

**Illinois Environmental Protection Agency  
Bureau of Water, Permit Section  
(IEPA)**

1021 North Grand Avenue East, Post Office Box 19276, Springfield, Illinois 62794-9276, 217/782-3362

The IEPA has issued a Public Notice of a request for a Clean Water Act Section 401 water quality certification that would allow the issuance of a federal permit for the discharge of pollutants to waters of the State.

**Public Notice Beginning Date:**

Friday, February 24, 2023

**Public Notice Ending Date:**

Thursday, March 16, 2023

**Agency Log No.: C-0196-22**

**Federal Permit Information:** Federal permit/license no. LRC-2021-0037 is under the jurisdiction of Chicago District, Regulatory Branch U.S. Army Corps of Engineers

**Name and Address of Discharger:** Covenant Living of Northbrook, Randy Gross - 2625 Techny Road, Northbrook, IL 60062

**Discharge Location:** In Section 16 of Township 42-North and Range 12-East of the East 3rd Principal Meridian in Cook County. Additional project location information includes the following: 2625 Techny Road, Northbrook, IL 60062

**Name of Receiving Water:** Techny Drain, tributary to West Fork Branch Chicago River

**Project Name/Description:** Covenant Living of Northbrook - The project consists of the redevelopment of approximately 5 acres of an existing independent living facility that will result in the enclosure of and relocation of an on-site portion (330 linear feet) of Techny Drain. The relocated stream will outlet north of the existing stream and will be constructed as a naturalized channel surrounded by native planted compensatory storage areas, wetland, and buffers. Total linear impacts to Techny Drain equal 497 linear feet which include additional impacts caused by grading of a proposed compensatory storage area further downstream of the relocated segment.

**Construction Schedule:** Beginning Sep 2022 and ending Sep 2023

The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters must provide their name and address along with comments on the certification request. The IEPA Log number must appear on each comment page. Commenters may include a request for public hearing. Only hearing requests and comments that pertain to Clean Water Act Section 401 authority will be considered. This authority provides consideration of whether the permit or license would be consistent with Sections 301, 302, 303, 306, or 307 of the CWA, as well as "any other appropriate requirement of State [or tribal] law". Requests for additional comment period must provide a demonstration of need. The final day of comment acceptance will be on the Public Notice Ending date shown above, unless the IEPA grants an extended notice period. The attached Fact Sheet provides a detailed description of the project and the findings of the IEPA's antidegradation assessment.

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 see the contact information below.

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Post Document. No. C-0196-22-02242023-PublicNoticeAndFactSheet.pdf

Covenant Living of Northbrook (“Applicant”) has applied for a 401 Water Quality Certification for impacts associated with piping a portion of Techny Drain within a box culvert onsite and redirecting it to the east of the proposed development as an engineered naturalized stream. The proposed project will occur in Section 16, Range 12 East, Township 42 North, Cook County, Illinois. The project area is generally bounded by Techny Road to the north, the Covenant Living of Northbrook Retirement Community to the south and west, and residential parcels to the east. The project will involve the demolition of an existing partially occupied, 24-unit residential building within the retirement community followed by grading and construction activities of three new Hybrid home buildings. Other features to be constructed include parking areas, access roads, detention areas, and landscaping. Improvements to other site areas include greater greenspace and 45 additional parking lots. A debris screen is also proposed to be installed on upstream culvert located west of Foxglove Drive to capture debris prior to entering the constructed/culverted portion of Techny Drain found on-site.

The project includes the linear piping and redirection of 378.5 linear feet (LF) of Techny Drain, a low-quality intermittent tributary with constructed banks, found on-site. Infrastructure critical to the project is proposed to be constructed within this area while a portion of the stream will be relocated east of the project area. The relocated stream shall consist of a constructed, naturalized stream surrounded by native planted compensatory storage areas, wetland, and buffers. An additional 164.7 LF of the stream is to be impacted east of Mayapple Lane during grading of compensatory storage areas in order to tie in the configuration of the re-directed channel. The proposed total impact to Techny Drain is 543.2 LF. On-site compensatory mitigation will be provided through the relocation of the intermittent stream channel of Techny Drain. The proposed redirected 403 LF channel will be established to the eastern extent of the project. The required mitigation ratio for the encapsulated portion of the stream is 0.5:1 and the required mitigation ratio for the redirected stream is 1:1 resulting in a total of 353.95 LF of compensatory mitigation required. The length of new stream channel is 403 LF, therefore, no additional compensatory mitigation will be required. This relocated stream will provide increased functional and habitat value compared to the current conditions.

Information used in this review was obtained from the application documents dated November 20, 2020, December 1, 2020, December 3, 2020, August 10, 2022, January 13, 2023, and February 2, 2023.

### **Identification and Characterization of the Affected Water Body.**

The tributary to the West Fork North Branch Chicago River, locally known as Techny Drain, has 0 cfs of flow during critical 7Q10 low-flow conditions and is classified as General Use Water. Techny Drain is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor is it given an integrity rating in that document. Techny Drain, tributary to Waterbody Segment, IL\_HCCB-05, is not listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List since it has not been assessed. Techny Drain is not subject to enhanced dissolved oxygen standards.

The USGS Illinois Streamstats basin characteristics program gives a watershed size of 0.21 square miles for Techny Drain. According to the Illinois State Water Survey, Techny Drain in the area of the proposed stream realignment discharge is likely to be 7Q1.1 zero flow streams. In this region of Illinois, 7Q1.1 zero flow streams are streams with a watershed area of 1 square mile or less. These streams will exhibit no flow for at least a continuous seven-day period nine out of ten years. Aquatic life communities in these headwater streams are tolerant of the effects of drying. Depending on the rainfall received before biological surveys, either a very limited aquatic life community, or no community at all would be found. Given this flow regime, no additional biological characterization is required.

On November 13, 2020, and April 12, 2022, ENCAP, Inc. performed a wetland delineation on the 5.6-Ac project area. One wetland (Wetland 1) associated with the intermittent drainageway Techny Drain, totaling approximately 0.16 acres on-site, was identified on the project area and is located within the central portion of the project area. Techny Drain originates approximately 0.25 miles west of the project area, meandering approximately 1.3 miles generally east through culverts, road and railway crossings, and inline basins until its junction with the West Branch North Fork Chicago River. The channel averages 6 feet in width. Its banks, consisting of constructed retaining walls and gabion baskets on-site, average 4 feet in height, and are primarily unvegetated. At the time of the field investigation, water depth within the channel varied between approximately 2 inches to 2 feet. Canada geese (*Branta canadensis*) were observed while at the project area. The buffer surrounding the wetland was dominated by turfgrass and planted landscaping. The buffer plantings provide very little beneficial functional value for the wetland and drain.

The on-site portion of Wetland 1 was primarily vegetated by common spikerush (*Eleocharis palustris*), creeping bent (*Agrostis stoloniferous*) and chufa (*Cyperus esculentus*). USDA field indicators provided evidence of hydric soil. Surface water, high water table, saturation, sediment deposits, drift deposits, inundation visible on aerial imagery, water-stained leaves, drainage patterns, saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test provided evidence of persistent hydrology. The native mean Coefficient of Conservatism for the on-site portion of Wetland 1 was 1.94, and the native Floristic Quality Index (FQI) was 7.75. These values indicate a low-quality plant community.

An additional vegetated area (Investigated Area 1) was identified in the northeast portion of the project area, but it did not satisfy the requirements to qualify as a wetland.

#### **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 total suspended solids. These increases, a normal and unavoidable result of grading of compensatory storage areas, and the linear piping and redirection of 543.2 linear feet (LF) of Techny Drain, is expected as a result of the proposed project. As the majority of the impact includes replacement of an armored open water channel with an encapsulated stream within a box culvert, very little fill will be placed within the stream. Approximately 450 cubic yards (CY) of fill will be placed into the existing open water stream east of Mayapple Lane.

The proposed plan incorporates all technically and economically reasonable measures to avoid an increase in pollutant loading. Techny Drain will remain unaltered entering the facility, preserving approximately 1,100 linear feet of naturalized stream to the west of the development. Entering the site, approximately 400 LF of the channelized and armored portion of the stream will be preserved; therefore, only a fraction of the existing conditions will be altered. It is expected that the native landscaped compensatory mitigation area, along with stormwater best management practices areas will decrease the extent of pollution loading associated with the development.

#### **Fate and Effect of Parameters Proposed for Increased Loading.**

The increase in total suspended solids would be temporary and short-term increases. Although a portion of the existing stream is to be filled in, it is expected that the proposed unavoidable impacts to Techny Drain will not cause loss to aquatic habitat or function or create any new or increased pollutant loading. The current degraded state of Techny Drain within the project area provides very little aquatic habitat or function. The relocated stream and buffer, proposed as compensatory mitigation, and the stormwater and compensatory storage areas, will increase aquatic habitat function and buffer function, providing better nutrient cycling, decreased pollutant loading, and better regulated release rates and stormwater management near the first stretch of the intermittent stream. These conditions will improve water quality parameters to downstream waters as a result of the project in the short term and long term.

Compensatory mitigation for stream/wetland and buffer impacts includes the planting of native species within and surrounding the relocated channel. These native plantings are an improvement over the current condition of Techny Drain within the project area and will provide increased functional and habitat value of the resource located within the project area. Tree replacement will be performed to satisfy the Village of Northbrook's tree ordinance. These plantings will help replace the functional and habitat value lost during tree removal associated with the proposed project.

Stream work within the intermittent channel will be performed during low or no flow conditions and bypass structures will be utilized as necessary. The relocated channel will feature riprap along the outer bank facing the outlet side of the proposed box culvert to prevent erosion and sediment transport and dissipate flow downstream. A debris screen will be installed on the upstream culvert located west of Foxglove Drive to capture debris prior to entering the constructed/culverted portion of Techny Drain found on-site. The installation of the debris screen is expected to cause very little permanent impact and will not change the preconstruction contours or flow rates of Techny Drain into the culvert. This screen will be maintained and cleared after significant flow events to prevent flooding upstream. These actions will not result in the deterioration of the existing aquatic community, result in species loss, or preclude continued use of a surface water.

The proposed condition will improve function and habitat value that was previously lost through the historical degradation of Techny Drain. This improvement, within the first reach of Techny Drain, will provide benefits to downstream portions of the system including stormwater management, sediment control, water quality improvements, nutrient cycling, and wildlife habitat. The required mitigation ratio for the encapsulated portion of the stream is 0.5:1 and the enforced mitigation ratio for the redirected stream is 1:1. Therefore a total of 353.95 LF of compensatory mitigation is required  $((378.5 \times 0.5) + (164.7 \times 1))$ . The length of new stream channel is 403 LF, therefore, no additional compensatory mitigation will be required.

#### **Purpose and Social & Economic Benefits of the Proposed Activity.**

The project purpose is to update an aging residential building, providing much needed residential units, parking, and common areas within the development. The project has been redesigned and reconfigured multiple times to reduce impacts to jurisdictional resources and maximize the open water portions of Techny Drain while still meeting project goals. The project will achieve these goals while creating attractive naturalized features surrounded by native planted compensatory storage areas, wetland, and buffers.

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

Alternatives for this project considered alternate site plans that could be developed and would cause less damage to the on-site wetland resources and continue to be viable. Alternative layouts were rejected where the combination of site constraints and inability to meet the project purpose would make the layout not feasible for the project purpose. Alternatives that were analyzed were various building layouts and locations, utilities and fire safety, and detention.

Building Layouts/Locations - Several special, utility, and stormwater management constraints resulted in development of the current plan. The proposed plan replaces an outdated senior living building with three modern buildings. The project will enhance the campus and add a total of 12 units to the site. The site does not have space available to relocate the three buildings without impacting the existing stream location.

Utilities & Fire Safety - The proposed development requires proposed utilities including gas, electric, telephone, water, sanitary sewer, and storm sewer. Due to current fire codes, the water main is required to loop around the buildings to provide adequate fire hydrants for fire protection. The other utilities require space for installation and shifting the stream allows for the proper separation of utilities and increases constructability.

Detention -The site development area currently does not have associated detention or water quality BMPs. The development of the site requires significant detention and compensatory storage for floodplain impacts as per the local codes. The stream is being relocated so that the detention can be provided on the east side of Mayapple Drive. Additionally, the stream relocation is necessary in order to develop the proposed buildings outside of the current floodplain. The current mapped floodplain is within 5-10 feet of the existing building.

The project originally considered relocating the entire stream length along the north end of property in order to accommodate an additional 45 parking spaces. Further review led to a revision to maintain as much of the stream as practical, resulting in the only impacts being caused by location of the proposed buildings on the east end of the property. The revision reduced stream impacts from approximately 785 LF to 543.2 LF.

The proposed layout has been designed to meet the needs of Covenant Living of Northbrook and its residents. The plan was revised to maintain as much of the stream as practical with the only impacts now being caused by the location of the 3 proposed buildings on the east end of the property. The physical nature of the site made certain impacts unavoidable under virtually any proposed layout. The currently proposed site plan with associated impacts represents an effort to reduce impacts as much as practicable. Indirect wetland impacts to the downstream portion of Techny Drain are not expected.

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

An EcoCAT endangered species consultation was submitted to the Illinois Department of Natural Resources on February 02, 2023 (Project # 22309778). The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

**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 assessment was written. We tentatively find that the proposed activity would result in the attainment of water quality standards; 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 Covenant Living of Northbrook by providing updates to an aging residential building, providing much needed residential units, parking, and common areas within the development while creating improvements to the waterway with the creation of naturalized areas. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.

cc: Des Plaines Regional Office - Surface Water Manager