



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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Scott Fitzwilliams, Forest Supervisor
c/o TJ Broom, Mountain Sports-Recreation Special Uses Program Lead
White River National Forest
Aspen-Sopris Ranger District
620 Main Street
Carbondale, Colorado 81623-0309

Dear Supervisor Fitzwilliams:

The U.S. Environmental Protection Agency Region 8 has reviewed the U.S. Department of Agriculture Forest Service May 16, 2018, notice of proposed action (NOPA) to prepare an Environmental Assessment (EA) for the Aspen Mountain Pandora Development and Summit Snowmaking projects in the White River National Forest (WRNF). In accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA), we are providing scoping comments.

The project proposes 148 acres of new ski terrain with a new chairlift installation in the proposed Pandora area, and snowmaking infrastructure including a pump station and two storage ponds for approximately 53 acres of additional snowmaking near the Aspen Mountain summit. The project spans across both National Forest Service (NFS) lands and private lands. The NOPA estimates that the proposed project activities will result in approximately 40 acres of vegetation removal on NFS lands and 37 acres on private lands, and 30 to 40 percent of tree basal area would be cleared from gladed areas. Of the 71 acres of proposed gladed terrain, 6 acres of vegetation would be removed on NFS lands and 22 acres on private lands. The project includes the construction of a 3,600-foot access road on NPS land as well as other related infrastructure. The proposed development would require a ski area boundary adjustment to the existing Forest Service special use permit.

Key Topics the EPA Recommends Be Addressed During the NEPA Process

Based on our current understanding of the proposed project and the area, the EPA provides comments and recommendations related to the following key topics: 1) baseline environmental conditions; 2) water resources; and 3) air quality. According to the NOPA, impacts to wetlands are not anticipated. We identify some areas where clarifying details would benefit the wetlands discussion.

(1) Baseline Environmental Conditions

When evaluating effects of project alternatives, we recommend that current existing environmental conditions be used as the baseline for comparison of impacts across alternatives, including the No Action Alternative. This is especially important when there are environmental protections in place that are based on current conditions. For all resources, we recommend that historical data (5 years or older) are verified as representative of current conditions.

CWA Waters of the U.S., including Wetlands

We recommend the EA identify existing aquatic resources baseline conditions in the proposed project area, including wetlands (including peatlands or fens), streams and ephemeral drainages and springs. Specifically, we recommend describing watershed conditions, streambank conditions, vegetation cover, soil conditions, and wildlife and fish population health and habitat. We also recommend that the EA include a map identifying all waters of the U.S. (e.g., streams, wetland delineation) within a minimum of 500 feet from any construction activities, with dominant plant community types identified.

Snowmaking, Streamflow and Water Quality Data

Approximately 53 acres of additional snowmaking is proposed for the summit of Aspen Mountain on six trails (26 acres on NFS lands and 27 acres on private lands). We recommend that the EA include an assessment of water quality in the receiving waters to which the snow melt will flow.

We recommend the EA provide a summary of available information and monitoring data on water quality for the project area and identify any impaired waterbodies within and downstream of the planning area at the time of the EA, including waterbodies listed on the most recent EPA-approved CWA § 303(d) list. It is particularly important to include any parameters of interest for impaired waterbodies within or downstream of the project area. Please see additional comments below. Currently there are no water quality impairments in the project area; we recommend this information be acknowledged in the EA if the status does not change.

When defining baseline conditions, please consider the following:

- Include resources directly impacted by the project footprint within the geographic scope of analysis as well as the resources indirectly (or secondarily) impacted by the project. These indirectly impacted areas may include downstream segments and any other resource areas which may be affected by changes in water management or operations.
- Include current water quality at a critical flow condition in any affected stream reaches.
- If conditions change at the time of the EA, consider and document water quality impairments per State CWA Section 303(d) lists, draft or established Total Maximum Daily Loads (TMDL), and potentially affected dischargers, including water treatment providers.

- Identify any Source Water Protection areas and how the project will be consistent with Source Water Protection planning measures.

Air Quality

To characterize baseline air quality conditions, we recommend that the EA include the following:

- Identification of sensitive receptors (such as population centers and Class I and Sensitive Class II areas in the vicinity), as outlined in the NOPA.
- Ambient air quality data including air quality trends of any Class I areas in the vicinity (including the Aspen PM₁₀ maintenance area described below) over the past several years. Such data are readily available from the Colorado Department of Public Health and Environment (CDPHE) and the EPA (www.epa.gov/airdata/).
- A description of current vehicle data and trends associated with resort visitation.
- A discussion of the project's location with respect to the Aspen PM₁₀ National Ambient Air Quality Standard (NAAQS) maintenance area. Please see the 2010 Revised Maintenance Plan, as approved by the EPA on September 19, 2013 (78 FR 57496), for the Aspen Attainment/Maintenance Area that includes a map of the maintenance plan's boundary at: https://www.colorado.gov/pacific/sites/default/files/AP_PO_2010-PM10-Attainment-Maintenance-Plan.pdf.

(2) Potential Impacts to Water Resources

In mountain environments cut and fills associated with grading for trail and road construction and trenching for utilities have the potential to impact streams, wetlands, and their supporting hydrologic systems. Thus, it is important to include the design details for these actions in the EA.

Given the potential for this type of project to affect aquatic resources, we recommend that the EA evaluate potential impacts by including:

- Assessment of potential impacts on baseline conditions. Impacts may include changes in surface and groundwater hydrology supporting streams and wetlands.
- A description of any wetland impacts, temporary and permanent, direct and indirect, past and reasonably foreseeable. 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 intercepted groundwater hydrology); and wetland disturbance.

Wetlands

The wetlands typically found in mountain environments represent valuable montane wetland ecosystems performing a variety of functions. Impacts on 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. The EPA recognizes the challenges facing the USFS in managing wetland resources in forested montane environments and we appreciate the intent to

avoid such impacts with this project. If the project does include wetland impacts, we recommend the EA describe how the project will show compliance with Executive Order 11990, Protection of Wetlands, including how wetlands will be identified and avoided, and how unavoidable impacts would be minimized and mitigated.

Discharge of dredged or fill material into waters of the U.S., including wetlands, is regulated under CWA Section 404. This permit program is administered jointly by the Corps and the EPA. Although the NOPA does not anticipate any impacts to wetlands, we recommend that the USFS consult with the Corps to determine the applicability of CWA Section 404 permit requirements to any wetlands that may be impacted in the project area. We also recommend the EA include a description of impacts to waters not regulated by the Corps.

In particular, we recommend avoiding impacts to aquatic resources that are considered “difficult to replace” under the EPA’s and the Corps’ Final Rule for Mitigation for Losses of Aquatic Resources [33 CFR Parts 325 and 332; 40 CFR Part 230 (73 FR 19594, April 10, 2008)]. The rule emphasizes the need to avoid and minimize impacts to these “difficult-to-replace” resources (including streams and fens) and requires that any compensation be provided by in-kind restoration, rehabilitation, or enhancement to the extent practicable. We recommend that restoration plans require soil profiles and hydrology to be re-established as much as possible to the original state. In addition, the EPA recommends the USFS consider the mitigation rule to protect aquatic resources even when a CWA Section 404 permit is not required.

To ensure that wetlands are protected, it may be necessary to consider exclusion of road and trail construction and mechanized vegetation and tree removal treatments in areas where wetlands or riparian areas would be adversely impacted either directly or indirectly from adjacent construction activities, changing supporting wetland hydrology. The EPA recommends the USFS reduce impacts using Best Management Practices (BMPs) to protect sensitive soils, wetlands, riparian areas, meadows, stream crossings, and critical habitat. We support establishment of riparian habitat buffer zones to avoid adverse impacts to streams and riparian areas.

The NOPA’s preliminary findings suggest that the proposed Pandora Lift bottom terminal access road would not impair wetland functions as the proposed culvert would allow groundwater to support the adjacent wetlands complex (NOPA p. 15). We recommend that details are included in the EA specifying whether these are indirect/secondary impacts only (i.e., there are no direct impacts within the construction footprint of the culvert). We also recommend that the EA provide a rationale or analysis that demonstrates the wetlands are being supported by groundwater as opposed to receiving water from stream overbank flows. We understand that the Forest Service has developed various resources related to Forest road work, including guidance materials on ecological approaches to road-stream crossings through designing stream simulation structures. We recommend that design details regarding the type and size of the culvert being constructed in relationship to the stream and adjacent wetlands complex be included in the EA.

It can be difficult to avoid permanent impacts to sloped wetlands from placement of utility lines. Where utility line wetland crossings are unavoidable, we encourage the use of the following BMPs during design and construction:

- Selecting the narrowest available crossing locations, and avoiding crossings through fen-type wetlands.
- The use of bulkheads, where applicable, to minimize the disturbance width for utility line trench in wetlands.
- Placement of groundwater barriers on the downgradient side of the utility crossing to prevent wetland drainage. Site-specific engineering design details should be reviewed by the USFS and by resource agencies prior to approval of the wetland permit.
- Protection of wetland vegetation adjacent to the trench by use of construction fabric, hay layers, or wood chips to store trench soils. This can minimize or prevent damage from soil compaction and soil mixing.
- Monitoring these BMPs during construction and post-construction to ensure effectiveness and a requirement that any drainage problems be corrected.

Water Quality and Impaired Waterbodies

If the status of water quality impairments changes at the time of the EA, we recommend that the Forest Service analyze potential impacts to impaired waterbodies within and downstream of the planning area, including waterbodies listed on the most recent EPA-approved CWA §303(d) list. We recommend coordinating with the CDPHE if there are identified potential impacts to impaired waterbodies (to avoid causing or contributing to the exceedance of water quality standards). Where a TMDL exists for impaired waters in an area of potential impacts, pollutant loads should comply with the TMDL allocations for point and nonpoint sources. Where new loads or changes in the relationships between point and nonpoint source loads are created, we recommend that the Forest Service work with CDPHE to revise TMDL documents and develop new allocation scenarios that ensure attainment of water quality standards. Where TMDL analyses for impaired waterbodies within or downstream of the planning area still need to be developed, we recommend that proposed activities in the drainages of CWA impaired or threatened waterbodies be either carefully limited to prevent any worsening of the impairment or avoided where such impacts cannot be prevented.

Water Quality Impacts of Soil Disturbance

We recommend the EA describe site-specific current soil conditions and include an assessment of potential project impacts. Such impacts may include soil loss, increased surface storm flow, and changes in water temperature associated with erosion of soils and stream banks, water channelization, reduced stream base flows from decreased infiltration to groundwater, soil compaction, 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.

Water Quality and Impacts of Additional Snowmaking

Because new terrain may cause or exacerbate drainage problems and increase direct surface flows to streams, we recommend that adverse impacts from snowmaking be fully evaluated and

disclosed in the EA. We recommend that the EA include the following information related to snowmaking impacts:

- An assessment of whether snowmaking water is likely to adversely impact streams, soils, plants or wetlands on or below the ski area.
- An assessment of water quantity issues (including as it relates to water quality) associated with the snowmaking if municipal withdrawals are needed to serve the project area.

To address water quantity concerns associated with snowmaking, the EPA recommends the EA include information regarding whether supplemental water would be needed either when the new snowmaking infrastructure comes online or in years when surface runoff from the immediate surrounding areas is insufficient to fill the proposed storage ponds. If supplemental water is needed, we recommend that the EA discuss whether Aspen's existing water rights are adequate to support the proposed additional snowmaking.

The NOPA indicates that additional snowmaking infrastructure may affect surface erosion and channel stability in small drainages on Aspen Mountain. We understand that the Forest Service is considering protective measures to minimize potential effects to downstream water quality in Spar Gulch, Keno Gulch, and the Roaring Fork River. If the project will alter in-stream flow quantity or quality, we add the following recommendations for assessing impacts:

- 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.
- If applicable, comparison of current and post-project water quality at a critical flow condition and expected impacts to assimilative capacity or permit limits, which account for applicable water quality standards, water quality impairments per State CWA Section 303(d) lists, draft or established TMDLs, and potentially affected dischargers.

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

Water Quality and Road Impacts

Road and trail stream crossings can cause sedimentation loading and possible pollutant delivery. For road construction, including realignment of current and development of new roads, the EPA's general recommendations include:

- Avoid or bridge wetlands and sensitive ecological areas where practicable
- Minimize road and trail construction and road density to reduce adverse impacts to watersheds;

- Locate roads and trails away from difficult to replace alpine resources, such as alpine meadows, streams, fens and riparian areas as much as possible;
- Locate roads and trails away from steep slopes or erosive soils;
- Minimize road and trail stream crossings;
- Stabilize cut and fill slopes according to BMPs developed by the Forest Service that are applicable to sensitive alpine areas;
- Provide adequate road/trail drainage and control surface erosion with adequate waterbars, crowns, and ditch relief culverts to promote drainage off roads or along roads and trails;
- Consider road and trail effects on stream structure and seasonal spawning habitats when determining alignment; and
- Allow for adequate large woody debris recruitment to streams and riparian buffers near streams.

(3) Potential Impacts to Air Quality

We recommend the EA include a qualitative discussion of the potential for impacts on NAAQS, Prevention of Significant Deterioration standards, and air quality related values (AQRVs). Specifically, we recommend that a discussion of the potential project impacts to the Aspen PM₁₀ NAAQS maintenance area with respect to potential increased resort visitation be included in the EA. As stated in the NOPA, additional vehicular traffic is anticipated. We recommend the EA discussion include a description of projected vehicle data and trends associated with resort visitation.

The NOPA also states that minimal burning may occur to remove timber from the project area, and that the Aspen Skiing Company would obtain an open burn permit from CHPHE should burning occur. We recommend that the EA discuss the potential for fire activity to cause periodic degradation of air quality and visibility in the area. Also, we recommend the discussion include information on the type of proposed burning and the amount of burning potential (e.g., number of piles if pile burning removed trees), the typical pollutants associated with burning, and an estimate of predicted emissions that would result from project-related burning. We encourage public notification of pending burns.

Closing

We appreciate your consideration of our comments at this early stage of the process. Our input is intended to facilitate the decision-making process. If we may provide further explanation of our comments, please contact me at (303) 312-6704, or your staff may contact Melanie Wasco of my staff at (303) 312-6540 or wasco.melanie@epa.gov.

Sincerely,



Philip S. Strobel, Director
NEPA Compliance and Review Program
Office of Ecosystems Protection and Remediation

