

Approved
8-20-20

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Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 5D– Consider Approval of Proposal to Prepare Feasibility Study for the Medicine Lake Road and Winnetka Avenue Area Long Term Flood Mitigation Plan Project: DeCola Ponds - SEA School/Wildwood Park Flood Storage Project (2022 CIP Project BC-2, 3, 8, 10)
BCWMC August 20, 2020 Meeting Agenda
Date: August 12, 2020

5D. Consider Approval of Proposal to Prepare Feasibility Study for the Medicine Lake Road and Winnetka Avenue Area Long Term Flood Mitigation Plan Project: DeCola Ponds - SEA School/Wildwood Park Flood Storage Project (2022 CIP Project BC-2, 3, 8, 10)

Recommendations:

1. Consider approving the scope of work and \$75,300 budget presented in this memorandum and direct the BCWMC Engineer to complete the feasibility study for the DeCola Ponds - SEA School-Wildwood Park Flood Storage Project (2022 CIP Project BC- 2, 3, 8, 10), scheduled for construction in 2022 and 2023.
2. Direct the BCWMC Engineer to consult with the U.S. Army Corps of Engineers (USACE) to determine whether the Resources Management Plan Pre-application Consultation Protocols may apply for this project.
3. Direct the BCWMC Engineer to prepare a feasibility study that complies with the requirements of the USACE and BCWMC criteria.

Background

The Medicine Lake Road and Winnetka Avenue Area Long Term Flood Mitigation (MLRWA) Plan, completed in partnership by the Cities of Golden Valley, New Hope, and Crystal, identified multiple projects estimated at more than \$22M that are needed to help alleviate flooding at the low point on Medicine Lake Road and adjacent properties just east of Winnetka Avenue, and downstream at DeCola Ponds. The implementation of projects identified in the MLRWA Plan is included in the BCWMC's current CIP as BC-2, 3, 8, 10 in Table 5-3, as amended in 2018.

The DeCola Ponds - SEA School/Wildwood Park Flood Storage Project is the second project from the MLRWA Plan included in the BCWMC's CIP. (The official name in the CIP for this portion of the MLRWA Plan is "DeCola Pond F Flood Storage and Diversion Project + SEA School Flood Storage Project. However,

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the project title here “DeCola Ponds-SEA School/Wildwood Park Flood Storage Project” is more descriptive and will be used from here on.) The first project—the DeCola Ponds B & C Improvement Project—was completed in summer 2020 and provides expanded flood storage and water quality treatment volume in the Medicine Lake Road and DeCola Ponds B & C area (see Figure 1). The DeCola Ponds - SEA School-Wildwood Park Flood Storage Project is slated for implementation in 2022-2023 at an estimated BCWMC cost of \$1,300,000 (the planning level estimate for the total project is \$2,700,000, with additional funding coming from state of Minnesota Flood Damage Reduction Grant funds). Access to the Minnesota Flood Damage Reduction Grant funds for final design and construction is contingent on the passing of the state bonding bill. At this time, the Minnesota state legislature has not passed the bonding bill and it is estimated that the next opportunity for it to pass is in mid to late September. From the city’s standpoint, continuing work toward project feasibility and readiness is important; however, if the bonding bill does not pass at the session in September, it may be delayed until a session in 2021 and a discussion on if this potential delay in funding could impact the schedule for final design and construction. Depending on final cost estimates and other factors, there may be an opportunity to supplement these funds with additional funding from Hennepin County’s contribution to the long-term flood mitigation projects and the City of Golden Valley’s capital improvement program, if available. However, the availability of these additional funding sources will not be known until late 2020/early 2021.

The BCWMC’s DeCola Ponds - SEA School/Wildwood Park Flood Storage Project builds on the DeCola Ponds B & C Improvement Project and the City of Golden Valley’s project that developed flood storage and conveyance on the Liberty Crossing development site on the west side of Rhode Island Avenue.

The DeCola Ponds - SEA School/Wildwood Park Flood Storage Project area is shown on Figure 1. The proposed project will develop flood storage volumes within the project area, potentially allow for some diversion of flows away from DeCola Ponds E & F, and improve water quality of runoff from the nearby watersheds. Discharge from this area drains through Honeywell Pond and ultimately drains to the mainstem of Bassett Creek. The project will also consider modifications to the DeCola Pond D outlet to reduce flood elevations around the pond. Many of the homes around DeCola Ponds D, E, and F have experienced flooding in the past and have been identified to be at-risk of flooding.

The proposed project area is located within Wildwood Park (owned by the City of Golden Valley) and the School of Engineering and Arts (SEA school; owned by the Robbinsdale Area Schools). There are no mapped Minnesota Department of Natural Resources (MnDNR) public waters or wetlands on these properties. Additionally, the project area includes the alignment along the DeCola Pond D outlet pipes. DeCola Ponds D, E, & F are constructed ponds created when the area was developed in the 1960’s and are not mapped as MnDNR public waters. However, these ponds are mapped as wetlands as part of the National Wetlands Inventory (NWI). The proposed project would also improve ecology and wildlife habitat, enhance active and passive recreation opportunities, and provide educational opportunities.

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As is required for BCWMC CIP Projects, a feasibility study must be completed prior to BCWMC holding a hearing and ordering the project. The feasibility study will develop conceptual designs of the project, review the permitting requirements, and develop concept plans and cost estimates for the project. The City of Golden Valley is in the process of completing a planning level analysis and conducting initial outreach with project stakeholders, including Robbinsdale Area Schools, various commissions and departments within the City of Golden Valley, and the public. This preliminary input will be considered as part of this feasibility study. For more information, see the City of Golden Valley website (<https://www.goldenvalleymn.gov/stormwater/projects/2020/sea-school.php>).

This project is consistent with the goals (Section 4.1) and policies (Sections 4.2.1, 4.2.2, 4.2.8, 4.2.9, and 4.2.10) in the 2015 – 2025 BCWMC Watershed Management Plan.

The BCWMC completed a Resource Management Plan (RMP) in 2009 through which the USACE and the BCWMC agreed on a series of steps, work items, deliverables (called “protocols”) that must be accomplished and submitted to complete the RMP process and USACE review/approval process. Although this project was not included in the RMP, the USACE has allowed the RMP protocols to be applied to other projects not specifically included in the RMP. With the completion of the protocols, we expect the USACE application process to move more quickly than it would otherwise. Most of the protocols must be addressed as part of the feasibility study, in addition to the usual tasks that would be performed as part of a BCWMC feasibility study. In general, the protocols require compliance with Section 106 of the National Historic Preservation Act, compliance with Section 404 of the Clean Water Act, and Clean Water Act Section 401 Water Quality Certification. Compliance with Section 106 typically requires a cultural resources inventory.

Content and Scope of Feasibility Study

The feasibility study will address and include the feasibility study criteria adopted by the BCWMC in October 2013:

- Analysis of multiple alternatives within the context of Commission objectives, including the following for each alternative:
 - Pros and cons analysis
 - Cost estimate for construction and a “30-year cost”
 - Analysis of life expectancy
 - Summary of each alternative for the Commission to judge its merits
 - Cost estimate for annualized cost per pound of pollutant removal
- Evaluation of new and/or innovative approaches
- Identification of permitting requirements

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The BCWMC developed the above criteria when the BCWMC’s CIP was limited to water quality improvement projects, so they do not specifically address flood mitigation aspects of CIP projects.

Therefore, in addition to the criteria above, the following will also be analyzed as part of each alternative:

Evaluate the flood reduction benefits of each alternative, including acre-feet of additional flood storage provided, lowering of 2, 10, 50, and 100-yr flood elevations at key locations, and quantification of homes and other structures and infrastructure impacted (e.g., homes/households no longer within 1% annual chance floodplain, reduced inundation depth at adjacent roadways, etc.

As noted earlier, most of the RMP protocols must be addressed as part of the feasibility study. In addition to the tasks above, the feasibility study will include the identification of wetland impacts, and desktop reviews of threatened and endangered species and cultural resources to meet the RMP pre-application protocols.

In addition to the RMP protocols and specific criteria adopted by the BCMWC, it is important to gather stakeholder input. The BCWMC Engineer will work with the BCWMC Administrator and City of Golden Valley staff to identify the most-effective means to gather input from the public and other affected stakeholders. As previously mentioned, City staff have already started to inform stakeholders about the project and gather input.

Below is a summary of the work scope components for this feasibility study:

1) Project Meetings

- a) Project kick-off meeting with BCWMC staff, BCWMC commissioners representing Golden Valley, Golden Valley staff, and Robbinsdale Area Schools staff, and preparation of meeting notes.
- b) Technical Stakeholder meeting with staff from BCWMC , Golden Valley, Robbinsdale Area Schools, USACE, MnDNR, and MPCA to discuss concept alternatives and review permit requirements for project and prepare meeting minutes to confirm regulatory agencies’ discussion results.
- c) Up to two (2) additional meetings with City staff and Robbinsdale Area Schools staff

2) Field Investigations

- a) Environmental Investigations—A review of the Minnesota Pollution Control Agency’s (MPCA) “What’s in my Neighborhood?” database indicated the presence of an inactive petroleum leak site and an active underground fuel tank on SEA School property. Review of aerial photos of the site indicate that portions of the site were low land that was filled prior to the construction of the school and park. Although there may be some debris in the fill, we do not anticipate widespread contamination resulting from this site that would impact the proposed project. As part of this feasibility project, we will request and review the information in the MPCA’s file for this site. We assume that after review of the MPCA file and historic photos, a Phase I environmental site assessment will not need to be completed for this project. However, based on the observations of

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fill from the DeCola Ponds B & C improvement project, we can assume a similar percentage of the filled areas may require landfill disposal when developing the planning level cost estimates. Additionally, a contingency plan should be prepared during final design in case contamination is encountered during construction.

- b) Wetland delineations—Barr will perform a wetland delineation along the south edge of DeCola Pond D near the existing outlet structure, and the north and south shores of DeCola Pond E, where storm sewer infrastructure may be modified. We assume city staff will obtain permission for access from adjacent property owners around Ponds D and E to complete this work. We will also review the project area within SEA School and Wildwood Park properties but do not anticipate any wetlands in these areas. We will perform the field wetland delineation in accordance with the Routine Level 2 procedures specified in the USACE’s 1987 Wetland Delineation Manual (“1987 Manual”, USACE, 1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (USACE, 2010), and the 2013 Guidance for Submittal of Wetland Delineation Reports to the USACE and WCA LGUs in MN. We will identify/flag and record wetland boundaries using a GPS unit with sub-meter accuracy. We will develop a wetland delineation report that includes the wetland type classifications and descriptions of the delineated wetlands, a brief description of the proposed project, general environmental information, and a discussion of regulations and the administering authorities. The report will also include wetland data forms, precipitation analysis, and site photographs. Barr also will obtain a Wetland Type and Boundary Approval from the Local Government Unit (LGU). Our cost estimate includes a wetland functions and values assessment (i.e., a Minnesota Rapid Assessment Method, or MNRAM, analysis) of DeCola Ponds D and E. This effort will include review by the Technical Evaluation Panel (TEP) for concurrence on the delineation boundary.
- c) Topographic and utility location survey—We will complete a topographic and utility location survey for the project area including Wildwood Park, the northern portion of the SEA School property, and the adjacent roadways, including Pennsylvania Avenue N, Duluth Street, and Kelly Drive, and infrastructure along Duluth Street from Pennsylvania Avenue to Maryland Avenue, including the discharge to DeCola Pond E. The survey will also include the Pond D outlet structure and utilities within Winnetka Heights Drive. Storm sewer infrastructure will include survey of location, and pipe inverts, diameters, and materials. We assume city staff will obtain permission for access from adjacent property owners around Ponds D and E to complete this work. Underground utilities will be located based on the location of manhole structures in the field, as-built/construction plan drawings from the City, and utilization of a Gopher State One Call utility locate. We will conduct the survey in NAVD88 and use available City of Golden Valley benchmarks.

- d) Tree location, diameter, species, and condition survey—During the topographic survey, we will also survey all trees with a diameter of 4 inches or greater, recording the diameter, species, and condition (e.g. dead/live, shaggy/peeling/deeply furrowed bark) of the trees, working closely with the City of Golden Valley foresters. Focus will be on survey of trees within the northern portion of the school property, Wildwood Park, along the storm sewer connection from Duluth Street to DeCola Pond E, and along the DeCola Pond D outlet alignment. During an early planning effort conducted by the City, the public indicated they valued the wooded knoll in the NE corner of the park, so feasibility concepts will preserve this space. The tree survey will focus on trees around the expected disturbed elevation, including a 10-20 foot buffer beyond. In addition to helping with estimated project costs, the tree survey will help determine if the trees within the project area could provide habitat for the northern long eared bat (endangered). Consideration will be given to replace trees along portions of the project area where feasible.
- e) Threatened and endangered species desktop review—Barr will perform a desktop review of the available databases to determine the potential for adverse impacts to state and federally listed species.
- f) Cultural resources desktop review—Barr will request review of the existing database from the State Historic Preservation Office (SHPO) for information related to known historic and archaeological resources in the project vicinity and will summarize any available information in the feasibility report.
- g) Project easements—The majority of the proposed project is located on public property, within right-of-way, or within existing drainage and utility easements, so no additional easement acquisition is anticipated for work within Wildwood Park, and at the storm sewer discharge into DeCola Pond E. However, the DeCola Pond D outlet pipe does not appear to be within the platted easement so a construction easement may be needed to modify this pipe. Additionally, if the proposed feasibility project concepts extend to the south onto the SEA School property, easements would be required from Robbinsdale Area Schools. This will be identified as part of the feasibility study.

3) Evaluation and Concept Plans

- a) Develop up to 3 concepts for the expansion of flood storage at the SEA School and Wildwood Park. These concepts will also include modifications to the Pond D outlet system to lower flood elevations on DeCola Pond D.
- b) Use the BCWMC Phase 2 XP-SWMM (as modified to reflect the DeCola Ponds B & C improvement project final design) and P8 model (as modified to reflect the DeCola Ponds B & C improvement project final design) to estimate impacts to peak flood elevations and pollutant removals, respectively, as a result of the project concepts.

- c) Identify permitting requirements for the concepts, based on wetland delineations and other compiled data, and one (1) meeting with agency staff (see task 1b).
- d) Develop cost estimates for the project, including a “30-year cost,” analysis of life expectancy, and annualized cost per pound of pollutant removal for the water quality treatment portion of the project.
- e) Evaluate the flood reduction benefits of the project, including acre-feet of additional flood storage provided, lowering of flood elevations at key locations, and impact on homes in the floodplain (e.g., homes removed from the floodplain, reduced inundation depth at adjacent roadways).
- f) Develop tree removal estimates for each concept, including removals needed for construction access to implement each concept.

4) Public Engagement

- a) Coordinate with BCWMC Administrator and City staff to determine best means to gather public input, such as mailings, newspaper articles, open houses, online input, etc. The primary group for public discussions will be the nearby residents and property owners, including residents living around the DeCola Ponds, Wildwood Park, SEA School, and park users. The budget for this task includes time to prepare for and attend one public meeting, after development of the concept plans. As COVID-19 restrictions may still be in place at that time, virtual engagement platforms will be used. We assume that meeting coordination, will be largely completed by the BCWMC Administrator in close collaboration with the City.
- b) Assist with public involvement process as necessary – prepare handouts, boards, presentations, and/or other visuals, and record and compile comments.

5) Feasibility Report

- a) Prepare draft report for review by City staff, BCWMC staff/interested commissioners, and Robbinsdale Area School representatives; revise report based upon review comments.
- b) Present draft feasibility study findings at BCWMC meeting.
- c) Prepare final report for approval at BCWMC meeting and use at future project hearing.
- d) Present final feasibility study findings at BCWMC meeting.

Cost Estimate

Table 1 summarizes our cost estimate for the scope of work outlined above.

Table 1. DeCola Ponds - SEA School/Wildwood Park Flood Storage Project Costs

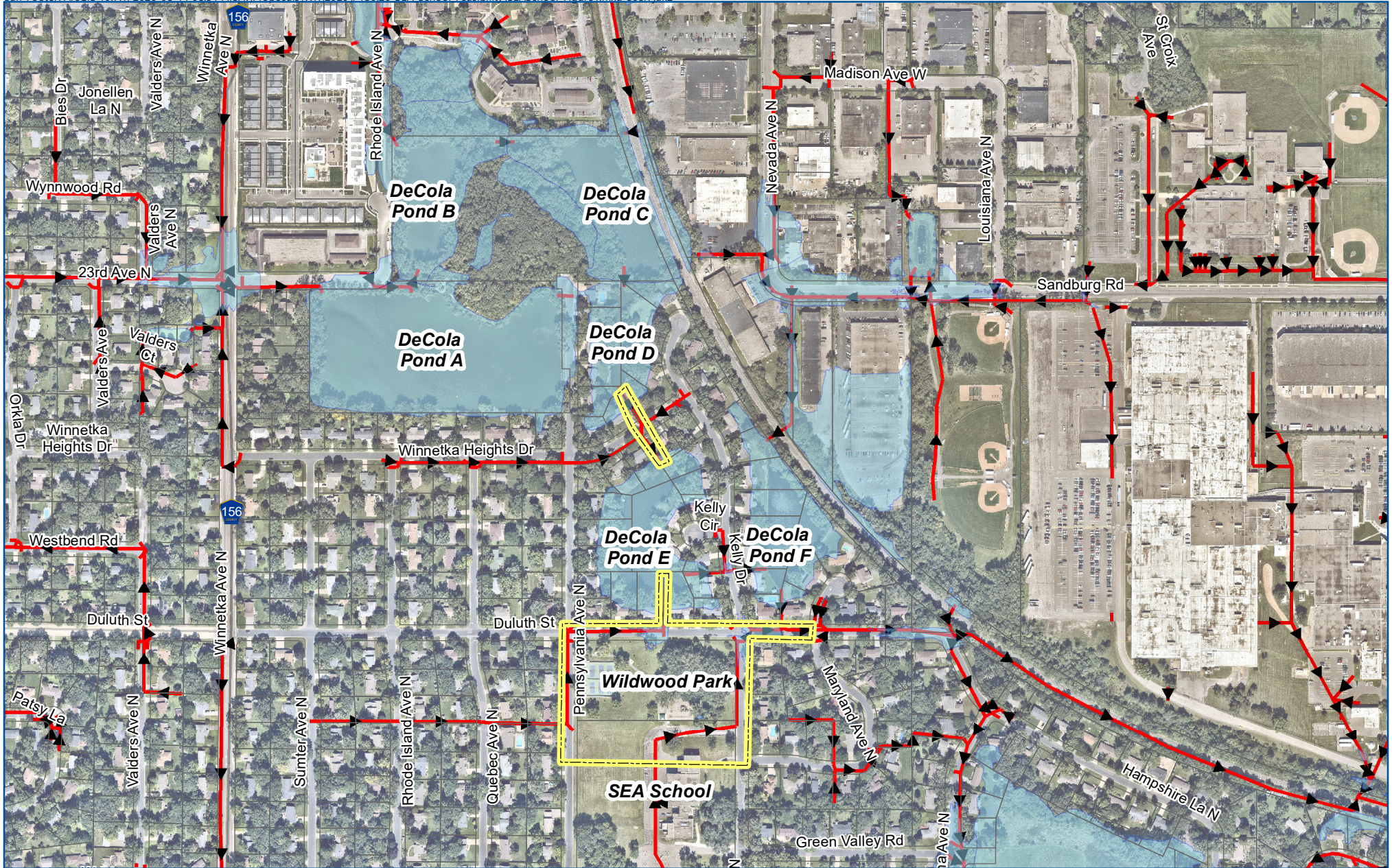
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



Tasks	Estimated Total
1) Project Meetings	\$9,400
2) Field Investigations	\$20,800
3) Evaluation and Concept Plans	\$24,800
4) Public Engagement	\$5,100
5) Feasibility Report	\$15,200
Total	\$75,300



Schedule

We will complete the tasks and milestones outlined in the scope of work on the following schedule, assuming authorization at the August 2020 meeting.

Tasks and milestones	Estimated Schedule
Kick-off meeting with BCWMC and City of Golden Valley, Robbinsdale Area School staff	September 2020
Wetland delineations	August 2020
Combined agency field review/TEP review	September 2020
Topographic, utility, and tree survey	August 2020
Desktop Review – environmental, threatened and endangered species, cultural resources	August/September 2020
Meeting with BCWMC, City, USACE, MN DNR and MPCA	September/October 2020
Develop concept alternatives and cost estimates	October 2020 – January 2021
Up to two meetings with City/SEA School staff	October – December 2020
Public meeting	January/February 2021
Submit draft feasibility report for City and BCWMC staff review	March 12, 2021
City and BCWMC staff complete review	March 26, 2021
Submit draft feasibility report for BCWMC review at Commission meeting	April 7, 2021
Present draft report Commission meeting	April 15, 2021
Submit final feasibility report for BCWMC review at Commission meeting	May 12, 2021
Final Feasibility Report – BCWMC approval at Commission meeting	May 20, 2021



  Project Area
 Parcels
 Atlas 14 100-yr Inundation
 Storm Pipe



500 0
Feet

DeCola Ponds- SEA School-
Wildwood Park Flood Storage
Project
PROJECT AREA
FIGURE 1