MEMORANDUM

DATE: April 10, 2025

TO: Alan Goldich, Senior Planner, Routt County

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Consultants to the Northwest Colorado Council of Governments

RE: **Completeness Review for Multiple Applications for Stagecoach Mountain Ranch for Consistency with the NWCCOG Regional Water Quality Management Plan**

This memorandum analyzes several Applications for the proposed Stagecoach Mountain Ranch development for completeness to facilitate a determination of consistency with the NWCCOG Regional Water Quality Management Plan, as required in Section 3.1.L. of the Routt County Unified Development Code (UDC).

In summary, NWCCOG finds that the Stagecoach Mountain Ranch, as proposed in its Applications, is not complete but offers suggestions to the Applicant to potentially create complete applications.

I. Summary of Stagecoach Mountain Ranch Proposal

Steamboat Sponsor, LLC, doing business as Discovery Land Company ("Applicant" or "Discovery") has applied for a series of permits related to a residential, commercial, and recreation complex located in proximity to Stagecoach Reservoir, called "Stagecoach Mountain Ranch" ("SMR").[1] The development will provide areas of active and passive outdoor recreational activities including a ski area and golf course (not yet part of application package), associated commercial facilities, and areas of residential development.[2]

County permit application submitted to date for the SMR development include:

- Zone change (PL20240090)
- Preliminary Subdivision (PL20240088)
- Ski Mountain Facilities Special Use Permit (PL20240089)

[1] Applications received to date are available on the Routt County Stagecoach Mountain Ranch webpage, Stagecoach Mountain Ranch | Routt County, CO - Official Website (last accessed April 10, 2025).
[2] Discovery Zoning Application, PL20240090, at Section 4.1 (Dec. 2024).

- Stetson Land Preservation Subdivision (PL20240091)
- Cat Creek Land Preservation Subdivision (PL20240092)
- Indoor Rec Facility Conditional Use Permit (PL20240093)
- Outdoor Rec Facility Special Use Permit (PL20240094)
- 1041 application for a Major extension of existing water and sewage treatment system (PL20250023).

Most relevant to regional water quality, and thus reviewed in this completeness letter, are:

- Preliminary Subdivision (PL20240088)
- Ski Mountain Facilities Special Use Permit (PL20240089)
- Land Preservation Subdivisions
- Outdoor Rec Facility Special Use Permit (PL20240094)
- 1041 application for a Major extension of existing water and sewage treatment system (PL20250023).

II. NWCCOG 208 Plan Background

Section 208 of the Clean Water Act provides for the creation of regional water quality management plans for coordinated regional approaches to water quality management.[3] A regional water quality management plan is also referred to as a "208 Plan."

The Northwest Colorado Council of Governments ("NWCCOG") is the designated regional water quality management agency responsible for water quality planning in Region 12 (Eagle, Grand, Jackson, Pitkin, Routt, and Summit Counties). The primary goal of this Regional Water Quality Management Plan is to protect existing water quality and designated uses in the waterbodies of the region. NWCCOG reviews development Applications for consistency with the 208 Plan when a local government has incorporated such a standard into its regulations.

Routt County requires consistency with the 208 Plan in Section 3.1.L. of the UDC, stating "All development shall demonstrate compliance with the Northwest Colorado Council of Governments' (NWCCOG) Regional Water Quality Management Plan ("208 Plan") . . ."

To be consistent with the 208 Plan, development Applications must be consistent with the policies enumerated in Volume 1 of the 208 Plan.[4]

[3] 33 U.S.C. § 1288.
[4] NWCCOG Regional Water Quality Management Plan, 2025 Plan Policies for Consistency Review, https://www.dropbox.com/scl/fi/qprch1kun4mwbm1for67i/25-01-23-208-Plan-Policies-for-Consistency-Review.pdf?rlkey=ej6w8gr4to6dbh6ia7v2wz9c4&dl=0.

III. SMR Completeness Review

NWCCOG's comments begin with overarching concerns, and then are organized by policy number. Policies 1, 4, 5, 7, 8, and 9 are applicable to the Project. This memo highlights several examples where the application is incomplete or without sufficient rationale. However, these comments do not address each element of the application that could benefit from further refinement.

A. Overarching Concerns

1. <u>The Application materials lack a comprehensive assessment of water quality.</u>

The application materials do not summarize existing water quality, particularly nutrients, in Stagecoach Reservoir, the Yampa River, or any other the waterbodies in or potentially affected by the Project area. The application materials do not identify predicted impacts to water quality. Because of these shortcomings, it is difficult to assess the adequacy of the proposed mitigation and monitoring activities. Our concerns are described more fully in the discussion related to POLICY 1**: Water Quality Protection and Mitigation**. Land use and water development shall not significantly degrade the health of the affected watershed(s). Mitigation of adverse impacts to the watershed are the responsibility of the developer..

2. <u>Information regarding other water quality-related permits and the process for obtaining or updating such is incomplete.</u>

Snowmaking Permit. The Preliminary Plan states that the "Project will pursue necessary permitting and infrastructure installation to utilize treated effluent for snowmaking".[5] What type of permit(s) will be required by the Colorado Department of Public Health and Environment (CDPHE)? Has the applicant engaged with CDPHE regarding the permitting process? Are other any other state permits required?

Discharge Permit for Morrison Creek Metropolitan Water and Sanitation District (MCMWSD). The Preliminary Plan reports that "the existing CDPHE discharge permit will need to be amended to allow for additional demand. This effort will be completed in concert with the District and the developer."[6] The applicant identified the need for a permit modification, but the application lacks an analysis of the other consequences that may occur as a result of the permit modification. To facilitate a more thorough analysis, please address the following questions and comments:

[5] Stagecoach Mountain Ranch Preliminary Plan Application at page 42.
[6] Stagecoach Mountain Ranch Preliminary Plan Application at page 41.

- The applicant proposes to use treated effluent for snowmaking. What permitting consequences, if any, would result? For example, would CDPHE classify the use of effluent for snowmaking as change in the receiving waters? If so, how would permit limitations change relative to existing permit limitations?
- How would the permit modification to increase facility flows alter the permit limitations for all pollutants? Can MCWSD's existing facilities attain the anticipated limitations? Please note, several water quality standards have been revised since MCMWSD's discharge permit was issued in 2015.
- The new discharge permit may include limits to protect the direct use water supply (DUWS) designation for Stagecoach Reservoir. The DUWS includes a chlorophyl a standard, that was adopted after the MCMWSD permit was issued in 2015. The chlorophyl a standard could lead to additional nutrient removal requirements at the MCMWSD wastewater treatment facility. Understanding future permit limitations is critical to understanding the potential water quality impacts of the project, including the use of treated effluent for snowmaking.
- The Nutrient Loading Report for Stagecoach Mountain Ranch recommends the MCMWSD upgrade the WWTF to include phosphorus removal.[7] Has the applicant discussed this recommendation with MCMWSD? Is that consistent with MCMWSD's long-term plans?

Stormwater Permit. The Preliminary Stormwater Management Plan (SWMP) references an outdated statewide general stormwater permit. Please correct this error and revise the document to address the current permit.[8] In its current form, the SWMP does not provide enough detail to assess whether the proposed erosion control measures are sufficient to protect water quality. Is it possible to provide additional detail at this stage? If not, what assurances can the applicant provide to more fully protect water quality?

3. <u>Maps lack sufficient detail.</u>

Several of the maps provided in the application include symbology that does not clearly appear in the legend of the map. Likewise, the scale of some maps is insufficient to characterize and assess conditions; this issue is particularly difficult in the Drainage Study. We have provided some examples below.

[7] Nutrient Loading Report for Stagecoach Mountain Ranch at page

[8] The current Stormwater Discharge Permit for Construction Activities is available at: https://oitco.hylandcloud.com/CDPHERMPublicAccess/api/Document/AQfwokluDriUFw9rLI8HeKnA3FOQD9oxLj2WtUVÉ6urJ3JjLHBBWZPGaal9FHPt1L9vF9iX3AMKBHphEdDOVvyQ%3D/

- The Landscape Burn Probability map[9] presents a majority of the Project Area in "aqua" yet aqua or a similar color does not appear in the legend and it is difficult to deduce what the map is intended to communicate. Some areas of the map appear in bright orange yet bright orange does not appear in the legend.
- The legend of the Wetlands and Waterbodies map[10] includes one symbol (i.e., Wetland Delineation (Stagecoach)). The map includes two unique layers. It appears that the map includes the ski trails, but lacks streams and other waterbodies.

4. Water Supply and Wastewater Treatment for Stetson Ranch.

The Land Preservation Subdivision Application for Stetson Ranch reports that domestic water supply and sanitary sewer services will be provided by Morrison Creek Metropolitan Water and Sanitation District. However, the Water and Sanitary Sewer Master Plan[11] states that individual wells and onsite wastewater treatment systems will be used within the Stetson Ranch Subdivision. Please clarify the proposed domestic water supply and wastewater treatment method for Stetson Ranch. Depending on the response, it may be necessary to alter some tables and calculations provided in the Water and Sanitary Sewer Master Plan.[12]

B. Comments Arranged by NWCCOG Policy

POLICY 1: Water Quality Protection and Mitigation. Land use and water development shall not significantly degrade the health of the affected watershed(s). Mitigation of adverse impacts to the watershed are the responsibility of the developer.

NWCCOG considers three main categories of information when assessing completeness for Policy 1:

- **Baseline Assessment:** Does the application include adequate baseline data to fully understand the predicted impacts of the development?
- **Impact Assessment:** Is the impact analysis adequate? Is the application silent on any expected impacts?
- **Mitigation and Monitoring:** Does the application identify mitigation for all impacts identified? If not, what impacts are unaddressed or unmitigated? Does the

[9] Stagecoach Mountain Ranch Zone Change Narrative at page 10 and Stagecoach Mountain Ranch Land Preservation Subdivision Stetson Ranch at page 10.
[10] Stagecoach Mountain Ranch Zone Change Narrative at page 8 and Stagecoach Mountain Ranch Special Use Permit Ski Mountain at page 8.
[11] Stagecoach Mountain Ranch Water and Sanitary Sewer Master Plan Table 1 on page 5, Table 4 on page 8, page 24, and .
[12] For example, Table 3 at page 7.

application propose monitoring to evaluate whether mitigation measures are performing as expected?

We have provided initial feedback regarding each category below.

Baseline Assessment

The Application lacks baseline water quality data and characterization of the affected watersheds. For example, what portion of the proposed Project Area drains to Stagecoach Reservoir? Which portion of the proposed Project Area drains to the Yampa River downstream of Stagecoach Reservoir? Will snowmaking occur in both of these watersheds?

The Nutrient Loading Report for Stagecoach Mountain Ranch (Nutrient Loading Report) provides estimates of current nitrogen and phosphorus loading from the MCMWSD WWTF. But it does not provide an estimate of current nonpoint source loading, nor does the report consider nutrient cycling within Stagecoach Reservoir.

Without an analysis of existing nutrient concentrations in Stagecoach Reservoir, it is very difficult to assess the potential benefits of the proposed snowmaking operations. The baseline assessment would be much improved if it included the following:

- A summary of nutrient concentrations in Stagecoach Reservoir including a discussion of seasonal and temporal trends.
- A summary of chlorophyll a concentrations including a discussion of seasonal and temporal trends along with an evaluation of the DUWS standard and recent HAB closures.
- A more thorough discussion of potential causes of existing nutrient loading and algal growth.

Impact Assessment

Generally, the application materials do not fully identify potential impacts attributed to the project. This is particularly apparent in the SWMP and Drainage Study.

The Nutrient Loading Report estimated nitrogen and phosphorus loads from the Project using lower occupancy rates than the Water and Sanitary Sewer Master Plan. Why is that appropriate?

The Nutrient Loading Report assumes that snowmaking will reduce nitrogen and phosphorus loading by 50 percent on an annual basis. While snowmaking operations could reduce nitrogen loading during the winter, there are several unaddressed concerns attributed to increased nutrient loading to Stagecoach Reservoir during the remainder of the year. Please address the following:

- The Nutrient Loading Report estimates that wastewater from the Project will create a nitrogen and phosphorus loads of approximately 68 and 9.84 lbs/day, respectively.[13] Without snowmaking operations, wastewater from the project will increase the

[13] Nutrient Loading Report for Stagecoach Mountain Ranch at pages 4 and 8.

nitrogen and phosphorus loading to Stagecoach Reservoir by roughly 5.4 and 2.5 times, respectively. This increase in loading will occur during the growing season, and may be further exacerbated by nutrient loading from snowmelt during the same period. How will these increased loads affect nutrient and algal concentrations in the Reservoir? Will these increased loads cause more frequent harmful algal blooms (HAB)? Will the HAB be of longer duration?

- The application materials do not effectively consider the fate of snowmelt runoff. What evidence was used to determine that all nitrogen and phosphorus in the effluent used for snowmaking would be retained on site?
- The application materials indicate the applicant is planning for snowmaking 6 months out of the year. What months and how did the applicant develop this estimation? Is this estimate accurate given projected future air temperature increases in future decades? This is particularly important to understand how will snowmaking operations alter the existing nutrient cycling regime in Stagecoach Reservoir.
- The application includes infrastructure to pump water directly from Stagecoach Reservoir. If MCMWSD allows use of treated effluent for snowmaking, how much water from Stagecoach Reservoir is needed? What are the nitrogen and phosphorus concentrations in Stagecoach Reservoir during the snowmaking season?
- The Nutrient Loading Report asserts that "the projected phosphorus load upon implementation of the proposed action would be 9.84± lbs/day, the total reservoir load would increase by approximately 16 percent".[14] This estimate is incorrect as the downstream site used in the calculation includes a significant amount of area downstream of the reservoir (i.e., the calculation overestimates the load "across the reservoir"). Can this calculation be revised to improve accuracy? Is it possible to use data from the Yampa River Below Stagecoach[15]?
- Are new data from MCMWSD WWTF available to characterize nutrient reductions attributed to the recent sequenced batch reactor project?
- If implemented, how will snowmaking operations alter the existing nutrient cycling regime in Stagecoach Reservoir?

Mitigation Measures

The SWMP is identified as a key mitigation measure for this project. However, the SWMP lacks the details necessary to assess the adequacy of the erosion control measures or incorporate key measures into the monitoring plan. For example, detention basins are proposed in the Drainage Study but there is no discussion of how often the detention basins will be inundated and what type of water quality monitoring may be proposed to ensure the basins are achieving predicted results.

Using treated effluent for snowmaking is touted as a water quality mitigation measure throughout the application. However, how will be applicant respond should water quality

[14] Nutrient Loading Report for Stagecoach Mountain Ranch at page 9.
[15] Data from this USGS station is available at https://waterdata.usgs.gov/monitoring-location/09237500/#dataTypeId=continuous-00065-0&period=P7D&showMedian=false

data indicate that snowmaking has caused or is causing negative water quality impacts? What activities could be incorporated into the monitoring and mitigation plan to assure that water quality does not decline?

Monitoring Measures

The Water Quality Management and Monitoring Plan proposes to monitor water quality at five surface water locations and in stormwater and shallow groundwater[16] but the details of such monitoring are unknown at this time.

- What is the rationale for the monitoring locations included in the monitoring plan?
- Is it possible to include a reference location in the monitoring plan? If no, why not?
- For each sample location please report the total watershed area and describe the pre- and post-project land uses (e.g., ski trail with snowmaking, ski trail without snowmaking, residential development, etc.). Update these metrics as development continues. Such information could provide valuable insight when interpreting water quality data.
- Please provide more specifics regarding stormwater and shallow groundwater monitoring. For example, are there detention ponds proposed in high traffic or other areas that may be more prone to pollution?
- The Nutrient Loading Report cites a 2018 USGS study that demonstrates that sediments delivered via snowmelt are a primary source of phosphorus loading to Stagecoach Reservoir,[17] yet the monitoring plan does not describe measures to evaluate erosion in the Project area or to measure the efficacy of various erosion control measures. How can this issue be addressed?
- Relying on data collected during a short pre-project monitoring period may present problems. Did the applicant consider incorporating existing water quality data into the pre-project data set. Why or why not?

  POLICY 4: Water Smart Land Use and Development. Land use and development in the region shall be planned, designed, and conducted in accordance with best practices that further water use efficiency, conservation, and water quality protection or enhancement.

Irrigation Demand. The Water and Sanitary Sewer Master Plan provides estimated irrigation demand.[18] To what extent, if any, does the Project consider water use efficiency, conservation, or water quality protection or enhancement? Did the applicant consider using non-potable water for irrigation in areas where snowmaking and irrigation overlap or are proximal to one another (e.g., the base village, day and mid-mountain lodges)? Use of non-potable water could potentially provide water quality benefits and/or reduce the use of fertilizers.

[16] Water Quality Management and Monitoring Plan at page 2.
[17] Stagecoach Mountain Ranch Nutrient Loading Report at page 12.
[18] Stagecoach Mountain Ranch Water and Sanitary Sewer Master Plan at page 12.

Landscaping and Outdoor Water Use. The Master Declaration of Covenants, Conditions and Restrictions for Stagecoach Mountain Resort is does not consider water smart land use and development principles. How can water smart land use and development principles be incorporated into the Project to better protect water quality and watershed health? If the intent is to incorporate these principles into the Design Guidelines, NWCCOG recommends that the revised application include the Design Guidelines.

Open Space. The proposed Project maintains "approximately 3,285 acres or 75%…. open space."[19] To what extent did the applicant consider water quality protection in designating these open spaces? Does the existing configuration of open space provide protection to springs, seeps, wetlands, and waterbodies? Could the open space configuration be optimized to more fully protect waterbodies in the Project Area?

Wildfire Protection. The map titled Open Space Designation, Dedication and Maintenance Information indicates that "All proposed SMR open space to be owned, managed and maintained by the HOA (see draft CCR's, Appendix I)." The Master Declaration of Covenants, Conditions and Restrictions for Stagecoach Mountain Resort lacks discussion of management and maintenance duties. What commitment, if any, has the HOA made regarding implementation of the wildfire protection plan? Will risk mitigation activities occur prior to or in concert with development of the Project?

> **POLICY 5: Nonproliferation of Wastewater Treatment Facilities (WWTF).** New wastewater treatment facilities will not be developed in the region if existing facilities have the legal and physical capacity or can be expanded or consolidated to provide additional wastewater treatment service.

The application indicates that all but seven residential units in Stetson Ranch will tie into the existing MCMWSD WWTF. The application materials are complete with respect to this policy.

> **POLICY 7: Onsite Wastewater Treatment Systems (OWTS).** No new OWTS should be allowed in the region unless developing or connecting to an existing or consolidated wastewater treatment facility or system is not technically or legally practicable. Where no other alternatives are available, OWTS should be designed, installed, inspected, and maintained to assure effective wastewater treatment and watershed health.

Assuming that the Water and Sanitary Sewer Master Plan is correct and Stetson Ranch will use OWTS, please provide a brief discussion to address Policy 7.

> **POLICY 8: Climate Change.** The assessment of water quality impacts of land use and water development shall take into consideration climate change predictions.

The Conceptual Drainage Study did not consider snowmelt runoff impacts.[20] Please provide additional information regarding the effects of additional snowmelt runoff due to

[19] Stagecoach Mountain Ranch Conceptual Drainage Study at page 4.
[20] Stagecoach Mountain Ranch Conceptual Drainage Study at page 6.

snowmaking, especially given the increased probability of rain-on-snow events and/or more rapid snowmelt in a warmer climate.

The Conceptual Drainage Study indicates that conventional engineering techniques will be used to locate, size, and design culverts and bridges. The application would benefit from an evaluation of the potential impacts attributed to climate change, including the increased probability of fire and post-fire impacts.

While the Wildfire Protection Plan provides quality baseline data regarding fire risk in the Project area, the application is silent on the potential impacts and the monitoring and mitigation measures necessary to protect water quality and watershed health. For example, the Wildfire Protection Plan[21] indicates that 65 percent of the Project's riparian assets are at moderate risk and 15 percent are at high risk of negative impacts from wildfire. What measures can be used to mitigate these negative impacts? How can the Project design further support pre- and post-wildfire resilience, water quality, and the overall sustainability of the Project?

> **POLICY 9: Chemical Management.** The uses of pesticides, fertilizers, algaecides, and other hazardous substances; and road maintenance, including deicing and sanding, shall not degrade water quality or the health of the watershed.

In general, the discussion of chemical management could be improved in the application materials that address the ski area, road maintenance, and stormwater management. For example, will the snow storage pond require the use of algaecide or other chemicals to protect snowmaking infrastructure? If so, what mitigation measures are appropriate? Is the water quality monitoring program designed to identify potential impacts attributed to algaecides and other chemicals?

IV. Conclusion

NWCCOG finds that the applications are not complete and offers recommendations that will allow NWCCOG to review the applications for consistency with the 208 Plan.

[21] Wildfire Protection Plan Appendix at page 56 of 58.