Western Bionomics Inc.

Natural Resource Management Services

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Memorandum

To: Kyle Collins

From: Kelly Colfer

CC: Jamie Laverty

Date: October 9, 2024

Re: Stagecoach Gondola Wildlife, Vegetation, & Noxious Weeds

The purpose of this memo is to document wildlife and vegetation resources, including noxious weeds, that are associated with the proposed Stagecoach Gondola alignment (see attached drawing). The gondola would be 8,513' in length and extend from a base elevation of 7,515' MSL (Mean Sea Level) to a summit elevation of 9,400'. It would traverse forests of mixed conifer and aspen (as further described below), as well as previously cleared ski trails. Total forest clearing would be 10.27 acres. About 90% of the tree clearing would be in mixed conifer, 10% in aspen.

Mixed Conifer

Mature Engelmann spruce (*Picea engelmannii*), subalpine fir (*Abies lasiocarpa*), lodgepole pine (*Pinus concolor*), and Douglas fir (*Pseudotsuga menziesii*) are dominant in mixed conifer stands. Quaking aspen (*Populus tremuloides*) is a significant component throughout. The dominant trees tower over an understory of Rocky Mountain maple (*Acer glabrum*), serviceberry (*Amelanchier alnifolia*), mountain gooseberry (*Ribes montigenum*), Oregon boxleaf (*Paxistima myrsinites*), ceanothus (*Ceanothus velutinus)*, grouse whortleberry (*Vaccinium cespitosum, V. scoparium*), heart-leaf arnica (*Arnica cordifolia*), Engelmann aster (*Aster engelmanii*), and other herbaceous species. On some sites the understory is depauperate as little sunlight reaches the ground. All size classes are well represented from 7" up to 20" diameter. Regeneration is generally abundant but unevenly distributed throughout the understory.

Aspen

Aspen stands are also present along the proposed gondola alignment. These stands support an understory of mountain shrub species including chokecherry (*Prunus virginiana*), serviceberry, snowberry (*Symphoricarpos albus*), mountain maple, and Gambel oak (*Quercus gambellii*), with understory components that include blue wild rye (*Elymus glaucus*), Barbey larkspur (*Delphinium barbeyi*), osha (*Ligusticum porteri*), and others. Mature, very large Douglas fir is a randomly present in the overstory.

Ski Trails

Ski trails within the alignment are dominated by smooth brome (*Bromus inermis*), western wheatgrass (*Pascopyrum smithii*), timothy (*Phleum pratense*), orchardgrass (*Dactylis glomerata*), snowberry, serviceberry, yarrow (*Achillea millefolium*), sunny goldeneye (*Heliomeris multiflora*), leafy aster (*Aster foliaceous*), hairy goldenaster (*Heterotheca villosa*), dandelion (*Taraxacum oficinale*), lupine (*Lupinus* spp.), and bedstraw (*Galium boreale*). Ski trails beneath the previously approved and proposed lift

alignment are heavily infested with the noxious weeds Canada thistle[1] (*Cirsium arvense*) and houndstongue[1,2] (*Cynoglossum officinale*).

Two wetlands are located within proximity to both the previously approved and the proposed gondola alignment; one near proposed tower 4 and another between towers 15 and 16. These wetlands are displayed on Figure 1.

Wildlife

The dominant vegetation cover types provide habitat for a variety of wildlife species, including elk, deer, black bear, lynx, bobcat, raptors, owls, songbirds, Columbian sharp-tailed grouse, dusky grouse, bats, foxes, coyotes, rabbits, snowshoe hares, and a variety of squirrels, chipmunks, mice, voles, and gophers. The habitat values along the alignment are not unique within Routt County and are not rare in any manner.

The middle reach of the gondola crosses an area mapped by Colorado Parks and Wildlife as an elk production area[3] (Figure 2). The lower reach of the gondola is located within Columbian sharp-tailed grouse winter[4] and production range[5] (Figure 3). Black bear summer[6] and fall concentration areas[7] (Figure 4) are mapped on the entirety of the gondola alignment.

Revegetation Plan

During gondola construction, construction fencing shall be installed at the two wetland locations along the 50' wetland setback to prevent disturbance during tower installation. During construction, excavated topsoils shall be stockpiled separately from subsoils. Reclamation will consist of replacing subsoils and re-spreading topsoil in disturbed sites. Soil shall be immediately stabilized, seeded, and mulched. The developer intends to utilize CPW's Seed Mix Tool in consultation with CPW Staff when developing the reclamation and landscaping plans for previously undisturbed areas. Since ski trails are dominated by introduced grasses (see above), they will be revegetated with a seed mix that contains the same grasses that are currently present.

Specific to Tower 4, the tower itself will be installed outside of the 50' wetland setback; however, during installation of the tower there will be disturbance with the 50' buffer area. There will be no wetland disturbance. The buffer area will be revegetated in the same manner described above for the rest of the towers.

Weed Management

Houndstongue and Canada thistle are prevalent on the ski trail beneath both the currently approved and proposed lift alignments. Houndstongue is on the County list and targeted for *containment*[8], per the 2023 Routt County Noxious Weed Management Plan. Canada thistle is not listed by the County. Both of these weeds are widespread in disturbed areas where cattle have been grazing for decades. Site specific management of these weeds within the lift corridor should focus on containing the infestation to current sites and preventing their encroachment into newly cleared areas via an integrated weed management plan

[1] State List B Noxious Weed
[2] Routt County Noxious Weed List
[3] Elk Production Range - That part of the overall range of elk occupied by the females from May 15 to June 15 for calving.
[4] CSTG Winter Range - Usually in a tall shrub vegetative type (greater than or equal to 2 meters); within 5 km of lek sites. Shrub height should allow feeding on buds by birds above normal snow depths.
[5] CSTG Production Area - An area that include 90% of Columbian sharp-tailed Grouse nesting or brood rearing habitat. This is mapped as a buffer zone of 1.25 miles around active dancing grounds and clipped to Overall Range.
[6] Black Bear Summer Concentration Area - That portion of the overall range of the species where activity is greater than the surrounding overall range during that period from June 15 to August 15.
[7] Black Bear Fall Concentration Area - That portion of the overall range occupied from August 15 until September 30 for the purpose of ingesting large quantities of mast and berries to establish fat reserves for the winter hibernation period.
[8] Per the County Weed Plan, the term, *Containment* means, "maintaining an intensively managed buffer zone that separates infested regions… …from largely uninvested regions…"

that includes suppression on existing sites in the alignment with a combination of herbicide and mowing treatments.

Conclusion and Recommendations

Construction of the gondola within the currently proposed alignment would have similar impacts to natural resource values as would construction within the currently approved alignment. The following recommendations should be incorporated into the construction plan as design features in order to minimize impacts to natural resources.

- Lift construction and installation activities shall not take place during the elk calving season from May 15 through June 30.
- Construction equipment shall be cleaned and inspected prior to entry onto the site to prevent the spread of noxious weeds from other construction sites.
- During gondola construction, construction fencing shall be installed at the two wetland locations along the 50' wetland setback to prevent accidental disturbance during tower installation.

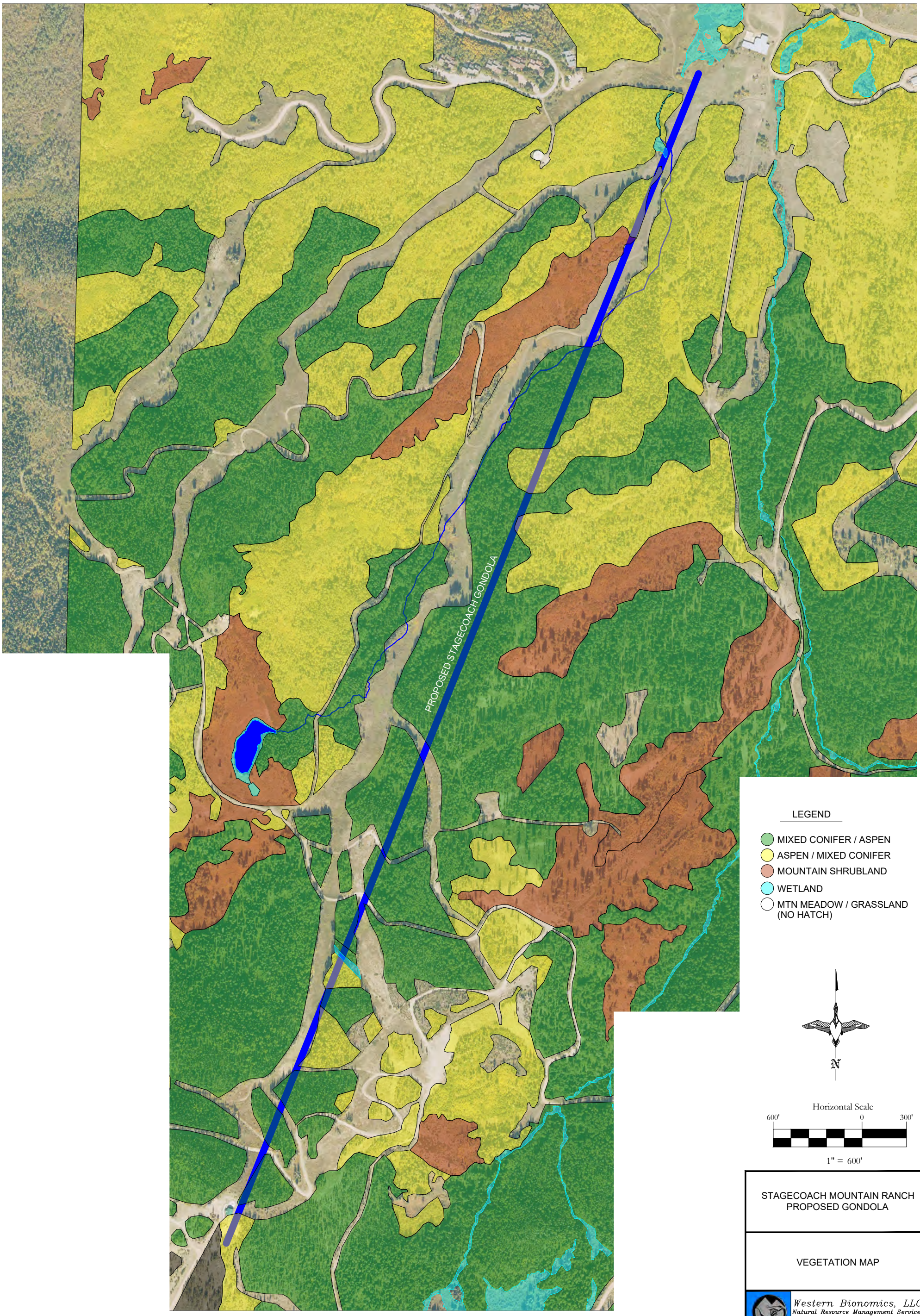
Attachments

Figure 1 – Stagecoach Gondola Vegetation

Figure 2 – Stagecoach Gondola Elk Range

Figure 3 – Stagecoach Gondola Columbian Sharp-tailed Grouse Range

Figure 4 – Stagecoach Gondola Bear Range



LEGEND

- MIXED CONIFER / ASPEN
- ASPEN / MIXED CONIFER
- MOUNTAIN SHRUBLAND
- WETLAND
- MTN MEADOW / GRASSLAND (NO HATCH)

N

Horizontal Scale

600' 0 300'

1" = 600'

STAGECOACH MOUNTAIN RANCH PROPOSED GONDOLA

VEGETATION MAP

Western Bionomics, LLC
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Date: 06-10-2024 | Drawn: KSC | Delineated:

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PROPOSED STAGECOACH GONDOLA

LEGEND

ELK PRODUCTION AREA

N

Horizontal Scale

600' 0 300'

1" = 600'

STAGECOACH MOUNTAIN RANCH
PROPOSED GONDOLA

FIGURE 2.
ELK SPECIES ACTIVITY MAP
(SOURCE: CPW)

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PROPOSED STAGECOACH GONDOLA

LEGEND

CSTG PRODUCTION AREA

CSTG WINTER RANGE

N

Horizontal Scale

600' 0 300'

1" = 600'

STAGECOACH MOUNTAIN RANCH
PROPOSED GONDOLA

FIGURE 3.
COLUMBIAN SHARP-TAILED GROUSE
SPECIES ACTIVITY MAPPING
(SOURCE: CPW)

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PROPOSED STAGECOACH GONDOLA

LEGEND

- BEAR / HUMAN CONFLICT AREA
- SUMMER CONCENTRATION AREA
- FALL CONCENTRATION AREA

N

Horizontal Scale

600' 0 300'

1" = 600'

STAGECOACH MOUNTAIN RANCH
PROPOSED GONDOLA

FIGURE 4.
BLACK BEAR
SPECIES ACTIVITY MAP
(SOURCE: CPW)

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