ECOSYSTEM & LAND COVER MAPPING
BREAK OUT SESSION:

How do we update and improve land cover and ecosystem mapping (e.g. SEI, TEM) for the region (map attached), to ensure it captures important ecosystems and is useful for local government and First Nations planning?

INSTRUCTIONS:
- Have your group brainstorm thoughts and ideas on this topic,
- Briefly consider **some or all of** the prompts below (depending on group members' knowledge/ experience/ interest).
- For each, consider **opportunities for collaborating and pooling resources** between projects and organizations, and **who could be involved** (e.g. as part of a working group)?
- *Please capture the breadth of ideas in the group – **consensus is not required.***
- For consideration:
  - **Challenges** raised in interviews, (see attached)
  - **Recommendations & comments made** in questionnaire (see attached).

PROMPTS:

1. Ideas and opportunities for applying innovative methods and/or technologies **for updating** and **improving** ecosystem mapping (e.g. automated vs. human interpretation methods, high resolution land cover, lidar, modelling structural stages, etc.), to:

   - Make it more accurate and easy to update
   - Regularly and cost-effectively track change
   - Better capture:
     - Mature and old forest
     - Small patch ecosystems
     - Non-forested ecosystems
     - Other features of importance to First Nations and local governments

2. Opportunities for **extending coverage of** ecosystem mapping to areas where it's currently lacking (e.g. using PEM, pooling local government resources, etc.)

3. Need for new, updated or **improved standards and expectations** for **developing and updating ecosystem maps**? (e.g. region-specific data sources, methods and BMPs, revised/clarified SEI categories, etc.) If so, what is needed and who should be involved?

4. Need for new or improved **best practices & guidance** (for local governments, First Nations, QEPs etc.) on **how and when to use different types of ecosystem mapping**? If so, what is needed and who should be involved?

5. Any other ways to make ecosystem mapping **more useful for local government and First Nations** in meeting their objectives around important ecosystems, biodiversity and climate change[1]?

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[1] e.g. in referrals, climate change adaptation planning, carbon targets, OCPs, EDPAs, Green Infrastructure Networks, Biodiversity Strateg, etc.

ECOSYSTEM AND LANDCOVER MAPPING
CHALLENGES
(Summarized from interviews)

1. **Coverage & Consistency:**
   a. Does not cover whole region – no wall-to-wall ecosystem mapping; (e.g. no TEM for much of CWHxm, no VRI for private managed forest land)
   b. Mapping is often inconsistent in terms of resolution, vintage, accuracy and methodology.
2. **Updating and tracking change**
   a. Updating ecosystem mapping is expensive and time consuming and often beyond the capacity/budgets of smaller local governments.
   b. SEI is favoured by local government but is often out of date: Old and mature forest often not captured
   c. Ecosystem conversion not being tracked for the south coast region or by most local governments.
3. **Resolution**
   a. Mapping resolution is often too coarse for local government purposes; prefer 1:5,000 minimum for ecosystem mapping and 10m pixels or smaller for land cover.
   b. Resolution will never be good enough to accurately capture everything (flagging tool: ground truthing and site level assessments will always be needed)
   c. Small forest patches and small ecosystem features (such as small wetlands and Garry oak patches) are not adequately captured
4. **Standards, Application and Guidance**
   a. Lack of consistency in mapping standards/methodologies
   b. Lacking up to date region-specific guidance on how and when to use different types of ecosystem mapping.
   c. TEM is difficult for non-specialists to understand and use (misunderstood, misrepresented, under used)
   d. Lack of linkage with marine ecosystems
   e. Maps are ineffective without persuasive and credible supporting information and policy.
   f. Smaller local governments and First Nations have difficulty knowing what spatial layers are important, where to access them, and how to use them.
   g. Optimization tools: questions around when & how to use them; issues with ease of use and keeping them up to date