



REGION 8

DENVER, CO 80202

June 12, 2024

Ref: 8EJC-NE

Heather Noel, Acting Forest Supervisor
c/o Sarah Strehle, Project Manager
White River National Forest
Dillon Ranger District
P.O. Box 620
Silverthorne, Colorado 80498-0620

Subject: Breckenridge Peak 9 Projects

Dear Acting Forest Supervisor Noel:

The U.S. Environmental Protection Agency Region 8 has reviewed the May 13, 2024, scoping notice from the U.S. Department of Agriculture, Dillon Ranger District of the White River National Forest, soliciting comments on a proposal from Breckenridge Ski Resort to authorize improvement projects primarily within the existing Special Use Permit area. Part of the project area will be located on adjacent private lands in the Peak 9 base area. The main projects include 1) the installation of a Peak 9 gondola and development of a new teaching terrain area with associated facilities along the proposed gondola alignment; 2) increased snowmaking coverage of approximately 10 acres; and 3) replacement of the existing C-Chair with a six-person high-speed detachable lift. In accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA), we are providing scoping comments. These comments convey important questions or concerns that we recommend addressing during the NEPA process.

Although not mentioned in the May 2024 scoping notice, the project website includes information that the expected analysis type for this proposed project will be a Decision Memo based on a categorical exclusion. The proposed action would need to fall within a Forest Service category of actions under 36 Code of Federal Regulations (CFR) § 220.6 that may be excluded from documentation in either an environmental assessment (EA) or an environmental impact statement (EIS) in the absence of extraordinary circumstances. It appears the Forest Service expects the proposed project to be consistent with category 36 CFR § 220.6(e)(22), which includes ski areas and states "*Construction, reconstruction, decommissioning, or disposal of buildings, infrastructure, or improvements at an existing recreation site, including infrastructure or improvements that are adjacent or connected to an existing recreation site and provide access or utilities for that site.*"

According to 36 CFR § 220.6(b), resource conditions should be considered in determining whether extraordinary circumstances related to a proposed action warrant further analysis and documentation in an EA or an EIS. Such resources include, but are not limited to, wetlands and municipal watersheds. The May 2024 scoping notice does not discuss potential effects to these resources. 36 CFR § 220.6(c) further explains that an EA or EIS may be needed if it is uncertain whether the proposed action may have significant effects on the environment based on scoping. To further support the use of a categorical exclusion, the EPA recommends that the Forest Service provide additional information when undergoing the environmental review of the proposed action as described in the May 2024 scoping notice related to wetlands and water quality within the watershed of the project area that may be affected by the proposed Peak 9 projects.

Based on our current understanding of the proposed projects, the EPA is primarily concerned with potential impacts to water resources resulting from the proposed installation of projects including snowmaking expansion plans, specifically the potential for increased water withdrawals or changes in water management or operations from expanding snowmaking. The growth in the number of ski expansion projects that have been proposed in Colorado (as well as other neighboring states) that include additional snowmaking raises sustainability concerns given the effects of additional diversions on the Colorado River Basin particularly in the context of ongoing climate change and aridification in the West. Additionally, it is not known whether there are potential impacts to wetlands and water resources resulting from the planned grading, tree removal, and vegetation clearing needed for the new gondola and teaching terrain area as well as the lift replacement, including any indirect effects or cumulative effects due to expanded snowmaking. For these reasons, we are enclosing detailed comments for your consideration in response to the Forest Service's request for scoping comments and look forward to learning additional details about the proposed project.

We appreciate the opportunity to provide comments at this early stage of the NEPA process as environmental data are being compiled. These comments are intended to facilitate the decision-making process; thank you for considering our input. If we may provide further explanation of our comments, please contact me at (303) 312-6115 or mccoy.melissa@epa.gov, or Melanie Wasco who is the NEPA project lead at (303) 312-6540 or wasco.melanie@epa.gov. In addition to email lists with direct contacts, the EPA is also encouraging electronic submissions and early engagement with our branch for any future NEPA documents. Notifications regarding any upcoming Forest Service NEPA documents can be emailed to EPA-R8-NEPA@epa.gov for EPA Region 8 review or coordination.

Sincerely,

Melissa W. McCoy, Ph.D., J.D.
Manager, NEPA Branch
Environmental Justice, Community Health, and
Environmental Review Division

Enclosure

Enclosure – EPA Scoping Comments on the Breckenridge Peak 9 Projects

Based upon our review of the documents available at scoping, we recommend the Forest Service consider these general recommendations while conducting the environmental analysis for this proposed action:

- If the Forest Service determines the project falls within the scope of effects of the categorical exclusion at 36 CFR § 220.6(e)(22), publish a publicly available report that contains the environmental effects analysis and the rationale. Please include any supporting studies or other information the Forest Service relied upon for its analysis and how these analyses apply to the proposed action.
- Include in this document the analysis of extraordinary circumstances and how any such circumstances were resolved.

The EPA's more specific comments and recommendations below relate to baseline environmental conditions and potential impacts to water resources including cumulative effects to consider when developing the resource analysis and determining whether any extraordinary circumstances exist.

Existing Environmental Conditions

Existing conditions are a key frame of reference for quantifying and characterizing magnitudes of adverse and positive environmental effects. The EPA recommends evaluating project effects against existing environmental conditions as the primary basis for comparison. By utilizing existing environmental conditions as a point of comparison, future changes to environmental resources can be more accurately measured for the proposed projects. We recommend verification of whether historical data (e.g., data 5 years or older) are representative of current conditions if they are used as a basis of the analysis. Details can be found below regarding additional information we recommend considering when evaluating existing conditions for various resources.

Aquatic Resources Existing Conditions. We recommend the Forest Service identify aquatic resource existing conditions in the proposed project area, including wetlands (including peatlands or fens), springs, streams, and ephemeral drainages. Specifically, we recommend considering watershed conditions, streambank conditions, vegetation cover, soil conditions, and wildlife and fish population health and habitat. We also recommend that the resource analysis include a map of the project area that identifies wetlands and regional water features within a minimum of 500 feet from any construction activities (e.g., planned grading, tree removal, and vegetation clearing), with dominant and rare plant community types identified. We also recommend conducting wetland functional analyses if there is any potential that project elements will cause impacts. The EPA notes that wetland functions are tied to wetland type and conversion from one type of wetland to another will likely result in the loss or degradation of certain wetland functions.

Water Quality Existing Conditions. We recommend the resource analysis provide a summary of available information and monitoring data on water quality for the snowmaking source and receiving waters and identify impaired waterbodies within and downstream of the planning area, including waterbodies listed on the State of Colorado's most recent EPA-approved 2022 Clean Water Act (CWA) § 303(d) list and Colorado's Monitoring and Evaluation List. We recommend including parameters of

significance to impaired waterbodies within or downstream of the project area.

When defining existing conditions, please consider the following:

- Include resources directly impacted by the project footprint as well as the resources indirectly (or secondarily) impacted by the project. These indirectly impacted areas may include downstream segments, source water areas where water withdrawals will occur or be modified, and any other resource areas which may be affected by changes in water management or operations.
- Include current water quality, including at a critical flow condition if available, in any affected stream reaches.
- Consider and document water quality impairments per State CWA Section 303(d) lists.

Snowmaking Existing Conditions. The Forest Service's May 2024 scoping notice states that there will be expanded snowmaking coverage of approximately 10 acres to ensure the new teaching terrain called the Frontier Learning Area can open concurrently when Peak 9 opens for the season. We recommend that the resource analysis describe current use of existing water rights and the current snowmaking operation. The EPA is interested in what impacts may be currently occurring due to use of water rights and snowmaking activities to assist with understanding how any proposed changes in the snowmaking water withdrawal regime and application (including timing) would impact the project area. We recommend that the resource analysis include the following information related to snowmaking:

- A discussion of the existing snowmaking operation including the water source(s), and any related impacts to hydrology or water quality;
- A water quality analysis of the water to be used for snowmaking, as well as an assessment of existing water quality in the receiving waters to which the snow melt will flow; and
- A soil analysis of the proposed enhancement areas to determine possible soil mineral/nutrients or metals that could be disturbed and leaked into increased runoff from snow melt and enter surrounding waterbodies.

Additional information is outlined below related to climate change and potential effects to water resources.

Potential Impacts to Water Resources

In mountain environments, cut and fills associated with grading and trenching for utilities and project infrastructure have the potential to impact streams, wetlands, and their supporting hydrologic systems. Although the May 2024 scoping notice mentions expanded snowmaking operations, it does not describe whether additional snowmaking infrastructure will be needed. It is important to include the design details for all of the proposed actions in the resource analysis.

Given the potential for this project to affect aquatic resources, we recommend that the Forest Service evaluate potential impacts by including the following information in the resource analysis:

- Assessment of potential impacts on aquatic resource existing conditions, including direct, indirect, and cumulative effects. Impacts may include changes in surface and groundwater hydrology supporting streams and wetlands.

- A description of any direct, indirect, and cumulative wetland impacts, both temporary and permanent. Such impacts may include functional conversion of wetlands (e.g., forested to shrub-scrub); changes to supporting wetland hydrology even if these wetlands are outside of the construction footprint (e.g., snow melt patterns, sheet flow, and groundwater hydrology); and wetland disturbance or loss.
- Disclosure of any aquifers that may be vulnerable to impacts from the project (e.g., changes in hydrology).

Wetland Impacts. The wetlands typically found in mountain environments represent valuable montane wetland ecosystems performing a variety of functions and values. Impacts to the types and functions of wetlands in montane environments are difficult or sometimes impossible to mitigate due to shorter growing seasons and low temperatures at night. For example, it can be difficult to avoid permanent impacts to sloped wetlands from placement of snowmaking pipelines and other on-mountain facilities. The May 2024 scoping notice states that Breckenridge Ski Resort will work with the Forest Service to identify opportunities to minimize grading, tree removal, and proximity to wetlands during the project planning stage. We recommend the resource analysis describe how the project will comply with Executive Order 11990, Protection of Wetlands, including how wetlands will be identified and avoided, and how any potential unavoidable impacts would be minimized and mitigated.

We also recommend that the resource analysis assess surface disturbance impacts related to installation of project infrastructure and utilities, including:

- Location and length of access roads and project infrastructure including pipe for snowmaking lines as well as any power and communications infrastructure proposed in wetlands or adjacent hydrologically connected areas (if applicable);
- Location where the soil from any trenching or other construction activities would be temporarily stored;
- Amount of soil compaction expected from related installation equipment in wetlands or adjacent hydrologically connected areas; and
- Identification of fill material that would be placed in any trench that may inadvertently promote drainage (e.g., gravels).

To ensure no extraordinary circumstances, we recommend excluding infrastructure construction and mechanized vegetation and tree removal treatments in areas where wetlands or riparian areas could be adversely impacted either directly or indirectly from adjacent construction activities, including by changes to supporting wetland hydrology. We recommend establishment of riparian habitat buffer zones to avoid adverse impacts to streams and riparian areas.

Fen Wetlands. Fen wetlands provide important hydrological and water quality functions by improving water quality in headwater streams and may support rare assemblages of aquatic invertebrates. They also provide critical ecological functions such as providing base flows to streams during late summer and/or drought periods. The EPA recognizes fen-type wetlands as ecologically critical in that they provide local and regional biodiversity. The U.S. Fish and Wildlife Service (USFWS) designated fen wetlands a Resource Category 1 with respect to the USFWS Peatland Mitigation Policy. The mitigation goal of USFWS Resource Category 1 is no loss of habitat values and the Peatland Mitigation Policy

places the protection and avoidance of fen wetlands as a priority during CWA Section 404 reviews. The Rocky Mountain Region (R2) of the U.S. Forest Service considers fens a sensitive plant habitat that should be managed for conservation and restoration.¹ Further underlining the uniqueness and importance of fens in Colorado, the Corps revoked the use of Nationwide Permits in peatlands/fen-type wetlands to protect this unique wetland type.

Human land use activities, including any disturbances that may impede or alter surface or groundwater flows such as activities related to new project infrastructure including any trenching needed to connect to existing utilities, can have a substantial impact on the hydrologic regime and the biotic integrity of fens. For example, roads, trails, and associated drainage structures upslope of fens may intercept groundwater flow, alter subsurface flow pathways, and concentrate overland flow away from the fen area, causing desiccation of the fen. Roads are also a common source of sediment that can bury organic soils. Construction related disturbances (e.g., excavating, grading) and subsequent use from motorized equipment can negatively impact fens by exposing soil and bare peat, causing erosion, creating channels which act as a water diversion, and compacting soil.^{2,3} Implementation of the new teaching terrain may result in additional winter grooming in previously ungroomed areas. Although minimum snow depths buffer against the effects of soil compaction caused by over-snow vehicles (e.g., snow groomers), recent research indicates that over-snow vehicle use can have detrimental impacts to fens by compacting snow cover, eliminating the insulating function of snow cover and causing the fens to freeze.^{4,5} Snow compaction caused by over-snow vehicles can substantially reduce the thermal insulation of snow cover beneath the surface, exposing underlying vegetation to potential frost-related damage. Snow compaction may ultimately result in a reduction in soil temperatures as well as a delay in snowmelt, potentially reducing the length of the growing season and altering primary productivity and organic matter decomposition rates.^{6,7,8,9}

Fen communities are very sensitive to hydrologic alterations and restoration is extremely challenging once function has been impaired. Due to the slow rate of accumulation of peat in fens, these ecosystems are generally considered to be irreplaceable. We recommend that the resource analysis include a description and the spatial extent of any fens within the project area as well as an analysis of

¹ U.S. Forest Service (USFS) (2011) FSM 2600—Wildlife, Fish, and Sensitive Plant Habitat Management. Chapter 2630—Management of Wildlife and Fish Habitat. Supplement No.: 2600- 2011-2. Forest Service Manual. U.S. Forest Service, Rocky Mountain Region (R2), Denver, CO.

² Chimner, R. A., Lemly, J. M., & Cooper, D. J. (2010). Mountain fen distribution, types, and restoration priorities, San Juan Mountains, Colorado, USA. *Wetlands*, 30(4), 763-771.

³ See footnote 4.

⁴ See footnote 5.

⁵ Gage, E., & Cooper, D. J. (2009). Winter recreation impacts to wetlands: a technical review. *Report for Arapaho-Roosevelt National Forests, White River National Forest, and Black Hills National Forest. USDA Forest Service, Washington, DC.*

⁶ Mullet, T. C., & Morton, J. M. (2021). Snowmobile effects on height and live stem abundance of wetland shrubs in south-central Alaska. *Journal of Outdoor Recreation and Tourism*, 33, 100347.

⁷ Fahey, B., Wardle, K., and Weir, P. (1999). Environmental effects associated with snow grooming and skiing at Treble Cone Ski Field, Part 2. Snow properties on groomed and non-groomed slope. *Science for Conservation*, 120, 49-62.

⁸ Keller, T., Pielmeier, C., Rixen, C., Gadiant, F., Gustafsson, D., and Ståhl, M. (2004). Impact of artificial snow and ski-slope grooming on snowpack properties and soil thermal regime in a sub-alpine ski area. *Annals of Glaciology*, 38, 314-318.

⁹ See footnote 7.

potential impacts that could occur from proposed project activities. To ensure no extraordinary circumstances, we strongly recommend that project design criteria include requirements to avoid both direct and indirect impacts, whether permanent or temporary, to these highly valued resources.

Water Quality Impacts and Impaired Waterbodies. The May 2024 scoping notice does not discuss where the Breckenridge Ski Resort draws its snowmaking water and whether that source is listed as impaired on the recent EPA-approved 2022 Colorado State 303(d) list. We note that waters of the Blue River mainstem and Illinois Gulch mainstem located within the watershed of the project area are impaired for drinking water and aquatic life uses due to multiple metals with additional nitrite issues identified for the Blue River. We recommend that the resource analysis evaluate whether this project may contribute to a further degradation of water quality in the area, particularly for increased metals and/or sediment loading in receiving waters as a result of increased snowmaking. For example, macroinvertebrates communities that are listed as impaired in both the Blue River and Illinois Gulch may be further impacted by either increased metal loading or sedimentation. We recommend that the resource analysis also include a discussion of any monitoring plan that is currently in place and may be relevant to this project area to ensure any water transported with elevated metal levels will not impact a stream segment that currently is not impaired.

Water Quality Impacts of Soil Disturbance and Hydrologic Changes. We recommend the resource analysis describe site-specific current soil conditions and include an assessment of potential project impacts. Impacts from project elements such as snowmaking, tree clearing, construction areas, and any grading may include soil loss, altered soil chemistry from melted artificially made snow, increased surface runoff, sedimentation loading and possible pollutant delivery, changes in water temperature associated with erosion of soils and stream banks, water channelization, soil compaction, reduced stream base flows from decreased infiltration to groundwater, and vegetation loss. We recommend this analysis assess impacts to aquatic resources, including water quality, stream and wetland processes, and fish populations/habitat, and provide mitigation measures to address such impacts.

To ensure no extraordinary circumstances, the EPA's general recommendations include:

- Avoid or bridge wetlands and sensitive ecological areas;
- Minimize any temporary or permanent road construction and density to reduce adverse impacts to watersheds and locate away from steep slopes or erosive soils and from difficult to replace alpine resources, such as alpine meadows, wetlands, streams, and riparian areas;
- Locate cut and fill in areas that are unlikely to impact wetland hydrology, with additional attention to any fen wetlands; and
- Provide temporary road drainage and control surface erosion with water bars, crowns, and ditch relief culverts.

Water Quantity and Quality Impacts with Additional Snowmaking. We recommend that the resource analysis include the following information related to snowmaking:

- Details on any operational changes needed for the proposed project, including the water volumes required for proposed operations, timing of withdrawals and application, and amount of snow being made;
- An assessment of whether snowmaking water is likely to adversely impact streams, soils, plants,

or wetlands on or below the ski area; and

- An assessment of the magnitude and impact of water quantity changes, such as changes in stream flow, associated with the snowmaking and municipal withdrawals to serve the project area.

Because there may be operational changes associated with the additional snowmaking, we recommend including information regarding where withdrawals would occur, the timing and magnitude of withdrawals, the ability to maintain critical instream flows, and potential adverse impacts to aquatic habitat from additional or modified diversion and changes in water yield due to snowmaking. Potential impacts should also be considered through the lens of regional climatic trends. We recommend that the resource analysis consider the effects of ongoing and projected climate change in the project area, and how implementation of the proposed project could exacerbate these effects, including through changes in the amount and timing of streamflow. Such changes could affect aquatic habitat and lifecycles, riparian and wetland areas and functions, and climate-influenced water quality parameters like water temperature.

Ensure that potentially affected critical resources are included within the scope of analysis. Critical resources include species recovery areas, critical habitat for threatened or endangered species, segments impaired per Section 303(d) of the CWA, receiving waters for snowmaking runoff, and source water areas. If the project will alter in-stream flow quantity or quality, we add the following detailed recommendations for assessing impacts:

- Comparison of pre- and post-project water usage and impacts to stream flows, which include the maximum, minimum, mean, and median values for each month for the proposed snowmaking source water;
- An analysis of additional spring runoff to streams in the project area resulting from increased snowmaking and the potential for stream bank erosion and spawning habitat degradation resulting from increased flow;
- An analysis of impacts to resident fish species and invertebrate assemblages; and
- Comparison of current and post-project water quality, including at a critical flow condition if possible, and expected impacts to assimilative capacity or permit limits, accounting for applicable water quality standards and water quality impairments per State CWA Section 303(d) lists.

We also recommend the Forest Service analyze the potential impacts of less availability of water during drought years on viability of the proposed project. The resource analysis should also consider whether continuation of recent snowpack trends could result in the need for expanded snowmaking to maintain the same level of existing and proposed snow coverage.

Cumulative Effects

As previously mentioned, effects from diversions on the Colorado River Basin in the context of ongoing climate change and aridification are important considerations. To determine whether a project may have significant effects on the environment, it is important to examine not only the direct and indirect (secondary) effects, but also cumulative impacts to the aquatic and other resource characteristics in

the area of influence. This may include impacts to water quality and water quantity; stream channel morphology; riparian function; fish and invertebrate assemblages; threatened, endangered and/or sensitive species and their habitat; and other resources within the geographic scope of analysis. We recommend that the impact analysis also consider the potential for non-linear responses, where incremental impacts of the proposed project, when added to the impacts of past, present, and reasonably foreseeable actions, may result in non-incremental changes in environmental conditions.

In analyzing cumulative impacts, we recommend evaluating and describing past diversion impacts in the project area including impacts from historical water management operations affecting aquatic ecosystems such as streams and associated wetlands and aquatic habitat. If there are effects from other reasonably foreseeable water diversion and water management projects that may exacerbate impacts to the same resources or ecosystems associated with this project, we recommend that the resource analysis identify additional stressors from those relationships and disclose any cumulative impacts to the affected environment. We also suggest analyzing impacts according to watersheds rather than political boundaries. We recommend that the resource analysis consider whether there will be sufficient storage for water delivered for this project, which we understand may be part of water rights agreements. If water storage is insufficient, we recommend that anticipated actions to expand storage and any related effects are discussed in the resource analysis.

Special Status Species

Since the planning area may contain numerous special status species, including Endangered Species Act-listed threatened species, early coordination with the U.S. Fish and Wildlife Service on this project will be important to support determination of whether a categorical exclusion is appropriate. According to 36 CFR § 220.6(b), Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species are included as resource conditions that should be considered in determining whether extraordinary circumstances related to a proposed action warrant further analysis and documentation in an EA or an EIS. Documentation of USFWS's consultation and any recommendations for design criteria, mitigation, monitoring, and adaptive management strategies will be a valuable part of the resource analysis.