

## **Response to Letter 1 from Joshua Hart, Mark Hammer, and Nolan Lehahan of HDR**

**Response to comment 1-1:** This comment states that the purpose of the report is to “present policies and implementation measures for providing the infrastructure needs to accommodate development within the County through year 2025.” The commenter excerpted the purpose of the Community Infrastructure and Services Element from the second sentence in the Executive Summary. Whereas, the purpose of the Community Infrastructure and Services Technical Report is contained in the first sentence of the Executive Summary, which states that “(t)he purpose of this report is to serve as a basis for the development of the Community Infrastructure and Services Element.”

The commenter states that it is “unclear what populations are to be served in 2025.” Section 1.3.2 describes projected Countywide population and housing growth between 2000 and 2025, based on information from the Department of Finance (DOF). This report presents past and present population and housing data for each Urban Study Area (USA) in Table 1-5 and buildout development potential in Table 1-6. This report does not project population for each USA. This Technical Report generally projected build out of land, in terms of total housing units, within study areas using the current General Plan and a higher density plan alternative. In order to compare buildout capacity to the General Plan planning period, this Technical Report used a population growth rate range (high 2.5 % annual low 0.5 % annual) to account for the fact that different areas of the County do, and are expected to continue to, grow at different rates. Given the broad Countywide context of the Technical Report, and the different factors that affect development in the county, this is an appropriate approach to characterizing future growth in a background report.

Potential growth in population in different areas of the County was **not** the focus of this report, because water and wastewater systems are generally sized and designed to accommodate buildout population within the respective service area rather than intermediate planning periods, especially in an area with low population growth rates. Therefore, the Technical Report assumed that all infrastructure investments would be based on buildout, at either the low or high projection of buildout.

The commenter further states that there is no presentation of economic and social conditions, or other information that would drive development toward the low or high buildout values. As stated above, the high and low buildout projections are not correlated with a time period or an annual growth rate. The examination of economic or social issues that would drive development was **not** in our scope of work. The Technical Report also does not suggest that **either** buildout level will occur. The buildout estimates relate to allowable density and are not projected to occur within any specific time frame. The low buildout estimate is based on the current General Plan and the high buildout estimate is a higher density scenario based on Sketch Plan 3, which was developed as part of the General Plan Update process.

**Response to comment 1-2:** This comment repeats the statement that the Technical Report does not contain 2025 population growth projections for Urban Study Areas. See response to comment 1-1.

This comment also states that the report does not contain historic trends in water consumption or customer counts for each Urban Study Area. Chapters 6 and 7 contain water and wastewater system assessments for each Urban Study Area. Each Urban Study Area assessment contains a table that lists the system statistics (number of connections, number of available connections (where available connections are calculated based on reported peak day water use or peak wet weather wastewater flows as specified in the table notes) and other essential information regarding the utility system. Water and wastewater system information was derived from California Department of Health Services Annual Inspection Report and National Pollution Discharge Elimination System permits, Waste Discharge Requirements and other data submitted by service providers.

**Response to comment 1-3:** This comment suggests that the low and high estimates of potential dwelling units may not be useful for service providers in establishing connection fees and states that it is unclear how the high estimate would be achieved over the next 20 years. Section 1.3.1 provides the methodology used in arriving at the development projections. Buildout projections are commonly used in estimating the ultimate size of utility improvements. The Technical Report states that “It is also important to note that the County’s “high” and “low” projections reflect what the land can bare based on the allowable use of the land and the physical constraints that affect the land. These development projections are not related to a specific planning period or a projected growth rate” (Section 1.3.1, Page 1-3).

The Technical Report also cautions the reader regarding the use the infrastructure cost information contained in this report: “(a)ll costs presented herein are order of magnitude cost estimates and should not be interpreted as exact costs. No economies of scale or site-specific factors or constraints were taken into account in developing these cost estimates. However, the costs presented herein for the various service providers within the County are useful in identifying existing deficiencies and the need for better infrastructure planning to sustain these systems into the future. Some service providers have greater administrative capacity and have developed master plans, computer models, capital improvement plans, and rate studies for their water systems. However, many providers have significantly less capacity and therefore less technical, managerial, and financial planning perspective. Infrastructure upgrade recommendations made herein should be used as the basis for developing detailed, site-specific master plans, system models, and capital improvement plans. Detailed rate studies will need to be performed on an individual service provider level to determine the connection fees and usage rates required to generate sufficient revenues to maintain and sustain these systems into the future” (Section 6.1, Page 6.1).

**Response to comment 1-4:** This comment suggests that the infrastructure costs presented in the Technical Report may not be useful by service providers in establishing future connection fees. The report provides order of magnitude costs for each system

relating to the correction of existing deficiencies and accommodating growth and specifically states that the development of new rates and connection fees will require detailed studies: “Infrastructure upgrade recommendations made herein should be used as the basis for developing detailed, site-specific master plans, system models, and capital improvement plans. Detailed rate studies will need to be performed on an individual service provider level to determine the connection fees and usage rates required to generate sufficient revenues to maintain and sustain these systems into the future” (Section 6.1, Page 6-1).

**Response to comment 1-5 (Executive Summary Page xiii):** The commenter incorrectly states that the Technical Report used “an analysis of projected housing growth from 2005 to 2025...for sizing and economic analysis.” The Technical Report evaluated the condition of existing infrastructure systems and identified improvements that may be required to serve the low and high buildout estimates, without regard to the number of years required for buildout.

The summary information contained in Table ES-3 reflected only the high buildout estimate for water and wastewater service providers. The high unit buildout was selected for this table as the worst cast scenario. The low unit buildout could easily have been presented instead.

**Response to comment 1-6 (Cost Development Page xii):** This comment appears to suggest that the water and wastewater unit cost data presented in table ES-2 should not be the only information used in “development decisions.” The preparers of this Technical Report agree.

**Response to comment 1-7 (Summary of Infrastructure Capacity Page xiii-xvii):** This comment suggests that total capacity, rather than the low unit development estimate, should be presented in Table ES-1 and that the high unit development estimate should be presented as well. This comment also notes that total available capacity, based on this table, exceeds the future housing demand projected by Dyett & Bhatia in the Building Communities Report (see Building Communities Section 2.5, page 2-6).

Table ES-1 compares water and wastewater service capacity to a generalized estimate of development density based on the current General Plan, the low unit development capacity estimate. The commenter is correct that allowable land use density does not limit service capacity. However, if there is more water or wastewater capacity than development potential (based on allowable density) then land use density is the limiting factor for development capacity within that Urban Study Area.

**Response to comment 1-8 (High and Low Build-out Estimates Page 1-1):** This comment relates to the density of existing development contained in Table 1-5 and future density contained in Table 1-6. An explanation of the development densities portrayed in these two tables is contained in Section 1.4, Service Provider Background Data and Information. Data relating to the physical constraints that was used to calculate net developable acres were not readily available for parcels containing existing development

and possessing no additional development potential. As a result, direct comparisons between existing development density and estimates of resulting densities at buildout cannot be made. For the benefit of the reader, the following caution can be found in Section 1.4: “It is important to note that the EXISTING development densities in the last column of Table 1 5 DO NOT take into account physical constraints on a parcel, such as steep slopes or wetlands, while the future development numbers DO eliminate constrained acres from the density calculation. Therefore, resulting densities for existing development will appear low compared to proposed densities.”

In regards to the length of the planning horizon required for buildout of an Urban Study Area, “(t)hese development projections are not related to a specific planning period or a projected growth rate” (Section 1.3.1, Page 1-3).” For additional information regarding buildout please refer to Response to comment 1-3 above.

**Response to comment 1-9 (Population and Housing Project Page 1-3):** This comment suggests that using a range of housing growth rates from 0.5 to 2.5 percent overstates potential utility service demand. The commenter repeats the statement that projections of population growth in Urban Study Areas, or “the service area”, during the planning period is the best predictor of service demands. The preparers of this Technical Report agree. However, the methodology used in the preparation of this report compared the capacity of the infrastructure system to the current and ultimate service population (as represented by total housing units) and identified improvements necessary to provide that capacity.

There have been suggestions made by followers of the General Plan Update process that population projections by the DOF, 0.54 percent annual average growth rate, are overly conservative. To be responsive to these concerns, the preparers of this Technical Report incorporated a range of housing growth rates that contain the current rate as well as substantially higher rates. This range of growth rates was compared to the low and high buildout projections.

The Technical Report evaluated the condition of existing infrastructure systems and improvements required to serve the buildout estimates, both low and high, without regard to the number of years required for buildout.

**Response to comment 1-10 (Basis for Forecasts):** This comment suggests that the Technical Report assumes that the rate of growth within the County or Urban Study Areas will increase in the future. As indicated in Response to comment 1-3 and 1-7 above, the buildout projections contained in this Technical Report are not correlated with the General Plan Update planning period or any other planning period.

**Response to comment 1-11 (Arcata USA):** This comment suggests that the number of existing connections within the Arcata Urban Study Area should be the basis of comparison rather than the number of connections within the City of Arcata water and wastewater systems. In all instances involving Urban Study Areas located within city spheres of influence (Arcata, Blue Lake, Eureka – in relation to wastewater, Fortuna, and

Rio Dell), this Technical Report presented information relating to the entire utility system.

In the case of the Arcata USA, the 190 existing units located within the Pacific Manor subdivision are assumed to be included in the total number of existing connections provided by the City of Arcata. The Arcata USA is located entirely within the City of Arcata Sphere of Influence and Urban Services Boundary and no development will likely be permitted until annexation occurs (see Arcata General Plan:2020 Policy GM-3c and GM-3d). Therefore, the Technical Report assumes that annexation will occur prior to development of all of the 205 new housing units (including the Creekside Homes subdivision).

The comment notes that the discussion of the City of Arcata wastewater system that serves the Arcata USA on pages 7-11 to 7-15 does not repeat all of the background information contained in the analysis of the City of Arcata water system that serves the Arcata USA on pages 6-6 to 6-10. The preparers of the Technical Report made every effort to provide complete information in each section, while avoiding redundancy. In order to ensure that the reader does not miss essential information, references were included to information contained in other sections of the Technical Report. In the case of the Arcata USA, readers of the wastewater system section were referred back to the water system section to find additional information regarding this Urban Study Area: “(s)ee Section 6.4.1 for a more detailed description of the USA and its development potential” (Section 7.4.1, Page 7-12).

**Response to comment 1-12 (Glendale USA and WSA):** This comment suggests that the low and high buildout projections represent a very wide development range. As indicated previously, the low buildout estimate is an approximation of the current General Plan and the high buildout estimate represents increases in density and is equivalent to Sketch Plan 3 from the 2005 Sketch Plan Alternatives Report. In the Glendale area, the high unit estimate assumes that certain former industrial lands, that have no residential development potential under the current General Plan – the low buildout estimate, will be designated for residential uses. As a result, the potential for residential development is significantly higher under the high unit estimate than under the low unit estimate. However, this Technical Report does not assume that buildout will occur during the General Plan Update planning period or any other planning period.

The comment states that the wastewater costs are confusing and that there is no explanation of the difference between the low and high unit cost per total future connection. Comment noted. The Technical Report will be revised to add additional information to clarify that the low buildout estimate can be accommodated under the current wastewater contract with the City of Arcata and the high buildout estimate will require the development of additional wastewater treatment facilities.

**Response to comment 1-13 (Humboldt Hill USA):** This comment suggests that there is little correlation between the projected housing units for the Humboldt Hill USA and the Humboldt CSD service area. The preparers of this Technical Report acknowledge the

reader's difficulty in evaluating Humboldt CSD capacity and improvement requirements. With the assistance of Humboldt CSD staff, the Technical Report has been reorganized to combine all Humboldt CSD related USAs and WSAs into one section.

The commenter also suggests that market values could be used for unit wastewater costs for comparison purposes with other Urban Study Areas. The preparers of this Technical Report coordinated closely with City of Eureka and Humboldt CSD staff regarding their ongoing wastewater collection system and treatment system planning. Adequate information was not available at the time this Technical Report was prepared, but detailed studies are underway. Because of the substantial levels of efforts being undertaken by the City of Eureka and Humboldt CSD to evaluate the complex Humboldt CSD and City Eureka systems and given that additional information may be available prior to the final adoption of the General Plan Update, the decision was made not to include estimates of probable cost.

**Response to comment 1-14 (McKinleyville USA and WSA):** This comment appears to identify an error in calculations contained on page 6-44 or 6-45. However, the commenter does not provide enough information to determine how the numbers that they present were derived. The method used to identify existing and potential development in the McKinleyville USA and WSA is identical to that used in all other USAs and WSAs. The following table identifies the sources of information contained in the Technical Report:

Study Area	Description	Source	Value
McK_USA	Year 2000 Housing Units	Table 1-5	5,162
McK_USA	New Units 2000-2005	Table 1-5	778
	<b>Existing Development 2005</b>		<b>5,940</b>
McK_WSA	Year 2000 Housing Units	Table 1-5	403
McK_WSA	New Units 2000-2005	Table 1-5	28
	<b>Existing Development 2005</b>		<b>431</b>
McK_USA	High Unit Development Potential	Table 1-6	4,112
McK_WSA	High Unit Development Potential	Table 1-6	137
	<b>Total High Unit Development Potential</b>		<b>4,249</b>
McK_USA	Low Unit Development Potential	Table 1-6	2,224
McK_WSA	Low Unit Development Potential	Table 1-6	123
	<b>Total Low Unit Development Potential</b>		<b>2,347</b>
McK_USA	High Unit Development Potential Total (existing + future)		10,052
McK_WSA	High Unit Development Potential Total (existing + future)		568
McK_USA	Low Unit Development Potential Total (existing + future)		8,164
McK_WSA	Low Unit Development Potential Total (existing + future)		554