

MEMORANDUM

TO: Park Advisory Commission

FROM: Colin Smith, Parks & Recreation Services Manager

DATE: June 20, 2017

SUBJECT: Resolution to Recommend Routing Raw Watermain through Barton Nature Area

This memorandum and resolution requests the Park Advisory Commission (PAC) support routing a watermain through a portion of the Barton Nature Area. The purpose of the watermain is to deliver raw water to the Water Treatment Plant (WTP).

The existing twenty (20) inch raw watermain runs from the Barton Pond to the Barton Pump Station and serves as one of the raw water supplies for the WTP. The watermain has segments that are over 100 years old. At times, the pipe size can limit delivery of water to the WTP. There have been recent problems with leaking joints and maintenance issues. The replacement of the watermain is identified as a high priority in the City's Capital Improvement Plan.

There were several alternative routes investigated for the replacement watermain. The Water Treatment Services Unit (WTSU) evaluated each alternative's impact on public safety, regulatory approval, security/vulnerability, constructability, operations and maintenance, natural features, and cost.

The preferred alternative is illustrated in attached Exhibit A. This route cuts through the northern corner of the Barton Nature Area, and crosses beneath the Huron River south of the Barton Pump Station.

Natural Area Preservation (NAP) evaluated the preferred alternative for quality of natural areas, site disturbance, specific impact to trees and other site features, and its impact on the trail system and pedestrian travel. It was NAP's determination that the preferred route demonstrates "consideration of the natural features in the area" and that the route is "the best option with the minimal amount of impact to the natural areas."

The proposed route for the new raw watermain provides the lowest long-term risk to the stability of the Barton Dam and embankment; it provides the lowest construction risk; and attempts to 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) months total, with the impact to the Barton Nature Area lasting approximately eight (8) to twelve (12) months.

If PAC supports the route, the design of the project will proceed this summer by performing four (4) soil borings to investigate the suitability of soils. The borings will be located along the proposed watermain route and will be immediately backfilled. There will be minimal impact to park users, with only temporary equipment set-up.

Impact during the construction phase will be larger in scale, however the impact to park users will be minimized. Construction disturbance will generally closely follow the route of the watermain in Exhibit A. The construction is not anticipated to significantly impact the main trail or the pedestrian bridge across the river. Public safety devices including barricades and fencing shall be provided to separate the construction activity. There are no planned closures for access through Barton Nature Area.

Construction techniques (like tunneling, open cut, etc.) and limits of construction will not be finalized until soil borings and design are complete. Clearing along the watermain route for trench work and 20-foot diameter boring pits for tunneling are anticipated. Detailed design will be presented to NAP staff for review and comment and NAP feedback will be incorporated.

Prepared by: Glen Wiczorek P.E., Senior Utilities Engineer, WTSU
Reviewed by: Colin Smith, Parks and Recreation Services Manager

RESOLUTION TO RECOMMEND ROUTING RAW WATERMAIN THROUGH BARTON NATURE AREA

Whereas, In 2007 the City Council passed resolution R-07-516 that designated the Barton Nature Area as a Preserve;

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, One of the City's raw water lines that provide Huron River water from Barton Pond to the Water Treatment Plant has segments over 100 years old and is exhibiting signs of failure;

Whereas, The raw water line designated for replacement is undersized and not capable of providing sufficient flow from Barton Pond to the Water Treatment Plant;

Whereas, Staff have determined the best route for the new water line necessitates crossing through Barton 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 placement of the water line will be borne by the Water Utility Fund.

Resolved, That the Barton Nature Area is restored to its existing condition upon completion of the raw water line projects; and

Resolved, That features in the Barton 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;

Resolved, That PAC support using the designated portion of Barton Nature Area shown in Exhibit A to locate the new raw water line from Barton Pond to Barton Pump Station.

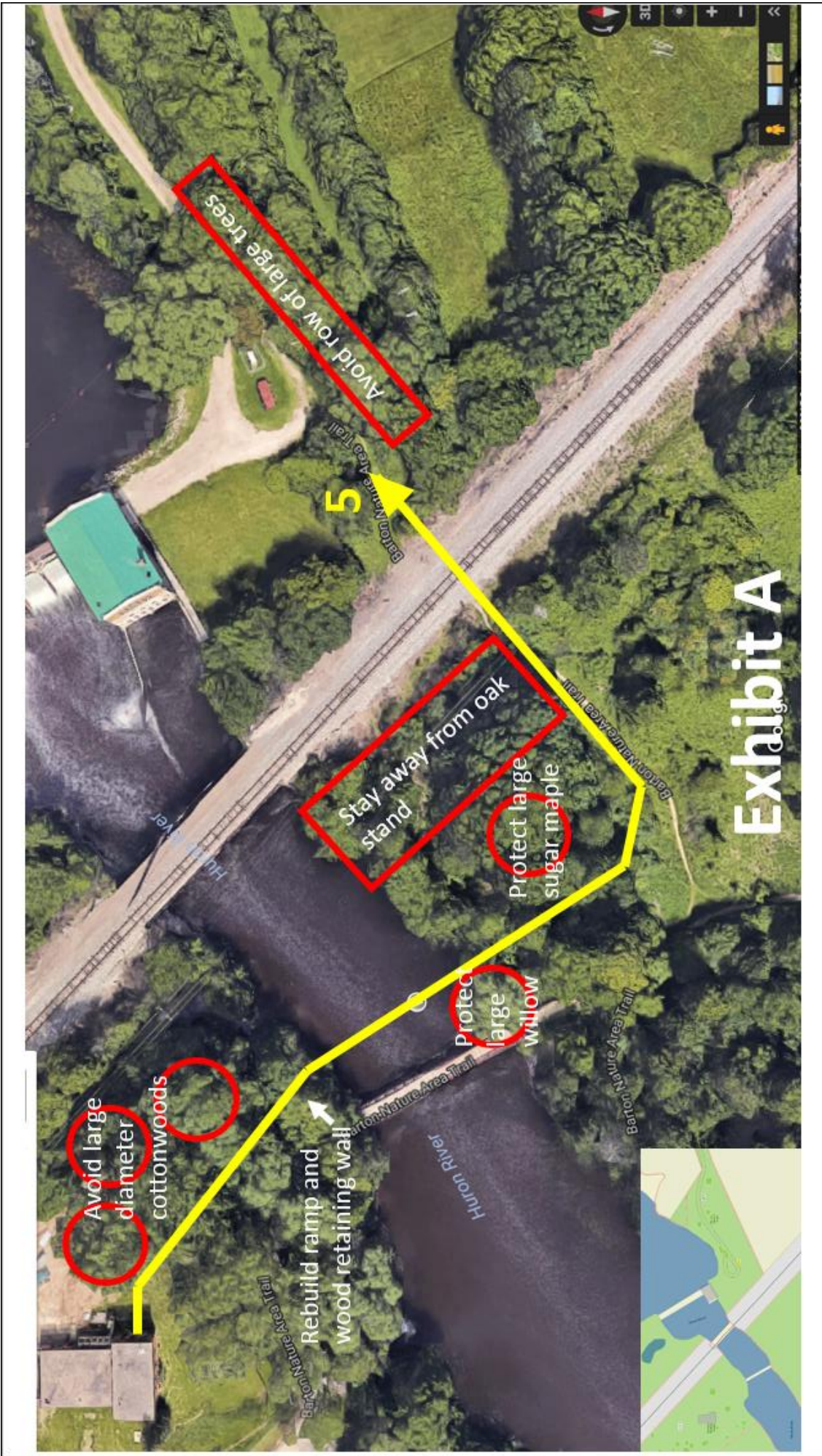


Exhibit A

Avoid large diameter cottonwoods

Rebuild ramp and wood retaining wall

Avoid row of large trees

Stay away from oak stand

Protect large willow

Protect large sugar maple

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