

DITCH REPAIR PLAN

CD39 Board Approved Jan 23, 2018

STEARNS COUNTY MINNESOTA

December 22, 2017

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Introduction

Stearns County Ditch 39 was formally established in 1917. This ditch is approximately 3.6 miles in length, contains approximately 826 benefited acres, and was originally built containing a mixture of open and tiled ditch.



Based on County Ditch records the past repair history of CD39 is as follows:

- 1970: State Of Minnesota petitions for “Minor Alterations or Changes in County Ditch 39” in order to build Interstate 94.
- 1973-74: The tile was placed under Interstate 94 and letters of completion were given to impacted property owners as well as the Stearns County Board of Commissioners stating that the ditch has been repaired.
- 1984-1986: A repair was completed running from the “ditch divide” running northwesterly to Meyer’s Creek.
- 1996: The United States Fish and Wildlife Service entered a private agreement with a property owner to build an earthen dam. Material was excavated on a property in Section 29, T123, R27. The property is currently owned by Jim and Debra Studniski.
- 2011: A repair to CD39 was completed due to the footing of the “CapX” electric tower being built over CD39 tile line. CapX extended the tile line under the footing and connected it to the existing clay tile.
- 2015: A portion of the clay tile near 8th Avenue was discovered to be crushed and subsequently washed out 8th Avenue. As a result, a new tile was installed with a hickenbottom to prevent future loss.

- 2017: The United States Fish and Wildlife Service removed a portion of the dam they created in 1996. The ditch was repaired to a 4 foot bottom and 2:1 side slopes.

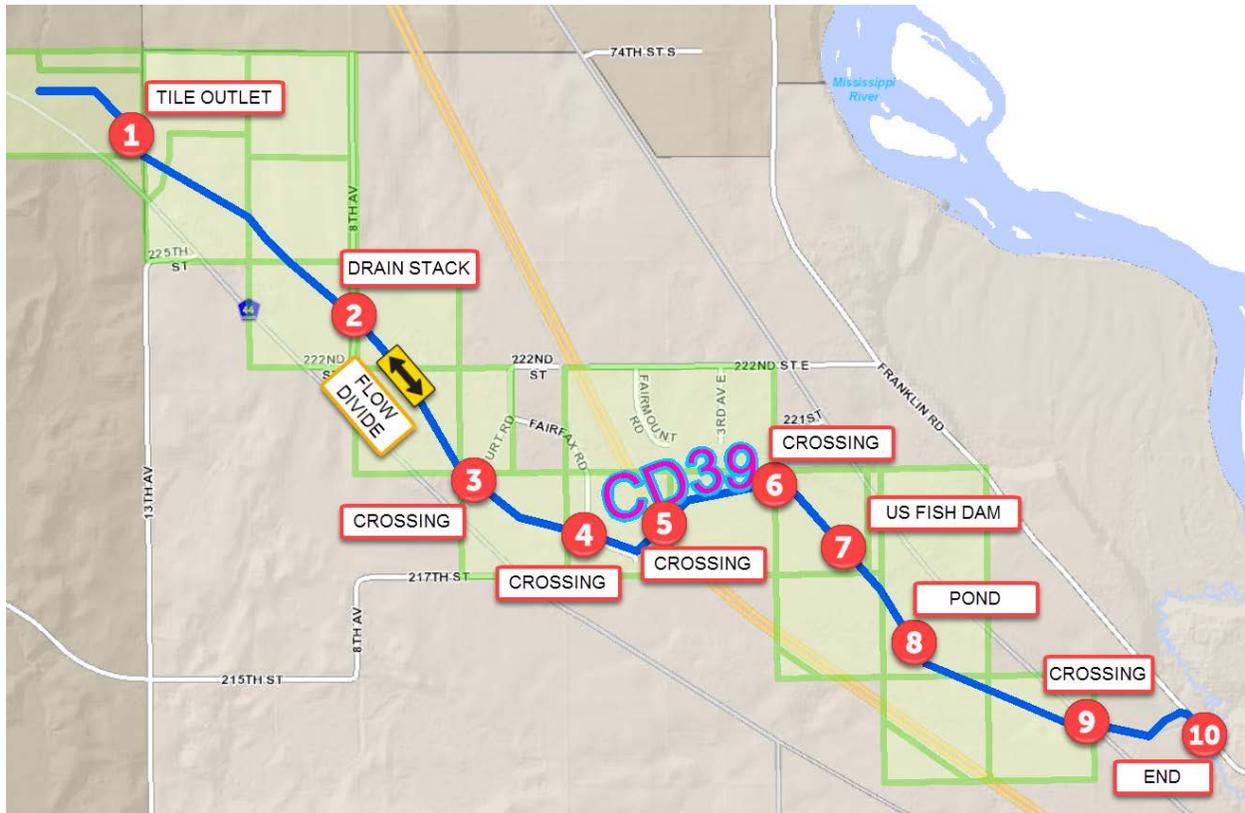
Observations from CD39 Inspection Report

This proposed repair plan was created utilizing information collected by Stearns County Staff during the creation of the CD39 Inspection Report. The Inspection Report approved accepted by the Stearns County board of Commissioners acting as the Drainage Authority on September 19, 2017.

The following data has been collected:

- Existing Conditions survey data.
- Review of current and historic ditch records.
- Review of current and historic aerial photos.
- On site field inspection.
- On site GPS field data acquisition.
- Photos of the current ditch conditions.
- Firsthand accounts and observations by staff and local property owners in regards to the current conditions

Within the Inspection Report the following issues were noted:



- A private crossing has become an obstruction (Area 6 on map).
- Immediately downstream from the obstruction the ditch has filled with sediment causing there to be no existing channel. (Between Area 6 and Area 7 on map)
- The US Fish and Wildlife dam has been restored to allow the ditch to function as originally designed. (Area 7 on map)
- The original clay tile that runs between the dam at Area 8 and the pond (Area 8) no longer functions. There is evidence of broken tile throughout this stretch.

Repair Plan

Based on the Stearns County Inspection report, staff would like the drainage authority to consider the following items:

1. Order the removal/repair the field road/private crossing obstruction located on the west side of Stearns County PID 19.10502.0005. This is a private crossing and will be removed/repared at the sole cost of the property owner and/or other interested properties. This task should not be part of bid.
2. Re-establish the ditch channel and remove sediment along the CD39 profile/alignment from the east side of field road crossing located approximately at station of 120+00 through the north side of the Pond approximately located at station 159+00.
3. Restore the repair location to form a 4 foot bottom with a 2:1 side slope.



Project Parameters

Spoils taken from the ditch channel can be piled directly adjacent to the ditch per Stearns County Environmental Services Department.

Specifications of excavating bucket: straight edge

Spoils will need to be spread evenly and seeded with a fast growing cover crop after a drying period.

Stearns County Survey Crew must be onsite during any work completed. The vendor is responsible for managing elevation of work with Stearns County Survey Crew providing verification.

The timeline of the project is dependent on weather conditions. Stearns County and vendor will coordinate the best timeline for the most robust completion of the project.

All costs incurred will be charged to the CD39 Ditch System and assessed to the benefitted land owners.