

Drainage Services Flood Prevention Program

McKernan & Parkallen Communities Consultation



Flooding in Edmonton

- Recurring problem in many areas
- Causes disruptions; cost, time and money
- Flood prevention top priority
- Flood prevention program goals:
 - Find primary causes
 - Identify options
 - Work with communities/other stakeholders to implement viable solutions that improve flood prevention



Actions Since the Flood

- Emergency response in July
- Homeowner subsidy program for backwater valves: \$3M committed to date
- Public meetings in Sept./04
- Engineering studies of high risk neighbourhoods completed Feb./05



Actions Since the Flood

- **Commitment to public consultation and education**
 - Share knowledge and information
 - Stay in touch through regular communications
 - Consult the community before taking further action
 - Reflect community needs and preferences in the action plan



Today's Meeting

1. Share engineering findings
2. Lay out various options
3. Get community input and feedback to help define best outcomes for homeowners and City

No final decisions tonight

After Today's Meeting

1. Summarize and share input
2. Incorporate input into action plan recommendations
3. Come back to the community to discuss plan and get feedback
4. Report progress

Consultation will continue as required



Why a Joint Meeting?

- Drainage patterns and trouble spots common to both communities
- Similar causes for flooding
- Options to improve flood prevention have impacts on both communities



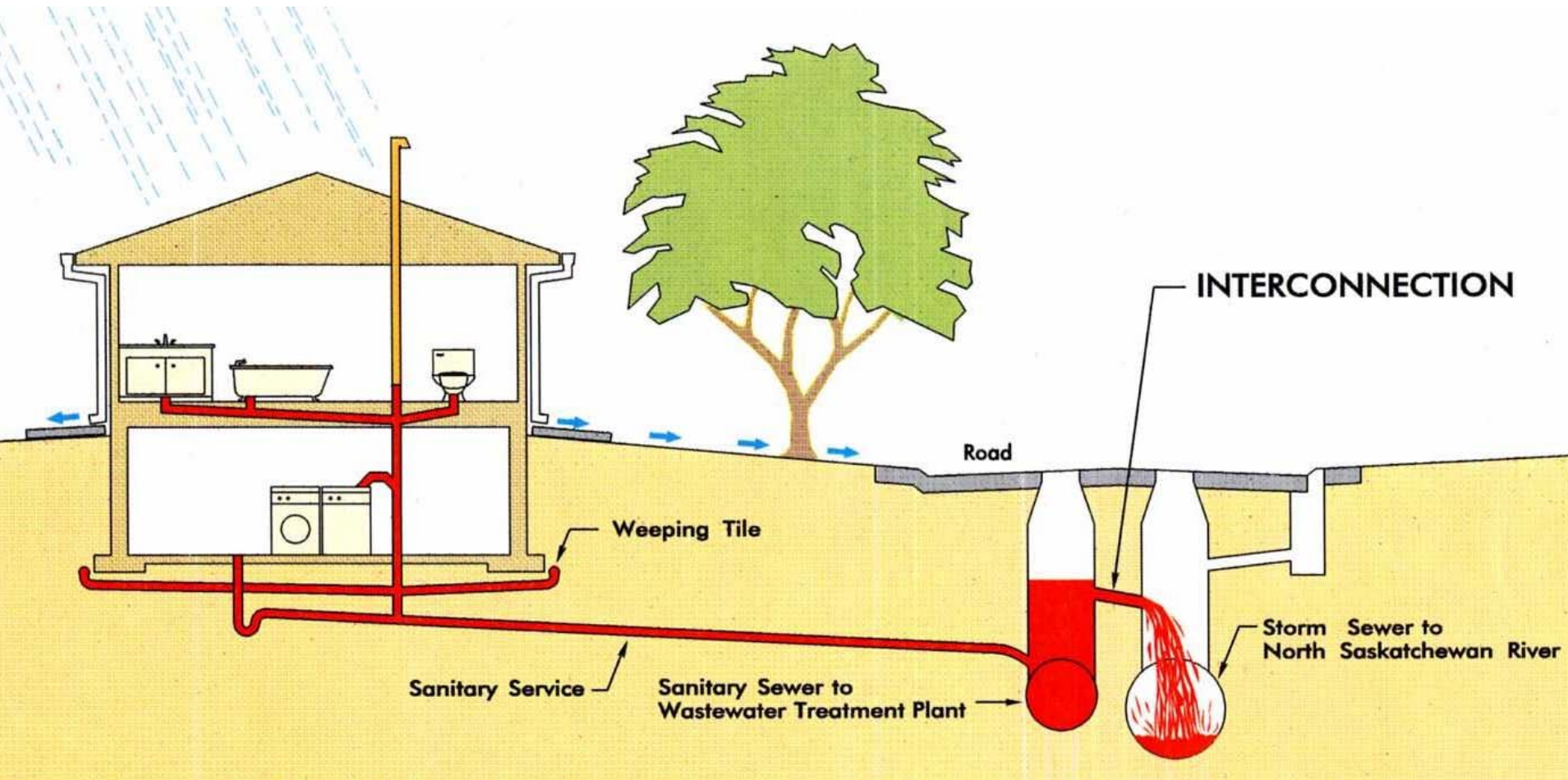
July Flood Impact

- 207 homes flooded in 2004 floods
- 273 homes flooded before 2004
- 1,790 homes in neighbourhood

McKernan/Parkallen Findings

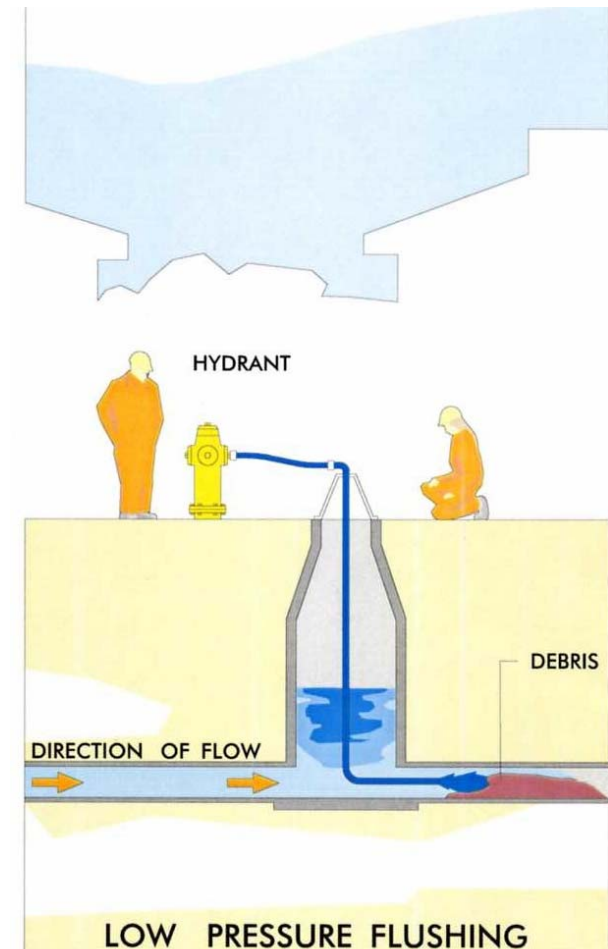
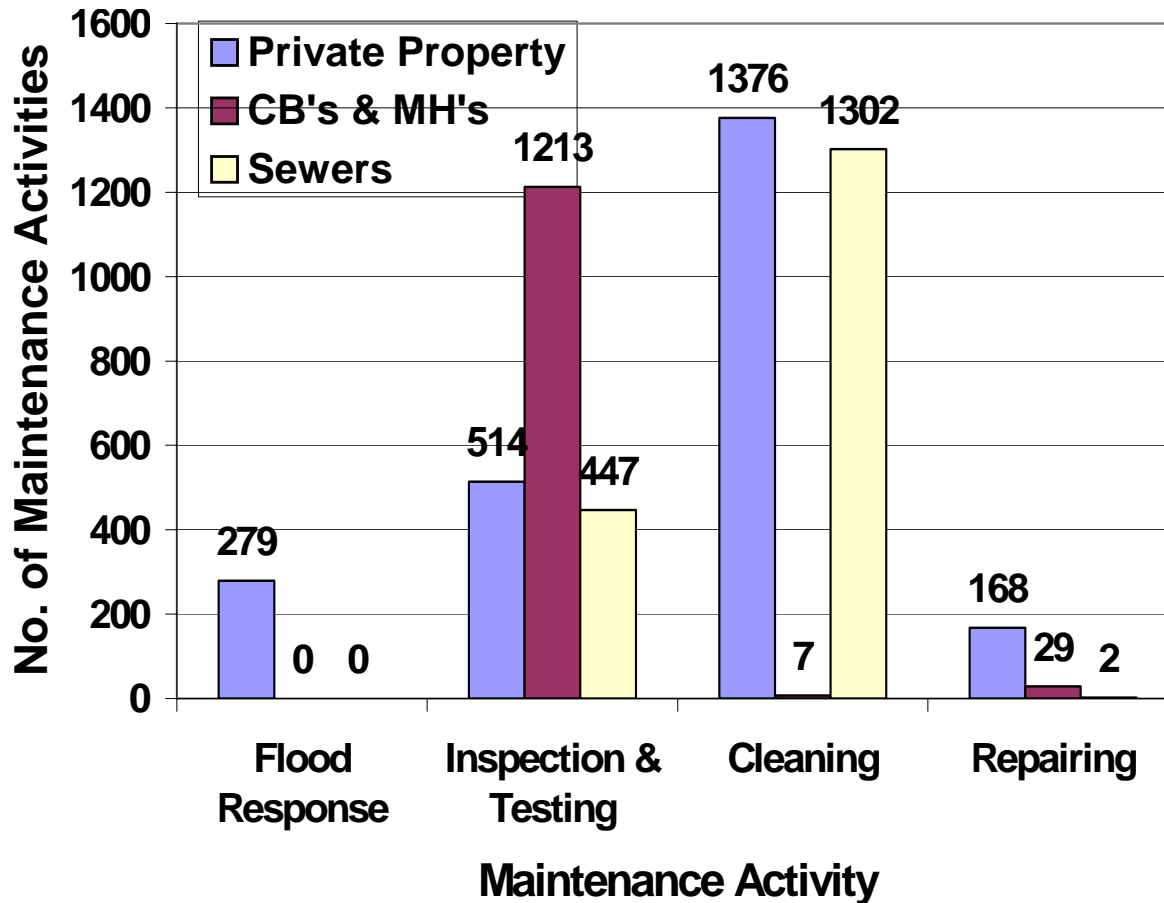
- **Water volume exceeded storm sewer capacity**
- **Stormwater got into partially combined system:**
 - Weeping tile connected to home's sanitary sewer
 - Downspouts connected to sanitary sewer service
 - Manhole covers
- **Partially separated/combined systems with interconnections operated as one**
- **Neighbourhoods have natural low areas where all surface water flows**
- **No evidence of major blockage in storm or sanitary sewer pipes**

Sewer Interconnections



Maintenance Activities

McKernan & Parkallen (2000-2004)



McKernan/Parkallen Findings

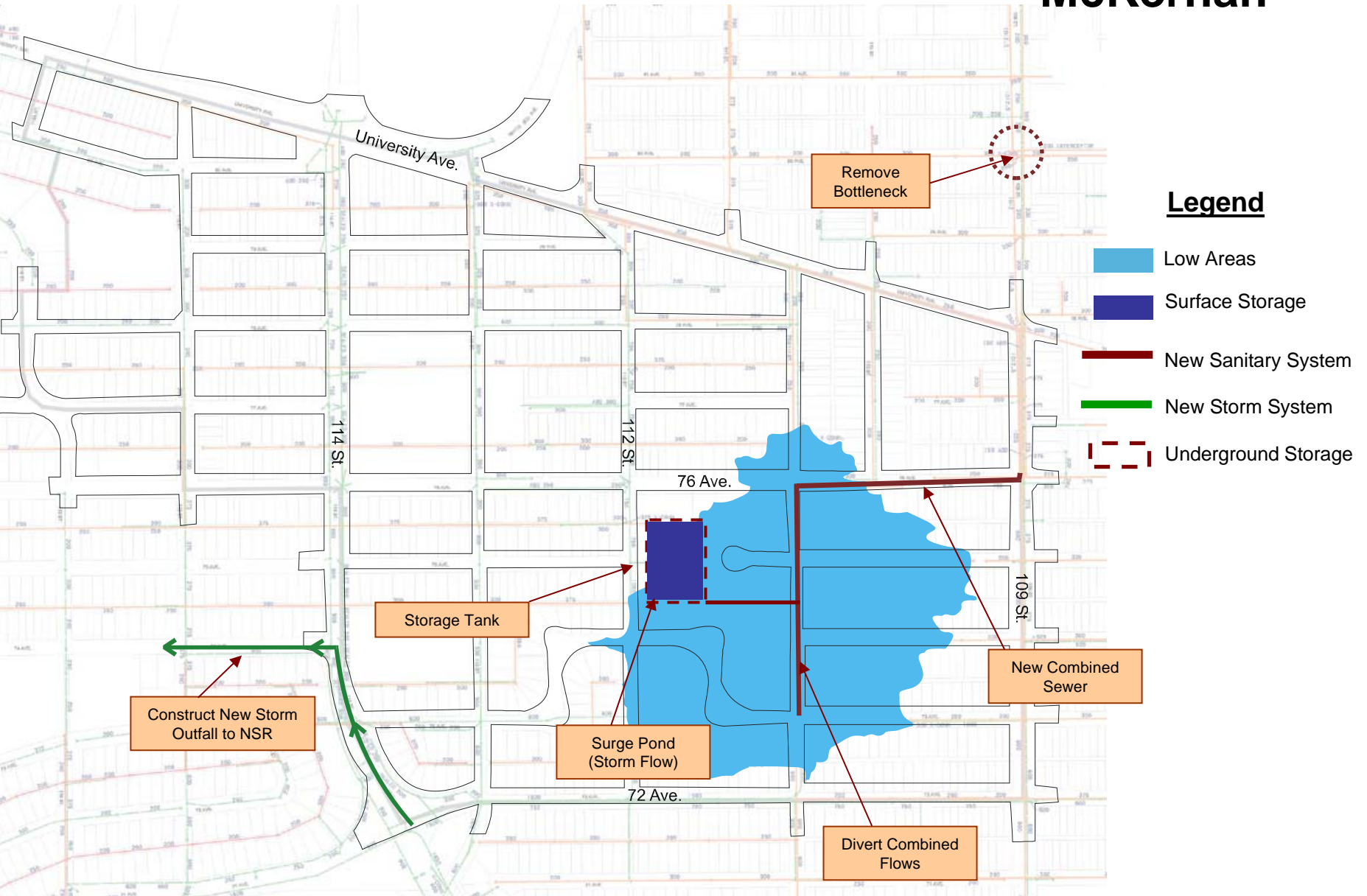
- **Common characteristics of flooded homes**
 - 72% of flooding was due to sewer backup
 - 16% had landscaping or lot grading that caused water to drain toward the house
 - 76% had downspouts connected to sanitary sewer service
 - Many houses had downspouts discharging too close to the home
 - Less than 20% had backwater valves or sump pumps

The image features a vertical banner on the left side with the text "City of Edmonton" in a stylized font. The background of the banner shows a modern building with a glass facade and a large, triangular, metallic structure on top, situated next to a body of water. The main content area has a solid blue background with white text.

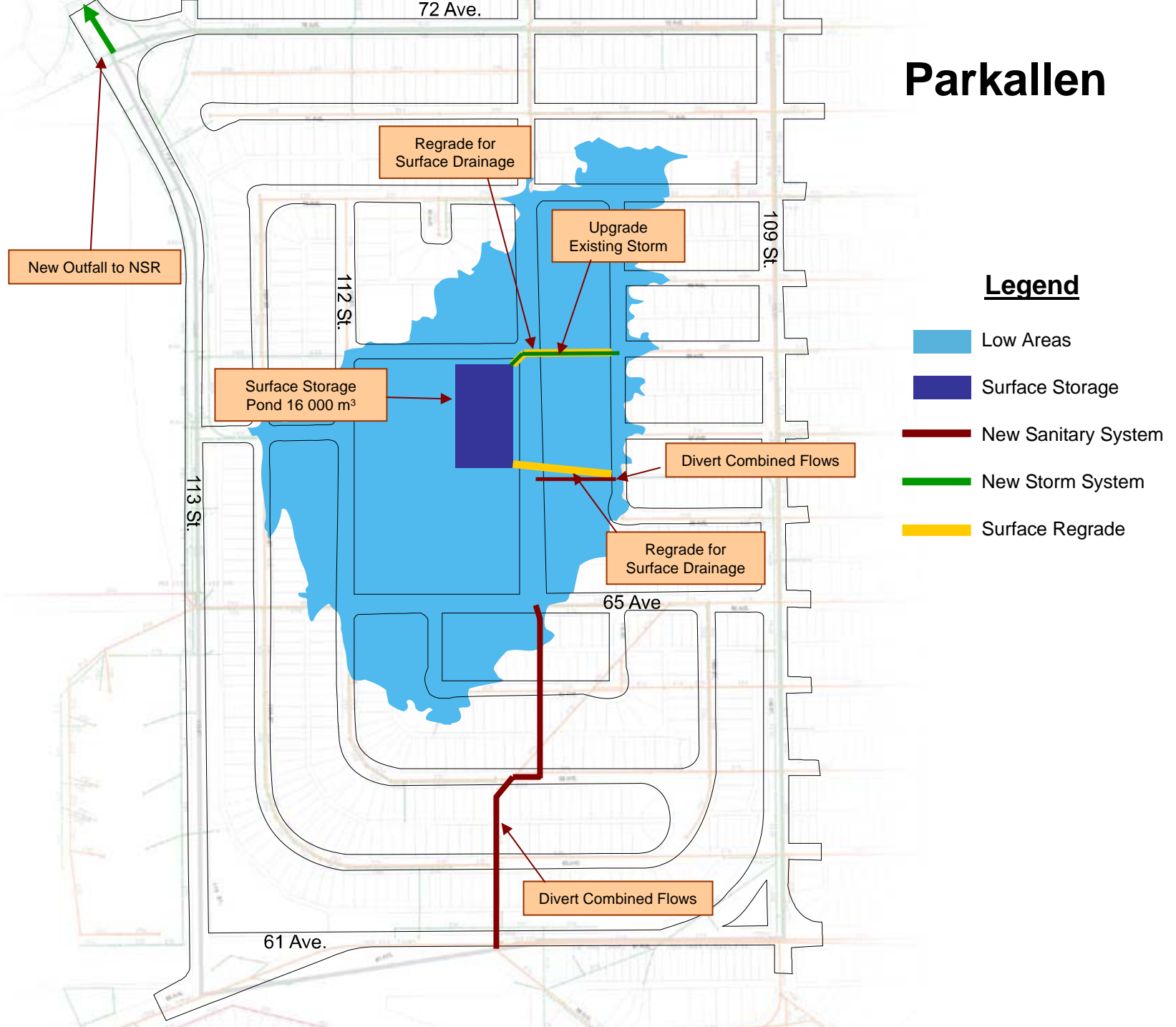
What Does it Mean?

- Better flood prevention requires joint effort from homeowners and City
- System improvements needed; involves significant time and expense
- Cooperation needed from others who manage or own private property
- Support needed from community to move ahead

McKernan



Parkallen



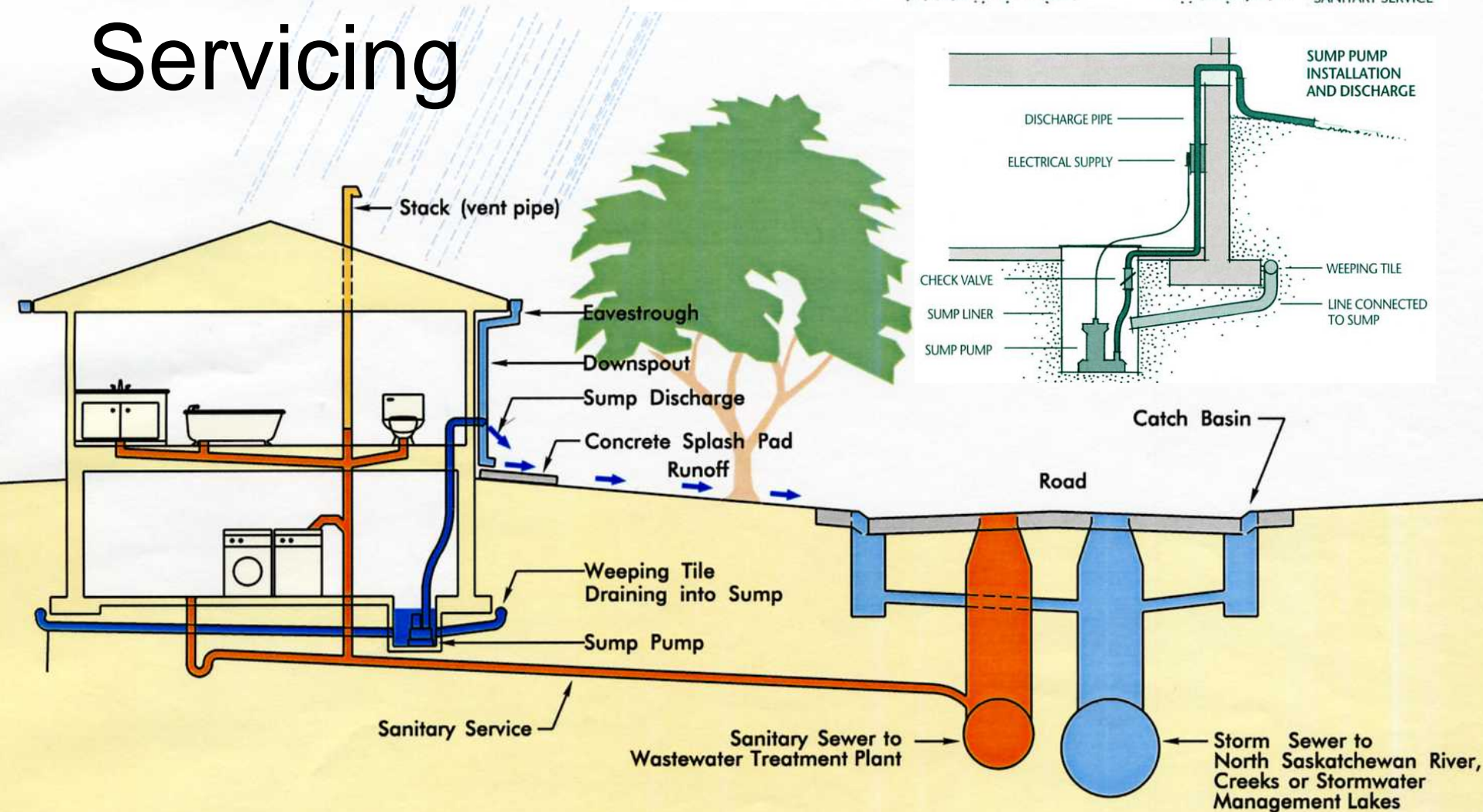
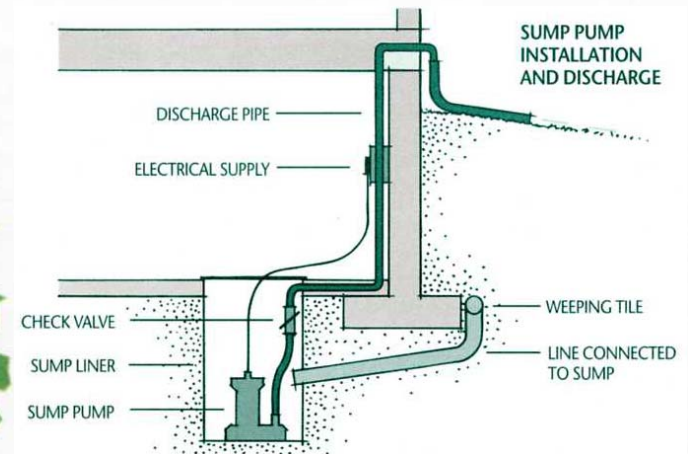
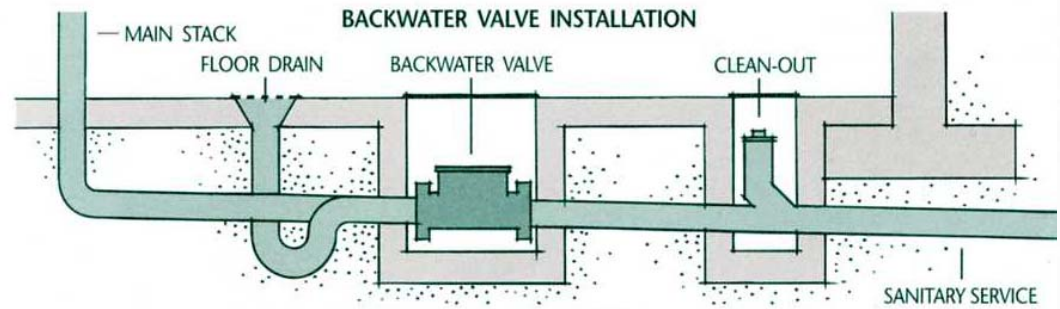
Improvement Options

Build combined sewer relief pipes: <ul style="list-style-type: none">– 76 Avenue– 111 Street	Underway \$800,000
Build combined sewer diversion pipes: <ul style="list-style-type: none">– from 65 Ave. to 61 Ave.– from 110 St. to 111 St.	\$1,000,000 \$200,000
Build new stormwater outfall	\$12,200,000
Build stormwater relief connection at 109 St. and 80 Ave.	\$50,000
Plug vents, seal manhole covers and install backwater valves	\$640,000
Total	\$14,890,000

Homeowner Options

- Improve lot grading to get surface water away from house
- Install/maintain adequate eavestroughs: 6 inch wide trough recommended
- Disconnect downspouts
- Extend downspouts 1.5 m from home
- Install backwater prevention valve
- Install sump pump

Typical New Home Servicing



The logo for the City of Edmonton, featuring a stylized blue and white geometric design of a city skyline and the text "City of Edmonton" in a serif font, oriented vertically on the left side of the slide.

What are the Benefits?

- Quicker overall drainage
- Less pooling of water on the surface
- Less likelihood of basement flooding
- Less property damage
- Savings of time, money and inconvenience

Discussion and Feedback

Clarifying Questions?



Issues, comments, concerns?



Ideas and suggestions?



Preferred options?