

To: Hermosa Sanitation District
Re: Village Camp Plan Review
From: Mountain Civil Consulting, LLC
Re: Village Camp Land Use Application
HSD Wastewater Review
Date: 2/6/24

Plans Reviewed:

- Village Camp Durango Preliminary Construction Plans, SEH (8/4/23)
- Village Camp Durango Narrative, SEH (8/3/23)
- Village Camp Lift Station Basis of Design, SEH (8/4/23)
- Site Application Lift Station (SEH)

Review Comments:

1. General

- a. The Village Camp site plan proposes the construction of 277 RV and Park Model sites, a bath house and club house.
- b. The various types of Park Models can sleep anywhere between 4 and 7 people which has an impact on volume of wastewater produced. Please provide a detailed breakdown of how many of each unit type are proposed.

Only RV sites are proposed.

- c. Impact fees will be calculated per HSD will serve letter.
- d. The plan proposed 8-10 full-time employees including housekeeping staff, this is not addressed in the Lift Station Basis of Design Report. The Lift Station Basis of Design Report does not distinguish between RV Spaces and Park Models, see comment b. above.

Per comment 3a, we are revising design to accommodate a gravity sewer system, so the BDR will no longer be a design document. We have provided a brief memo outlining in more detail site effluent in quantity and quality.

- e. What is the plan for housekeeping of rental park model units? Where will laundry for rental cabins be managed? Per the HSD Will Serve letter park model units will be considered equivalent to a motel room with kitchenette and non-public onsite laundry. **Housekeeping laundry services will be performed off site. There are no rental cabins.**
- f. Please provide floor plan for bath house and club house. Where are the proposed coin operated laundry units?

Bath house and club house design is included in this submittal (not a civil item). Current design approach was based on HSD guidance given 4/11/2023 to neglect site amenities, as their impacts would be accounted for in the “per capita” approach for the overall site with the RV sites and Park Models. Our sewer memo outlines the additional projected impacts of site amenities, as well as comparing to historical data as a reference point to the sufficiency of the current approach and tap commitment letter.

- g. All proposed Village Camp sewer infrastructure shall be privately owned and maintained.
- h. Point of connection to HSD shall be upstream of manhole above the HSD Manhole above Spiral Rack removal station as discussed at site meeting with HSD, SEH, and Village Camp. The plans do not reflect this requirement.

The tie-in is shown and will require field coordination with the space constraints in the area.

- i. Wastewater delivered to HSD shall meet HSD influent standards. BOD = 250 mg/l, TSS = 200 mg/l, PH between 6 and 8. Pretreatment may be required but is not addressed in the Village Camp sewer system design. Provide a design report with detailed calculations for Village Camp wastewater strength and volumes based on ALL proposed wastewater producing uses (RV Spaces, Park Models, laundry machines, non-public laundry, clubhouse, bathhouse, etc..).

Please see Sewer Memo.

2. Collection

- a. Typical groundwater depths in the Animas Valley are 6'-8'. There are portions of the sewer main system that are very deep and will likely be well below the groundwater table which could create Inflow and Infiltration issues. The Geotech report shows groundwater depths in a few borings, but not all which is surprising. Provide groundwater depths on all sewer improvement plans.

Groundwater depth estimations will be added to sewer p-pros, and flood resilient infrastructure will be called for. As the geotechnical report describes the nature and limits of groundwater observation, and since the site has significant variations from native grade, we have not shown this. Dewatering during construction will need to be accounted for, and site infrastructure will be sealed and gasketed, manholes will be sealed and coated with locking lids.

- b. See comments below related to the elevations of the proposed wet well, vault, and sewer main collection system.

3. Lift Station **Lift Station no longer proposed**

- a. The HSD system has very few lift stations, in fact 3 total, and none within the proximity of the proposed Village Camp lift station to the HSD WWTP. The southern end of Dalton Ranch, which is just west of the proposed Village Camp is served by gravity sewer. HSD would prefer to see a plan that provides a gravity sewer connection and is of the opinion that such a solution exists.
- b. The Point of connection of Village Camp service to HSD collection system shall be to main west of the manhole above the HSD WWTP headworks. Village Camp shall be responsible for all wetland permitting and easements required for the sewer service line through private property.
- c. Lift station and vault are proposed at a depth 10' below typical level of Animas River and in the floodplain. The Site location Application indicates the lift station is not in the flood plain? The wet well and vault may actually need to be much deeper to work, see following comment.
- d. The wet well and vault are generally proposed at the same grade of the incoming sewer pipe. See sheet 45 in the civil plans. How will this work? There is no valve to keep the sewer main system from surcharging to the vault or wet well sewage elevation. Assuming wet well would typically be full then pumped, the sewage would sit at an elevation of 6560 throughout the collection system? Check the Vault elevation callouts.
- e. All associated permits for the lift station are the responsibility of Village Camp. Again, constructing the sewer lift station and main system at proposed depths creates concerns with groundwater and they may need to be even deeper to work.
- f. The Site Location Application – Lift Station form does not provide accurate information related to Receiving Treatment Entity which is HSD nor any signatures or approvals from review agencies.