

Elephant Rock Villas Subdivision

Palmer Lake, Colorado

WATER RESOURCES REPORT

January 9, 2023

Prepared By:



13511 Northgate Estates Dr., Ste. 250, Colorado Springs, Colorado 80921

Executive Summary:

Water Resources Report – Elephant Rock Villas Subdivision

Chris D. Cummins of Monson, Cummins, Shohet & Farr, LLC, on behalf of the Applicant, Dorman Properties, LLC, a Colorado limited liability company and Montebello 2205, LLC, a Colorado limited liability company (collectively “Owner”), provides the following Water Resources/Wastewater Report in support of the Elephant Rock Villas Subdivision in the Town of Palmer Lake, Colorado. The undersigned has been practicing law for over nineteen (19) years, and has substantial experience with water and water rights, specifically including Denver Basin groundwater resources, augmentation plans, designated basin replacement plans, subdivision proceedings, and water usage, and therefore should be considered a “qualified professional” as concerns water resources, as discussed at Section 8.4.7(B)(1)(c) of the El Paso County Land Development Code, or the corollary section of the Palmer Lake Land Development Code, if any. This Report, prepared in conjunction with other professionals, is intended to demonstrate for the Town of Palmer Lake Planning Commission and the Board of Trustees, water sufficiency in terms of quantity and dependability, including the water rights and resources proposed to be utilized by the proposed Elephant Rock Villas Subdivision (the “Subdivision”), within the boundary of the Town of Palmer Lake.

The Owner proposes PUD zoning and approval of a Master Plan by the Town of Palmer Lake for the Property that would allow the development of duplex and triplex buildings for a total of approximately 57 single family attached residential units. As described in further detail herein, Owner proposes each of the residential units within the Subdivision to be provided water through the Town of Palmer Lake’s central municipal water system¹, and sewer services through the Palmer Lake Sanitation District’s central wastewater system.

The Subject Property upon which the Subdivision is proposed consists of approximately 13 acres located on the northeastern side of Colorado Highway 105, just to the east of the Recovery Village, in Palmer Lake, CO 80133. The Subdivision property is located in the portions of the NE¹/₄ NW¹/₄, NW¹/₄ NE¹/₄ and SW¹/₄ NE¹/₄ of Section 9, Township 11 South, Range 67 West of the 6th P.M, as depicted on the attached **Exhibit A** location map. The Subject Property is Lot 2 of Filing 2 for the Rancho Iracema Subdivision, which was a re-plat of Lot 4 of the original Rancho Iracema Subdivision Filing 1. The remainder of the original Lot 4, now Lot 1 of Filing 2, constitutes the Recovery Village, which along with the adjacent Mission Training Center, shares a not-nontributary Denver aquifer well as contemplated in the original

¹ The Subdivision Property, while previously annexed into the Town of Palmer Lake and subject to the Town’s taxation and land use planning, is currently outside of the area described in Emergency Ordinance 2018-16 as having central water service available. Owner asserts that this ordinance should be rescinded or amended in light of existing supplies and circumstances, as described in this report. In the alternative, Owner proposes a satellite nontributary Arapahoe aquifer well to be constructed in cooperation with the Town of Palmer Lake for eventual integration into the Town of Palmer Lake’s municipal water system.

subdivision approval (Colorado Division of Water Resources Permit No. 054533), subject to a water use agreement with the Town of Palmer Lake. However, said agreement with the Town limits the use of this Denver aquifer well (an “additional” well to the Town’s D2, D-3 and D-4, augmented by the decree in Case Nos. 86CW108 and 87CW68) to only “commercial” uses, which is inconsistent with the proposed residential development within the Subdivision. Further, said Denver aquifer well physically produces at rates insufficient for provision of water service to the proposed 57 single family attached dwellings within the Subdivision. As such, the originally anticipated source of water for this previously annexed and platted property is infeasible for the proposed Subdivision.

It is expected that each of the single-family attached residential units within the Subdivision will require a maximum of 0.25 annual acre-feet of water supply, for a total of 14.25 annual acre-feet of demand when all five (5) phases of development are completed. Such water supply demand is consistent with historical demand of similar attached residential dwelling units, as well as standard demand calculations for nearby municipalities and special districts. Owner proposes such supply to be provided through the Town of Palmer Lake’s municipal water system, with infrastructure to be constructed by Owner to facilitate such connection. In the alternative, Owner proposes a satellite well to the nontributary Arapahoe aquifer be constructed by Owner on the Subject Property, to eventually become an additional source of supply to the Town’s municipal system. The use of the Palmer Lake Sanitation District for wastewater treatment will, as with other similarly situated residential lots within the Town of Palmer Lake, result in re-usable effluent consistent with the terms and conditions of the Town of Palmer Lake’s decreed plans for augmentation in Case No(s). 86CW108, 87CW68, and 87CW069. Whether directly through the Town of Palmer Lake’s central system, or via a satellite system, there is a demonstrated sufficient quantity and reliability of water to support compliance with applicable Town of Palmer Lake ordinances, rules and policies, for subdivisions of this nature.

I. INTRODUCTION

The purpose of this report is to provide a preliminary outline of the water resources, and associated wastewater requirements, necessary for approval of the Subdivision, as proposed by Owner.

1.1 New Development Description: The Subject Property for the proposed Subdivision consists of approximately 13 acres located on the northeastern side of Colorado Highway 105, just to the east of the Palmer Lake Recovery Village, in Palmer Lake, Colorado 80133, in the portions of the NE $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$, and SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 9, Township 11 South, Range 67 West of the 6th P.M, as depicted on the attached **Exhibit A**. The Subject Property is Lot 2 of Filing 2 of the Rancho Iracema Subdivision, annexed into the Town of Palmer Lake and platted for commercial development by the predecessor to Recovery Village. If the proposed PUD and Master Plan are approved, the Property will be developed into 25 buildings with a total of 57 single family attached residential units, in a mixture of duplexes and triplexes. **Exhibit B**, attached hereto, is the draft Sketch/PUD plan for the Subdivision as proposed, prepared by NES.

II. PROJECTION OF WATER NEEDS

2.1 Analysis of Water Demands: It is proposed that the 57 single family attached residential units in the Subdivision will utilize central water service provided by the Town of Palmer Lake, subject to amendment or rescission of Emergency Ordinance 2018-16, which excluded certain areas of the Town of Palmer Lake from receiving central water services, discussed in greater detail below. In the alternative, Owner proposes to drill a nontributary Arapahoe aquifer well of sufficient production capacity to, at a minimum, serve the 57 semi-attached residential units within the Subdivision, with said well to be owned and operated by the Town of Palmer Lake (avoiding private ownership/operation of a public water system). These alternatives are described in greater detail below. Uses of water within the Subdivision are anticipated to include in-house, limited landscape irrigation surrounding the dwellings, watering of domestic animals, and commercial/home office uses. It is anticipated that the residences on each lot will utilize up to 0.25 acre-feet annually, for a maximum total of 14.25 annual acre feet of water. Each residence will be presumed to utilize 0.20 acre-feet of water for in-house residential purposes, with the remaining 0.05 acre-feet available for other uses. These represent conservative estimates for demand, in light of (a) reduced consumption associated with attached/townhome types of construction (as opposed to a detached single-family dwelling); and (b) GMS analysis data calculates per-water tap demand within the Town, based upon metered deliveries, to be approximately 0.15 acre feet per tap annually, including detached single-family residences throughout the Town of Palmer Lake.

III. PROPOSED WATER ALTERNATIVES

3.1 Preferred Alternative No. 1 – Town of Palmer Lake Central Service: The Subject Property was previously annexed into the Town of Palmer Lake, and it would be the Owner's preference to extend infrastructure as necessary to utilize water supplies delivered through the Town of Palmer Lake municipal water system for provision of water service to the 57 single family attached residential units within the Subdivision. All such infrastructure would be installed by Owner to the Town's specifications at Owner's expense, subject to the Town's inspection and approval, and Owner's warranty of the same consistent with applicable Town code.

3.1.1. Town Water Rights/Resources. As documented by the Town of Palmer Lake's engineering consultants at GMS, Inc. Consulting Engineers ("GMS"), the Town has a number of water resources available for provision of service to its customers, including senior surface water rights, augmented junior/return flow water rights, Denver Basin groundwater rights, and appropriative rights of exchange of re-usable components of each. The Town through an "implied consent" ordinance in 1985 claimed ownership of and appropriated all Denver Basin groundwater underlying land previously annexed into the Town, including the Subject Property. The Town in Case No. 86CW108, Water Division No. 2, subsequently obtained decreed rights to the use of the Denver, Arapahoe and Laramie-Fox Hills aquifers underlying such "implied consent" area, including the Subject Property.

To date, the Town has been unable to utilize the bulk of its significant Denver Basin

groundwater portfolio, having only a single Denver aquifer well, and a single Arapahoe aquifer well by which it may pump its entitlements. The Town's Denver aquifer well was recently redrilled, and a plan is being developed by GMS to allow the Town to meet its forecasted water demand at build out of approximately 3,670 residents (1,659 residential water taps), primarily through construction in the near term of an additional Arapahoe aquifer well. GMS estimates, based upon a 2020 Water Resources Study, that the Town has sufficient legal and physical water supplies at present to serve 1,145 taps, while the Town currently serves 1,015, leaving approximately 130 water taps currently unutilized and available for sale to developing properties. The undersigned has not, in the interests of consistency and efficiency, completed an independent analysis of the Town's available water supplies, but rather depends upon the findings and conclusions of GMS, which the undersigned finds to be reasonable.

3.1.2. Town Infrastructure/Improvements. As introduced above, GMS provided a plan for the Town to expand its physical and legal water supplies to ensure adequate ability to serve the entire Town of Palmer Lake at buildout. Much of this additional water/infrastructure is anticipated to be from development of the Town's substantial Denver Basin groundwater rights portfolio, which GMS calculates to have a potential yield of 3,539.3 annual acre feet, of which the Town is currently able to access approximately 743 acre feet annually. GMS has proposed three priorities of improvements, with the first priority being that the Town initially focus its system improvement efforts on an additional Arapahoe aquifer well, groundwater treatment improvements, and repair/improvement of the existing distribution system; the second priority being construction of a looped water system; and a final priority being conversion of properties on private wells to the Town's central system. It is important to note that these priorities concern not only timing of immediately necessary infrastructure, but also timing of improvements to allow for sources of funding to be developed by the Town, since such expenditures are anticipated to come from Town revenues. The infrastructure costs associated with the proposed Subdivision described herein are not anticipated to be completed with the Town's financing, but rather will be funded by the Owner, allowing acceleration of the infrastructure necessary for all of the Town's recommended improvement priorities. GMS estimates completion of the "priority one" projects in second quarter of 2024.

3.1.3. Subdivision Phasing. While GMS' opinion as to the availability of up to 130 water taps currently provides immediately available taps in excess of that required for the 57 single family attached residential units within the Subdivision, it is the Owner's intention to phase the development of the Subdivision over the course of several years, allowing the Town's water system improvement efforts to proceed and available water supplies to be expanded during the development of the Subdivision property, ensuring that only a small portion of the currently available taps would need to be allocated to Phase 1 and (possibly Phase 2) of the Subdivision. Owner proposes a Phase 1 development of approximately fourteen (14) units in seven (7) buildings to be completed between 2024 and 2026; Phase 2 development of approximately eleven (11) units in four (4) buildings to be completed between 2026 and 2029; Phase 3 development of approximately sixteen (16) units in eight (8) buildings to be completed between 2029 and 2031; Phase 4 comprised of approximately twelve (12) units in four (4) buildings to be completed between 2031 and 2034; and, if topography permits, development of Phase 5

consisting of 4 units in 2 buildings to be completed between 2034-2037. As such, Owner's current requirement for municipal water taps is limited to no less than 14 taps and no greater than 25 taps, and assuming GMS's "priority one" Town infrastructure improvements described above are completed on schedule in 2024, the Town will have additional water resources available for Phases 2, 3, 4 and possibly 5 in 2026 and beyond. Owner is willing to accept a plat note on Town planning documents conditioning Phases 2, 3, 4 and 5 upon availability of municipal water supply on this basis.

3.1.4. Ordinance 2018-16. In 2017, the Town retained a water resource consultant, TetraTech, to complete a study of available water supplies in light of ongoing drought and Denver Basin infrastructure issues. TetraTech provided an estimate of available taps based solely upon renewable/surface water supplies, and such renewable surface supplies remaining in priority. TetraTech's study conservatively opined that only 1,060 taps could be safely served by the Town of Palmer Lake's municipal system, less were the Town's senior water rights to be out of priority, as somewhat regularly occurs. In response, the Town enacted Emergency Ordinance 2018-16, a copy of which is attached as **Exhibit C**, which amongst other things purported to limit the availability of water taps, if any, to properties located within a specific "water supply system" area and prohibited expansion of infrastructure beyond such area. The Subdivision property is not currently located within said Water Supply System area. However, there have been material changes in the Town's understanding of its water resources, and the availability of those resources since Emergency Ordinance 2018-16 was enacted, and these changed circumstances justify rescission or amendment of said Ordinance.

Since the passage of Emergency Ordinance 2018-16, the Town engaged GMS to provide an extensive inventory of both infrastructure and water resources available to the Town, including as described in GMS' 2020 water supply summary and the most recent GMS report as discussed herein, and a plan to enhance such resources to support future growth. Further, the Town has re-drilled its Denver aquifer well, and is no longer nearly entirely dependent upon in-priority surface diversions as a reliable source of water supply, the assumption which formed the basis of the 2017 TetraTech Report and the subsequent 2018-16 Emergency Ordinance. Owner asserts that, with these changed circumstances and system improvements, the emergency no longer exists that was used as a basis for the passage of the 2018-16 Emergency Ordinance. GMS has opined that the Town has currently available 130 water taps, whereas Phase 1 of the proposed Subdivision would require only 14 such water taps, with subsequent phases being completed in parallel to Town system/supply improvements.

Owner asserts that application of Emergency Ordinance 2018-16, as written, results in equal protection issues, arbitrarily providing rights and entitlements to certain taxpayers and citizens of the Town, while denying such rights and entitlements to others. With Town water infrastructure currently located within approximately 750 feet of the Subject Property, there is no valid reason to allow landowners within the "Water Supply System" area to connect to Town infrastructure and purchase available taps, while denying this Owner the same entitlement.

Owner therefore requests, based upon changed circumstances, system improvements, and equity and fairness to all citizens of the Town of Palmer Lake, that

Ordinance 2018-16 be repealed or amended to allow for additional infrastructure, constructed at developer's expense, to be installed outside of the current Water Supply System area as described in Ordinance 2018-16, and for water taps to be made available for purchase for the owners of such properties, specifically the Subject Property, subject to appropriate development approvals.

3.2 Alternative No. 2 – Satellite Central Well Water Service. Should the Town determine that, despite changed circumstances and potential equal protection issues, Owner should not be provided access to available taps or central service that is available to other annexed properties, Owner proposes construction of an Arapahoe aquifer well on the Subdivision property to access nontributary groundwater available to the Town, along with requisite treatment and distribution facilities, for provision of service to the 57 single family attached dwelling units within the Subdivision, which will eventually be integrated into the Town's municipal water system. To the extent funded in whole or in part by the Owner, Owner desires to include cost recovery provisions for such satellite central service infrastructure if implemented, so that when the Subdivision is incorporated into the Town's primary central water system, Owner may be compensated for additional users served thereby. Ownership of such Arapahoe Well, and treatment and distribution facilities, would be by the Town of Palmer Lake, and the Town would be responsible for the operation and maintenance of the Arapahoe Well and associated infrastructure once constructed and in service, with Owner responsible for all construction costs. The Town has the legal right to construct such a nontributary Arapahoe aquifer well pursuant to current court approvals, without additional legal action required.

IV. WASTEWATER TREATMENT – The Subdivision property is currently included within the Palmer Lake Sanitation District, and Owner will work with the District for the engineering and design of wastewater infrastructure for connection thereto, and the costs and expenses thereof.

Respectfully submitted this 9th day of January, 2023.

MONSON, CUMMINS, SHOHET & FARR, LLC

/s/ Chris D. Cummins

Chris D. Cummins

Exhibits:

- A – Area Map of Subject Property
- B – Proposed PUD Plat of Subject Property
- C – Emergency Ordinance 2018-16