MEMORANDUM
Comfort Lake-Forest Lake Watershed District

To: Board of Managers  Date: August 15, 2018
From: Mike Kinney
Subject: Wetland Bank Scoping Update

Background/Discussion
This topic was last discussed at the July 26, 2018 regular board meeting. EOR is in the process of completing the work outlined in the approved scope of work. A report and update will be presented at the August 23, 2018 regular board meeting. Staff will also continue to be working with EOR to continue the process of analyzing this site. In particular, directing EOR to coordinate a TEP (Technical Evaluation Panel) meeting which encompasses all local, state and federal agencies involved in evaluating a site for any wetland related impacts. This is a critical step in evaluating the next steps for the District.

Additionally, an important aspect of reviewing the findings will be the differentiation between wetland banking credits and stormwater credits. While these two items can be reviewed and discussed in parallel, and sometimes sites may be appropriate for both, these two concepts are distinct from one another and should not be conflated. This may be discussed further during the August 23rd meeting.

Compensation Planning Framework
On a related note, the Board of Water and Soil Resources (BWSR) is preparing a Compensation Planning Framework (CPF) for the MN side of the St. Croix River watershed. For wetland management purposes, this is known as Wetland Bank Service Area 6 (BSA 6). The CPF is a watershed based plan that BWSR intends to use to strategically identify replacement wetland (mitigation) sites in this watershed in the future. Staff received a survey allowing us to provide input regarding how replacement sites should be identified and prioritized. Staff will complete the survey and provide further updates to the Board as this program progresses.
BACKGROUND

This memo is to describe the wetland banking process, discuss the project concepts, and outline general project costs. This memo is a follow up to the District’s interest in developing wetland bank credits within the District boundary to fulfill the Wetland Restoration/Bank Feasibility Study for completion in 2019 (5420B) identified in the District’s Watershed Management Implementation plan.

WHY BANK IS NEEDED

A wetland banking project would help alleviate the shortage of wetland credits within the District which could henceforth minimize the chances of wetland impacts in the District being replaced outside of the District. Additionally, wetland replacement within the District boundary will help to preserve the important watershed functions wetlands provide and improve water quality of downstream waters.

WHY THE TAX FORFIET PARCELS

One location in the District that has potential for wetland restoration are the tax forfeit parcels (21.10653.00 & 21.10649.00) near the Banta property, City of Wyoming. The total acreage of both parcels combined is 41.7 acres, 41.5 of which is wetland (Figure 1, Figure 2). The Heim’s Lake drainage and Sunrise River flow adjacent to this location. Furthermore, work completed on the Sunrise River Project identified these parcels as a priority for water quality improvements. A wetland restoration bank in this location complements the water resource-based goals of the District and provides important wetland mitigation, water quality benefits and floodplain storage in the watershed.

To date a wetland delineation and Draft Prospectus scoping document have been completed for the parcels. The wetland bank scoping document prepared by EOR along with internal evaluation suggests the site has potential for banking due to the opportunities for hydrologic and vegetative restoration, the large parcel size, its strategic location at the Heim's Lake drainage outlet. Restoring shallow marsh, native wet meadow and sedge meadow, and wooded swamp vegetation will also improve habitat for marsh birds, amphibians, and pollinators; creating a more cohesive contiguous wetland habitat area.

The concept design at this early stage is to divert the Heim’s Lake drainage into the restored wetland. Because the Heim’s Lake drainage can be routed into the site at a higher elevation than the Sunrise River, this parcel is more desirable for wetland restoration than parcels previously reviewed that are close to and tied directly into the hydrologic regime of the Sunrise River.
WETLAND BANKING PROCESS

Documentation

Wetland bank establishment is an intensive process that typically takes several years to complete from initial scoping to credit approval and release. The process involves preparation of several documents including a Draft Prospectus (scoping), Prospectus (Concept Plan), and Mitigation Plan (Full Application). In addition, establishment of a wetland bank also requires establishing the desired property as a conservation easement. The full banking process from scoping through the final application is typically about a one-year time frame.

Credit Release

In this context, credit release means the regulatory agencies have approved wetland credits for deposit into the state wetland bank. Once credits are deposited they are eligible for sale. For any credits deposited into the wetland bank, the District will then act as the broker to sell credits to parties requesting wetland credit.

For projects such as the one proposed, documentation of the construction and vegetation establishment must be completed according to the mitigation plan. Credit release also typically requires at least 5 years of monitoring and reporting in accordance with the mitigation plan to demonstrate performance standards are consistent with the approved Mitigation Plan.

The proposed project involves hydrology and vegetation restoration of an existing wetland that is eligible for up to 50% credit. Construction certification typically allows for an initial deposit of up to 15% of the anticipated credits. The initial release of credits typically occurs within 2½ to 3 years from initiating the bank scoping process and final credit release typically occurs within 3-5 years of construction certification. Subsequent credit release is based on meeting performance standards laid out in the approved mitigation plan.

Potential Credit Availability at the Proposed Site

The completed wetland delineation indicates 41.5 acres of the site is wetland. Based on a 50% credit eligibility, the site could provide up to 20.75 acres of wetland credit. Failure to meet bank plan objectives related to vegetation and hydrology restoration may limit amount of wetland credit.

RESTORATION AND MANAGEMENT ACTIVITIES & POTENTIAL OUTCOMES

Hydrology Restoration

Hydrology within the site is currently affected by one large north-south drainage ditch and several smaller north-south and east-west remnant ditches within the properties. Plugging of the north-south ditch that crosses the east-central portion of the site along with remnant ditches would help to restore a more natural and wetter hydrologic regime. Ditch filling along with gentle elevation terraces and small berms would help to hold water back and route drainage across the larger wetland complex before reaching the Sunrise River. Additionally, it may be possible to divert inflowing water from the Heim’s Lake drainage into the wetland bank. Such hydrology modifications could increase the water residence time of stormwater and reduce flow velocities to the Sunrise River. Furthermore, by increasing water residence time, sediments and nutrients are more likely to settle out or be processed, reducing nutrient/sediment loads to downstream waterbodies. If suspended sediment is a concern, a stormwater feature could be constructed to capture sediment before it enters the wetland bank. Spoil from dredging could potentially be used to form berms and terraces used to stabilize and enhance wetland hydrology.
It will be necessary to investigate potential flooding of adjacent properties resulting from hydrologic modifications. In addition, identifying the quantity of sediment and nutrient removal achieved through restoration efforts will be important in developing the final design.

**Vegetation Restoration**

A dense stand of reed canary grass is found across the central sections of the wetland area; primarily across Type 2 wetland communities. Reed canary grass out-competes native plants, resulting in areas of low plant and habitat diversity. Due to the extent of reed canary grass an aggressive eradication and management regime will be necessary. Options such as mowing, burning and herbicide will be considered along with soil scraping. Scraping involves the removal of reed canary grass and underlying 8-18” of soil. In some cases the soil exposed after scraping away reed canary grass has a robust native seed bank thereby eliminating the need for additional seeding. Ongoing vegetation management will necessary to enhance native plant establishment. Ongoing management activities may include spot treatment with herbicide, seeding if needed, and periodic mowing to control weedy species.

Invasive cattail is also found within the project site. The treatment regime for cattail is similar to reed canary grass with the addition of cutting and flooding. Flooding of cattails is most effective if preceded by close mowing (within 3 inches of water surface) and herbicide treatment.

**ESTIMATED RESTORATION COSTS**

Topsoil scraping is a very reliable restoration tool but typically comes at significant cost. An exception to the high cost is if a contractor is interested in the topsoil material. If there are no contractors interested in the topsoil material, very preliminary estimates for the project could approach $1 million. Based on previous work conducted by the District, there may be interest in the topsoil material, thereby cutting the project costs by 50% or more.

**ESTIMATED CREDIT VALUE**

The average cost for wetland credits sold during 2015 and 2016 for this bank service area (6) in this major watershed (37) is **$33,000**. Wetland credits costs have risen since 2015-16 and are likely to continue to rise prior to the period this bank has credits eligible for sale (approx. 2020). Using 2015-16 pricing, 20 credits have the estimated value of $660,000. If credit value trends continue, a 20-30% increase in credit value could be in the $800,000 range.

**ADMINISTRATIVE CONSIDERATIONS**

Credits earned from this wetland bank will be deposited in the State Wetland Bank. There are some fees associated with banking, and some administrative time will be needed to manage transactions. With credits available in the bank, parties needing replacement credit will contact the District to purchase a specified amount of credit. The District then sets the credit price based on the number of credits requested or other market factors. If the District and credit-purchasing entity agree to terms, the District will be paid for the credits purchased and the credit balance in the District’s bank will be deducted. The transactions are all orchestrated through the State of Minnesota Wetland Bank Program and is coordinated with the US Army Corp of Engineers. The District will need to have staff resources available to administer the banking program and process financial transactions.
Figure 1. Location
Figure 2. Delineated Wetland
Figure 3. Wetland Plant Communities