

## RURAL MUNICIPALITY OF ALEXANDER

**Classification: Policy**

**Number: PW-009**

**Subject: Municipal Drainage Policy**

**Resolution No.: 2017 418**

**Adoption date: July 11, 2017**

**Amended date:**

### **PURPOSE**

The RM of Alexander is the drainage authority for all lands within its jurisdiction, with the exception of natural waterways and Province of Manitoba designated drains and as such this policy outlines the RM's policy procedure in regards to all drainage projects that fall within the RM's jurisdiction.

### **POLICY STATEMENT:**

#### **POLICY:**

Definition of Drainage: Drainage means a natural or artificial channel or subsurface tile which provides a course for water flowing continuously or intermittently.

#### Surface Drainage Policy:

1. Construction and maintenance of municipal ditches are the jurisdiction of the RM of Alexander and Sustainable Development.
2. Construction and maintenance of Manitoba Infrastructure (MI) provincial highway ditches are the jurisdiction of the RM of Alexander, Sustainable Development and MI.
3. Construction and maintenance of Provincial drains and natural waterways are the jurisdiction of Manitoba Water Resources and Sustainable Development.
4. The Municipality requires all private drains to be licenced in compliance with Manitoba Provincial Government rules and regulations. The Municipality will refuse drainage requests if the landowner is not in compliance.
5. All requests received will be reviewed by the municipality. The Council of the RM of Alexander, with the assistance of the Public Works Department, establishes an annual municipal drainage works plan to be funded as part of the municipal budget. Additional drainage projects may be added as time and budget allow.
6. The Public Works Manager delegates and completes the surveying and licensing and provincial approvals as required.
7. The Public Works Manager in consultation with Council determines the timing and scope of work.
8. Requests for additional culverts or modified field approaches are addressed as per the Approaches and Culverts Policy.

## **Two-Tiered Drainage Option Policy**

On any given year, the municipality receives many drainage requests from landowners. As the municipality prioritizes its projects for the annual drainage plan, many smaller projects are deemed to not have as much benefit to the overall municipal drainage system compared to the projects approved on the annual municipal drainage plan. These projects are often left on the drainage list requests for several years until they are approved by the municipality on the at-large annual drainage plan in following years.

The municipality is offering an alternative to landowners wanting these minor drainage projects to be completed in a timely manner. This “two-tiered drainage policy” should help attain this goal.

The municipality would like to offer the landowner the opportunity to fund the drainage project under this policy to expedite the completion of the works. This policy shall provide the process on how these works shall be applied for, reviewed, managed, and funded.

1. Once the municipality has approved the Annual Municipal Drainage Program in early spring, the Public Works Department shall contact the landowners to inform that their projects were not approved for the current year. They will be offered the opportunity to apply for the Two-Tiered Drainage Option.
2. If the Landowner is interested, a signed application, (Alexander Drainage Application Form) must be submitted in writing to the Public Works Department for processing. The application shall go through a maximum 45 day review period to ensure that the completion of the survey, design and drainage licence application.
3. Project will undergo a review by the Public Works Department and the Works to ensure that the project makes sense and will not be detrimental or will have negative impact downstream or to the watershed.
4. The project will also be reviewed by Manitoba Sustainable Development as part of the Drainage License Application process. It is to be noted that the municipality does not have control over the length of time that is taken for the provincial review process. Projects will not proceed without a provincial drainage license.
5. The Public Works Department shall prepare an estimate on the cost of undertaking the drainage works. The landowner shall have an opportunity to review the proposal, and if he or she agrees, then a monetary deposit for the entire estimated cost of the proposal shall be presented to the municipality prior to the commencement of the works.
6. The Landowner shall be responsible for the actual cost of the drainage project, which will include hard costs such as the contractor services, licensing, culverts and utility clearances. The municipality shall cover the soft costs of the drainage project which would include the engineering and survey time and mileage spent on the project.
7. The municipality shall be the project manager at all times, which includes providing an estimate for the project to the landowner, approving and overseeing the contractors. At no time shall a landowner intervene or control the contractor hired by the municipality. All contractors working on municipal infrastructure shall be approved through Alexander Public Works Contractor registry/list.

## **Tile Drainage Policy**

Tile drainage is a widely used drainage system employed in most major crop producing areas in North America. The RM of Alexander will work with producers to accommodate tile drainage systems but these installations shall be installed in accordance with the following rules and regulations:

1. Tile drainage must comply with all rules and regulations of the Province of Manitoba, and specifically in accordance with the "Drainage and Water Control Licensing Tile Drainage Requirements Fact Sheet" (attached as Schedule "A")
2. Tile Drainage Projects will be reviewed in large part based on location within the Municipality and specifically in relation to soil types found within the municipal boundaries. Poorly draining soils with high water table components or artesian conditions will be noted as areas of concern. Manitoba Agricultural Services Maps will be used to assist in soil quality determination (attached as Schedules "C" and "D")
3. Tile drainage with outlets into the municipal drainage system must be approved by the Council as per the following requirements:
  - a. Initial requests shall be directed to the RM of Alexander Public Works Department or Council in writing;
  - b. That a satisfactory and complete engineering report, also known as an "Opinion of impact of Tile Drainage System for Field" be submitted to the municipality confirming that municipal infrastructure will not negatively impacted by the proposed tile drainage infrastructure.
  - c. The Council shall require copies of tile drainage licenses issued by Manitoba Conservation and Water Stewardship to be completed prior to the commencement of installation of tile drainage. Landowners seeking tile drainage approvals will have the applications reviewed by the Municipality within a 45 day period.
  - d. The application shall be dated, have the designer's and the installer's name and contact information. The maps must be clear and depict the drainage design in detail including type and location of outlets and all design parameters.
  - e. Drainage co-efficient of the tile outlet shall not exceed one quarter of an inch. Tile drainage installations shall not use perforated main drains unless prior approval has been received.
  - f. Erosion control measures of all outlets shall be installed to the satisfaction of the Municipality.
  - g. All construction procedures including removal of ditching material and access on private lands will be dealt with on a project by project basis and will be project managed by the Public Works Department notwithstanding the further requirement for the applicant to address downstream drainage concerns as identified by the municipality.
  - h. Tile drainage water shall only be discharged into a natural grassed waterway, municipal or provincial drain and shall not cross private lands without prior licensed approval. Tile drain outlets should discharge into natural or provincial waterways as directly as possible to minimize impact on downstream municipal drains.
  - i. Where possible, tile water should be part of an integrated water management strategy including drainage and irrigation.
4. Tile drainage projects requiring modifications to existing municipal drains shall be the sole responsibility of the applicant and shall comply with the Private Drainage Works Policy attached as "Schedule B".

Failure to comply with the above rules and regulations in regards to surface or tile drainage shall be subject to the RM of Alexander drainage policy and all fines, penalties and sanctions as may be applied by the Province of Manitoba.

### **Vegetation Control within municipal drains**

The Rural Municipality of Alexander staff shall not be authorized to set fire to dry vegetation in municipal drains. The municipality will allow landowners/farmers to maintain vegetation and crop residue along municipal drains as per the Fire Prevention and Emergency Services Bylaw.

*Original signed by Reeve Garand*  
Reeve Raymond Garand

*Original signed by CAO Spicer*  
CAO Scott Spicer

Rural Municipality of Alexander  
Schedule “A” Surface & Tile Drainage Policy



**DRAINAGE AND WATER CONTROL LICENSING**

**TILE DRAINAGE REQUIREMENTS FACT SHEET**

This Factsheet is intended for proponents of tile/subsurface drainage projects.

**THE WATER RIGHTS ACT AS IT RELATES TO TILE DRAINAGE DEVELOPMENT**

The Water Rights Act suggests that no person shall control water or construct, establish or maintain any water control works unless he or she has a valid and subsisting licence to do so.

Water control works are defined as any dyke, dam surface or subsurface drain, drainage, improved natural waterway, canal, tunnel, bridge, culvert borehole or contrivance for carrying or conducting water, that temporarily or permanently alters or may alter the flow or level of water, or may change the location or direction of flow of water, including but not limited to water in a water body, by any means, including drainage.

Tile Drainage networks are considered Water Control Works and therefore require licensing under the auspice of The Water Rights Act prior to installation.

**APPLICATION FOR WATER RIGHTS LICENCE**

To apply for a Water Rights Licence a completed licence application along with the licence fee must be submitted to Sustainable Development at the address indicated on the application form

Application forms can be obtained from Water Stewardship from our Regional offices or Water Resource Officers.

**TILE DRAINAGE PROJECT LICENSING REQUIREMENTS**

Water Stewardship requires the following technical information prior to the issuance of a Water Rights Licence for a tile drainage project:

- Legal location (section township range) of proposed project
- Number of acres to be tiled within the land description
- Written Landowner and municipal consent

## **PROPOSED TILE DRAINAGE NETWORK DETAILS INCLUDING:**

### **LATERAL PIPES**

- location, size, flow direction
- Perforated Lateral pipe depth - average depth of lateral not to exceed 36 inches (3 feet) unless proponent can demonstrate need
- Pipe gradient
- Detail connection between lateral and header pipe

### **HEADER PIPE DETAILS**

- Header pipe location, size, depth and outlet location, flow direction
- Proposed runoff co-efficient should not exceed the 3/8 24 hour co-efficient.
- Co-efficient and system design shall include proposed system runoff rate (units l/s, cfs)
- Header pipe outlet to be designed so that an operational control structure may be installed if required
- Perforated Header pipe depth – average depth of perforated pipe invert depth not to exceed 60 inches (5 feet)
- Any pipe exceeding 60 inches in depth (5 feet) should be non-perforated unless need for perforated can be demonstrated by proponent

### **PROJECT OUTLET**

#### **ALL TILE DRAINAGE OUTLETS REQUIRE:**

- Outlet to be rip rapped
- Outlet pipe location to be marked/identified by visible bollards, antennae or by any other means identified by affected municipality, Conservation and Water Stewardship or other provincial agencies

#### **ADDITIONAL OUTLET STRUCTURE INFORMATION IS REQUIRED FOR:**

#### **SUMP PIT/PUMP OUT STRUCTURES**

- Proponent to provide design drawings which detail pit location, pump size, location, proposed pump rate
- Pump Out electrical Panel to be equipped with an acceptable recording device (eg HOBO Data Logger) which annotates pump operations including length and frequency of pump operations.
- Annual proposed pump shut off date
- Proposed water/float level within the structure that the pump will operate – meaning what is the proposed water level (relative to prairie elevation) at which point the pump will activate and remove water from the structure

#### **CONTROL STRUCTURE**

- If a control structure is deemed necessary on the outlet pipe - location and type of operational flow control structure and proposed operating plan to be detailed.
- Please note that in higher land slope areas where overall internal tile system elevation differences exceed 30 inches, additional internal flow control structures may be required

#### **LANDOWNER AND AGENCY SIGNOFF REQUIREMENTS**

- For systems that outlet into municipal drains within one mile of the tile outlet and stays within the municipal drainage system written approval from the affected municipality is required.
- If the municipal drainage system outlets into/becomes a natural waterway within 2 miles of the proposed outlet, additional landowner signoff may be required
- For systems that outlet into natural drains that cross private property – written landowner approval is required for any affected landowner within 2 miles downstream of any outlet
- For any systems that outlet into the Provincial Drain or Highway network, written authorization from the affected government agency is required
- All tile works must be have a minimum 50 meter setback from any semi permanent or permanent wetland

## **RECEIVING DRAINAGE NETWORK REPORT**

Proponent must clearly detail in the project report with drawings the route from the proposed outlet of the tile drainage network's point of entry into the existing drainage system to the point where the discharge would enter an established drain/creek/river/lake etc. for a minimum of 2 miles downstream of the proposed project.

## **PROJECT IMPACT STATEMENT REQUIREMENTS**

A Project impact Statement consisting of an Engineer's/Hydrologist's report may be requested for tile drainage projects in sensitive areas. These reports will contain among other things technical drawings showing the location extent of the proposed works, the route proposed from the point of entry into the existing drainage system to the point where the discharge would enter an established drain/creek/river/lake/etc. Additionally the applicant may be requested to provide pre and post development discharge calculations to prove discharge rates have not changed and will not result in a negative effect on downstream landowners or infrastructure.

Additional landowner signoff may be required for projects in sensitive areas. The extent of landowner signoff will depend on the scope of the project being applied for

## **ADDITIONAL APPROVALS**

Please note some municipalities or government agencies may have additional requirements with respect to tile drainage that will need to be adhered to in order to obtain approval for a tile drainage project. Project proponents are advised to contact the municipality directly.

## **AS BUILT DRAWINGS**

**As a final condition of approval as built drawings of the final installed tile drainage are required**

For any additional questions related to the Water Rights Licence process please contact:

Eastern Manitoba (Winnipeg, Capital Region and surrounding areas)

Ginette Caillier – Senior Water Resource Officer at (204) 392-2736, email: [ginette.caillier@gov.mb.ca](mailto:ginette.caillier@gov.mb.ca)

Western Manitoba (Brandon and surrounding area)

Darren Nicklin – Senior Water Resource Officer at (204) 572-7265, email: [darren.nicklin@gov.mb.ca](mailto:darren.nicklin@gov.mb.ca)

Mailing address is Box 4558, Stonewall, MB R0C 2Z0

Michael Maksymchuk – Water Resource Officer at (204) 641-2613, email: [Michael.maksymchuk@gov.mb.ca](mailto:Michael.maksymchuk@gov.mb.ca)

## Rural Municipality of Alexander

### Schedule "B" for the Application for Private Drainage Works

The Rural Municipality of Alexander will permit the work once the landowner and/or the applicant has reviewed this agreement letter and returned a signed copy to our office, confirming the acceptance of the following conditions:

Location:

1. The Rural Municipality of Alexander will acquire the necessary drainage license from Sustainable Development. A copy of this license shall be forwarded to you when you provide our office with a signed copy of this agreement, and before any works commence.
2. The work shall be constructed as per the conditions outlined in the approved Drainage License from Sustainable Development;
  - a. Unless specified, the applicant and/or the landowner will control the spring water runoff and assure the proposed drainage works do not increase the downstream water flow in spring runoff conditions.
  - b. The applicant and/or the landowner shall submit the proposed drainage project in a timely fashion. The proposal should include an initial survey including proposed slopes and grades.
  - c. If the initial proposal is approved by the RM of Alexander a detailed survey and scope of work will be provided to the RM. The applicant shall comply with all requirements provided in the scope of work.
  - d. The application and/or the landowner will ensure that proper erosion control methods are followed, including the use of erosion control blankets, rip-rap material and temporary biodegradable erosion control blanket where necessary.
3. The landowner shall be responsible for all utility relocation and protection, including, but not limited to, MTS and Manitoba Hydro and shall be liable for damage caused to utilities located at this site.
4. When requested, all disturbed areas (i.e. grade slopes, ditches, field drains) shall be trimmed, re-seeded and restored to an acceptable condition within 60 days of completion.
5. The applicant and/or the landowner shall be responsible for the restoration of any erosion, slope failure, or road settlements, for a period extended to December 31 of the year following the date on which the construction or modification was completed.
6. Any excess excavated material shall be disposed of or leveled to an acceptable condition.
7. The construction, installation and maintenance operations of the permitted drainage works, shall be accomplished with minimal interference of the use, operation and maintenance of the Province's right-of-way, and shall in no way, endanger the general public in its authorized/legal use of the right-of-way.
8. The applicant and/or the landowner shall contact the RM of Alexander a minimum of 48 hours in advance of the work being undertaken.
9. The applicant and/or the landowner shall be held liable for any damage, injury or destruction resulting from the negligence of their staff and/or agents and maintain ongoing \$5 million liability insurance coverage for the duration of the work, and if requested shall provide evidence. For clarity this refers directly to works within the R.M. of Alexander right-of way.
10. This agreement is subject to any restrictions and/or regulations imposed by any other Government body (i.e. Manitoba Environment, DFO) and does not relieve the landowner and/or the applicant from having to comply with the requirements.
11. If remedial works are required to be done by the RM of Alexander to rectify a drain that does not comply with the Sustainable Development License and the Drainage Plan of the



RM of Alexander as approved, the costs of such work will be the responsibility of the landowner.

Thank you for your cooperation in this matter. Construction must not commence until the applicant and/or the landowner has received a signed copy back from the Rural Municipality of Alexander

ACKNOWLEDGEMENT

I, \_\_\_\_\_, of \_\_\_\_\_  
agree to comply with the conditions and recommendations outlined in this letter.

IN WITNESS WHEREOF the parties hereto agree to the above conditions.

\_\_\_\_\_  
Landowner (required signature)

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Application (only if different from landowner)

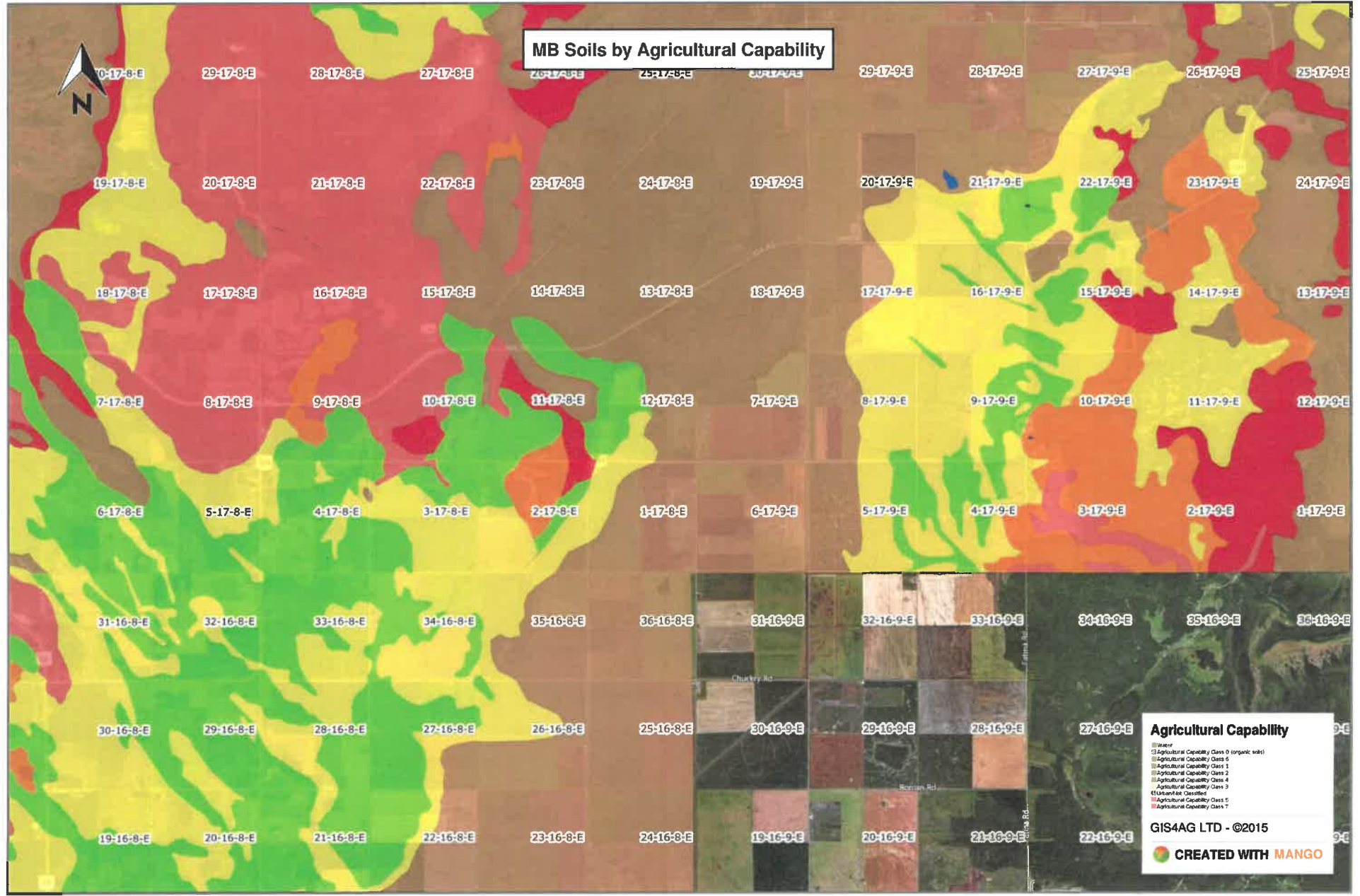
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Witness

Date: \_\_\_\_\_

APPROVAL:

\_\_\_\_\_  
Scott Spicer, Chief Administrative Officer

# MB Soils by Agricultural Capability



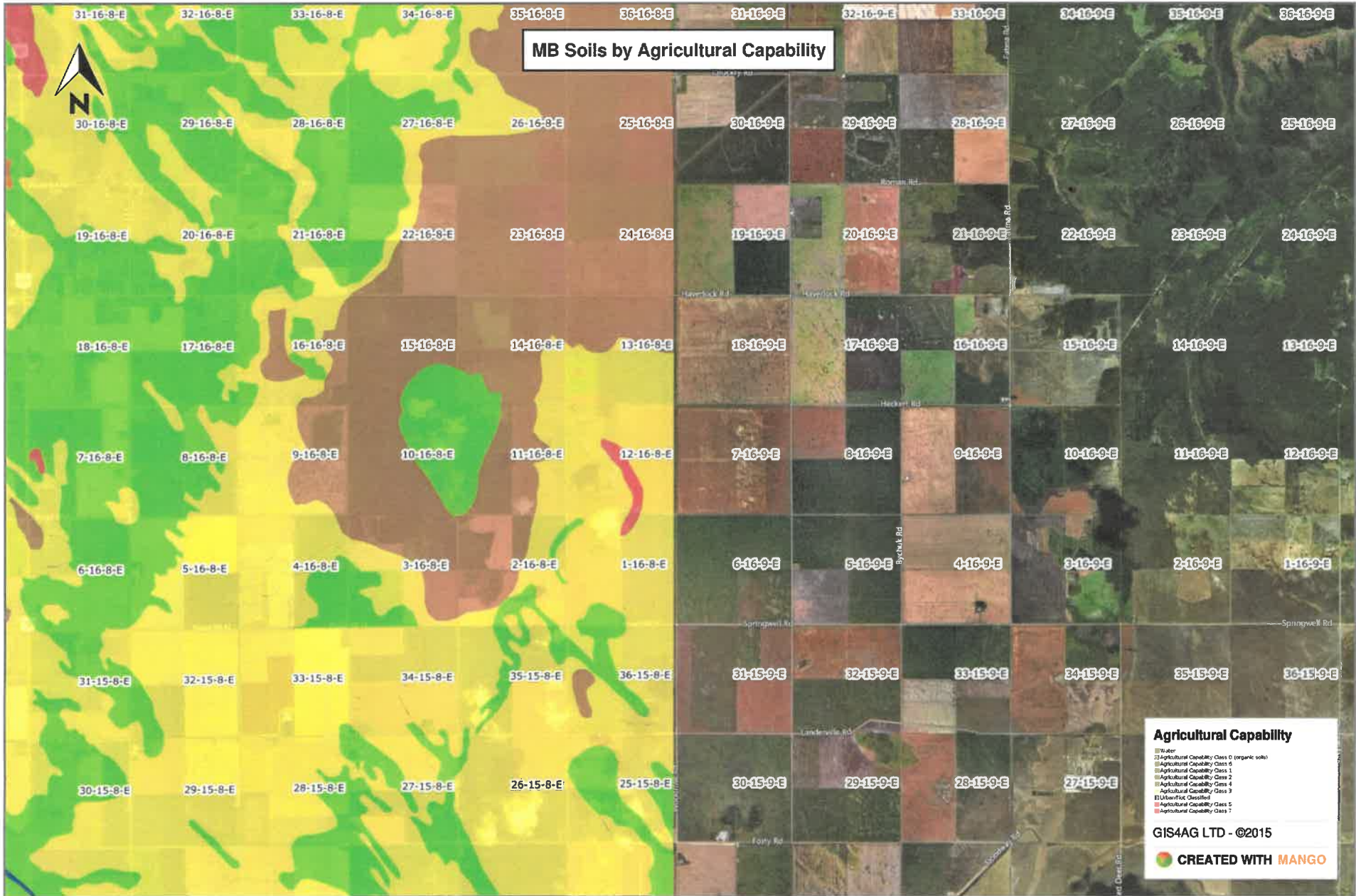
**Agricultural Capability**

- Water
- Agricultural Capability Class 0 (organic soils)
- Agricultural Capability Class 5
- Agricultural Capability Class 1
- Agricultural Capability Class 2
- Agricultural Capability Class 4
- Agricultural Capability Class 3
- Unsuitable Classified
- Agricultural Capability Class 6
- Agricultural Capability Class 7

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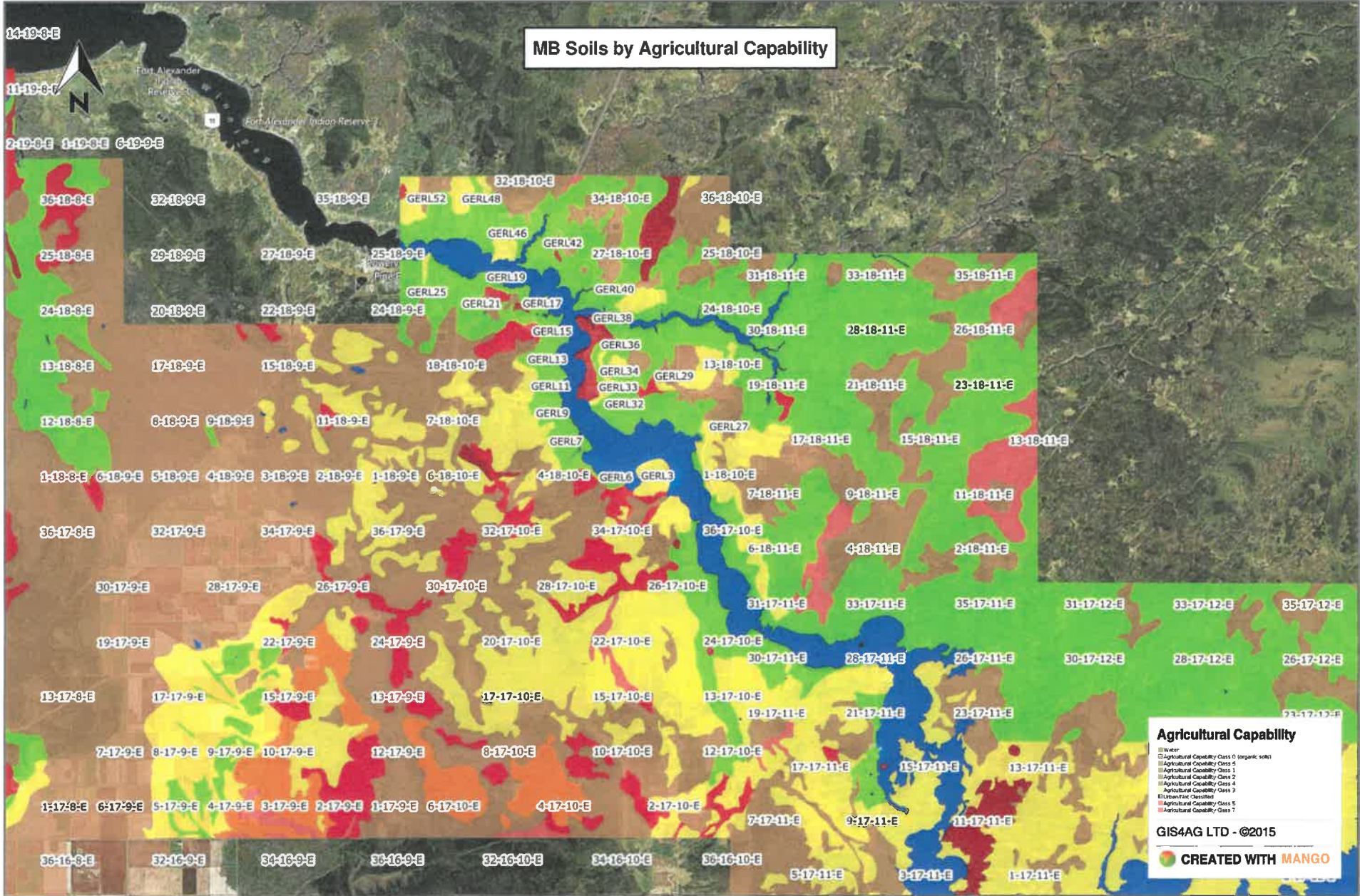
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# MB Soils by Agricultural Capability



**Agricultural Capability**











- Water
- Agricultural Capability Class 0 (purple soils)
- Agricultural Capability Class 4
- Agricultural Capability Class 1
- Agricultural Capability Class 2
- Agricultural Capability Class 3
- Unclassified
- Agricultural Capability Class 5
- Agricultural Capability Class 7

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**Map Legend**

**Agricultural Capability** ✓

-  Agricultural Capability Class 7
-  Agricultural Capability Class 5
-  Urban/Not Classified
-  Agricultural Capability Class 3
-  Agricultural Capability Class 4
-  Agricultural Capability Class 2
-  Agricultural Capability Class 1
-  Agricultural Capability Class 6
-  Agricultural Capability Class 0 (organic soils)
-  Water