Deschutes Lower Indian Ford Riparian Restoration
Post Implementation Status Report – Year 1
8/18/20
Prepared for:
OWEB
Indian Ford Strategic Implementation Area
Prepared by:
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Deschutes Soil and Water Conservation District

Assessment of whether the Project continues to meet the goals specified in the Grant Agreement:

The Strategic Implementation Area (SIA) in Lower Indian Ford Creek identified agricultural properties that are likely polluting waters of the state and violating local area Agricultural Water Quality Rules. Since 2015 landowners within the lower reaches of Indian Ford have participated in activities to restore the creeks water quality. Phase 1 was completed in 2017 and eliminated an illegal diversion and 880 ft. of ditch, treated 20 acres of invasive species, and restored over 1.2 miles of stream bank and 36 acres of riparian meadow. Phase 2 was completed in 2018 where additional 20 acres of vegetation was planted to improve riparian function and condition and habitat for wildlife. Riparian plantings were planted in key locations according to specifications. Areas of key importance were areas of natural clumping, back filled areas where ditches use to be, and along streambanks to stabilize soil and improve riparian vegetation condition.

This project continues to meet the goals specified in the Grant Agreement. For this year 1 post implementation status report, all 4 properties were monitored, and landowners were engaged as to the status of the project on their property. A main observation was the low water levels or dry creek of Indian Ford Creek on all four properties. Reed Canary Grass, Thistle, and Cheat Grass are abundant along the creek on all four properties. During monitoring in June 2020, the cages that housed a dead plant were removed and so were not monitored this year. This made it difficult to do a full plant count because many cages were removed and so a survival rate was performed for each species for all four properties.

The Knapp property had low water levels in the Creek. Between photo point 1 and 2, there was more growth along the west bank than the east bank. This was also true between points 2 and 3. Reed Canary grass and Thistle was abundant along the entire creek on this property. From photo point 3 to the south end of the property, cheat grass was abundant on the eastern side of the stream upland near the property boundary. Mullein was in small quantities sporadically along the creek. There were only approximately 5 Ponderosa Pines that were counted. Plants that were left in the cages were thriving. Approximately 10-15% of plants in cages were dead. Douglas Spirea, Dogwood, and Alder plants are thriving and have the highest survival rate among the planted species. The willows are growing and looking healthy along the creek. There was very little growth past the last fence on the property. There are three areas where the landowners have the fence in the creek for the cattle to have access to water. This has created trampling, erosion, and a site where noxious weeds are able to be transported downstream. Deschutes SWCD explained this to the land manager, and they have received approval to have these areas for the cattle. DSWCD will continue to work with the landowners to discuss weed

eradication and perform additional plantings in the next couple years with the available monitoring dollars.

The Parrish and Weitzman properties are completely covered with cheatgrass up to 5 feet from the creek. There were around 10-20 Mullen at the north end of the Parrish property at the bridge. There were 10 Ponderosa Pine along the eastern side of the creek on Parrish property. Douglas Spirea, Alder, and Willows were doing very well. Roughly 30% of living species from last year were alive during this monitoring. The secondary channels contain no water, and most plant species were dead that were planted for this project. Reed Canary grass is abundant along the entire length of stream. Indian Ford Creek runs dry about 100-200 feet north of the Weitzman property on the Parrish property. This portion of the Creek was not dry last year.

The Newell property has no water in Indian Ford Creek and has not since they have lived on the property. The Newell manure management plan continues to be adapted. There is no manure on the property except for a small amount that is enclosed on a concrete floor. The seeding that was performed in 2020 is growing very well. The landowner has bought the same amount of seeding mix to plant this fall. DSWCD is going to work with the landowner to fund the planting of this seed this fall and a spraying for the cheat grass throughout the property. They would also like to do some tree plantings along Whychus Creek and throughout their property. DSWCD will continue to work with this landowner for the next 4 years on these projects.

Information or materials required by the Grant Agreement Exhibit B Conditions of Agreement.

Attached are photos at the photo monitoring points for the 1st year monitoring report. Also attached is a percentage of survival for each species planted and if natural recruitment is occurring or not.

A description of any maintenance or modifications made since Project completion or since the last Status Report, whichever was last.

There has been no maintenance or modifications made since the project completion report last August 2020. DSWCD will be working the Knapp and Newell property to perform more seeding and planting in the next 2 years.

An accounting of any costs associated with Project maintenance and reporting to the Board.

At this time, there is no costs associated with project maintenance.

A summary of any public awareness activities related to the Project undertaken since Project completion or since the last Status Report, whichever was last.

There have been no public awareness activities related to the project since the project completion report.

Lessons learned, if any, from the Project.

The restoration treatments were implemented with the goal of enhancing water quality and reducing stream temperature, yet there was no surveys or information gathered on the water quality or temperature when this project began. The photo points were displayed neatly and efficiently, but there were only records from pre project, and none immediately post project. Monitoring restoration

activities to illustrate the benefits occurring on the landscape are integral components to stream and riparian restoration and need to be performed and documented according to a set schedule.

From the photo points, you can see the positive results of fencing for cattle removal. This decreases the bank erosion drastically and allows the full potential for plant growth. There are also photos of area where the cattle have access to the stream, and it is evident of the difference.

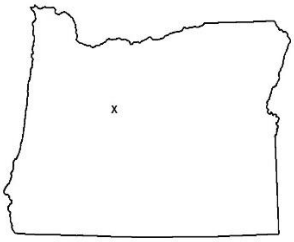
Recommendations, if any, for more effective implementation of similar projects:

This project was implemented as a part of an SIA that was identified by ODA to improve the water quality of Indian Ford Creek and agricultural lands. There were treatments performed that had successful outcomes: removal of the manure pile on the O'Neal property, fencing with a 35-foot buffer from the creek on the Knapp property, and the removal of the rock push up dams and illegal ditch on the Parrish property. These tasks will aid in improving the water quality, reducing bank erosion, and trampling, and returning the creek to a more natural flow. Indian Ford creek has been altered to a single incised channel on these properties for agricultural purposes. To restore and inundate the floodplain and secondary channels and return flow to Whychus Creek, major alterations to the stream channel need to be implemented and would require a large collaboration and approval by private landowners on lower Indian Ford Creek. There are still limiting factors occurring on Indian Ford Creek and many possibilities of uplift to the creek and uplands. This project was a great starting point to restore Indian Ford Creek, improve water quality, and reduce water temperatures. More restoration should be implemented to continue to restore the creek and watershed.

DSWCD will be working with these landowners over the next couple monitoring years to potentially perform more seeding, planting, and weed spraying with the remaining monitoring funds.

Photos and Plant Establishment:

On August 13, 2021, DSWCD walked and monitored the plant survival as best as possible. It was difficult to do a full plant count because the dead plants that were counted last year no longer have cages on the landscape. The plants that are alive have become well established and are very healthy. Reed Canary Grass, Thistle, Cheat grass, and Mullein cover the landscape in large amounts. Below are the photo points from pre-planting (March 2017) to current photos (June 2020) and year 1 monitoring (August 2021) and there is a table of the living and mortality numbers attached below with percent survival for 2021. There are also extra photos taken August 2021 of the properties that show the weeds and open cattle areas.

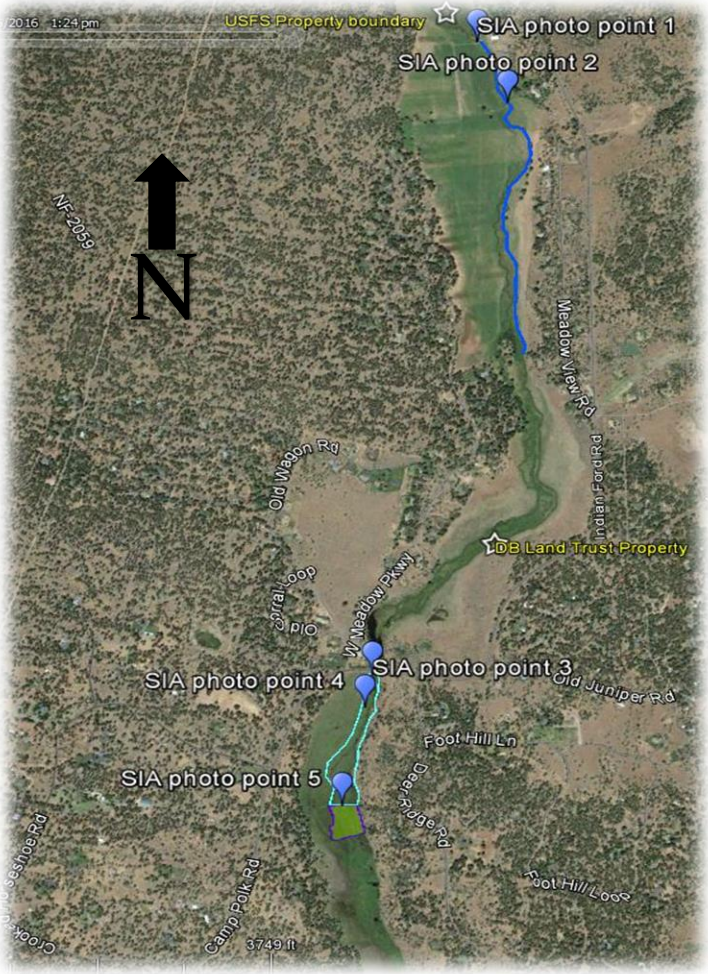


X approximate location of Indian Ford Creek riparian project - State of Oregon

Strategic Implementation Area Deschutes SWCD/ODA

LOWER INDIAN FORD CREEK

Photo location Map Comparison March 2017 to June 2020
Legal Description: T14S, R10E, WM, Deschutes County



Willows Ranch point 1 looking upstream, & downstream photo point on small bridge

Latitude: 44°20'31.49"N
Longitude: 121°32'30.18"W

Upstream

March 2017

June 29, 2020

August 13, 2021

Downstream

March 2017

June 29, 2020

August 13, 2021

SIA Photo point 2

Latitude: 44°20'24.92"N
Longitude: 121°32'23.14"W

Downstream

March 2017

June 29, 2020

August 13, 2021

SIA Photo point 3 – Parrish Property – Bridge at Camp Polk Rd.

Latitude: 44°19'12.17"N
Longitude: 121°32'18.08"W

Upstream

March 2017

June 30, 2020

August 13, 2021

Downstream

March 2017

June 30, 2020

August 13, 2021

SIA Photo point 4 looking downstream at illegal ditch take off from pushup dam

Latitude: 44°19'7.96"N

Longitude: 121°32'17.74"W

March 2017

June 30, 2020

August 13, 2021

SIA Photo point 5 looking downstream at illegal ditch overflow from neighbor's pond back to Lower Indian Ford Creek where algae is present along with a reduced amount of water than diverted

Latitude: 44°18'55.58"N
Longitude: 121°32'16.85"W

Downstream

March 2017

August 13, 2021

June 30, 2020

August 13, 2021

Upstream - June 30, 2020

August 13, 2021

PHOTO DESCRIPTION FORM									
Project Grant #						Project Name: Lower Indian Ford Creek Restoration			
				Date: 3/24/2017		Crew: Jan Roofener			
		Photo taken at a							
	Photo #	photo point	project feature	Standing	Facing	* L or P	Scene description	Latitude	Longitude
	1	SIA 1	stream center	on small bridge	N. & S.	P	upstream and downstream	44°20'31.49"N	121°32'30.18"W
	2	SIA 2	stream center	foot bridge	South	P	downstream	44°20'24.92"N	121°32'23.14"W
	3	SIA 3	Left bank	next to small juniper	N. & S.	P	upstream and downstream	44°19'12.17"N	121°32'18.08"W
	4	SIA 4	Left bank	100' downstream from 1	South	P	downstream at rock pushup dam and ditch POD	44°19'7.96"N	121°32'17.74"W
	5	SIA 5	right bank	S. Fenceline	S. & W.	P	upstream and downstream	44°18'55.58"N	121°32'16.85"W
						*Landscape or Portrait			

Willows Ranch Random Photos:

April 6, 2016 **June 29, 2020** **August 13, 2021**




















Thistle and Cheat Grass on Knapp property (August 13, 2021)

Cattle erosion areas on Knapp property (August 13, 2021)

Thistle and Reed Canary Grass on Parrish Property (August 13, 2021)

Dried up Indian Ford Creek on Parrish Property (August 13, 2021)

Species	Knapp Property/Willows Ranch	Parrish Property	Weitzman Property	Totals Planted (Ordered)
Native willow mix (Salix, Coyote, and live trimmings)	800	800	240	1840
Dogwood	100	100	30	230
Ponderosa Pine	65	65	25	155
Woodsrose	250	200	50	500
Alder	150	75	25	250
Elderberry	180	75	25	280
Snowberry	150	75	25	250
Currant	500	250	50	800
Quaking Aspen	0	125	0	125
Total:	**2195**	**1765**	**470**	**4430**

Living	Willows Ranch (6/29/2020)	Parrish (6/30/3030)	Weitzman (6/30/2020)	Total	Percent Alive 2020	Percent Alive August 13, 2021
Native willow mix (Salix, Coyote, and live trimmings)	**127**	**76**	**40**	**243**	20%	**8**
Dogwood	**51**	**33**	**10**	**94**	8%	**15**
Ponderosa Pine	**36**	**19**	**1**	**56**	5%	**3**
Woodsrose	**53**	**29**	**7**	**89**	7%	**7**
Alder	**85**	**25**	**18**	**128**	11%	**20**
Elderberry	**57**	**45**	**17**	**119**	10%	**7**
Snowberry	**58**	**53**	**17**	**128**	11%	**8**
Douglas Spirea	**73**	**24**	**14**	**111**	9%	**20**
Currant	**96**	**87**	**22**	**205**	17%	**12**
Quaking Aspen	**31**	**4**	**1**	**36**	3%	**0**

Unidentifiable	0	0	0	0	0%	
Total:	**667**	**395**	**147**	**1209**	**100%**	**100**

Dead	Willows Ranch (6/29/2020)	Parrish (6/30/3030)	Weitzman (6/30/2020)	Total	Percent Dead
Native willow mix (Salix, Coyote, and live trimmings)	**57**	**88**	**31**	**176**	21%
Dogwood	**25**	**10**	**2**	**37**	5%
Ponderosa Pine	**14**	**17**	**1**	**32**	4%
Woodsrose	**6**	**1**	**0**	**7**	1%
Alder	**0**	**0**	**0**	**0**	0%
Elderberry	**14**	**1**	**0**	**15**	2%
Snowberry	**3**	**1**	**1**	**5**	1%
Douglas Spirea	**4**	**0**	**0**	**4**	0%
Currant	**25**	**5**	**2**	**32**	4%
Quaking Aspen	**0**	**0**	**0**	**0**	0%
Unidentifiable	**251**	**199**	**62**	**512**	62%
Totals:	**399**	**322**	**99**	**820**	**100%**

	Total Plants Planted/Transplanted	Total Plants Counted	Total Living Plants Counted	Total Dead Plants Counted	Plants not accounted for
Jun-20	**4,430**	**2,029**	**1,209 (59.59%)**	**820 (40.41%)**	**2,467**