Fraser Valley Regional District

OSBORNE RD DIKE FEASIBILITY STUDY

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Presentation by

Patti MacAhonic – FVRD Electoral Area E Director

Sterling Chan – FVRD Deputy Director of Engineering

John Wang – Kerr Wood Leidal

PUBLIC INFORMATION MEETING PURPOSE

- Provide an update on the work to date on the Osborne Rd Dike Feasibility Study
- Opportunity for residents to provide input on the next phase of the work

OSBORNE RD DIKE

- Built in the 90’s
- Considered an orphan dike by the Province
- A 2020 assessment found it to be in ‘poor condition’
- FVRD undertook emergency work in 2025 and 2026 in response to flooding

FEASIBILITY STUDY

- Development and evaluation of various options to enhance flood protection
  1. FVRD establishes a Service Area and becomes the Diking Authority
  2. Dike remains an Orphan Dike
  3. Managed Retreat
- Consideration of regulatory permitting requirements
- Cost estimates for construction as well as O&M
- Phase 1 of the study is available on the FVRD's website

OPTION 1 – FVRD SERVICE AREA

SERVICE AREA PRINCIPLES

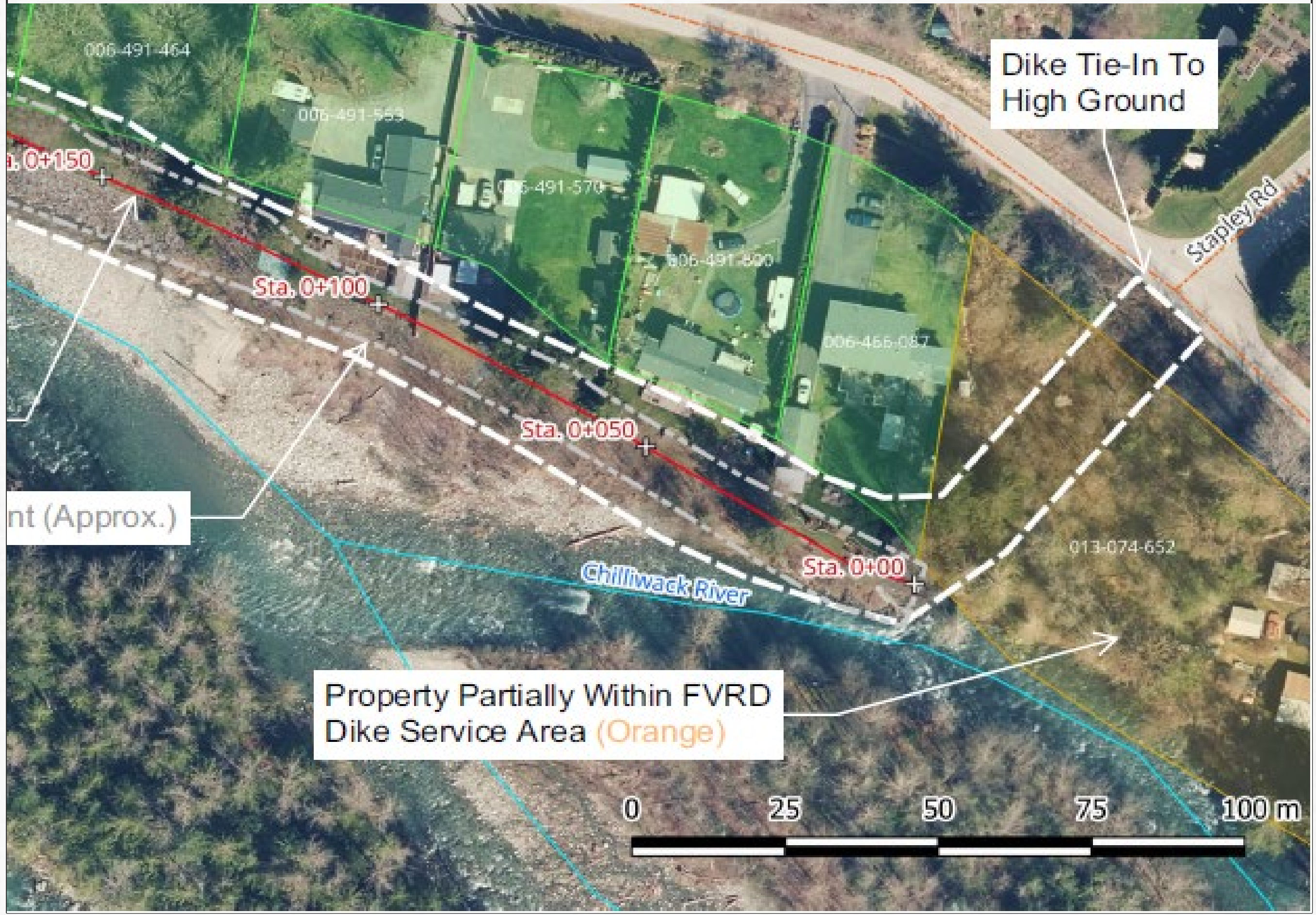
- Cost for service is borne exclusively by benefitting properties 'User Pay'
- Service Area establishment must follow a formal process and the results are 'all or nothing'
- Further information/study required prior to undertaking this process

OPTION 1 – FVRD SERVICE AREA

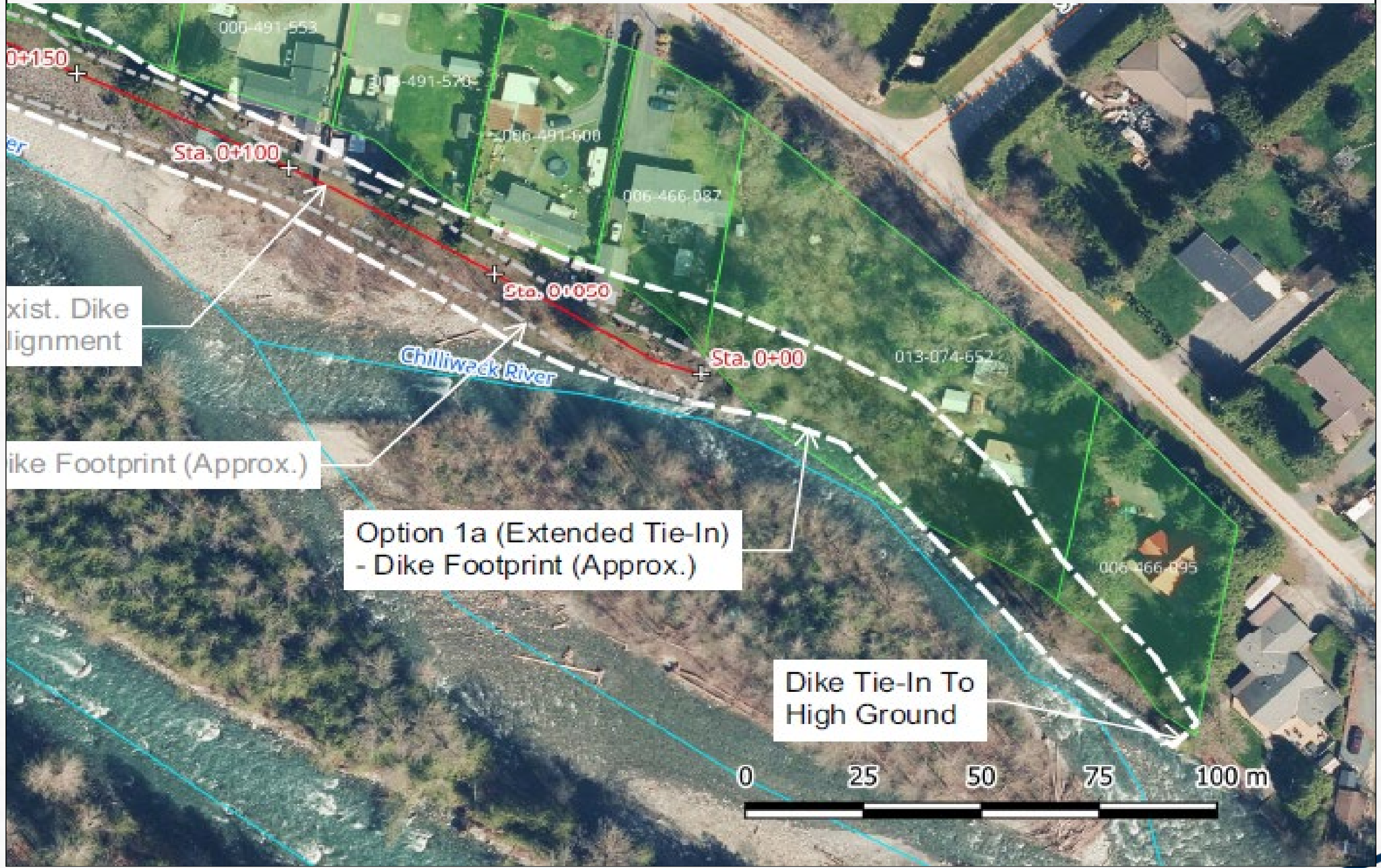
- FVRD would assume the role at the Diking Authority and would be responsible for the Osbourne Rd Dike
- Dike to be improved from its currently poor condition
- Variety of options for dike upgrades depending funding, regulatory requirements and the community's input
  - Raise Dike Profile and Rebuild Bank Protection
  - Maintain Current Dike Profile and Repair Bank Protection
  - Different options to tie into high ground

OPTION 1 – FVRD SERVICE AREA

Tie into Sheldon Rd



Tie in Upstream



OPTION 1 – FVRD SERVICE AREA

- Service Area Costs (Capital + Operation and Maintenance) covered through taxation
- Capital Cost ranges from $3.6M - $19.8M depending on options selected
- Capital Cost impact depends opportunities for grant funding
- Unfunded Capital Costs typically covered by borrowing
- Operation and Maintenance Costs estimated to be between $2,580-$3850/year for each benefitting property

OPTION 1 – FVRD SERVICE AREA

- Statutory Right of Way must be registered over Dike
- Raising and widening the Dike may require the removal of structures encroaching on the Dike footprint
- Having a regulated dike may allow for the issuance of Building Permits

OPTION 2 – STATUS QUO

- Dike will remain orphaned and will not be maintained or improved
- FVRD will remain responsible for Emergency Management
- Property owners have options for site specific improvements

OPTION 2 – STATUS QUO

- Limitations to the FVRD's ability to perform emergency works
  - Response works taken in direct response to an imminent or occurring emergency/disaster in order to manage its consequences
  - Response goals include
    - Ensure the Health and Safety of Responders
    - Save Lives
    - Reduce Suffering
    - Protect Public Health
    - Protect Infrastructure
    - Protect Property (typically interpreted by EMCR to mean primary dwellings)
    - Protect the Environment
    - Reduce Economic and Social Losses

OPTION 2 – STATUS QUO

- Emergency funding requests to EMCR may not be approved
- FVRD may not have capacity to carry out works
- It may not be possible to complete emergency works in a timely manner
- Emergency works are intended to be temporary in nature
- Flood protection works built during emergencies are not as robust as works built at other times
- Future changes in legislation may impact this process

OPTION 2 –STATUS QUO

Property Owner Initiated Site Specific Works

» Installation of new rip rap

$90,000 to $129,000[6]
(48982 Sheldon Road – 51 m length, accounting for existing riprap)
$28,000 to $39,000[6]
(48962 Sheldon Road – 10 m length, accounting for existing riprap)
$63,000 to $90,000[6]
(48952 Sheldon Road – 32 m length)
$65,000 to $93,000[6]
(48942 Sheldon Road – 33 m length)
$72,000 to $103,000[6]
(48922 Sheldon Road – 37 m length)

» Rip Rap installation must be in accordance with corresponding regulation

» Only available in areas not currently protected by dike revetment

OPTION 2 – STATUS QUO

- Options for Property Owner initiated Site Specific Flood Protection cont.
  - Raising foundation of houses ($50-$150k per home)
  - Construct a permanent berm around home ($50-$430/m depending on height)
  - Maintaining or having immediate access to temporary flood protection measures (sand bags free, bulk bags $160 each)

OPTION 3 – MANAGED RETREAT

- Managed retreat is a tool in the tool kit for flood hazard management
- Provided for Information Only
- The assessed values of the homes in the area are less than the cost to upgrade the dike under many of the options

NEXT STEPS

Option 1 - FVRD Service Area

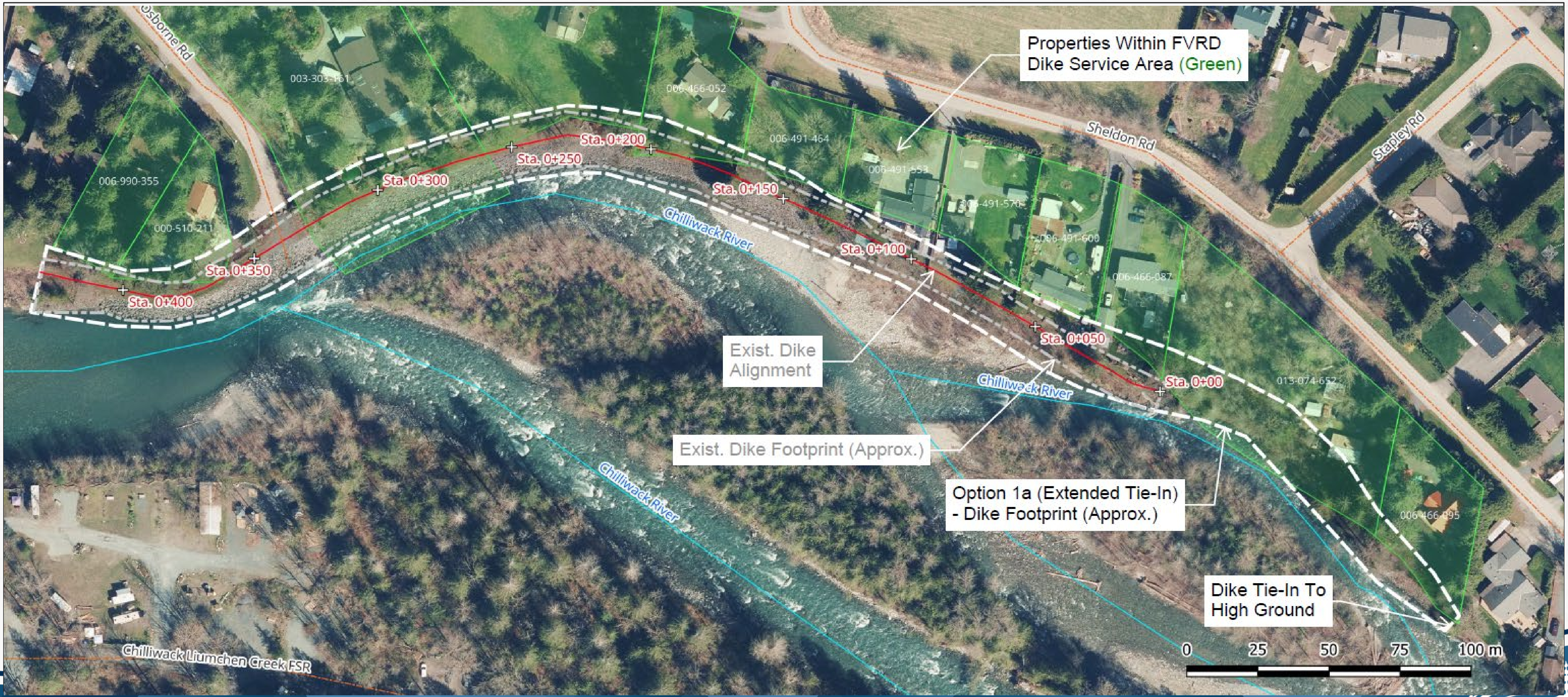
- Engage directly with property owners and other stakeholders
- Develop preferred dike alignment
- Confirm service area boundaries
- Identify funding opportunities
- Service Area Establishment Process

Option 2 – Status Quo

- Engage directly with property owners and other stake holders
- Further develop site specific opportunities
- Identify funding opportunities

ADDITIONAL MATERIAL – LOG JAM

ADDITIONAL MATERIAL – FULL EXTENTS OPTION 1A



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