

North Calgary Water Servicing Clarifications

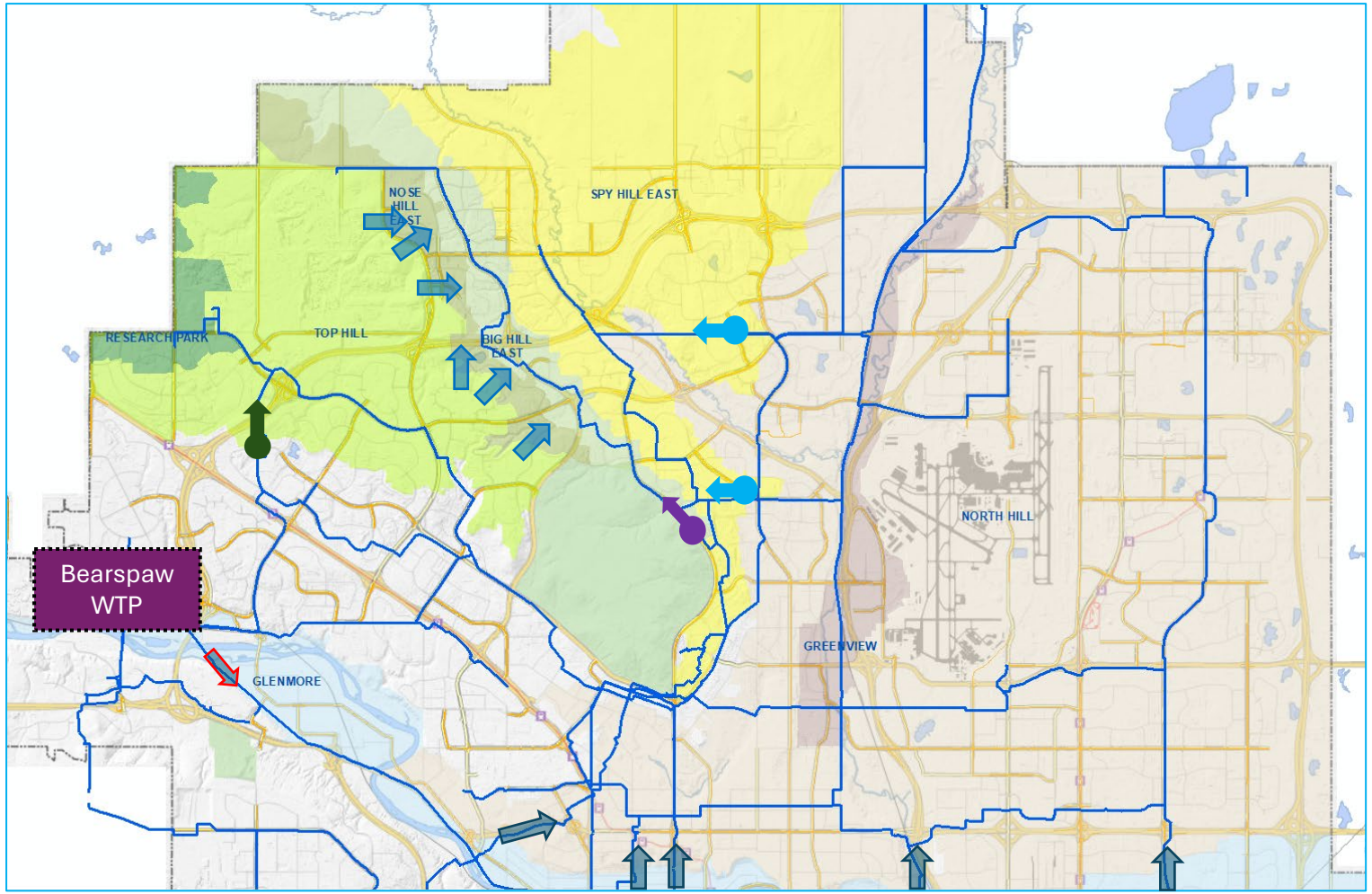
March 3, 2026

Agenda

1. Project Overview
2. Project Phasing
3. Updated Cost Estimate
4. Updated Benefit Allocation

Water Movement to the North Sector

(Current State)



5 Nose Hill PZ relies solely on pressure reduction from Top Hill PZ

4 Mountain View Pump Station pumps from Big Hill West to Top Hill

3 Lifted from Spy Hill East to Big Hill East Zone

2 Water is then lifted from North Hill PZ to Spy Hill East PZ

1 Water is lifted from the Glenmore pressure zone to North Hill pressure zone

In the future state, NCWS brings water to these pressure zones direct from the Bearspaw WTP.

Project Objectives

- This project is essential to meet water demand in northwest Calgary given recent population growth and provides adequate water supply for future residential and commercial development to take place (MDD planning criteria)

- The new feeder main and facilities will increase redundancy in Calgary's water distribution system. This is an important investment as it allows us to continue to provide water service to Calgarians and customers when our existing feeder mains or pump stations are out of service in the event of emergency or planned repairs (ADD planning criteria)

Current Capacity Constraints

Based on short term forecasts for already approved lands:

- MDD cannot be met in the Spyhill and Big Hill pressure zones by 2027
- ADD with BPSF failure cannot be met in all north pressure zones by 2030

Airdrie – has multiple feeds, primarily serviced off of North Hill pressure zone, which is not constrained until 2030

Calgary



Legend: Feeder main

- Contract C1
- Contract C2
- Contract C3
- Contract C4
- Contract C5
- Trenchless Contract 2
- Trenchless Contract 3

Legend: Facilities

1. Bearspaw NCWS Pump Station
2. Bearspaw Yard Piping & Feeder Main
3. Research Park Booster Station
4. Top Hill Reservoir Expansion
5. Big Hill East Reservoir Tie-in
6. Beddington Reservoir - Northridge Tie-in
7. North/South Control Chamber
8. Energy Reduction and Future Recovery Facility
9. Mountainview Pump Station Capacity Upgrades
10. Big Hill West Tie-in

• • • Feeder Main

Project Phasing

- Phase 1 – Provides 100 MLD of new capacity
  - Linear contracts C1, C2, C3, C4, & C5
  - Facilities: Bearspaw Pump Station, Yard Piping, Control Chamber, Research Park Booster, Top Hill reservoir expansion, Tie into Big Hill East Reservoir, Mountain View Pump station, Big Hill West Tie-in, Energy Reduction & Recovery Facility
- Phase 2 – Provides an additional 310 MLD (410MLD total) of new capacity
  - Facilities: New High Lift Pump Station at future BP WTP, new yard piping

2024 OSL Bylaw – Benefit Allocation

- The project is expected to have a capacity of 300ML/D. It will provide redundancy to Shaganappi Pump Station, which has a capacity of 100ML/D, therefore 66.67% of the project cost is allocated to growth, while 33.33% of the project cost is allocated to level of service improvements, due to the redundancy available.

- Between 2019-2048, based on Master Service Agreements, Calgary will have to deliver an additional maximum of 50ML/D to Airdrie.

- After redundancy and regional considerations, 150ML/D will be available to serve Calgary's growth.

- 2024 OSL bylaw: $478M, 67% growth, 33% greenfield = $105.7M OSL eligible

2024 OSL Bylaw – Benefit Allocation

Project		North Water Servicing Option		
Year Prepared		2021		
Base Year		2019		
Anticipated Built Out Year		2048		
Benefit Area		North Hill Pressure Zone, Spy Hill East Pressure Zone, Airdrie		
Population		Greenfield	Established Area	
	2019	376,722		
	2048	635,405		
Population Growth		115,315	143,368	
		Greenfield	Established Area	Regional
Additional New Capacity (ML/D)		67	84	
Assumed additional regional demand, based on Master Service Agreements (ML/D)				50
The New Capacity (67+84) = 150ML/D for calculations				
		Greenfield	Established Area	Regional
Benefit Allocation		33.4%	41.6%	25.0%

Interim Capacity (Stage 1 of Phase 1)



- Contract 1 + Mountain View Pump Station will provide 30MLD of new capacity starting in 2027
- This capacity has already been assigned to approved growth applications. Outline plan conditions reflect allocations
- Fully funded, and construction is underway
- Interim capacity is based off of 585 lpcd for MDD
- An updated MDD will result in more people served by the 30MLD but the proportion between Greenfield and Established Areas will remain the same

2026 OSL Bylaw Update- Changes

1. Only include Phase 1 in the OSL Bylaw update (100MLD)
2. Future Phase 2 will be added, closer to when the capacity will become available (tied to WTP Expansion ~2035)
3. Phase 1 will provide some level of redundancy in the interim
4. The updated benefit allocation proportions for the ultimate project (410MLD) will be applied to both Phase 1 and 2.
5. Phase 2 – 100MLD will be assigned as redundancy for Shaganappi Pump Station, and 50MLD assigned to Regional.

2024 OSL Bylaw – Benefit Allocation

Project	North Water Servicing Option			
Year Prepared	2021			
Base Year	2019			
Anticipated Built Out Year	2048			
Benefit Area	North Hill Pressure Zone, Spy Hill East Pressure Zone, Airdrie			
Population	Greenfield	Established Area		
2019		376,722	Difference:	
2048		635,405		258,683
Population Growth	115,315	143,368		
% of incremental population	=(115315258683)*100 = 45%	=(143368/258683)*100 = 55%		
	Greenfield	Established Area	Regional	
Additional New Capacity (ML/D)	=260*45%= 117	=260*55%=143		
Assumed additional regional demand, based on Master Service Agreements (ML/D)			50	
The New Capacity (117+143 +50) = 310MLD	=(310/410) * 100 = 75.6% Growth			
100MLD assigned as redundancy to Shaganappi Pump Station	=(100/410) * 100 =	24.4% Service		
	Greenfield	Established Area	Regional	
Benefit Allocation	37.74%	46.13%	16.13%	
	=(117/310)*100	=(143/310)*100	=(50/310)*100	

Updated Cost Estimate

NCWS Component	Original 2024 Estimate	January 2026 Estimate
Linear Components	$239M	$279.8M
Facility Components	$72.2M	$243.8M
Mountain View Pump Station	$4M	$9.4M
Total	$315M	$533M

Limited information in 2024 on facility needs

- Tie-in locations had not been confirmed
- Interim pump station was removed, but no decision on regulating reservoir
- Pump selection had not been completed
- Pump station estimates were very crude

Facilities Additions/Changes

Facility Additions Since 2024	Rationale	OSL Eligible	Change:
BWTP High Lift Pump Station*	Design Progression	Yes	Significant size change due to pump size, addition of SCWS pumps (+$74M)
Research Park Pump Station	Design Progression	No	Updated details on upgrades (+$10.1M)
Big Hill East Reservoir Tie in	Enables Stage 1 capacity	Yes	New Tie in added (+$9.4M)
Top Hill Reservoir Expansion	Design progression	Yes	Design progression (+$43M)
Beddington Reservoir/Northridge FM Tie in	Enables future capacity to the Northridge FM system	Yes	New tie in Added (+$15.4M)
Flow Control Chamber at BPWTP*	Design Progression	Yes	New identification (+$7.6M)
Big Hill West PZ Tie in	Redundancy project	No	New tie in added (+$9M)
Energy Recovery Facility	Future energy recovery	No	No Costs yet

* Projects support both NCWS and SCWS. A proportion of the costs will be split and allocated to SCWS

Updated OSL Contribution:

Full Project

$533M

- $9.38M (Mountain View Pump Station)
- $19.16M (Research Park Pump Station)
- $9.0M (Big Hill West PZ Tie-in)

= $495.46M – NCWS OSL Eligible Cost

x 75.6% growth x 45% Greenfield

=$168.6M

Phase 1 only (100ML/410ML)

$495.46M * 24.4% = 120.89M

x75.6% growth x 45% GF

=41.1M in OSL for 2026

=168.6M-41.1M=127.5M to be collected later