

FLOOD SALES TAX COMMITTEE AGENDA
FOR SEPTEMBER 6, 2022—2:00 PM
Commission Room, Cass County Courthouse

2:00 PM Meeting called to order
Approve minutes from previous meeting—August 15, 2022

1. Review projects and consider funding
 - a. City of Casselton Lagoon Slide Repair on Swan Creek Diversion
2. Other business
3. Adjournment

SUBJECT: COUNTY SALES TAX FOR FLOOD RISK REDUCTION AND RECOVERY
PROJECTS

ADOPTED DATE: DECEMBER 4, 2017

PAGE 1 OF 4

PURPOSE

The purpose of this policy is to provide guidance for the administration and funding of projects with Cass County Flood Control Sales Tax funds.

GENERAL PROVISIONS

As passed during the 2010 election and extended in the 2016 election, the voters approved the following: The Cass County Home Rule Charter be amended to extend the existing flood protection-related sales, use, and gross receipts tax of one-half of one percent (1/2%) to be used solely for the engineering, land purchase, construction, and maintenance of flood control measures including the Metro Flood Diversion Project including associated special assessments and indebtedness, through December 31, 2084, and shall be rescinded when all of the costs, obligations, and debt for said project have been paid in full and satisfied, whichever event occurs first as provide in Resolution #2016-20.

Cass County Commission Policy 38.23 outlines Ordinance #2010-2 Amended (Flood Control Sales Tax) which serves as the ordinance for the establishment and regulation of the Cass County Flood Control Sales Tax.

This policy governs expenditures of funds from a one half percent County sales tax that started in 2011 and will end in 2084 to fund flood risk reduction projects. The primary purpose of the sales tax measure is to fund local costs associated with a planned Fargo Moorhead Area Flood Diversion project in either Minnesota or North Dakota. The planned diversion project will not address all flood damage risks in Cass County. Additional measures are necessary to reduce risk to areas within and outside of the diversion perimeter. Sales tax proceeds may also be expended for the Diversion and other flood risk reduction or recovery projects subject to funding availability and approval by the County Commission. The County sales tax proceeds should be used to leverage other sources of funding when possible.

County sales tax funds expended within incorporated cities: The County Commission through the Flood Sales Tax Committee may consider requests for flood risk reduction and recovery funding from cities within Cass County. The city will be responsible for planning and engineering costs associated with the project. Plans and specifications should be prepared by a professional engineer registered within the State of North Dakota. Projects won't be considered if they are strictly for new city development, especially cases where a developer would be shifting their cost to the County Flood Sales Tax. The city should also be able to demonstrate that other revenue sources for the project have been actively sought out. The preferred funding split is that City funds match the County sales tax proceeds on a 1:1 basis. Other funding splits may be considered by the Commission on a case by case basis to allow consideration to be given to unique circumstances and the ability of the City to pay 50% of the local cost share.

SUBJECT: COUNTY SALES TAX FOR FLOOD RISK REDUCTION AND RECOVERY
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PAGE 2 OF 4

County sales tax funds expended outside of incorporated cities: The County Commission, through the Flood Sales Tax Committee, may also consider flood risk reduction and recovery projects recommended by the County Engineer or requested by townships, neighborhood groups, or individuals for areas within and outside of the diversion protected area. Projects won't be considered if they are strictly for new rural development, especially cases where a developer would be shifting their cost to the County Flood Sales Tax. Special assessments may be considered as a local match to County sales tax funds. Funds may be expended for projects that provide benefit to Cass County residents but are physically constructed outside of the County boundaries such as retention projects. Funds may also be spent to assist property owners downstream from the diversion channel in offsetting diversion project impacts.

ADMINISTRATION

The Cass County Commission will organize and appoint members to a Flood Sales Tax Committee. This will be a six-member committee made up of the following members:

1. Two members of the Cass County Commission
2. Cass County Auditor
3. Cass County Administrator
4. Cass County Engineer
5. One member from either the Southeast Cass, Maple River, Rush River, or North Cass Water Resource District.

The Flood Sales Tax Committee will solicit project requests on a bi-annual basis. Meetings to review project requests will generally be held with one meeting in the fall (October-November) and one meeting in the spring (March-April). Requests received from political subdivisions and county staff for cost effective projects will be prioritized and considered for funding by the County Commission as funds available allow.

FUNDING ELIGIBILITY

Entities eligible for funding: Funding should generally be for flood protection for communities or individuals that live outside of the Diversion protected area or those within the Diversion protected area that do not receive a significant benefit from the Diversion. This includes:

1. Cities
2. Townships
3. Water Resource Districts
4. Farmsteads and Homesteads

SUBJECT: COUNTY SALES TAX FOR FLOOD RISK REDUCTION AND RECOVERY
PROJECTS

ADOPTED DATE: DECEMBER 4, 2017

PAGE 3 OF 4

Types of projects eligible for funding:

1. Levee construction or recertification for cities or rural subdivisions. Generally levee projects should be constructed to FEMA and/or US Army Corps of Engineer standards and be able to bring the benefited area out of the 1% chance (100 year) floodplain. These levees would also need to be maintained at that standard by either the city or township that is a member of the National Flood Insurance Program. Rural subdivisions seeking this funding would need to complete an agreement with the township and form an assessment district for the long term maintenance of the levee.
2. Flood control projects.
3. Water retention or detention projects.
4. Dam construction or maintenance.
5. Lift Stations for removing storm water from within a levee protected area.
6. Rural Farmstead Ring Levees (in conjunction with the ND State Water Commission 50% cost share) as outlined on the ND State Water Commission website under "Cost Share" at http://www.swc.state.nd.us/project_development/cost_share.html. Generally levee projects should be constructed to FEMA and/or US Army Corps of Engineer standards. However, individual rural farmsteads cannot be "certified" by FEMA or the US Army Corps of Engineers as they not maintained by either a city or township that is a member of the National Flood Insurance Program.
7. Road Projects that provide infrastructure protection to prevent significant future flood damage. These requests may be standalone projects or in conjunction with post-flood damage repair with or without FEMA cost share.
8. Road access (road raises or other infrastructure improvements that will allow access to a city, subdivision, or rural residence/farmstead).
9. Embankment slumping along the Red River, Wild Rice River, Sheyenne River, Maple River, Rush and Lower Rush Rivers, and Legal Drains. River slumping projects may include road and infrastructure repair, home buyouts, and repair to legal drains.
10. Home buyouts for flooding and bank slumping.
11. Flood Recovery projects to include: Levee repair, road repair, bridge repair, and other infrastructure related repair projects. None infrastructure flood recovery such as debris removal and sandbag cleanup will not be eligible.

Cass County Sales Tax Cost Share:

1. Generally the cost share will be 50% of the "local" share of the non-retention projects, i.e. if a \$100,000 project had a 50% state cost share, the local share would be \$50,000 and the County cost share would be \$25,000.
2. Policy for Retention Projects: Cost share is 75% of the "local" share if they are approved by the Red River Joint Water Resource District.
3. Home buyouts for flooding and bank slumping: Cost share is 90% of the "local" cost with the homeowner paying 10% of the "local" cost.

SUBJECT: COUNTY SALES TAX FOR FLOOD RISK REDUCTION AND RECOVERY

ADOPTED DATE: DECEMBER 4, 2017

PAGE 4 OF 4

4. If significant funds are available compared to the project requests, the County may authorize a cost share above 50% for non-retention projects and above 75% for Retention Projects.

PROJECT PRIORITIES

Priority of projects will be based on the following:

1. Population benefited by the project
2. Distribution of funds by location
3. Disbursement percentage determined by the number of people benefited
4. Cost effectiveness of the project
5. Permanency of the project
6. Effect of the diversion on the project
7. Does the project have long-term merit (benefits extend beyond 10 years)
8. Other sources of funding from local, state, or federal cost share programs.

Evaluation Criteria: The County Commission and/or Flood Sales Tax Committee may use some or all of the following criteria in determining funding priorities:

1. Benefit cost ratio
2. Land area benefited
3. Population benefited
4. Downstream flood reduction
5. Total acre-feet of retention storage

HISTORICAL REFERENCE: AUGUST 2, 2010



Cass County Flood Sales Tax Committee Staff Report

Project Name:	Casselton Lagoon Slide Repair on Swan Creek		
Funding Requested:	\$525,000	Date:	8-19-2022
Location:	City of Casselton (Lagoons north of Swan Creek)	Cost Share % Requested	75%
Staff Contact:	Jason Benson	Water District:	Maple River Water District
Owner(s)/Applicant:	City of Casselton	Engineer:	Brandon Oye, Moore Engineering
Status:	Flood Sales Tax Committee Meeting: September 6, 2022		

Proposal

The City of Casselton is respectfully requesting funding assistance from the Cass County Flood Risk Reduction funds to offset project costs of a slope slide repair of Swan Creek Diversion at city lagoon cells 1 and 2. The project location map is attached for reference.

Slope sloughing along the north slope of Swan Creek Diversion, south of the wastewater primary cells 1 and 2, was first noticed by city public works spring of 2021. Vertical displacement at the top of the slope is approximately two (2) feet with the west end of the sloughing starting near the dike between lagoon cell 1 and cell 2 and continuing east a distance of approximately 180 lineal feet. The proposed project is to repair the existing slope sloughing, thus reducing the risk of further sloughing and critical failure of the slope. Critical slope failure could lead to the emptying of the primary lagoon cells into Swan Creek, which would cause flash flooding downstream in addition to environmental impacts.

The estimated total Project cost is \$700,000. The City of Casselton is requesting a 75% cost share for a total request of \$525,000 The Project applied for, but was not eligible for cost-share from the State Water Commission.

Here is a summary of the cost-share:

- Cass County Flood Sales Tax cost-share - \$525,000
- City of Casselton local cost - \$175,000

Staff Analysis

Funding Eligibility: (County, City, Township, Water Resource District, or Home/Land Owner)

This project is eligible as the project owner is an eligible City in Cass County and this project is outside of the benefits of the FM Diversion Project.

Project Eligibility: (Outline what provision of the Policy provides eligibility to fund this project)

This Project is eligible based on criteria #2 Flood Control Project, criteria #9 embankment slumping.

Cost Share Eligibility: (Outline what provision of the Policy provides cost share % eligible for this project)

This project meets the 75% funding cost share eligibility due to significant funds being available compared to the project requests where the policy allows the County to authorize a cost share above 50% for non-retention projects and above 75% for Retention Projects.

Project Priority: (Explain any provisions of the Policy that provides a higher priority for this project)

This is a priority due to the impact to the lagoons on the population of Casselton if a failure occurred. It also would present environmental challenges of a slope failure on the lagoon into Swan Creek. This is also a permanent project that will have project benefits beyond the next 10 years.

Evaluation Criteria: (Describe any specific Evaluation Criteria used to prioritize funding of this project)

No specific evaluation criteria were deemed necessary or were used in evaluating this project.

Staff Recommendation

The County Engineer has reviewed this Flood Sales Tax Funding Proposal and is recommending the Committee accept the findings and recommendations of staff. These recommendations include: This project did attempt to find additional cost share funding but was unsuccessful. It meets the criteria for approval as set forth in our policy.

Recommend approval to the County Commission of the Flood Sale Tax application as the proposal meets the requirements and priorities for funding as described in the Cass County Policy 13.72 Amended County Sales Tax For Flood Risk Reduction and Recovery Projects Adopted December 4, 2017, with the following conditions: No Conditions.

Attachments

1. Funding Request Memo from the Project Owner
2. Location Map



925 10th Avenue East
Suite 1
West Fargo, ND 58078
P: 701.282.4692
F: 701.282.4530



April 11, 2022

Robert Wilson
County Administrator
Cass County, ND
PO Box 2806
Fargo, ND 58108-2806

Dear Mr. Wilson:

The City of Casselton is respectfully requesting funding assistance from the Cass County Flood Risk Reduction funds to offset project costs of a slope slide repair of Swan Creek Diversion at city lagoon cells 1 and 2. The project location map is attached for reference.

Slope sloughing along the north slope of Swan Creek Diversion, south of the wastewater primary cells 1 and 2, was first noticed by city public works spring of 2021. Vertical displacement at the top of the slope is approximately two (2) feet with the west end of the sloughing starting near the dike between lagoon cell 1 and cell 2 and continuing east a distance of approximately 180 lineal feet. The proposed project is to repair the existing slope sloughing, thus reducing the risk of further sloughing and critical failure of the slope. Critical slope failure could lead to the emptying of the primary lagoon cells into Swan Creek, which would cause flash flooding downstream in addition to environmental impacts.



Figure 1. Existing slope sloughing (looking west)



Figure 2. Existing slope sloughing (looking east)

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The total estimated project cost is \$850,000. A significant portion of the project cost is due to the requirement of installing sand fill to replace the soil removed in the area of the slope failure. This was a recommendation from the geotechnical report that was prepared by Braun Intertec. The City of Casselton is respectfully requesting \$637,500 of funding assistance, which is 75% of the estimated total project cost. However, any assistance received from the Cass County Flood Risk Reduction funding is appreciated and will directly reduce the local share and cost to the city's residents. We will be coordinating the project with the Maple River Water Resource District.

Please add this request to your next committee meeting for consideration.

Please contact me at 701-282-4692 or brandon.oye@mooreengineeringinc.com if you have any questions or need additional information about the project.

Sincerely,



Brandon Oye, PE
City Engineer

Attachments

Cc: Sheila Klevgard – City Auditor, City of Casselton

Project Description: Swan Creek Diversion Slope Repair at Lagoon Cells 1 & 2

Point of Contact: Brandon Oye (City Engineer), Moore Engineering Inc.

Estimated Project Cost: \$850,000


County Funding Requested: \$637,500 (75% of total project cost)

Other Funding Sources: The City is also pursuing State Water Commission cost-share

Who will own and maintain: Joint between the Maple River Water Resource District and the City of Casselton

MEMORANDUM

TO: Governor Doug Burgum
 Members of the State Water Commission

FROM: Andrea Travnicek, Ph.D., Secretary 

SUBJECT: NDSWC Cost-Share Request – City of Casselton
 Swan Creek Diversion Slope Repairs at Lagoon Cells 1 & 2

DATE: August 2, 2022

The City of Casselton (Sponsor) is requesting cost-share for their Swan Creek Diversion Slope Repairs at Lagoon Cells 1 and 2 project (Project). The Project is repair of a slope failure along the shared embankment between Sponsor's wastewater lagoon cells and the Swan Creek Diversion. The Project is located immediately east of the City of Casselton, North Dakota. Based on the geotechnical evaluation report submitted by the Sponsor, an ongoing leak from the lagoon system in conjunction with poor soils used in embankment construction is the likely cause of this slope failure.

DWR was initially made aware of this issue when staff were asked by the Department of Commerce to assist in the review of an application from the Sponsor for Community Development Block Grant (CDBG) emergency funding in 2021. Based on criteria for CDBG funding, and what is considered through that program to be an emergency, the Sponsor was not successful with their request. The Sponsor has since approached the Water Commission for cost-share consideration.

From a Commission Cost-Share Program eligibility perspective, staff have looked at this project from many different angles, they have visited the site, and there have been ongoing discussions with Sponsor representatives. As a result of those efforts, the following is a summary of issues related to the recommendation.

- The Sponsor has more recently asked about the possibility of the Project being considered for cost-share as a bank stabilization project. The intent of bank stabilizations within policy is to protect public infrastructure on natural watercourses. The Swan Creek Diversion is a constructed channel that the Water Commission provided cost-share to improve and reconstruct in 2008. Therefore, the Project would not be eligible from that perspective.
- Per the geotechnical evaluation provided by the sponsor, "it appears that a leak in the pond, which has possibly been occurring for decades, has induced additional water within the slope soils." In addition, based on the amount of wetland vegetation in the slump area (see photos), it is highly likely the wastewater ponds are continuing to leak. Wastewater treatment facility repair is not a category supported by the Commission's Cost-Share Policy.
- The geotechnical report does also state that "the underlying fat clays are weak in this area as demonstrated by the failure surfaces in other areas along the drain." In addition, high flow events may have, and could in the future, exacerbate slope failures/erosion along the diversion. Nevertheless, repairs of slumps in isolated areas along drains and diversions are part of regular upkeep and maintenance of diversion or drainage channels. Since the diversion has been reconstructed, that has been the case, as there have been other areas that the local water board(s) have repaired. Thus, the Project would not be eligible from this perspective either.

Therefore, I recommend the Swan Creek Diversion Slope Repairs at Lagoon Cells 1 & 2 project be considered ineligible for cost-share funding per Water Commission policy.

AT:pf:jsp/2157

Memorandum

Date: July 28, 2022

Prepared By: Brandon Oye, Casselton City Engineer

Project: Casselton, North Dakota
Lagoon and Swan Creek Diversion Slope Improvement

Subject: SWC Memo – Additional Information

Narrative:

This memorandum is being provided to staff and Commissioners to address questions and concerns on the eligibility for cost-share of the proposed project.

We understand this cost-share request for the slope failure within Swan Creek Diversion channel is not a typical project lead by the City of Casselton. Not unlike the DWR, the City's primary interests are for the wellbeing of local residents and landowners. There are two issues that are being addressed with this proposed project, 1) a diversion channel slope failure, 2) protection of public facilities (city lagoons). Of those two issues, the protection of public facilities is of the highest priority. When City infrastructure is at risk, it's the duty of that governing body to address and mitigate the problem. For this reason, the City took the lead on what normally would have been a standard Water Resource District (WRD) slope improvement project.

It is of the utmost importance that the slide, within the Swan Creek Diversion channel, not continue to the point of a wastewater pond dike failure causing an uncontrolled discharge of wastewater into waters of the State. This project is double faceted as it consists of a bank stabilization design intended to prevent damage to public facilities adjacent to a watercourse and also addresses rural flood control in the operational capacity of the existing diversion channel.

We understand there is concern of the perception that this is strictly a lagoon issue due to "leaking lagoons". The following is an excerpt from the Conclusions section of the geotechnical report completed by Braun Intertec:

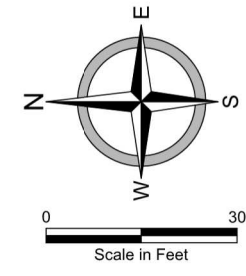
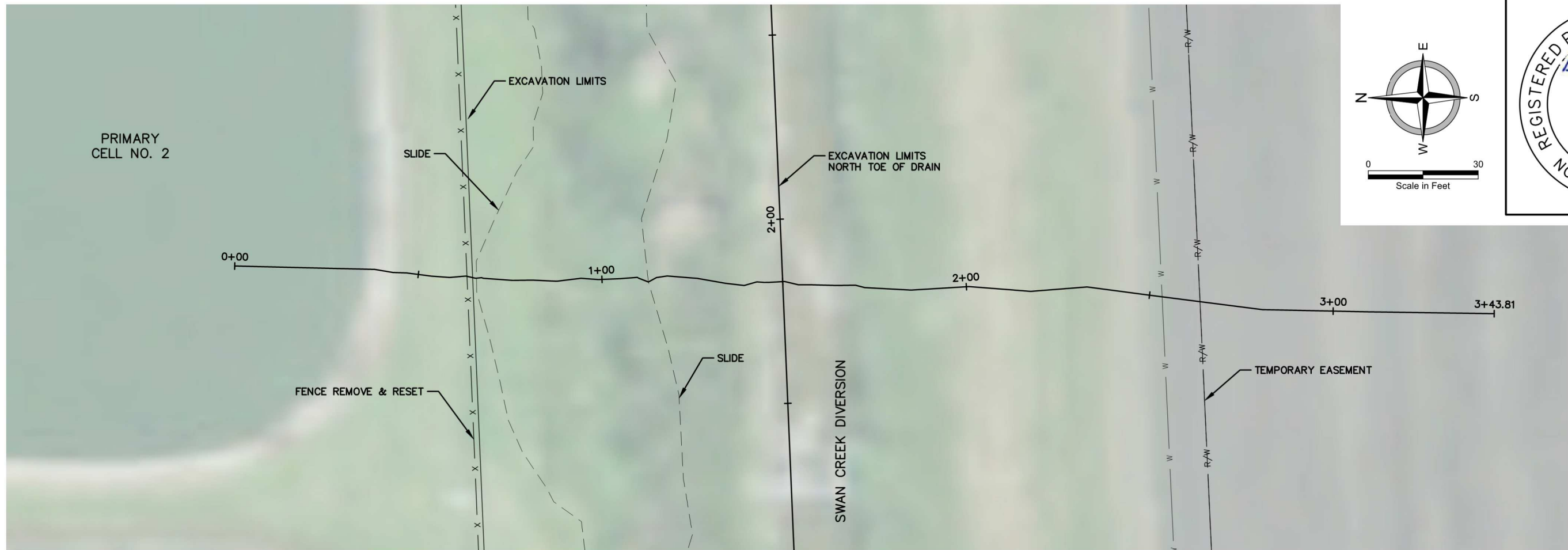
"Based on our site observations, subsurface exploration, and nature of the site, it appears that a leak in the pond, which has possibly been occurring for decades, has induced additional water within the slope soils. The leak may have saturated the clay soils in the drain slope causing the material to be in a heavier state, often associated with saturated soils from high water levels (or flooding) in riverbanks or drain slopes. In addition to the likely addition of water into the slope, the underlying fat clays are weak in this area of Casselton as demonstrated by the failure surfaces in other areas along this drain, including one just to west with similar subgrade soils and no lagoon above. It is difficult to determine which was the larger contributing factor as these types of failures are often multifaceted." (Braun Intertec. B2103866)

Ultimately, it is inconclusive as to exactly what the failure was caused by or which played a larger factor; seepage or poor soils. One question we'd like to review is, if the diversion was not sharing a bank with the lagoon, would this slide have happened on the outer banks of the lagoon dike? We believe that the answer is that it would not have occurred. This isn't a failure we have seen along other lagoons we work with, but is a slide typical of channel slope failures within the Red River Basin, one happening just upstream of this area with no lagoon above it.

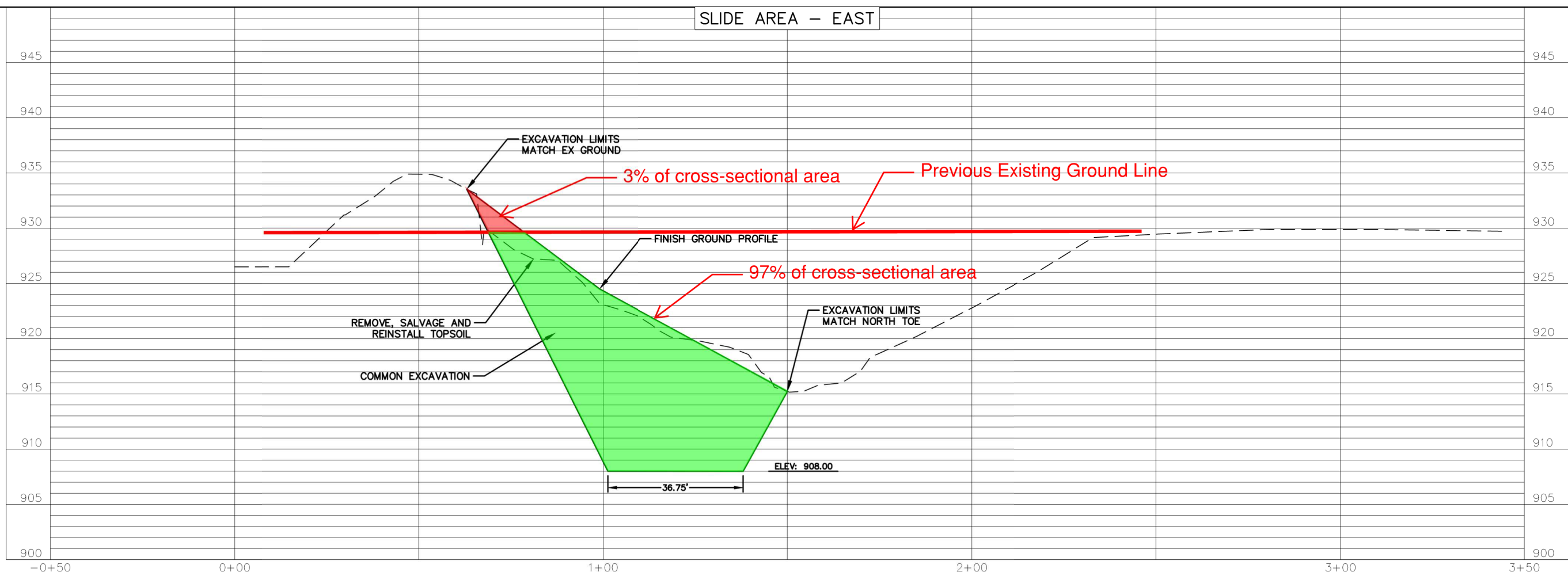
We are looking for a combined effort between the DWR, the City of Casselton and the WRD to protect both public waters and infrastructure with a cost-share of this project.

Commissioner Walker recommended an approach to only cost-share on the portion of the project that is critical to the operation of the Swan Creek Diversion channel, less any improvements that could be considered strictly for the lagoon dike. We have provided an attached drawing that shows an approximate "previous existing ground line" prior to the construction of the lagoon or channel. We are respectfully requesting that at minimum, the DWR provides cost-share towards the portion of the improvements that fall below this "previous existing ground line". The cross-sectional area of the improvements that are located below this line is 97% of the total cross-section area of the improvements. **With this information, we are respectfully requesting the Commission consider a cost-share of 97% of the typical 45%, which equates to 43.6% of eligible costs.** We appreciate the time and effort that Commissioner Walker and the DWR staff has put towards this application, and are hopeful that the SWC will see this as an appropriate project to support.

FILE LOCATION: R:\Projects\21000\21900\21921\DRAWINGS\DESIGN\21921-PP.dwg



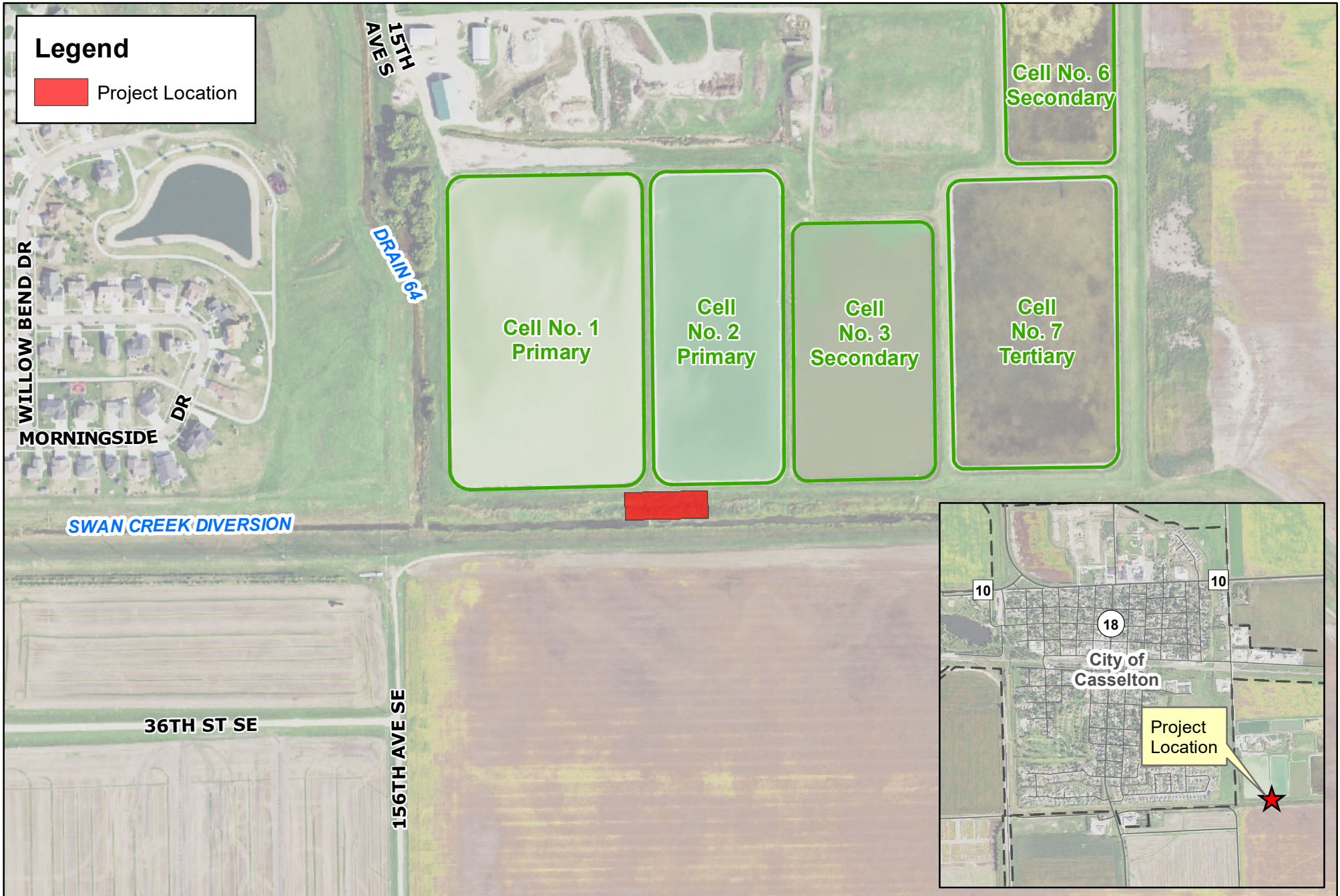
PLAN AND PROFILE
LAGOON AND SWAN CREEK DIVERSION SLOPE REPAIR
SEWER IMPROVEMENT DISTRICT NO. 2022-2
CITY OF CASSELTON, NORTH DAKOTA
SLIDE CROSS SECTION



DATE:	07.08.22
REVISED:	---
REVISED:	---
REVISED:	---
REVISED:	---
REVISED:	---
RECORD:	---
PROJECT No.	21921
MANAGER:	BLO
DESIGNER:	ZAC
DRAFTER:	RJK
REVIEWER:	BOB

Legend

 Project Location



PROJECT LOCATION MAP SWAN CREEK SLOPE REPAIR AT LAGOON CELLS 1 & 2 CASSELTON, NORTH DAKOTA

Created By: TJS Date Created: 04/08/22 Date Saved: 04/08/22 Date Plotted: NEVER Date Exported: 04/08/22
Plotted By: Tanner Schmidt Parcel Date: N/A Aerial Image: 2021 County NAIP SIDS Elevation Data: Lidar
Horizontal Datum: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet Vertical Datum: NAVD1988
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