

450 W Business Park Road ● Shelton, WA 98584

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# **Board of Supervisors**Briefing Memo

Title: Technical Description Batch #1 for Cost Share

**Prepared by: Nick Schneider Conservation Planner** 

## **Summary:**

9 technical descriptions for BOS approval that describe cost share applications proposing BMP implementation on agricultural lands.

## **Board Action Requested:**

Request for Decision	Request for Direction	Briefing
X		

For meeting date: June 15th, 2023

**Background and Project Description:** Mason County Cooperators have passed the eligibility requirements and wish to apply for the cost share program. BMPs recommended meet conservation practice physical effects threshold for natural resource conservation. This first round of funding has 9 separate applications.

Funding source: SCC Shellfish Program & VSP Cost Share Funding

**Goals and objectives:** Increase BMP implementation to mitigate natural resource concerns from agricultural producers.

**Project timeline**: Projects must be completed prior to June 30<sup>th</sup>, 2024.

**Key partners**: SCC & Mason County Landowners.

**Staff recommendation:** Motion to approve the 9 cost share applications as presented. These could be approved as a batch or voted on individually.

Owner: XXXXXXXXX MCD Cooperator ID: NJS-23-01

**CPDS ID:** 

ADDRESS: John's Creek WRIA 14 FUNDING REQUEST: \$81,400.00

Shelton, WA 98584

BMPs: 382-Fence, 561-Heavy Use Area, 635-Vegetated Treatment Area, 558- Roof Run Off Structure,

620 - Underground Outlet

Referral: Yes

MCD Cost-Share Eligible: Yes

Critical Areas Identified: Wetland, Critical Aquafer Recharge Area, Erosion Risk, Fish and Wildlife Habitat,

Frequently Flooded Area

#### **Project Description:**

This project site is located on John's Creek in the Johns Prairie neighborhood. Over 25 horses are boarded at the stable operation that has been operating for over 20 years. The property has been under agricultural use for nearly 100 years. A seasonal wetland forms on the northwest side of the property that the landowner hays when dry, they have been conducting the haying operation within this area prior to the county's adoption of VSP, a fact confirmed by historical aerial photographs. The Landowner has chosen to enroll both banks of Johns Creek and an ephemeral ditch in CREP (Conservation Reserve Enhancement Program). The Cooperator has successfully completed all prior funded BMPs.

According to the WDFW Priority Habitat Map species present in Johns Creek Include:

- Coho (*Oncorhynchus kisutch*)
- Chum (Oncorhynchus keta)-Breeding Area
- Fall Chum (Oncorhynchus keta)-Breeding Area
- Winter Steelhead (*Oncorhynchus mykiss*)
- Resident Coastal Cutthroat (Oncorhynchus clarki)
- Summer Chum (Oncorhynchus keta)-Breeding Area

John's Creek outlets into Oakland Bay, a priority watershed, and a focus area for the Shellfish Program. Oakland Bay is under threat of a future downgraded status due to pollution to water quality. Priority species of concern are hard-shell clams, oysters, and other marine animals. Oakland Bay is a key aquaculture resource for Mason County.

According to the Salmon Recovery Strategy GeoPortal created by the Kennedy-Goldsborough Basin Lead Entity Upper John's Creek is a medium priority resource concern. The Upper John's Creek area lost 204 acres of forested and agricultural land to development between 2006-2011. Sediment degradation of the stream is listed as high.

This project will help to protect and enhance critical areas on the property while also maintaining agricultural viability. Exclusion fencing will be utilized to contain livestock within the Heavy Use Area and outside of the riparian zone of John's Creek. The constructed Heavy Use Area will reduce the transport of

sediment and nutrients into surface waters. Vegetative Treatment Area will be created in an area adjacent to the newly constructed heavy use areas to arrest and absorb sediment and nutrient runoff prior to entering critical areas.

- Heavy Use Area-will allow for the restricting of livestock when pastures are saturated. HUA will consist of a mix of geotextile fabric, rock gravel, and sand. Quantities and size of substrate will vary depending on the horse being confined within the paddock.
- Fence- will be utilized to confine livestock within the HUA and outside of critical areas.
- Vegetative Treatment Area- To arrest sediment and nutrient runoff prior to entering critical areas or absorption into ground waters.
- Roof Run Off Structure To convey clean stormwaters away from livestock facilities.
- Underground Outlet- to convey stormwaters to discharge area.

## **BMP Expected Lifespan:**

- Heavy Use Area-10 Years
- Fence-20 Years
- Vegetative Treatment Area-10 Years
- Roof Runoff Structure- 15 Years
- Underground Outlet 20 Years



# **Before Photo:**

# **Estimated Costs of BMP Implementation**

Cod	BMP Description	Unit	Qnty	Cost	Total	90% Cost	10% Match
e						Share	
382	Fence (1)	Ft	800	\$18.0	\$14,400	\$12,960	\$1,440
				0			
561	Heavy Use Area (1)	Sq Ft	15,00	4.00	\$60,000	\$54,000	\$6,000
			0				
635	Vegetative Treatment	Sq Ft	1,500	Per	\$12,000	\$10,800	\$1,200
	Area						

558	Roof Run Off Structure	Ft	400	\$20.0	\$8,000	\$7,200	\$800
				0			
620	Underground Outlet	Ft	120	\$25.0 0	\$3,000	\$2,700	\$300
					<mark>\$97,400</mark>	\$87,660	\$9,740

MCD BOS Approval Date: Date:	MC VSP Work Group Approva
Nick Schneider	5/01/23
MCD Planner	Date
BOS Chair	Date
VSP Work Group Chair	Date

Owner: MCD Cooperator ID: NJS-23-02

**CPDS ID:** 

ADDRESS: WRIA 14, Mill Creek, Hammersley Inlet FUNDING REQUEST: \$9,000.00

**BMPs:** Roof Run Off Sturcture-558

Referral: No

**MCD Cost-Share Eligible: Yes** 

Critical Areas Identified: Erosion Risk, Critical Aquafer Recharge Area, Wetland, Fish and Wildlife Habitat

## **Project Description:**

This property exists on Arcadia Road and is part of WRIA 14 Kennedy-Goldsborough and Oakland Bay watershed. The property sits south of Hammersley Inlet. Twenty-four horses are stabled at this equestrian facility on 3.59 acres. A small unidentified stream runs seasonally through the south end of the pasture, according to the landowner horses are restricted from this area when pastures are saturated. The unidentified stream is assumed to outlet into Mill Creek, which according to WDFW's Priority Habitat Map is a salmon bearing stream. WDFW's PHM also identifies a small portion of the southern pasture as Freshwater Emergent Wetland. The landowner is seeking to cost-share gutters and downspouts to address nutrient run off from the horse facilities. Mud and manure management is a concern for all livestock owners in the Pacific Northwest and with well managed facilities certain natural resource concerns may be mitigated and their impact limited. The roof run off structure will facilitate maintenance of the facility, improved confinement conditions for the livestock, and can lessen the nutrient load on our local water ways by reducing runoff during seasonal rain events by conveying clean storm waters away from livestock confinement areas.

According to WDFW's Priority Habitat Map, Mill Creek contains the following salmonid species:

- Steelhead (Oncorhynchus mykiss)
- Chum (Oncorhynchus keta)
- Coho (Oncorhynchus kisutch)- Breeding area
- Resident Coastal Cutthroat (Oncorhynchus clarki)
- Fall Chum (*Oncorhynchus keta*)
- Winter Steelhead (Oncorhynchus mykiss)

The Salmon Recovery Strategy GeoPortal made available by the Kennedy-Goldsborough Basin Lead Entity lists Lower Mill Creek as a medium conservation priority and a high restoration priority, with Med-Low sediment degradation.

This cost-share application will address the following Best Management Practices:

**Roof Run Off Structure-** gutters and downspouts to convey clean storm waters away from livestock facilities.

BMP Expected Lifespan: Roof Run Off Structure – 15 years.

# **Before Photos:**



Sediment erosion from livestock confinement area

# **Estimated Project Total**

Cod	BMP Description	Unit	Qnt	Cost	Total	90% Cost	10% Match
e			У			Share	
558	Roof Run Off	Feet	400	\$25.00	\$10,000	\$9,000	\$1,000
	Structure						
					\$10,000	<mark>\$9,000</mark>	\$1,000

MCD BOS Approval Date: Date:	MC VSP Work Group Approval
Nick Schneider	5/01/23
MCD Planner	Date
BOS Chair	Date
	<del></del>
VSP Chair	Date

Owner: XXXXXXXXX MCD Cooperator

**ID:** NJS-23-03

ADDRESS: Lower Coffee Creek, WRIA 14 FUNDING

**REQUEST:** \$66,330

BMPs: 561-Heavy Use Area, 558-Roof Run Off Structure, 367- Roofs & Covers, 313-Waste Storage

Facility, 560-Access Road, Fence

Critical Areas Identified: Critical Aquafer Recharge Area, Erosion Risk, Fish and Wildlife Habitat.

Referral: No

**Project Description: Cost** share funds are being sought to create winter confinement areas for livestock that will mitigate natural resource concerns within the identified critical areas. This project will promote the viability of the farming operation through the implementation of Best Management Practices that will facilitate management of the livestock. The farm is owned and operated by a beginner farmer rancher and a veteran of the armed forces.

Salmon species that WDFW has identified inhabiting Coffee Creek as occurrence/migration are listed as follows:

- -Coho (Oncorhynchus kisutch)
- -Resident Coastal Cutthroat (Oncorhynchus clarki)
- -Steelhead (Oncorhynchus mykiss) Occurrence only.
- -Winter Steelhead (Oncorhynchus mykiss)
- -Chum (Oncorhynchus keta) Occurrence only
- -Fall Chum (*Oncorhynchus keta*)

The Kennedy-Goldsborough Basin (WRIA 14) Lead Entity's Salmon Recovery Strategy GeoPortal recognizes the Lower Coffee Creek as the highest restoration priority and high conservation priority. High priority actions pertaining to this landowner that are recommended by WRIA 14 Lead entity include reducing priority major fine sediment inputs and riparian livestock management. These VSP and matching funds will be utilized by the landowner and Mason Conservation District to address those concerns.

Mason Conservation District staff recommended that a covered HUAP be constructed as a winter confinement area for the cattle and sheep, sited away from surface waters. Roofs and Cover will prevent rain waters from saturating the HUAP and will prevent sediment and nutrient run off from entering surface waters. Currently, seasonal rains make the system unusable during the winter season, when implemented with a Roof Run Off Structure, stormwaters will be conveyed away from the structure, providing a dry and easily cleaned area for livestock management and reducing instream loads of sediments and nutrients. A waste storage structure will be attached to the HUAP to allow for easier

winter management of the cattle. The Access Road is necessary to facilitate machinery and livestock movement during the rainy season and prevent compaction and destruction to saturated soils. The proposed structure would be roughly 40 x 20, with poured concrete footing for cattle. The fence will be used to confine livestock to the access road and HUAP.

- Heavy Use Area will allow for the restricting of livestock from pasture during wet seasonal weather.
- Roofs & Covers will prevent seasonal rains contributing to surface runoff from the HUAP.
- Waste Storage Structure will allow manure storage during pasture dormancy.
- Access Road will allow a fixed route for resource activities involving livestock management.
- Roof Run Off Structure will provide gutters and downspouts to livestock facilities to convey stormwaters to a desired and appropriate outlet.
- Fence will be used to restrict livestock to the HUAP and Access Road.

## **BMP Expected Lifespan:**

- Heavy Use Area-10 Years
- Roof Run Off Structure-15 Years
- Roof and Covers-10 Years
- Waste Storage Facility-15 Years
- Access Road-10 Years
- Fence 20 Years

#### **Before Photos:**



# **Total Estimated Costs**

Cod	BMP Description	Unit	Qnt	Cost	Total	90% Cost	10%
e			У			Share	Landowner
							Match
561	Heavy Use Area	Sq Ft	120	16.00	\$19,200	17,280	1,920
			0				
558	Roof Run Off	Ft	350	14.00	\$4,900	4,410	490
	Structure						
367	Roofs & Cover	Sq Ft	800	27.5	\$22,000	19,800	2,200
367	Fence	Ft	600	\$16.00	\$9,600	8,640	960
313	Waste Storage	each	1	\$10,00	\$10,000	9,000	1,000
	Facility			0			
560	Access Road	ft	250	8.00	\$8,000	7,200	800
					<mark>\$73,700</mark>	\$66,330	<b>\$7,370</b>

MCD BOS Approval Date:

MC VSP Work Group Approval

Date:

Nick Schneider 5-1-23

MCD Technician	Date
Mason Conservation District Board Chair	Date
VSP Work Group Chair	Date

Owner: XXXXXXXXX MCD Cooperator

CPDS ID:

**ID:** NJS-23-04

ADDRESS: Goldsborough, WRIA 14 FUNDING

**REQUEST: \$12,000** 

BMPs: Fence-367

**Critical Areas Identified:** Critical Aquafer Recharge Area, Erosion Risk, Fish and Wildlife Habitat.

Referral: No

**MCD Cost-Share Eligible: Yes** 

**Project Description:** Landowners previously completed an exclusion fencing cost share project and have maintained a long-term working relationship with Mason Conservation District, implementing several practices that support water quality and wildlife habitat. Recently an additional parcel of land has been added to the farm which will require additional fencing. The proposed project will help mitigate water quality concerns in the Goldsborough watershed. Several fingers and drainages to Goldsborough Creek pass near and throughout the property. Goldsborough Creek outlets into Oakland Bay, an at-risk shellfish growing area. Much of the farmland is identified by WDFW as freshwater emergent wetland even though the property has an extensive agricultural history. This project will support the continued viability of agriculture in Mason County by providing finical incentives to support BMP implementation.

Salmon species that WDFW has identified inhabiting Coffee Creek as occurrence/migration are listed as follows:

- -Coho (Oncorhynchus kisutch)
- -Resident Coastal Cutthroat (Oncorhynchus clarki)
- -Steelhead (Oncorhynchus mykiss) Occurrence only.
- -Winter Steelhead (Oncorhynchus mykiss)
- -Chum (Oncorhynchus keta) Occurrence only

 No-Climb Fence will be utilized to exclude livestock from surface waters.

## **BMP Expected Lifespan:**

• Fence – 20 Years

# **Before Photos:**



# **Total Estimated Costs**

Cod e	BMP Description	Unit	Qnt y	Cost	Total	90% Cost Share	10% Landowner Match
367	Fence	Ft	600	\$20.00	\$12,000	10,800	1200
					<mark>\$12,000</mark>	<mark>\$10,800</mark>	\$1,200

Nick Schneider	5-1-23
MCD Technician	Date
Mason Conservation District Board Chair	Date
VSP Work Group Chair	Date

Owner: MCD Cooperator ID: NJS-CS-06

CPDS ID:

ADDRESS: Hammersley Inlet, WRIA-14 FUNDING REQUEST: \$30,808.80

BMPs: 382-Fence, 575-Trails and Walkways, 381-Silvopasture

Critical Areas Identified: Wetland, Critical Aquafer Recharge Area, Erosion Risk, Fish and Wildlife Habitat

Referral: No

**MCD Cost-Share Eligible: Yes** 

#### **Project Description:**

This proposed project is located on E Agate Rd. There are over 90 acres owned in a mix of hay, pasture, maple syrup, and forested land. The property sits just west of two streams categorized 4C as indicated by the Department of Ecology Water Quality Atlas, with aquatic habitat used by salmonids for spawning, rearing, and migration. According to WDFW Priority Habitat Map present species include Coho, Resident Coastal Cutthroat, and Fall Chum. The stream waters outlet shortly downstream into Hammersley Inlet, which WDFW indicates is a priority habitat for Pacific Herring, the mouth of the streams is a reported estuarine and marine wetland habitat. This project is within the boundaries of WRIA 14A Kennedy-Goldsborough. There are wetland areas present on the property that the landowner wishes to protect by installing exclusion fencing to restrict livestock access. An Access Road will be paired with the proposed BMPs to help facilitate livestock movement when pastures are saturated and to mitigate nutrient and sediment runoff and compaction of the soils. Silvopasture would be a suggested practice for the portions of forested areas that livestock have access to. Mason CD's staff can help determine tree suitability and forage selection to ensure adequate ground cover of soils. Silvopasture planning and planting can help protect natural resources by reducing nutrient and sediment run off, and sequestering carbon by utilizing native trees.

- Fencing will be used to exclude livestock from ponding wetland areas.
- Trails and Walkways will be used to facilitate livestock movement when pastures are saturated and decrease exposed and denuded soils from repeated livestock usage.
- Silvopasture will help establish a groundcover on forested areas with bare soils, increase forage availability, and promote tree health. Current timber stand will need thinning.

# **BMP Expected Lifespan:**

- Fence-20 Years
- Trails and Walkways-10 Years
- Silvopasture Establishment-10 Years

**Before Photos:** Photos capture bare and denuded soils from livestock confinement areas for silvopasture and HUA





# **Estimated Project Total**

Cod	BMP Description	Unit	Qnt	Cost	Total	90% Cost	10% Match
е			У			Share	
382	Fence	feet	550	18.00	9,900	8,910	990
575	Trails and Walkways	Feet	400	33.33	\$13,332	11,998.80	1,333.2
381	Silvopasture	acre	2	5,500	\$11,000	9,900	1,100
	Project Total				\$34,232	\$30,808.80	\$3,423.20

Nick Schneider	5/10/23
MCD Technician	Date
Mason Conservation District BOS Chair	Date
VSP Work Group Chair	Date

Owner: XXXXXXXX MCD Cooperator ID: NJS-23-07

CPDS ID:

ADDRESS: Gosnell Creek WRIA 14 Ranking:

Shelton, WA 98584 FUNDING REQUEST: \$43,200

BMPs: 382 - Fence, 612 - Tree/Shrub Establishment, 614 - Watering Facility

Referral: No

**MCD Cost Share Eligible: Yes** 

Critical Areas Identified: Critical Aquafer Recharge Area, Wetland, Erosion Risk, Fish and Wildlife Habitat.

## **Project Description:**

This project is located on a farm in Mason County on Loertscher Rd. The landowner has successfully completed several BMPs in cooperation with Mason Conservation District. Gosnell Creek splits through the property, with the northern bank enrolled in a CREP (Conservation Reserve Enhancement Program). The Cooperator previously utilized MCD programs to have over 2,370 feet of exclusion fencing installed on the southern portion of Gosnell Creek. Additional funds are being sought to allow for the implementation of cross fencing to improve pasture management and limit the resource concerns caused by over grazing. Tree/Shrub Establishment will be utilized to extend the riparian buffer planting beyond the riparian zone. In line with the prescribed Best Management Practices, several watering facilities will be installed to allow for off stream watering of livestock. This farm is a certified Salmon Safe Farm and raises sheep, goats, and donkeys.

Salmon species identified by WDFS's priority habitat map within Gosnell Creek are:

- Fall Chum (Oncorhynchus keta)- Breeding Area
- Coho (Oncorhynchus kisutch)
- Chum (Oncorhynchus keta)
- Resident Coastal Cutthroat Trout (Oncorhynchus clarki)
- *Steelhead (Oncorhynchus mykiss)*
- Winter Steelhead (Oncorhynchus mykiss)

Lower Gosnell Creek is a part of the Kennedy-Goldsborough Basin Lead Entity and lists fencing for livestock as a high priority action for limiting sediment inputs, implementation of cross fencing will improve pasture management and further reduce nutrient and sediment input into Gosnell Creek and with reductions to Oakland Bay.

- Fence will be utilized to facilitate prescribed grazing, pasture management, and excluding livestock from recent conservation district plantings.
- Tree/Shrub Establishment will fund additional restoration planting.
- Watering Facility will allow for the creation of 4 livestock watering stations that will allow for off stream watering of livestock and facilitate pasture management.

# **BMP Expected Lifespan:**

- Fence-20 years
- Tree Shrub Establishment- 15 Years
- Watering Facility- 20 Years

#### **Before Photo:**



# **Estimated Cost of Implementation:**

Cod e	BMP Description	Unit	Qnty	Cost	Total	90% Cost Share	10% Match
612	Tree/Shrub Est.	Acre	.50	\$8,000	\$4,000	\$3,600	\$400
382	Fence	Ft	1,500	\$16.00	\$24,000	\$21,600	\$2,400
614	Watering Facility	Each	4	\$5,000	\$20,000	\$18,000	\$2,000
	Total				\$48,000	\$43,200	\$4,800

MCD BOS Approval Date: Date:	MC VSP Work Group Approval
Nick Schneider	5/01/23
MCD Planner	Date
BOS Chair	Date
	Date

Owner: XXXXXXXXX MCD Cooperator ID: NJS-23-08

**CPDS ID:** 

ADDRESS: Deer Creek WRIA 14 FUNDING REQUEST: \$52,200.00

Grapeview, WA 98584

BMPs: Waste Storage Facility-313, Roof and Covers-367

Referral: Yes

**MCD Cost-Share Eligible: Yes** 

Critical Areas Identified: Wetland, Critical Aquafer Recharge Area, Erosion Risk, Fish and Wildlife Habitat.

## **Project Description:**

Mason Conservation District staff are seeking funds to complete a multi-phase project to address natural resource concerns on a local agricultural property. The landowners have multiple barns on the property and split pastures. 20 to 25 horses reside on the property as well as a few goats. The eastern side of the property has a steep hill that ends at the creek. It is heavily vegetated in native trees and understory plants. The landowners want to manage their property to support the health of both animals and natural resources. The unnamed stream outlets into Deer Creek, which in turn outlets into Oakland Bay. There is a sharp grade on the property that heightens the risk of manure, nutrient, and sediment run off. Both Deer Creek and Oakland Bay experience seasonal spikes of CFU that can potentially lead to shellfish growing area closures. To reduce financial barriers to implementation Assignment of Payment will be utilized in Phase 2 as it was in Phase 1.

Phase 1 of this project saw the implementation of an aerated manure storage pad.

Phase 2 is the construction of walls and roof covering.

According to the WDFW Priority Habitat Map species present in Deer Creek Include:

- Coho (*Oncorhynchus kisutch*)
- Chum (Oncorhynchus keta)-Breeding Area
- Fall Chum (Oncorhynchus keta)-Breeding Area
- Winter Steelhead (*Oncorhynchus mykiss*)
- Resident Coastal Cutthroat (Oncorhynchus clarki)
- Summer Chum (Oncorhynchus keta)-Breeding Area

Completion of this multiphase project will allow for better management of livestock manure and facilitate expedited composting of the manure. Composted manure sees significant reduction in fecal coliform units.

- Roof and Covers will be used to provide cover from seasonal rains on the manure storage and composting facility, reducing runoff from entering surface waters.
- Waste Storage Facility will be utilized to provide bin walls to the aerated pad, enhancing the management of the composting system.

# **BMP Expected Lifespan:**

- Waste Storage Facility-15 Years
- Roofs and Covers-10 Years

## **Before Photo:**



# **Estimated Costs of BMP Implementation**

Cod	BMP Description	Unit	Qnty	Cost	Total	90% Cost	10% Match
е						Share	
313	Waste Storage Facility	per	1	\$30,000	\$30,000	\$27,000	\$3,000
367	Roofs and covers	Sq ft	862	\$28,000	\$28,000	\$25,200	\$2,800
					\$58,000	\$52,200	\$5,800

MCD BOS Approval Date: Date:	MC VSP Work Group Approval				
Nick Schneider	5/01/23				
MCD Planner	Date				
BOS Chair	Date				
VSP Chair	Date				

Owner: XXXXXXXXX MCD Cooperator

ID: NJS-CS23-09

CPDS ID: RANKING: FUNDING

**ADDRESS:** Lower Coffee Creek, WRIA 14

**REQUEST: \$39,600** 

BMPs: 313-Waste Storage Facility, 560-Access Road, 558 - Roof Run Off Structure

Critical Areas Identified: Critical Aquafer Recharge Area, Erosion Risk, Fish and Wildlife Habitat.

Referral: No

**Cost Share Eligible: Yes** 

## **Project Description:**

Mason Conservation District staff seek funding to help implement several Best Management Practices that will mitigate resources concerns and impacts to salmon recovery and habitat. The focus of this project is to relocate livestock confinement areas outside of critical areas consisting of unnamed streams and Coffee Creek that WDFW's Priority Habitat has identified as containing salmon.

Salmon species that WDFW has identified inhabiting Coffee Creek as occurrence/migration are listed as follows:

- -Coho (Oncorhynchus kisutch)
- -Resident Coastal Cutthroat (Oncorhynchus clarki)
- -Steelhead (Oncorhynchus mykiss) Occurrence only.
- -Winter Steelhead (Oncorhynchus mykiss)
- -Chum (Oncorhynchus keta) Occurrence only
- -Fall Chum (*Oncorhynchus keta*)

The Kennedy-Goldsborough Basin (WRIA 14) Lead Entity's Salmon Recovery Strategy GeoPortal recognizes the Lower Coffee Creek as the highest restoration priority and high conservation priority. High priority actions pertaining to this landowner that are recommended by WRIA 14 Lead entity include reducing priority major fine sediment inputs and riparian livestock management.

Mason Conservation District staff recommended that a covered HUA be constructed to move the cattle confinement areas away from surface waters.

Phase 1 of this project saw the construction of a cement slab, roof and covers, and an access road.

Phase 2 is seeking funding for waste storage (bin walls), roof run off structure, and an access road.

- Waste Storage Structure will allow manure storage during pasture dormancy.
- Access Road will allow a fixed route for resource activities involving livestock management.
- Roof Run Off Structure will provide gutters and downspouts to livestock facilities to convey stormwaters to a desired and appropriate outlet.

# **BMP Expected Lifespan:**

- Roof Run Off Structure-15 Years
- Waste Storage Facility-15 Years
- Access Road-10 Years

## **Before Photos:**



salmon stream in close proximity to livestock winter confinement areas.

# **Cost Estimates**

Cod	BMP Description	Unit	Qnt	Cost	Total	90% Cost	10%
e			у			Share	Landowner
							Match
558	Roof Run Off	Ft	200	20.00	\$4,000	3,600	400
	Structure						
313	Waste Storage	each	1	28,000	\$28,000	25,200	2,800
	Facility						
560	Access Road	ft	200	60.00	\$12,000	10,800	1,200
					\$44,000	\$39,600	<b>\$4,400</b>
					<del>344,000</del>	000,ccç	<del>94,400</del>

MCD BOS Approval Date: Date:	MC VSP Work Group Approval
Nick Schneider	5/01/23
MCD Planner	Date
BOS Chair	Date

SP Work Group Chair	Date