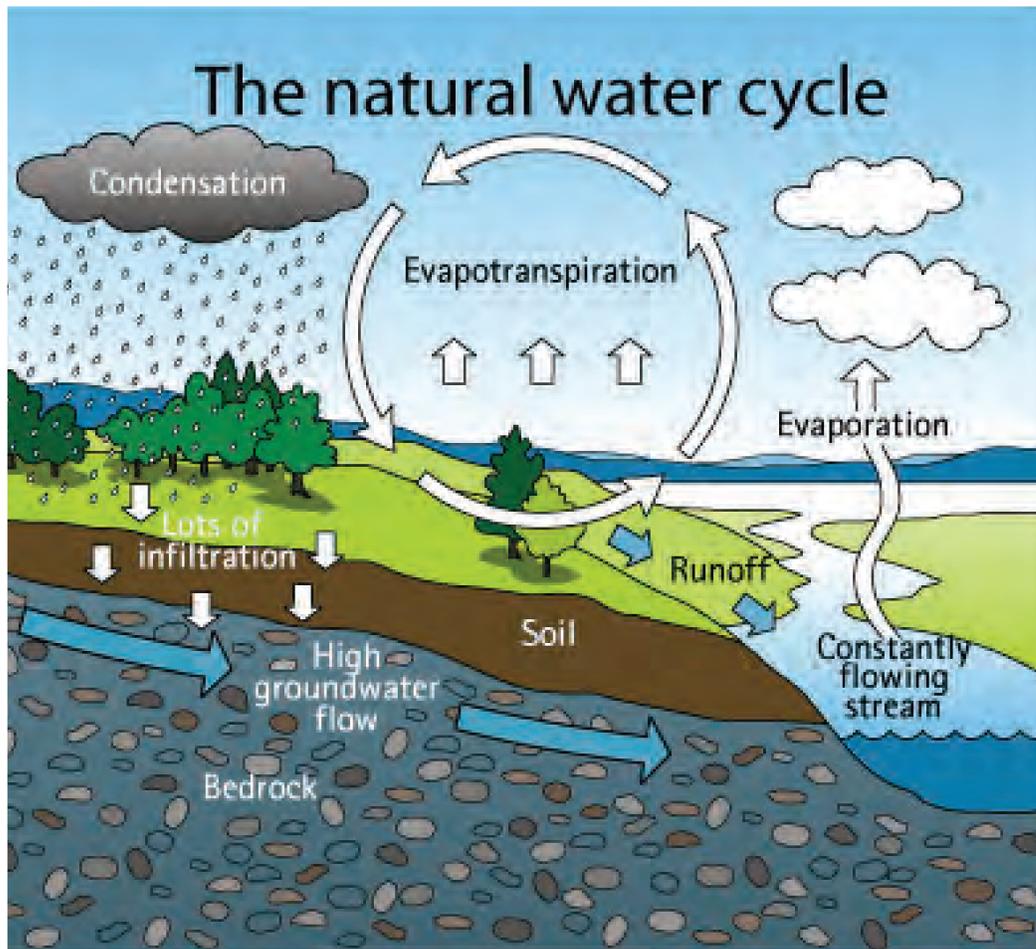


# STORMWATER MANAGEMENT FACILITIES/STORMWATER PONDS - What Are They?

Beaumaris Lake Open House

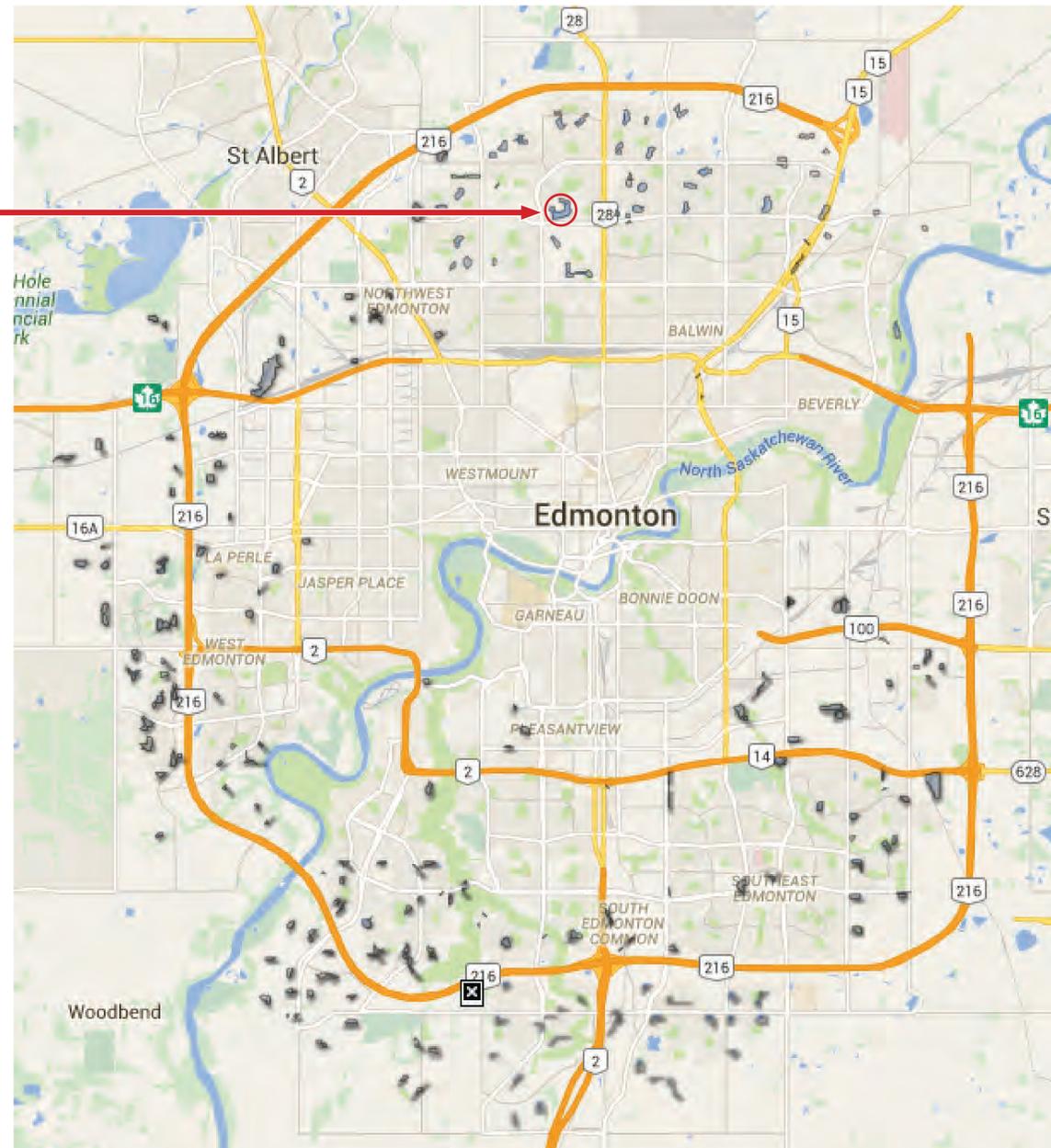


- As land is developed, the natural water cycle is disrupted. Rain infiltrates less, resulting in larger amounts of runoff
- This increased runoff is collected by drainage systems (catchbasins and sewers) which discharge to Stormwater Management Facilities (SWMFs, or Stormwater Ponds)
- Stormwater ponds prevent flooding of roads and basements by storing water at a low elevation until sewers can carry the water away
- Stormwater ponds also enhance water quality of storm runoff by slowing water down and settling out particles
- Stormwater ponds are often naturalized and landscaped to be aesthetically pleasing, and can become amenities to the community
- **While stormwater ponds can provide common space for outdoor activities, their primary function is still for flood protection**

# STORMWATER PONDS - How Many Are There?

## Beaumaris Lake Open House

Beaumaris  
Lake

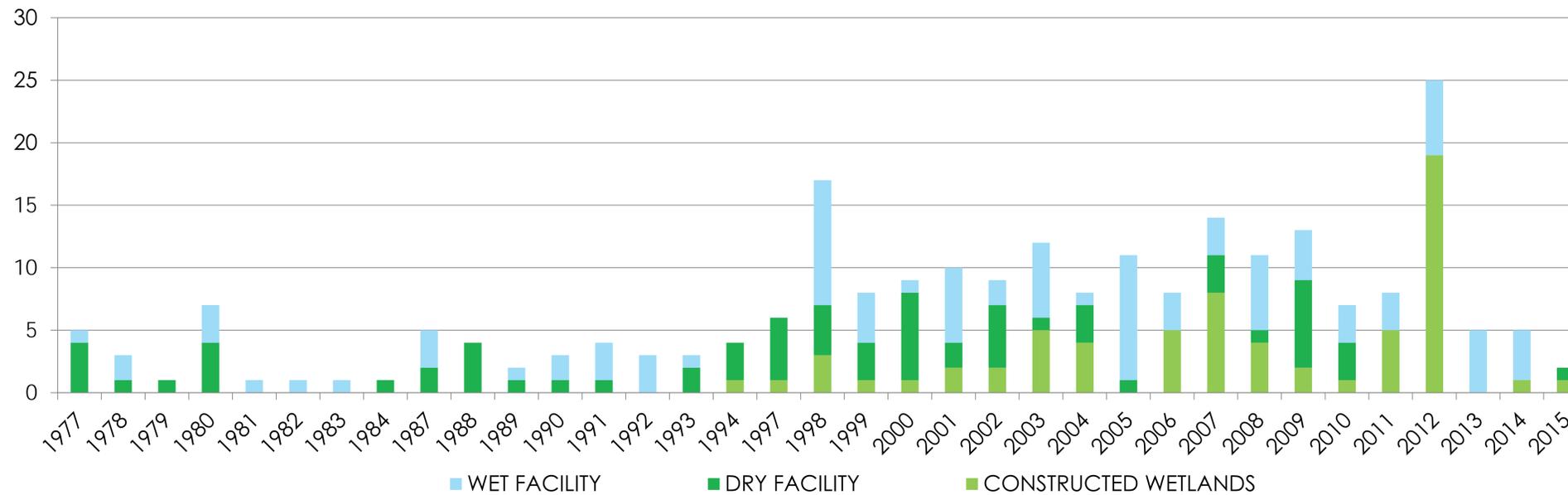


- The City of Edmonton operates 236 stormwater ponds.
- Beaumaris Lake is one of the oldest and largest ponds in the City.

# STORMWATER PONDS - City-wide Statistics

## Beaumaris Lake Open House

### Inventory of City Stormwater Ponds by Age



99
71
66

### Types of Stormwater Ponds

Facility Type	Description
Wet Facility	Wet facilities have a permanent standing water level. During rainstorms, the water level will rise. Wet facilities usually have a control structure that regulates their discharge. Beaumaris Lake is a wet facility
Dry Facility	Dry facilities only contain water during rain storms. For most of the year they are dry and may appear to be just park space. They are often landscaped with grass and appear to be in a depressed area or in a "bowl".
Constructed Wetland	Constructed Wetlands are similar to wet facilities, however the plantings and landscaping are more naturalized and create more usable habitat for native species. Water levels still rise during rain events.



Dry Facility



Constructed Wetlands



Wet Facility

# STORMWATER PONDS ASSESSMENT PROGRAM AND PRIORITIZATION TOOL

## Beaumaris Lake Open House

### Why are an Assessment Program and Priorization Tool Needed?

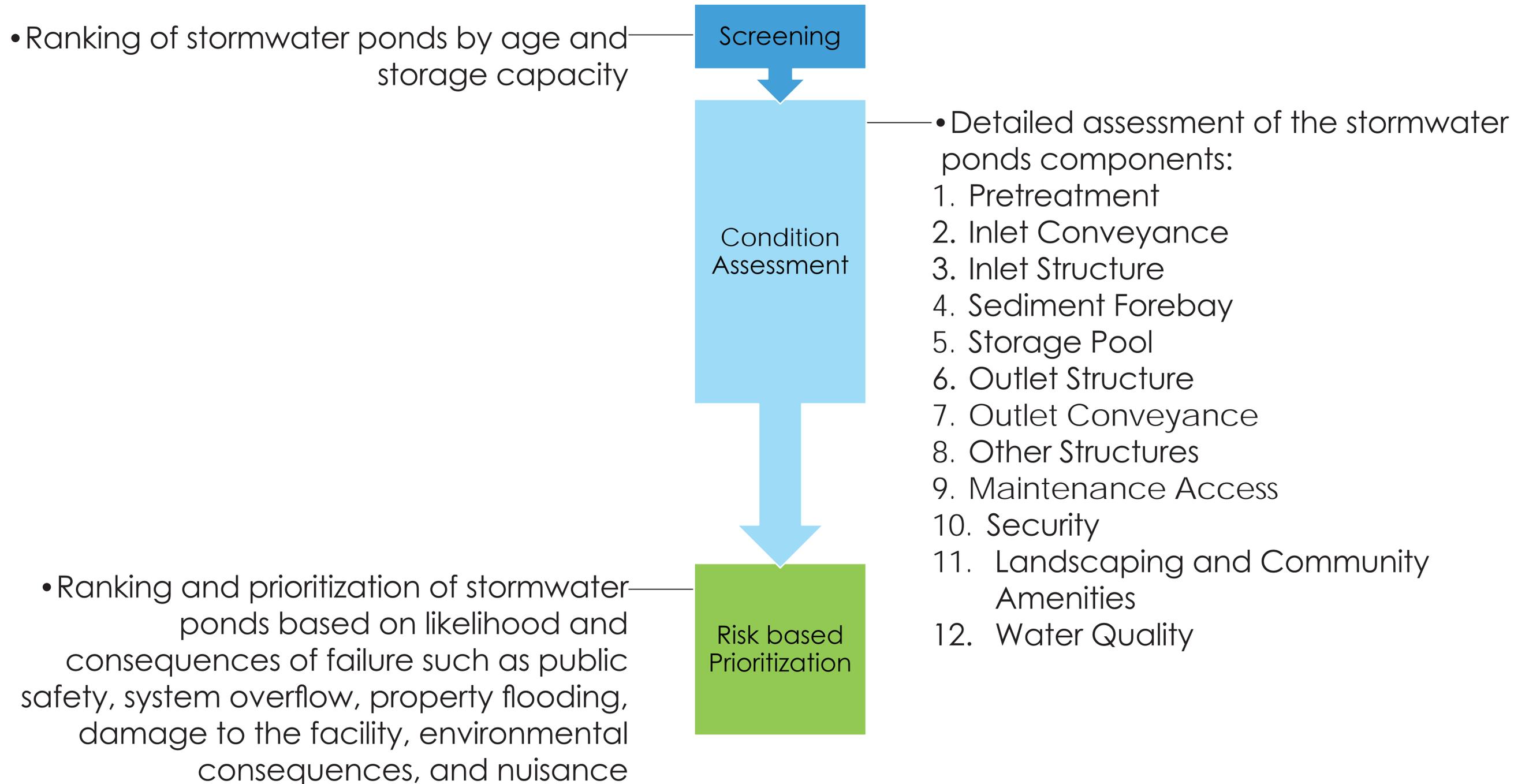
- Utility Services has committed to a significant long-term growth in investment for the maintenance and replacement of aging infrastructure and to support flood mitigation strategies.
- To achieve the goal of sustainable infrastructure, Utility Services is establishing a proactive, optimized and integrated asset management approach. This approach ensures the continued integrity of our assets and reduces the need for emergency repairs.
- Monitoring, inspection, condition assessment and prioritization are the foundation for the development of capital programs that positively impact the communities in the most optimal way.
- Risk based prioritization methods provide a standardized framework for municipalities to identify their priorities in capital and maintenance projects to meet long-term needs in a sustainable way.



-  Transform Edmonton's Urban Form
-  Enhance Use of Public Transit and Active Modes of Transportation
-  Improve Edmonton's Livability
-  Preserve and Sustain Edmonton's Environment
-  Ensure Edmonton's Financial Sustainability
-  Diversify Edmonton's Economy

# STORMWATER POND ASSESSMENT PROGRAM

## Beaumaris Lake Open House



# BEAUMARIS LAKE - The First Stormwater Pond to be Assessed

## Beaumaris Lake Open House

- Beaumaris Lake was the first constructed stormwater pond in the City of Edmonton. It was constructed in 1977 and is the largest stormwater pond, with a 14 ha open water surface and over 250,000 m<sup>3</sup> of storage capacity.
- The lake has five inlets and one outlet. Depths are about 3m on average, with some spots reaching 4m.
- While the lake is a community amenity, its primary role is flood protection for thousands of nearby homes.



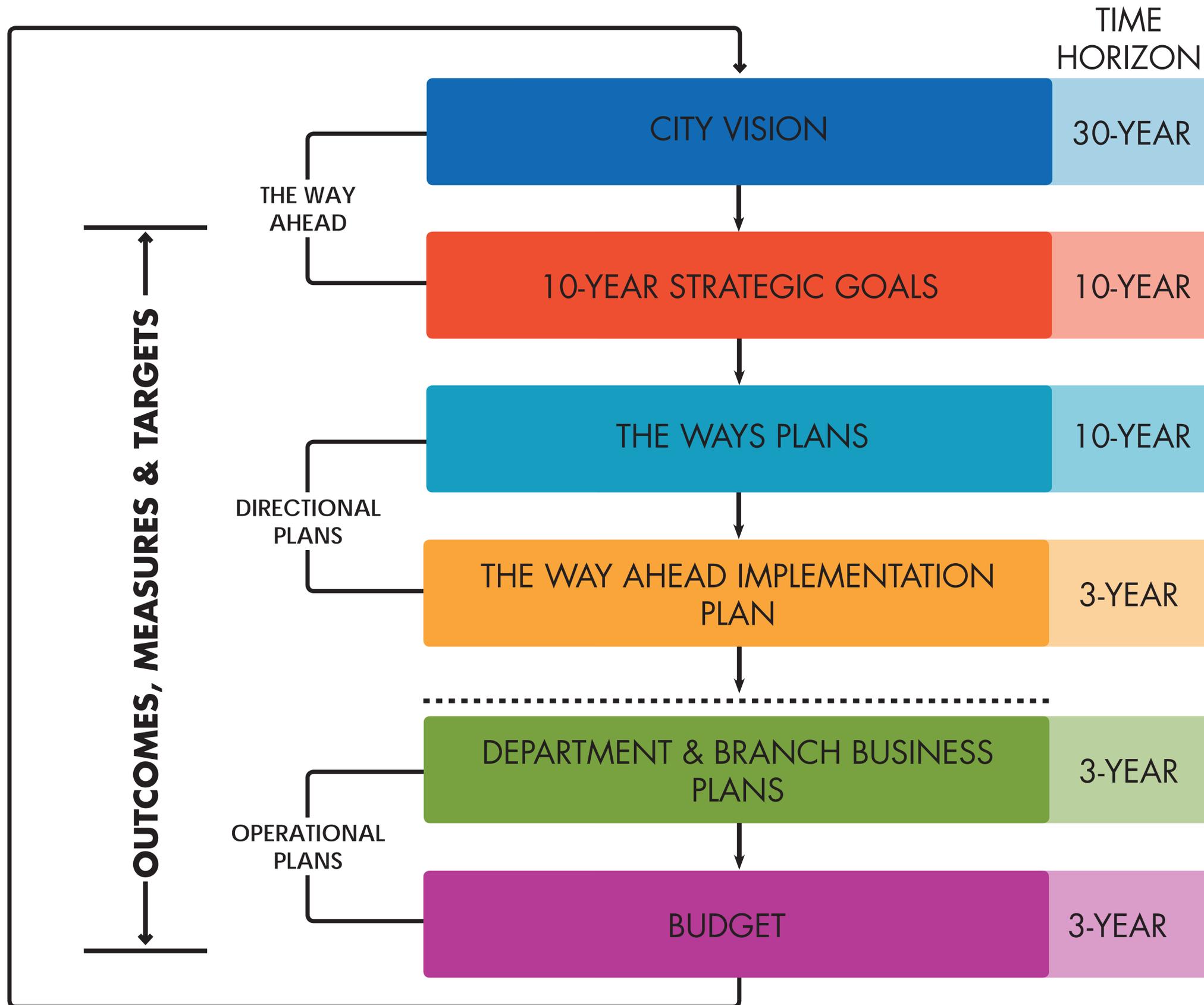
# STORMWATER POND PROGRAM ASSESSMENT TIMELINE

Beaumaris Lake Open House

Activity	2016		2017		2018		2019		2020		2021		2022	
	Q1	Q3												
Pre-screening	■													
Screening		■												
Condition Assessment of Top 10 stormponds			■	■										
Risk based Prioritization				■										
Capital Program Development					■	■								
Business Plan Developed						■								
Capital Spending							■	■	■	■	■	■	■	■

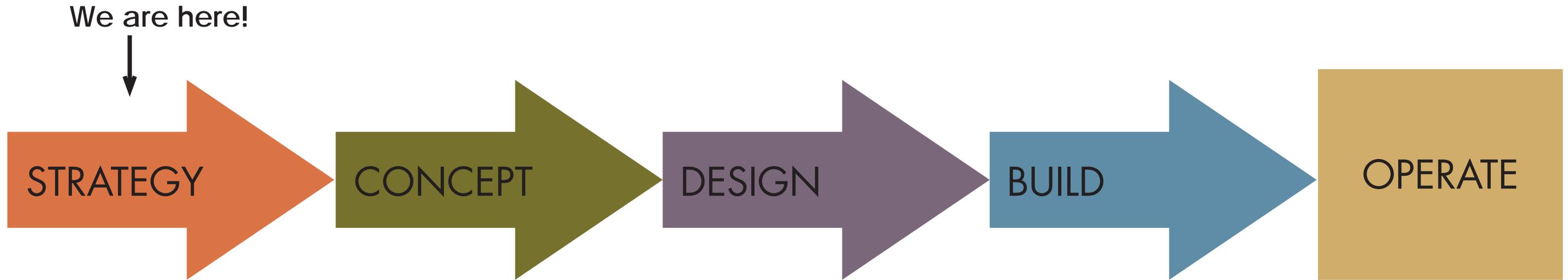
# THE CITY'S PLANNING FRAMEWORK

Beaumaris Lake Open House



# STORM PONDS CAPITAL PROJECTS PROCESS

Beaumaris Lake Open House



Budget Cycle  
2015-2018



Strategy  
Development

Budget Cycle  
2019-2022



Capital Spending

# STORM POND MAINTENANCE PROGRAM

## Beaumaris Lake Open House

The City of Edmonton provide the following maintenance activities on regular basis to the entire stock of stormwater ponds:

### Aesthetics

1. General spring cleaning (once per year)
2. Turf mowing, trimming and repair (12 times per year and as required)
3. Shrub bed maintenance (5 times per year)
4. Tree pruning and dead tree removal (every 8 years and as required)
5. Litter barrel emptying (1-2 times per week)
6. Weed control
7. Garbage collection
8. Removal of debris and litter from water areas
9. Furniture maintenance (benches, tables, waste receptacles, railings, view points, plazas, decks, shelters and gazebos)
10. Maintenance of artwork, statues, and monuments
11. Maintenance of fountains, water features, and pump stations

### Functionality

1. Snow removal
2. Inspection and maintenance of signs and safety measures
3. Correction of surface grading
4. Maintenance of walkways
5. Maintenance of minor traffic control devices (fencing, gates, posts)
6. Inspection and maintenance of water quality
7. Inspection and clean up of hydraulic structures (once per year)
8. Repair of eroded areas
9. Maintenance of utility devices (retaining walls, rip-rap)
10. Maintenance of walkway lighting
11. Maintenance of boat ramps

# USAGE PATTERNS

## Beaumaris Lake Open House



Please add a sticker on areas you use frequently.

# AREAS OF CONCERN

## Beaumaris Lake Open House



Please add a sticker on areas of concern for you.