

IEPA Log No.: **C-0283-12**
CoE appl. #: **2012-00452**

Public Notice Beginning Date: **February 26, 2013**
Public Notice Ending Date: **March 19, 2013**

Section 401 of the Federal Water Pollution Control Act
Amendments of 1972

Section 401 Water Quality Certification to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Facility Evaluation Unit
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-3362

Name and Address of Discharger: Village of Carol Stream, 500 North Gary Avenue, Carol Stream, IL 60188

Discharge Location: Section 30, T40N, R10E of the 3rd P.M. in DuPage County within Carol Stream

Name of Receiving Water: Klein Creek and adjacent wetlands

Project Description: Construction of the Armstrong Park Flood Control Reservoir.

The Illinois Environmental Protection Agency (IEPA) has received an application for a Section 401 water quality certification to discharge into the waters of the state associated with a Section 404 permit application received by the U.S. Army Corps of Engineers. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. The last day comments will be received will be on the Public Notice period ending date unless a commenter demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters shall provide their names and addresses along with comments on the certification application. Commenters may include a request for public hearing. The certification and notice number(s) must appear on each comment page.

The attached Fact Sheet provides a description of the project and the antidegradation assessment.

The application, Public Notice/Fact Sheet, comments received, and other documents are available for inspection and may be copied at the IEPA at the address shown above between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the certification application, the IEPA may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing. If a Section 401 water quality certification is issued, response to relevant comments will be provided at the time of the certification. For further information, please call Thaddeus Faught at 217/782-3362.

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The Village of Carol Stream (“Applicant”) has applied for Section 401 water quality certification for impacts associated with their proposed flood management project. The project site is located in Armstrong Park along Illini Drive in the Village of Carol Stream, in Section 30, Township 40 North, Range 10 East. The purpose of the proposed project is to reduce flooding in the surrounding residential areas, as channelization and floodplain development in the Armstrong Park area have reduced the capacity of Klein Creek to convey excess runoff from storm events. The project would consist of construction of two reservoirs (a gravity reservoir and a pump-storage reservoir), two weirs, a pump station, a siphon outlet structure, and a storm sewer outfall to Klein Creek. The reservoirs, intake weir and pump station would provide flood storage benefits to the watershed, while the siphon outlet structure and storm sewer outfall would provide flood conveyance benefits. During flood conditions, floodwater from Klein Creek would begin to flow over the weir and into the gravity reservoir at a surface water elevation of 742 feet, and additional conveyance of floodwater to the gravity reservoir would occur via the pump station when Klein Creek reaches a surface water elevation of 744.80 feet. When surface water elevations reach 744.20 feet in the gravity reservoir, the pump station would convey floodwater from the gravity reservoir into the pump-storage reservoir. Once the pump-storage reservoir reaches full capacity, the siphon outlet structure would activate and would be discharged to a new 60” RCP sewer that would be constructed down the centerline of Indianwood Drive and would discharge south of Thunderbird Trail, which is downstream of the residential areas currently impacted by flooding. The siphon outlet structure would also have a spring loaded flap weir at a surface water elevation of 757.53 feet, an emergency overflow weir at 758.0 feet, and a sluice gate at 743.0 feet to allow the reservoir to be dewatered.

Construction of the gravity reservoir would result in permanent fill impacts to two unnamed jurisdictional wetlands adjacent to Klein Creek. The project would also result in 0.018 acres of temporary impact to Klein Creek during grading operations for construction of the siphon outlet and energy dissipation structure. Impacts to the jurisdictional wetlands would be mitigated for at a 1.5:1 ratio (0.574 acres of impact, 0.861 acres of required mitigation) through the purchase of mitigation credits from Blackberry Creek Wetland Bank.

Identification and Characterization of the Affected Water Body.

Klein Creek is a General Use water with zero 7Q10 flow at the proposed project location. The stream is listed on the draft 2012 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use, with causes of impairment listed as alteration in stream-side or littoral vegetative covers (non-pollutant), changes in stream depth and velocity patterns (non-pollutant), and other flow regime alterations (non-pollutant). The stream is not listed as biologically significant and has not been given an integrity rating in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*. The stream is not enhanced in regards to the dissolved oxygen water quality standard.

The two unnamed wetlands (herein referred to as “Wetland 1” and “Wetland 2”) to be permanently impacted by the proposed project are General Use waters with zero 7Q10 flow. Wetland 1 is a 0.055 acre wetland composed primarily of reed canary grass, whereas Wetland 2 is a 0.52 acre wetland composed primarily of switch grass and pinkweed. The wetlands have not been assessed under the Agency’s 305(b)/303(d) program and have not been given an integrity rating or been listed as biologically significant in the 2008 Illinois Department of Natural Resources publication *Integrating Multiple Taxa in a Biological Stream Rating System*. The wetlands are not enhanced in regards to the dissolved oxygen water quality standard.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.

The pollutant load increases that would occur from this project include some possible increases in suspended solids during construction. No permanent impacts are proposed for Klein Creek, but temporary increases in suspended solids may occur during grading operations along the creek. However, grading operations would be performed during low-flow conditions in order to minimize the temporary impacts to Klein Creek. The project would also permanently eliminate 0.574 acres of wetlands, thereby removing the aquatic life uses of these areas.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids would be local and temporary. Erosion control measures would be utilized to minimize any increase in suspended solids and prevent impacts to downstream waters. The permanent loss of wetlands would be offset with compensatory mitigation via purchasing 0.861 acres of wetland mitigation credits at the Blackberry Creek Wetland Bank.

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose of the proposed project is to mitigate flooding by providing flood storage in Armstrong Park. The project would reduce flooding between Illini Drive and Kuhn Road along the main stem of Klein Creek and between Gary Avenue and the confluence with the main stem along Tributary No. 2. The primary cause of flooding in these areas is the reduced capacity of the natural channel to convey excess runoff due to floodplain development and stream channelization. This project is identified as a possible alternative to the Village’s flooding and drainage issues in the Klein Creek Watershed Study and Flood Control Plan.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.

If no solution was proposed for the Klein Creek Watershed, damage created by flooding of residences and lack of flood storage would continue to be a problem in the Carol Stream community. Maintenance of the lake, wetlands, athletic fields, open areas, buildings, and parking lots would continue to be an ongoing issue for the Carol Stream Park District with each large flood event that occurs in this area. A no-build alternative was performed in the Klein Creek Watershed Study and Flood Control Plan – Addendum No. 2 (WBK, December 2010). Forty-nine (49) private residences would continue to receive repeated damage during flood events if the proposed project is not completed.

The Klein Creek Watershed Study and Flood Control Plan – Addendum No. 2 (WBK, December 2010) identified nine alternatives to alleviate historic flooding and drainage problems in the Village of Carol Stream. A summary of each alternative was provided in the Applicant’s Section 401 Water Quality Certification Application dated June 22, 2012. The following is a list of each alternative explored: modify the Gary-Kehoe Reservoir outlet control structure; improve roadway drainage at the intersection of Gary Avenue and Kehoe Boulevard; create additional storage at Upstream Location 1; construct a gravity reservoir at Upstream Location 2; construct a pump evacuated reservoir at Upstream Location 2; modify the control structure at Elk Trail; construct a gravity reservoir at Armstrong Park; construct a pump evacuated reservoir at Armstrong Park; construct a siphon with the pump evacuated reservoir at Armstrong Park (the preferred alternative).

All nine of the alternatives were evaluated not only on residual damage reduction, but also on construction costs and un-quantified damages such as traffic disruption and sewer back-ups. The project as proposed is the preferred alternative. The creation of the siphon relief sewer and its discharge location downstream of the residential areas of Armstrong Park is the most logical and cost effective solution for floodwater conveyance. A more detailed description on the evaluation of alternatives is provided in the Klein Creek Watershed Study and Flood Control Plan – Addendum No. 2 (WBK, December 2010).

Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities

The IDNR EcoCAT system was consulted on August 1, 2011. It was immediately determined that a protected resource, the yellow-headed blackbird (*Xanthocephalus xanthocephalus*), may be in the vicinity of the project location. The department evaluated this information and concluded that adverse effects are unlikely. Consultation was terminated in the August 2, 2011 letter from IDNR.

Agency Conclusion.

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time this antidegradation review summary was written. We tentatively find that the proposed activity would result in the attainment of water quality standards; that all existing uses of wetlands would be compensated with mitigation; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity would benefit the community at large by providing flooding and drainage solutions in the Klein Creek watershed. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.