



STORMWATER MASTER PLAN UPDATE

Governance & Priorities Committee

October 4, 2022

Stormwater Master Plan

- Council directed initiative
- Driven by continued drainage related concerns raised by residents
- County wants to have a better understanding of its role relating to:
 - regulatory and approval authority
 - operation and maintenance
 - infraction enforcement and
 - oversight related to stormwater management.



Timeline

- Project Charter presented to Council December 14, 2021
- ISL Engineering and Land Services selected as project consultant – March 2022
- Meetings with County departments – May / June 2022
- 50% draft report – Sept 30/22
- Study wrap up – March 2023

Scope of Study

- Phase 1 – Stormwater Management Plan
 - Task 1: Basin Identification
 - Task 2: Regulatory Review
 - Task 3: System Management
- Phase 2 – Tools and Resources
 - Scope to be determined during Phase 1



Information Reviewed to Date

- Federal and Provincial legislation and regulations
- Parkland County MDP, LUB regulations
- ASPs, Conceptual Schemes, servicing studies
- Engineering design standards
- Drainage operation and maintenance database
- Strategic Overview – Bridge Files 2021

Field Tour

- Agricultural
 - drainage with constructed watercourses
- Country residential areas
 - Southeast – flat areas
 - Glory Hills – knob & kettle country
 - Jackfish Lake – new development with current design standards
- Acheson Industrial
- Wabamun

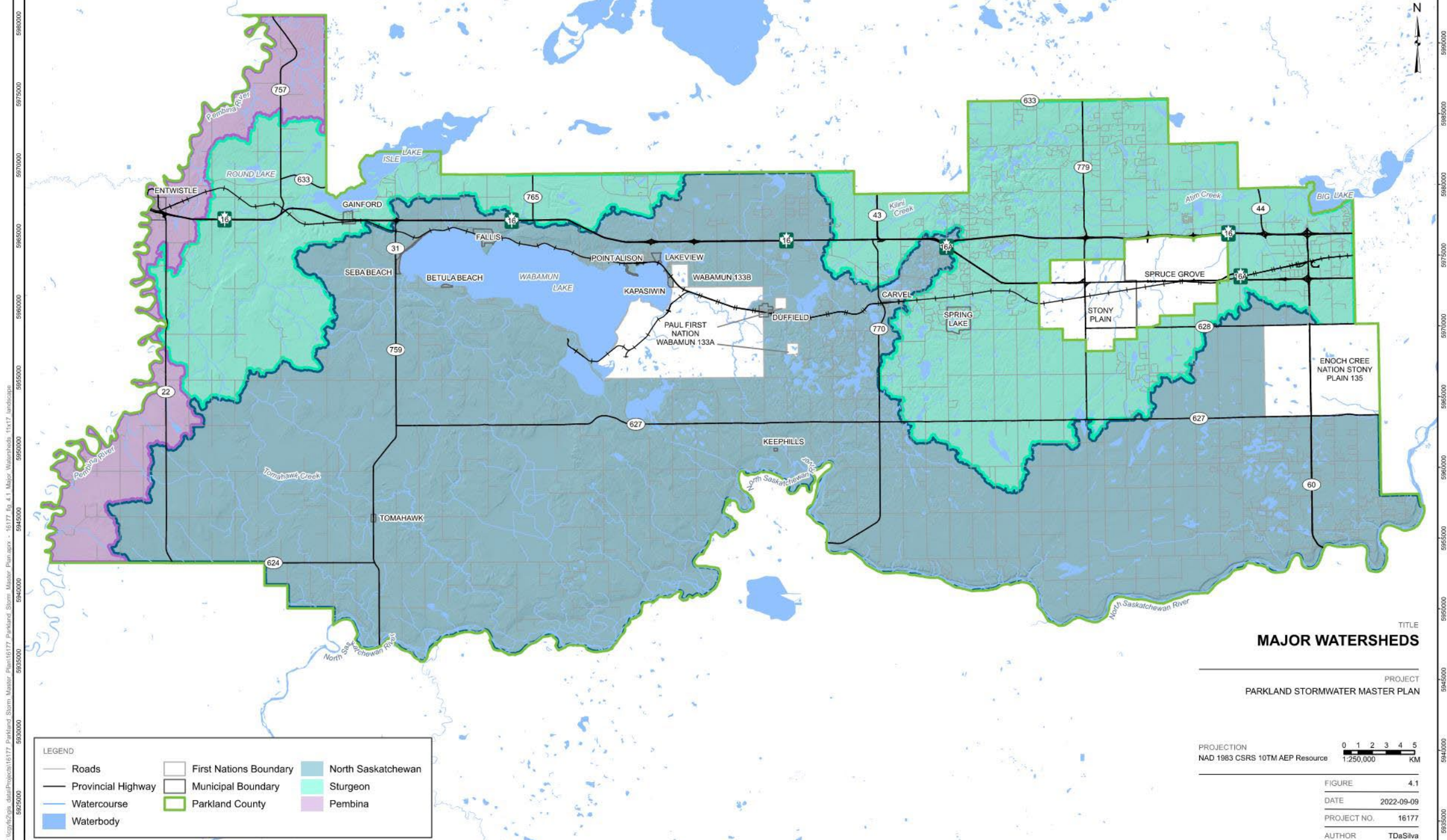


County Administration Input

- Project team meetings to date:
 - Planning & Development Services
 - Engineering Services
 - Land Development Engineering
 - Capital Construction
 - Engineering Projects
 - Public Works
 - Roadway Maintenance & Drainage
 - Agriculture Services
 - Enforcement Services
 - Information Services

Basin Identification & Mapping

- River watersheds, creek basin boundaries
- Detailed topographic mapping
- Drainage patterns identified
- Existing and planned storm drainage infrastructure
- Detailed “mapbooks” created – 124 separate maps 1:20,000
- Identification of drainage problem areas
 - Site visit by project team



LEGEND		
	Roads	
	Provincial Highway	
	Watercourse	
	Waterbody	
	First Nations Boundary	
	Municipal Boundary	
	Parkland County	

TITLE
MAJOR WATERSHEDS

PROJECT
PARKLAND STORMWATER MASTER PLAN

PROJECTION
NAD 1983 CSRS 10TM AEP Resource

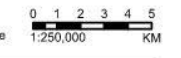
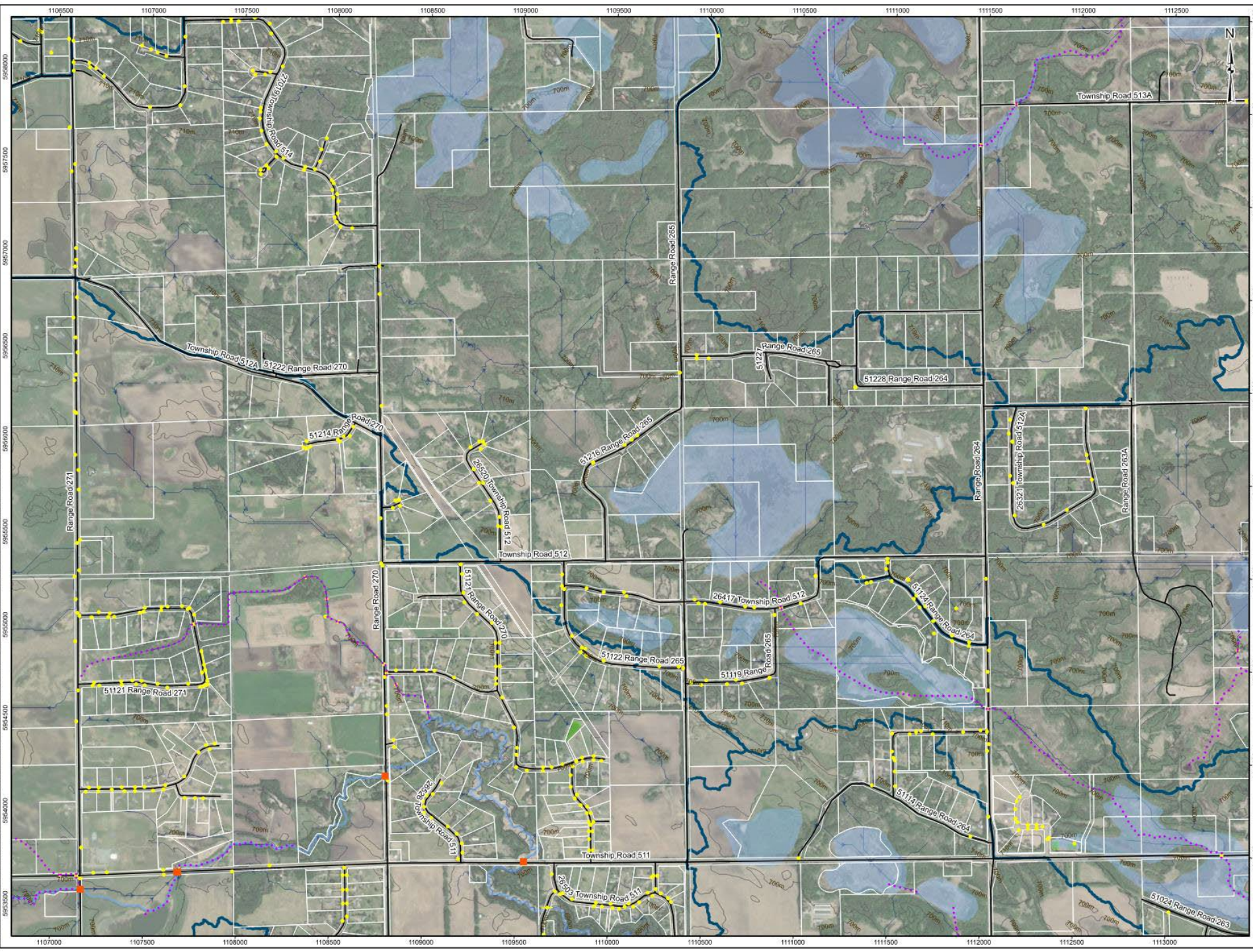











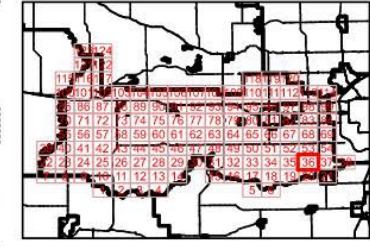


FIGURE	4.1
DATE	2022-09-09
PROJECT NO.	16177
AUTHOR	TDaSilva

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- LEGEND**
-  Bridge
 -  Road
 -  Rail
 -  Contour (5m)
 -  Stormwater Main
 -  Culverts
 -  Constructed Drainage Course
 -  Drainage Path
 -  Watercourse
 -  Waterbody
 -  Stormwater Ponds
 -  Watershed
 -  Parcels
 -  Municipal Boundary
 -  Parkland County



TITLE
STORMWATER MAP BOOK
PAGE 36 OF 124

PROJECT
PARKLAND STORMWATER MASTER PLAN

DATA SOURCES
- Topographic Map: Earthstar Geographics

PROJECTION
NAD 1983 CSRS 10TM AEP Resource



FIGURE	36 of 124
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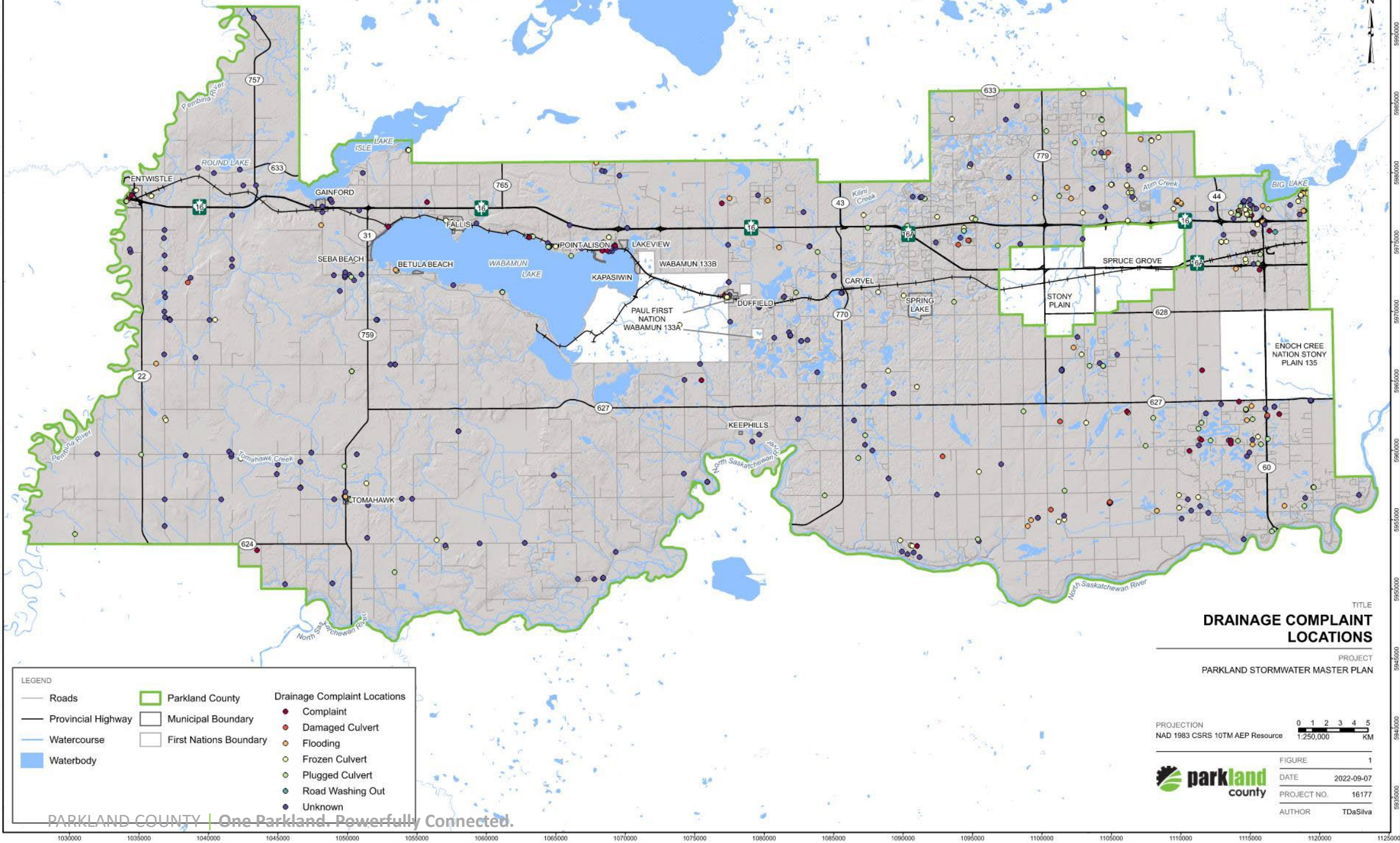
Regulatory Review

- Federal
 - Navigable Waters Act, Fisheries Act
- Provincial
 - Water Act
 - Environmental Protection & Enhancement Act
 - Municipal Government Act
- Regional Governance - EMRB
 - MRSP – Stormwater
- Municipal
 - MDP, LUB Regulations



Systems Management

- Registered drainage courses
- Triaging drainage complaints
- Development approval processes
- Enforcement practices
- Level of service



LEGEND

Roads	Parkland County	Drainage Complaint Locations
Provincial Highway	Municipal Boundary	Complaint
Watercourse	First Nations Boundary	Damaged Culvert
Waterbody		Flooding
		Frozen Culvert
		Plugged Culvert
		Road Washing Out
		Unknown

TITLE
DRAINAGE COMPLAINT LOCATIONS

PROJECT
PARKLAND STORMWATER MASTER PLAN

PROJECTION
NAD 1983 CSRS 10TM AEP Resource

0 1 2 3 4 5
1:250,000
KM



FIGURE 1
DATE 2022-09-07
PROJECT NO. 16177
AUTHOR TDaSilva

Next Steps

- County reviewing 50% draft report
- Follow up meetings with County departments
- Meetings with external stakeholders
 - October 2022 to January 2023
- Future Council presentations
 - December 2022 / January 2023



Questions?

