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TO: Jim Dunnigan, Montana Fish, Wildlife and Parks
FROM: Amy Sacry, Geum Environmental Consulting, Inc.
DATE: January 28, 2021
RE: Therriault Creek 2020 Maintenance Summary

This memo describes observations made and maintenance work completed in 2020 at the Therriault Creek Restoration Project Site under Montana Fish, Wildlife and Parks (FWP) Task Order 19-0010. Maintenance tasks were identified and completed by Geum Environmental Consulting (Geum). Weed control was completed by Mountain Valley Plant Management (MVPM). This memo also provides a budget status update for Task Order 19-0010 and a list of recommended next steps.

The Therriault Creek Restoration Project was evaluated by Geum on June 23, 2020. Stream flows were at bankfull during the site visit. The purpose of the site evaluation was to determine revegetation treatment maintenance needs, determine weed control needs, and evaluate restoration treatments installed in 2020. A detailed description of observations related to the overall condition of the site is provided in a separate document, *Therriault Creek Restoration Project – Five-year Vegetation Management Plan* (Geum, 2019). This plan identified restoration treatments and a schedule for implementing treatments. This memo also provides an update on progress towards meeting the targets outlined in the five-year plan. A map of the current status of treatments at the site is provided in Figure 1.

Site Observations

2020 Maintenance Observations and Completed Maintenance

All previously installed revegetation treatments were observed during the 2020 site evaluation for maintenance needs. Two types of maintenance were identified during the site evaluation:

- Riparian protection fence repair
- Browse protector maintenance

A brief description of the observations and maintenance work associated with each of these items is provided below. Observations and maintenance of restoration treatments installed in 2019 are described in a following section.

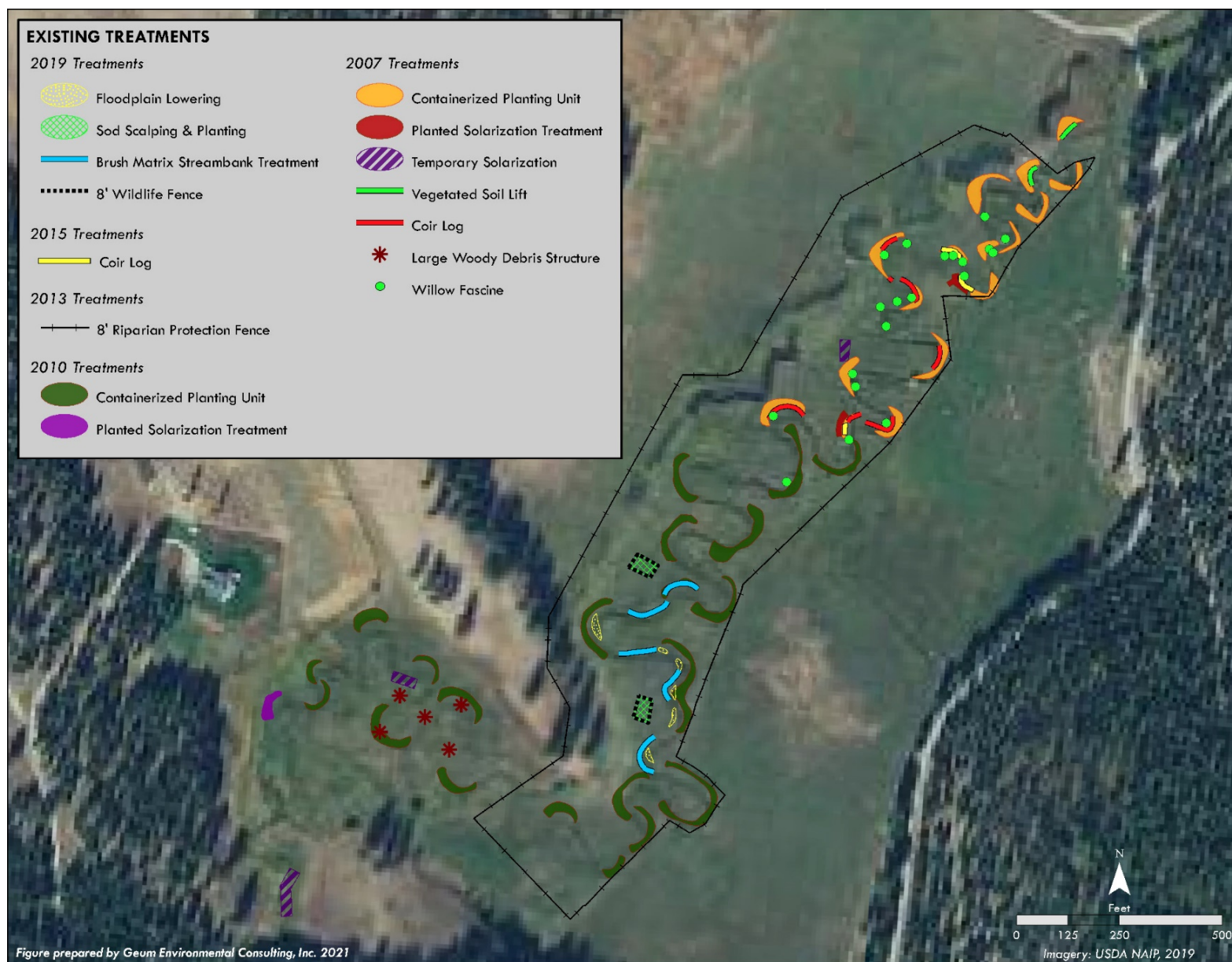


Figure 1. Overview of current treatment locations.

Riparian Protection Fence Repair

Several locations were identified where the riparian protection fence netting was sagging or ripped. Fewer holes under the fence created by deer were observed in 2020 compared with 2019. This may be because the site was observed earlier than usual. The two locations where the fence crossed the channel have been entry points for deer in the past. Both of these crossings were evaluated and it did not appear that deer were entering the fence through those locations. The gate at the southwest corner of the project area was not left open as it had been in past years. Three deer were observed inside the riparian protection fence in the southwest corner.

Fewer maintenance locations were identified in 2020 compared to 2019. Due to the lack of budget remaining in the Task Order (see later section on budget status) it was not possible to send a maintenance crew to the site in fall 2020 to complete fence repairs. Geum completed all high priority fence repairs during the site visit on June 23, 2020. Fence repairs included:

- Re-secure fencing to posts with zip ties, and straighten any damaged or leaning posts.
- Repair holes under the fence with salvaged fence material and/or browse protector materials.

A total of 250 linear feet of fence repairs were completed in 2020. Repair of the existing riparian fence included patching small holes and tears in the fence netting, straightening bent or damaged fence posts, re-securing fence netting to existing fence posts, re-securing fence netting to the ground, and patching holes under the fence. Plastic zip ties were used to attach patches and re-secure netting to fence posts.

Browse continues to be a primary threat to woody vegetation establishment at the site. However, since installation of the riparian protection fence in 2014, natural expansion of woody vegetation on inside meander bends and streambanks treated with willow cuttings in the 2008 phase of the project has greatly increased (Figure 2 and Figure 3). Expansion from these areas will continue to be very slow due to the extensive cover of aggressive introduced pasture grasses; however, this area has probably reached a desirable level of woody vegetation cover given on-going site constraints, and phasing out the riparian protection fence in this area should be considered.



Figure 2. Browse remains a significant issue at the site (left photo outside riparian protection fence and right photo inside fence).



Figure 3. Willow expansion on inside meander bends within the riparian exclosure fence. These areas have dense cover and continue to expand.

Browse Protector Maintenance

Browse protectors were installed on all planted trees and shrubs in 2007 and 2010. Browse protectors were also installed on hundreds of residual shrubs from the original 2005 planting. Browse protectors have been removed, repaired, or expanded every year, as needed, since 2008. After installation of the riparian protection fence in 2013 and 2014, browse protectors were removed from all plants in the 2007 planting area. Browse protectors have been selectively removed from plants within the 2010 planting area since 2014. All browse protectors on living shrubs and trees were left on plants outside of the riparian protection fence. Due to extensive browse observed within the riparian protection fence in 2018 (due to several prior years of not repairing the 8-foot fence), Geum determined that no additional browse protectors should be removed from living plants, even within the riparian protection fence. Instead, these browse protectors were repaired and enlarged as needed in 2018. Less browse was observed in May, 2019 compared to 2018, likely because perimeter fence repairs in 2018 were still functioning. Within the riparian protection fence, additional browse protector removals, repairs and expansions were identified in 2019. Outside of the riparian protection fence, many browse protectors had fallen down due to rotting of the wooden posts, and others required removal due to the death of plants. Instead of repairing the protectors around living plants outside of the riparian protection fence, in 2019 it was determined that a better long-term solution would be to replace the plastic browse protectors supported by wooden posts, with metal cages supported by steel t-posts. In 2019, 97 metal browse protectors were installed in planting areas outside of the riparian protection fence.

Within the riparian protection fence, browse is still occurring but significant growth on some shrubs was observed in 2020 and many more shrubs are now resistant to browse (greater than 8 feet in height with sufficient lower branch growth). Common browse impacts include: browse of lower branches, particularly where 8-inch diameter plastic browse protectors had originally altered growth form (Figure

4); and hedging at the top of browse protectors for highly palatable species such as red-osier dogwood (Figure 5).

In 2020, Geum continued to record the number of browse protectors that should be removed or repaired at the site. Geum recorded the approximate number of browse protectors to be removed, repaired, enlarged, or replaced in each 2010 planting unit, both within and outside of the riparian protection fence (Table 1). The general guidance for browse protector repair and maintenance needs in 2020 include:

Within the riparian protection fence:

- Many shrubs have grown to sufficient size to resist browse. The protectors on these can be removed any time (36).
- Leave browse protectors on where they are still protecting shrubs that are too small to resist browse and repair as needed (4).
- Remove browse protectors on shrubs that have died (3).

Outside of the riparian protection fence:

- No repairs were needed to metal cages installed in 2019.
- Some metal cages with dead plants inside should be relocated to protect other living shrubs outside of the riparian protection fence that are still protected by black plastic cages with wooden posts (7).
- Continue to remove plastic browse protectors with wooden posts where shrubs are now large enough to resist browse (19).
- Continue to replace plastic protectors supported by wooden posts with metal cages and t-posts.
- Black plastic netting and wooden posts around clumps of plantings at the upstream end of the site should be removed. These browse protectors have allowed these shrubs to expand and they are now resistant to continued browse (Figure 6).

Due to the lack of budget remaining in the Task Order (see later section on budget status) it was not possible to send a maintenance crew to the site in fall 2020 to complete browse protector repairs.

Table 1. Summary of 2010 planting units with notes on remaining browse protectors and maintenance needs identified in 2020.

| Plot ID | Remove | Repair/Enlarge | Notes |
|----------------|---------------|-----------------------|---|
| 2010-1 | 3 | 0 | 12 browse protectors left, plants still alive but are not big enough to remove protectors and should be left on. 3 can be removed due to plant mortality. No other maintenance needed. |
| 2010-2 | 0 | 0 | 8 browse protectors left, plants still alive but are not big enough to remove protectors and should be left on. No maintenance needed. |
| 2010-3 | 0 | 1 | 5 browse protectors left, plants still alive but are not big enough to remove protectors and should be left on. One protector needs to be straightened and re-secured. This planting unit associated with 2019 brush matrix bank treatment BM5. |
| 2010-4 | 6 | 1 | 12 browse protectors left, 6 are big enough to resist browse and could be removed and the other 6 should be left on. 1 needs repair. |
| 2010-6 | 0 | 0 | All dead, no browse protectors left. |
| 2010-7 | 4 | 0 | 7 browse protectors left, 3 are big enough to resist browse and could be removed and the other 3 should be left on. No other maintenance needed. |
| 2010-9 | 3 | 0 | 3 browse protectors left, 3 are big enough to resist browse and could be removed. |
| 2010-10* | 4 | 2 | 4 black plastic protectors left in area and can be removed. 9 metal protectors that look good but 2 plants are dead - move metal protectors from dead plants to living plants currently protected by plastic protectors. |
| 2010-11* | 6 | 0 | The area around this planting unit has 6 metal protectors that all look good and 6 black plastic protectors that should be removed. |
| 2010-12* | 0 | 1 | 11 metal protectors in this unit that all look good, 1 plastic protector that should be replaced with a metal one removed from dead plants in unit 2010-10. |
| 2010-13* | 0 | 2 | 15 metal protectors in this unit that all look good but 2 plants are dead, move metal protectors from dead plants to living plants currently protected by plastic protectors in other units. |
| 2010-14* | 3 | 0 | 14 metal protectors in this unit that all look good but 1 plant is dead, move metal protector from dead plant to living plants currently protected by plastic protectors. Remove 2 plastic protectors – replace one with living plant with metal protector on dead plant. |
| 2010-15* | 1 | 0 | Remove 2 black plastic protectors. |

| Plot ID | Remove | Repair/Enlarge | Notes |
|----------|--------|----------------|--|
| 2010-16* | 2 | 0 | 12 metal protectors in this unit that all look good but 2 plants are dead, move metal protectors from dead plants to living plants currently protected by plastic protectors in other units. |
| 2010-17* | 6 | 0 | 25 metal protectors in this unit that all look good, 6 plastic protectors that could be removed. |
| 2010-18 | 6 | 0 | 11 browse protectors left, 6 are big enough to resist browse and could be removed and the other 5 should be left on, no other maintenance needed. |
| 2010-19 | 16 | 0 | 21 browse protectors left, 16 are big enough to resist browse and could be removed and the other 5 should be left on. No other maintenance needed. |
| 2010-20 | 5 | 0 | 13 browse protectors left, 5 are big enough to resist browse and could be removed. No other maintenance needed. |
| 2010-21 | 0 | 0 | 20 browse protectors left, plants still alive but are not big enough to remove protectors and should be left on. No maintenance needed. |
| 2010-22 | 0 | 1 | 9 browse protectors left, plants still alive but are not big enough to remove protectors and should be left on. One needs straightened. |
| 2010-23 | 0 | 0 | 10 browse protectors left, plants still alive but are not big enough to remove protectors and should be left on. No maintenance needed. |
| 2010-24 | 0 | 1 | 9 browse protectors left, plants still alive but are not big enough to remove protectors and should be left on, 1 protector needs to be expanded. |

*Planting units outside of the riparian enclosure fence.



Figure 4. 2010 Unit 24 showing lower stem browse partly resulting from growth form impacts from original, small diameter browse protectors. Photo is of two female willow plants producing a lot of seed.



Figure 5. Unit 2010-1 dogwood browse to top of protector.



Figure 6. Clump plantings at the upstream end of the project where black netting should be removed.

2019 Restoration Treatment Observations

Three types of restoration treatments were installed in 2019: point bar expansion, grass sod scalping and planting, and brush matrix streambank treatments. Each of these treatments, including final installation quantities, are described in a separate memo *Therriault Creek 2019 As-built and Maintenance Summary* (Geum, 2020). This section provides a summary of observations of these treatments made in June, 2020.

Sod Scalping and Planting Treatment

Sod scalping and planting occurred in two locations at the Site in Fall 2019 (Figure 1). The purpose of this treatment was to remove the aggressive introduced grass species and expose the bare mineral soil underneath to allow desirable species to establish. The exposed soil was seeded with native grasses, forbs and sedges and planted with a mix of container willow species. Willows were planted at a very tight spacing (approximately 2 to 3 feet on center) to allow rapid expansion and cover of willows. The two planted areas were fenced with 8-foot tall heavy duty elk net fencing to prevent browse and damage by ungulates and rodents.

Figure 7 shows Sod Scalping and Planting treatment site S1. This site had 2 to 6 inches of standing water present at the time of the field review. While at least 80% of the planted willows were alive, the standing water at the site may affect survival and growth. Figure 8 shows Sod Scalping and Planting treatment site S2. This site had 90% or higher survival of planted willows. It was too early to determine seeding response. Exclosure fence netting was sagging in some spots but no deer browse or hoof prints were observed within either site.



Figure 7. Sod Scalping and Planting treatment S1.



Figure 8. Planted willows in Sod Scalping and Planting treatment (S2.

Point Bar Expansion Treatment

Five locations were lowered to expand point bars and increase floodplain connectivity on inside meander bends (Figure 1 and Figure 9 through Figure 14). These areas were almost all dominated by dense cover of aggressive, introduced, pasture grasses and were previously disturbed during the original stream channel construction in 2004-2005. The point bar expansion treatment removed the dense pasture grasses and lowered the floodplain elevation, exposing bare substrates to be colonized by woody riparian shrubs and increase hydrologic connectivity between the channel and floodplain to create natural disturbances necessary for riparian vegetation community initiation. Willows were installed in a trench approximately 1 foot above the low flow water surface elevation at each point bar expansion location. A total of 350 willow cuttings were installed in these treatments. Each point bar expansion area was seeded with a mix of native wetland grasses.

All of these treatments were under water during the June site visit but willow cuttings appeared to be living and fine sediment had accumulated above and below the willow cutting trench. Grasses were already recolonizing several of these sites. These grasses are probably a mix of seeded grasses and re-sprouting of roots of existing introduced pasture grasses.

Brush Matrix Streambank Treatment

Brush matrix streambank treatments were installed at five locations at the Site in Fall 2019 (Figure 1 and Figure 9, Figure 11, Figure 13, Figure 15, and Figure 16). The purpose of this treatment was to increase riparian woody vegetation cover along the stream and increase aquatic habitat cover. This treatment used small logs and woody brush material combined with dormant willow cuttings. A total of 499 linear feet of brush matrix streambank treatment was installed. A total of 1,500 6- to 8-foot long and ½" to 1" diameter willow cuttings were installed in brush matrix streambank treatments.

Water was above the top of the bank at all structures in June, 2020. Willow survival appeared to be high, but real success of these treatments is determined by suckering and rapid expansion of willows onto the floodplain behind the structure and will become apparent after one or two more growing seasons. Some scour of streambank material was occurring near the downstream end of two structures. Significant deposition of fine sediments was also occurring in several areas and fresh willow seed was observed on these sediments at streambank BM5 (Figure 17).



Figure 9. Brush Matrix 2 (BM2) and Point Bar 5 (PB 5) looking downstream to upstream (top photo) and looking upstream to downstream (bottom photo).



Figure 10. Point bar (PB4) looking downstream to upstream (top) and upstream to downstream (bottom)



Figure 11. Brush Matrix 1 (BM1) and Point Bar 3 (PB3) looking downstream to upstream (top), looking across at PB3 (middle), and looking upstream to downstream (bottom).



Figure 12. Point bar 2 downstream portion looking upstream to downstream (top) and Point Bar 2 upstream portion looking downstream to upstream (bottom).



Figure 13. Brush Matrix 3 looking downstream to upstream (top) and upstream to downstream to downstream (bottom).



Figure 14. Point bar 1 (PB1) looking downstream to upstream (top) and looking upstream to downstream (bottom).



Figure 15. Brush Matrix 4 (BM4) looking upstream to downstream.



Figure 16. Brush Matrix (BM5) looking downstream to upstream (top) and upstream to downstream (bottom).



Figure 17. Willow seeds covering bare substrates at BM5.

Weed Control

Weed densities in 2018 are described in the 2018 Management Plan and in a separate memo, *Therriault Creek 2018 Maintenance Summary* (Geum, January 15, 2019). Weeds were treated in 2019 (see *Therriault Creek 2019 As-built and Maintenance Summary* (Geum, 2020)) and the extent and cover of weed infestations observed in 2020 were greatly reduced from 2018 levels due to the 2019 treatment.

In 2020, weed control was completed by MVPM on July 21. Canada thistle (*Cirsium arvense*) was the primary weed targeted. Houndstongue (*Cynoglossum officinale*) and common toadflax (*Linaria vulgaris*) were also treated. Approximately 26 acres were treated at the site. Herbicide application records and spray tracks are provided in Attachment 1. Weed control activities in the hayfield east of the project area were completed by the landowner. The landowner's weed control contractor was on site on June 23, 2020.

Despite reduced infestations in 2020, Canada thistle is still widely distributed throughout the project area and a significant seedbank likely exists. Canada thistle is still very common along streambanks where it is difficult to treat with herbicide (Figure 18). A similar level of effort of weed control should continue in 2021. Treating isolated clumps of reed canarygrass has prevented its spread and should also continue (Figure 19). Other noxious weed species are scattered throughout the site but have very low cover overall (Figure 20). These species should continue to be treated as well.



Figure 18. Canada thistle infestation along streambank.



Figure 19. Isolated RCG clumps to continue to target with herbicide.



Figure 20. Common toadflax (*Linaria vulgaris*) that continues to persist at the upstream end of the project area.

Next Steps

Task Order 19-0010 Budget Status

Table 2 provides a summary of tasks completed under Task Order 19-0010 and the remaining task order budget. A total of \$2,408.84 will remain in the Task Order 19-0010 budget after this completion memo (Milestone 13) has been invoiced for.

Five-Year Management Plan Status: Continued Maintenance and Restoration Treatments

Table 3 provides the list of maintenance actions and treatments outlined in the *Therriault Creek Restoration Project Five-Year Vegetation Management Plan* and the status of each action. Site trends continue to be positive and the treatments installed in 2019 seem likely to increase shrub cover in desirable locations. Creating several more areas of woody vegetation pockets in the next two years, in areas where they are likely to be successful, should be the final goal before leaving the site to transition on its own. After that, continued weed control and eventual removal of the riparian protection fence and remaining browse protectors, which should stay in place for a few more years, would be the last remaining management actions. Weed control and fence maintenance are approximately \$3,000-4,000 per year and hopefully can be continued for several more years.

To complete the actions outlined in the 5-year Revegetation Plan the following maintenance and restoration actions are proposed for 2021 or 2022. Completing any actions in 2021 or 2022 would require additional budget. Figure 23 shows proposed locations for 2021/2022 treatments.

2021:

- Remove 8-ft fence from 2008 phase of project. While there are some outer banks in the 2008 project phase that are not well vegetated with shrubs, the overall area has sufficient shrub cover which continues to slowly expand. Removing this fence will allow deer to move more freely through the area and hopefully reduce pressure on the 2010 project phase where woody vegetation cover is lower. Angle iron extensions may be difficult to remove. The landowner may have the best tools to do this work. A new north-south cross fence will need to be built at the upstream end of the 2010 work (see Figure 23).
- Continue riparian exclosure fence and individual browse protector maintenance.
- Continue spring and fall weed control as site conditions allow.

2021 or 2022:

- Continue sod scalping and planting treatments in areas that are not too wet, to continue to create patches of diversity within the aggressive introduced grass areas (an example area is shown in Figure 21 – this is Site 2 on Figure 23). Establishing several areas such as this will hopefully promote shrub expansion and increase overall woody riparian vegetation cover over time. A reasonable level of effort for this treatment is shown in Figure 23. These locations are close enough to sod disposal areas (i.e. the abandoned channel where sod can be used to diversify wetland margins) for this to be cost-effective, and it would create sufficient patches to increase woody riparian vegetation cover. It is not possible to convert all areas dominated by invasive grasses to woody vegetation, but many of these areas continue to transition to more

diverse wetlands. This transition seems to happen very quickly even in response to one or two years of high moisture or high water table.

- Continue to install brush matrix streambank treatments on select outside meander bends to create pockets of woody cover along the channel (Figure 22).

2022:

- Continue riparian exclosure fence and individual browse protector maintenance.
- Continue spring and fall weed control as conditions allow.

Table 2. Summary of Task Order 19-0010 completed tasks and remaining budget.

| Task Order Milestones | Date of Completed Work | Invoice Date | Geum Invoice # | Total | Tasks Completed |
|--|--|--------------|----------------|-------------|---|
| Milestone 6: Riparian Vegetation Management Plan | Site review September 2018, Revegetation plan January 2019 | 1/31/2019 | 4032 | \$10,000.00 | Site visit, 5-year Management Plan, Maintenance oversight |
| Milestone 13: Annual Maintenance Memo (2018) | Site review September 2018, Memo January 2019 | 1/31/2019 | 4032 | \$4,200.00 | Maintenance oversight, Summary of completed maintenance |
| Milestone 4: Wildlife fence repairs | October 2018 | 1/3/2019 | 4026 | \$2,301.94 | 800 feet fence removal, 350 feet fence installation, 136 feet fence repairs |
| Milestone 5: Browse protector maintenance | October 2018 | 1/3/2019 | 4026 | \$1,084.18 | 170 browse protectors removed, 132 enlarged or installed |
| Milestone 13: Annual Maintenance Memo (Spring 2019) | Site Visit May 2020 Memo January, 2019 | 6/7/2019 | 4079 | \$4,200.00 | Site visit, 2019 Treatment Design, Maintenance oversight |
| Milestone 1: Annual Spring Herbicide Treatment | July 2019 | 8/1/2019 | 4103 | \$2,925.00 | Weed treatment |
| Milestone 4: Wildlife fence repairs | October 2019 | 11/20/2019 | 4151 | \$2,006.59 | 290 feet fence repairs |
| Milestone 5: Browse protector maintenance | October 2019 | 11/20/2019 | 4151 | \$1,303.17 | 174 browse protector removed, 92 enlarged or installed, 97 wire cages installed |
| Milestone 7: 10 cubic inch containerized planting | October 2019 | 11/20/2019 | 4151 | \$274.56 | 286 planted |
| Milestone 8: 40 cubic inch containerized planting | October 2019 | 11/20/2019 | 4151 | \$2,921.92 | 736 planted |
| Milestone 10: Willow cutting collection and installation | November 2019 | 11/20/2019 | 4151 | \$5,309.50 | 1,850 collected and installed |
| Milestone 11: Brush Matrix streambank treatment installation | November 2019 | 11/20/2019 | 4151 | \$11,576.80 | 499 ft installed |
| Milestone 13: Annual Maintenance Memo (Fall 2019) | Site Visit May 2019, Oversight November 2019, Memo November 2019 | 11/20/2019 | 4151 | \$4,200.00 | Construction oversight, Construction as-built and completed maintenance summary |
| Milestone 13: Annual Maintenance Memo (Fall 2020) | Site visit June 2020, Memo delivered February 2021 | TBD | TBD | \$4,200.00 | Site visit, Summary of completed maintenance |
| Milestone 4: Wildlife fence repairs | June 2020 | 11/20/2019 | TBD | \$447.50 | 250 feet fence repairs |
| Milestone 1: Annual spring herbicide treatment | July 2020 | 8/5/2020 | 4272 | \$2,640.00 | Weed treatment |

Total Invoiced to Date **\$59,591.16**
Total Task Order Budget **\$62,000**
Total Budget Remaining **\$2,408.84**

Table 3. List of possible maintenance actions and revegetation treatments for the Therriault Creek Restoration Project Site from the 2018 Revegetation Plan.

| Year/Season | Maintenance Actions and Revegetation | Approximate Quantity | Status as of January 2021 |
|--------------------|--|---|---|
| Fall 2018 | Weed control Fence repairs Browse protector repairs | 20 acres 500 linear feet 100 | Complete |
| Spring/Summer 2019 | Weed control | 20 acres | Complete |
| Fall 2019 | Weed control Fence repairs Browse protector removal and repair Brush matrix streambank treatment Point bar expansion Sod scalping Containerized plant installation (10 c.i.) Willow fascine installation Metal cage installation | 20 acres 500 feet 100 500 feet 3,000 sq ft 5,000 sq ft 2,000 plants 40 fascines 100 cages | Complete |
| Spring/Summer 2020 | Weed control | 20 acres | Complete |
| Fall 2020 | Weed control Fence repairs Hand weeding 2019 planting areas | 20 acres 500 linear feet 5,000 sq ft | Not completed |
| Spring/Summer 2021 | Weed control | 20 acres | Not completed – should be a high priority for 2021 |
| Fall 2021 | Weed control Point bar expansion Sod scalping Containerized plant installation (10 c.i.) | 20 acres 2,000 sq ft 3,000 sq ft 2,000 plants | Not completed – should be considered for 2021 or 2022 |
| Spring/Summer 2022 | Weed control Fence repairs Hand weeding 2019 and 2021 planted areas | 20 acres 500 ft 10,000 sq ft | Not completed – should be completed for at least two years after last treatments installed. Weed control should continue for several years. |



Figure 21. Good area to implement more sod scalping and planting treatment on an inside meander bend between units 2010 1-2.



Figure 22. Example potential brush matrix streambank treatment that would allow for removal of reed canarygrass along the streambank (Site 4 on Figure 23).

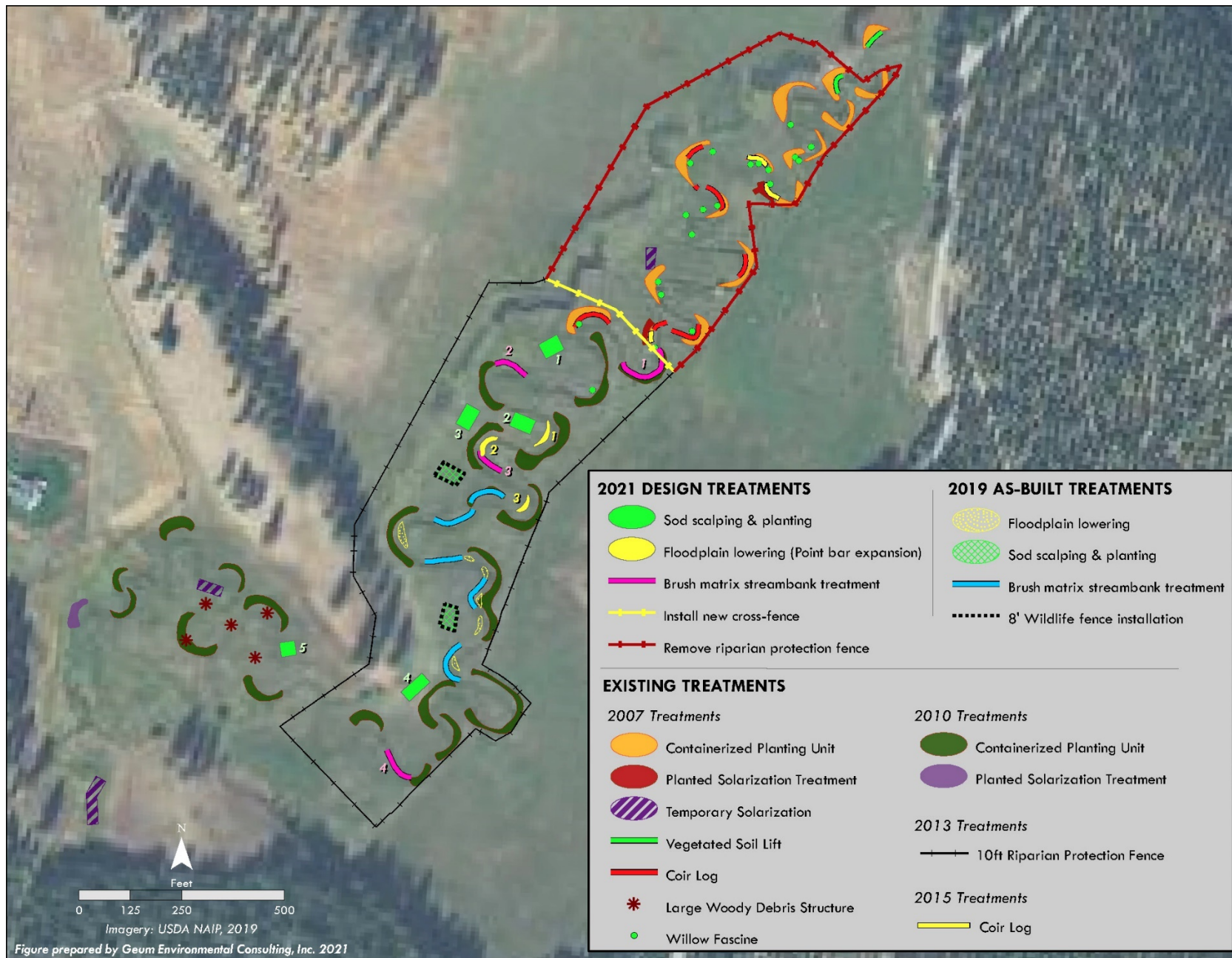


Figure 23. Proposed locations for 2021-2022 treatments.

Attachment 1. 2020 Herbicide Application Records and Spray Tracks

Nick Holden Sarah Holden
100819-12
2567 Hiawatha Rd
Missoula MT 59808



406-544-6582 / 544-5496
mountainvalleyplant@gmail.com

Name: *Montana Fish Wildlife + Parks* Phone:
Address: *Therivault Creek Restoration Project*
Email:

Application 1

Applicator Name: *Nick Holden*

Date: *7/21/20*

Start/Stop: *11:00 AM - 4:00 PM*

Temperature: *84°*

Wind Speed / Direction (from): *0*

HC: Tordon 22K Milestone *Escort XP*

Glyphosate Other *Transline 62719-251*

RATE: *12 oz + 1/2 oz / 12.5 gallons = 1*

Crop or Site: *Non Crop*

Pest(s): *Canada Thistle Hand-picked*

Equipment Used: MULE 09 *ATV 2013* SP

Acres/Area Treated: *3 Acres Sprayed*

Location: *See Tracks*

ATV-1

ATV-2

ATV-3

Tordon 22K = DOW, EPA Reg: 62719-6

Milestone = DOW, EPA Reg: 62719-519

Escort XP = Bayer, EPA Reg: 432-1549

Glyphosate =

Other =

Application 2

Applicator Name: *NH*

Date: *7/21/2020*

Start/Stop: *6:00 PM - 7:00 PM*

Temperature: *81°*

Wind Speed / Direction (from): *0*

HC: Tordon 22K Milestone *Escort XP*

Glyphosate Other *Transline*

RATE: *2 oz + 1/4 oz / 4 gallons = .2*

Crop or Site: *11*

Pest(s): *11*

Equipment Used: MULE 09 ATV *I* SP

Acres/Area Treated: *.2 Acres spot spray*

Location: *BP-1*

Comments:

25 Acres Covered ATV

2 Acres Covered Backpack

