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2025
Conference

Canada's Premier
Stormwater and Erosion
and Sediment Control
Conference

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Stormwater Under Pressure

Navigating Operations & Maintenance Manual
Development under the CLI-ECA

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Presentation Agenda

- Background
- Regulatory Shifts
- O&M Challenges Under CLI-ECA
- Case Study: Town of Newmarket's Approach
- Strategies for Success
- Looking Ahead

Stormwater Under Pressure: Why does this matter?



Daily Commercial News by Construct Connect, July 24, 2024

Increased urbanization and infrastructure stress

Climate change impacts on stormwater systems

The shift from reactive to proactive system wide O&M

Risks of Deferred Maintenance

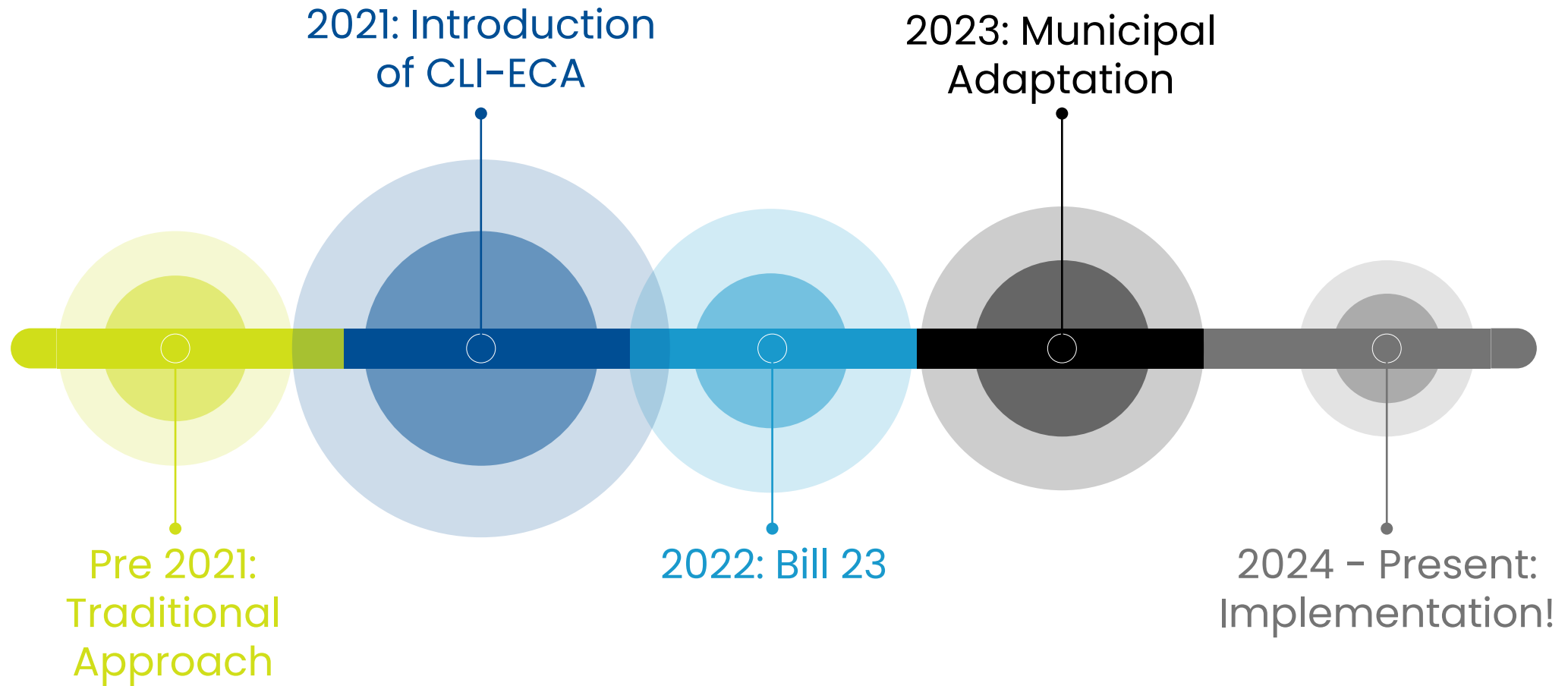


**INFRASTRUCTURE
FAILURES**

**HIGHER EMERGENCY
COSTS**

REGULATORY RISK

The Regulatory Shifts: What Changed?



O&M Challenges: Municipalities

CHALLENGES

SOLUTIONS

SYSTEM-WIDE ACCOUNTABILITY

Lack of clear delineation of roles and responsibilities create confusion

POTENTIAL SOLUTION

Centralized GIS-based asset tracking, defined roles.

DOCUMENTATION CHALLENGES

Lack of systems for keeping up with increased documentation requirements

POTENTIAL SOLUTION

Centralized and digital filing.

INCREASED RESOURCE DEMANDS

Increased costs in personnel, equipment and training

POTENTIAL SOLUTION

Cross-training, third party service providers where possible.

O&M Challenges: Adapting to Extreme Weather

Increased Flood Risk

Infrastructure designed
for historical climate
conditions

Seasonal Shifts



Updating O&M
Schedules

Incorporating Nature
based solutions

Integration of Risk
Assessments into
O&M planning

Turning Compliance into a Strength

1. LONG TERM SYSTEM HEALTH



2. SYSTEM OPTIMIZATION

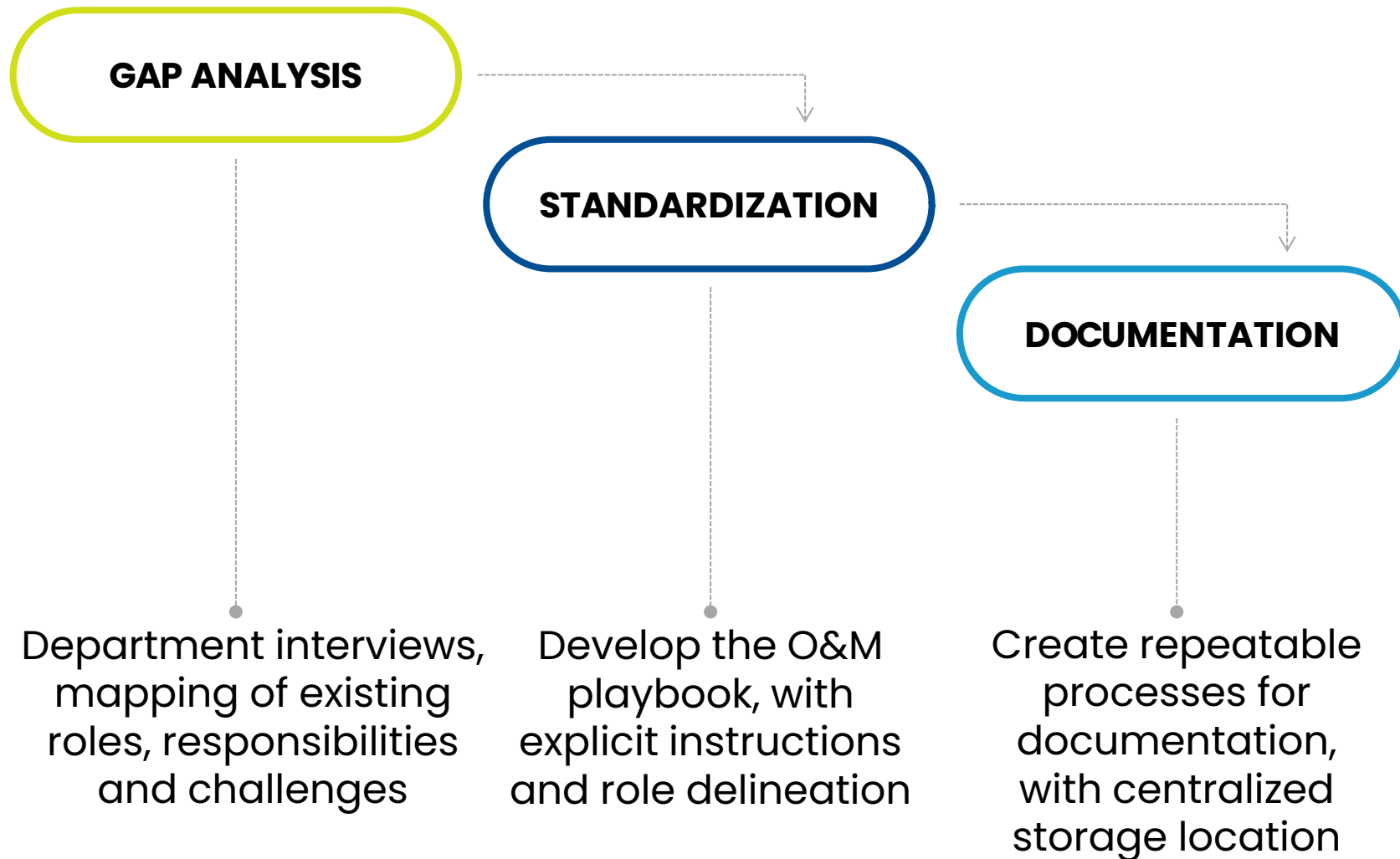
3. RISK REDUCTION



4. REGULATORY COMPLIANCE



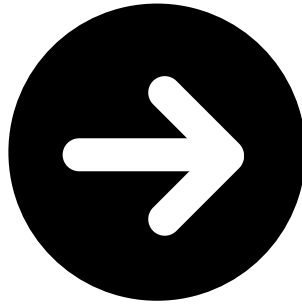
Case Study: Town of Newmarket's Approach



Before & After

Before

- Department driven O&M
- Limited SOP's creating inconsistencies
- Fragmented record keeping



After

- Centralized O&M Manual with clarified roles
- Standardized procedures
- Centralized filing system recommendations

Strategies for Success

1

Define, Don't
Assume

2

Centralize
Information

3

Build Review
Processes

4

Train and
Collaborate

5

Scalability

Innovation & Future O&M Trends

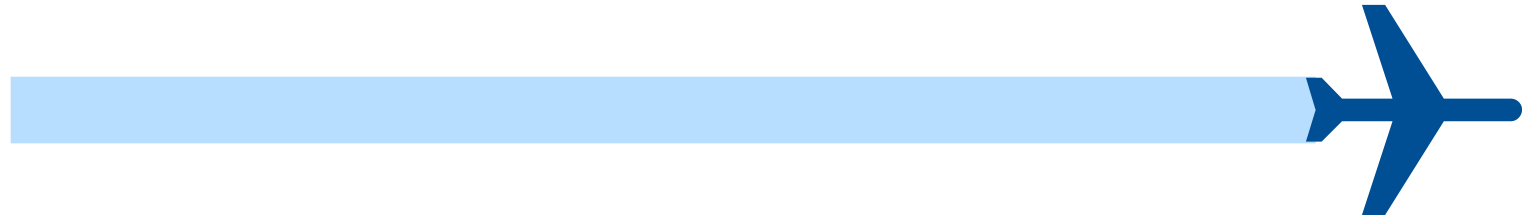
Smart Technology:

Real-time monitoring, data driven maintenance



Funding Models:

Stormwater fees, grants



Collaborative Approaches:

Municipal partnerships



Future Proofing Your System – What's Next?

What is your biggest O&M vulnerability, and what is your plan to address it?

1

CLIMATE RESILIENCE

More intense storms require robust stormwater management and consistent maintenance

2

SCALABILITY

O&M programs must be able to evolve as infrastructure expands

3

LONG-TERM SUSTAINABILITY

Investing in proactive maintenance reduces costs over time

Thank you!
Any Questions?

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