Bridge Influence Area Analysis

… is a work in progress

Bridge Influence Area Analysis

The goal is to identify and evaluate a representative range of improvements

Factors to be considered:

- Construction costs
- Displacements and encroachments
- Operational efficiency for transit and highway users
- Compatibility with local/regional land use plans

Factors to be considered (cont):

- **Environmental impacts**
- **Freight benefits and trade-offs**
- **Safety**
- **Ability to move forward (permitting and construction issues)**

Process and schedule

Working groups established for both Vancouver and Portland, each meeting three times:

Feb 5, 7:	**Develop and discuss initial ideas**
Feb 25, 28:	**Discuss and revise alternative designs**
Mar 18, 21:	**Consider impacts and further revisions**

Process and schedule (cont.)

February - March: Meet with other interest groups (example — trucking industry March 1)

Presentation of results:

Early April: Distribute draft report to Task Force

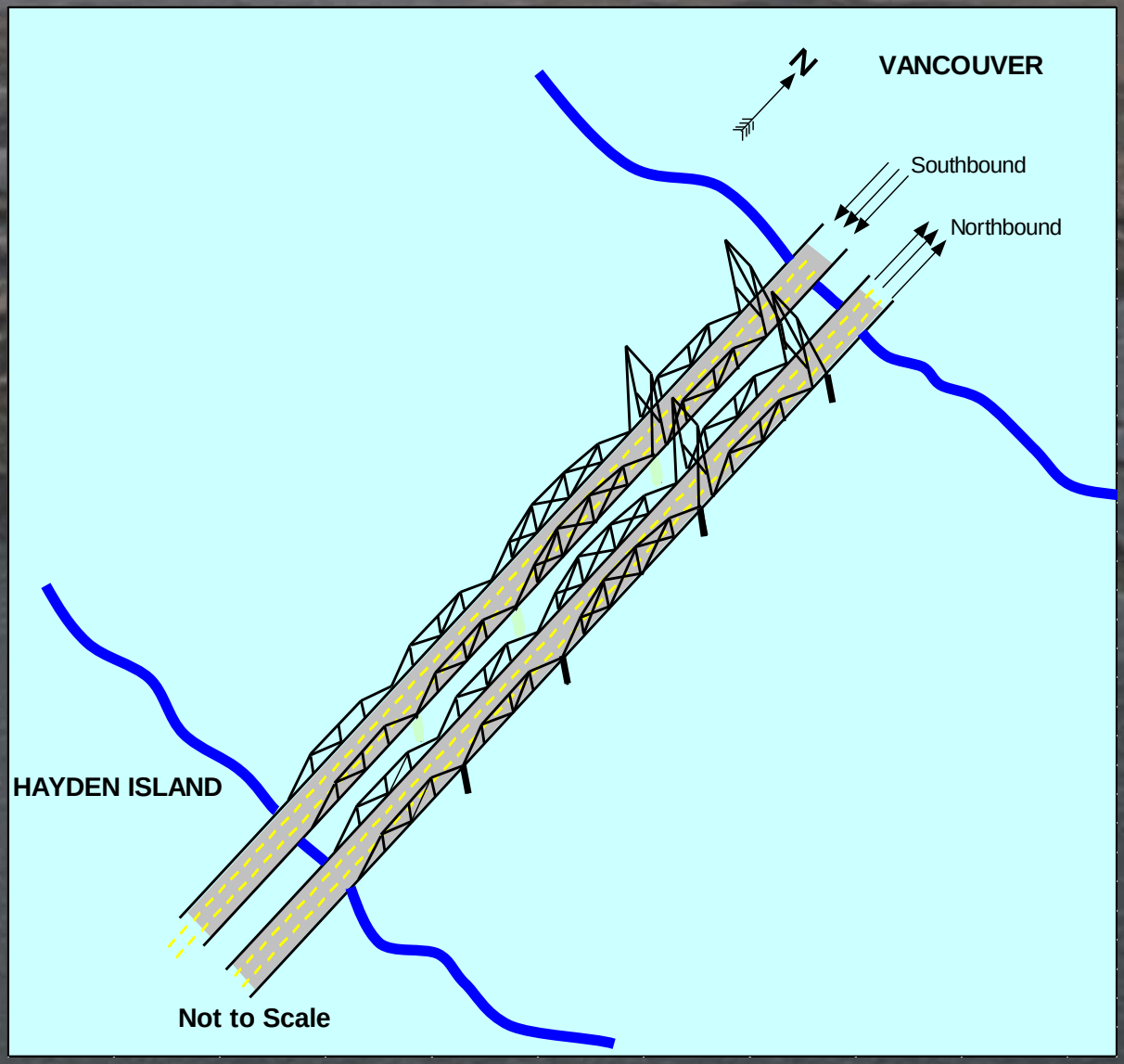
April 23: Discuss results at Task Force meeting

River crossing options

Range of options developed to consider:

- Supplemental vs. replacement bridge options
- Joint use (LRT-highway) vs. separate bridges
- Alignments east and west of existing bridges
- Freeway lanes and arterial lanes

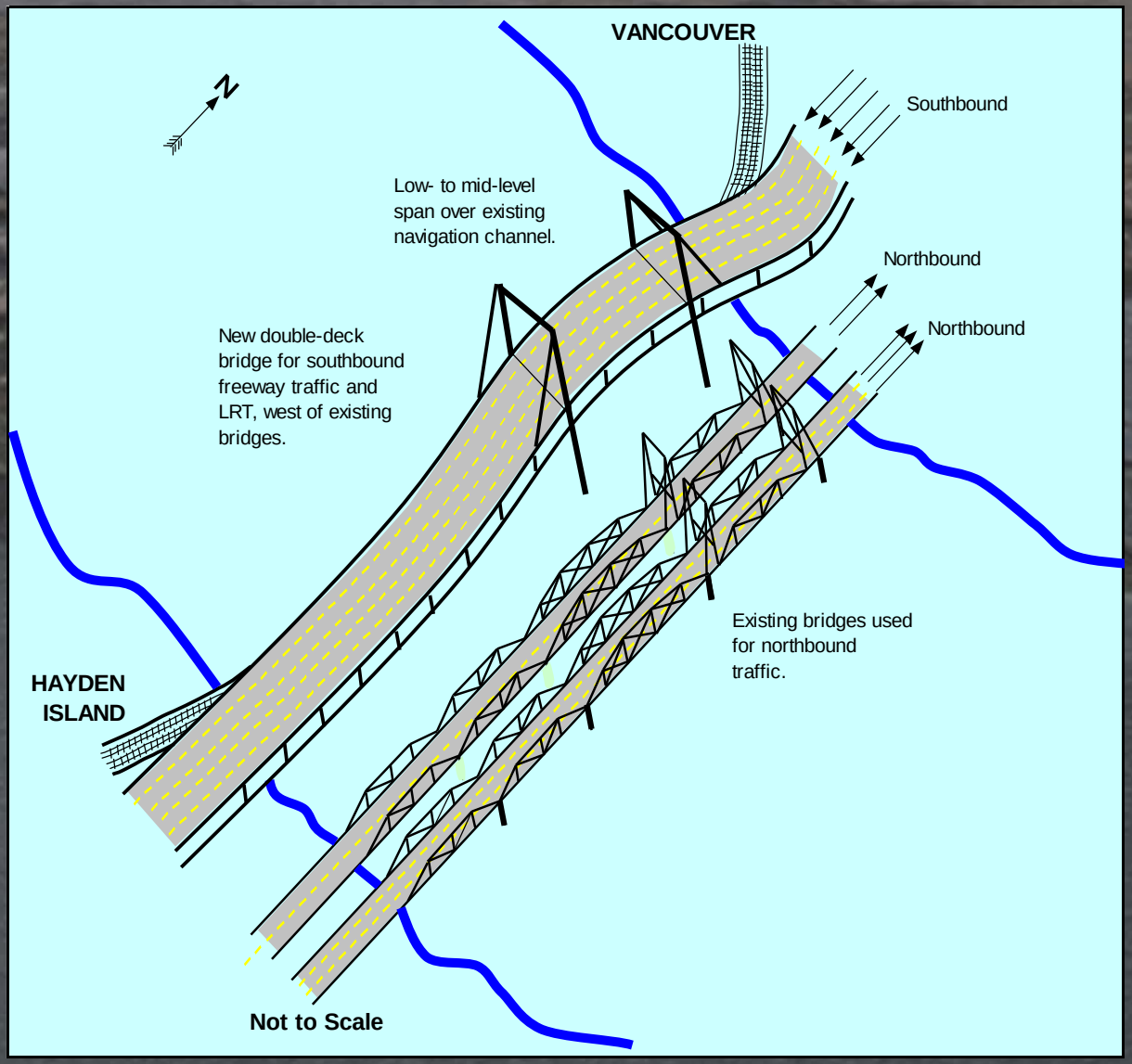
Bridge Influence Area Analysis



Existing configuration:

Two three-lane, low-level lift span bridges

Bridge Influence Area Analysis



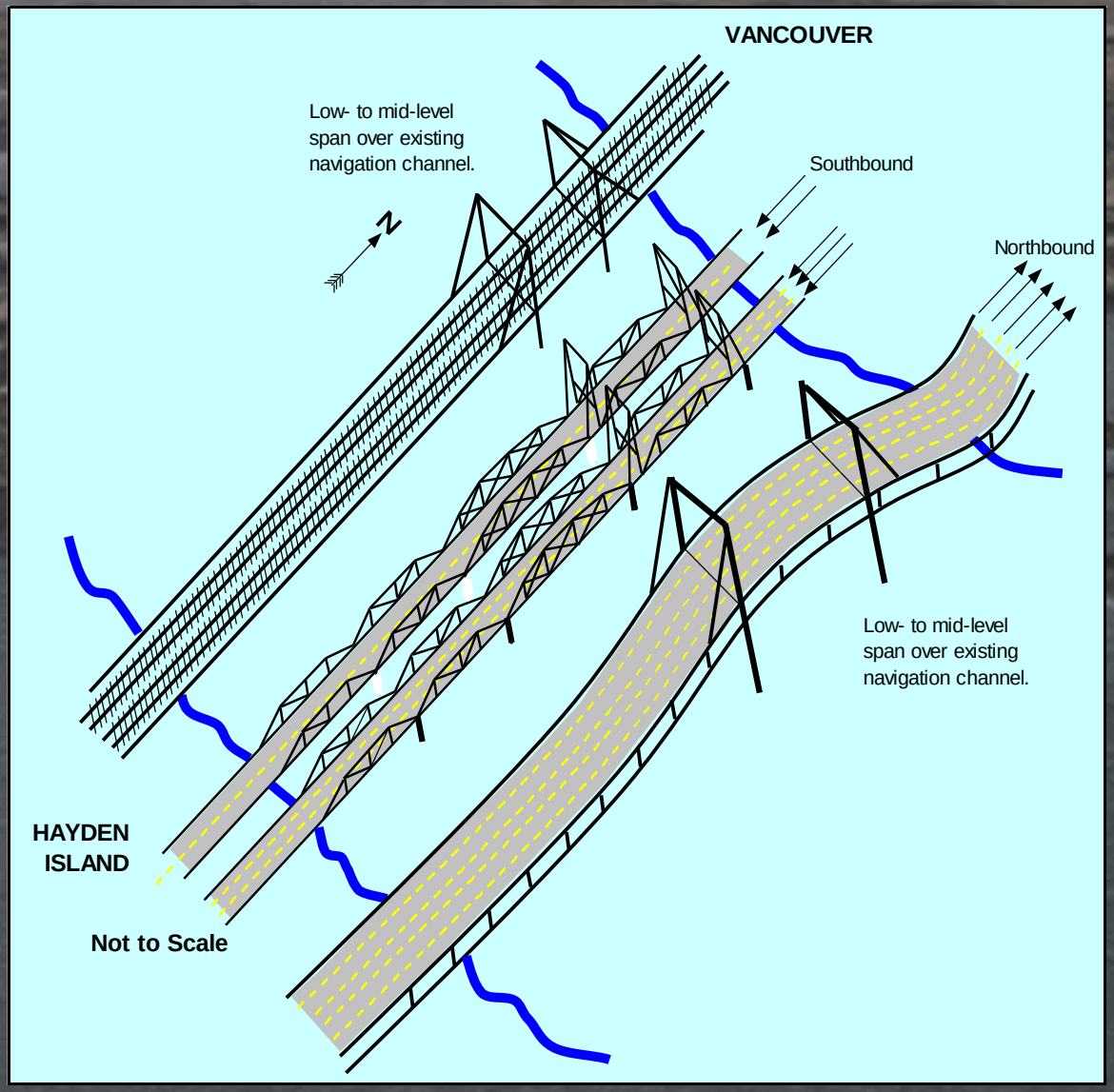
Concept 1:
Five-lane supplemental bridge w/LRT, west of existing bridges

1. Southbound traffic on new five-lane bridge, LRT on lower deck

2. Low- to mid-level bridge, with lift span over existing navigation channel

3. Northbound traffic would be split between the two existing bridges

Bridge Influence Area Analysis



Concept 2:
Five-lane supplemental bridge east of existing bridges, separate LRT bridge to the west

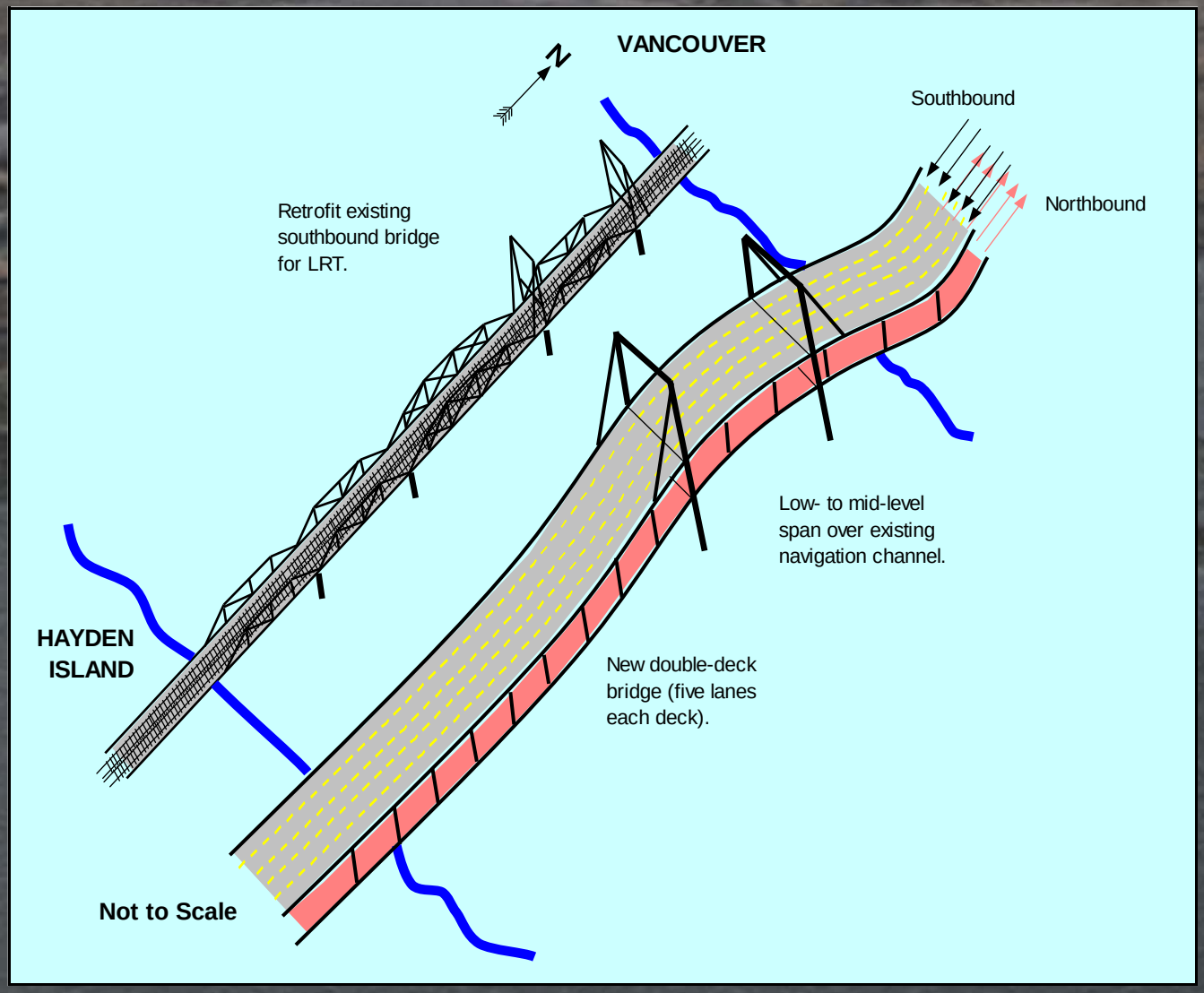
1. Northbound traffic on new five-lane bridge

2. LRT on new "stand-alone" bridge

3. Low- to mid-level bridges, with lift spans over existing navigation channel

4. Southbound traffic would be split between the two existing bridges, providing five to six lanes

Bridge Influence Area Analysis



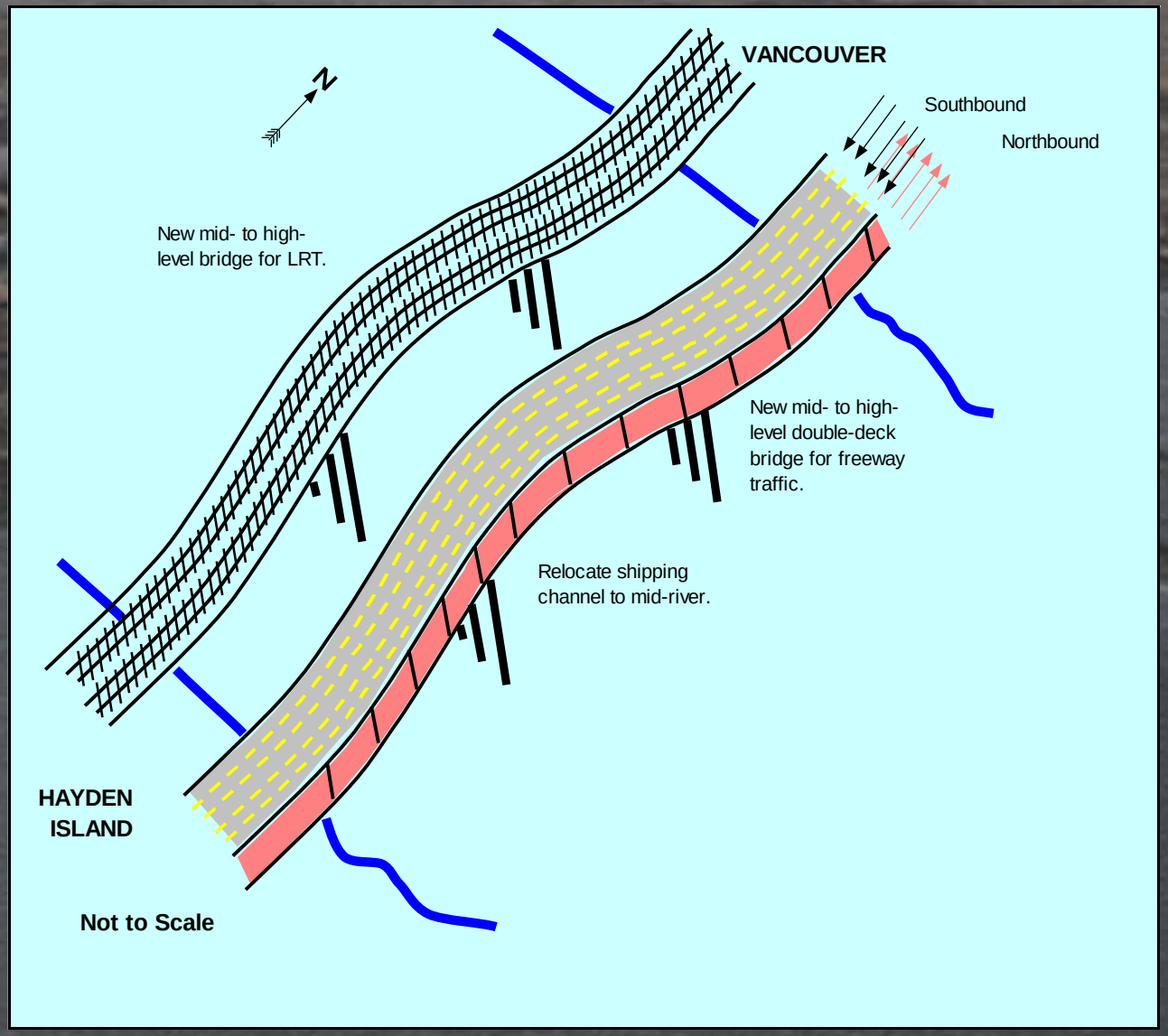
Concept 3:
Ten lanes on double-deck five-lane bridge, with LRT retrofitted on existing bridge

1. Low- to mid-level bridge with lift span over existing navigation channel

2. Requires retrofitting existing bridge for LRT

(feasibility may be questionable)

Bridge Influence Area Analysis

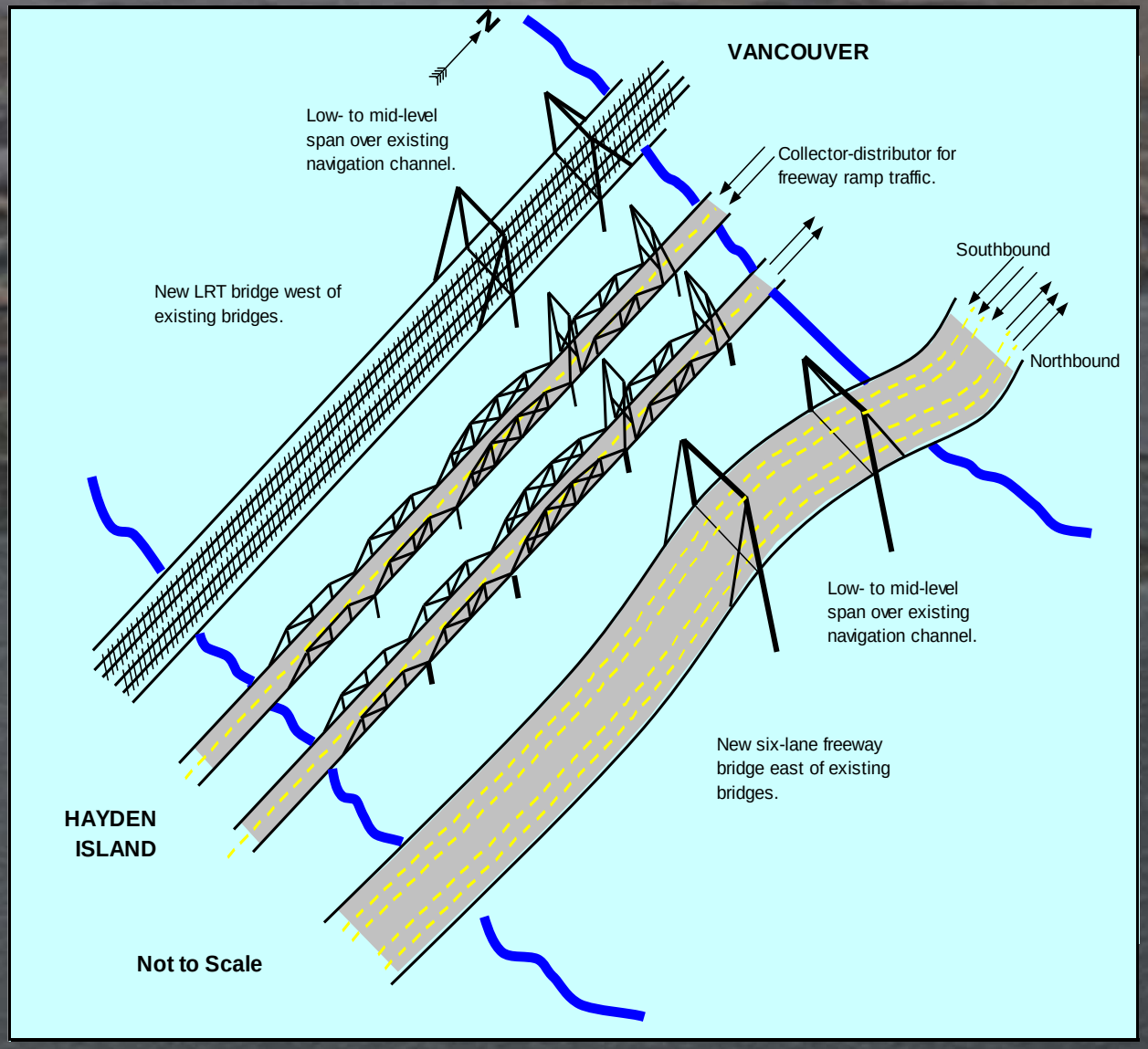


Concept 4:
Ten lanes on double-deck bridge, with LRT on separate new bridge

1. Mid- to high-level bridges. Navigation channel relocated to center of river

2. Potential fixed spans for highway and LRT (with Coast Guard reduction of existing lift requirements), or lift spans

Bridge Influence Area Analysis



Concept 5:
New six-lane supplemental bridge, use existing bridges for collector-distributor, new LRT bridge

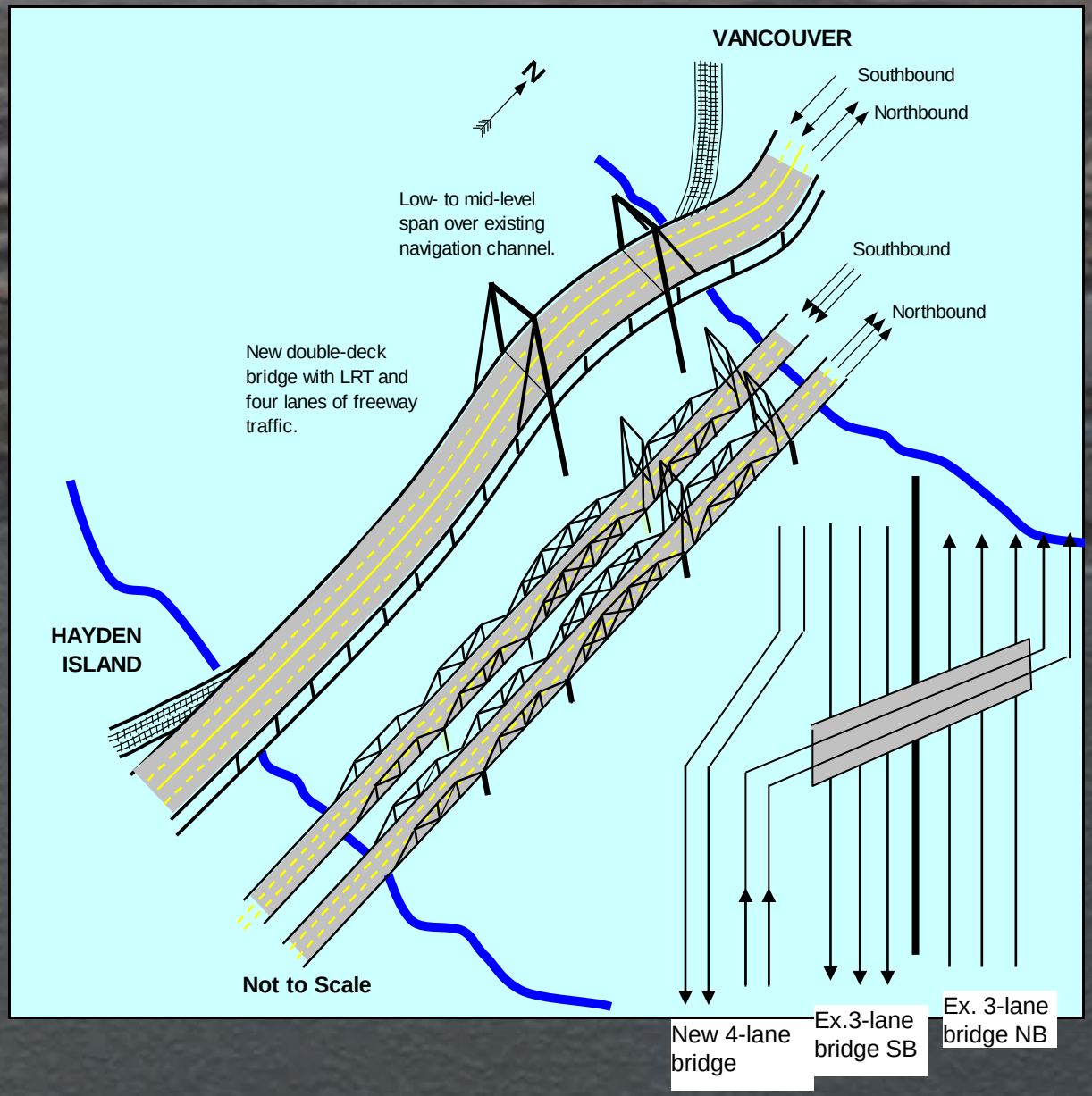
1. Through traffic on new six-lane bridge

2. Existing bridges used for collector-distributor (moving freeway access away from through traffic)

3. LRT on new bridge

4. Low- to mid-level bridges, with lift span over existing navigation channel

Bridge Influence Area Analysis



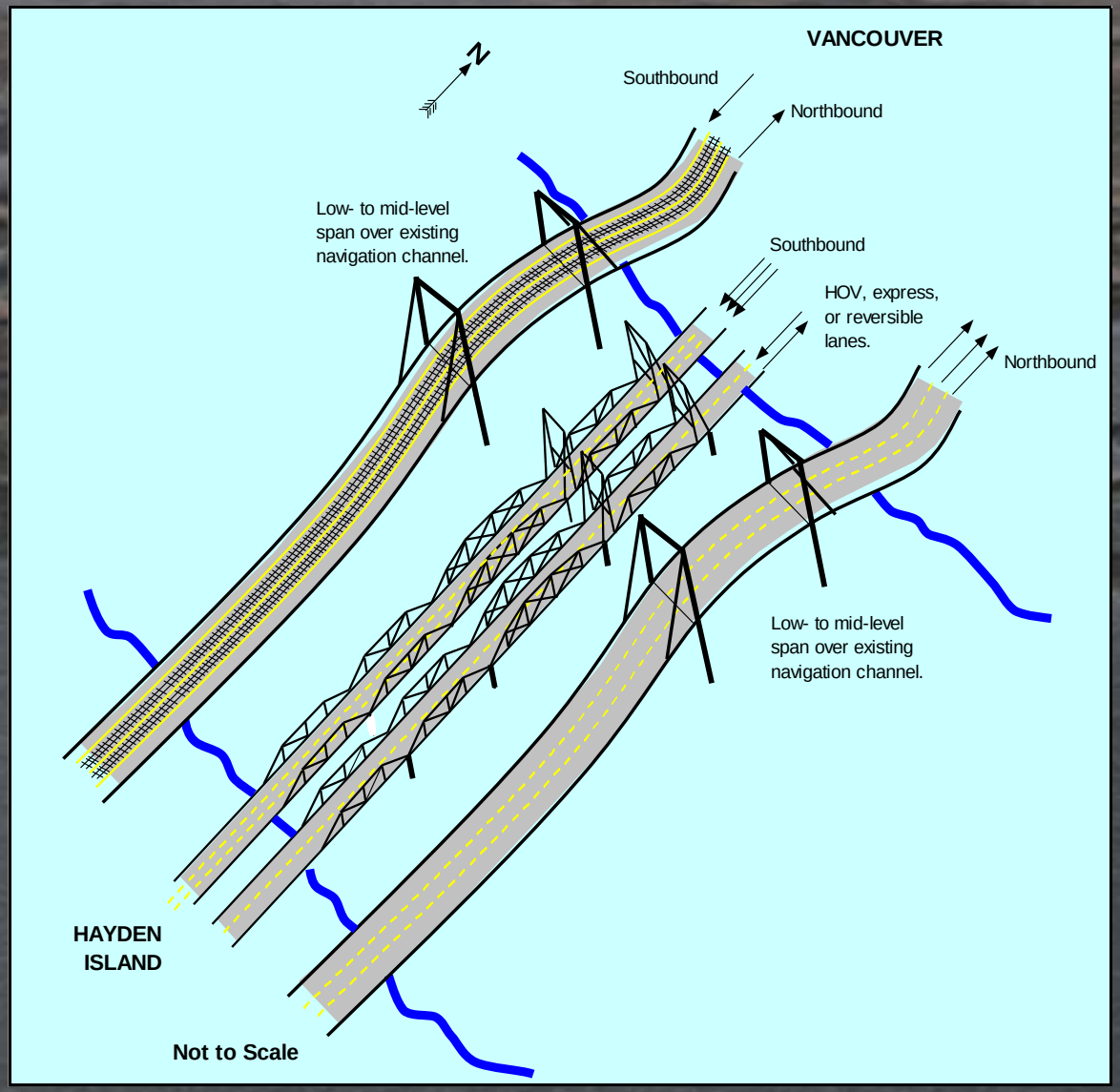
Concept 6:
Four-lane supplemental bridge w/LRT, west of existing bridges

1. Provides for new four-lane bridge with LRT

2. Low- to mid-level bridge with lift span over current navigation channel

3. Use four-lane bridge as collector-distributor (i.e., ramp access for Hayden Island, etc.). Requires fly-over ramps north and south, as shown in the schematic on the left

Bridge Influence Area Analysis



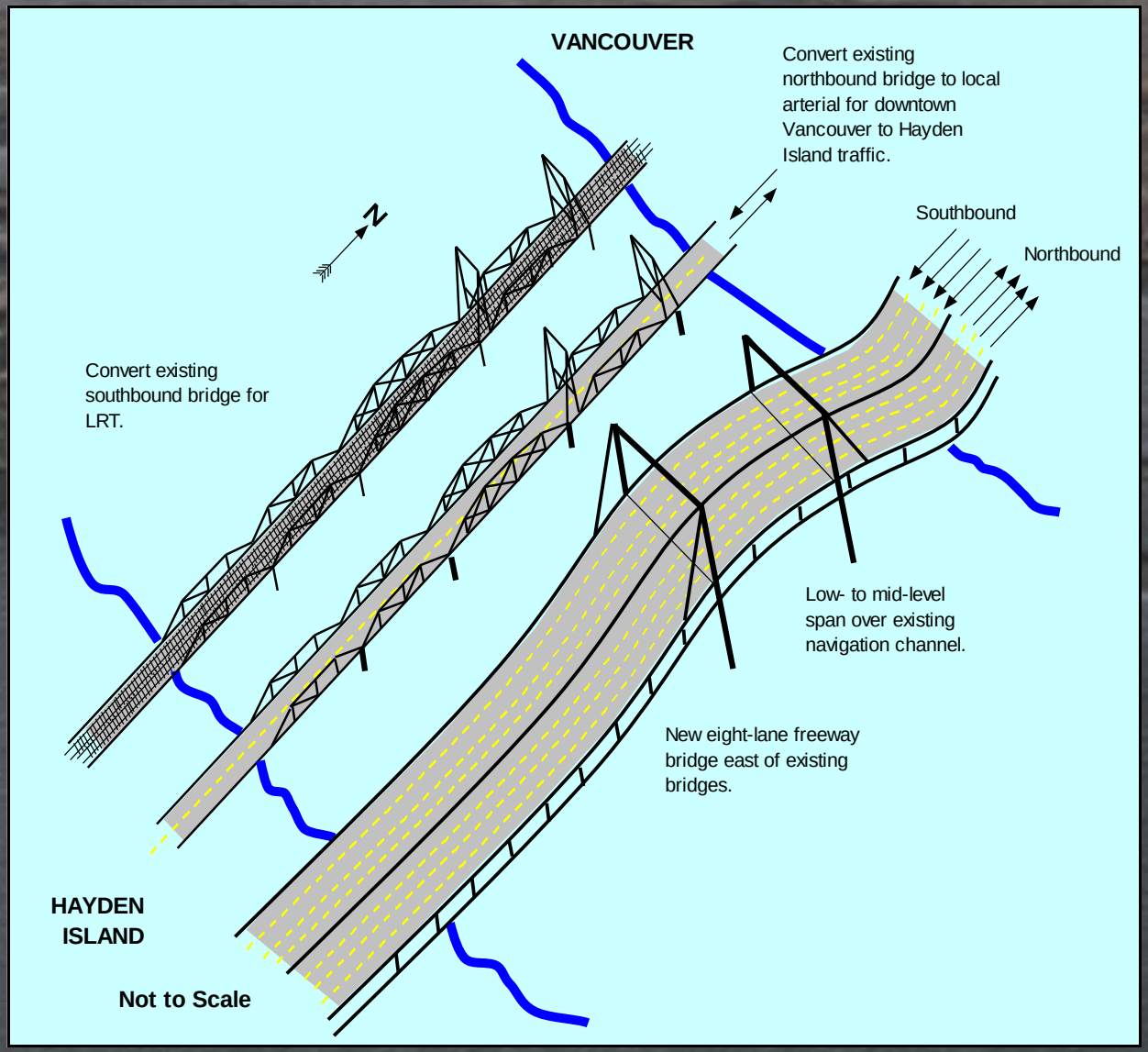
Concept 7:
LRT bridge with two-lane arterial, plus new three-lane supplemental bridge for freeway traffic

1. Provides for new four-lane bridge with LRT

2. Low- to mid-level bridges with lift spans over current navigation channel

3. Two lanes on existing northbound bridge could be used for HOV, express lanes, or (potentially) reversible lanes

Bridge Influence Area Analysis



Concept 8:
Eight-lane supplemental bridge east of existing bridges, LRT retrofit and two-lane arterial

1. Through traffic on new eight-lane bridge

2. Existing northbound bridge converted to local arterial between Hayden Island and downtown Vancouver

3. LRT on retrofitted southbound bridge

4. Low- to mid-level bridge, with lift span over existing navigation channel

River crossing options:

All eight options will be considered in conceptually, and four will be developed in greater detail:

 # 1: New five lane southbound bridge with LRT

 # 4: New double deck freeway bridge, with separate new LRT bridge

 # 6: New four lane/LRT bridge for ramp traffic

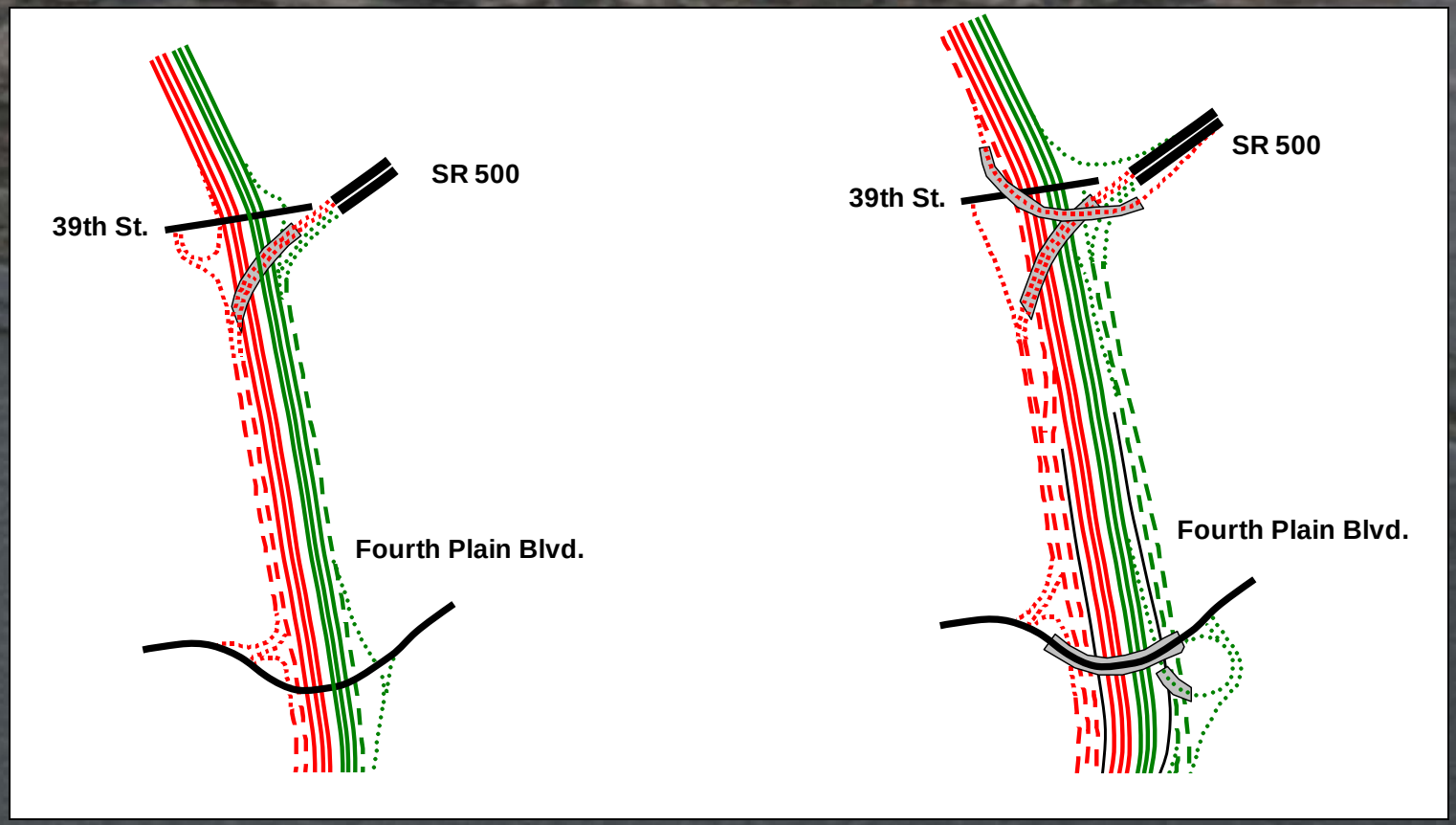
 # 7: New LRT bridge with two arterial lanes, plus new three lane freeway bridge

Freeway and interchange design development

All options under consideration are consistent with the Task Force draft recommendation for three through freeway lanes in each direction and a maximum of ten lanes across the river.

Issues and concerns identified to date

- **Providing for weaving and merging means adding lanes in some locations**



Existing - 6 through, 3 aux lanes

Option - 6 through, 5 aux lanes

Issues and concerns (cont.)

- Staying within existing right of way
- Noise - moving vehicles (especially trucks) closer to houses
- Sound walls
- Diversion of traffic to neighborhoods
- Age and seismic vulnerability of existing bridges

Other feedback from the community

- New ideas - integrated into options or catalogued for future work

Next steps

- **Workshops in Vancouver and Portland this week and the week of March 18**
- **Outreach meetings to interest groups in March**
- **Report to Task Force in April**