

## MEMORANDUM

TO: Parks Advisory Commission

FROM: Josh Landefeld, Interim Parks & Recreation Services Manager

DATE: May 17, 2022

SUBJECT: Resolution to Recommend Barton Pump Station Valve Improvements through Barton Nature Area and Bird Hills Nature Area

This memorandum and resolution requests Parks Advisory Commission support of Barton Pump Station Valve Improvements work through a portion of Barton Nature Area and Bird Hills Nature Area.

Barton Pump Station supplies 80% of the City's raw source water from the Huron River to the Water Treatment Plant (WTP). Two (2) existing raw water intake pipelines run from Barton Pond to the Barton Pump Station and two (2) existing raw water transmission mains run from Barton Pump Station to the WTP.

Many of the pump station valves and piping remain in service from the original date of construction over 70 years ago. This project includes replacement of aging and inoperable valves and associated piping inside the pump station and in the yard. Some of these yard valves are located in the northern portion of the Barton Nature Area. The project also includes installation of new air release valves (ARVs) on the existing 42-inch and 24-inch raw water transmission mains which both run through the Bird Hills Nature Area. The proposed improvements are necessary to assure operational control and system reliability for the City's critical raw source water supply infrastructure.

The Water Treatment Services Unit (WTSU) completed a study phase to evaluate optimal locations for ARV installation. The evaluation considered impact on public safety, regulatory approval, security/vulnerability, constructability, operations and maintenance, natural features, and cost.

This project was reviewed and scored by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and deemed eligible for a Drinking Water State Revolving Fund (DWSRF) loan. This project is programmed in the City's Capital Improvements Plan (UT-WS-20-04).

The proposed alternative was included in the bid documents and is illustrated in attached Exhibit A. Valve replacement and ARV installation for the Barton Pump Station project will require one large (1) excavation in the northern corner of the Barton Nature Area, and six (6) excavations along the Bird Hills Nature Area. Temporary

construction access routes will be required in these areas as well.

Natural Area Preservation (NAP) was consulted during the design phase of this project which evaluated quality of natural areas, site disturbance, specific impact to trees and other site features, and its impact on the trail system and pedestrian travel. The contract documents require the Contractor to closely coordinate and seek approval from NAP before beginning their work. The proposed improvements will address critical source water supply infrastructure needs, reduce construction risk; and minimize the disturbance to the trail system and Nature Area.

The construction phase of the project is anticipated to be on the order of eighteen (18) to twenty four (24) months total, with a contract start date of April 1, 2022. Construction impact to the Barton Nature Area will last approximately one (1) to two (2) weeks in early June 2022 and an additional four (4) to six (6) weeks in fall of 2022. The impact to the Bird Hills Nature Area is expected to last approximately (1) to two (2) weeks in early June 2022 and an additional four (4) to six (6) weeks in fall of 2022. During these periods, the trails will be closed to pedestrian traffic with closure and detour signage posted. Trails will only be closed during active work. After working hours, all open excavations will be fenced and signage posted. Trails will only remain closed during off hours if there is an open excavation within the trail.

Up to 14 trees along Bird Hills Trail have been identified for removal to facilitate construction equipment access for ARV installation. A majority of these trees are 5-inches or smaller. Tree removal locations were selected with the goal of minimizing tree impacts.

Prepared by: Glen Wiczorek P.E., Senior Utilities Engineer, WTSU

Reviewed by: Josh Landefeld, Interim Parks and Recreation Services Manager

## Resolution to Recommend Raw Watermain Valve Improvements work through Barton Nature Area and Bird Hills Nature Area

Whereas, In 2007 the City Council passed resolution R-07-516 that designated the Barton Nature Area and Bird Hills Nature Area as Preserves;

Whereas, In 2016 the City Council stated that at times there are identified capital improvement needs and projects that are generally acceptable to improve ecological diversity, environmental conditions, water quality, and other community benefits;

Whereas, In 2016 the City Council amended resolution R-07-516 to allow construction in areas designated as Preserves as long as the proposed improvement will improve ecological diversity, environmental condition, or water quality as determined by the Parks Advisory Commission (PAC);

Whereas, Barton Pump Station raw water infrastructure that provides Huron River water from Barton Pond to the Water Treatment Plant has valves and segments of piping over 70 years old

Whereas, The proposed improvements are necessary to replace aging and inoperable valves and assure operational control and system reliability for the City's critical raw source water supply infrastructure;

Whereas, The Study and Design phases identified the best locations for air release valves on the raw water transmission main through the Bird Hills Nature Area;

Whereas, Natural Area Preservation staff have reviewed the proposed route and view it as acceptable; and

Whereas, Future costs for maintenance and restoration of park areas resulting from the ARV installations will be borne by the Water Utility Fund.

Resolved, That the PAC support using the designated portion of Barton Nature Area and designated portions of the Bird Hills Nature Area as shown in Exhibit A to complete the Barton Pump Station Valve Improvements Project work;

Resolved, That the Barton Nature Area is restored to its existing condition upon completion of the Barton Pump Station Valve Improvements Project;

Resolved, That the Bird Hills Nature Area is restored to its existing condition upon completion of the Barton Pump Station Valve Improvements Project; and

Resolved, That features in the Barton Nature Area and Bird Hills Nature Area identified for protection by NAP are protected during the course of the project to ensure that they are not impacted by construction activities.

