ATTACHMENT L

AQUATIC RESOURCE DELINEATION SUMMARY

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Natural Resource Management Services

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Technical Memorandum

To: Jesse Carlson - jesse.carlson@kimley-horn.com

From: Kelly Colfer – kscolfer@westernbionomics.com

CC:

Date: January 14, 2025

Re: Aquatic Resource Delineation Summary, Stagecoach Mountain Ranch

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Western Bionomics delineated aquatic resources on the 5075.8-acre Stagecoach Mountain Ranch (SMR) property located in unincorporated Routt County, Colorado (refer to attached Wetland Delineation Map). The assessment area occupies land that is located on 4 different USGS 7.5-minute series topographic quadrangles: Oak Creek, Blacktail Mountain, Yampa, and Green Ridge. The aquatic resource delineation was conducted on several dates during the growing seasons of 2022, 2023, and 2024. SMR is comprised of 3 parcels, the Ski Mountain, Cat Creek Ranch, and Stetson Ranch. The Aquatic Resource Assessment Area comprised the entirety of the Ski Mountain and the Stetson Ranch Parcels; aquatic resources on the Cat Creek parcel were only delineated in areas slated for development as of August 2024.

Prior to the aquatic resource delineation, pertinent background information was reviewed, individuals familiar with the project were interviewed, and maps[1], aerial photos[2], and soil map unit descriptions[3] of the project area were obtained by Western Bionomics.

METHODS

The project area was traversed on foot and via Polaris Ranger to locate sites that exhibited wetland characteristics. At such locations, sample plots were established near the edge of each change in plant community type to ascertain whether the site was a wetland or upland. Each sample plot was numbered and designated with fluorescent pink wetland delineation flagging. Ecosystem parameters (vegetation, soils, and hydrology) were characterized and recorded on field data forms (Appendix A) at each observation point, as per Army Corps guidelines[4,5]. Sample points were located by GPS to submeter accuracy. [6]

Based on observations of all 3 ecosystem parameters at each sample plot, wetland boundaries were designated with fluorescent pink flagging and recorded to submeter accuracy.

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[1] USFWS National Wetlands Inventory, USGS National Hydrography Dataset

[2] Google Earth Imagery, USDA NAIP mapping

[3] NRCS Web Soil Survey

[4] US Army Corps of Engineers Wetland Delineation Manual, 1987

[5] Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region, 2010

[6] 2022 GPS data was collected with a Trimble GeoXT datalogger and post processed to submeter accuracy with Pathfinder Office software. 2023/24 data was collected with a Trimble DA2 antennae using real-time submeter correction.

RESULTS

Wetlands delineated in the assessment area were associated predominately with perennial streams. *Raspberry Creek* is a perennial waterway flowing north generally along the western Ski Mountain boundary and through the southern portion of the Stetson parcel where it joins the Yampa River above Stagecoach Reservoir. This creek arises in aspen stands and mixed conifer; its headwaters descend steeply until they reach the Stetson parcel, where the grade shallows before traversing sagebrush shrublands and finally emptying into the Yampa River. For most of the reach, Raspberry Creek exhibits a narrow wetland fringe and floodplain. The exception is in the uppermost reaches of its headwaters where the grade is shallower and wide floodplains, including an extensive willow carr, are present.

Jack Creek is an intermittent waterway that drains the eastern half of that part of the Stetson parcel lying north of County Road 14. Jack Creek is tributary to the Yampa River and only exhibits wetlands along its lower reach, on either side of CR14. Wetlands associated with Jack Creek are dominated by willows.

Only a portion of the *Yampa River* on the Stetson Parcel was delineated. The entire portion of this parcel that lies south of CR14 is held in a Conservation Easement and will not be disturbed, with the exception of one fishing cabin that may be built, requiring a crossing of the Yampa River. Thus, only potential crossing areas were delineated in this area.

A perennial waterway known locally as *Youngs Creek* is tributary to Stagecoach Reservoir and the Yampa River. Similar to Raspberry Creek, Youngs Creek originates high on the Ski Mountain parcel in a broad seepage area, draining aspen and mixed conifer stands as it descends through lower elevation shrublands and finally a crossing a sagebrush flat prior to entering Stagecoach Reservoir. Floodplain and wetland width are variable; they are widest in the shallow grades and narrower in the steeper gradients. Wetlands associated with Youngs Creek are mostly dominated by willows and alders.

A second fork of Young's Creek originates low on the Ski Mountain parcel and drains the ski base area to the main stem Youngs Creek just north of the Double Creek parcel. Its associated wetland on the Ski Mountain parcel exhibits a relatively broad willow carr adjacent to the proposed base area.

Middle Creek traverses the Stahl/Meadowgreen portion of the Ski Mountain parcel. Middle Creek is tributary to Stagecoach Reservoir and the Yampa River and possesses a narrow wetland fringe dominated by willows and alders.

A natural cirque-like depression exists midway up the Ski Mountain that drains via an unnamed ephemeral drainage that disappears into the ground prior to becoming tributary to any other stream. The depression contains a perennial pond surrounded by herbaceous wetlands on 3 sides. Its ephemeral drainage does not exhibit wetland character and flows only during spring runoff.

An unnamed ephemeral tributary to *Little Morrison Creek* drains the eastern portion of the Ski Mountain. Little Morrison Creek is tributary to Stagecoach Reservoir and the Yampa River. Wetlands dominated by willows and alders are intermittently distributed on the fringes of the wetter portions of the unnamed creek.

The headwaters of *Whipple Creek* and *Lawson Creek* drain the Cat Creek parcel. Wetlands associated with Lawson Creek have not been delineated. Only the upper headwaters of Whipple Creek were delineated.

Wetland Determination Data Forms were recorded at multiple locations along all these wetland areas. Across the entirety of the Assessment Area, paired wetland points were established at over 30 locations. Delineated wetlands were classified based on Cowardin et al (1979). Most delineated wetlands on SMR are classified as Palustrine Scrub-Shrub (PSS); however, scattered Palustrine Emergent Herbaceous (PEM) wetlands were occasionally observed. Beyond the limits of the creekside wetlands, forests of mixed conifer and aspen predominate, interspersed with mountain shrublands, sagebrush shrublands, and mountain grasslands. Mountain pine beetle mortality is prevalent on the Ski Mountain and Cat Creek parcels. The historic owners of both parcels have implemented timber harvests to remove dead and dying lodgepole

pines and aspens. Remnant stands in harvested areas typically include widely scattered aspens, spruces, and firs, with regenerating conifers and aspens in the understory.

Vegetation

In general PSS wetlands on the Ski Mountain were dominated by willows and alders, including Geyer willow (*Salix geyeri*), Booth willow (*S. boothii*), Drummond willow (*S. drummondiana*), Whiplash willow (*S. lasiandra*), Sandbar willow (*S. exigua*), Dusky willow (*S. melanopsis*), and Speckled alder (*Alnus incana*). Common understory shrubs included twinberry honeysuckle (*Lonicera involucrata*) and red-osier dogwood (*Cornus sericea*). The herbaceous layers in PSS wetlands, as well as dominants within PEM wetlands, were variously dominated by arrowleaf groundsel (*Senecio triangularis*), water sedge (*Carex aquatilis*), Nebraska sedge (*C. nebraskensis*), Northwest Territory sedge (*C. utriculata*), marsh marigold (*Caltha chionophila*), heartleaf bittercress (*Cardamine cordifolia*), twisted stalk (*Streptopus amplexifolius*), chiming bells (*Mertensia ciliata*), horsetail (*Equisetum arvense*), large-leaf avens (*Geum macrophyllum*), cow parsnip (*Heracleum maximum*), Columbian monkshood (*Aconitum columbianum*), brook saxifrage (*Saxifraga odontoloma*), cutleaf coneflower (*Rudbeckia laciniata*), bluejoint reedgrass (*Calamagrostis canadensis*), nodding bluegrass (*Poa reflexa*), tall mannagrass (*Glyceria grandis*), and spreading bentgrass (*Agrostis stolinifera*).

Soils

Soils observed in sites delineated as wetland were most commonly indicated by Hydrogen Sulfide Odor (A4) or Redox Dark Surface (F6) conditions. A few sites indicated Depleted Matrix (F3) conditions; one site exhibited the presence of thick Histosols (A1).

Several soil map units, 26 in total, underlie areas at SMR that were delineated as wetland. Six of the map units are found on the NRCS list of hydric soils.[7]

Hydrology

Indicators of wetland hydrology were observed in all areas delineated as wetland. The most commonly observed hydrology indicator was saturation within the root zone (A3). Oxidized rhizospheres along living roots (C3) and hydrogen sulfide odor (C1) were also commonly observed hydric soil indicators.

Jurisdiction

Wetlands associated with Jack Creek, Raspberry Creek, Youngs Creek, and Middle Creek all have direct surface connections that are relatively permanent to waterways that are tributary to the Yampa River, which is a navigable waterway. These waters and associated wetlands are, therefore, subject to federal jurisdiction under the Clean Water Act. Wetlands and waters associated with the cirque-like depression and the unnamed tributary to Little Morrison Creek do not possess direct surface connections that are relatively permanent. Therefore, these waterways and associated wetlands may not be subject to federal jurisdiction; however, an Approved Jurisdictional Determination (Approved JD) would be required to confirm the lack of jurisdiction with the Corps of Engineers.

In the aftermath of the US Supreme Court's 2023 Sackett decision, which limited the Corps' jurisdiction over certain types of wetland, the State of Colorado has assumed jurisdiction over wetland dredge and fill activities under House Bill 24-1379 (HB24-1379). Under HB24-1379, the Colorado Water Quality Control Commission (WQCC), under the Department of Public Health & Environment (CDPHE) has assumed jurisdiction over wetlands that the Corps no longer regulates. While the WQCC has not yet promulgated State-level wetland regulations, HB24-1379 requires them to do so by December 31, 2025.

[7] https://www.nrcs.usda.gov/publications/query-by-ssa.html

CONCLUSION AND RECOMMENDATIONS

The results of this aquatic resource delineation confirm that federally jurisdictional wetlands exist on the SMR in association with Young's Creek, Jack Creek, Raspberry Creek, Middle Creek, and Yampa River. Additional wetlands exist that may not be jurisdictional; however, an Approved JD would be necessary to gain confirmation from the Corps relative to these wetlands. Taking the additional steps for an Approved JD may extend the permitting timetable; Discovery would need to evaluate the necessity of pursuing an Approved JD to eliminate jurisdiction in these areas. And in the end, it may be a moot point, as the State has assumed jurisdiction over waters that the Corps no longer regulates.

Discovery has indicated that some impacts to wetlands due to road crossings may be unavoidable. Such impacts would likely be authorized under the Corps' Nationwide Permit (NWP) Program, which in the case of road crossings, allows up to ½-acre of impact per crossing under NWP 14. Impacts greater than $^{1}/_{10}$-acre will require mitigation. The Corps' preferred method of mitigation in Routt County is the purchase of wetland credits from the Finger Rock Preserve (FRP) wetland mitigation bank. Credit costs at FRP start at $3/sqft. Preparation and submittal of a Pre-Construction Notification (PCN) to the Corps will be necessary for any wetland impacts. The Corps has 45 days to respond to the PCN, unless Endangered Species Act (ESA) consultation or National Historic Preservation Act (NHPA) consultation is required. Consultation under both federal acts is likely and should be expected.

For the ESA consultation, Discovery would most likely be required to hire a Wildlife Biologist to prepare a Biological Assessment (BA) for the Corps to submit to the US Fish & Wildlife Service. Western Bionomics regularly prepares BAs for Canada lynx and can prepare this report. For the NHPA consultation, Discovery will likely be required to retain a cultural resource specialist to conduct cultural resource surveys on the property to submit to the Colorado State Historic Preservation Officer for consultation. Western Bionomics maintains professional relationships with cultural resource firms that I can recommend for such surveys and consultation. NHPA and ESA consultations typically extend the time for a response to the PCN, from 3 to 6 months or longer, depending on the schedules of the Wildlife and Cultural surveyors and the staffing at the respective agencies.

If you have questions regarding the information presented in this Technical Memorandum, please contact Kelly Colfer at 970-846-8223 or kscolfer@westernbionomics.com.

Attachments: Representative Photographs
Wetland Delineation Map

Photograph 1. Youngs Creek ponded area adjacent to base lodge.

Photograph 2. Two different sections of Youngs Creek. Photo on left in relatively flat, open site. Photo on right in steep graded, deep, narrow canyon.

Photograph 3. Another Youngs Creek photograph in shallow grade area.

Photograph 4. Youngs Creek headwaters.

Photograph 5. Raspberry Creek headwater willow carr.

Photograph 6. Raspberry Creek headwater wetland.

Photograph 7. Raspberry Creek headwater wetland.

Photograph 8. Isolated ponded wetland on Stetson north of CR14.

LEGEND

WETLAND

WATER

PARCEL BOUNDARY

WETLAND ASSESSMENT AREA

N

Horizontal Scale

2400' 0 1200'

1" = 2400'

STAGECOACH MOUNTAIN RANCH

WETLAND DELINEATION

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Natural Resource Management Services
31040 WILLOW LANE STEAMBOAT SPRINGS, CO 80487 970-846-8223

Date: 09-04-2024 | Drawn: DRAWNBY | Delineated:

SHEET NO. SHEET

REVISIONS

No.	Item	Date