



# STORMWATER MASTER PLAN UPDATE

Governance & Priorities Committee

June 20, 2023

# Stormwater Master Plan

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- 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



# Project Scope and Status

- Task 1: Basin Identification & Mapping - complete
- Task 2: Regulatory Review – complete
- Task 3: System Management - complete
- Final Draft Report Submitted
  - Awaiting final review by Administration
  - Requesting Council feedback
- Future Phase 2
  - Scope of work to be determined
  - Requires funding approval



# Key Findings

## What the County is doing right

- County is doing a very good job in managing most aspects of stormwater
- Current and recent initiatives that are excellent:
  - Asset management – storm sewer
  - GIS – LIDAR
  - Surface Drainage and Site Grading Bylaw (draft)
  - ALUS program



# Key Findings Challenges

- Legacy developments
- Limited enforcement historically
- Complex natural drainage systems
- Landowner expectations for level of service
- Provincial regulatory environment (e.g. SG/SP flows meet 1999 Stormwater Management Guidelines)
- Historic licensed drainage ditches



# Recommendations / Strategies

- Communications
- Regulatory Compliance and Enforcement
- Asset Management and GIS
- Stormwater System Planning
- Land Use Planning & Land Development Engineering
- Operation and Maintenance

Of note:

Legacy developments are addressed and have an element of activity in most of the listed strategies.



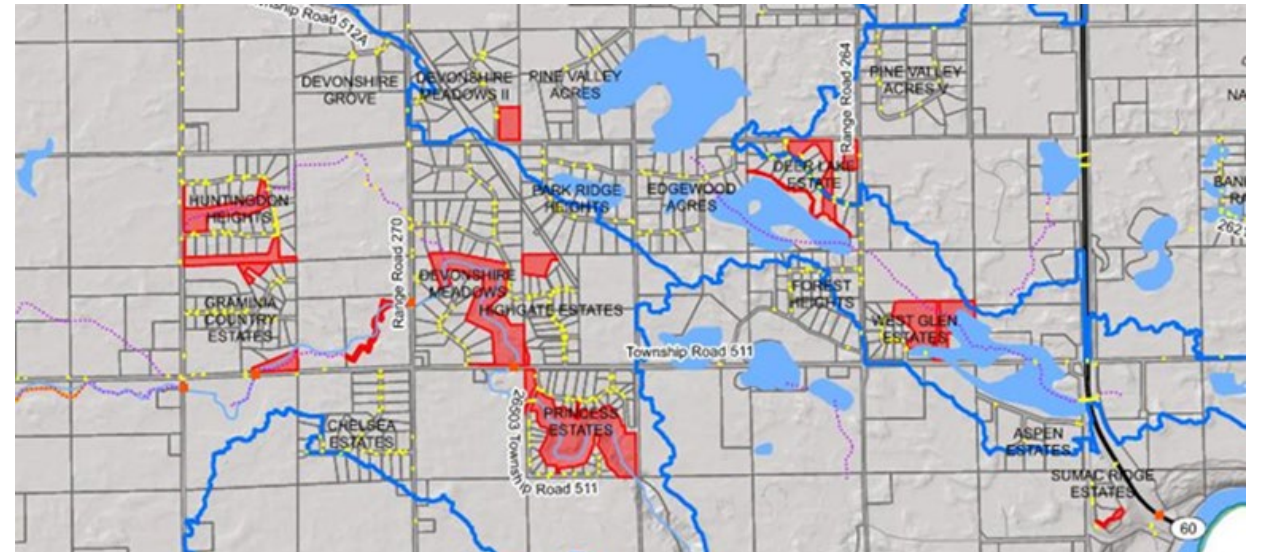
# Communications Strategy

- Stakeholders with interests internal to County Operations will provide input and guidance to support:
  - Public communications program
  - Publicize stormwater triage process
  - Agricultural sector
  - Business / Industrial sector
  - Chronic problem areas
  - Surface Drainage & Lot Grading Bylaw
- Stakeholders with interests external to County will be engaged to develop a communications strategy on regional issues. External stakeholders may include:
  - Spruce Grove & Stony Plain
  - EMRB
  - Other rural municipalities



# Regulatory Compliance & Enforcement Strategy

- Operation and maintenance of licensed drainage courses per the agreements with the Province
  - County's legal obligation
  - Update County's GIS data base
  - Determine need for drainage rights-of-way
- Refine enforcement and regulatory policies
  - Environmental approval checklists
  - Coordinate compliance with AEPA
  - Enforce Development Agreements
  - Drainage easements in previously subdivided lots
  - Adopt Proposed Surface Drainage & Lot Grading Bylaw and Lot Grading Policy





# Asset Management and GIS Strategy

- Expand GIS spatial data
- Asset condition information for future rehabilitation
- Rural culverts
- Risk management approach – prioritize and fund rehabilitation
- Natural asset management



# Stormwater System Planning Strategy

- Detailed stormwater studies
  - Develop business case – master drainage plans
  - Partnerships with developers
  - Local stormwater studies
  - Integrate stormwater and natural assets system planning
  - Joint stormwater planning with Spruce Grove / Stony Plain
  - Pre-development discharge rates
- AEPA “Fenceline” Approval – Acheson / Big Lake Area
  - Best Management Practices
  - Document operation & maintenance practices
  - Continue to update GIS
  - Enforce stormwater approvals
- EMRB Stormwater Initiative
  - Apply Flood Risk Project Charter
  - Update rainfall Intensity-Duration-Frequency relationship
  - Ask EMRB about inter-municipal stormwater flows



# Planning and Land Development Engineering Strategy

- Lot Grading Policy and Surface Drainage and Site Grading Bylaw
  - Adopt and implement
  - Educate and enforce
- Development processes coordination
  - Improve coordination
  - Refine Development Permit approval conditions for overland drainage
  - Review, amend or rescind County Council Policies
- MDP and LUB Updates
  - Establish minimum top-of-bank and upland setbacks
  - Amend LUB to align with new Lot Grading Policy and Surface Drainage and Lot Grading Bylaw
  - Update Subdivision and Development Application Requirements
  - Review and update floodplain overlays in key areas
  - Review County Policy C-ES04 – naturalized stormwater management facilities
  - Bylaw prohibiting snow disposal in County watercourses



# Operation & Maintenance Strategy

- Review mandate and resource allocation
  - Define mandate for level of service
  - Define response time expectations
  - Match O&M resources to level of service expectations
  - Document internal roles and responsibilities
  - Document O&M activities and follow applicable manuals
  - Refine flow, rainfall and stormwater quality monitoring programs
- Optimize Customer Resource Management system for stormwater
  - Refine CRM for incoming complaints
  - Refine CRM for post-event assessment



# Next Steps

- Final feedback from Council and Administration
- Submit Final Report
- Administration & Council to identify Phase 2 priorities
- Define scope of work for Phase 2
- Secure funding for Phase 2



# Questions?

