

Mak, Jay

From: Bruce Shewfelt <shewfeltpbs@outlook.com>
Sent: August 1, 2023 5:47 PM
To: Mak, Jay
Cc: Russell Jonk; David Whetter
Subject: RE: Swansfleet Alliance - Irrigation Project (6173.00)
Attachments: eap 97.pdf; Ag Class Groupings for Wetland Determination.pdf

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Hello Jay.

Just an update.

1. We are gearing up for HRIA for irrigation pipeline routes.

2. With regard to pivots and wetlands. Swansfleet Alliance has experience with working around wetlands (e.g., the Class 5 land along the northern edge of the section (e.g., start of gully through 17-9-9 W1)). Swansfleet would implement one of two approaches. A windshield wiper approach to running the pivot. This is employed where it is not possible to traverse the wetland and the pivot reverses to avoid it. The second approach is a small footprint land bridge used to run the pivot past the wetland. In this case Variable Rate Irrigation technology is utilized to turn the pivot "off" during traversing the wetland and prevent any direct interaction of pivot water / fertigation with the wetland.

3. Next Gen Drainage Solutions are preparing an application for tile drainage (and surface drainage) of the pertinent ((e.g., imperfectly drained) soils on this section). This will include a submission to Drainage and Water Licensing Branch. PBS Water Engineering Ltd. is assisting with a report required by Manitoba Infrastructure to allow discharge of tile drainage to the PR 242 ditch(s). I expect that report to be done by next week. Once Next Gen files the application to Drainage and Water Licensing Branch it will up to the Branch to identify any areas that cannot be tile drained (e.g., wetlands).

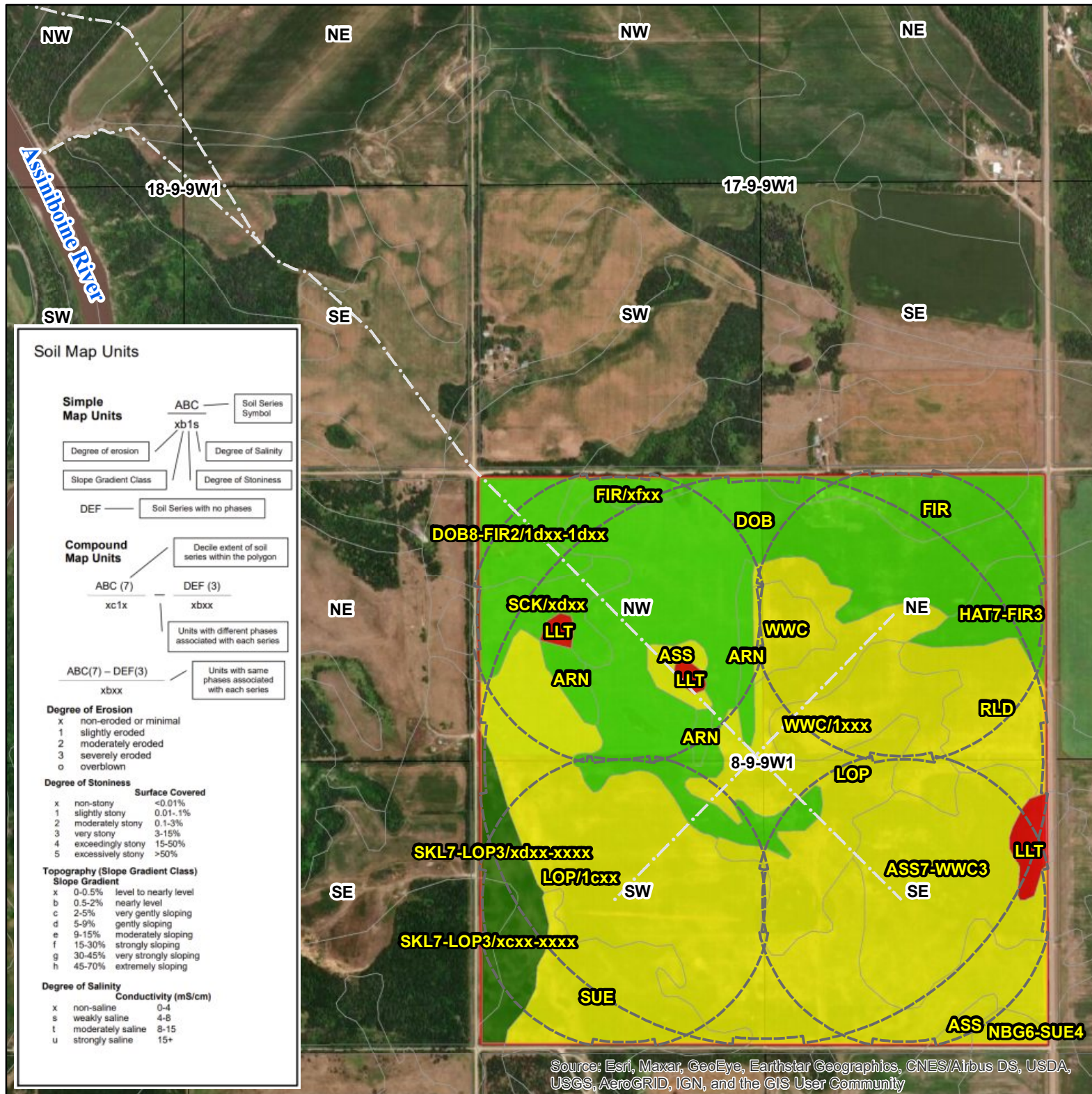
The attached shows limited Class 5 soils (aka --- Class 3 grouping) on the section (e.g., LLT (wetness; poorly drained) and FIR/DOB (topography)). The Class 6 soils (aka ---- Group 4) are eolian (and do not require tile drainage). Otherwise the section is rated as Group 1 or 2. I have asked Russel if any land is excluded from cultivation and planting in recent years.

Hope this helps to move the Environmental Act License to completion in draft format for review by owners. The Drainage and Water Licensing Branch approvals are being sought simultaneously.

Please advise if any questions.

Regards

Bruce Shewfelt, P.Eng.



Map Number

5

Map Name

Soils & Drainage Class

Project Name

Swansfleet Irrigation Project

PREPARED BY

PBS Water Engineering

agriearth consulting ltd.

DRAWING SCALE

1:15,000

DATE

January 15, 2023

DRAWN/CHECKED

DAW/PBS

Acknowledgements:

Original drawing by AgriEarth Consulting Ltd.

Data accessed from Manitoba Land Initiative, Province of Manitoba.

N



0 100 200 400 600 800

Meters

Legend

--- Pipelines

--- Pivots

--- Irrigation assessment area

Drainage Class

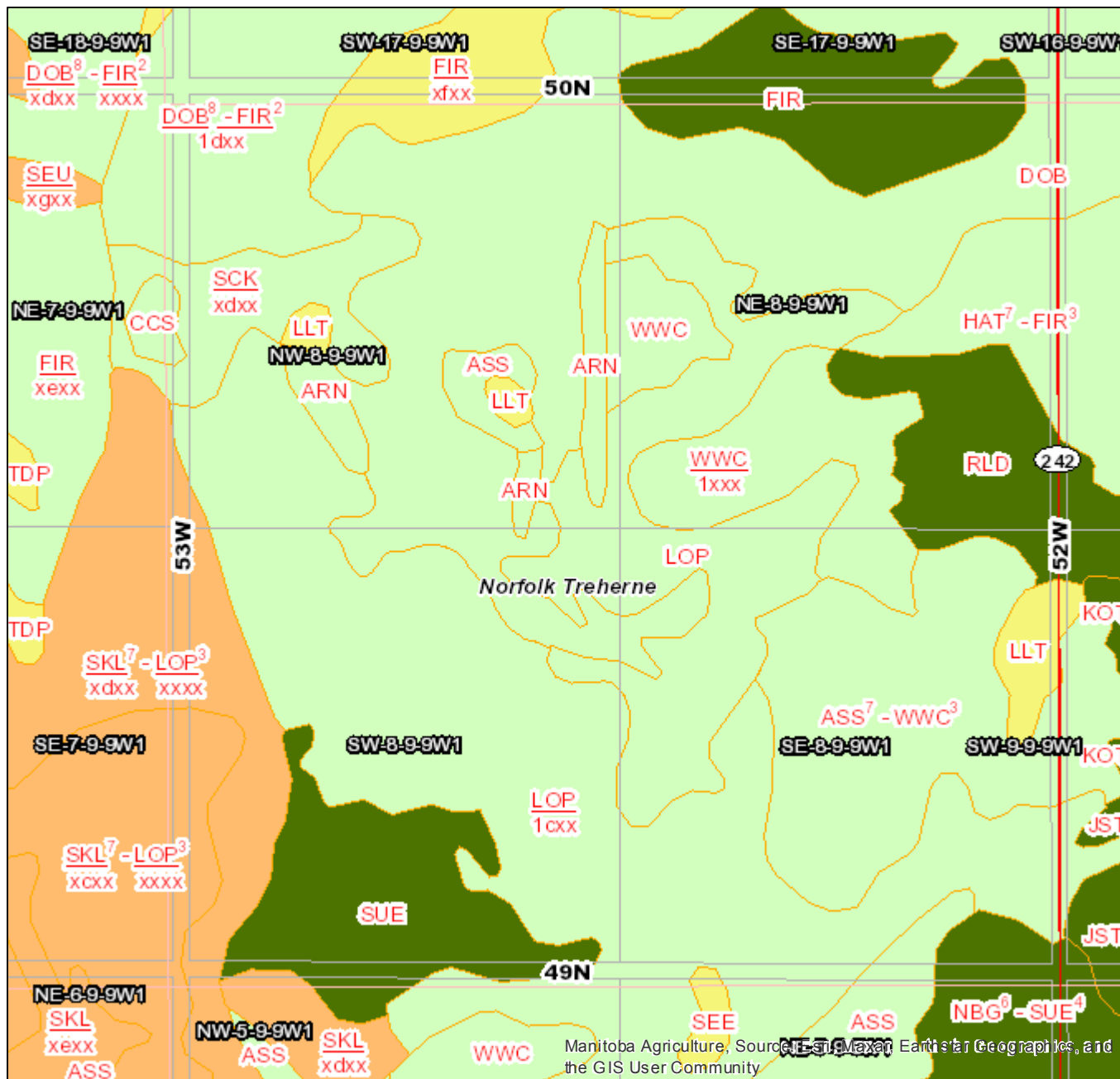
Rapid

Well

Imperfect

Poor

Manitoba AgriMaps



Legend

- Towns and Places
- Riding Mountain National Park
- Waterbodies (NTS 1:20,000)
- Provincial Trunk Highways**
 - Provincial Trunk Highways
- Provincial Roads and Access Roads**
 - Provincial Roads
 - Access Roads
- Manitoba Boundary
- Municipal Boundaries
- Mile Markers
- Township Boundaries
- Quarter Section Lines and River Lots
- Section Grid
- Provincial Parks
- Dryland Agricultural Capability Groupings**
 - Group 1
 - Group 2
 - Group 3
 - Group 4
 - Water
 - Unclassified land
 - Modified land
 - Urban land
 - Not Applicable
- Water Labels
- Watercour... (NTS 1:20,000)

0 0.25 0.5 0.75 1 Kms

1:18,056

29/07/2023

WGS 1984 Web Mercator Auxiliary Sphere



Manitoba Agriculture, Source: Soil Survey of Canada, and the GIS User Community

Manitoba Agriculture makes every effort to ensure that soil survey data and interpretations are accurate, verified, and up-to-date. However, as data is continuously updated, sorted and verified, future updates may contain additional information.

