



Documents Related to 3.201 [Source Water]

- 1..... Description of Efficient Water Use
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- 3..... Description of Water to Be Used by the Project
- 4.....Water Rights

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1. Description of Efficient Water Use:

- a) *Description of efficient water use, recycling and reuse technology the Project intends to use. Such description shall include estimated stream transit losses of water, reservoir evaporation losses, and power and energy requirements of the Project and alternatives to the Project.*

The following alternatives were considered for water and wastewater service for the proposed development:

1. Annexation into City of Colorado Springs – not feasible given the requirement that properties to be annexed into the City must be within 3 miles of the existing city limit.
2. Wastewater treatment provided by WHMD – DR Horton has a draft agreement with WHMD for wastewater treatment and have continued to pursue this option as a viable alternative. This is the preferred option. The draft agreement is included in Exhibit AA.
3. Wastewater treatment provided by CMD – The District has obtained an IGA with CMD for wastewater treatment and have continued to pursue this option as a viable alternative.
4. Wastewater conveyance provided by MSMD – The District has had discussions with MSMD regarding purchasing capacity in MSMD’s lift station, force main, and the CMD WRF.
5. GRMD has had discussions with MSMD and WHMD regarding serving water but has not been able to reach an agreement at this point. Discussions regarding water service or interconnections may be revisited in the future.

The Arapahoe and Laramie Fox Hills water rights for this project are non-tributary and therefore 98% may be used to extinction with 2% reserved for post pumping depletions. Wastewater treatment will be provided by Cherokee Metropolitan District (CMD) or WHMD as described in Section 2.303 page 7. CMD currently has a replacement plan filed with the State. Once approved, treated effluent from the CMD wastewater treatment plant can be removed from the Upper Black Squirrel Groundwater Basin making the water available for use. The IGA between CMD and GRMD allows for GRMD to use replacement plan water. WHMD does not currently re-use water, however the draft agreement between DR Horton and WHMD allows for potential re-use in the future.

The project does not include any open-air storage or conveyance so transit water loss and evaporative losses will not occur.

The power requirements for the water system are anticipated to be as follows:

1. Water treatment facilities – Approximately 50 HP per treatment facility.

2. Booster pump stations – Approximately 75-150 HP. This is dependent on actual fire flow requirements which will be determined once maximum building square footage is known.
3. Well Sites – Approximately 150 HP per LFH well and 50 HP per Arapahoe well.
4. Tank sites – Power requirements are for mixing, approximately 10 HP per tank.

Exhibit C shows the proposed locations of the water infrastructure.

2. Map and Description of Water Projects and Providers:

- a) *Map and description of other municipal and industrial water projects and providers in the vicinity of the Project, including their capacity and existing service levels, location of intake and discharge points, service fees and rates, debt structure and service plan boundaries and reasons for and against hooking on to those facilities.*

Potential future interconnections may be made with neighboring districts to foster conjunctive use and better accommodate water supply emergencies. Possible water connections to other districts could be in the form of full interconnectivity (water flowing both directions, all the time) or in the form of an emergency connection (normally closed, only opened to flow one way during an emergency). Exhibit FF shows significant adjacent water and wastewater infrastructure that was publicly available.

As with neighboring districts, Grandview will likely implement tiered water rates to help reduce water usage. In addition, multiple stages of water restrictions can be implemented during drought years and when infrastructure repairs are required (i.e., well pumps need to be replaced in the middle of the summer). Exhibit C provides more information about proposed Water infrastructure plans. Exhibit A provides a Vicinity Map and Exhibit E provides a Surrounding Metro District Map to give a greater understanding of the project in relation to the surrounding infrastructure.

3. Description of Water to Be Used by the Project:

- a) *Description of the water to be used by the Project and to the extent identified by the Director in consultation with the applicant, alternatives, including: the source, amount, the quality of such water; the applicant's right to use the water, including adjudicated decrees or determinations and any substitute water supply plans, and applications for decrees or determinations; proposed points of diversion and changes in the points of diversion; the existing uses of the water; adequate proof that adequate water resources have been or can and will be committed to and retained for the Project, and that applicant can and will supply the Project with water of adequate quality, quantity, and dependability; and approval by the respective Designated Ground Water Management District if applicable. If an augmentation or replacement plan for the Project has been decreed or determined or an application for such plan has been filed in the court or with the Ground Water Commission, the applicant must submit a copy of that plan or application.*

The project will use water from Determinations 510-BD and 511-BD. GRMD currently owns 140,000 acre-ft of Arapahoe water under 511-BD and 131,250 acre-ft of LFH water under 510-BD. Both determinations allow for municipal use by GRMD. The Water Resource Report (Exhibit BB) contains additional information and details regarding water supply. The Determinations are included in Exhibit T.

4. Loss of Agricultural Productivity:

- a) *Information on any agricultural water rights in the region converted to provide water for the Project, now or in the future.*

No agricultural water rights were converted to provide water for the Project. Grandview Reserve Metropolitan District is a new water district and utilization will be 100% for residential, commercial, and institutional use. The water rights to be used for the project have not previously been used for agricultural purposes.

- b) *Information on the amount of irrigated agricultural lands taken out of production, and a description of revegetation plans.*

The project area does not contain any land that was previously irrigated for agriculture. Previous agricultural uses include grazing of non-irrigated pasture land. As such, no irrigated agricultural lands will be taken out of production for this project.

- c) *Economic consequences of any loss of irrigated agriculture, including loss of tax base, in the region.*

There is no loss of irrigated agriculture due to this project since the proposed project area has not been used for irrigated agriculture.

- d) *Information as to loss of wildlife habitat, loss of topsoil, or noxious weed invasion, as a result of the transfer of water rights and subsequent dry-up of lands.*

The proposed project will not utilize alluvial water and therefore the project will not contribute to the “dry-up of lands”. The water to support the project will come from the Laramie Fox Hills and the Arapahoe aquifers which are both classified as non-tributary. Because they are non-tributary, any reduction in water levels in those aquifers will have no effect on the ground conditions.

- e) *Information on impacts to agricultural head gates and water delivery systems.*

No agricultural head gates and water delivery systems existing in the project area and therefore the project will have no impact on these systems.