

SEED THE NORTH.

2025 Report for NeexDziiKwa Restoration with Biodiverse Plants

Office of the Wet'suwet'en
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Summary of Deliverables:

7 native species workshoped, collected and/or processed:

1. Bebb's willow - *Salix bebbiana*
2. Black cottonwood - *Populus trichocarpa*
3. Black gooseberry - *Ribes lacustre*
4. Shrub birch - *Betula glandulosa*
5. Highbush cranberry - *Viburnum edule*
6. Red osier dogwood - *Cornus sericea*
7. Soapberry - *Shepherdia canadensis*

110 Enhanced Seed Vessels with the following species included:

1. Saskatoon berry - *Amelanchier alnifolia*
2. Twinberry - *Lonicera incolucrata*
3. Mountain ash - *Sorbus sitchensis*
4. Shrub birch - *Betula glandulosa*
5. Highbush cranberry - *Viburnum edule*
6. Red osier dogwood - *Cornus sericea*
7. Soapberry - *Shepherdia canadensis*

190 Cuttings harvested and planted

1. Black cottonwood - *Populus trichocarpa*
2. Shining willow - *Salix lucida*
3. Red osier dogwood - *Cornus sericea*

Address the Restoration Approach of process-based restoration

From the Community engagement season on June 23rd, 2025

1. Natalie Newman's presentation: "...working with the natural and physical processes of the river. This includes... using low-tech, community-based methods that involve many people and reintroducing structure in areas that have lost functionality post-asset (e.g., post-industrial or post-forestry impacts)
 2. Wet'suwet'en Contributions: "Restoration must prioritize sites with protected, long-term access for Wet'suwet'en people. "When we heal the land, we heal ourselves" was echoed repeatedly."
 3. Cultural Plant Knowledge & Seed Stewardship: Priority species included birch, alder, cottonwood, chocolate lily, gooseberries, cow parsnip, and soapberries. Restoration must follow matriarchal, place-based planting principles (not colonial agriculture). Seed collection and banking should mirror traditional practices and be rooted in local ecology and ceremony."
 4. Seed the North - Restoration Priorities: Area that wouldn't naturally regenerate on its own:

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- a. Emphasis was placed on collecting local, native seeds that are resilient to the climate and ecological conditions of the region.
- b. Seeds should be sourced from nearby creeks, streams, and rivers—representing both ecological and cultural specificity.



- c. Plants must have provenance; without knowledge of their origin, the risk increases that they will not integrate well into the ecosystem.
- d. Seed Collection & Banking
 - i. Seed collection is bespoke—customized to the needs of the site.
 - ii. Seeds are carefully banked under refrigeration, respecting seasonal cycles and traditional knowledge.
 - iii. Matriarchal way “seed orchards” to support more ambitious restoration efforts over time.

Seed the North, Inc.

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Xsi Gwin Hauums, unceded territory of the Luudkudziiwus Wilp, Gitxsan people

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- iv. Planting is done with purpose: forest gardens, not agriculture in the colonial sense.
- v. Restoration should not follow an agrarian or commercial agricultural frame—it should focus on abundance, resilience, and reciprocity.
- vi. Seasonal inhabitation of the land is respected. Planting cycles are tied to cultural use and ceremonies, not just ecological windows.
- e. Priority Native Species
 - i. Birch: Provides shade, essential for many birds; tied to cultural stories.
 - ii. Alder and cottonwood: Also vital for riparian ecosystems.
 - iii. Chocolate lily: A succulent with cultural value—suggested to be nurtured in its own conditions.
 - iv. Ethical harvesting standards: Suggestion to limit harvests to 10% of species per area.
 - v. Gooseberries, currants: Common along creeks, sometimes under waterfalls.
 - vi. Cow parsnip, soapberries: High importance; must be carefully managed.
 - vii. Caution raised around hybrid species and non-local seeds—communities expressed concern about losing local diversity.
- f. Biodiversity and Habitat Complexity
 - i. The value of instream complexity was stressed—natural vegetation that grows, falls, decomposes, and regenerates plays a crucial role in healthy streams.
 - ii. Plant species for amphibians like the coastal blue-tailed frog should be selected with care. Restoration should account for coarse woody debris and microhabitats.
 - iii. Community members were invited to join seed collection and planting. Access to the land remains a challenge in many areas.

Introduction

Seed the North in collaboration with and support by the Office of the Wet'suwet'en, A Rocha, New Graph Environment Ltd. and Department of Fisheries and Oceans to restore the Riparian zone on creeks feeding the Upper Bulkley River.

About Seed the North

We are a landscape scale ecological restoration company working on and in the soil side by side with Indigenous communities, government, businesses, nonprofits, and research institutions to create and sustain good jobs restoring wildfire and erosion affected areas, fighting the biodiversity crisis, and sequestering carbon.

Objectives

Seed the North proposes to assist in addressing the local concerns of disturbances such as stream erosion, agronomic grasses, and invasive species in areas of interest with the following goals:

- Wet'suwet'en engagement and supporting team engagement.
- Increase biodiversity through seed collection, enhancement, and precision seeding.
- Installation of off-grid drip irrigation system
- Harvest and installation of cuttings

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Sites

Locations determined on June 26 in collaboration with partners.

One site, two elevations each with their own treatment comprising <1 hectare

The site meets all the stated criteria:

- Area of greatest erosion threatening road
- Publicly accessible to all community members
- Will not regenerate with maximum species diversity without our intervention
- Contributes to shading and building habitat for wildlife, fish in **NeexDziiKwa!**



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Activity breakdown

1. Planning, management and sample collections

Site evaluation, identification of existing vegetation, site selection and mapping. This was augmented by the June 23rd Wet'suwet'en Community engagement meeting in Topley.

2. Seed Collecting & Drip Irrigation

Seed forecasting and seed collection: willow and cottonwood seed collection in June, Soapberry and gooseberry in July and Cranberry, Dogwood and Birch in September and October.

Seed cleaning, seed enhancement, and precision seeding occurred in October and November.

Installing drip irrigation on an off-grid hydro powered solar system in early August and monitored in mid August. This system was decommissioned and put into storage with field technicians in October.

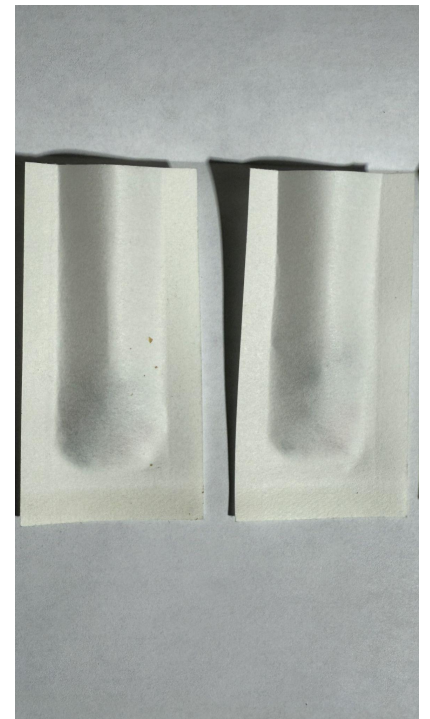


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3. Biodiverse propagation through precision seeding and fall cuttings installation.

Nine species expanded the biodiversity of the riparian zone. Red Osier dogwood were planted as both cuttings and precision seeding. Black Cottonwood and Bebb's willow as cuttings were installed in November. The second six species through seed collection, seed cleaning, enhancing and precision sowing of this enhanced seed in October. Both place mainly in November.



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Off Grid Solar Drip Irrigation Installation

August 8-11, 2025: Design, Layout and Prep drip irrigation system and then Installation

August 19, 2025: Drip Irrigation System Monitoring

October 15, 2025: Decommissioning and putting into storage the Irrigation System



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November 4 to 5, 2025

Goal: harvest and plant cuttings for eroding slope on the Bulkley River which is affected the Michelle Back FSR (aka N Road) in the Neexdzii Kwah restoration area (Houston, BC)

Attendees: Office of Wet'suwet'en field technicians

Kimberly Alec (joined for launch in parking lot in Smithers)

Vernon Joseph & Tieasha Pierre joined for two days

Surrounding plants: Rose, Thistle, native and invasive grasses, Hybrid spruce, Slide alder, and the species for cuttings.

On the first day we harvested 190 cuttings:

110 Red osier dogwood (*Cornus Sericea*)

50 Shining willow (*Salix lucida* and other *Salix* sp)

30 Black cottonwood (*Populus tricarpa*)

We moved them into a non turbulent part of the Bulkley river so they could soak overnight.

On the second day we planted these 190 cuttings with the contribution of Eden from a Roche.

