### Photo Record and Site Walk

- Photos to be taken from fixed vantage points.
- Instant walk to focus on specified species vs as-recorded.
- Document all differences and why the changes were required.
- Seek for invasive species. Immediate notification and discussion regarding next steps (e.g., acute, exotic species).
- Identification of Species at risk.
- Percent survival to be completed at end of warranty period (assumed to be Year 2).

#### Species diversity

- Diversity should be based on design, functional, and communities. In later years, monitoring should focus on function and not how closely it is to original planting plan. Don’t remove vegetation if the desired function.

- Consider completing the vegetation site walk in conjunction with channel and fisheries team members.

### Cross-sections

- At least 1 m on either side of cross-section.
- Consider using OSAP.

- Collaboration with channel survey for cross-section locations.

### Percent cover

- Could be achieved with aerial photos (where available) or drones.

### Longitudinal profile

- Thalweg used as rate of change for larger planimetric scale measurements.

- Points to be collected at significant grade inflections and minimum every channel width.

- Bedrock outcappings should be noted.

- Gradient (water surface), floodplains, connectivity (bankfull stage and physical top of bank).

- Bedform identification and channel structures and infrastructure.

- Consider using aerial photos (where available) or drones help with channel analysis.

### Cross-sections at Pools and Riffles

- 50-50 or proportional representation.

- To get 3D view of pool - top and toe of bank and thalweg / centreline, inside of bend points, or 3 transects per pool.

- To be completed in coordination with temperature monitoring (Fisheries).

### Substrate Analysis

- Pebble counts may need to include shape factor (ABC axis).

- Completed at monumented cross-sections, at sites with special design substrate.

- Pavement or scour chains or bedload sampling (special conditions)

### Flow instrumentation (Level, flow, and velocity)

- Recommended the development of a rating curve for ungauged systems.

- To be completed in coordination with temperature monitoring (Fisheries).

### Fishes (Spring and Early Fall)

- Physical characteristics such as substrate, vegetation, cover, morphology and barriers.

- Functional characteristics such as Migration, Spawning, Nursery, Proximity (based on species).

- Consider completing the fisheries site walk in conjunction with channel and fisheries team members.

### General Notes:

- This program is built around a warrantee period of 2 years. This puts an emphasis on upfront monitoring.

- The photo record and site inspection should be completed concurrently with all these monitoring categories considered.

- Year 0 signifies the baseline survey immediately following construction.

- The number in the columns signifies the number of visits per year (e.g., 2 indicates a spring and fall visit).

- Numbers in brackets are recommended for a long-term monitoring program.