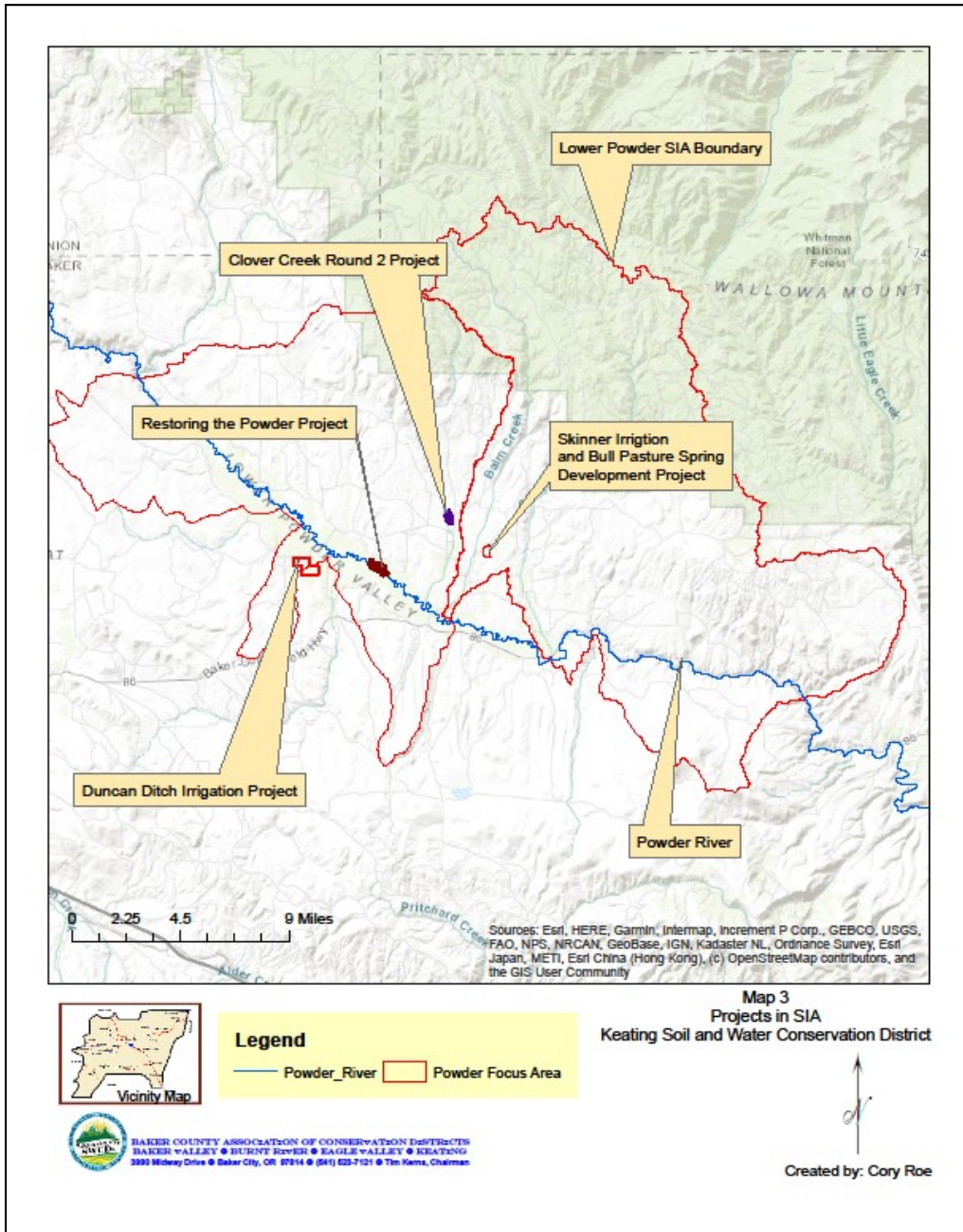
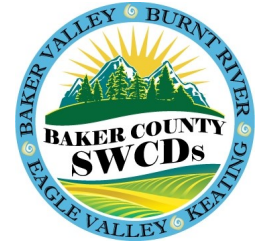


# OWEB CONSERVATION TOUR LOWER POWDER SIA

APRIL 22, 2024 - KEATING SWCD



## Tour Stops:

### ★ Restoring the Powder (Phase I and II)

OWEB Large Grant #221-5010 and Large Grant #223-5006

### ★ Snake River Stewardship Program

In Partnership with Idaho Power Company

### ★ Bull Pasture Spring Development

OWEB Small Grant #28-22-014

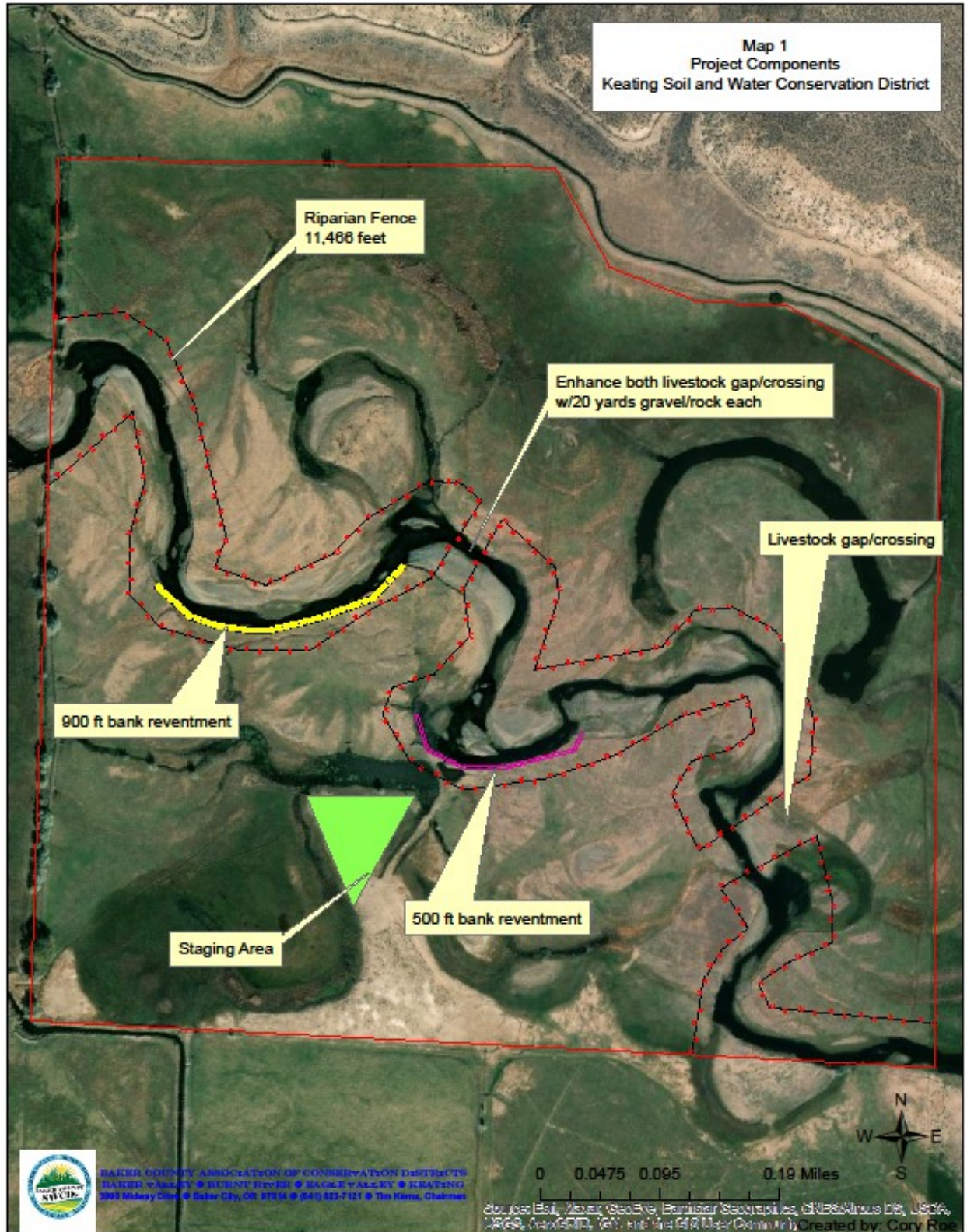
### ★ Skinner Irrigation Project

OWEB Large Grant #223-5027

## Lower Powder Strategic Implementation Area #218-8010

Developed in 2018, the Lower Powder SIA takes place within four individual drainages; Maiden Gulch, Five Mile Creek, Balm Creek and Goose Creek, together containing 75,415 acres of Powder River tributaries. The Keating SWCD has utilized this grant over the last five years to expand upon landowner outreach, conduct monitoring and help landowners to implement projects for the improvement of water quality. As part of the SIA, Keating SWCD staff have been conducting stream sampling and monitoring over the last three years (2021-current) within the four SIA drainages. Water samples are tested for pH, Total Suspended Solids, Dissolved Oxygen, Total Phosphate, Nitrate/Nitrite, E.coli, and Temperature; data is presented to both Oregon DEQ and ODA on an annual basis.

### Restoring the Powder River Phase II



## RESTORING THE POWDER - PHASE I AND II #221-5010 AND #223-5006

The Restoring the Powder project, which turned into a two-phase implementation process, addressed severe erosion, bank cutting and de-vegetation along 1,400 feet of the lower Powder River. LiDAR data suggests that there had been significant bank movement; approximately 15 feet within the last several years. This made it difficult for the landowner to establish large riparian vegetation which would provide the long term bank stability needed.

To combat bank loss, erosion and sedimentation at the site, engineered bank revetments were installed within two identified priority areas; one 500 foot section, and one 900 foot section. Idaho Power Company, using Snake River Stewardship Program funding, partnered on this large grant to install 11,466 feet of wildlife friendly fencing along both sides of the Powder River within this property; both sides include a minimum 40 foot buffer from the river. The riparian fence includes two water gaps for livestock access, reinforced with gravel and rock to limit future impacts to the stream.

The revetments consist of strategically placed materials that include:

- 100 large rocks
- 400 cubic yards of rock/fill
- 16 root wads
- 77 whole trees
- 4 logs
- 500 five-foot willow whips



**1.) Fall 2022. Severe erosion and bank loss along the Powder River.**

**2.) Fall 2023. Bank revetment materials staged and ready for installation.**

**3.) Fall 2023. Final site visit.**

## OWEB CONSERVATION TOUR

### BULL PASTURE SPRING DEVELOPMENT #28-22-014

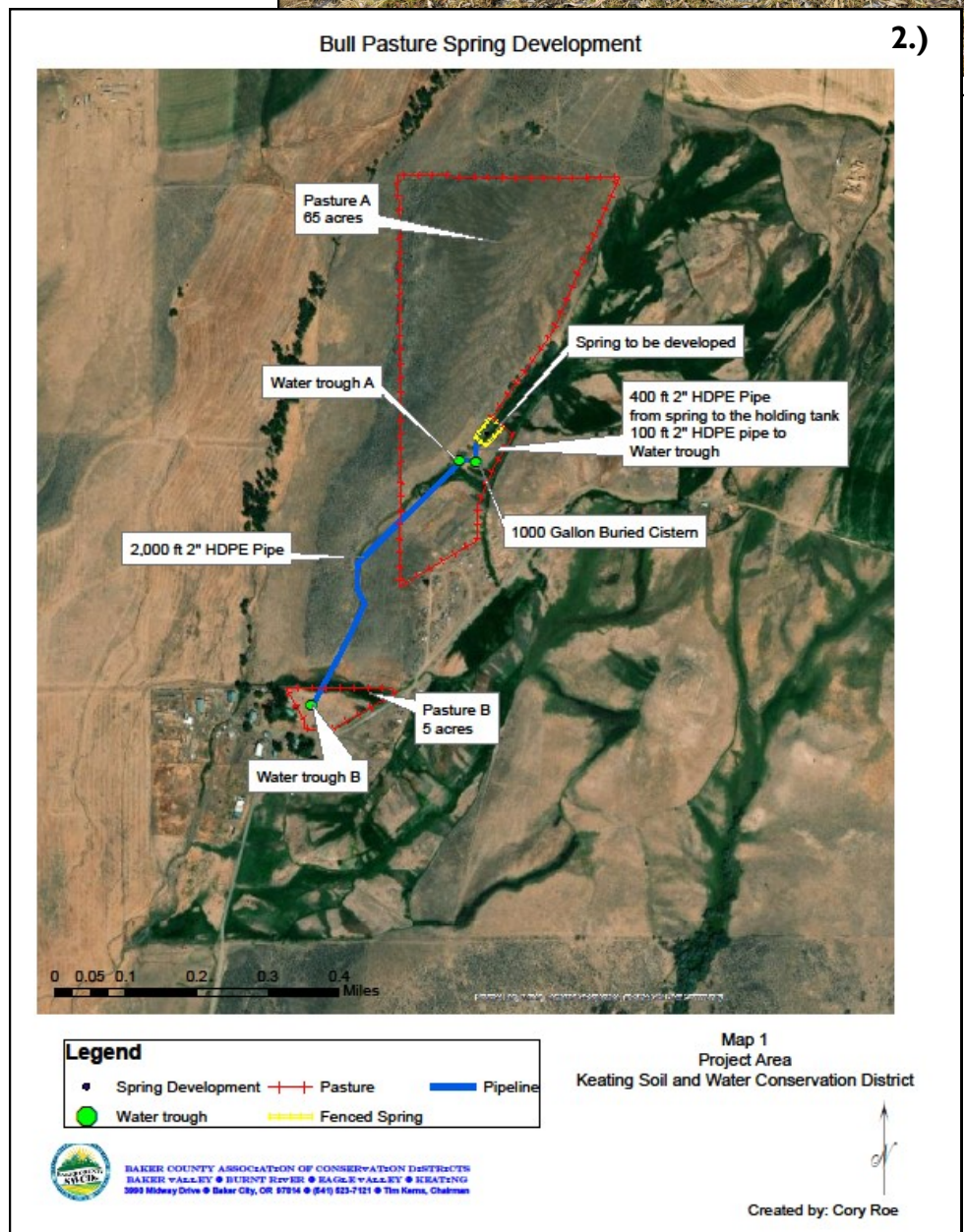
Prior to project install, the watershed concerns at the project site were twofold; because the only source of livestock water was an undeveloped spring located in Pasture A (65 acres), livestock would tend to congregate around this area, leading to trampling and degradation of the spring as well as the surrounding vegetation. Soil erosion was occurring along the spring, causing excess sedimentation at the site. The prior state of the spring left little option for clean, reliable stock water; and as it was the sole option within the large pasture, it was limiting grazing patterns and rotations as well.



The second issue at the project site was within Pasture B (5 acres); the only source of livestock water was via irrigation runoff that travels through the pasture. Not only is this not a reliable, year-round water source, but the tailwater picks up sediment, debris, nutrients, and organic/inorganic material as it travels through the pasture, and once leaving the property empties directly into Balm Creek, a tributary to the Powder River. This posed a water quality concern at the project site, as well as throughout the watershed.

1.) January 2023. Undeveloped spring on the property, prior to project install.

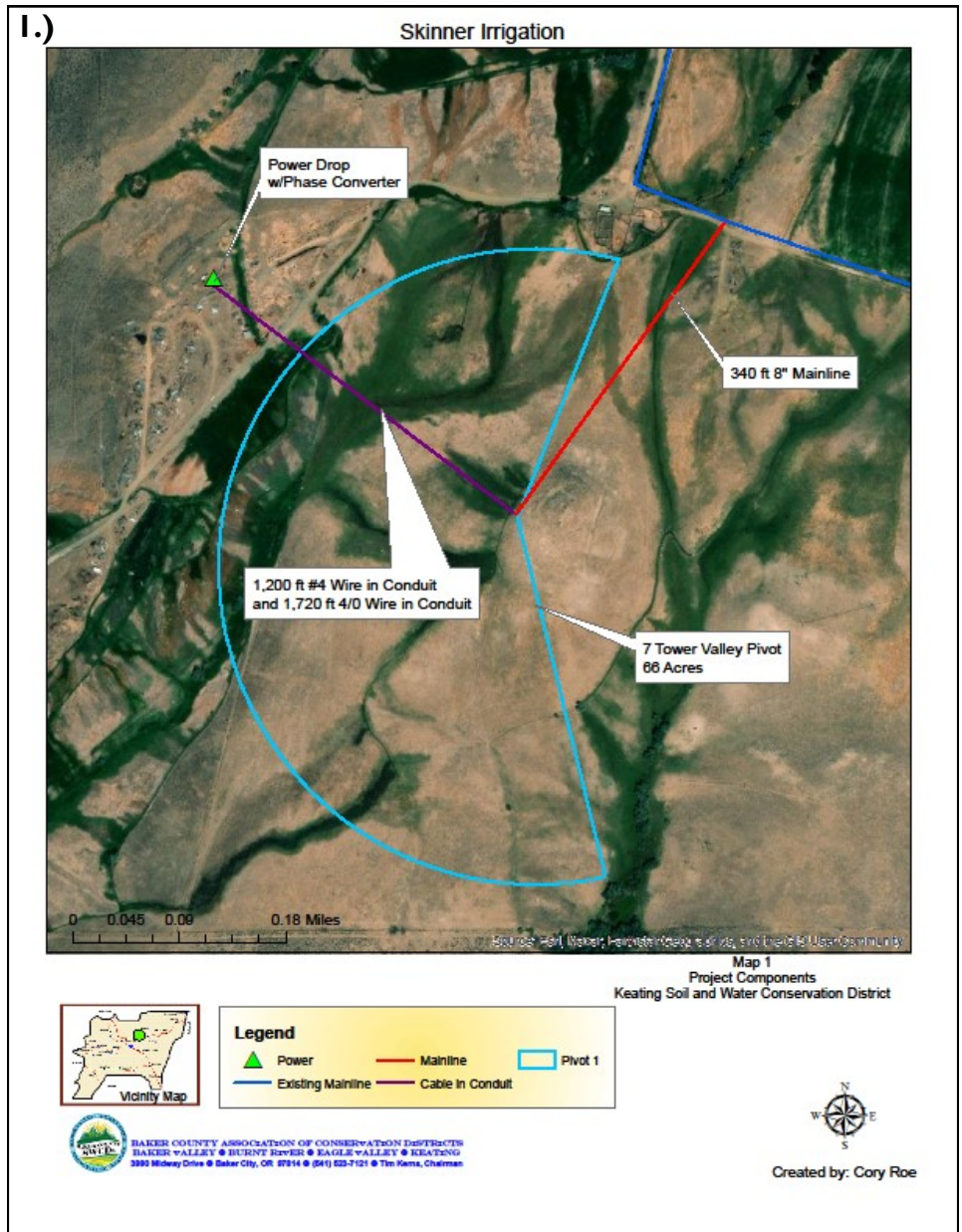
2.) Project Components map, detailing work done. Project was recently completed, March 2024.



### SKINNER IRRIGATION #223-5027

This large grant, which shares a landowner with the Bull Pasture Spring Project, is ready for implementation; it will address 66 acres of flood-irrigated pasture ground that is currently causing erosion and runoff on uneven terrain. Sourced from Balm Creek, which is in the Lower Powder SIA, an irrigation ditch transports water to the project site where it is then diverted into a series of earthen ditches to irrigate the property. As flood irrigation water is “pushed” across the field it collects sediment, debris, nutrients and organic and inorganic material adding it back into Balm Creek and ultimately into the Powder River. The completion of this project will eliminate these concerns by converting 66 acres from flood irrigation to sprinkler by installing one center pivot.

**I.) Skinner Irrigation Project Components map. Project is slated to be completed Fall 2024.**



### MORE SIA PROJECTS IN THE WORKS...

- Clover Creek Irrigation Phase I and II - OWEB Large Grant #220-5026 and #223-5026
- Duncan Ditch Irrigation - OWEB Large Grant #224-5003
- Ruckles Creek Stockwater - OWEB Small Grant #28-24-001
- Slough Two Trough - OWEB Small Grant #28-24-004
- Field 12 Irrigation Project - Potential OWEB Large Grant - Submitted Spring 2024



## KEATING SOIL AND WATER CONSERVATION DISTRICT

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## SNAKE RIVER STEWARDSHIP PROGRAM

Idaho Power Company has implemented the Snake River Stewardship Program (SRSP) and other projects that address the causes of elevated water temperatures and other water-quality concerns. The goal is to restore native vegetation along key tributaries of the Snake River by planting new vegetation. This shades sections of these waterways, provides more diverse fish and wildlife habitat and helps prevent sediment and pollutants from entering the water.

The Keating SWCD has partnered with Idaho Power Company to implement this project over the past six years in the form of a shared employee.

### **I.) Riparian plantings and caging on one of the properties in the SRSP**



### **SRSP Stats on the Powder River as of Spring 2024:**

- Seven individual landowners with lease agreements
- Eight miles of river fenced
- Approx. 90 acres under lease
- Approx. 20 acres planted
- Approx. 35,000 plants installed