



The Corporation of the Village of Salmo

SPECIAL MEETING

A Special Meeting of the Council of the Village of Salmo to be held in Council Chambers at 423 Davies Avenue in Salmo, B.C. on **Monday, January 20, 2025 at 3:00 p.m.**

The public may attend in person or electronically. The electronic link will be available on our website on Monday.

Traditional Lands Acknowledgement Statement: We acknowledge and respect the indigenous peoples within whose traditional lands we are meeting today.

AGENDA:

1. Call to Order

2. Adoption of Agenda

STAFF RECOMMENDATION:

Pg.1

That the agenda of Special Meeting of Monday, January 20, 2025 be adopted as presented.

3. Local Government Climate Action Program (LGCAP) Funding Discussion

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4. Cancellation of January 28, 2025 Regular Council Meeting

STAFF RECOMMENDATION:

That Council cancel the regular council meeting of January 28, 2025.

5. Public Question Period

6. Adjournment

Given under my hand this 17th day of January, 2025 and posted in accordance with Section 127 of the *Community Charter*.

Originally Signed By:

Derek Kwiatkowski

CAO/CO



The Corporation of the Village of Salmo

CAO Report

Report Date: January 17, 2024
Meeting Date: January 20, 2025 (Special Meeting)
From: CAO Derek Kwiatkowski
Subject: LGCAP Funding Deadline

BACKGROUND:

On January 9, 2025, the Village received a reminder from the province stating that funds from 2022 & 2023 must be spent by March 30, 2025. The balance is \$81,189.

From Elaine Cross, Executive Director- *"The primary objective of the Local Government Climate Action Program (LGCAP) is to advance local government climate action from planning to implementation. **Please be advised that all funds received in 2022 and 2023 must be fully spent by March 31, 2025.**"*

The Village has several options:

1. Use funds on one of the recommended purchases from Public Works Department, with a hybrid pick-up truck, Erie Creek dyke work (rip rap purchase), or solar panels for the Wastewater Treatment Plant.
2. Use funds for 2024 purchases that are eligible for the 2024 generator replacement & the Glendale well pump replacement. This will give the Village more time for consideration for spending funds.
3. Use funds on other Council recommendations that align with the Village OCP & Strategic Plan.
4. The Village ask for an extension for use of the funds.

Staff Recommendation:

That Council directs staff to use 2022 & 2023 LGCAP grant funding for the purchase of a hybrid pick-up truck purchase with a maximum purchase of \$70,000, with the remaining \$11,189 to be used to purchase rip rap for the Erie Creek flood mitigation efforts.



FROM: Fred Paton, Public Works Foreman

DATE: January 16, 2025

SUBJECT: LGCAP Funding Recommendation from Public Works

Purpose of Report

To provide Council with three recommendations and applicable details from Public Works on ways the Village could spend the LGCAP Funding.

Staff Recommendation

Recommendation #1: Hybrid Truck for Civic Works Vehicle Fleet

The 2000 F150 Crew Truck has exceeded its Service Life. The estimated year for replacement was 2021 and the truck is no longer a reliable vehicle for our Public Works Crew. This is on our list of priorities. We have done our research and would recommend that the Village purchase a hybrid truck and feel that this would be the best way to spend the LGCAP funding. We did research on fully electric trucks but feel that hybrid would be the better option to meet our needs.

- Hybrid Trucks Recharge themselves
- They cost thousands less than fully electric trucks
- The full-hybrid truck produces roughly 50 % of the tailpipe emissions of a gas-only truck
- There is little difference in the capability of a hybrid truck versus a gas-only truck

Recommendation #2: Dyke Work

Prioritizing the work noted in the 2024 Erie Creek Dyke Report will help the Village mitigate flooding risks of Erie Creek at a faster pace that is being accomplished currently. It will help protect property and infrastructure that is currently at risk.

Recommendation #3: Wastewater Treatment Plant Solar Upgrade

The operation of the Village's Wastewater Treatment Plant. The electricity costs are some of the highest of all Village assets at over \$2,000/month. These upgrades would lower operating costs at the plant. The Village shop has seen over \$200/month savings since the solar panels were installed.

Respectfully submitted,

Fred Paton, Public Works Foreman

Hybrid Pick Up Truck Information

Pros of a Hybrid Truck vs. an EV Truck

- **Price** – Where we can directly compare an EV with an HEV, the HEV will always be more affordable by thousands of dollars.
- **Range** – Range isn't a real factor with a hybrid because there is an ICE backing up the battery-fed electric motor. However, in the case of the hybrid F-150, the range is roughly 700 miles between fuel stops. The estimated range for the F-150 Lightning example I've used here is up to 230 miles. Moreover, that's without a load. Loading an HEV truck or attaching a trailer will also reduce its range, but that reduction won't have near the impact it does with an EV.
- **No charging** – Unlike an EV, which must be charged via an electric source, an HEV is self-charging. In other words, it doesn't require the hours required to secure an available charger and replenish the battery.
- **Capability** – In our one direct example, the F-150 PowerBoost hybrid has capabilities similar to those of the ICE F-150 but far better than those of the F-150 Lightning.

Cons of Hybrid Trucks vs. EV Trucks

- **Power delivery** – No matter what the torque numbers are, a hybrid requires more time to deliver its maximum torque than an EV, in which the maximum torque is immediately available. Moreover, EVs tend to offer higher horsepower and torque than comparable hybrids.
- **Higher fuel costs** – Driving the same amount of miles per year, it costs more to operate a hybrid than an EV. Comparing the F-150 Lightning and the F-150 Hybrid 4x4, the average cost difference is about \$1,000 per year, according to the EPA.
- **Higher emissions** – According to the U.S. Department of Energy, a hybrid produces roughly 50% of the emissions of an ICE vehicle, and an EV emits zero tailpipe emissions.
- **Maintenance costs** – Because EVs don't have as many mechanical moving parts, their routine maintenance costs are lower.

Hybrid Pick Up Truck Information

List of 2025 Hybrid Trucks

The pickings are relatively slim for hybrid trucks in 2025. We've put together the shortlist to fast-track your search. You can expect more hybrid trucks to populate this selection with time.

- **2025 Toyota Tundra i-Force Max – An HEV**, it produces a whopping 437 horsepower and 583 lb-ft of torque. It can tow up to 11,450 pounds and carry a payload of more than 1,680 pounds. Its estimated combined mileage with rear-wheel drive (RWD) is 22 mpg. Base price: **\$59,950.**
- **2025 Ford F-150 PowerBoost** – A traditional HEV, the F-150 with the 3.5-liter PowerBoost full-hybrid V6 delivers a combined 430 hp and 570 lb-ft of torque. The towing capacity estimates are around 10,800 pounds, with a payload limit estimated at more than 1,700 pounds. Its estimated combined mileage with 4-wheel drive (4WD) is 23 mpg. Base price (XLT SuperCrew): **\$58,100.**


Pros of Hybrid Trucks vs. Internal Combustion Trucks

- **Fewer emissions** – As stated above, a hybrid produces roughly 50% fewer tailpipe emissions than an ICE vehicle.
- **Lower fuel costs** – When comparable, a hybrid gets a bit better fuel economy than an ICE vehicle, with an EPA annual estimated savings of \$400 per year based on our examples.

Cons of Hybrid Trucks vs. Internal Combustion Trucks

- **Price** – In the case of the F-150 PowerBoost Hybrid and the ICE F-150, there's little cost difference. However, typically, hybrids cost noticeably more than comparable ICE vehicles.

2024 DIKE INSPECTION CHECKLIST

Dike No. (From database*; formerly "Dike GPS No.): 277	Dike Name (From database*): Salmo River Dike
Diking Authority: Village of Salmo	Local Authority under EPA: Village of Salmo
Water Course: Erie Creek	Dike Section: Entire Dike
Date Inspected: October 29, 2024	Signed: 

* Flood Protection Works Database:

https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/integrated-flood-hazard-mgmt/dikes_listed_by_ownerauthority.pdf

A. Is the contact person information correct in the Flood Protection Database*?

Yes

No

If no, please provide details below:

Contact Person:
Derek Kwiatkowski, CAO, Village of Salmo
Phone & Fax Numbers in Database are correct.

B. Are all of the information for your dike(s) correct in the Flood Protection Database*?

Yes

No

If no, please provide details below (if necessary, attached database sheets with mark-up):

C. Has the person inspecting the dike reviewed the "Flood Protection Works Inspection Guide", or is familiar with its contents?

Yes

No

If not, please refer to "Flood Protection Works Inspection Guide" (2000) for a detailed guide to dike inspection and reporting:

http://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/integrated-flood-hazard-mgmt/fld_prot_insp_gd.pdf

2024 DIKE INSPECTION CHECKLIST

D. Has the dike crest elevation been surveyed within the last 10 years?

Yes

No

If yes, when was the last survey (year)? _____

It is highly recommend that the Diking Authority survey the dike crest at least once every 10 years, to identify potential dike settlement and/or low spots that are not easily identified by visual inspection

E. Was the dike notably damaged in a high flow event this year?

Yes

No

Did the dike damage result in imminent threat of flooding?

Yes

No

If yes to any of the 2 questions above, please briefly describe the damage (location and damage description)

The 2023 dike inspection report identified Location 5 (Station 0+825) as poorly armoured with local erosion. The local erosion has continued resulting in further loss of material and armoring. The dike slope continues to steepen. This is the most active erosion along the dike and is in a vulnerable location next to the Highway 3 overpass.

Please describe the actions that were taken to address the damage. If no actions were taken yet, what is the plan?

No Action taken yet. This location remains the priority for repair in 2025.

This next part of the checklist is organized into 5 sections, as follows:

1. Access
2. Dike crest, slope, and fill
3. Bank and erosion protection
4. Appurtenant works
5. Vegetation management

2024 DIKE INSPECTION CHECKLIST

	YES	NO***	N/A
<ul style="list-style-type: none"> • Settlement, slumping, sink holes (dike fill and/or slope) 	√		
<p>Location(s): Loc. 1 – STA 0+230 Loc. 3 – STA 0+470</p> <p>Summary of Issues: Loc. 1 – Localized settlement of dike crest Loc. 3 – Localized settlement (low point) behind 1003 – 1005 Ninth St</p> <p>Maintenance Recommendations: Dike crest should be surveyed to confirm elevations meet flood design level. Restore dike elevation where required as per Rip Rap Design and Construction Guidelines, BC Ministry of Environment, Lands, and Parks, March 2000. During periods of anticipated high water support sandbagging efforts as required</p> <p>When will Recommendations be Completed: Unknown</p>			
	YES	NO***	N/A
<ul style="list-style-type: none"> • Slope instability (slides, sloughs, toe or slope bulges) 	√		
<p>Location(s): Loc. 4 – STA 0+690</p> <p>Summary of Issues: (5) Lock Blocks have slumped and are partially exposed at the crest of the dike and the dike wall is over steep (approximately ¾H:1V slope) at this location.</p> <p>Maintenance Recommendations: The lock blocks should be excavated to locations east and west of the exposed blocks. The alignment of the lock blocks should be reset to the center of the top of the dike and the slope restored to a 2H:1V slope along with installation of geotextile and additional rip rap.</p> <p>When will Recommendations be Completed: This work should be prioritized for the construction season of 2025, budget allowing.</p>			

** When referring specific locations, please use either:

- Major landmarks (roads, intersections, bridges, etc.), DO NOT use local property names
- GPS coordinates (where possible)
- Chainages from the O&M manual drawings

*** Even if NO DEFICIENCY, still add confirmation (e.g., no deficiencies observed during field visit) under "Summary of Issues"

2024 DIKE INSPECTION CHECKLIST

<ul style="list-style-type: none"> • Seepage, piping, boils 	YES	NO***	N/A
<div style="text-align: right; margin-bottom: 5px;">√</div>			
Location(s): Summary of Issues: No deficiencies observed during field visit Maintenance Recommendations: When will Recommendations be Completed:			
<ul style="list-style-type: none"> • Animal Damage (rodents/beavers, animal burrows, cattle...etc., on crest and/or slope) 	YES	NO***	N/A
<div style="text-align: right; margin-bottom: 5px;">√</div>			
Location(s): Summary of Issues: No deficiencies observed during field visit Maintenance Recommendations: When will Recommendations be Completed:			
<ul style="list-style-type: none"> • Significant flood levels, loss of freeboard (overtopping or flood reaching within 0.6 m below the crest in the last 12 months) 	YES	NO***	N/A
<div style="text-align: right; margin-bottom: 5px;">√</div>			
Location(s): Summary of Issues: No deficiencies observed during field visit Maintenance Recommendations: When will Recommendations be Completed:			

√ Attached photos or sketch with corresponding reference in the checklist (e.g., photo 1...etc) for deficiencies observed– Section 2

3. BANK/EROSION PROTECTION

Any serious issues observed of the following?

	YES	NO***	N/A
<ul style="list-style-type: none"> • Bank Protection loss or displacement (steep slopes, beaching, scarping, weathering) 	√		
Location(s): Loc. 2 – STA 0+410 <div style="margin-left: 40px;">Loc. 5 - STA 0+825</div> <div style="margin-left: 40px;">Loc. 7 – STA 0+950 – STA 1+165</div> Summary of Issues: Location 2 is poorly armoured, over steep and shows signs of localized erosion. Locations 5 is poorly armoured and shows signs of localized erosion. Erosion at Location 5 has continued since the 2023 inspection and this remains the highest priority location along the entire dike. Location 7 is a length of the dike that remains poorly armoured.			

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2024 DIKE INSPECTION CHECKLIST

<p>Maintenance Recommendations: Location 2 should be monitored and prioritized for repair during the next 1-3 year window of dike maintenance.</p> <p>Location 5 should be prioritized for repair during the next 1 year window of dike maintenance.</p> <p>Location 7 should be monitored during periods of high water.</p> <p>When will Recommendations be Completed: Ongoing</p>			
	YES	NO^{***}	N/A
<ul style="list-style-type: none"> • Erosion (toe scour, bed degradation, outflanking) 	√		
<p>Location(s): Loc. 2 – STA 0+410 Loc. 5 – STA 0+825 Loc. 6 – STA 0+850</p> <p>Summary of Issues: Location 2 is poorly armoured, over steep and shows signs of localized erosion. Locations 5 is poorly armoured and shows signs of localized erosion. Location 6 shows localized scour beneath concrete apron near highway overpass bridge.</p> <p>Maintenance Recommendations: Location 2 should be monitored and prioritized for repair during the next 1-3 year window of dike maintenance. Location 5 should be monitored and prioritized for repair during the next 1 year window of dike maintenance. Location 6 should be monitored. Scour does not appear to have increased over 2024 inspection period.</p> <p>When will Recommendations be Completed: Ongoing with location 5 prioritized for 2025 pending budget provisions.</p>			
	YES	NO^{***}	N/A
<ul style="list-style-type: none"> • Changing Channel Flow Patterns (channel infilling, gravel bars, log or ice jam) 		√	
<p>Location(s):</p> <p>Summary of Issues:</p> <p>Maintenance Recommendations:</p> <p>When will Recommendations be Completed:</p>			

4. APPURTENANT WORKS

YES	NO^{***}	N/A
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^{***} Even if NO DEFICIENCY, still add confirmation (e.g., no deficiencies observed during field visit) under "Summary of Issues"

2024 DIKE INSPECTION CHECKLIST

<ul style="list-style-type: none"> • Flood Boxes/Pump stations (inlet/outlet channels, gate operation, trash racks, debris, erosion, corrosion, structure, mechanical components) 			√
Location(s): Summary of Issues: No deficiencies observed during field visit Maintenance Recommendations: When will Recommendations be Completed:			
<ul style="list-style-type: none"> • Culverts/Discharge Pipes (breaks, holes, cracks, corrosion, deterioration) 	YES	NO***	N/A
Location(s): Summary of Issues: No deficiencies observed during field visit Maintenance Recommendations: When will Recommendations be Completed:			

√ Attached photos with corresponding reference in the checklist (e.g., photo 1...etc) for deficiencies observed– Section 4

5. VEGETATION MANAGEMENT

	YES	NO***	N/A
<ul style="list-style-type: none"> • Vegetation hampers or prevents access? 	√		
Location(s): Loc. 2 - STA 0+410 Loc. 3 – STA 0+470 Loc. 9 – STA 1+300 – STA 1+460 Loc. 10 – STA 1+500 – 1+650 Summary of Issues: Locations above have significant vegetation that hampers access to the dike, mostly in the form of trees and landscaping in homeowners' backyards. Maintenance Recommendations: Trees and vegetation should be removed. When will Recommendations be Completed: Ongoing			
<ul style="list-style-type: none"> • Vegetation reduces visibility to dike toe on each side? 	YES	NO***	N/A
Location(s): Loc. 2 - STA 0+410 Loc. 3 - STA 0+470 Loc. 5 - STA 0+825 Loc. 7 – STA 0+950 – STA 01+165 Loc. 9 – STA 1+300 – STA 1+460 Loc. 10 – STA 1+500 – 1+650			

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2024 DIKE INSPECTION CHECKLIST

<p>Summary of Issues: Locations above have trees and vegetation that reduces visibility to either/both toe(s) of the dike.</p> <p>Maintenance Recommendations: Trees and vegetation should be removed.</p> <p>When will Recommendations be Completed: Ongoing</p>			
<ul style="list-style-type: none"> • Trees in or near dike (within 2m from toe) with potential for uprooting? 	YES	NO***	N/A
	√		
<p>Location(s): Loc. 2 - STA 0+410 Loc. 3 - STA 0+470 Loc. 5 – STA 0+825 Loc. 7 – STA 0+950 – STA 01+165 Loc. 9 – STA 1+300 – STA 1+460 Loc. 10 – STA 1+500 – 1+650</p> <p>Summary of Issues: Locations above have trees within 2m from dike toe.</p> <p>Maintenance Recommendations: Trees within 2m of dike toe should be removed.</p> <p>When will Recommendations be Completed: Ongoing</p>			
<ul style="list-style-type: none"> • Annual/Multi-year vegetation management plan in place? (if yes, attach management plan to the report) 	YES	NO***	N/A
		√	
<p>If not, please discuss how one will be put into place: No formal plan in place but the Village does undertake vegetation management and removal each year. The Village has expressed the intent to create a formal Vegetation Management Plan.</p>			

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2024 DIKE INSPECTION CHECKLIST

Section 1: Access – Photos

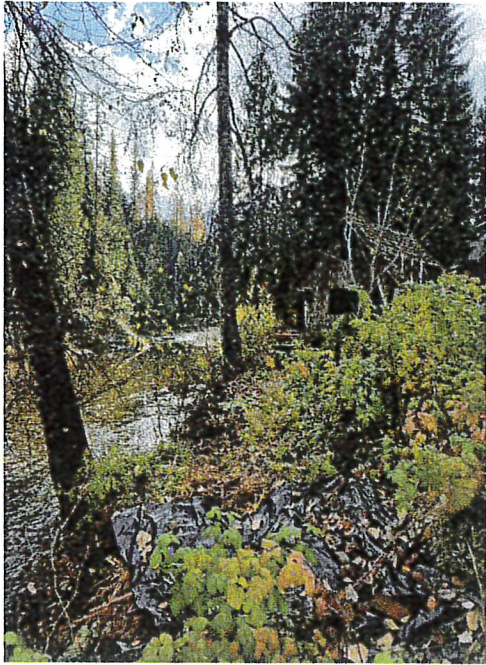


Photo 1 – Loc. 9 – Unauthorized Construction



Photo 2 – Loc. 10 – Unauthorized Construction

Section 2: Dike Crest, Slope & Fill – Photos

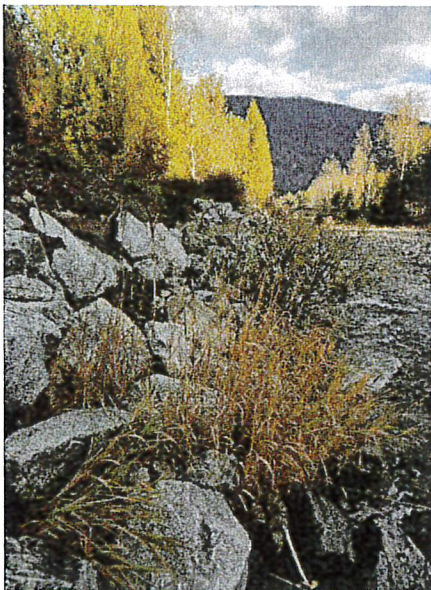


Photo 3 – Loc. 4 – Slumping Lock Blocks

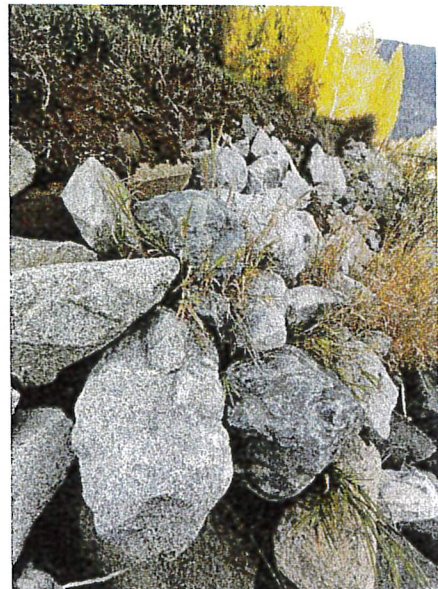


Photo 4 – Loc. 4 – Slumping Lock Blocks

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2024 DIKE INSPECTION CHECKLIST

Section 3: Bank/Erosion Protection – Photos

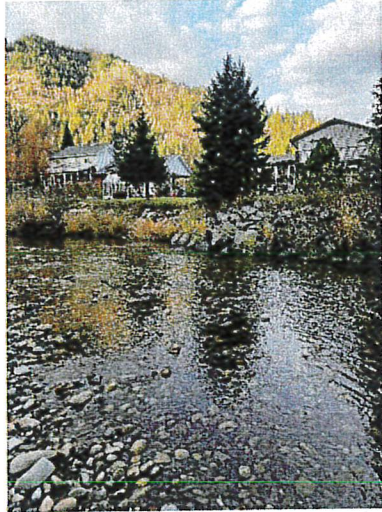


Photo 5 – Loc. 2 – Poorly Armoured, Localized Erosion

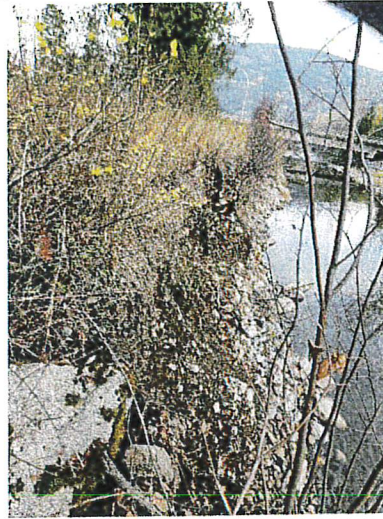


Photo 6 – Loc. 5 – Poorly Armoured, Localized Erosion

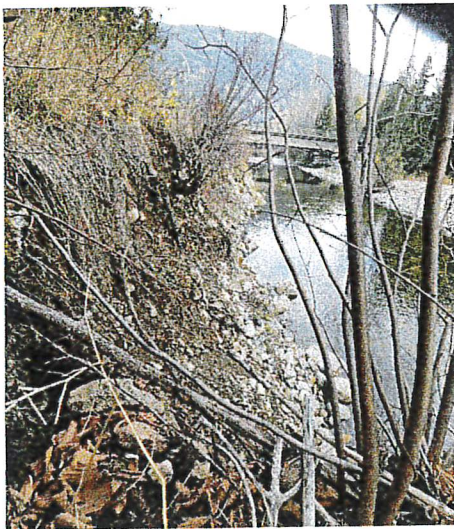


Photo 7 – Loc. 5 – Poorly Armoured, Localized Erosion



Photo 8 – Loc. 6 – Localized Scour/Erosion

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2024 DIKE INSPECTION CHECKLIST

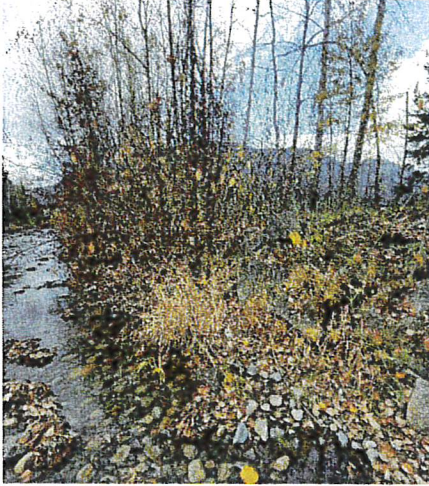


Photo 9 – Loc. 7 – Undersized Armour

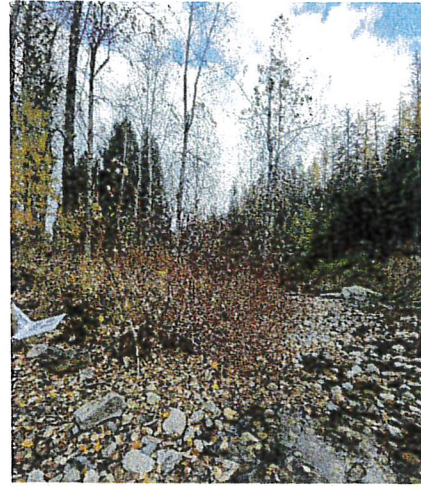


Photo 10 – Loc. 7 – Undersized Armour

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2024 DIKE INSPECTION CHECKLIST

Section 4: Vegetation Management – Photos

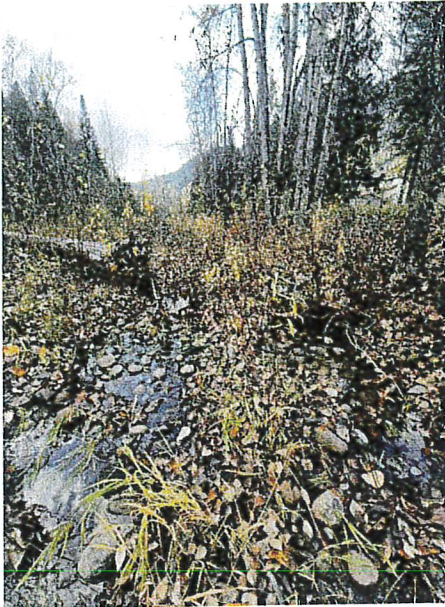


Photo 11 – Loc. 3 – Vegetation

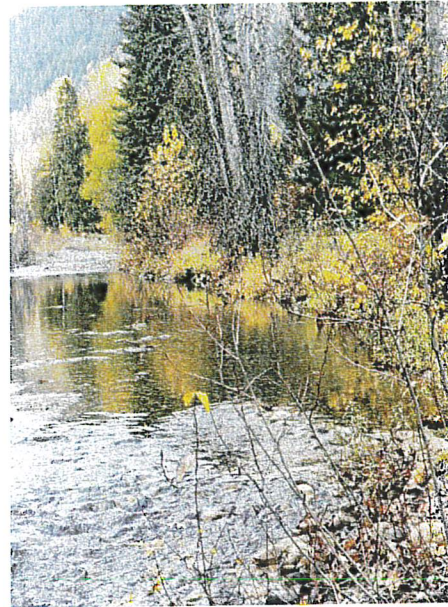


Photo 12 – Loc. 3 – Vegetation

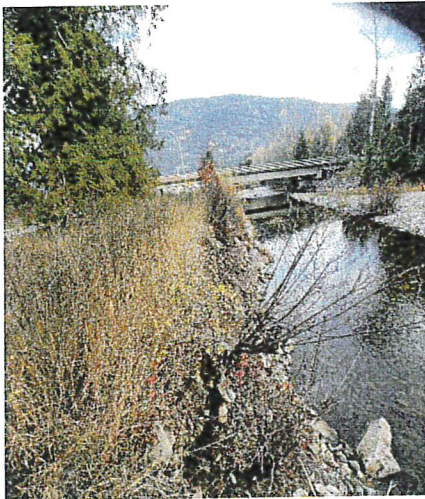


Photo 13 – Loc. 5 – Vegetation



Photo 14 – Loc. 7 – Vegetation

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2024 DIKE INSPECTION CHECKLIST

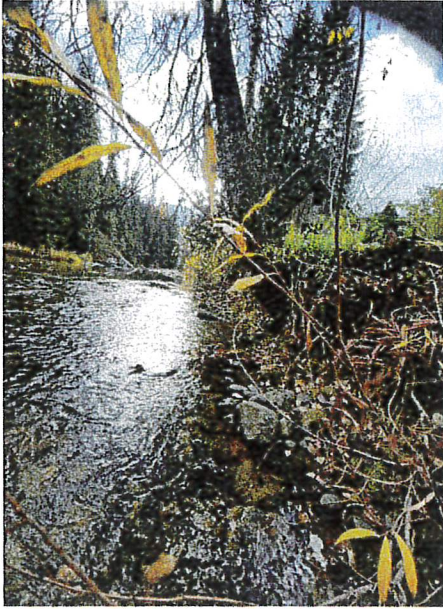


Photo 15 – Loc. 9 – Vegetation

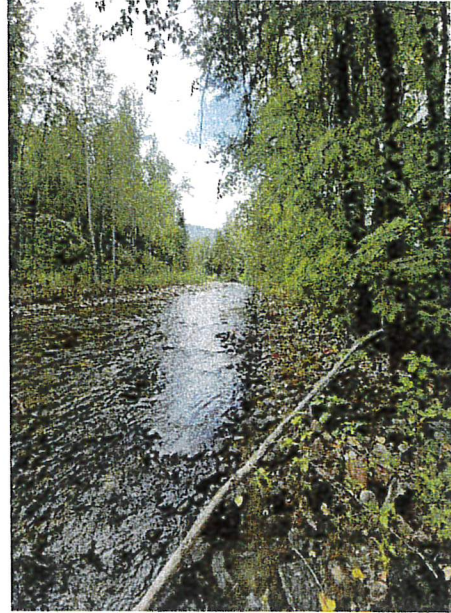


Photo 16 – Loc. 10 – Vegetation

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