

A low-angle photograph of a forest with sunlight filtering through the trees. The sun is positioned in the lower center, creating a bright lens flare that radiates upwards. The tree trunks are dark and textured, leading the eye towards the dense green canopy above. The overall atmosphere is bright and natural.

A Habitat Connectivity Network for the District of Saanich

Habitat Connectivity Network



- Urbanization tends to be focused in lowland areas near the ocean or water bodies which are the areas that support the highest levels of biodiversity.
- As cities are developed, these valuable habitats are lost and this connected network of habitat becomes fragmented.
- The amount of available habitat is reduced and the ability to access these areas is impeded.



Habitat Connectivity Network



- Connectivity is critical for wildlife to access habitat
- Allows for populations to interbreed
- Isolation of populations can cause them to become genetically unhealthy
- Prey and predator dynamics become unbalanced
- Habitat that is constrained and focuses wildlife movement can increase predation



Habitat Connectivity Network



- Focus is terrestrial species
- Protect and connect the most valuable habitat
- Focuses resources
- Maximize the value of the natural areas and their ability to support as many species as possible with a focus on species that are at risk.



Habitat Connectivity Network



Biodiversity of an Island depends on:

- Its size, smaller islands have lower biodiversity
- The amount of edges
- How species move
 - Birds and flying insects can fly over urban areas
 - Some species are slow, while others can move fast
 - Some species must stay close to fresh water
- Their tolerance for and ability to move through urban areas



Components of HCN



Major hubs

- Large in size
- Provide protected interior habitat
- Refuge areas for wildlife
- Most likely to maintain biodiversity because of their size and lower level of disturbance.

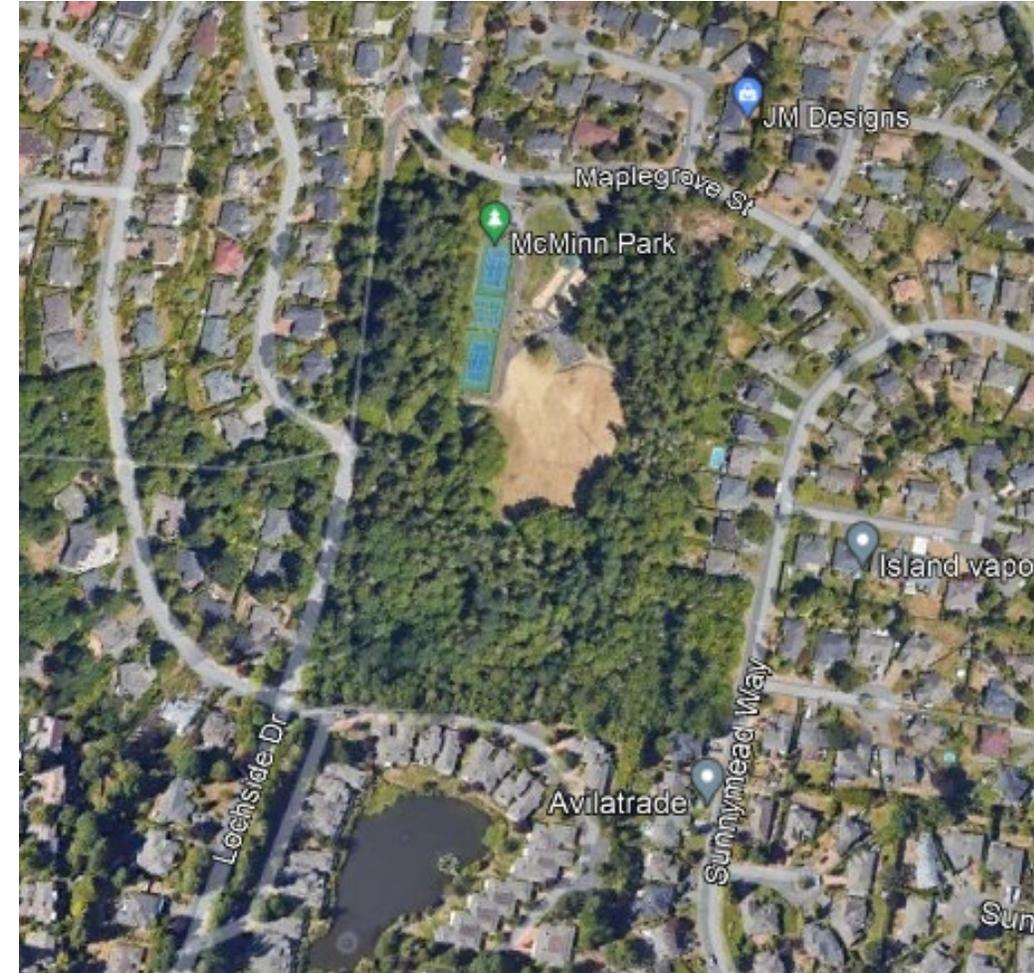


Components



Minor hubs

- Smaller in size
- More interface edges
- Includes some rural areas that have intermixed urban/forest landscapes
- Less protected refuge areas for wildlife
- Important stepping stone areas
- Can provide habitat features that are unique (wetlands, Garry Oak communities)
- May or may not be connected by corridors.



Components



Major corridors

- Linear natural habitat
- Connect major habitat hubs together
- Wide and continuous
- Target >30m wide, preferably 50-100m.
- Often fragmented by barriers such as roads
- Many follow streams and their riparian setbacks
- Legal right of ways and linear infrastructure



Components



Minor corridors

- Narrow and fragmented by urban barriers
- 10-30m wide
- Provide natural cover for mammals tolerant of urban activity, birds and flying insects.



Components



Agricultural lands

- Protected for agricultural use
- Monocultures of plants
- Free of hard barriers
- Low cover - some species will cross
- Risk of toxins – pesticides and herbicides

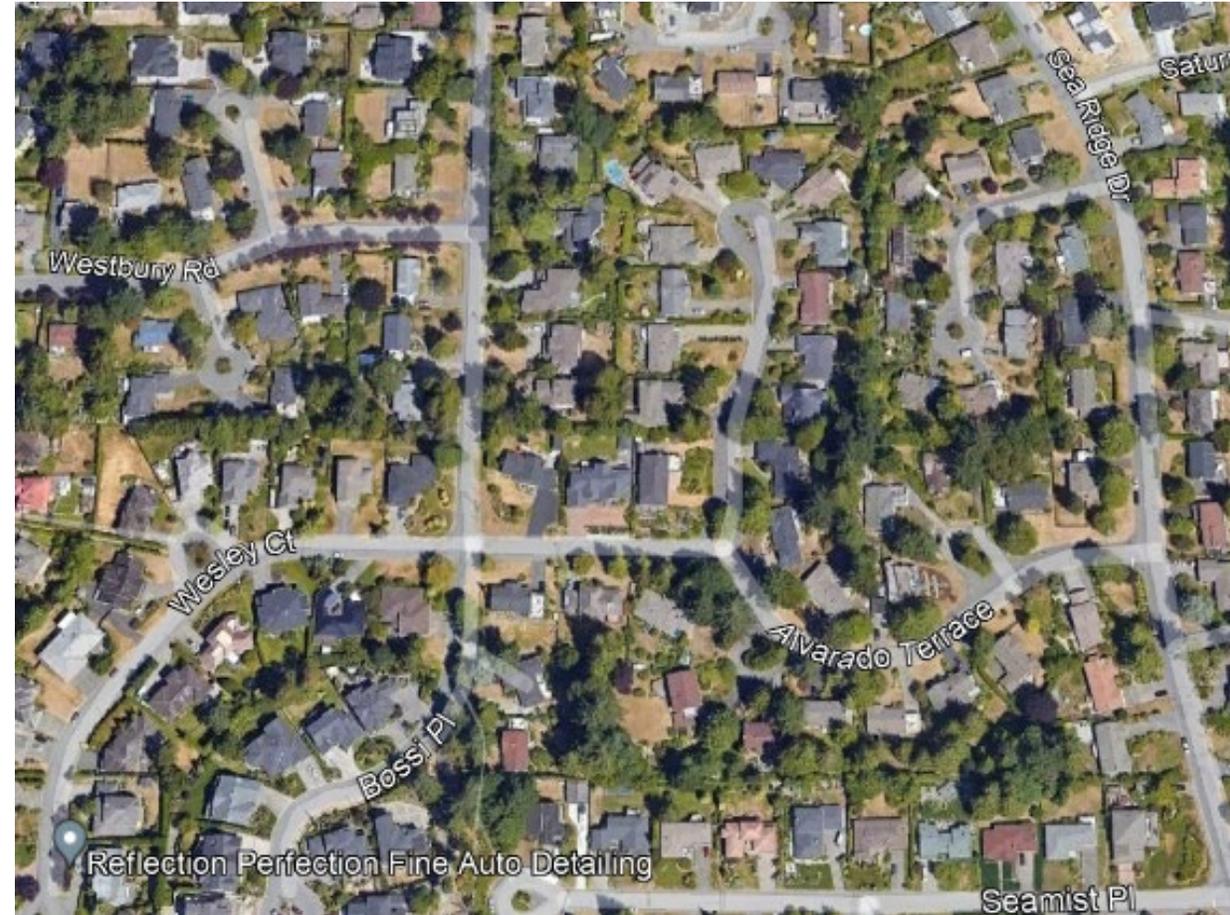


Components



Urban Matrix

- Natural areas intermixed within an urbanized landscape
- Small patches of habitat
- Single or small groups of trees
- Non-native habitat features such as garden areas
- Habitat for mostly flying and urban tolerant wildlife



Goals



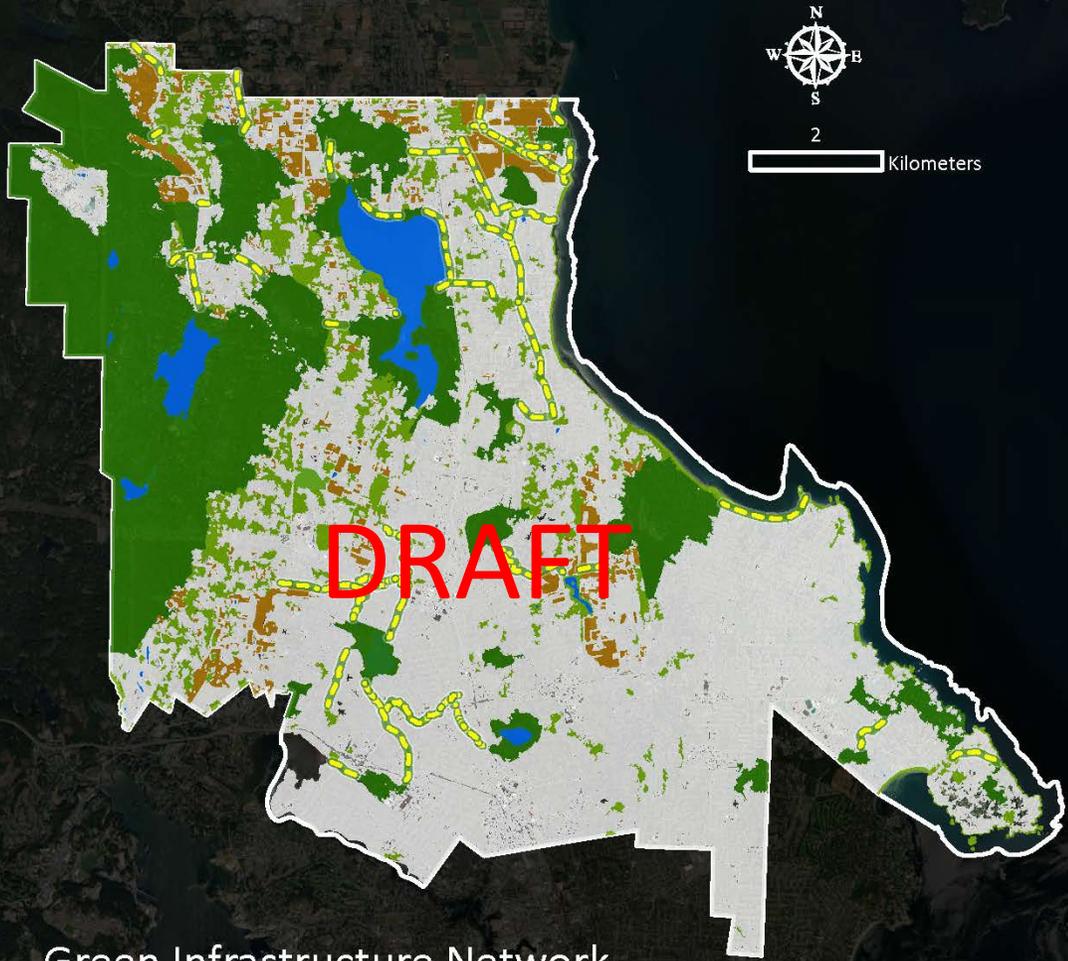
- Understand the amount of remaining habitat in Saanich and how fragmented it is
- Increase public education and awareness of natural habitat within the urban landscape
- Prioritize habitats that will support biodiversity
- Identify missing travel corridors
- Understand where habitat patches are isolated
- Provide mapping that can inform land use planning, conservation and restoration efforts

Considerations



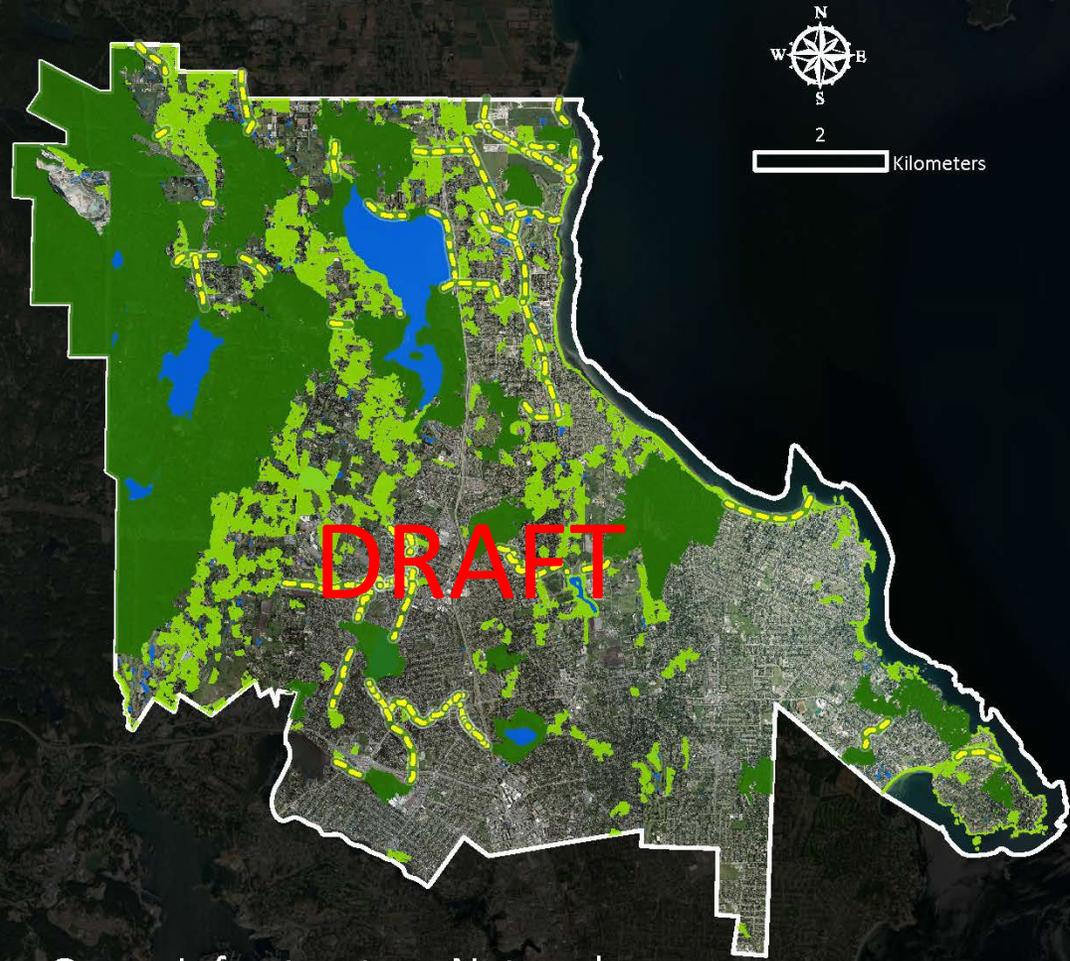
- Habitat type
- Biodiversity
- Agricultural lands
- Land ownership
- Streams and riparian setbacks
- Project scale





Green Infrastructure Network

- Green Infrastructure Network
- Agriculture
- Major
- Minor
- Urban Matrix
- Wetlands and Lakes



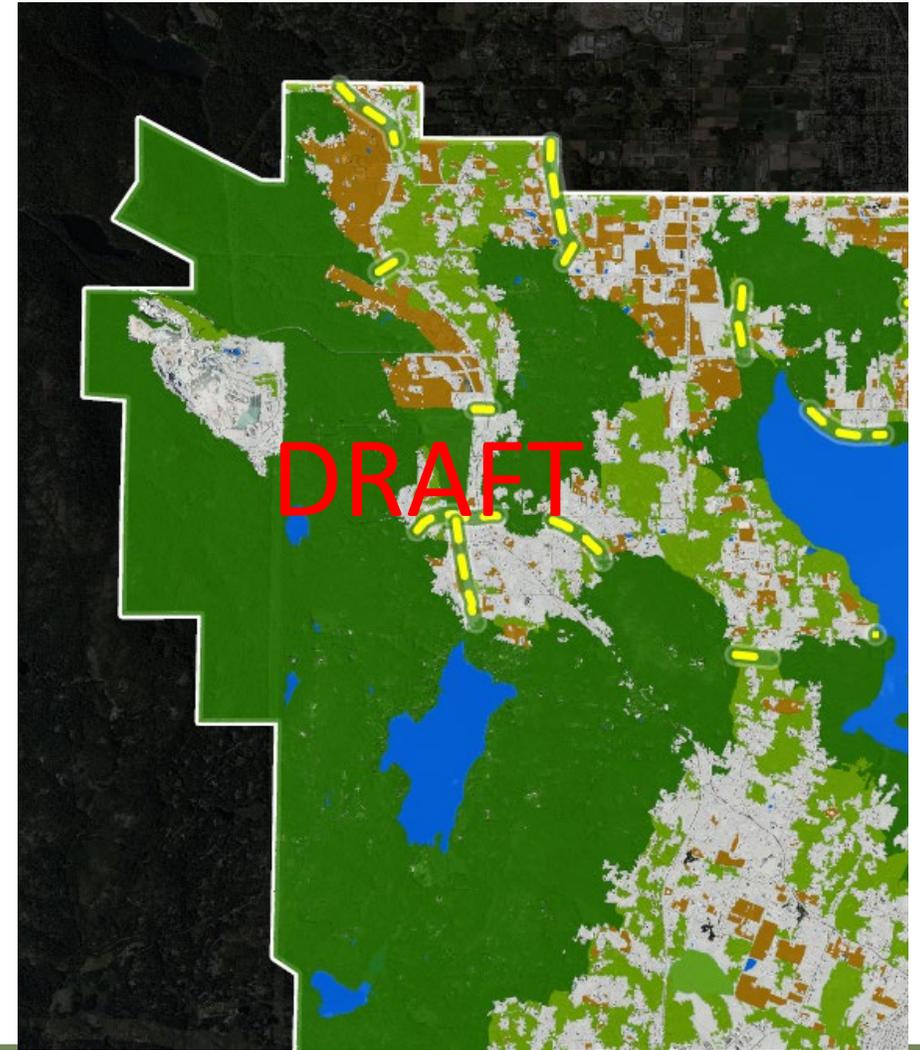
Green Infrastructure Network

- Major
- Minor
- Green Infrastructure Network
- Wetlands and Lakes



The North-West

- Rural Saanich
- Extensive cover of major hubs
- Connected by agricultural lands intermixed with habitat patches
- Fragmented by roads – Hwy 17a
- Patches of habitat connect hubs through agricultural areas
- Some old field habitat



The South-West



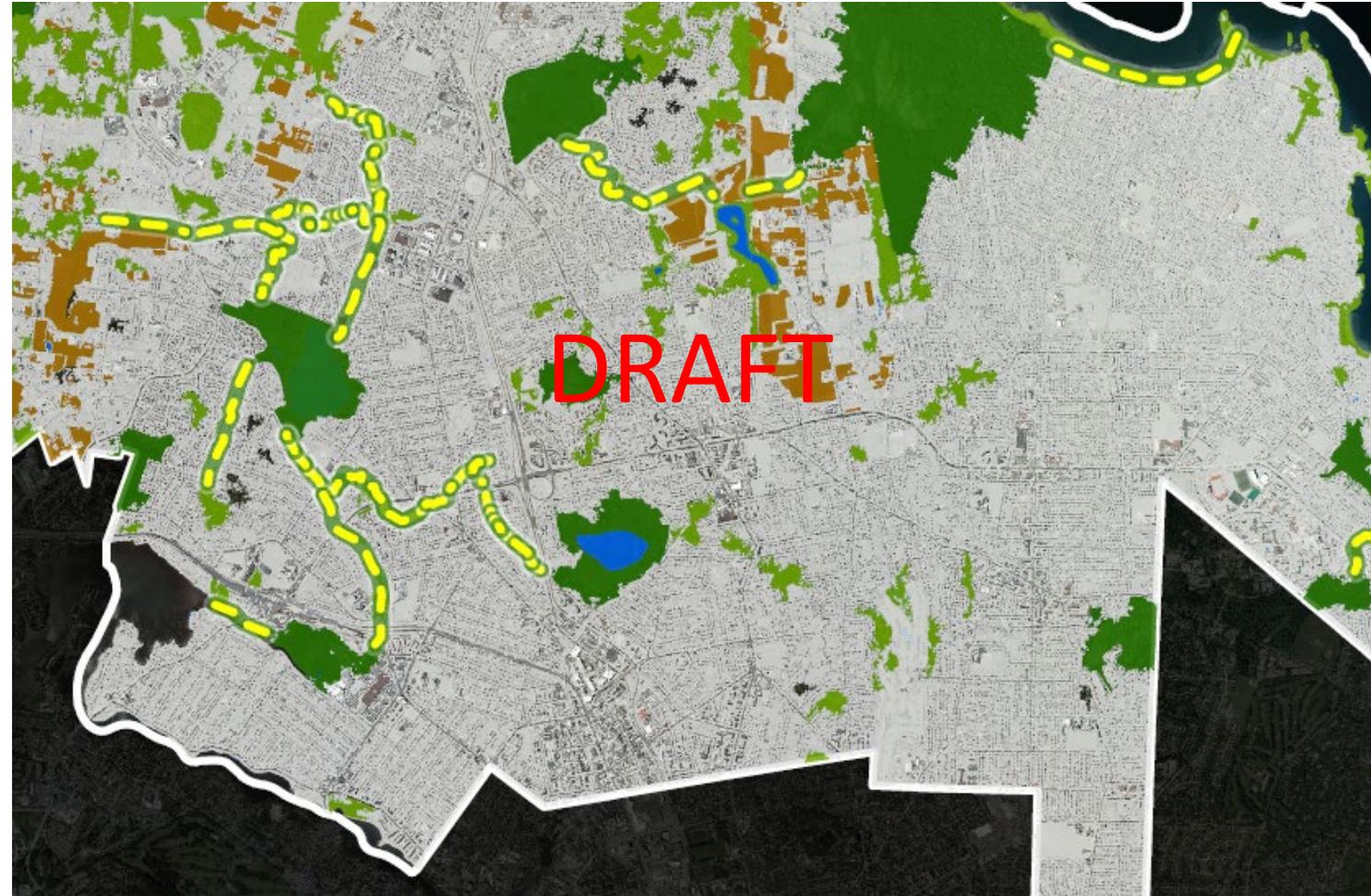
- Rural Saanich
- Transition of major hubs to urban landscape
- Patchwork of smaller habitat areas
- Fewer areas designated for agriculture
- Few major hubs to connect to in the urbanized south Saanich
- Corridors generally follow streams and riparian areas



The South



- Urban Saanich
- Fragmented smaller hubs
- Difficult to restore functional corridors
- Supported species are mainly flying or highly tolerant



The North East

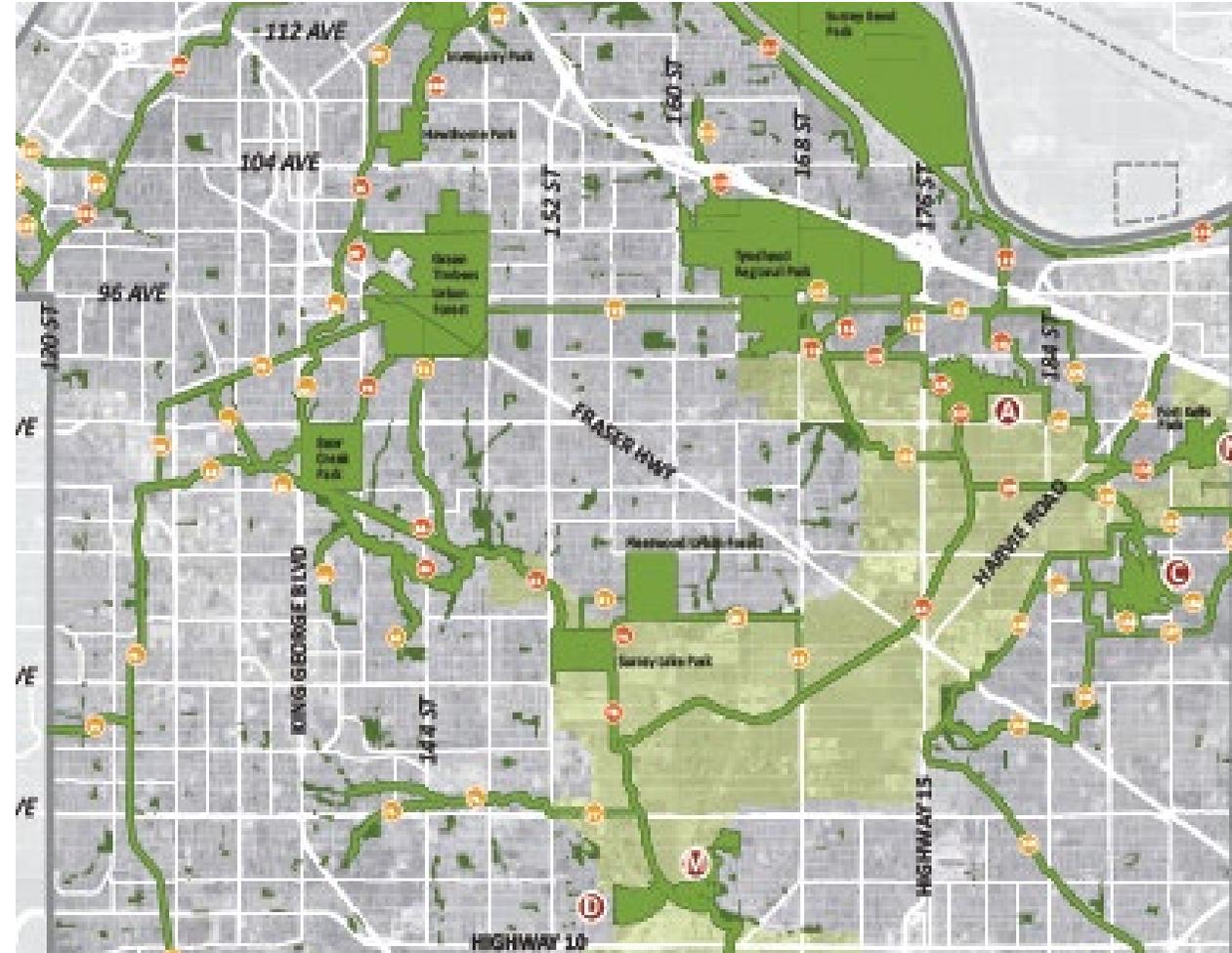
- Mix of urban, rural and Agriculture
- Agricultural lands intermixed with habitat patches
- Hwy 17 is a major barrier
- Foreshore is developed



Questions



- What should this network be called?
- How to display ALR lands?
- Simplify the polygons and corridors for public viewing?
- Existing vs proposed corridors



A low-angle photograph of a forest with tall trees and sunlight filtering through the canopy. The sun is visible in the lower center, creating a bright lens flare. The trees are tall and thin, with dense green foliage. The sky is visible through the canopy.

Questions?