

2023 Annual Project Report

Swan River First Nation
Ecological Reconciliation Project



Project
Forest

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Land Acknowledgement

| Traditional Territories



Members of Cumberland House Cree Nation at the CHCN Food and Medicine Forest

Project Forest acknowledges that our work is conducted on both Treaty and non-Treaty lands. These lands are the traditional territories of First Nations and Indigenous Peoples. We recognize that our work is intertwined with the deep and diverse histories of Indigenous Peoples. We are grateful for the opportunity to work in these territories and are committed to the recognition and respect of those who live or have lived, travelled, and gathered on these lands for time immemorial.

About Us

| Our Mission and Values

Rewilding Canada, one forest at a time.

Project Forest is a non-profit organization working in partnership with conservation groups, Indigenous communities and Canadian businesses to make a positive environmental and social impact in our communities through planting forests. The forests we plant clean the air and water, increase biodiversity and contribute to the overall health and well-being of our communities.



Our work is rooted in our values.

Responsibility

We believe it is our responsibility to use our skills, knowledge, and experience to bring about positive change in the world.

Reciprocity

We recognize that we have benefited from the earth's resources and are committed to giving back through careful and thoughtful solutions.

Humility

We are grateful for the opportunity to learn from nature, to contribute to improving our environment, and to make a positive impact in people's lives.

Transparency

We document, monitor, and share our processes and findings with partners and the public—every step of the way, on every project.

Community

We create spaces where people can connect with nature, and each other. We respect every community we are invited into, and work together to make positive change.

Overview

| United Nations Sustainability Development Goals

Goals to Transform Our World

Planting new forests is critically important in addressing the challenges of our time, particularly when aligned with the United Nations Sustainable Development Goals (UN SDGs). As our communities grapple with climate change and biodiversity loss, forests emerge as pivotal solutions that intersect with multiple UN SDGs including, combating climate change and preserving biodiversity, fostering economic development, ensuring food security, promoting clean water access, and advancing social equity. Aligning the impacts of our forests with the UN SDGs is essential for communicating to stakeholders our dedication to sustainability, transparency, and the measurement of progress over time.

In our 2023 Annual Report, we have linked the outcomes of our rewilding projects with relevant UN SDG targets and indicators, as well as aligned them with corresponding Environment, Social, and Governance goals. This comprehensive approach ensures that our partners have readily accessible information for corporate sustainability reporting, simplifying the process and enhancing transparency.



Purpose & Positive Impact

The following UN SDGs are impacted by the Swan River First Nation Ecological Reconciliation Project:

Purpose



Positive Impact



Overview

| Forest Facts

About the forest you funded.

NAME

Project Forest Swan River First Nation
Ecological Reconciliation Project

LOCATION

Kinuso, Alberta
[55°20'23.8"N 115°24'12.1"W](#)

DATES PLANTED

Fall 2021, Spring 2023

SIZE

34 hectares

TOTAL SEEDLINGS PLANTED

71,850

TOTAL SPECIES PLANTED

14

TOTAL CO2 REMOVED FROM THE AIR

47,480 metric tonnes

SPECIES PLANTED

Planted in 2021:

White Spruce (30,600)
Lodgepole Pine (10,260)
Tamarack (10,080)
Willow (2,880)
White Birch (2,700)

Planted in 2023:

Saskatoon (3,240)
Raspberry (500)
Wild Strawberry (540)
American Mountain Ash (510)
Bog Cranberry (2,160)
Dewberry (2,180)
Wild Rose (480)
Red Osier Dogwood (2,760)
Buffaloberry (2,960)



Purpose

| UN SDG 15 - Life on Land

Goal: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Matching ESG Goals:

- Providing clean air and water
- Improving biodiversity
- Re-establishing traditional landscapes



Project Forest is making a positive impact through restoring degraded land to increase forest cover, enhance biodiversity, and promote the sustainable use of terrestrial ecosystems.

Indicator 15.1.1: Forest area as a proportion of total land area



The Project Forest Swan River First Nation Ecological Reconciliation Project has increased forested area on the Swan River First Nation Reserve in Treaty 8 Territory in northern Alberta. A total of 71,850 seedlings were planted in two planting events occurring in 2021 and 2023, beginning the transition of 34 hectares of non-productive agricultural land back to native mixedwood forest. A third planting event is scheduled for 2024 when an additional 20,000 seedlings will be planted.

71,850
Trees Planted

Purpose

| UN SDG 15 - Life on Land



The first Afforestation Survey at the Swan River First Nation Ecological Reconciliation Project was conducted in May 2023 indicated that 87.8% of plots surveyed were stocked with acceptable trees (SR + NSR-LIG). The site is deemed to be 87.8% stocked. A fill plant was recommended in one area ~4.2 ha that was documented as Not Sufficiently Restocked (NSR) however upon closer inspection was deemed unnecessary.

The survey results from the Fall 2023 Afforestation Survey (Appendix A - Swan River FN Afforestation Survey) at the Swan River First Nation Ecological Reconciliation Forest found an average total stocking rate (SR + NSR-LIG) of 86.7% (Figure 1), a decrease of 1.1% from 2022.

The surveyors found Canada thistle, a noxious weed, present on the site and recommend that Project Forest and Swan River First Nation determine the best approach for weed management. The Nation has expressed that they do not want to use chemicals or any other method of weed control on the site. Canada thistle does not compete with the trees, therefore we will pursue a let-it-grow approach at this time.

Figure 1: Acceptable Stocking Summary

Type of Plot	# of Plots	% of Plots
Total Sufficiently Restocked (SR)	60	61.2
NSR-LIG Stocking	25	25.5
Not Sufficiently Restocked (NSR)	13	13.3
Total Stocking (SR + NSR-LIG/Total # of Plots)	85	86.7

86.7%

Tree Survival Rate

98

Plots Sampled

NSR-LIG is an abbreviation of “not sufficiently restocked - let it grow”. The NSR-LIG status is applied to plots where under-height trees are left to grow with the expectation that this treatment will be sufficient for them to meet the SR standard at the next annual monitoring survey.

Indicator 15.1.2: Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type

Project Forest partners with Indigenous communities to plant trees, shrubs, and food and medicinal plants that contribute to increasing the overall forested area in Western Canada. By identifying non-forested land that could benefit from rewilding, we are enhancing the coverage of forest ecosystems, which are a critical component of terrestrial biodiversity. We plant forests in areas, and with communities, where we can guarantee the seedlings we plant today will be protected for future generations.

Purpose

| UN SDG 15 - Life on Land



The Project Forest Swan River First Nation Ecological Reconciliation Project is on the Swan River First Nation reserve in northern Alberta in the Central Mixedwood Forest Subregion of the Boreal Forest Natural Region. This land is managed, and its long-term protection overseen, by former Swan River First Nation Council Member, Dustin Twin.



“Success, to me, means taking my grandkids and great grandkids to the forest we’re planting with Project Forest. We will walk on a trail, sit with our ancestors’ spirits, and pick berries. It’s a feeling of security, of knowing my family can take care of themselves. I love that the people at Project Forest are willing to do things that will benefit future generations.” —**Dustin Twin**, Swan River First Nation Councillor

The Project Forest Swan River First Nation Ecological Reconciliation Project includes plant species that are native to the region and have ecological and cultural importance. By planting and maintaining these species, the community is contributing to their preservation, promoting biodiversity, and restoring the ecosystem. In October 2021, a total of 56,520 trees and shrubs were planted. A second planting event occurred in May 2023 with an additional 15,330 food, medicinal, and culturally significant plants being planted at the site.

A total of 14 different species have been planted at the site, all native or locally adapted to the site's ecological zone. By planting and maintaining native species, the Project Forest community is contributing to their preservation, promoting biodiversity, and restoring the ecosystem.

Our Afforestation Survey data shows that desirable herbaceous and woody vegetation is returning to the site. Common yarrow, avens, ferns, tansy mustard, clover, and other species that were not part of our planting plan are present in the area and a sign of natural regeneration on site. Their presence indicates a more suitable habitat has been created from our rewilding plan and overall site biodiversity is likely to increase.

14

Species Planted



Increase in Desirable Natural Vegetation

Purpose

| UN SDG 15 - Life on Land



Indicator 15.2.1: Progress towards sustainable forest management

The Project Forest Rewilding Plans, Monitoring Protocols, and Remediation Actions are designed to ensure the health and success of our forest. *Sustainable forest management* balances the needs of the community with the long-term use of forest resources while preserving the ecological integrity and benefits the forest provides to people and the environment. As part of Project Forest's commitment to rewild land on behalf of our partners and the wider community, we employ a number of tools and metrics to provide scientific verification that our project sites will become mature forests that will benefit the environment and surrounding communities today, and generations to come.

Sustainable Forest

Management is a way of using and caring for forests to maintain their environmental, social, cultural and economic values and benefits over time (NRCAN, 2024).



Site Preparation at Swan River First Nation

Rewilding Plans

Prior to planting a forest, Project Forest assesses the land and identifies site limiting factors. A Rewilding Plan is created and site limiting factors are addressed to ensure that the seedlings planted have the best chance of survival (Appendix B - Swan River FN Rewilding Plan).

Site preparation was completed at the Project Forest Swan River First Nation Ecological Reconciliation Project in July 2021. The entire planting area was either excavator mounded or rip plowed due to the extreme soil compaction, thick grass mat and high vegetation competition. In

Purpose

| UN SDG 15 - Life on Land



May 2022, 56,000 brush mats were deployed on site to help mitigate vegetation competition. Since the initial site prep, our tree planters have reported low compaction at subsequent planting events on site.

Monitoring Protocols

The Project Forest Monitoring Plan requires that 2.44 plots per hectare are surveyed and each plot location is permanently marked. This resulted in 98 plots being sampled on the site. The survey data collected is used to prescribe future monitoring and maintenance events. We budget for a 25% fill plant for each project site in the event of significant tree mortality within the first six years. Our monitoring protocol ensures the seedlings planted are on a trajectory to becoming a mature forest through annual monitoring for up to six years post-planting.

Remediation Activities

In the event of substantial tree mortality prior to the site passing the standard set out in our monitoring protocols, Project Forest will conduct a fill plant. A fill plant will occur when a 'Not Sufficiently Restocked (NSR)' area is identified and the site is less than 80% stocked. The Fall 2023 survey did not recommend any remedial actions on the site but recommended a weed management plan due to the presence of the noxious weed, Canada thistle (Appendix A - Swan River FN Afforestation Survey).

Indicator 15.3.1: Proportion of land that is degraded over total land area.

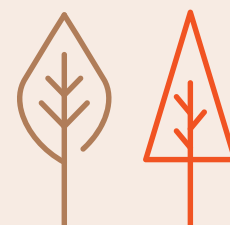
Project Forest is rewilding degraded land that has been disturbed and has not recovered through normal ecological processes.

The Project Forest Swan River First Nation Ecological Reconciliation Project site was previously farmed and grazed, however, prior to rewilding it sat stagnant and unused. Noxious weeds like Canada thistle had overtaken the site, rapidly spreading and replacing native plants. The clay soil had been severely compacted from years of cattle grazing and flooding events from the adjacent Swan River.

Rewilding degraded ecosystems has several positive effects including, an improvement to soil health, increased biodiversity, habitat for birds and animals, ground water filtration and improved air quality.

Ecosystem degradation

is defined as, "an event or process that reduces the productivity or value of an ecosystem, or that delays or prevents an ecosystem from recovering from disturbance through normal successional processes." (Haeussler et al., 2002)



Purpose

| UN SDG 13 - Climate Action

Goal: Take urgent action to combat climate change and its impacts.

Matching ESG Goals:

- Reducing GHG emissions
- Experiencing nature in an educational and interactive way



The forests we plant can have a significant impact on mitigating climate change.

Indicator 13.2.2: Total greenhouse gas emissions per year

Forests act as carbon sinks, absorbing carbon dioxide (CO₂) from the atmosphere through photosynthesis and storing it in their biomass and soil. By planting forests, we increase the amount of CO₂ sequestered, thereby reducing the concentration of greenhouse gases (GHGs) in the atmosphere. This helps mitigate climate change by reducing the amount of CO₂ that contributes to global warming (NRCAN, 2022).

The amount of CO₂ projected to be removed from the atmosphere over the lifetime of the Project Forest Swan River First Nation Ecological Reconciliation Project is 47,480 metric tonnes. The estimated lifetime of a forest is 150 years.

Project Forest uses the [Carbon Budget Model of the Canadian Forest Sector \(CBM-CFS3\)](#) modelling framework developed by Natural Resources Canada to assess the impacts of our forests on carbon. This is the national standard for reporting on forest carbon.

47,480

Metric tonnes of CO₂ project to be removed from the air.

Carbon Budget Model of the Canadian Forest Sector

is an aspatial, stand- and landscape-level modelling framework used for international reporting of the forest carbon balance of Canada's managed forest (NRCAN, 2024).

Purpose

| UN SDG 13 - Climate Action



Target 13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

Project Forest provides our partners and the wider community with the opportunity to participate in educational activities through our Community and Corporate Outreach Program. Experiencing nature in an educational and interactive way enriches knowledge, fosters a connection with the environment, promotes well-being, and encourages responsible environmental behaviour. These are some of the engagement activities we conducted in 2023:

Lunch and Learns, Keynote Presentations and Panel Discussions

- Overview of the rewilding process, our projects, and stories of community impact
- Stakeholder project impacts and opportunity to engage with the Project Forest team

Corporate Tree Planting Events

- In-person, hands-on volunteering opportunities for Silver, Gold and Platinum financial partners
- Educational talks around seedling physiology, forest succession, tree planting technique, tree planting survey methodology, seed collection, plant identification, and traditional plant uses

Indigenous Engagement

- Opportunity to learn from Indigenous Knowledge Keepers and Elders in various capacities from presentations, interviews and talks, to one-on-one exchanges at our Corporate Planting Events and Annual Partner Celebration

Podcast, radio, tv and webinar interview

- Overview of the rewilding process for general audiences
- Discussions of more in-depth topics such as working with Indigenous communities, operating a non-profit, and sustainable forest practices

Annual Partner Celebration

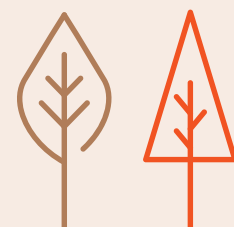
- Presentations featuring a wide range of speakers from the Project Forest community
- Focus on Indigenous reconciliation through rewilding, sustainable business practices, and community investment

Seedling and Seed Kit giveaway events throughout the year

- Opportunity to interact with the Project Forest team
- Celebrate the impact your organization is making
- Engage with the Project Forest community

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Project Funding Partners



Purpose

| UN SDG 11 - Sustainable Cities and Communities

Goal: Make cities and human settlements inclusive, safe, resilient and sustainable



Matching ESG Goals:

- Generating social & economic growth
- Advancing health & wellbeing
- Developing deeply ingrained Indigenous relationships

Restoring degraded land can have a positive impact on communities through creating safe, resilient, and sustainable natural spaces.

Target 11.4: Strengthen efforts to protect and safeguard the world's cultural and natural heritage



Sweetgrass Teachings at Swan River First Nation



Forests hold immense cultural and spiritual significance for Indigenous Peoples. Through planting forests in Indigenous communities, we provide opportunities to preserve cultural heritage, traditional knowledge, and spiritual connections to the land. Forests provide a space for traditional land-use activities including ceremonies, hunting, and gathering food and medicinal plants.

Purpose

| UN SDG 11 - Sustainable Cities and Communities



Planting native species can re-establish the natural heritage of the landscape. Project Forest works with Indigenous communities to learn about what once grew on the land and which plants are significant to their culture and diet. In collaboration with the community, we create planting plans that consider their needs, the site conditions and the natural region. Project Forest works closely with Registered Professional Foresters and Environmental Professionals to ensure we are planting the right plant in the right place for the right reason.

In May 2023, more than 15,330 food-bearing and medicinal plants and shrubs were planted at the site to complete the project. Nine native plants with cultural significance to the Nation were planted: saskatoon, raspberry, wild strawberry, American mountain ash, bog cranberry, dewberry, wild rose, red osier dogwood, and buffaloberry.

Indigenous communities have extensive knowledge about local plant species, their cultivation, and their traditional uses. By planting food and medicine forests, traditional knowledge is preserved and utilized, fostering cultural identity and strengthening community resilience. The sharing of intergenerational knowledge, as Elders share their experience and the youth learn traditional practices, preserves both our cultural and natural heritage.

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Species Planted in 2023

Purpose

| UN SDG 11 - Sustainable Cities and Communities



Indicator 11.a.1: Number of countries that have national urban policies or regional development plans that (a) respond to population dynamics; (b) ensure balanced territorial development; and (c) increase local fiscal space

The forests we plant provide areas for recreation and traditional land use within the community. Our funding partners finance the rewilding costs including seedlings, planting, and labour, allowing communities to allocate more funds to services and infrastructure.

The Project Forest Swan River First Nation Ecological Reconciliation Project provides the Swan River First Nation with an area for traditional land use activities like ceremonies, hunting and gathering, recreation and knowledge exchange all within 15 minutes of the band office. The Project Forest funding partners are financing the seedlings, tree planting and labour costs to rewild this section of land, allowing the Nation to allocate more funds to services and infrastructure.

When working with Indigenous communities, Project Forest offers the first right of refusal for site preparation and maintenance work to the Nation. Rewilding projects require labour to complete, including but not limited to:

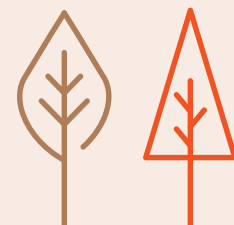
- Mechanical site preparation
- Seed collection
- Tree planting
- Vegetation management
- Survival assessment survey and data collection
- Cover crop deployment
- Construction work

By investing in rewilding, Project Forest funding partners are creating employment opportunities. The income earned by individuals through these jobs can have a positive economic impact, leading to increased tax revenues for the government and expanding **local fiscal space**.

Swan River First Nation received economic benefit through administering the site preparation program. The Nation invoiced Project Forest for the work carried out by three local contractors.

Local fiscal space

is defined as the sum of financial resources available to a government for the improved delivery of basic services without any prejudice to the sustainability of a government's financial position (Heller, 2005).



Positive Impact

| UN SDG 2 - Zero Hunger

Goal: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.



Planting a forest can have indirect but important impacts on addressing hunger, achieving food security, improving nutrition, and promoting sustainable agriculture.

Target 2.1: By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.

Indigenous food and medicine forests incorporate a wide variety of plant species, including vascular plants, shrubs, fungus, bushes, and trees. This diverse range of edible and medicinal plants provides a broad selection of food and healing sources for the community year round.

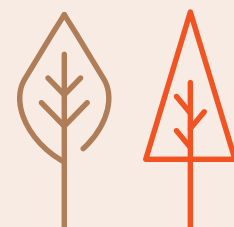
By growing food and medicinal plants, Indigenous communities can reduce their reliance on external sources and commercial markets. This enhances the community's self-sufficiency and food sovereignty.

Target 2.4: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.

Indigenous Food and Medicine Forests are designed to be locally appropriate and suited to the specific environmental conditions of the region. By planting native plant species that are well-adapted to the local climate, soil types, and pests, these forests provide a more reliable and sustainable source of food. They require less water and fertilizers, and have reduced vulnerability to pests and diseases.

15,330

Food-bearing, Medicinal, and Cultural Plants, Shrubs, and Trees



Positive Impact

| UN SDG 3 - Good Health and Well-Being

Goal: Ensure healthy lives and promote well-being for all, at all ages.



Planting a forest can have several positive impacts on ensuring healthy lives and promoting well-being for all ages.

Target 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

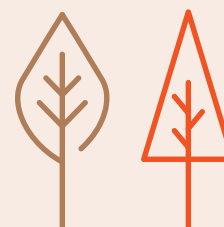
Forests act as natural air filters by absorbing pollutants and particulate matter from the atmosphere. Trees remove harmful gases by absorbing them through their leaf stomata, filtering these chemicals from the air. Particulate matter is intercepted by the tree's surfaces. When it rains, the particles are washed off and carried to the ground. Planting forests can help improve air quality, by reducing the exposure of communities to harmful pollutants (Nowak et al., 2014).

In addition to improving air quality, forests provide opportunities for people to connect with nature, enjoy recreational activities, and experience the positive physical and mental health effects of spending time outdoors. They also provide various ecosystem services that indirectly contribute to our health and well-being.

Some of the important ecological services provided by forests include:

- cleaning water through water filtration
- cleaning air through oxygen production and absorption of pollutants
- rebuilding of soils and restoration of nutrients
- holding back floodwaters and releasing needed water into rivers and streams
- absorbing CO₂ from the atmosphere
- maintaining biodiversity by providing habitat for countless species

These services all indirectly impact human health and well-being.



Positive Impact

| UN SDG 6 - Clean Water and Sanitation

Goal: Ensure availability and sustainable management of water and sanitation for all



The forests we plant can have positive impacts on ensuring the availability and sustainable management of water.

Indicator 6.3.2: Proportion of bodies of water with good ambient water quality.

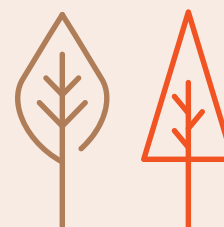
Forests filter, purify and improve the quality of our water. Tree roots help retain soil and reduce the transport of pollutants into water bodies. Planting forests in watershed areas can contribute to protecting water quality, ensuring access to clean water for communities. (NRCAN, 2021)

The Project Forest Swan River First Nation Ecological Reconciliation Project is located on the banks of the Swan River, south of Lesser Slave Lake in the Lesser Slave Lake Watershed.

While planting forests alone cannot solve all our water-related challenges, they do offer nature-based solutions to help achieve sustainable management of our water resources.

Target 6.6: By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

Forests act as natural sponges and filters, absorbing rainfall and gradually releasing it while purifying it as it passes through the ecosystem. By restoring forests, we can enhance water quality, reduce erosion, and promote water retention in the landscape.



Partners

| Funding Partners



Project Forest Swan River First Nation Ecological Reconciliation Project

Our work is not possible without you.

Thank you to the Project Forest Swan River First Nation Ecological Reconciliation Project funding partners!



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Appendix A - Swan River FN Afforestation Survey

Afforestation Survey Cover Page				
Project Site: Swan River First Nation				
Survey Date(s)	October 19, 2023	Total Plots	98	
Stocking Calculations				
Type of Plot	# of Plots	% of Plots	Meet Final Criteria	% of Plots
SR with Acceptable Conifer trees	29	29.6	2	2.0
SR with Acceptable Deciduous trees	0	0.0	0	0.0
SR Acceptable Shrubs	15	15.3	2	0.0
SR with Acceptable Conifer & Deciduous trees	1	1.0	1	1.0
SR with Acceptable Conifer trees & Shrubs	10	10.2	4	4.1
SR with Acceptable Deciduous trees & Shrubs	4	4.1	1	1.0
SR with Acceptable Conifer & Deciduous trees & shrubs	1	1.0	0	0.0
NSR-LIG with Conifer	9	9.2	N/A	N/A
NSR-LIG with Deciduous	0	0.0	N/A	N/A
NSR-LIG with Shrub	7	7.1	N/A	N/A
NSR-LIG with Conifer & Deciduous	0	0.0	N/A	N/A
NSR-LIG with Conifer & Shrubs	9	9.2	N/A	N/A
NSR-LIG with Deciduous & Shrubs	0	0.0	N/A	N/A
NSR-LIG with Conifer & Deciduous trees & shrubs	0	0.0	N/A	N/A
NSR -No Acceptable Woody species present	13	13.3	N/A	N/A
Acceptable Stocking Summary				
Plot Stocking Status	# of Plots	% of Plots		
SR Plots	60	61.2		
NSR-LIG Stocking	25	25.5		
NSR (excludes NSR-LIG)	13	13.3		
Total Stocking (SR + NSR-LIG):	85	86.7		
Herbaceous Vegetation Observed on Site			Noxious Weeds	
Dandelions	Cinquefoil		Canada thistle	
Grass spp.	Fern sp			
Common Yarrow	Lambs quarters			
Avens	Wild mustard			
Plantain	Hemp nettle			
Tansy mustard	Goldenrod			
Stinkweed				
Dock sp.				
White clover				
Stinging nettle				
Project Comments: The project is growing well. Some of the woody stems within plots are starting to grow past project milestone heights.				

Assessment Survey Tally Card

Plot	Tree & Shrub Stocking												Status	Tallest in Plot		Risk factors	
	Acceptable		Acceptable		Acceptable		Acceptable		Under Height		Under Height			Species	Height (cm)	Evidence of: Damage, Disease, Competition,	Noxious Weeds
	Species	Number	Species	Number	Species	Number	Species	Number	Species	Number	Species	Number					
Sr_01	Sw	1											SR	Sw	36		
Sr_02													NSR				
Sr_03	Bw	1	Raspberry	2					Sx	3			SR	Bw	90		
Sr_04	Tx	2							Sx	3	Aw	4	SR	Tx	112		
Sr_05	Tx	1											SR	Tx	127		
Sr_06									Sw	2	Raspberry	1	NSR-LIG	Sw	23		
Sr_07	Sw	1											SR	Sw	36		
Sr_08_new									Sw	1			NSR-LIG	Sw	29		
Sr_09									PI	1	Raspberry	1	NSR-LIG	PI	25		
Sr_10	Tx	1											SR	Tx	76		
Sr_11	Raspberry	10							Sw	1	Raspberry	3	SR	Raspberry	62		
Sr_12	Raspberry	2											SR	Raspberry	62		
Sr_13	Tx	2	Raspberry	1	Sx	1							SR	Tx	107		
Sr_14	Tx	2	Raspberry	2									SR	Tx	130		
Sr_15													NSR				
Sr_16	Raspberry	6							Raspberry	9			SR	Raspberry	134		
Sr_17	Sw	1							Sx	10			SR	Sw	30		
Sr_18													NSR			Thick grass thatch	
Sr_19	Raspberry	1							Raspberry	2			SR	Raspberry	68		
Sr_20	Tx	1											SR	Tx	88		
Sr_21	Sw	1											SR	Sw	39		
Sr_22	PI	1	Raspberry	1					Raspberry	3			SR	Raspberry	73		
Sr_23									Sw	1			NSR-LIG	Sw	27		
Sr_24	Sw	1							Sx	3			SR	Sw	36		
Sr_25	Sw	2											SR	Sw	30		
Sr_26	Sw	1											SR	Sw	34		
Sr_27									Sw	1	Sx	1	NSR-LIG	Sx	32		
Sr_28	Honeysuckle	10											SR	Honeysuckle	82		
Sr_29	Sw		Snowberry	10									SR	Honeysuckle	84		
Sr_30	PI	1											SR	PI	34		
Sr_31	PI	1											SR	PI	30		
Sr_32	PI	2							Sx	1	Raspberry	3	SR	PI	44		
Sr_33	PI	1							Aw	1	Sx	1	SR	PI	33		
Sr_34													NSR				
Sr_35													NSR				
Sr_36	Raspberry	1											SR	Raspberry	66		
Sr_37									Raspberry	1			NSR-LIG	Raspberry	43		
Sr_38									Sx	1			NSR-LIG	Sx	9		
Sr_39									Raspberry	1			NSR-LIG	Raspberry	18		
Sr_40									Raspberry	3	Sw	1	NSR-LIG	Sw	21		
Sr_41	Sw	1											SR	Sw	48		
Sr_42	Sw	1											SR	Sw	42		
Sr_43													NSR			Heavy thistle competition	
Sr_44													NSR			Heavy grass competition	

Plot	Tree & Shrub Stocking												Status	Tallest in Plot		Risk factors		
	Acceptable		Acceptable		Acceptable		Acceptable		Under Height		Under Height			Species	Height (cm)	Evidence of: Damage, Disease, Competition,	Noxious Weeds	
	Species	Number	Species	Number	Species	Number	Species	Number	Species	Number	Species	Number						
Sr_45	Pl	1											SR	Pl	31			
Sr_46													NSR			Heavy grass & thistle competition		
Sr_47									Sw	1	Sx	1	NSR-LIG	Sw	16			
Sr_48	Sx	10	Honeysuckle	10					Sw	1			SR					
Sr_49	Sw	1							Pl	1			SR	Sw	36			
Sr_50	Raspberry	3	Wild Rose	2									SR	Raspberry	81			
Sr_51													NSR			Heavy grass & thistle competition		
Sr_52	Sw	1											SR	Sw	31			
Sr_53													NSR			Heavy thistle competition		
Sr_54									Sw	1			NSR-LIG	Sw	28			
Sr_55									Raspberry	3			NSR-LIG	Raspberry	39			
Sr_56									Sw	1			NSR-LIG	Sw	24			
Sr_57	Sw								Raspberry	1			SR	Sw	48			
Sr_58									Sw	1			NSR-LIG	Sw	22			
Sr_59													NSR				Canada thistle	
Sr_60	Pl	1											SR	Pl	36			
Sr_62									Raspberry	1			NSR-LIG	Raspberry	20			
Sr_63	Pl	1											SR	Pl	37			
Sr_64	Sw	1							Sw	1			SR	Sw	1			
Sr_65													NSR			Heavy thistle & grass competition		
Sr_66													NSR					
Sr_67	Raspberry	1							Raspberry	3	Pl	1	SR	Raspberry	60			
Sr_68									Sw	1			NSR-LIG	Sw	29			
Sr_69									Raspberry	6	Sw	1	NSR-LIG	Raspberry	30			
Sr_70									Raspberry	3			NSR-LIG	Raspberry	25			
Sr_71	Sw	1											SR	Sw	34			
Sr_72									Sw	1			NSR-LIG	Sw	19			
Sr_73									Raspberry	2	Pl	1	NSR-LIG	Raspberry	22			
Sr_74									Sw	1	Raspberry	1	NSR-LIG	Raspberry	52			
Sr_75									Raspberry	1			NSR-LIG					
Sr_76	Pl	1							Raspberry	1			SR	Pl	40			
Sr_77	Pl	3											SR	Pl	48			
Sr_78	Tx	3											SR	Tx	79			
Sr_79	Sw	3							Sx	6	Aw	2	SR	Aw	36			
Sr_80	Snowberry	50							Sw	1			SR		102			
Sr_81	Honeysuckle	10											SR	Honeysuckle	81			
Sr_82	Sx	3	Honeysuckle	10									SR	Sx	207			
Sr_83	Honeysuckle	10											SR	Honeysuckle	123			
Sr_84	Sw	3	Wild Rose	3	Honeysuckle	10							SR	Wild Rose	160			
Sr_85	Sw	5	Honeysuckle	10									SR	Honeysuckle	144			
Sr_86	Pb	9	Sx	3									SR	Pb	203			
Sr_87	Honeysuckle	10	Bw	1	Raspberry	2	Twinberry	1	Sw	1	1		SR	Bw	102			
Sr_88	Sx	10	Aw	1	Honeysuckle	10							SR	Sx	202			
Sr_89	Honeysuckle	10	Raspberry	1	Sx	1							SR	Sx	170			

Plot	Tree & Shrub Stocking												Status	Tallest in Plot		Risk factors		
	Acceptable		Acceptable		Acceptable		Acceptable		Under Height		Under Height			Species	Height (cm)	Evidence of: Damage, Disease, Competition,		Noxious Weeds
	Species	Number	Species	Number	Species	Number	Species	Number	Species	Number	Species	Number						
Sr_90	Sw	1	Saskatoon	3	Pb	1	Snowberry	100	Sw	1	Raspberry	2	SR	Saskatoon	176			
Sr_91									Sw	1			NSR-LIG	Sw	25			
Sr_92	Raspberry	2	Sw	1	Snowberry	10							SR	Raspberry	110			
Sr_93_New	Sw	1							Raspberry	2	Snowberry	3	SR	Raspberry	45			
Sr_94	Tx	1	Raspberry	4									SR	Raspberry	145			
Sr_95									Sw	1			NSR-LIG	Sw	22			
Sr_96	Raspberry	6	Snowberry	10					Sw	1			SR	Raspberry	221			
Sr_97	Wild Rose	1	Sw	1	Snowberry	10							SR	Wild Rose	107			
Sr_98	Pb	2	Snowberry	10									SR	Honeysuckle	104			



Swan River - Map 1 Survey Plot Status Fall 2023

Project Partners:

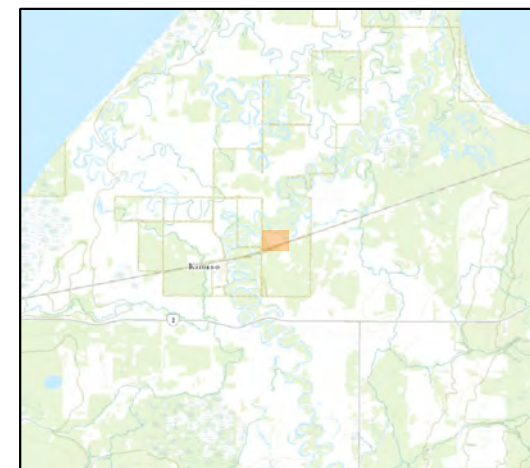


Legend

Project Boundary

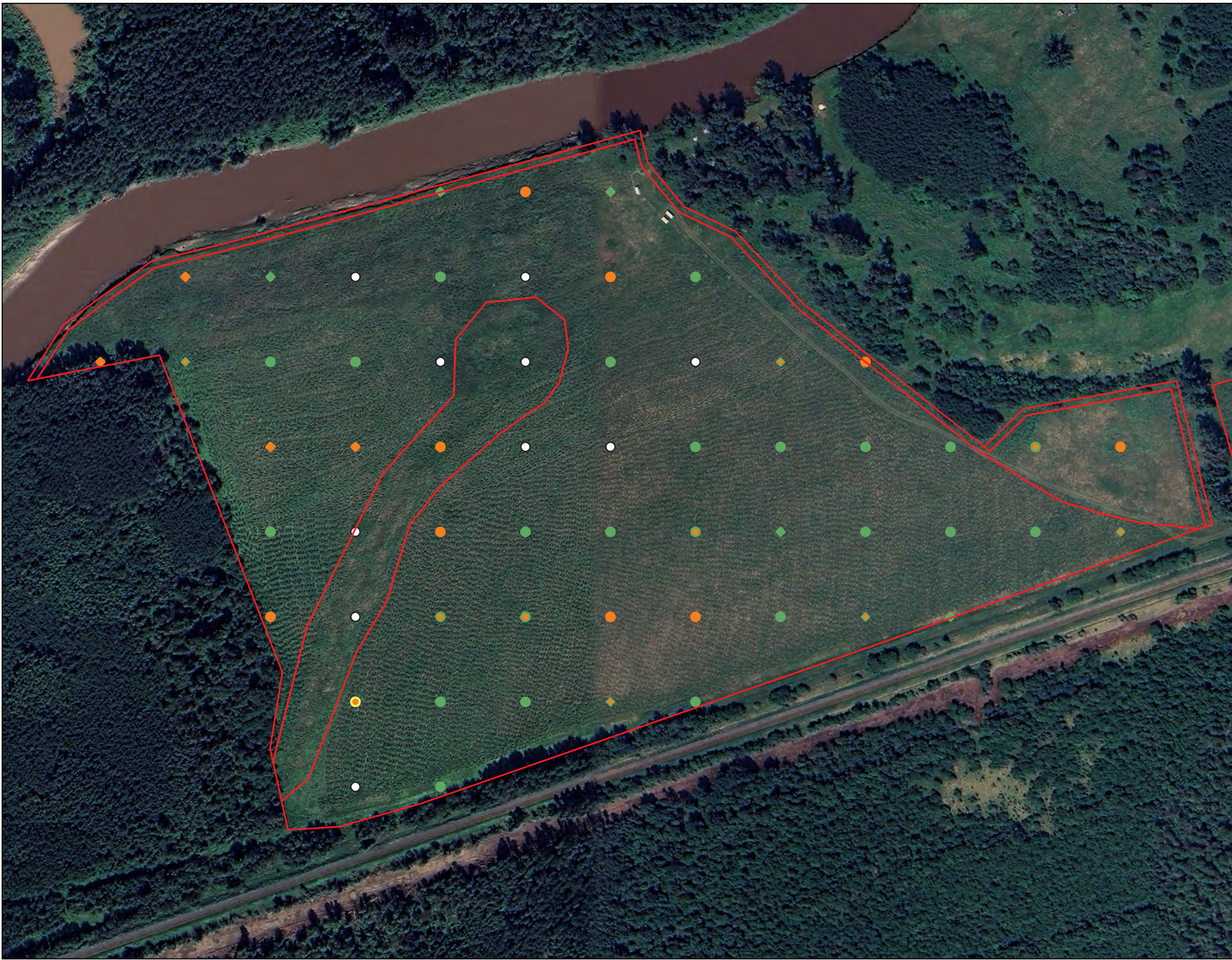
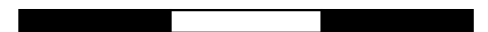
Plot Status

- NSR
- NSR-LIG-C
- NSR-LIG-CS
- NSR-LIG-S
- SR-C
- SR-CS
- SR-DS
- SR-S



Date Created: 2023-11-15
Project CRS: EPSG:3400
Source: Google Satellite
Created By: Tree Time Services Inc.
Scale: 1:2,500

0 50 100 150 m





Swan River - Map 2 Survey Plot Status Fall 2023

Project Partners:

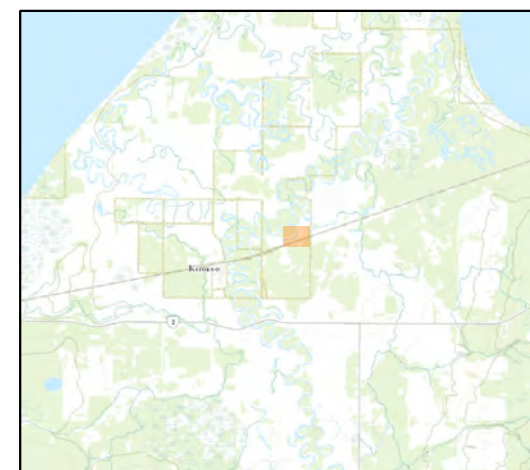


Legend

Project Boundary

Plot Status

- NSR
- NSR-LIG-C
- NSR-LIG-CS
- NSR-LIG-S
- SR-C
- SR-CS
- SR-S



Date Created: 2023-11-15
Project CRS: EPSG:3400
Source: Google Satellite
Created By: Tree Time Services Inc.
Scale: 1:2,500

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Swan River - Map 3 Survey Plot Status Fall 2023

Project Partners:

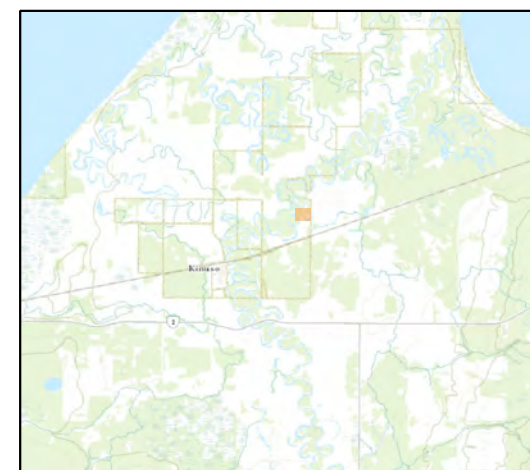


Legend

Project Boundary

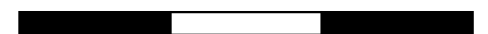
Plot Status

- NSR-LIG-C
- SR-C
- SR-CD
- SR-CDS
- SR-CS
- SR-DS
- SR-S



Date Created: 2023-11-15
Project CRS: EPSG:3400
Source: Google Satellite
Created By: Tree Time Services Inc.
Scale: 1:1,500

0 30 60 90 m



Site Photos

Plot SR_25



Plot SR_43



Plot SR_63



Plot SR_73



Plot SR_85



Plot SR_91



Project Forest Monitoring Assessment Summary Sheet

Project Name	Swan River First Nation
Applicability:	Trajectory of re-wilding success
Landowner:	Swan River First Nation
Site Location:	55.340255,-115.398149
Year Planted:	2021
Assessment #:	2

First and last name of qualified surveyors (or as attached):

Maclean Forbes

Disturbance Areas and area to be removed from afforestation project area(s):

No areas will be removed from the project area.

As per the Project Forest Monitoring Program, all area(s) impacted by forest fire, insects or industrial development will be removed from the afforestation project area. No such disturbance were recorded.

Summary of Preventive and Corrective Actions:

It is recommended that:

1. Leave the NSR-LIG areas, as there is a reasonable likelihood exists that a sufficient percentage of NSR-LIG sites will become SR sites within the coming years.
2. There is Canada thistle present. Project Forest should discuss this with Swan River First Nation and determine the best approach for weed management on the site.

Declaration:

I do hereby declare that this submission:

- a) Adheres to all components of the required Quality Assessment/Quality Control program, and;
- b) Includes only surveys that have been conducted according to the methods detailed in the Project Forest - Golden Ranches Reforestation Monitoring Program, and;
- c) Complies with the requirements for report timing and format.

Validated/Signed by:



Registration #

1838

Date:

February 2, 2024

Print Name:

Lindsay Dent

Company:

Tree Time Services Inc.

Appendix B - Swan River FN Rewilding Plan



Swan River First Nation Restoration Overview

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This document provides an overview of the Ecological Reconciliation plan for the Swan River First Nation Property. Timing and exact quantities of seedling are approximate.

Site Restoration Plan

Species and stock types

We will be using the following species and stock types for this planting:

Table 1: Species recommended for planting at the Swan River site

Species	Stock Type	Stock Size
White spruce	Plug - 1+0	412A
Larch/Tamarack	Plug - 1+0	412A
White birch	Plug - 1+0	415D
Lodgepole Pine	Plug - 1+0	412A
Willow spp.*	Plug - 1+0	415D

***Note:** Willow spp. refers to a mix of native willow species.

Site Preparation

The planting area is a former hayfield with a low-lying area in the SW of the site (<10% of the planting area). To incorporate the concerns of Swan River First Nation, no herbicide will be used for site preparation. We will be mounding the site to both reduce the competition of vegetation and increase relief in the wetter area.

Maintenance

During the assessment survey our crews will be noting any incidence of weeds on site and seedling mortality.

In the case of weeds our crews will hand pick any weeds we find, bag, and dispose at a waste facility.



During the stocking surveys seedling health and mortality will be assessed. If mortality is significant enough we will replant with similar species.

Planting strategy/techniques

The planting strategy would be dividing the site into two different areas based on their topography and drainage. These areas would reflect their suitability for different species and their relative planting proportions.

Area 1 (36.6ha)

This area is primarily the north and east of the site and a higher elevation relative to the south-west portion of the planting area. There is a slight draw in the area, with no permanent water presence. The draw drains into the south-eastern area.

Table 2: Species for Swan River Planting Area 1

Species	Seedlings	Comments
White spruce	30,600	Planted throughout Area 1
Lodgepole pine	10,260	Planted on higher areas
White Birch	2,700	Concentrated along the draw
Larch/Tamarack	7,740	Concentrated along the draw

Area 2 (3.4ha)

This planting area is in the south-east of the property. It is relatively wetter than the adjacent planting area. The water table is likely close to the surface for most of the year. Creating relief through the mounding is essential to ensure the seedlings are not being planted in saturated soil. The seedlings will be planted on the mounds to ensure survival.

Table 4: Species for Swan River Planting Area 2

Species	Proportion	Comments
Larch/Tamarack	2,340	Planted throughout Area 2
Willow Spp.	3,060	Planted throughout Area 2