



**PERMIT INFORMATION**

<b>Permit Number:</b> C-1981-019 <b>Mine Name:</b> Colowyo Coal Mine <b>Operator:</b> Colowyo Coal Company L.P. <b>Operator Address:</b> Mr Tony Tennyson 5731 State Highway 13 Meeker, CO 81641	<b>County:</b> Moffat, Rio Blanco <b>Operation Type:</b> Surface <b>Permit Status:</b> Active <b>Ownership:</b> Private
	<b>Operator Representative Present:</b>  Tony Tennyson
<b>Operator Representative Signature: (Field Issuance Only)</b>  	

**INSPECTION INFORMATION**

<b>Inspection Start Date:</b> October 30, 2024 <b>Inspection Start Time:</b> 08:00 <b>Inspection End Date:</b> October 30, 2024 <b>Inspection End Time:</b> 13:00		<b>Inspection Type:</b> Coal Partial Inspection <b>Inspection Reason:</b> Surety Release Requested <b>Weather:</b> Cloudy	
<b>Joint Inspection Agency:</b>  OSM		<b>Joint Inspection Contacts:</b>  Jim Stark	
<b>Post Inspection Agency:</b>  OSM		<b>Post Inspection Contacts:</b>  Jim Stark	
<b>Inspector(s):</b>  Hunter Ridley	<b>Inspector's Signature:</b>  <i>Hunter Ridley</i>		<b>Signature Date:</b>  November 12, 2024

**Inspection Topic Summary**

NOTE: Y=Inspected N=Not Inspected R=Comments Noted V=Violation Issued NA=Not Applicable

N - Air Resource Protection

N - Availability of Records

R - Backfill &amp; Grading

N - Excess Spoil and Dev. Waste

N - Explosives

Y - Fish &amp; Wildlife

R - Hydrologic Balance

N - Gen. Compliance With Mine Plan

N - Other

N - Processing Waste

Y - Roads

R - Reclamation Success

R - Revegetation

N - Subsidence

N - Slides and Other Damage

N - Support Facilities On-site

Y - Signs and Markers

N - Support Facilities Not On-site

N - Special Categories Of Mining

N - Topsoil

**COMMENTS**

This was a partial inspection at the Colowyo Mine conducted by Hunter Ridley of the Colorado Division of Reclamation, Mining and Safety (Division). Jim Stark of the Office of Surface Mining and Reclamation Enforcement (OSM) and Tom Fry and Tony Tennyson representing Colowyo Mine (Colowyo) accompanied the inspection. The Bureau of Land Management was notified of the inspection but did not attend. The focus of this inspection was for bond release as requested through Colowyo's SL-23 (Phase I, II and III) application. A total of 5.5 acres is being requested for Phase I, II and III bond release in the East Pit, which includes Streeter Ditch and Streeter Pond. The weather was cloudy, and ground conditions were slightly muddy. Temperatures reached a high of 41 degrees Fahrenheit.

**BACKFILL and GRADING – Rule 4.14 Contemporaneous Reclamation 4.14.1; Approximate Original Contour 4.14.2; Highwall Elimination 4.14.1(2)(f); Steep Slopes 4.14.2, 4.27; Handling of Acid and Toxic Materials 4.14.3; Stabilization of Rills and Gullies 4.14.6:**

Rule 3.03.1(2)(a) states, "Up to sixty percent of the applicable bond amount shall be released when the permittee successfully completes backfilling, regrading, and drainage control in accordance with the approved reclamation plan." The Division inspected the SL-23 requested areas in the East Pit to ensure Colowyo has met the drainage control establishment requirements outlined in Colowyo's PAP. The total acreage being requested for Phase I bond release is 5.5 acres and consists entirely of Streeter Ditch, a post-mine drainage channel and Streeter Pond, an approved permanent impoundment structure. These areas were walked, and elevational GPS points were collected at nine different locations along the ditch and several locations at the pond. Data point station locations were determined using a georeferenced image of 'Map 1 SL-23 Phase I - III Bond Release Areas', provided with the SL-23 application (Figure 1). No erosional issues were noted within the requested release area, suggesting that grading and channel establishment has been constructed to encourage proper storm drainage as required. Elevational GPS data will be post-processed and further compared to the data provided by Colowyo to verify the approved post-mining topography has been achieved.

**REVEGETATION, RECLAMATION SUCCESS - Rule 4.15, Rule 3: Vegetative Cover; Timing:**

At Phase II, Rule 3.03.1(2) (b) states, "Up to eighty-five percent of the applicable bond amount shall be released upon the establishment of vegetation which supports the approved postmining land use and which meets the approved success stand for cover, pursuant to 4.15.8..." Rule 3.03.1(3)(b) also states, "No more than 60 percent of the bond shall be released so long as the lands to which the release would be applicable are contributing suspended solids to streamflow or runoff outside the permit area in excess of

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pre-mining levels as determined by baseline data or in excess of levels determined on adjacent nonmined areas”.

As part of the Colowyo SL-23 application, a statistical vegetation sampling analysis is not required, as revegetation standards outlined in Rule 4.15.8 do not apply to riprap lined, postmining channels. Sedimentology analyses and as-built demonstrations for both Streeter Pond and Streeter Ditch were provided in and approved under TR145 in 2021. During the SL-23 inspection, the Division compared SEDCAD and as-built design specifications for the pond and ditch to on the ground data points. The Division’s review of such data will be provided as part of the Division’s Proposed Decisions and Findings of Compliance Document for SL-23.

Streeter Pond was inspected visually and is shown below in Photos 2, 14-19. Streeter Pond was approved to remain as a permanent structure in August 2024 under MR259. The primary spillway, riser, and trash rack were measured against the as-built design and found to be constructed accordingly (Photos 17 and 19). The SEDCAD demonstrations for the 10-year 24-hour and 25-year 24-hour storm events were approved under TR145 and ensure the capacity of the impoundment is in compliance with Rule 4.05.9(13)(e) and also prevents the contribution of suspended solids to streamflow or runoff outside the permit area in excess of pre-mining levels, as required in Phase II bond release criteria (Rule 3.03.2(3)(b)). The emergency spillway, at the southern end of the pond, was inspected and found to be free of obstructions (Photo 16). The primary discharge point was found to be flowing and was also free of obstructions (Photo 18). Although water discharges from this point, the Colorado Department of Public Health and Environment, Water Quality Control Division, released Colowyo of monitoring the discharge from the Streeter Pond in 2017. Streeter Pond was found to be in compliance with the permanent impoundment requirements and water quality standards specified under Rule 4.05.9(13)(a-f).

Streeter Ditch was walked in its entirety, from Streeter Pond to Lower Section 3 Pond, beginning from an access road in the mid-section of the ditch. Data was collected at various points along the ditch where accessible. In total, nine points of data (represented below in Table 1) were collected. Measurements were taken at each point to determine elevation, channel width, channel depth, and channel material to be checked against the SEDCAD design and as-built profiles for the ditch. In depth analysis of these data points will be provided as part of the Division’s Proposed Decisions and Findings of Compliance Document for SL-23. During visual inspection of the ditch, no erosional issues were noted, and no areas were identified that would suggest stormwater would flow outside of the approved channel area. Rip rap was in place and stable along the channel areas approved for such design (Stations 0+00 to 45+00). From Stations 45+00 to 68+41, the channel shifts into a vegetated channel. Around Station 40+00, the channel widens and has taken on a braided effect with smaller meandering channels which have established within the larger channel itself (Figure 2). These meandering channels, however, are not very deep or wide, have been at a stable size for many years, and are well within the width of the constructed ditch channel (Photos 9 and 10). The same pattern of steady state meander repeats from approximately Station 62+00 to 67+00.

*Table 1: Measured elevations, channel material, channel depths and channel widths from the October 30th inspection. Points move East to West, across the Streeter Ditch release area.*

Channel Data Point	Approx. Station	Elevation (ft)	Main Channel Top Width (ft)	Main Channel Depth (ft)	Channel Material
1	0+00	6646	25	3	Riprap
2	3+00	6808	19	3.5	Riprap

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3	7+00	6886	15.5	5.5	Riprap
4	10+00	7084	13.5	4	Riprap
5	13+00	7093	26	2.5	Riprap / Smooth Brome
6	23+00	7101	16	3.0	Riprap
7	33+00	7109	19	2.0	Riprap / Smooth brome
8	47+00	7134	23	0.5	Smooth brome
9	62+00	7136	27	1.5	Smooth brome

**HYDROLOGICBALANCE - Rule 4.05; Drainage Control 4.05.1, 4.05.2, 4.05.3; Siltation Structures 4.05.5, 4.05.6; Discharge Structures 4.05.7, 4.05.10; Diversions 4.05.4; Effluent Limits 4.05.2; Ground Water Monitoring 4.05.13; Surface Water Monitoring 4.05.13; Drainage – Acid and Toxic Materials 4.05.8; Impoundments 4.05.6, 4.05.9; Stream Buffer Zones 4.05.18:**

At Phase III, Rule 3.03.1(2)(c) states, “The remaining portion of the bond amount shall be released when the permittee has successfully completed all surface coal mining reclamation operations in accordance with this approved reclamation plan, and the final inspection and procedures of 3.03.2 have been satisfied. This shall not be before the expiration of the period specified for revegetation responsibility in 3.02.3”. Although not specifically addressed in Rule 3.03.1, the evaluation by the Division must also comply with the considerations outlined in Rule 3.03.2(2). These include: “results of inspections and monitoring conducted pursuant to 4.05.13 and 5.02, the degree of difficulty to complete any remaining reclamation, and whether pollution of surface or subsurface water is occurring, the probability of future occurrence of such pollution, and the estimated cost of abating such pollution”. Colowyo is *not* requesting release of groundwater or surface water monitoring requirements through SL-23. Therefore, Colowyo remains in compliance with Rule 4.05.13.

The Division conducted a review of Colowyo’s Annual Hydrology Reports (AHR) from the past three water years (2021, 2022, 2023). This review broke up discussion of surface and groundwater trends by drainage. The SL-23 release area is contained within the Good Spring Creek watershed. The review found that while the Good Spring Creek Point of Compliance (POC) well LGSW-1 was in compliance with NPL standards at the end of 2023, there had been spikes in Total Dissolved Solids (TDS) and Sulfate (SO<sub>4</sub>) concentrations throughout the last few years. However, aside from well LGSW-1, concentrations in all other surface and groundwater wells along Good Spring Creek show a consistent pattern of increase from upstream/upgradient to downstream/downgradient and generally do not exceed NPL standards, outside of some noted anomalies. Therefore, as per suggestion of within the Division’s AHR review, the Division has made the determination that Streeter Ditch and Streeter Pond are not contributing to the pollution of surface or subsurface water and have a low probability of enacting a future cause of such pollution. If the trend of exceedances does not decrease as is predicted over time in Good Spring Creek or there is a marked impact on water quality, a mitigation strategy may need to be developed. However, this is not the case at this time and any future mitigation developments would not likely involve re-disturbing Streeter Pond or Ditch. Therefore, Streeter Pond and Ditch are in compliance with the requirements of Rule 3.03.1 and 3.03.2.

All contributing acreage to the Streeter Ditch and Streeter Pond has either been Phase III bond released or has been removed from the watershed following final construction of the Upper and Lower Section 3 Sediment Ponds approved in 2022 under TR155. These are non-discharging structures. As built and SEDCAD demonstrations for the Upper and Lower Section 3 Ponds were approved in 2024 under TR164.

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Streeter Pond was holding water but was low at the time of inspection. Water is currently being pumped from Streeter Pond to support work being conducted by the State of Colorado Inactive Mines Program to mitigate the historical Axial Basin underground coal fire. Pond embankments were stable and vegetated (Photos 15, 16, and 19) No issues were observed.

### **ENFORCEMENT ACTIONS/COMPLIANCE**

No enforcement actions were initiated as a result of this inspection, nor are any pending.

### **PHOTOGRAPHS**



*Photo 1: Point 1, view northwest*

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*Photo 2: Point 2, view east. Streeter Pond is visible below.*



*Photo 3: Point 3, view east.*

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*Photo 4: Point 4, view east.*



*Photo 5: Point 4, view west.*

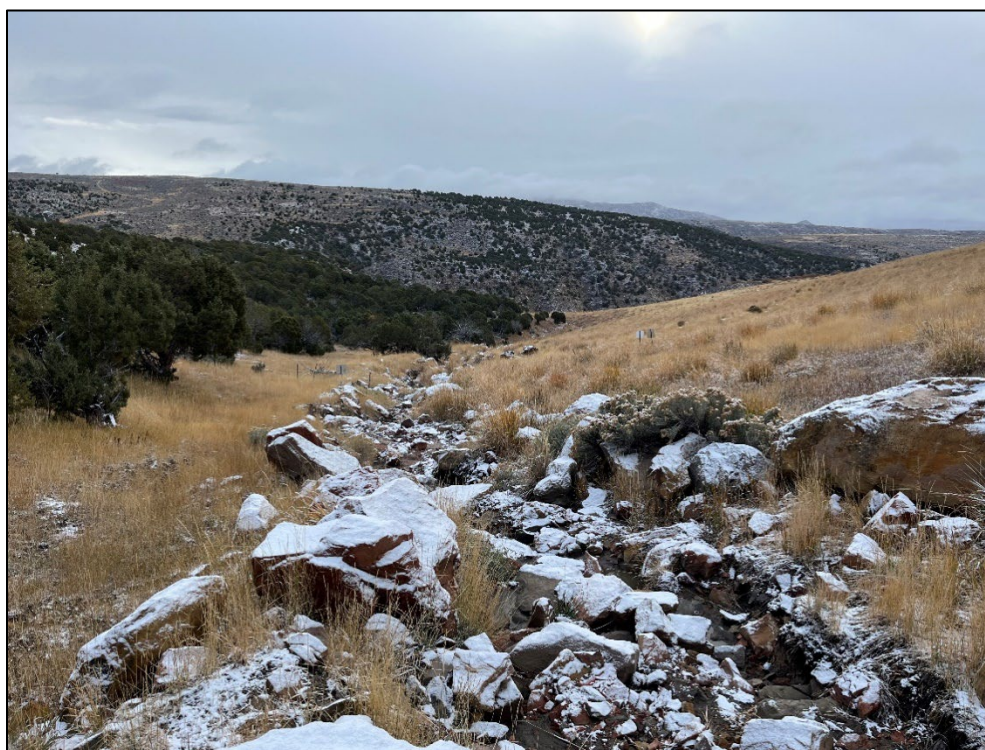
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*Photo 6: Point 5, view west.*



*Photo 7: Point 6, view east.*

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*Photo 8: Point 7, view west. Boulders to the south show channel edge.*



*Photo 9: View of the meandering channel area, taken at ~Station 40+00, the riprap channel edge is visible on the right.*

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*Photo 10: View of the meandering channel area, taken at ~Station 40+00, the riprap channel edge is visible on the left.*

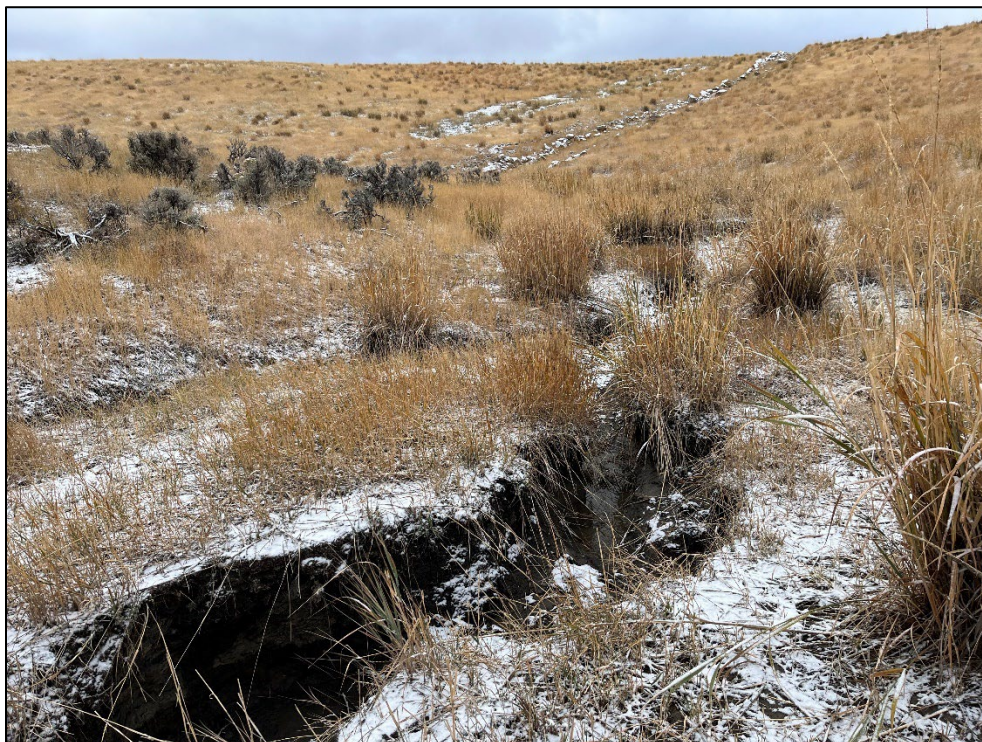


*Photo 11: Point 8, view west.*

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*Photo 12: Point 9, view southeast.*



*Photo 13: Back of Section3 Ponds*

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*Photo 14: View east towards Streeter Pond.*



*Photo 15: View north of Streeter Pond.*

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*Photo 16: View southwest of Streeter Pond and emergency spillway.*



*Photo 17: 3 ft x 12 in diameter riser.*

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*Photo 18: Flume and flowing water at the discharge point for Streeter Pond.*



*Photo 19: View south of Streeter Pond primary spillway.*

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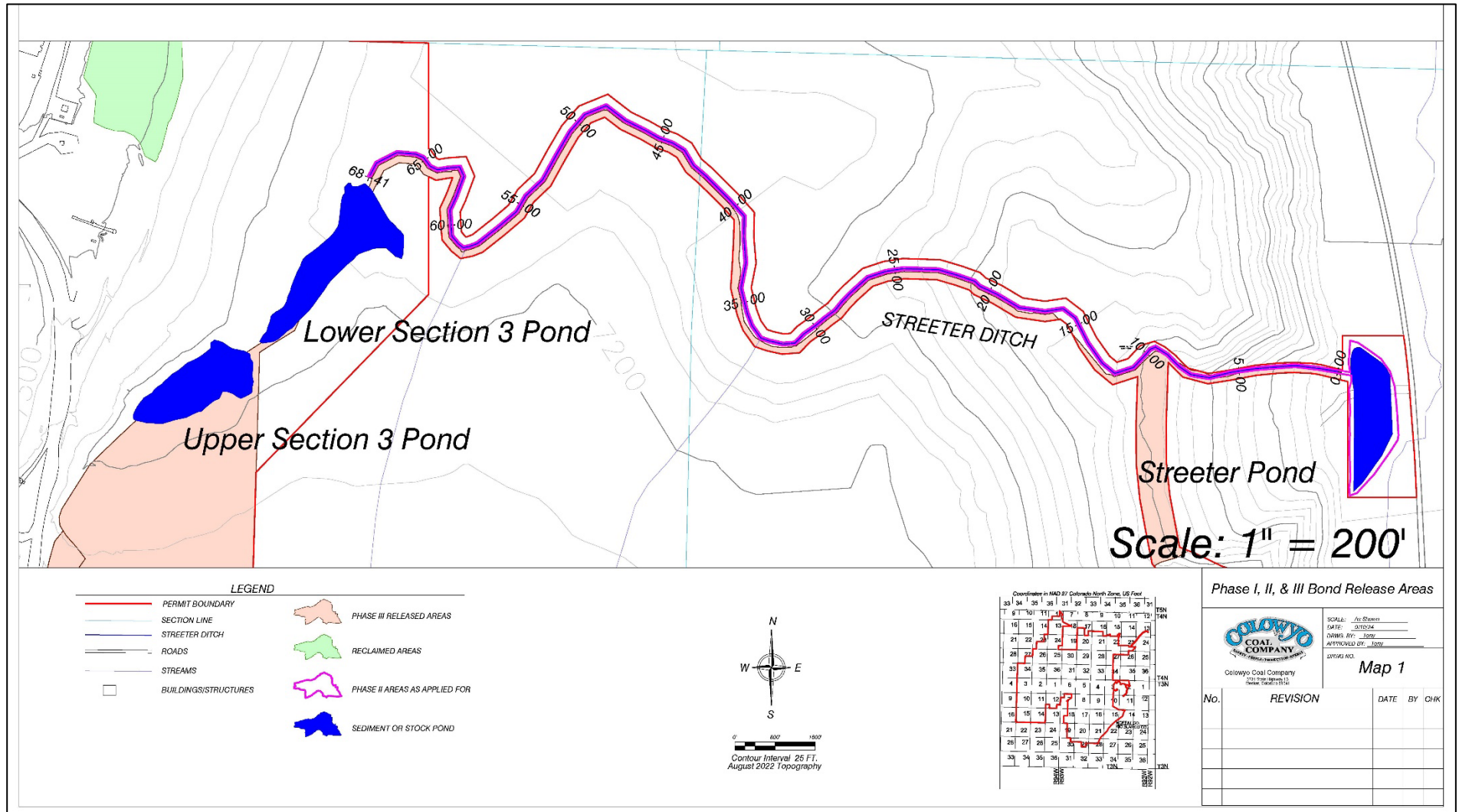


Figure 1: Map 1 SL-23 Phase I - III Bond Release Areas, provided with the SL-23 application.



*Figure 2: Aerial imagery view of Station 40+00, where two smaller channels have meandered within the larger ditch channel.*

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