Existing Conditions

The Toledo water system draws its water from the western basin of Lake Erie through an intake located 3 miles offshore from Reno Beach. Water flows from the intake via gravity to the Low Service Pump Station through a 108-inch diameter intake pipe buried under Lake Erie. The intake pipe has within it lines that feed potassium permanganate from the Low Service Pump Station to the intake for the treatment of zebra mussels. Water is treated with PAC at the Low Service Pump Station for taste and odor control and is pumped to Collins Park at 3040 York Street via approximately 9 miles of dual water lines that are 78 inches and 60 inches in diameter, respectively (Figure 1, below).



Collins Park, rated at 120 million gallons per day (MGD), treats water by rapid mix, flocculation, sedimentation, recarbonation, filtration and detention followed by high service pumping to the distribution system. Aluminum sulfate, lime, soda ash, polyphosphate, chlorine, fluoride and chlorine dioxide are added during treatment. There is no treatment system dedicated to the removal of harmful algal toxins. Collins Park generally meets standards for regulated impurities in finished water and shows good performance in coagulation, softening and filtration. Demand averages approximately 79 MGD with higher flows in summer (96 MGD) than winter (71 MGD).

Although late-summer HABs in Lake Erie have occurred in the past, they have grown in frequency and severity since the early 1990s, with a record-setting bloom in 2011. Of greatest concern is the algae *Microcystis*, which is difficult to control naturally and produces microcystin, a toxin that can cause liver damage if ingested. It was the detection of this toxin in finished water from Collins Park that prompted a 3-day “Do Not Drink” and “Do Not Boil” advisory covering the service area in August, 2014.

Future Conditions

Toledo’s water service area and population are not expected to undergo major changes in the next 20 years, which is the planning horizon for water treatment projects that are proposed for funding by the Water Supply Revolving Loan Account (WSRLA). While Toledo itself has gradually lost population, most of the loss is accounted for by migration to neighboring communities in Toledo’s service area. This suggests relative long-term stability in the regional service population and its water demand.

The conditions that prompted the August, 2014 HAB are not anticipated to abate in the future without significant efforts to reduce anthropogenic contributors such as nutrient discharges from agriculture, home sewage treatment systems and municipal wastewater treatment systems in the Western Lake Erie Basin. This is such a long-range proposition that design criteria for future improvements at Collins Park will necessarily include algal removal and microtoxin treatment. Permanent natural conditions, notably the shallow depth of Lake Erie, also tend to promote algal growth.

Alternatives Analysis

In the development of its long-term HAB General Plan, Toledo is evaluating two alternative permanent microtoxin control methods: ozone treatment and granular activated carbon treatment. The ultimate decision may be a combination of both approaches, but the planning and construction of permanent algal controls at Collins Park will extend well into the upcoming summer and future HAB seasons. Meanwhile, Toledo needs to take immediate steps to prevent another HAB-related emergency. To do this, the city has developed a short-term plan to expand potassium permanganate and PAC delivery capabilities. Potassium permanganate in large enough doses breaks up algal cells. PAC absorbs the microtoxin thus released, which is then removed from the water during treatment.

Selected Alternative

Toledo proposes to install additional PAC and potassium permanganate feed systems at the Low Service Pump Station. This will involve the addition of a 100-foot high storage silo for PAC, a chemical feed control building and appurtenant piping within the fenced grounds of the Low Service Pump Station. This will increase the absorption of organic compounds, including toxins, during the 6-hour detention time of the water in the force main. Also proposed are additional PAC feed systems at Collins Park. This will entail the installation of two 70-foot high chemical storage silos with appurtenant controls and piping on the north side of Collins Park. See Figures 3 and 4.

Implementation

The estimated total project cost is \$8,316,000, which Toledo proposes to borrow from the WSRLA. Under a special HAB program being conducted during the Drinking Water Assistance Fund Program Year 2015, this project qualifies for a zero-percent interest rate. Debt for the project will be repaid at \$415,000 per year. If only the 108,501 service taps within Toledo are counted, this amounts to an increase of \$3.08 per year in the average residential bill. Toledo will save approximately \$4,500,000 over the life of the WSRLA loan by borrowing at zero percent interest compared to borrowing at the current market rate of 4.53 percent. Construction will commence in February, 2015 and be completed by July, 2015.

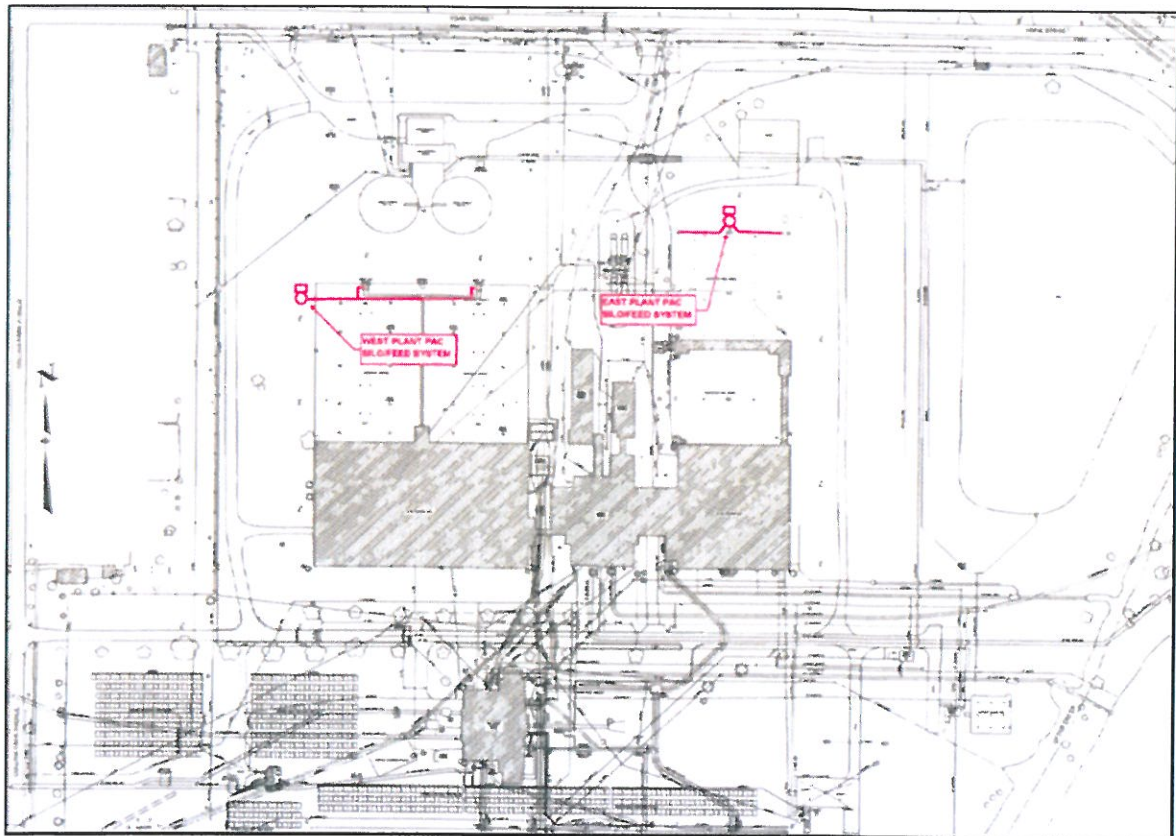


Figure 3: Proposed Silo Locations at Collins Park WTP

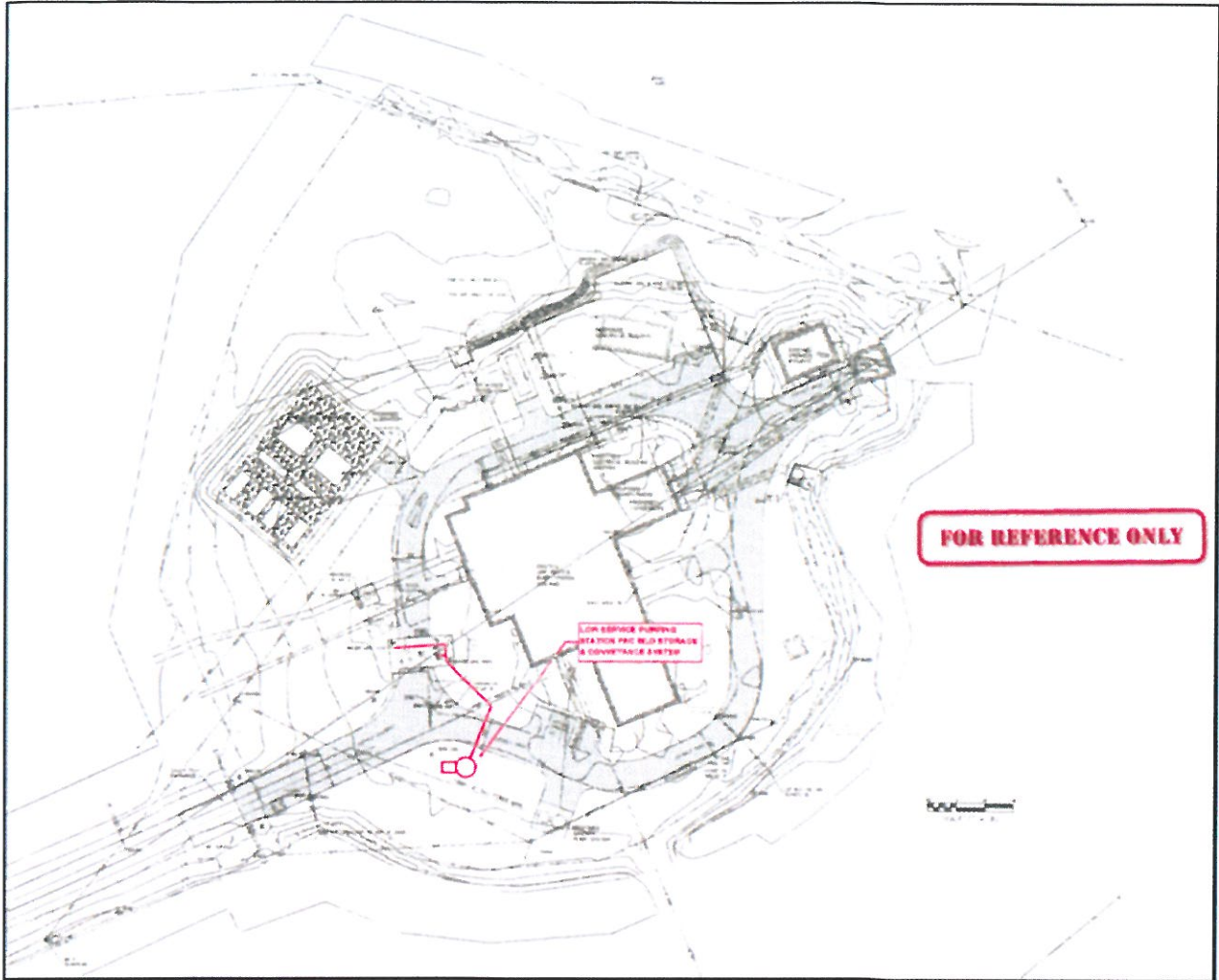


Figure 4: Proposed Silo Location at Low Service Pump Station

Environmental Impacts and Mitigation

The following environmental features will not be impacted because they are absent from the project areas: state-designated scenic and recreational rivers and forested habitat. Ground water and local wells will not be affected because there will be little if any drawdown of the water table for construction at either site. Lake Erie is near the Low Service Pump Station work area, but sufficiently isolated from it to avoid direct sedimentation from the construction site into the lake. No other surface waters are in or near the proposed work areas. Toledo will prohibit the deposition of excess excavated material in any water resource (wetlands, surface waters or 100-year flood plains) even at owners' request. Traffic management is not anticipated to pose major challenges because of the isolation of the work sites from major thoroughfares. Construction-related noise, dust and odors are unlikely to have significant effects due to the isolation of the Low Service Pump Station site and the already active construction site work at Collins Park.

The project is not designed to serve a population significantly larger than its present population; thus, the secondary development impacts associated with the provision of water to additional areas, such as the conversion of farmland to more intensive uses, will not occur.

The following features could be affected, but the effects are reduced or mitigated to acceptable levels.

Wetlands: The fenced area of the Low Service Pump Station grounds is located on a filled area that is surrounded by the wetlands of the Cedar Point National Wildlife Refuge. The fenced area is somewhat elevated relative to the surrounding wetlands. Provided that, as proposed by the city, the construction is kept within the fence and measures are taken to prevent sediment transport from the excavation for the structures' foundations into the wetlands, and provided that, as proposed by the city, a chemical spill containment system is included, the project will have no significant short-term or long-term adverse impact to wetlands.

Floodplains: The Flood Insurance Rate Map indicates that the 100-year flood elevation at the Low Service Pump Station is 578 feet above mean sea level (msl). The proposed PAC finished silo has a finished floor elevation of 779.5, which will afford adequate structural protection for a 100-year flood event. The silo is not near a floodway. Based on this the project as planned will have no significant adverse effect with respect to the 100-year floodplain.

Endangered Species: The Low Service Pump Station is within the line of sight of an active bald eagle nest that is located approximately 750 feet from the fence. Bald eagles are protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. These laws require anyone proposing activities that might cause eagles to vacate a nest during the nesting season of January to July to apply for a bald eagle disturbance permit. An example is the loud, percussive noises of pile driving. Of necessity, the proposed construction at the Low Service Pump Station will be completed during the nesting season, so the US Fish and Wildlife Service would require the city to apply for a bald eagle disturbance permit if pile driving were used to construct the silo foundation during this time. Toledo has instead selected a quieter pile setting method, augur-driven concrete pilings. Based on the foregoing, the project should have no significant adverse effect with regard to bald eagles.

The US Fish and Wildlife Service also noted that the project is in the ranges of the Indiana bat, Kirtland's warbler, the eastern prairie fringed orchid, the piping plover, the rufa red knot (bird) and the rayed bean mussel, all federal endangered species. Due to the lack of any proposed tree removal, the project location, and the lack of suitable habitat on site, no impacts are expected to these species.

Hazardous Wastes: Ohio EPA – Division of Drinking and Ground Waters' Potential Contaminant Sources Inventory has no records of hazardous contaminant sources in or near the Low Service Pump Station work area or Collins Park. Toledo will require its

contractor to have a plan for the prevention and cleanup of accidental releases of fuels and other hazardous materials that may be used on-site during construction. Based on this, the project will have no significant short-term or long-term adverse effect with respect to hazardous wastes.

Coastal Zones: The Low Service Pump Station is within Ohio's Designated Coastal Management Area and is subject to the policies of the Ohio Coastal Zone Management Program. The policy areas that are most relevant to the construction at the Low Service Pump Station are ecologically sensitive resources, cultural resources and recreation, fish and wildlife management, water quality, and environmental quality. Impacts to environmental and social features within each of these areas (wetlands, hazardous waste management, endangered species, cultural properties, air quality and floodplains) have been avoided, reduced or mitigated to acceptable levels in project planning and review. Based on this, the project will have no adverse effect on the Lake Erie coastal zone.

Cultural Properties: Parts of Collins Park are eligible for listing on the National Register of Historic Places. A historic district has been proposed around the significant buildings. A survey completed by Toledo in November, 2014 indicates that the Low Service Pump Station is also National Register-eligible based on its similarity to Collins Park in its basic architectural features and its construction as a Public Works Administration project from the 1940s. The silos introduce new, tall structures where none had been present before, prompting an evaluation of whether their presence will have an adverse effect on the National Register-eligible properties. The silos at Collins Park will be outside, or barely inside, the proposed historic district boundaries. They will be on the north side, where they will not affect the architectural features that were determined to lend historic importance to the facility. The survey determined that the silo at the Low Service Pump Station will have no adverse effect because it is off to the side of the grounds where it will not impinge on the view of the pump station building. No direct construction is proposed on the pump station building itself. Based on the foregoing, Toledo and Ohio EPA have determined that the project will have no adverse effect on historic properties.

Air Quality: Lucas County attains the national ambient air quality standards for all regulated pollutants. During construction, mechanized equipment will emit volatile organic compounds and oxides of nitrogen, which are ozone precursors. Emission controls on construction equipment will lessen this impact. The project will not last long enough to place the county out of attainment of the air quality standards. Based on this, the project will have no significant short term or long-term adverse effects on air quality.

Local Economy: The estimated additional \$3.08 per water bill annually will not greatly raise Toledo's water rates. The resulting average annual residential bill based on 7,756 gallons (1,037 cubic feet) of water usage monthly is \$272, or 0.81 percent of Toledo's 2015 median household income of \$33,374. This is considered well within affordability guidelines.

Public and Governmental Oversight

The project was reviewed favorably by the Ohio EPA Divisions of Environmental and Financial Assistance and Drinking and Ground Water, and by the US Fish and Wildlife Service.

No special public meeting has been called to discuss this project. The water outage of August, 2014 was experienced by everyone in the service area and received national news coverage. Given that and given the low economic impact of the project, no further public participation is necessary.

Conclusion

Based on the planning information provided by Toledo and consultation with interested agencies, the project will have no significant long-term adverse effect on surface water, wetlands, floodplains, wooded or aquatic habitat, endangered species cultural properties, air quality, traffic patterns, scenic and recreational rivers, prime farmland, drinking and ground water and the local economy. Construction-related noise, dust and odors are unlikely to have significant effects due to the isolation of one project site and the inclusion of the other proposed project work in an already active construction area.

The project will yield significant health benefits by allowing treatment of algal toxins during the HAB season.

For further questions, please contact:

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