

District of Saanich

**Re: Summary of Resilient Saanich Technical Committee and Staff Workshop, August 19, 2022**

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**Introduction**

Diamond Head Consulting Ltd. (DHC) conducted a review workshop for the Resilient Saanich Technical Committee (RSTC) and District of Saanich staff. This workshop provided an opportunity for the RSTC members to review and comment on preliminary biodiversity maps and introduced the Saanich webapp that was used by the RSTC, District staff, and other technical experts to comment on the mapping. Three presentations were conducted by DHC staff, with a summary of questions, comments, and answers provided below.

**Presentation #1 – Review of data sources, methods, and maps produced to date**

1. RSTC Question – Suggestion that the 0.5 hectare restriction be relaxed for the “Backyard Biodiversity” target. Would like to see that more in this target to reflect that everyone has some biodiversity in their backyard.
  - a. DHC Answer – These smaller pieces were categorized as “urban matrix trees”. The requirement can be relaxed and add these urban matrix trees as Backyard Biodiversity. Pervious areas can also be identified and added in as Backyard Biodiversity. This would be done using LiDAR.
2. RSTC Question – For the State of Biodiversity report they are looking for where things are, how much of it is there, what condition is it in, and what the threats are. These maps are still on an inventory level – would like GIS team to calculate the areas of each of these ecosystems
  - a. DHC Answer – Initial maps were produced to show RSTC/District Staff the data. Summary stats can and will be produced, we are just waiting for agreement on the state of the data before moving forward. Data is displayed through infographics, tables, diagrams, images, etc., but we can pull out numbers and threats as well. Things like Backyard Biodiversity can be helpful to be shown in diagrams.
3. RSTC Question – Where can comments on mapping inaccuracies be sent (e.g. Panama flats are shown as cultivated fields, Cuthbert Holmes park is shown as deciduous when its clearly coniferous).
  - a. DHC Answer – Mapping fields are based on TEM and SEI data, as well as data from the Capital Regional District (CRD). Some of these are from the initial inventory so there will be inaccuracies as things have changed over time. Comments can be provided through the Saanich web application – these are spatially referenced. Changes can be made to these maps by the District in the future.

4. RSTC Question – There is no SAR map, is it coming?
  - a. DHC Answer – We have developed a plant community at risk map. Species at risk map is more difficult as we are limited on available data from the CDC or volunteer data. Plant communities-at-risk can be included in how we rank biodiversity. The problem is that everything remaining in the District is at-risk, so it will wash out a lot of the data if all of it is included. Most natural areas in Saanich are considered important to supporting species at risk. Could prioritize marine ecosystems and Garry Oaks ecosystems.
5. District Question – Can green space be defined in the RSTC targets.
  - a. DHC Answer – All categories will be clarified in the table at the end of the “How to use webapp” document for review. Green spaces can be further clarified in the RSTC categories.
  - b. RSTC Answer – Green spaces are big green urban spaces that are not wild. A lot of them are private property (e.g. golf courses).
6. RSTC Question – The ecosystem maps with trees and without trees look the same. What are the differences?
7. DHC Answer – One map combines urban trees with grass areas as backyard biodiversity, and the other map has them separated as their own feature. RSTC Question – Backyard biodiversity target seems like some of it is listed in parks, unclear about what Backyard Biodiversity is.
  - a. DHC Answer – There may be some confusion about the word “targets”, we are using this as an equivalent as “category”. There is flexibility in categorizing (e.g. some polygons can be labelled as green space). We also would like RSTC to comment more on this. A PDF was provided that describes each “target”, but this is still a working document. Greenspaces can be further clarified to be larger golf courses etc., with backyard biodiversity as a catch all term to include urban trees and pervious areas.
8. RSTC Question – “Deciduous vs. Coniferous”. Saanich is unique in that it has a species of tree which is neither, like arbutus. How does it differentiate between the two, and mixed forests? Are there opportunities to add in mixed forest category?
  - a. DHC Answer – This mapping was based on data from the CRD. Further analysis is being done under the Urban Forest Strategy and can be incorporated if completed in time.
  - b. RSTC Comment – maybe consider using broad-leaf and evergreen instead? This may be described in the TEM data.
9. DHC Answer – it’s language from the CRD data, so it’s difficult to change. The final maps for Saanich as part of this project can be called Broad Leaf if that is the best agreed to term. RSTC Question – For Backyard Biodiversity target, this category applies to more residential and urban lots. Can a layer with zoning and land use type be added to understand the relationship between lot sizes, type of lot use, and loss of tree cover over time? This can be used to identify some of the constraints as to what can be done in the backyard.
  - a. DHC Answer – This is not included in the tool, but can be added in if we have the information. The Urban Forest Strategy (UFS) team is likely doing a lot of this work.
  - b. RSTC Comment – Would like to see the statistics, the snapshot in time is interesting but the committee would like to see trends and how things are changing.

- c. RSTC Comment – Note on the zoning, new developers can ask for new zone not based on the zoning plan.
  - i. Councillor Response - “Good point about the now common use of comprehensive (custom) development zones, Bev. I think this is circumstantial and temporary due to our area-based planning policies being largely out of date. These are being updated, which will lead to new or adjusted zones in the zoning bylaw that match what we are seeking.”
- 10. RSTC Question – Can “impermeable surface” areas be added as part of the whole picture.
  - a. DHC Answer – Good question, the UFS team usually does this analysis. Will have to double check and see if the information is available, but it mostly likely is. It would be an output from the LiDAR analysis.
- 11. RSTC Question – Ecosystems at risk only address red listed ecosystems, can blue listed ones be added?
  - a. DHC Answer – The mapping displays them in one layer that’s red, but both red and blue listed are both in there.
  - b. RSTC Comment – Note that red and blue listed ecosystems are hard to map separately because many of them overlap
- 12. RSTC Comment – Waterways – a lot of streams are buried and culverted, this needs to be addressed moving forward.
  - a. DHC Answer – Fragment ditches are displayed in the mapping. We do have storm and engineering layers that can be presented. Recommendations for daylighting will be part of phase 2.
- 13. RSTC Question – Ecosystem type – there are concentrations of light pink labelled as urban/suburban. What does this mean?
  - o DHC Answer – This is from the TEM data and not defined very well. Generally broad swoopy areas are where there is urban development. Some of these categories are not very useful. There are a lot of codes that we are able to just remove. We have not altered the data very much yet, this is just showing what was offered up in the initial datasets. One good place for the descriptors of TEM codes and plant communities is the CDC website
- 14. RSTC Question – The parks layer is only showing Saanich parks. Is it possible to add in “conservation areas” which would include CRD parks, protected areas, regional parks, etc.?
  - a. DHC Answer – Yes we will look into this and see if the information is available and can be incorporated.
- 15. RSTC Question – Is there a way to leave non-spatially related comments?
  - a. DHC Answer – General comments can be left on the webapp but outside of the municipal boundary
  - b. RSTC Comment – We can collate comments together and send them through Tory
  - c. District Comment – Please come to agreement on comments (e.g. if its regarding the legend that has so many categories, come to a consensus as to what the RSTC would like)

16. RSTC Comment – like the fact that you can see layers past the municipal boundary. Emphasizes connectivity
17. RSTC Question – There are current projects that CRD/Saanich is undergoing (e.g. ISMP, drainage quality and quantity data). If timing is right will these be incorporated into this project
  - a. District Answer – Timing is unlikely to align. There may be a few watersheds that are ready to be integrated

## **Presentation #2 – Options for ranking biodiversity**

1. RSTC Comment – The RSTC was hoping that the conservation standards methodology would be used for this report. But the DHC methodology follows it quite closely so it's nice to see there are similarities. For habitat types and biodiversity ranking, if these habitat types are switched out for conservation targets this would align both processes more
2. RSTC Comment – Biodiversity ranking – it may be inappropriate to rank different ecosystem types (e.g. riparian) and put a priority/value based on what it is. Riparian areas are weighted as high. If this is the trend then Garry oak ecosystems also need to be rated as high. There is a risk of bias with ecosystem rank with biodiversity categories (e.g. coastal sand ecosystems have very high endemism)
  - a. RSTC Comment – Species fields should be reviewed to ensure they're appropriate to Saanich and regionally significant species should also be considered
  - b. DHC Answer – Many good points made, we have to make some compromises for every specific city, but these will be documented so the public is aware of the compromises and caveats. We can add a modifier for Garry Oak ecosystems and coastal sand ecosystems to ensure they start off rated the highest.
  - c. RSTC Comments – hesitation for comparison across categories for what is “important”. For example, backyard biodiversity is important and these comparisons can dilute the importance of these areas.
  - d. DHC Answer – yes, but these areas support fewer types of species and are typically less biodiverse and support fewer native species overall. This map will show relative ability to support biodiversity.
3. RSTC Comment – have to remember we are in island biogeography environment. A unique space where somethings only occur in one or two places. This uniqueness is important. Need to take a different perspective. Like the use and emphasis of riparian sites
  - a. DHC Answer – We will do a first round and edit as necessary
  - b. RSTC Comment - I have seen water/proximity to it cause a bias towards wetland and riparian areas to the detriment of Ecological Communities at risk and again dry sites with high biodiversity (again Oak or Arbutus sites).
4. RSTC Comment – Consider doing a different analysis between either sides of the urban containment boundary in terms of weighting habitat types
  - a. District Comment – Unique systems might be good to pull out
5. RSTC Comment – Remember that patch size has large component to it and that combinations of multiple backyard component can still contribute largely

6. RSTC Comment – “Bleeding the edges” is important as is looking into areas outside of Saanich (e.g. connectivity between coastal dunes outside of Saanich that are fed by bluffs located within Saanich)
7. RSTC Comment – Review and consider adding in additional species complex list RSTC created
  - a. DHC Answer – We will look at conservation targets and see if we can link that with the species list

### **Presentation #3 – Options for rating disturbance**

1. RSTC Comment – Context – Disturbance is “condition” in the conservation methodology. Approach in the conservation standards is to understand what the key ecological attributes of the targets are. What are the elements that key for the area’s continued existence in the landscape. Example. Coastal sand ecosystem, key ecological attribute is the delivery/erosion of sediment, then consider what can degrade or enhance this attribute (such as armouring), moving to GIS analysis into seeing what is armoured and then using this to guide the thinking.
2. RSTC Question – When sites that were disturbed are replanted but planted with non-native and non-invasive plants, how are these categorized? A lot of landscaped areas are like this
  - a. DHC Answer – All ratings account for natural conditions and do not take into consideration of non-natural condition. The focus is on disturbance. Yes, these areas are better habitat compared to a site where nothing was done, but this is still different from what was originally there.
  - b. District Answer – These are considered disturbed
  - c. RSTC Comment – need to keep in mind we are talking about “State of Biodiversity”. Also disturbance is a poor choice of word when we have ecosystems that require disturbance to be healthy. Fire for example is a type of disturbance. So is windthrow. "Anthropogenic Disturbance" is no better because of traditional indigenous management considerations.
3. RSTC Comment – Disturbance is relevant in terms of how it applies to the strategy. Should be using the most rigorous standards. Understands the limitations but suggests that there is more data/information available than we think. Not in favour of the Saanich approach for a few reasons. Reports were not approved by anyone in Saanich, just applied into the SEM, the methodology has no science behind it, no lit cited, does not use size as a criterion, and introduces notion of restoration potential that hasn’t been used by anyone one else. Visiting these sites, they don’t believe they are ESA and doesn’t support the use of this system. DHC approach is unfamiliar, think 30-90% as being a big stretch and there’s a lot of room for subjectivity. Less enthusiastic about that approach.
  - a. DHC Comments –We went through the table that was provided to us and we mapped a number of the garry oak ecosystems. We couldn’t find the research that the SEI Scientific approach –was based on, so unsure how the Province came up with it. We haven’t been able to find anyone that has used that method fully because the spatial

data isn't detailed enough and available. Also, most places that we have found that have used the SEI approach have modified it in some way

- b. District Comments – Maybe its worth testing the two methodologies. Maybe we can all agree the Saanich one is not the most useful. See a test map, maybe there is not a lot of difference.
  - i. DHC Comment – This is possible with our field polygons, but based on our information a lot of it would come out as “poor”
  - ii. RSTC Comment – Disagrees that it is unhelpful if all is classified as “poor”. This adds to the idea that backyard biodiversity is important
  - iii. District Comment – Having a map of all one colour (i.e. classified as poor) doesn't help with setting land management priorities. It ends up as a “who has the loudest voice” if everything is ranked similarly
4. RSTC Question – Wondering if the marine shoreline mapping is available and if that information can be made available. Also maybe using pace of canopy lost as part of this “disturbance” assessment? How do you identify these “hubs/spokes”. Understands that this is not necessarily information that gets presented at this stage but it would come out at a later stage.
  - a. DHC Answer – Considered starting hubs and corridors but decided this process would be better done as part of Phase 2 and rerouted the budget for these engagement pieces. The UFS team is working on canopy change data. Marine shoreline mapping was not completed/shared yet.

### **Miscellaneous Comments and Questions**

1. RSTC Comment - If connectivity is a Key Ecological Attribute for a target, one could use an Eigenvector analysis to consider its current condition for a "state of" report and track that change over time. Or this could be picked up as a part of the Strategy if connectivity is not likely to change year over year.

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