**Taos Ski Valley Gondola and Other Improvements: The Inadequacies in the Current Draft Environmental Assessment and the Critical Need for a Full Environmental Impact Statement.**

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\*Note: the issues addressed below are presented with the general state of human-caused climate change in mind. The Intergovernmental Panel on Climate Change (IPCC) now makes it abundantly clear that humans are the cause for our rapidly changing climate and the cascading effects due to global warming that we are now experiencing on a global basis. It also makes it abundantly clear that we have about a decade to initiate changes on a global scale to transition away from our dependence on fossil fuels, or the already baked in changes that are now occurring, will become much more catastrophic, making life on our planet as we know it unsustainable. In the scenarios the IPCC notes where we do not drastically cut our CO2/CH4 emissions, skiing will no longer be a viable option at TSV. It can be rationalized that halting the proposals to expand and upgrade skier services at TSV will make only a miniscule difference in our efforts to halt the escalating catastrophe. True. However, we all need to add our individual drops to the bucket to slow the flames of the impending disaster that is approaching: Taos Ski Valley and the downstream residents along the Rio Hondo watershed included.

The Carson National Forest (CNF) has extended the comment period for the Draft Environmental Assessment (EA) due to significant pressure from those who will be affected by the various proposed improvements and expansions of the services of the Taos Ski Valley (TSV). The concerns voiced below are notable because they detail the inadequacies in the draft EA. The following specifics point out the all-important need for a full Environmental Impact Statement (EIS).

TSV’s Special Use Permit (SUP) sets parameters for the operations of services, facilities, and infrastructure located within the CNF. This is complicated by the fact that the Village of Taos Ski Valley (VTSV) has property that also provides services, facilities, and infrastructure that are vital to TSV’s operations. The ES makes no mention of this, or how the two entities can coordinate efforts to ensure all facets of the expansion will be done in a way that promotes efficiency, and environmental quality, both short-term and long-term.

The current EA talks in depth about the upgrades to the human recreation “environment” and the natural “environment” in and adjacent to TSV in **Chapter 3** of the EA. Little mention is given to the downstream “environment”. The planet’s ecosystems and the life they support are all interconnected; thus, any environmental assessment needs to take this into account. **Table 1-1** notes the “**Issues Analyzed in Detail**.” Under “**Watershed, Wetlands, and Soils**,” the **Resource Area** section notes the following: “Watershed conditions, stream and riparian health, and surface and ground water quality, quantity, and distribution have the potential to be impacted by the proposed action. Specifically, this includes the potential impacts to the Rio Hondo and downstream areas. Identified wetlands and other waters of the U.S. throughout the project area will also be assessed for temporary and/or permanent effects from construction and implementation of proposed projects”. In relation to the above statement, the issues not adequately addressed, or not addressed at all, in the EA follow below.

**1.3. Public Involvement and Identification of Issues.**

During the initial scoping period beginning on April 7, 2022, a total of “335 comment letters were received. From these comments, 516 substantive comments were extracted and categorized into major themes expressed by the commenters.” Taking individual comments and lumping them into categories is a subjective process. It cannot quantify the amount of concern expressed, nor can it accurately convey the detail presented by those who commented. The process used to decide what comments were deemed “substantive” in the EA needs to be defined. Those 335 comment letters and/or the 516 substantive comments need to be made public, along with the comments that are received during this extended comment period. The people who submitted comments felt that categorizing their input, negated their concerns.

POPULATIONS DIRECTLY IMPACTED BY TSV’S OPERATIONS

**TSV EMPLOYEES. Table 3-1.** TSV Existing Employment details TSV’s employment types. It is somewhat confusing and misleading. Those listed as Winter Season Jobs (525) or Summer Season Jobs (125) are listed as full time, when in fact they are full time only for a part of the year. Only 110 jobs are listed as “Part Time.” How many of the total 825 jobs listed as full time are truly part-time on an annual basis? If this is interpreted at face value, a total of 73% of all jobs are truly part-time according to the table. The long-term average unemployment rate in Taos County is 9.98%. Post pandemic, this rate is currently lower. The EA makes no mention of what happens to those seasonal employees once the ski season or the summer season terminates. Of the 825 total jobs listed as “Full Time” only 175 of the 825 jobs listed appear to be full time if the data and logic presented in the EA are valid. No mention is made of the part time vs. full time employment statistics for the businesses associated with VTSV. A realistic picture of these statistics needs to be presented to the community at large, even if it is outside of the scope of the Forest Service’s scope of operations.

**DOWNSTREAM POPULATIONS. 3.4.1 Environmental justice.** “The small residential communities of Valdez [population 269], Arroyo Hondo [population 230], Arroyo Seco [population 2,311] – located 10 miles southwest of TSV – are a part of the New Mexico Acequia Association (NMAA).” No mention is made of the town of El Prado [population 2,727]. The Los Colonias area has acequia water that originates from the Rio Hondo. In **Chapter 4.2.3. Governments, Agencies, and Organizations Contacted**, the New Mexico Acequia Commission is listed. It facilitates communication between local acequias and local and state governments. No mention is made that the New Mexico Acequia Association was contacted. No mention is made of the direct contacts/meetings that occurred with some of the twelve acequias that feed directly off the Rio Hondo directly downstream from the project. Nor is any mention made that the mutual domestic water associations (MDWA’s) downstream from the proposed projects were contacted. Nor was any effort made to solicit direct input from local private well owners. Having direct input from the acequias, the MDWA’s, and private well owners is vital in assessing the environmental impacts of the proposed TSV expansions in terms of the Rio Hondo watershed. This needs to be better addressed in a full EIS.

Note: many of the meetings/contacts occurred during the Covid epidemic. No doubt, this made good two-way communication difficult at best. Stepping back and revisiting some of this would provide better data and feedback, and it would help to improve community relations between TSV, the USFS, and concerned downstream stakeholders.

DOWNSTREAM ENVIRONMENTAL EFFECTS/CONSEQUENCES NOT DISCUSSED IN THE EA

 The complex web of life created by the Rio Hondo acequias over the last two+ centuries is not mentioned in the EA. Ecosystems have evolved that feature plant and animal species that would not exist without the acequias. The water that feeds those life systems provide green carbon sinks that help to trap and hold CO2 and other greenhouse gasses.

The proposals to add infrastructure to TSV do exactly the opposite: large construction projects require large amounts of carbon-based energy to construct and maintain. Both the construction phase and the long-term operation of each proposed “improvement” adds to TSV’s already large carbon footprint. Note that the TSV “**Gondola and Other Improvements**” as laid out in the EA are all carbon-based, both during construction and throughout their long-term use. The EA makes no mention of this. Collecting data to quantify the amounts of atmospheric carbon and other greenhouse gasses released and measures to help mitigate them, are not mentioned. Having that data provides both TSV and VTSV expanded opportunities to develop proposals to offset their combined carbon footprint.

INCREASED SNOW MAKING CAPACITY &THE INCREASED NEED FOR MORE WATER THROUGHOUT THE PROPOSED EXPANSIONS AND UPGRADES.

This a complex issue. It will be broken down into individual discussions.

**3.1.1. SNOW MAKING**.

“Currently TSV’s snowmaking system can provide coverage on approximately 200 acres of the developed terrain across the SUP area. “ The average 11-week snow making season starts in late October and is finished by late January. … The current snowmaking system has limitations with pump capacity that hinders the timeliness of snow making on the front side of the mountain.” The skier experience is emphasized in this section. No details about the quantity of water needed to make the snow are mentioned. No mention is made of the effects on the diminished water flows, not only to the Rio Hondo, but to the Rio Grande hydrologic system in general. No mention is made regarding the newer, less water intensive snow making equipment now used at TSV. No matter what time of year it is extracted, the water flowing down the Rio Hondo replenishes ground water, feeds private and domestic wells, and water storage behind dams that feed summer irrigation and are used to pay our water debt to Texas and Mexico. Yes, it is withdrawn during the off-season for acequia use, but that does not negate the fact that withdrawing that water diminishes the quantity available to sustain the hydrologic system downstream no matter when it is withdrawn.

**3.1.2 DIRECT AND INDIRECT ENVIRONMENTAL CONSEQUENCES. *Snowmaking*.**

“Under the proposed action, a 5-million-gallon water tank and associated booster station would enhance the TSV’s ability to pump water up the Frontside of the mountain. Water usage from snow making would remain within the current allocations to TSV and would resemble current withdrawal patterns (refer to **Section 3.9 – Watershed, Wetlands, and Soils** for details). This is misleading, as withdrawal patterns are not discussed in **Section 3.9**. It contains “details of the watershed management measures, including applicable laws, regulations, regulations, and policy.” The statement about resembling current withdrawal patterns is in seeming conflict to enhancing the ability to pump water up the Frontside of the mountain. Does this mean that less water will be used for snowmaking in other areas? Withdrawing more water, even if it is within TSV’s current allotment, equates to withdrawing more water. [See **2.1.2** below for further details.] This needs to be clarified. An EIS is needed to fully address this.

The important categories of watershed, wetlands, and soils are discussed within the SUP and immediate high-altitude surrounding surface waters of the Lake Fork Creek and the South Fork of the Rio Hondo. No data regarding the watershed, wetlands, soils, or stream quality of the Rio Hondo ecosystems below those high-altitude areas is presented in the EA. Currently, a

$500, 000 grant is now in place to study the stream quality along the entire length of the Rio Hondo under the supervision of New Mexico State University. Once the data collection begins and it is analyzed, it will be valuable information that should be presented in a full EIS.

No mention is citied in the EA as to how snow is made at TSV. It should be clearly stated that TSV uses no chemicals in snow making. It was an early pioneer in making snow without chemicals. This should be mentioned in a full EIS. No mention is citied in the EA as to what happens to the additional snow to be produced at TSV as it melts. This directly effects all downstream water users along the entire length of the Rio Hondo. No data is cited as to how much of that snow blows away in the area’s notoriously windy spring conditions. That evaporated water does not go back into replenishing the area’s groundwater, nor the surface runoff into the Rio Hondo. Thus, a diminished amount will run off as surface water and will not seep back into underground aquifers.

ENVIRONMENTAL EFFECTS OF PETROCHEMICALS DEPOSITED ON THE SNOW.

No data is presented regarding the increased accumulation of diesel, gasoline, hydraulic fluids, and lubricants from grooming machines, snowmobiles, lift improvements and additions, and new and upgraded food service facilities. No mention is made of the increased amount of ski wax (a “forever chemical”) that will be added to the snow as skiers are able to make more runs down the ski slopes because of the upgraded lifts and the addition of a gondola. An EIS analysis is needed to accurately determine what happens to those added pollutants as the snow melts/evaporates.

TSV’s EXISTING WATER RIGHTS VS THE AMOUNT OF WATER USED

**2.1.2. Water Tank and Booster Station**. “To improve snowmaking operations and provide fire suppression capabilities in the Frontside of the mountain and around Lift 2 specifically, a new booster station, water tank, and additional snowmaking pipe to connect to the proposed booster station to the existing snowmaking system are proposed. It is important to note that these projects would not increase the current water uptake from the Rio Hondo. TSV would continue to hold a diversionary right of 200 acre-feet per year, or 65.2 million gallons of water from the Rio Hondo annually.” This statement is notable for its lack of specifics. Are any wells or springs currently used for snowmaking? Will any other underground sources be used to supply the water tanks or snowmaking? How much more water will be drawn for this additional snowmaking is not discussed.

 “Because these upgrades represent an improvement in the efficiency of the snowmaking system and not an expansion, they would not change the water use of the system or require a change in TSV’s water rights.” Even if TSV’s draw does stay within their diversionary rights, no mention is made of how much more water will be drawn to accomplish having adequate water for the proposed upgrades. Drawing more water for this and not increasing the total draw seemingly requires cutting snowmaking and other water usages in other areas. The water must come from somewhere. This needs to be clarified in a full EIS.

 A related document, Water Rights & Usage FAQ: Taos Ski Valley, INC., states that the transferred water rights priority date back to 1815. No mention is made of where those water rights were transferred from. It is noted that the “the ski resort was not named in the Abeyta Settlement.” This implies that they do not have to share shortages with the downstream acequias and are not bound to follow priority dates in allocating water during those shortages. Many of the acequias have developed a system of sharing during shortages beyond the Abeyta Settlement that has worked well to date. Both TSV and VTSV need to be part of a water sharing agreement, as they have water rights and draw water from high-altitude portions of the Rio Hondo watershed. This attitude of “we don’t have to share” has led to feelings of ill-will among the downstream water users toward TSV and VTSV.

This needs to be further studied, and a system of sharing shortages with TSV/VTSV needs to be developed during critical shortages. This would go a long way toward improving community relations and putting some water back into the river. In a recent past dry year, seeing large sprinklers being used to sprout grass on areas disturbed by TSV/VTSV construction angered acequia water users who did not have enough water for irrigating crops.

**2.1.2. Updated Guest Service Facilities.**

***Lift 7 Restaurant*.**

“A restaurant near the top of Lift 7 is proposed to provide additional on-mountain food service space. … Water and sanitary uses would be provided via a proposed well located adjacent to the proposed Lift 7 restaurant, within the disturbance envelope of the proposed facility. Should it be determined that the proposed well is not viable, water and sewer would be provided from either trenching pipelines within the existing ski trails and access roads or manually hauling these utilities in and out. In the later configuration, sewage would be held in a Forest Service compliant remote septic system that would be contained within the broader disturbance footprint of the restaurant.” This proposal is notable for lack of vital data. The amount of water needed to make the 7,000 square foot facility functional in terms of water use is not discussed. Nor are the impacts considered of the well itself, including its disturbances on groundwater resources, and impacts on surface springs, seeps and streams, and wildlife that depend on that water. Whether drilling a new well is within TSV’s current diversionary rights needs to be detailed in an EIS. No mention is made of upgrading existing food service facilities, such as the facility at the base of lift 4 or the existing facility at the TSV base area. A full EIS needs to list a “no option” for this proposal, or the best-case scenario would be to remove it from the list of “improvements.”

***Whistlestop Café Replacement and Relocation.***

“The replacement and relocation of the of the Whistlestop Café would increase its size (from 1,900 square feet to approximately 4,000 square feet), restaurant offerings, and quantity of bathrooms.” If the existing septic and well systems are “not sufficient” for more than doubling the size and capacity of the new structure, data will need to come from a full assessment in an EIS. As this involves new construction, all the concerns voiced above under ***Lift 7 Restaurant*** are relevant for the Whistlestop café, as well, and need to be detailed in an EIS.

No mention is made in the EA as to how much total water is currently being used under the 200 acre-feet of diversionary rights. Nor is any mention made of any violations to that draw. These are important factors in determining how much more water can be drawn for the proposed projects mentioned in the EA. In an EIS, both the short-term construction needs, and long-term water usage and sewage disposal needs to be detailed.

**2.1.1. NORDIC AND SNOWSHOE TRAILS**. A snowshoe and Nordic trail area would be developed at the northern end of TSV’s SUP area. … TSV would install approximately 3 miles of Nordic trails.” The terrain is north facing, so it will hold snow. However, it is relatively steep. Quality Nordic skiing requires varied terrain with gently sloped terrain for beginners and steeper areas for more advanced skiing. The small 30-acre trail system will require significant cut and fill grading horizontal to the slope to accommodate beginning and intermediate skiers. Add to that the infrastructure needed to sustain a Nordic ski area. The view shed for this is directly toward the maintenance facilities and the sewage treatment plant. The negative aspects of creating a small mediocre Nordic recreation area far outweigh any benefits derived from its creation.

A snowshoe trail system seems to be a more viable alternative. It is much less environmentally intrusive as it will require a small fraction of grading to create. It will require much less infrastructure to service it. Again, the viewshed is toward the maintenance facilities and the sewage treatment plant. To cram both a Nordic Ski area and a snowshoe trail system onto 30 acres does not equate to anything that resembles a quality outdoor experience. Neither option presents the customers with the sort of quality outdoor experience that TSV prides itself on offering. A full EIS needs to list a “no option” for this proposal, or the best-case scenario would be to remove it from the list of “improvements.”

INCREASED ENERGY USAGE

No mention is made in the EA as to the increased amount of electricity, natural gas, diesel, various lubricants, hydraulic fluid, and propane, and other carbon-based chemicals will be needed to construct and maintain the proposed upgrades. Increased fossil fuel use effects the environment in numerous ways, both within the SUP and in the environment in general. An analysis of this needs to be included in an EIS.

CONCLUSION

The Taos Ski Valley and the Village of Taos Ski Valley (with its associated retail shops, lodges, restaurants, and private residences) sits in a relatively closed in, steep walled, alpine valley. These enterprises are located where rivulets and streams come together to become the Rio Hondo. The Rio Hondo is one of the highest watersheds in New Mexico; thus, it is an abundant source of water. It nourishes the greater Rio Grande watershed. The terrain, the altitude, and the often-bountiful winter moisture make TSV an ideal place for downhill skiing in the Southern Rockies.

 That steep, closed-in, unstable terrain also limits the amount of land available for commercial expansion and recreation. It creates a situation where development becomes difficult and costly. The current EA is generally limited to the area that is under the purview of the USFS. This is understandable, as this is the area that they have some regulatory control over. Unfortunately, the current existing situation is an intertwined mix of public and private land with different rules and regulations for governing how the land is used and/or developed. As the original small lodges and restaurants are being replaced with large multi-story structures with increased lodging, restaurants, retail spaces and condominiums, the need is created for expanded recreation opportunities. And as the infrastructure is put in place for expanded recreation, the opportunity and need for expanded guest facilities is incentivized. When does this feedback loop reach the limits of sustainability? Or has it reached its limits already?

 It is a well-documented scientific fact that areas in high altitudes experience higher rates of warming due to climate change. The snowpack season becomes shorter… longer falls and springs and shorter winters. This equates to more exposed ground. Snow reflects sunlight and bare ground absorbs sunlight, transforming it to heat. And more heat equates to less snow cover, and less snow cover equates to more exposed ground. This is one example of what is known as a “negative feedback loop.” Studying the current effects of this at TSV is a vital component that needs to be added to a full EIS.

 The overall carbon footprint of TSV/VTSV is large. Guests and employees travel to get to recreation and work. Increasing amounts of electricity and vehicle usage will be needed to feed the growing infrastructure. More water will be needed to sustain the growth. Larger amounts of sewage will need to be treated. More greenhouse gasses will be released into the atmosphere under the current plan. How can TSV/VTSV mutually reach “carbon neutral” to be environmentally sustainable? Creative steps are already being taken to reach carbon neutral at TSV. TSV has the personnel with the knowledge and desire to do much more for the environment. Other stakeholders have the same knowledge and desire. Having a full EIS will give everyone a sound base of scientific knowledge to move TSV/VTSV toward carbon neutral sustainability.

 It can and will be argued that the USFS can control only the land under their jurisdiction. It can and will be argued that TSV can control only the land under their jurisdiction. It can and will be argued that VTSV can control the growth under their jurisdiction. It can and will be argued that those downstream stakeholders have already been negatively impacted by the upstream development and will be further negatively impacted by the proposed expansion. Without bold immediate and creative collaboration among all the stakeholders to create sustainability, the environmental situation will deteriorate over time.

With the increased awareness of the proposed developments, we have a golden opportunity take a deep breath, step back, and develop something much better for humanity and the environment. There is talk in the downstream community of placing a moratorium on any development until all the factors, including the needs of TSV/VTSV, the needs of the downstream water environment, and the needs of all water users, can be looked at and addressed in relation to the constrictions of available terrain and the rapidly accelerating effects of global warming. Is this a good first step? More thorough research and planning needs to be done before proceeding with any aspects of expansion. That expansion must be done in a way that enhances downstream water quality and quantity. Possible offsets to TSV’s/TVSV’s carbon footprint need to be factored in. Plans for expansion need to address all of the above more thoroughly. Having a full EIS is one good step in this direction.