



Markham Village & Unionville Flood Study

Council Presentation
April 26, 2020



Agenda

- Background – Flood Control Program
- Markham Village and Unionville Flood Control Study Findings
- Stormwater Fee Financial update
- Next Steps – Project Implementation

Purpose

To obtain endorsement of the implementation plan identified through the Markham Village and Unionville Flood Control Study, and to seek authorization to host public meetings to obtain feedback from the public on the plan.



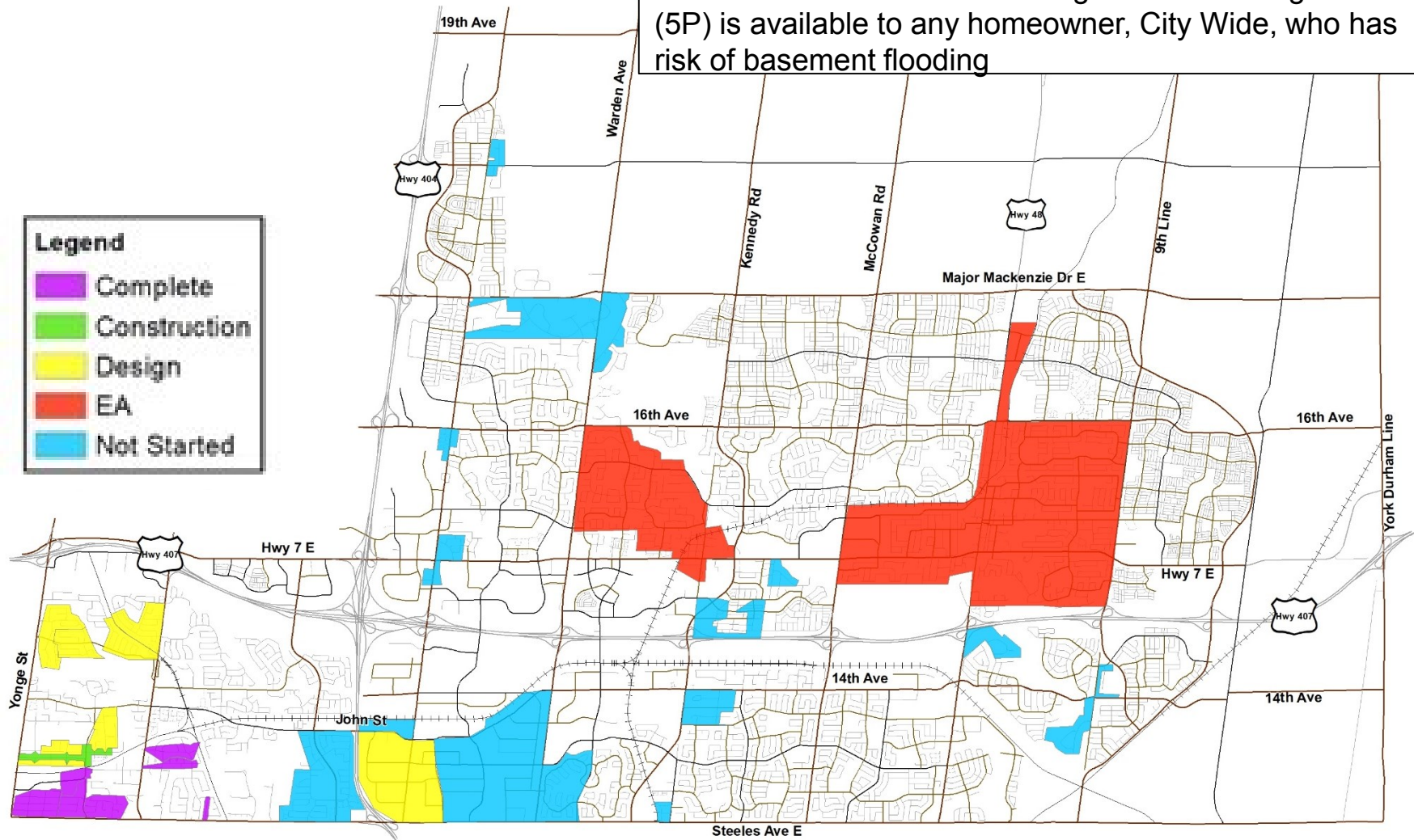
Background – Flood Control Program

- In February 2013, Council approved a 30 year Flood Control Program, which provides funding to improve the level of service of our drainage systems
- The rate structure was updated in 2019. Current rates are:
 - Residential - \$51 per year
 - Non-Residential - \$28.50 per \$100,000 current value assessment (CVA)
- West Thornhill and Don Mills Channel project implementation is ongoing, with anticipated completion of these projects in 2026 and 2027 respectively
- Markham Village and Unionville are the next areas to be implemented – the study for these areas was accelerated after the significant flooding that occurred in the summer of 2017
 - Work originally planned for 2027 was initiated in 2018



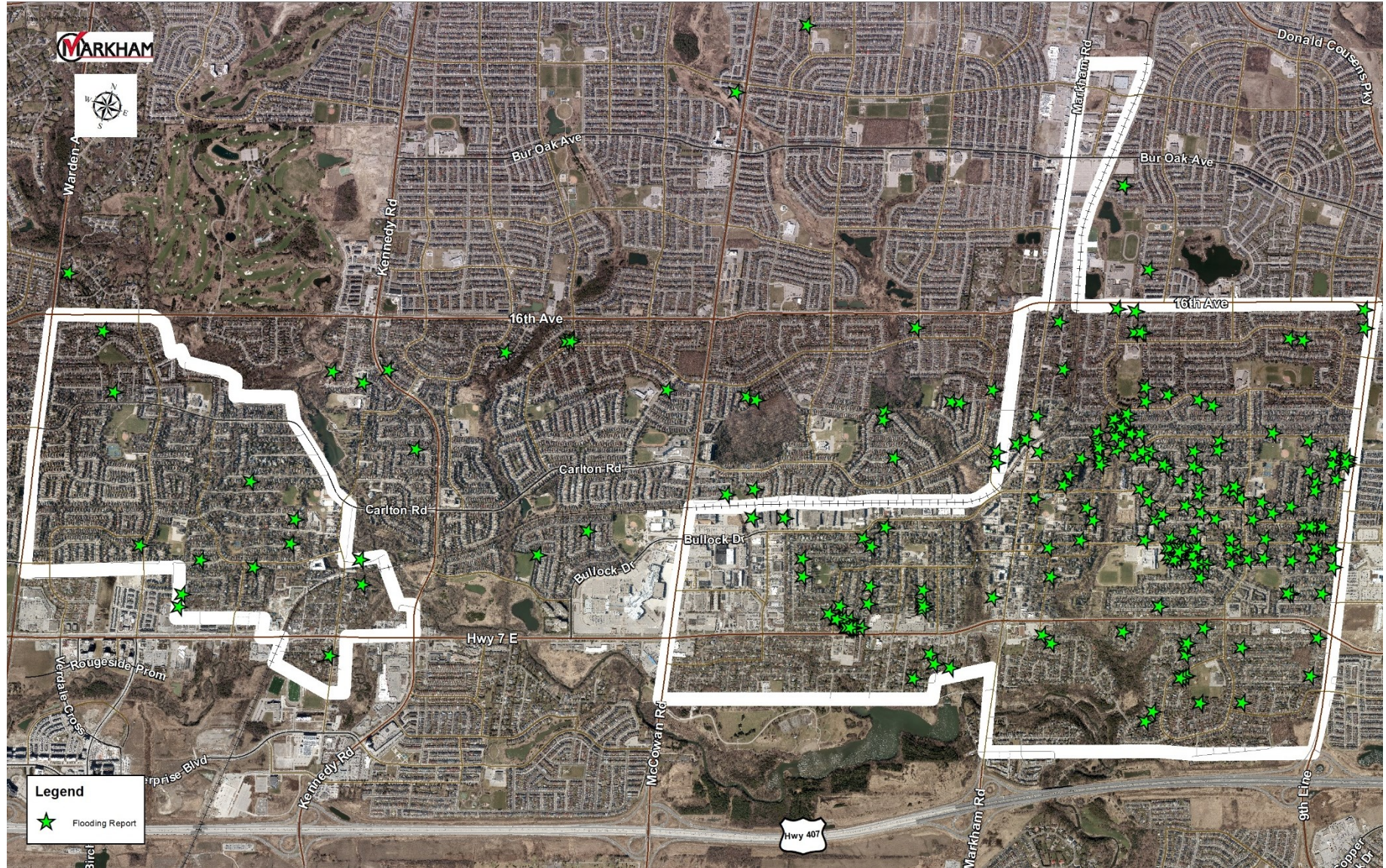
Background - Flood Control Project Status (2020)

Note: The Pilot Private Plumbing Protection Program (5P) is available to any homeowner, City Wide, who has risk of basement flooding





Markham Village/Unionville Study Area & Flood Records





Causes of Flooding

- The area was developed prior to 1978, when the City's design standards were increased from a 5 year level of service to 100 year level of service.
 - When very large storm events occur, there is not enough capacity in the system, and it surcharges into basements
- Private plumbing systems require maintenance, which can cause basement flooding when not performed.



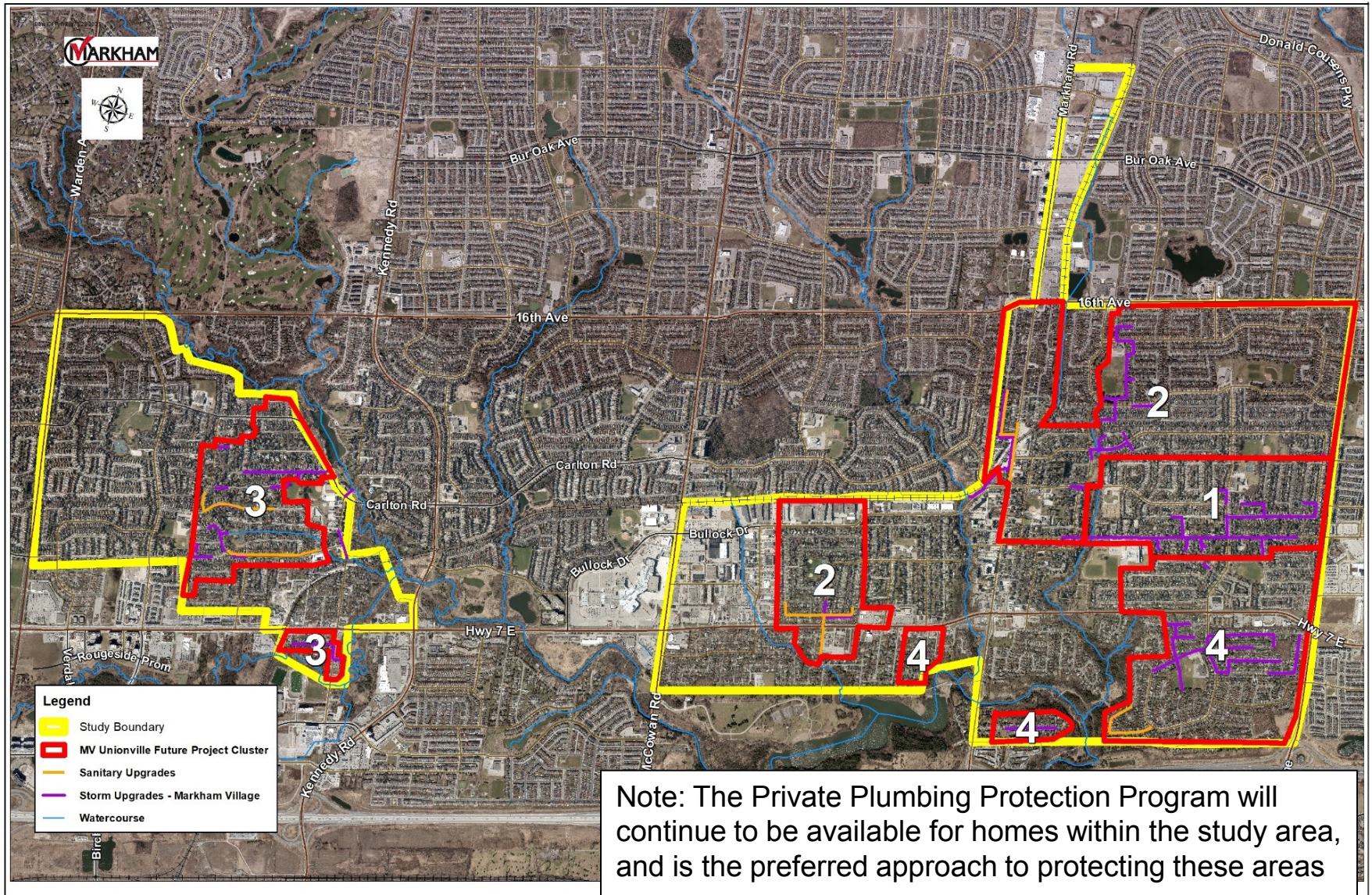


Proposed Solutions

- Options for solutions include:
 - Sewer size upgrades
 - Storage facilities
 - Private Plumbing Protection
- Four project clusters have been identified
 - The timing and phasing of upgrades are to be prioritized based on risk and logistics associated with construction
 - Work is clustered based on combining work on individual drainage systems in the same location, and at similar risk levels
 - The clusters are numbered 1 to 4 based on high to low risk
- Projects will be coordinated with ongoing work completed by other departments or groups (roads, water, sidewalks, etc.)



Project Clusters





Project Costs

Project Cluster 1 (Markham Village) – Church St. East/Parkway Ave Area Drainage Improvements

- Diversion of Flow from Parkway Ave, Jack Crt, Jill Court, Rose Way to Church Street, and upgrade of Church Street System

Project Cluster 2 (Markham Village) - Ramona Blvd., Parkway West, Church West, Friar Tuck, Daniel Court/Fincham Improvements

- Sewer Upgrades

Project Cluster 3 (Unionville) - Main St., East Drive, Pomander Road, Gainsville, Fred Varley

- Diversion of Emily Carr and Gainsville Ave to Pomander Street System, and upgrade of Pomander Street Sewer
- Optimization of Wembley Ave System
- Upgrade of Fred Varley System at Tuscan Court/Markhaven Road, East Drive, Main Street

Project Cluster 4 (Markham Village) - Milne Lane, Rouge Street, Major Buttons/Squire Bakers Lane System Improvements

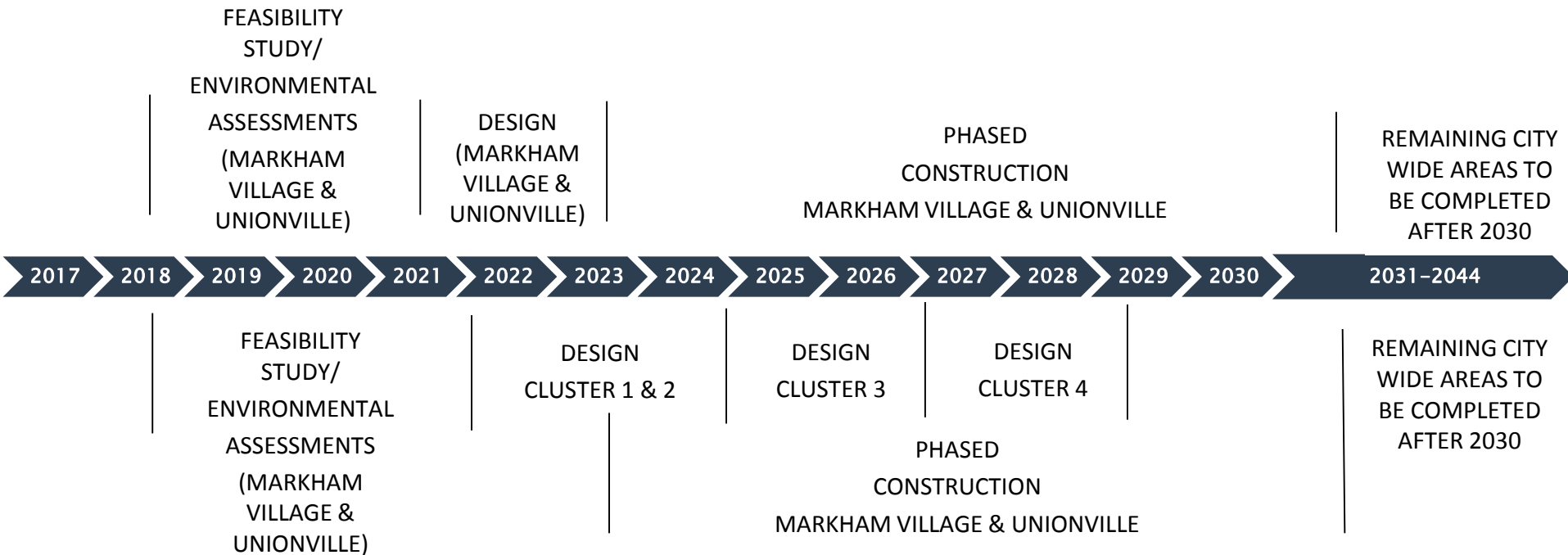
- Upgrades of three systems

Total Estimated Project Delivery Cost - \$106.1M



Markham Village/Unionville Implementation Schedule

Presented to Council 2019



Refined Implementation Schedule, 2020



Note: Detailed Construction Phasing to be Determined through Design Process (Initiated in 2022)



Stormwater Fee Update

- For 2020 Council approved fee of \$50 per residential property and \$28 per \$100,000 of CVA for non-residential properties.
 - Fee is to be increased by \$1/year for residential properties and 2% a year for non-residential properties
 - Fee collection in 2020 was waived due to COVID, and collection will be extended by one year (into 2045)
- The updated cost estimates defined through the Markham Village/Unionville flood study are in line with the budget defined through the previous rate update approved by Council in 2019
- Staff will continue to monitor program costs and will be undertaking a review of the Stormwater Fee in 2024, for implementation of any changes in 2025



Next Steps

- Hold public meetings to obtain feedback from the public in May 2020
- Incorporate feedback and finalize project implementation plan
- Assemble request for proposals for design consultants to plan upgrades in clusters 1 & 2
- Initiate project design in early 2022



Recommendations

1. THAT the presentation entitled “Markham Village/Unionville Flood Control Study Results,” be received;
2. AND THAT Staff be authorized to hold Public Meetings to obtain feedback on the proposed implementation plan for the Markham Village/Unionville Project;
3. AND THAT Staff report back to Council with feedback obtained from the public prior to endorsement of the implementation plan for the Markham Village/Unionville Project;
4. AND THAT staff be authorized and directed to do all things necessary to give effect to this resolution.