

**2025
CCH-2 Vegetation Monitoring,
Bronco, Colorado, Site**

October 2025



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

Contents

Abbreviations	ii
Executive Summary	iii
1.0 Introduction	1
2.0 Reclamation and Success Criteria	1
3.0 Results	2
4.0 Discussion	2
5.0 References	3

Figures

Figure 1. Vegetation Monitoring Locations at Bronco CCH-2	4
Figure 2. Monitoring Location 1, Bronco, Colorado, Site.....	5
Figure 3. Monitoring Location 2, Bronco, Colorado, Site.....	6
Figure 4. Monitoring Location 3, Bronco, Colorado, Site.....	7

Table

Table 1. Data Comparison of DPC, Success Criteria, and Annual Monitoring Results.....	2
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Appendix

Appendix A Comprehensive Data	
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Abbreviations

AEC	U.S. Atomic Energy Commission
BLM	U.S. Bureau of Land Management
CCH-2	Colorado Core Hole No. 2
DPC	desired plant community

Executive Summary

Comprehensive data from 2020–2025 revegetation monitoring at the Bronco, Colorado, Site demonstrate that reclamation efforts have been successful. Reclamation efforts included successful well abandonment, soil stabilization, and revegetation, and the area resembles the natural state of the surrounding land. Although the site exhibits small amounts of undesirable species (cheatgrass), this species does not require targeted management per state and federal regulations. Excluding cheatgrass from monitoring data would result in all success criteria being within the accepted range. Furthermore, reclamation efforts have provided a higher abundance of desirable native species than before the project started (2020: 21%, 2025: 35%). This comprehensive 2020–2025 Bronco site Colorado Core Hole No. 2 report shows reclamation efforts from 2020-2025 resulted in the site meeting reclamation criteria.

1.0 Introduction

This report documents revegetation success monitoring following reclamation work at the Bronco, Colorado, Site at the Project Bronco U.S. Bureau of Mines and U.S. Atomic Energy Commission (AEC) Colorado Core Hole No. 2 (CCH-2) well. Reclamation work included CCH-2 well plugging and abandonment, soil stabilization, downed timber distribution, seed bed preparation, and broadcast seeding the area surrounding the well. The well was drilled by AEC, a predecessor agency to the U.S. Department of Energy, in 1966. The Bronco site is on land managed by the U.S. Bureau of Land Management (BLM) in NWNE, Section 14, T1S, R99W, 6th PM, in Rio Blanco County, Colorado (Figure 1). Before well abandonment and reclamation began, predisturbance vegetation monitoring was conducted in May 2021 to obtain data for revegetation success comparisons. The well was successfully abandoned in September 2021, and reclamation activities were completed in October 2021. Annual vegetation monitoring has occurred since reclamation was complete (DOE 2022; DOE 2023; DOE 2024). This report contains results through 2025.

2.0 Reclamation and Success Criteria

Reclamation activities (including soil stabilization and revegetation) followed methods listed in the *Reclamation Plan for Project Bronco Well CCH-2 Abandonment, Rio Blanco County, Colorado* (DOE 2021) and took place September 24 through October 14, 2021. Monitoring methods follow the *Surface Reclamation Plan* (BLM 2007) and *BLM Core Terrestrial Indicators and Methods, Tech Note 440* (MacKinnon et al. 2011), and monitoring has been conducted annually since the site was reclaimed. To demonstrate reclamation success, annual vegetation monitoring data (Appendix A) are compared to the desired plant community (DPC) data and the following criteria:

1. Self-sustaining vegetative groundcover is (1) consistent with the site DPC and (2) adequately established on disturbed surfaces to stabilize soils through the life of the project.
2. Vegetation¹ will have 80% similarity of foliar cover, bare ground, and shrub or forb density in relation to the identified DPC.
3. To ensure that site species diversity is achieved, the resulting plant community (i.e., species richness) must be composed of at least five desirable plant species, and no one species may exceed 70% relative cover. Desirable species may include native species from the surrounding area; species listed in the range or ecological site description, assessment, inventory, and monitoring data, or at the reference site; or species from the BLM-approved seed mix.

¹ Vegetative cover values for woodland or shrubland sites (such as at Bronco CCH-2) are based on the capability of those sites in a herbaceous state.

3.0 Results

Three permanent monitoring locations were established for annual vegetation monitoring data collection. Average values from the monitoring locations, comparisons to the DPC data, and success criteria are in Table 1. Photographs of each monitoring location are in Figure 2 through Figure 4.

Table 1. Data Comparison of DPC, Success Criteria, and Annual Monitoring Results

Metric	DPC	Success Criteria (80% similarity of DPC)	2022	2023	2024	2025
Total foliar cover (% absolute cover)	25	25 ± 5	11	41^a	35^a	45^a
Bare ground (% absolute cover)	43	43 ± 6	53	39	36	31^a
Desirable foliar cover (% relative cover)	83 (21)	83 ± 17	74	50	75	78 (35)
Undesirable foliar cover (% relative cover)	6 ^b	6 ± 2	26	45	21	22 ^c
Forb foliar cover (% relative cover)	3	3 ± 1	17	41^a	20^a	7^a
Shrub foliar cover (% relative cover)	63	63 ± 13	9	12^a	21^a	27^a
Species richness (Number of dominant species)	10	10 ± 2	7	12	10	12

Notes:

Bold values indicate that data are within success criteria.

Data in parentheses are absolute cover values.

^a Vegetative cover values for woodland or shrubland sites (such as at Bronco CCH-2) are based on the capability of those sites in a herbaceous state.

^b Predisturbance monitoring indicated 1% undesirable foliar cover in the revegetated area and nearby BLM Assessment, Inventory, and Monitoring data ranged from 0–17% or an average of approximately 6% (BLM 2025).

^c List C Species, such as cheatgrass, are species for which local governments and other interested parties develop and implement state noxious weed management plans designed to support the efforts of local governing bodies to facilitate more effective integrated weed management on private and public lands. The goal of such plans will not be to stop the continued spread of these species but to provide additional education, research, and biological control resources to jurisdictions that choose to require management of List C species (*Colorado Revised Statutes* Sections 35-5.5-104.5 to 35-5.5-118).

4.0 Discussion

Data collected from the 2025 monitoring demonstrate that reclamation efforts have been successful. Successful well abandonment and revegetation have resulted in the site resembling the natural state of the surrounding land. Reclamation efforts have provided a higher abundance of desirable native species than before the project started (2020: 21%, 2025: 35%). Desirable species are self-sustaining, as evidenced by vigor, flowering, seeding, and tillers, so they are expected to persist over the long term. Although the site exhibits small, localized patches of an undesirable species (cheatgrass), this species does not require targeted management per state and federal regulations.² Excluding cheatgrass from monitoring data would result in a 0%

² List C Species, such as cheatgrass, are species for which local governments and other interested parties develop and implement state noxious weed management plans designed to support the efforts of local governing bodies to facilitate more effective integrated weed management on private and public lands. The goal of such plans will not be to stop the continued spread of these species but to provide additional education, research, and biological control resources to jurisdictions that choose to require management of List C species (*Colorado Revised Statutes* Sections 35-5.5-104.5 to 35-5.5-118).

undesirable foliar cover, which is within success criteria. Cheatgrass populations are unlikely to be eradicated or reduced due to adjacent infestations surrounding the CCH-2 site and throughout the region. Additional revegetation and monitoring efforts are not likely to yield different results given the abundance of cheatgrass in surrounding areas. If DOE were to control cheatgrass on the site while the much larger surrounding areas contain cheatgrass at a density of up to 17%, control could be required indefinitely. This comprehensive 2020–2025 Bronco CCH-2 report demonstrates accepted reclamation standards have been achieved.

5.0 References

BLM (U.S. Bureau of Land Management), 2007. *Surface Reclamation Plan*, White River Field Office.

BLM (U.S. Bureau of Land Management), 2025. “Assessment, Inventory, and Monitoring (AIM),” <https://www.blm.gov/aim>, accessed August 14, 2025.

CRS 35-5.5-104.5 to 35-5.5-118. “Colorado Noxious Weed Act,” *Colorado Revised Statutes*.

DOE (U.S. Department of Energy), 2021. *Reclamation Plan for Project Bronco Well CCH-2 Abandonment, Rio Blanco County, Colorado*, LMS/BRO/S33467, Office of Legacy Management, April.

DOE (U.S. Department of Energy), 2022. *CCH-2 Vegetation Monitoring, Bronco, Colorado, Site*, LMS/BRO/42782, Office of Legacy Management, October.

DOE (U.S. Department of Energy), 2023. *CCH-2 Vegetation Monitoring, Bronco, Colorado, Site*, LMS/BRO/45593, Office of Legacy Management, October.

DOE (U.S. Department of Energy), 2024. *CCH-2 Vegetation Monitoring, Bronco, Colorado, Site*, LMS/BRO/48738, Office of Legacy Management, August.

MacKinnon, W.C., J.W. Karl, G.R. Toevs, J.J. Taylor, M. Karl, C.S. Spurrier, and J.E. Herrick, 2011. *BLM Core Terrestrial Indicators and Methods, Tech Note 440*, U.S. Department of the Interior, Bureau of Land Management, National Operations Center, Denver, Colorado.

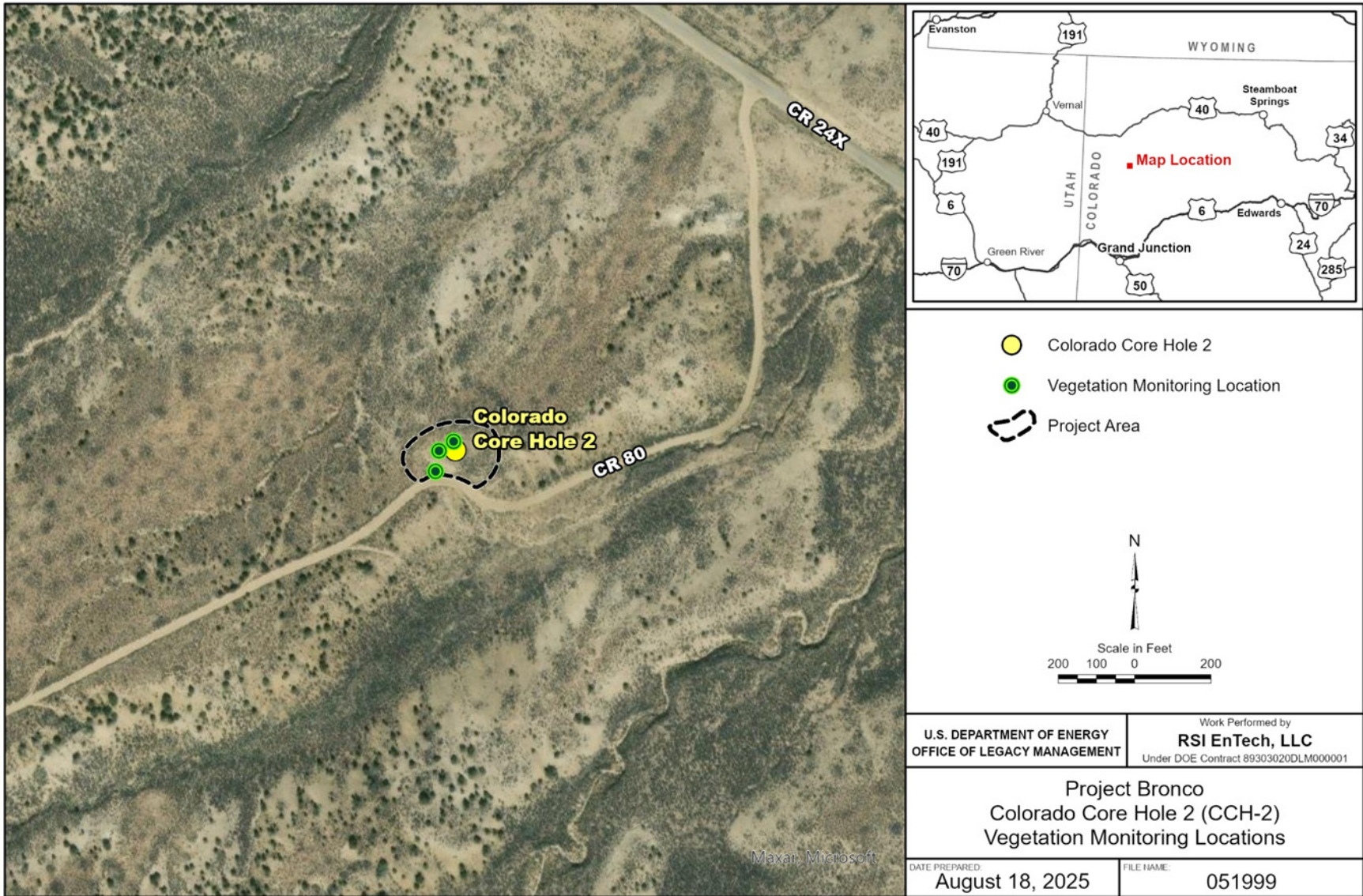


Figure 1. Vegetation Monitoring Locations at Bronco CCH-2

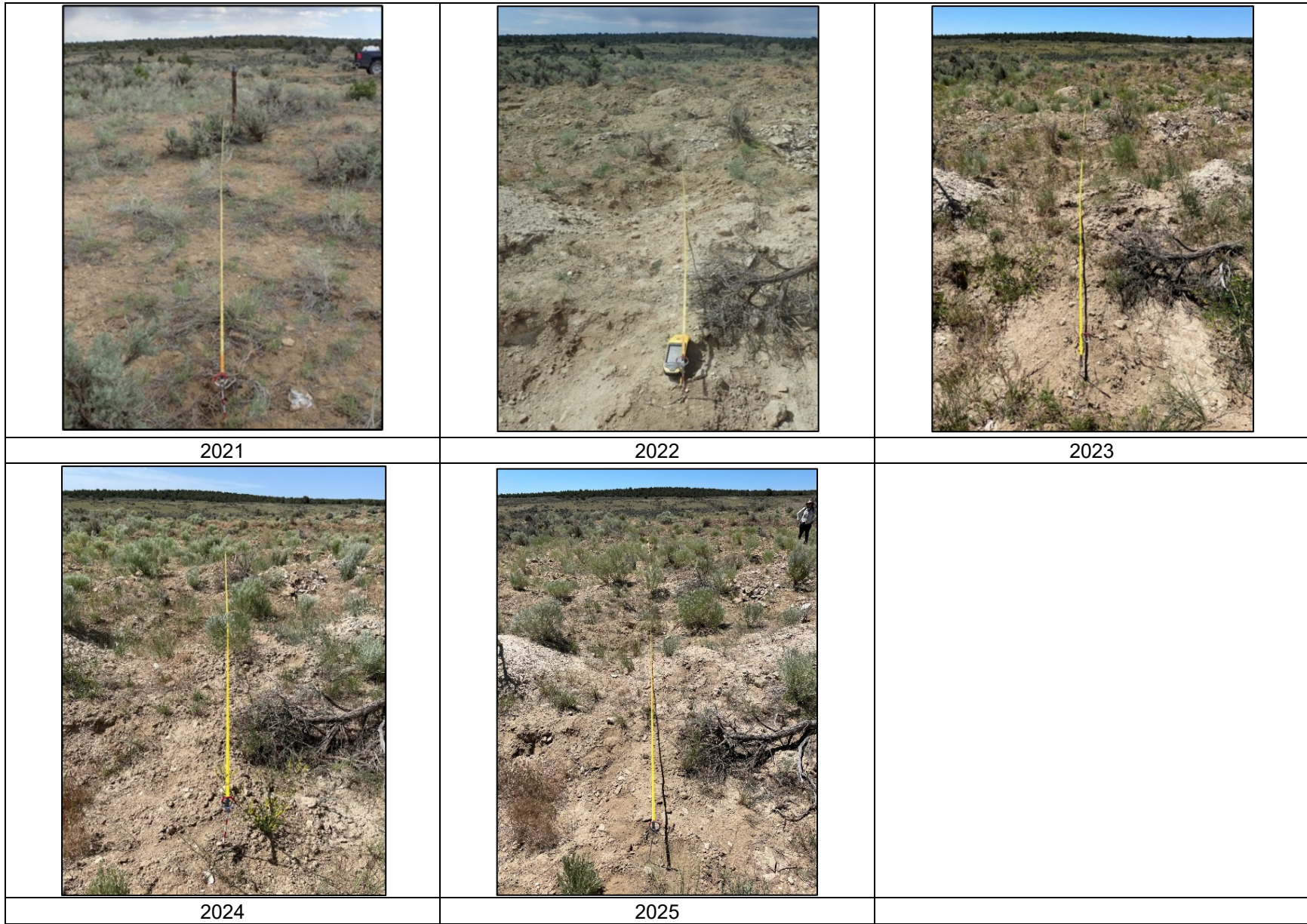


Figure 2. Monitoring Location 1, Bronco, Colorado, Site

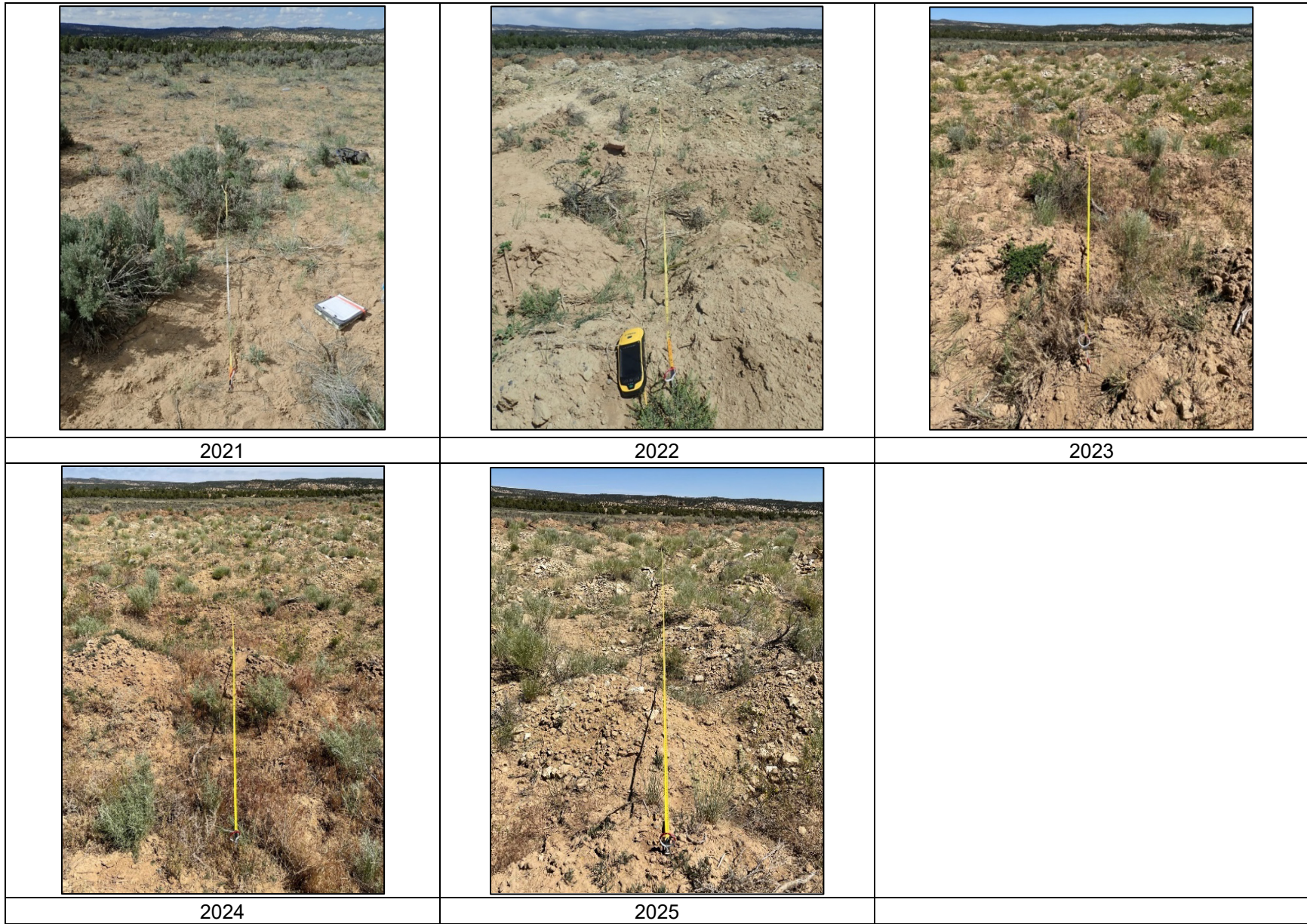


Figure 3. Monitoring Location 2, Bronco, Colorado, Site

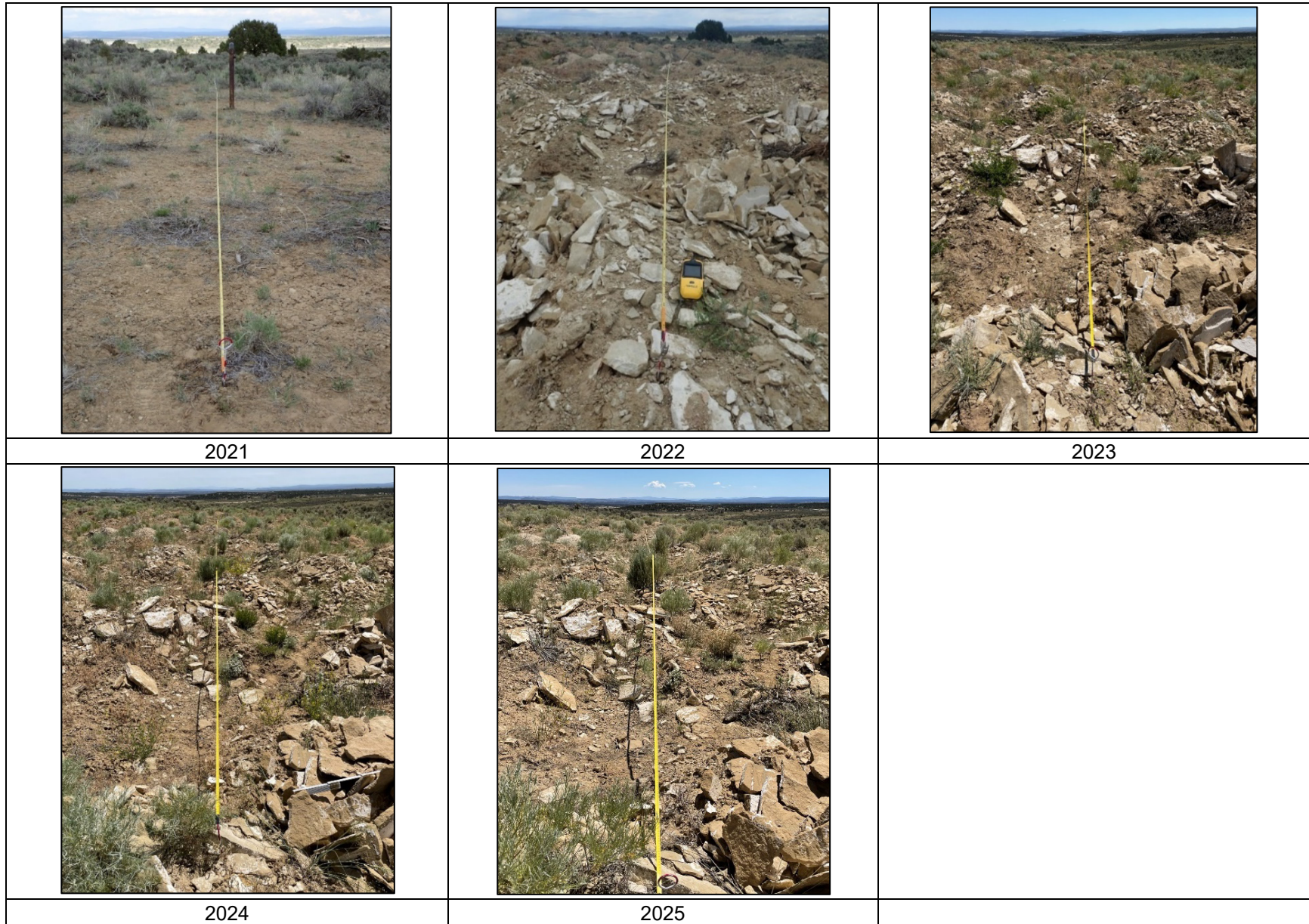


Figure 4. Monitoring Location 3, Bronco, Colorado, Site

Appendix A
Comprehensive Data

Table A-1. DPC Data (Predisturbance Monitoring Conducted May 19, 2021)

					Monitoring Locations			
					1	2	3	AVG
Scientific Name	Common Name	Growth Form	Origin	Desirable?	Relative Cover (%)			
<i>Achnatherum hymenoides</i>	Indian ricegrass	Grass	Native	D	0	10	8	6
<i>Agropyron cristatum</i>	Crested wheatgrass	Grass	Introduced	N	18	obs	0	6
<i>Artemisia frigida</i>	Prairie sagewort	Shrub	Native	D	obs	0	0	<1
<i>Artemisia tridentata</i>	Wyoming big sagebrush	Shrub	Native	D	24	30	8	20
<i>Astragalus wingatanus</i>	Fort Wingate milkvetch	Forb	Native	D	obs	obs	0	<1
<i>Bromus inermis</i>	Smooth brome	Grass	Introduced	N	obs	0	0	<1
<i>Bromus tectorum</i>	Cheatgrass	Grass	Introduced	U	obs	0	0	<1
<i>Castilleja linariifolia</i>	Wyoming Indian paintbrush	Forb	Native	D	obs	0	0	<1
<i>Cryptantha flavoculata</i>	Roughseed cryptantha	Forb	Native	D	obs	0	0	<1
<i>Delphinium nuttallianum</i>	Twolobe larkspur	Forb	Native	D	obs	0	0	<1
<i>Ericameria nauseosa</i>	Rubber rabbitbrush	Shrub	Native	D	35	20	38	31
<i>Eriogonum lonchophyllum</i>	Spearleaf buckwheat	Forb	Native	D	0	obs	0	<1
<i>Gutierrezia sarothrae</i>	Broom snakeweed	Shrub	Native	N	0	10	23	11
<i>Hesperostipa comata</i>	Needle and thread	Grass	Native	D	obs	10	8	6
<i>Juniperus osteosperma</i>	Utah juniper	Shrub	Native	D	obs	0	0	<1
<i>Koeleria macrantha</i>	Prairie Junegrass	Grass	Native	D	0	0	15	5
<i>Lomatium sp.</i>	Desert parsley	Forb	Native	D	0	obs	0	<1
<i>Machaeranthera grindelioides</i>	Rayless tansyaster	Forb	Native	D	0	10	0	3
<i>Pascopyrum smithii</i>	Western wheatgrass	Grass	Native	D	12	10	0	7
<i>Phlox longifolia</i>	Longleaf phlox	Forb	Native	D	0	0	obs	<1
<i>Poa secunda</i>	Sandberg bluegrass	Grass	Native	D	12	0	0	4
<i>Tetradymia canescens</i>	Spineless horsebrush	Shrub	Native	D	obs	0	0	<1
Desirable species					82	90	77	83
Neutral species					18	10	23	17
Undesirable species					0	0	0	<1
Grasses					41	30	31	34
Forbs					0	10	0	3
Shrubs					59	60	69	63

Table A-1. DPC Data (Predisturbance Monitoring Conducted May 19, 2021) (continued)

					Monitoring Locations			
					1	2	3	AVG
Scientific Name	Common Name	Growth Form	Origin	Desirable?	Relative Cover (%)			
					Absolute Cover (%)			
Total foliar cover					30	20	26	25
Bare ground					30	64	34	43
Basal					0	0	0	0
Rock					6	2	6	5
Lichen					0	2	8	3
Standing dead					0	0	0	0
Plant litter					34	12	26	24
Slope (%)					0-1	0-1	0-1	0-1
Herbaceous height (cm)					10	11	10	10
Woody height (cm)					30	26	34	30
Azimuth					160	350	72	NA

Abbreviations:

AVG = average
 cm = centimeters
 D = desirable
 N = neutral
 NA = not applicable
 obs = observed

Table A-2. Revegetation Success Monitoring Conducted June 29, 2022

					Monitoring Locations			
					1	2	3	AVG
Scientific Name	Common Name	Growth Form	Origin	Desirable?	Relative Cover (%)			
<i>Achnatherum hymenoides</i>	Indian ricegrass	Grass	Native	D	0	obs	0	<1
<i>Agropyron cristatum</i>	Crested wheatgrass	Grass	Introduced	N	0	0	0	*
<i>Alyssum desertorum</i>	Desert madwort	Forb	Introduced	U	0	14	25	13
<i>Aristida purpurea</i>	Purple threeawn	Grass	Native	D	0	obs	0	<1
<i>Artemisia frigida</i>	Prairie sagewort	Shrub	Native	D	obs	0	0	<1
<i>Artemisia tridentata</i>	Wyoming big sagebrush	Shrub	Native	D	0	0	13	4
<i>Astragalus wingatanus</i>	Fort Wingate milkvetch	Forb	Native	D	0	0	13	4
<i>Bromus inermis</i>	Smooth brome	Grass	Introduced	N	0	0	0	*
<i>Bromus tectorum</i>	Cheatgrass	Grass	Introduced	U	0	14	25	13
<i>Castilleja linariifolia</i>	Wyoming Indian paintbrush	Forb	Native	D	0	0	0	*
<i>Cryptantha flavoculata</i>	Roughseed cryptantha	Forb	Native	D	obs	0	0	<1
<i>Descurainia sophia</i>	Herb sophia	Forb	Introduced	U	obs	0	0	<1
<i>Elymus elymoides</i>	Squirreltail	Grass	Native	D	0	obs	0	<1
<i>Ericameria nauseosa</i>	Rubber rabbitbrush	Shrub	Native	D	0	14	0	5
<i>Eriogonum lonchophyllum</i>	Spearleaf buckwheat	Forb	Native	D	0	obs	0	<1
<i>Gutierrezia sarothrae</i>	Broom snakeweed	Shrub	Native	N	0	obs	obs	<1
<i>Hesperostipa comata</i>	Needle and thread	Grass	Native	D	obs	0	13	4
<i>Juniperus osteosperma</i>	Utah juniper	Shrub	Native	D	obs	0	0	<1
<i>Koeleria macrantha</i>	Prairie Junegrass	Grass	Native	D	0	0	obs	<1
<i>Lactuca serriola</i>	Prickly lettuce	Forb	Introduced	N	obs	0	0	<1
<i>Lomatium</i> sp.	Desert parsley	Forb	Native	D	0	0	0	*
<i>Machaeranthera grindelioides</i>	Rayless tansyaster	Forb	Native	D	0	obs	0	<1
<i>Mellilotus officinalis</i>	Sweetclover	Forb	Introduced	U	obs	0	0	<1
<i>Mirabilis linearis</i>	Narrowleaf four o'clock	Forb	Native	D	0	obs	0	<1
<i>Pascopyrum smithii</i>	Western wheatgrass	Grass	Native	D	0	14	13	9
<i>Physaria acutifolia</i>	Sharpleaf twinpod	Forb	Native	D	0	obs	0	<1
<i>Phlox hoodii</i>	Spiny phlox	Forb	Native	D	0	obs	0	<1
<i>Phlox longifolia</i>	Longleaf phlox	Forb	Native	D	0	0	0	*
<i>Poa secunda</i>	Sandberg bluegrass	Grass	Native	D	0	0	obs	<1
<i>Pseudoroegneria spicata</i>	Bluebunch wheatgrass	Grass	Native	D	100	43	0	48
<i>Salsola tragus</i>	Prickly Russian thistle	Forb	Introduced	U	obs	0	0	<1

Table A-2. Revegetation Success Monitoring Conducted June 29, 2022 (continued)

					Monitoring Locations			
					1	2	3	AVG
Scientific Name	Common Name	Growth Form	Origin	Desirable?	Relative Cover (%)			
<i>Sphaeralcea coccinea</i>	Scarlet globemallow	Forb	Native	D	0	obs	0	<1
<i>Tetradymia canescens</i>	Spineless horsebrush	Shrub	Native	D	obs	0	0	<1
Desirable species					100	71	50	74
Neutral species					0	0	0	0
Undesirable species					<1	29	50	26
Grasses					100	71	50	74
Forbs					<1	14	38	17
Shrubs					<1	14	13	9
					Absolute Cover (%)			
Total foliar cover					4	14	14	11
Bare ground					46	56	56	53
Basal					0	0	0	0
Rock					46	26	26	33
Lichen					0	0	0	0
Standing dead					2	0	0	1
Plant litter					2	4	4	3
Slope (%)					0-1	0-1	0-1	0-1
Herbaceous height (cm)					10	11	10	10
Woody height (cm)					30	26	34	30
Azimuth (degrees)					160	350	72	NA

Note:

* Indicates species in previous years.

Abbreviations:

AVG = average
 cm = centimeters
 D = desirable
 N = neutral
 NA = not applicable
 obs = observed
 U = undesirable

Table A-3. Revegetation Success Monitoring Conducted June 27, 2023

					Monitoring Location			
					1	2	3	AVG
Scientific Name	Common Name	Growth Form	Origin	Desirable?	Relative Cover (%)			
<i>Achnatherum hymenoides</i>	Indian ricegrass	Grass	Native	D	7	9	14	10
<i>Agropyron cristatum</i>	Crested wheatgrass	Grass	Introduced	N	0	0	0	*
<i>Alyssum desertorum</i>	Desert madwort	Forb	Introduced	U	17	43	24	28
<i>Aristida purpurea</i>	Purple threeawn	Grass	Native	D	0	obs	0	<1
<i>Artemisia frigida</i>	Prairie sagewort	Shrub	Native	D	obs	0	0	<1
<i>Artemisia tridentata</i>	Wyoming big sagebrush	Shrub	Native	D	3	0	10	4
<i>Astragalus wingatanus</i>	Fort Wingate milkvetch	Forb	Native	D	7	0	0	2
<i>Bromus inermis</i>	Smooth brome	Grass	Introduced	N	0	0	0	*
<i>Bromus tectorum</i>	Cheatgrass	Grass	Introduced	U	14	4	24	14
<i>Castilleja linariifolia</i>	Wyoming Indian paintbrush	Forb	Native	D	0	0	0	*
<i>Cryptantha flavoculata</i>	Roughseed cryptantha	Forb	Native	D	obs	0	0	<1
<i>Chrysothamnus viscidiflorus</i>	Yellow rabbitbrush	Shrub	Native	D	3	4	0	3
<i>Descurainia sophia</i>	Herb sophia	Forb	Introduced	U	0	0	0	*
<i>Elymus elymoides</i>	Squirreltail	Grass	Native	D	3	0	5	3
<i>Ericameria nauseosa</i>	Rubber rabbitbrush	Shrub	Native	D	7	9	0	5
<i>Eriogonum lonchophyllum</i>	Spearleaf buckwheat	Forb	Native	D	3	4	0	3
<i>Gutierrezia sarothrae</i>	Broom snakeweed	Shrub	Native	N	0	obs	obs	<1
<i>Hesperostipa comata</i>	Needle and thread	Grass	Native	D	0	9	5	4
<i>Ipomopsis congesta</i>	Ballhead ipomopsis	Forb	Native	D	0	4	5	3
<i>Juniperus osteosperma</i>	Utah juniper	Shrub	Native	D	0	0	0	*
<i>Koeleria macrantha</i>	Prairie Junegrass	Grass	Native	D	0	0	obs	<1
<i>Lactuca serriola</i>	Prickly lettuce	Forb	Introduced	N	0	0	0	*
<i>Lomatium sp.</i>	Desert parsley	Forb	Native	D	0	0	0	*
<i>Lygodesmia grandiflora</i>	Largeflower skeletonplant	Forb	Native	D	0	0	10	3
<i>Machaeranthera grindelioides</i>	Rayless tansyaster	Forb	Native	D	0	obs	0	<1
<i>Melilotus officinalis</i>	Sweetclover	Forb	Introduced	N	7	9	0	5
<i>Mirabilis linearis</i>	Narrowleaf four o'clock	Forb	Native	D	0	obs	0	<1
<i>Pascopyrum smithii</i>	Western wheatgrass	Grass	Native	D	14	0	5	6
<i>Physaria acutifolia</i>	Sharpleaf twinpod	Forb	Native	D	0	obs	0	<1
<i>Phlox hoodii</i>	Spiny phlox	Forb	Native	D	0	obs	0	<1
<i>Phlox longifolia</i>	Longleaf phlox	Forb	Native	D	0	0	0	*
<i>Poa secunda</i>	Sandberg bluegrass	Grass	Native	D	0	0	obs	<1

Table A-3. Revegetation Success Monitoring Conducted June 27, 2023 (continued)

					Monitoring Location			
					1	2	3	AVG
Scientific Name	Common Name	Growth Form	Origin	Desirable?	Relative Cover (%)			
<i>Pseudoroegneria spicata</i>	Bluebunch wheatgrass	Grass	Native	D	10	0	0	3
<i>Salsola tragus</i>	Prickly Russian thistle	Forb	Introduced	U	3	4	0	3
<i>Sphaeralcea coccinea</i>	Scarlet globemallow	Forb	Native	D	3	0	0	1
<i>Tetradymia canescens</i>	Spineless horsebrush	Shrub	Native	D	obs	0	0	<1
Desirable species					59	39	52	50
Neutral species					7	9	0	5
Undesirable species					34	52	48	45
Grasses					48	22	52	41
Forbs					38	61	24	41
Shrubs					14	13	10	12
					Absolute Cover (%)			
Total foliar cover					52	40	32	41
Bare ground					32	34	50	39
Basal					0	0	0	0
Rock					2	20	10	11
Lichen					0	0	0	0
Standing dead					0	2	0	1
Plant litter					14	4	8	9
Slope (%)					0-1	0-1	0-1	0-1
Herbaceous height (cm)					41	32	35	36
Woody height (cm)					35	36	39	36
Azimuth (degree)					160	350	72	NA

Note:

* Indicates species in previous years.

Abbreviations:

AVG = average
 cm = centimeters
 D = desirable
 N = neutral
 NA = not applicable
 obs = observed
 U = undesirable

Table A-4. Revegetation Success Monitoring Conducted June 19, 2024

					Monitoring Location			
					1	2	3	AVG
Scientific Name	Common Name	Growth Form	Origin	Desirable?	Relative Cover (%)			
<i>Achnatherum hymenoides</i>	Indian ricegrass	Grass	Native	D	10	12	19	13
<i>Agropyron cristatum</i>	Crested wheatgrass	Grass	Introduced	N	obs	obs	0	<1
<i>Alyssum desertorum</i>	Desert madwort	Forb	Introduced	U	10	12	5	9
<i>Aristida purpurea</i>	Purple threeawn	Grass	Native	D	0	0	0	*
<i>Artemisia frigida</i>	Prairie sagewort	Shrub	Native	D	0	0	0	*
<i>Artemisia tridentata</i>	Wyoming big sagebrush	Shrub	Native	D	5	6	5	5
<i>Astragalus wingatanus</i>	Fort Wingate milkvetch	Forb	Native	D	5	0	10	5
<i>Bromus tectorum</i>	Cheatgrass	Grass	Introduced	U	10	12	10	10
<i>Castilleja linariifolia</i>	Wyoming Indian paintbrush	Forb	Native	D	obs	0	0	<1
<i>Chaenactis douglasii</i>	Douglas' dustymaiden	Forb	Native	D	obs	0	5	2
<i>Chrysothamnus viscidiflorus</i>	Yellow rabbitbrush	Shrub	Native	D	obs	0	0	<1
<i>Cryptantha flavoculata</i>	Roughseed cryptantha	Forb	Native	D	obs	0	0	<1
<i>Descurainia sophia</i>	Herb sophia	Forb	Introduced	U	obs	0	0	<1
<i>Elymus elymoides</i>	Squirreltail	Grass	Native	D	0	6	0	2
<i>Ericameria nauseosa</i>	Rubber rabbitbrush	Shrub	Native	D	19	29	0	16
<i>Eriogonum lonchophyllum</i>	Spearleaf buckwheat	Forb	Native	D	0	obs	0	*
<i>Eriogonum ovalifolium</i>	Cushion buckwheat	Forb	Native	D	obs	0	0	<1
<i>Gutierrezia sarothrae</i>	Broom snakeweed	Shrub	Native	N	0	obs	0	<1
<i>Hesperostipa comata</i>	Needle and thread	Grass	Native	D	5	0	14	6
<i>Hymenopappus filifolius</i>	Fineleaf hymenopappus	Forb	Native	D	obs	0	0	<1
<i>Ipomopsis congesta</i>	Ballhead ipomopsis	Forb	Native	D	0	0	0	*
<i>Juniperus osteosperma</i>	Utah juniper	Shrub	Native	D	0	0	0	*
<i>Koeleria macrantha</i>	Prairie Junegrass	Grass	Native	D	0	0	0	*
<i>Lactuca serriola</i>	Prickly lettuce	Forb	Introduced	N	0	0	0	*
<i>Linum lewisii</i>	Lewis flax	Forb	Native	D	0	0	obs	<1
<i>Lomatium</i> sp.	Desert parsley	Forb	Native	D	0	0	0	*
<i>Lygodesmia grandiflora</i>	Largeflower skeletonplant	Forb	Native	D	0	0	0	*
<i>Machaeranthera grindelioides</i>	Rayless tansyaster	Forb	Native	D	obs	6	0	2
<i>Melilotus officinalis</i>	Sweetclover	Forb	Introduced	N	obs	0	10	3
<i>Mirabilis linearis</i>	Narrowleaf four o'clock	Forb	Native	D	0	0	0	*
<i>Oenothera pallida</i>	Pale evening-primrose	Forb	Native	D	0	obs	0	<1
<i>Packera multilobata</i>	Lobeleaf groundsel	Forb	Native	D	0	0	obs	<1

Table A-4. Revegetation Success Monitoring Conducted June 19, 2024 (continued)

					Monitoring Location			
					1	2	3	AVG
Scientific Name	Common Name	Growth Form	Origin	Desirable?	Relative Cover (%)			
<i>Pascopyrum smithii</i>	Western wheatgrass	Grass	Native	D	19	18	5	14
<i>Penstemon</i> sp.	Beardtongue	Forb	Native	D	obs	0	0	<1
<i>Phlox hoodii</i>	Spiny phlox	Forb	Native	D	0	0	0	*
<i>Phlox longifolia</i>	Longleaf phlox	Forb	Native	D	0	0	0	*
<i>Physaria acutifolia</i>	Sharpleaf twinpod	Forb	Native	D	0	0	0	*
<i>Poa secunda</i>	Sandberg bluegrass	Grass	Native	D	0	0	0	*
<i>Pseudoroegneria spicata</i>	Bluebunch wheatgrass	Grass	Native	D	19	0	14	11
<i>Salsola tragus</i>	Prickly Russian thistle	Forb	Introduced	U	obs	0	5	2
<i>Sphaeralcea coccinea</i>	Scarlet globemallow	Forb	Native	D	obs	0	0	<1
<i>Tetradymia canescens</i>	Spineless horsebrush	Shrub	Native	D	obs	0	0	<1
Desirable species					81	76	71	76
Neutral species					0	0	10	3
Undesirable species					19	24	19	21
Grasses					62	47	62	62
Forbs					14	18	29	33
Shrubs					24	35	5	5
					Absolute Cover (%)			
Total foliar cover					38	34	34	35
Bare ground					50	34	24	36
Basal					2	0	0	1
Rock					2	12	18	11
Lichen					0	0	0	0
Standing dead					2	2	0	1
Plant litter					8	18	24	17
Slope (%)					0-1	0-1	0-1	0-1
Herbaceous height (cm)					38	34	44	39
Woody height (cm)					40	28	31	33
Azimuth (degree)					160	350	72	NA

Note:

* Indicates species in previous years.

Abbreviations:

AVG = average, cm = centimeters, D = desirable, N = neutral, NA = not applicable, obs = observed, U = undesirable

Table A-5. Revegetation Success Monitoring Conducted June 16, 2025

					Monitoring Location			
					1	2	3	AVG
Scientific Name	Common Name	Growth Form	Origin	Desirable?	Relative Cover (%)			
<i>Achnatherum hymenoides</i>	Indian ricegrass	Grass	Native	D	14	23	12	16
<i>Agropyron cristatum</i>	Crested wheatgrass	Grass	Introduced	N	0	obs	0	<1
<i>Alyssum desertorum</i>	Desert madwort	Forb	Introduced	U	0	0	0	*
<i>Artemisia frigida</i>	Prairie sagewort	Shrub	Native	D	0	0	0	*
<i>Artemisia tridentata</i>	Wyoming big sagebrush	Shrub	Native	D	0	8	0	3
<i>Astragalus wingatanus</i>	Fort Wingate milkvetch	Forb	Native	D	0	0	obs	<1
<i>Bromus tectorum</i>	Cheatgrass	Grass	Introduced	U	9	23	35	22
<i>Castilleja linariifolia</i>	Wyoming Indian paintbrush	Forb	Native	D	obs	0	0	<1
<i>Chaenactis douglasii</i>	Douglas' dustymaiden	Forb	Native	D	0	0	6	2
<i>Chrysothamnus viscidiflorus</i>	Yellow rabbitbrush	Shrub	Native	D	9	8	6	8
<i>Cryptantha flavoculata</i>	Roughseed cryptantha	Forb	Native	D	obs	0	0	<1
<i>Descurainia sophia</i>	Herb sophia	Forb	Introduced	U	0	0	0	*
<i>Elymus elymoides</i>	Squirreltail	Grass	Native	D	0	obs	0	<1
<i>Ericameria nauseosa</i>	Rubber rabbitbrush	Shrub	Native	D	27	12	12	17
<i>Eriogonum lonchophyllum</i>	Spearleaf buckwheat	Forb	Native	D	0	obs	0	<1
<i>Eriogonum ovalifolium</i>	Cushion buckwheat	Forb	Native	D	obs	0	0	<1
<i>Gutierrezia sarothrae</i>	Broom snakeweed	Shrub	Native	N	0	obs	0	<1
<i>Hesperostipa comata</i>	Needle and thread	Grass	Native	D	9	15	6	10
<i>Hymenopappus filifolius</i>	Fineleaf hymenopappus	Forb	Native	D	obs	0	0	<1
<i>Ipomopsis congesta</i>	Ballhead ipomopsis	Forb	Native	D	0	0	0	*
<i>Juniperus osteosperma</i>	Utah juniper	Shrub	Native	D	0	0	0	*
<i>Koeleria macrantha</i>	Prairie Junegrass	Grass	Native	D	0	0	0	*
<i>Lactuca serriola</i>	Prickly lettuce	Forb	Introduced	N	0	0	0	*
<i>Linum lewisii</i>	Lewis flax	Forb	Native	D	5	0	0	2
<i>Lomatium</i> sp.	Desert parsley	Forb	Native	D	0	0	obs	<1
<i>Lupinus</i> sp.	Lupine	Forb	Native	D	0	0	0	*
<i>Lygodesmia grandiflora</i>	Largeflower skeletonplant	Forb	Native	D	0	0	6	2
<i>Machaeranthera canescens</i>	Hoary tansyaster	Forb	Native	D	0	0	0	*
<i>Machaeranthera grindelioides</i>	Rayless tansyaster	Forb	Native	D	5	0	6	3
<i>Melilotus officinalis</i>	Sweetclover	Forb	Introduced	N	0	0	0	*
<i>Mirabilis linearis</i>	Narrowleaf four o'clock	Forb	Native	D	0	0	0	*
<i>Oenothera pallida</i>	Pale evening primrose	Forb	Native	D	0	0	obs	<1

Table A-5. Revegetation Success Monitoring Conducted June 16, 2025 (continued)

					Monitoring Location			
					1	2	3	AVG
Scientific Name	Common Name	Growth Form	Origin	Desirable?	Relative Cover (%)			
<i>Packera multilobata</i>	Lobeleaf groundsel	Forb	Native	D	0	0	obs	<1
<i>Pascopyrum smithii</i>	Western wheatgrass	Grass	Native	D	9	4	0	4
<i>Penstemon</i> sp.	Beardtongue	Forb	Native	D	obs	0	0	<1
<i>Phlox hoodii</i>	Spiny phlox	Forb	Native	D	0	0	0	*
<i>Phlox longifolia</i>	Longleaf phlox	Forb	Native	D	0	0	0	*
<i>Physaria acutifolia</i>	Sharpleaf twinpod	Forb	Native	D	0	0	0	*
<i>Poa secunda</i>	Sandberg bluegrass	Grass	Native	D	0	0	0	*
<i>Pseudoroegneria spicata</i>	Bluebunch wheatgrass	Grass	Native	D	14	8	12	11
<i>Salsola tragus</i>	Prickly Russian thistle	Forb	Introduced	U	0	0	0	*
<i>Sphaeralcea coccinea</i>	Scarlet globemallow	Forb	Native	D	0	obs	0	<1
<i>Tetradymia canescens</i>	Spineless horsebrush	Shrub	Native	D	obs	0	0	<1
Desirable species					91	77	65	78
Neutral species					0	0	0	0
Undesirable species					9	23	35	22
Grasses					55	73	65	64
Forbs					9	0	18	9
Shrubs					36	27	18	27
					Absolute Cover (%)			
Total foliar cover					44	52	40	45
Bare ground					32	30	30	31
Basal					0	0	0	0
Rock					4	10	14	9
Lichen					0	0	0	0
Standing dead					2	2	0	1
Plant litter					18	6	16	13
Slope (%)					0-1	0-1	0-1	0-1
Herbaceous height (cm)					20	34	44	33
Woody height (cm)					42	28	31	34
Azimuth (degree)					160	350	72	194

Note:

* Indicates species in previous years.

Abbreviations:

AVG = average, cm = centimeters, D = desirable, N = neutral, obs = observed, U = undesirable