

January 24, 2008

Humboldt Economic & Land Plan
PO Box 168
Eureka, CA 95502

Attn: Ms. Kay Backer

RE: HDR REVIEW OF THE COMMUNITY INFRASTRUCTURE & SERVICES TECHNICAL
REPORT, DATED NOVEMBER 2007

Dear Members of HELP:

As requested, attached is our peer review dated January 7, 2008 of the Community Infrastructure & Services Technical Report, dated November 2007, by Winzler & Kelley on behalf of Humboldt County.

In summary, we found the following:

1. The presentation of information is overly confusing
2. Development projections and growth rates lack sound planning assumptions
3. Development projections are overstated
4. No projection of population growth was estimated for year 2025
5. The cost estimate for future infrastructure was not calculated to accommodate development within the County through year 2025
6. The analysis does not provide the necessary information from which policy decisions can be made

We welcome the opportunity to answer any questions you may have after reviewing the detailed review comments.

Sincerely,



Mark J. Hammer, Jr. PE
Vice President

Enclosure

Primary Author:	Joshua Hart, AICP Mark Hammer, PE Nolan Lenahan, EIT	Project:	Humboldt County – Community Infrastructure & Services Technical Report
Date:	January 7, 2008	Job No:	00000000066635
Re:	Overview of Community Infrastructure & Services Technical Report		

Purpose

The purpose of this memorandum is to provide basic overall comments as a peer review to the water and wastewater infrastructure portions of the Community Infrastructure & Services Technical Report. The subject report analyzes existing specified infrastructure and public services, potential development, and resulting future needs in Humboldt County. The overview comments presented in this memorandum are intended to identify substantive issues and areas of conflict with the document. The review is intended to provide clarity and further validate the specific assumptions, facts, and figures presented.

Organization

This memorandum begins with some comments regarding our overall observations about the approach taken in the Community Infrastructure and Services Technical Report for water and wastewater infrastructure requirements, comments then generally follows the order in which information is presented in the report.

Because of the importance of the growth areas served by Humboldt CSD (Humboldt Hill, Ridgewood, Cutten, and Myrtle town), McKinleyville CSD, and the Fieldbrook Glendale CSD, we have included a review of the detailed water and sewer needs. The review comments associated with these areas are representative of the other service areas.

Synopsis

In general we found the following:

- 1-1 { 1. The purpose of the report was to "present policies and implementation measures for providing the infrastructure needs to accommodate development within the County through year 2025." Throughout the document, it is unclear what populations will be served in 2025 and how the cost estimates based on existing deficiencies and low and high build-out are to be used to guide policy and decision making. There is no presentation of the economic and social conditions along with development interest (activity) that would drive development toward the low or high build-out values.
- 1-2 { 2. The County's housing growth projection is 0.81%. Low and high growth projections were determined to be 0.5% and 2.5%. These are County wide values and are difficult to correlate to specific service areas. There is no presentation of historic trends in water consumption or customer counts for the service area. Utilities, both water and sewer needs are flow based and correlate better to population rather than housing projections. While the

- 1-2 { economic denominator for connection costs is number of housing units, the demand for new infrastructure such as storage, pumping, and treatment is based on population (flow). The population projection is 0.54% which would provide a range between 0.3% and 1.7%. The values used in the report for housing projection assumes that housing occupancy will remain constant (in spite of a consistently decreasing trend) and over estimates County wide infrastructure needs as compared with projections of population. There is no correlation presented in the study between growth in the service areas and average growth in the County to bracket a projection to 2025.
- 1-3 { 3. Build-out capacity of the available land was developed using GIS and is presented in a range from "low" to "high." It is unclear how this range should be interpreted by utilities making decisions about connection fees. The difference between low and high ranges from almost nothing to a factor of 60. Certainly the low estimate of potential dwelling units will result in the most advantageous revenue picture as existing deficiencies and existing capacity is spread over few new customers. It is unclear what the high estimate would be achieved in the next 20 years unless tied to an economic or social condition that would suggest the greater build-out condition.
- 1-4 { 4. The treatment of infrastructure costs is not very helpful and the connection fees are understated. New connections were given credit for existing capacity in the calculation while the text states "Future connections should buy into the existing infrastructure capacity through connection fees." It would seem more appropriate to determine a unit cost (even if at a market rate) for water wheeling, treatment (if needed), storage, and pumping; and for wastewater sewers, pumping and treatment. Results for the Correction of Existing Deficiencies suggest the cost to existing customers with no growth. Results for the Low Build-Out Estimate are important to evaluating the cost per connection. It is unclear what the estimated financing cost per connection (\$/Month) would be used for. New capital should be paid for by connection fees (unless it represents the risk cost associated with building the infrastructure without the commensurate growth). Rather than the High Build-Out Estimate, it would be more appropriate to present the cost associated with the housing projected to year 2025 and the infrastructure required adjusted based on population.
- Values for the growth areas should be adjusted to reflect area specific conditions rather than using County-wide growth values.

Comments

Executive Summary (Page xii)

The purpose of this report is to serve as a basis for the development of the Community Infrastructure and Services Element. This new General Plan Element will present policies and implementation measures for providing the infrastructure needs to accommodate development within the County through the year 2025. The information contained in this report was developed

- 1-5 { The report uses the "low" and "high" build-out estimates to determine the ultimate infrastructure needs and utility costs. An analysis of projected housing growth from 2005 to 2025 was used to compare against the high build-out estimate, then only the high build-out estimate was carried forward for sizing and economic analysis.

Cost Development (Page xii)

potential and infrastructure capacity within the County. One of the goals of this analysis was to develop unit costs for providing the required infrastructure to meet development potential within the USAs. These unit costs would then identify areas where development could occur and be the most cost effectively within the County. This approach was used where sufficient data is

1-6 { It is not clear that the unit costs would identify areas where development could occur within the County. Employment, broader economic factors, and developer interest also play a large role in development decisions. The costs as developed for water and wastewater utilities should not be used to draw such conclusions.

Summary of Infrastructure Capacity Limitations (Pages xiii-xvii)

Current water and wastewater capacity, which ever of the two is more limiting, has been used to identify the maximum number of available connections within each urban study area. For a

1-7 { Table ES-1 lists the low development estimate, the available capacity, and determines the capacity limitation based on the lower of excess capacity and the low land use density. It is unclear what is to be inferred from this table. Certainly, it is good information to know if there is any excess capacity and what that capacity is in relation to the low unit development estimate, however the low unit land use density does not really limit service by the utility if excess capacity already exists. It would be good information to show the total available capacity value rather than limiting it by the low unit development estimate. It is also unclear why the high values are not used as limiting. Not including the high values seems inconsistent with the detailed evaluation of each service area where the high build-out estimate was used to determine if the projected housing growth were possible and to determine future infrastructure costs.

The development assumptions presented in Table ES-1 are substantially more than projected by the County in its General Plan update. Table ES-1 indicates that the total low unit development estimate will be 9,964 units (page xvii). The County's General Plan update projects demand for 5,961 units, including 3,220 units in unincorporated Humboldt County, by 2025. The low unit development estimate therefore exceeds the County's projected demand by almost two times for total development and more than three times for development in unincorporated areas.

Low and High Build-out Estimates (Page 1-1)

constraints, into consideration to determine the actual acreage of land available for development, the net developable acreage for each parcel was multiplied by two different residential densities (the number of dwelling units permitted per net acre of land as measured in terms of acres per dwelling unit) to develop "low" and "high" estimates of development potential. The low estimate is based upon the mid point of development potential based on the General Plan land use designation and the high estimate reflects potential changes in density (such as increasing the allowable density range of the RL designation from 1 to 7 dwelling units per acre to 3 to 8 dwelling units per acre or adding additional multifamily residential land.) The actual development that can (legally) occur on these parcels using the maximum density allowable under the current zoning is higher than the high estimate. The development projections are summarized in Table 1-6.

1-8

The strategy used to estimate the high build-out creates some interesting results. For example, Shelter Cove has a current density of 0.3 units/acre and a high estimate of 7.85 units/acre. The issue is whether the Coastal Commission and other review agencies would approve of increasing the allowable density range. Such dramatic changes in density are listed for Glendale, Myrtle town, Shelter Cove, and Willow Creek in Table 1-6 and suggest a significantly longer planning horizon than 2025. And although the high build-out value may be the future ultimate result, its use as a comparable with building projections to 2025 or for economic calculations may be overstated.

Population and Housing Projection (Page 1-3)

Past Growth Rates. Based on the development that occurred between Census 1990 and 2000, Humboldt County housing units grew at an annual average growth rate (AAGR) of 0.9 percent. Population during this period grew at an AAGR of 0.6 percent. This same overall growth rate has continued, according to the California Department of Finance (DOF) data (Table E-5 – City/County Population and Housing Estimates): the AAGR for housing units was 0.91 percent from 1995 to 2007 and the rate of growth for population was 0.60 during the same period. Based on DOF data, the average household size in Humboldt County has declined from 2.49 in 1990 to 2.39 in 2000, and is now 2.34 in 2007 (U.S. Census and DOF Table E-5).

The continued decline in average household size is likely the most significant contributor to the difference between the growth rate in housing and the growth rate in population. However, the difference between the rate of housing and population growth did vary during this period. According to DOF Table E-5 the housing and population growth rates were nearly equal between 2000 and 2003. In contrast, between 2005 and 2006 the population growth rate declined to 33 percent while the housing growth rate increased to almost 1.60 percent.

1-9

Table 1-3 shows the Humboldt County Population Growth Forecast. The overall growth rate for 2025 is 0.54%. It was noted that the housing growth is greater than the population growth rate because the average household size has been declining.

It is important to define the responsibility of the utility versus the responsibility of the developer in providing infrastructure. Generally, the developer is responsible for providing the piping within the development and the utility is responsible for meeting the daily demands for water and sewer. This is consistent with the technical report which shows the cost of pipelines to be borne by the developer. Daily demands increase, not with the number of houses, but with the population only. The utility is required to provide fire service, but once fire flows are provided, they are provided for the entire area, and this does not increase with each new home. Therefore an increased number of homes does not reflect an increase the service requirements of the utility when the household size drops in proportion. The utility needs are directly proportion to population. Therefore the strategy of bracketing the housing projection from 0.5% to 2.5% when the population is increasing at 0.54% over estimates the demands on the utility.

Table 1-4. Growth Projections from State and County

Humboldt County Population Projections		
Year	Population AAGR Based on DOF Projections	Housing AAGR Based on Current Population to Housing Ratio
2000-2005	0.71%	1.07%
2005-2010	0.51%	0.76%
2010-2015	0.57%	0.86%
2015-2020	0.50%	0.75%
2020-2025	0.40%	0.59%
2000-2025	0.54%	0.81%

Source: DOF Table P-1; Humboldt County Community Development Services, 2007.

Table 1-4 shows that a population increase of 0.54% relates to a housing increase of 0.81% and a low value of 0.5% to a high value (3x) of 2.5%. In addition, the increase in housing "assumes that the ratio of housing units to population is the same as it is today" (page 1-4). This overstates the future demands on the utilities, because the low and high population projections are 0.33% and 1.67%

Using the values in Table 1-6 and summing the total estimated potential dwelling units for all of the systems listed in the table, the low and high totals are 9,964 and 24,081 or 1.7% and 3.5% equivalent growth rates for a build-out in year 2025. These values are significantly greater than the housing projection values listed on page 1-4, and even greater than the population projected range of 0.33% to 1.67%.

It appears that the "midpoint of the development potential based on the General Plan" is close to the high population projection at 1.7% and would result in build-out of the general plan area in year 2025.

1-9

According to Table 1-3 (page 1-4), the Department of Finance estimates approximately 13,600 new residents in the County between 2005 and 2025. Assuming a household size of 2.4 (which is utilized in the County's General Plan update for 2025), about 5,700 housing units would be needed to accommodate this increase. This figure is less than the report's low unit development estimate, even if adjusted for vacancies or a smaller household sizes. Note that this figure is similar to the County's estimates for housing production.

Referring back to the end of the Table ES-1, it is interesting to note that the low estimate of unit development which is about the same as the high estimate of population projection is close to the available capacity for the utilities as a whole. If the 3x projection multiplier were reduced to 2.2x, then the existing utilities would have adequate capacity to serve the projected population.

Utility demands are also impacted by the unit consumption and discharge. Typical water consumption varies with lot size and needs to be established from local conditions. Typical wastewater generation is 100 gpcd, but varies between 80 and 120. The relationship between housing, population, and utility demands needs to be explained for each service area.

Basis for Forecasts

Although there may be valid reasons for increased development pace in the future, no explanation for increased development activity was found in the report during this review. An increase in development can be precipitated by changing demographics (i.e., household size, income, etc.) or regional development patterns (i.e. influxes of new residents, such as retirees, telecommuters, etc.).

1-10

The County's records do indicate trends towards more building permit activity, increasing income, an aging population, and falling household size, which could be extrapolated into the future to forecast an increase development activity. Historical construction activity also indicates that housing production in the past has ranged between approximately 5,000 and 8,500 units per decade, which would seem to validate that the report's low estimate of almost 10,000 new units during the

1-10

planning period. In the case of the Arcata USA, the report does cite that a developer is intending on constructing 150 additional units. However, in many cases, the report should provide a similar rationale for why the development assumptions are high relative to the County's projections, or revise the development assumptions to provide a range more similar to those of the County. If acceptable within the local political environment, it may also be helpful to consider non-residential development in the demand analysis, since current fiscal policies result in greater revenue for non-residential development than residential development.

The report proposes substantial investments in utilities and public services (refer to Table ES-3), but also acknowledges that facilities and systems serving the area are in poor condition, suggesting that maintenance is an issue. Resources for construction of new utilities and services can be provided by increased development activity. Funding and grants currently are available for infrastructure and services, but it appears that the County has not been successful in procuring these funds. Again, changing demographics and economic conditions may be key to this argument.

The executive summary is excessively long and should more succinctly provide only the necessary information for decision-makers to facilitate their review. Interested parties can view the body of the report for more detail.

SPECIFIC AREA EXAMPLES

Arcata USA (Page 6-6 and 7-14)

6.4.1. Arcata USA

The County estimates there were 190 housing units within the Arcata USA in 2005. Based on the estimated range of housing growth projections of between 0.5% and 2.5%, the Arcata USA could have between 210 and 311 total housing units by 2025. According to Table 1-6, the high build-out estimate for total development potential within the USA, which takes into consideration physical and zoning constraints, is 395 housing units. Therefore, the fair share growth projections for the Arcata USA are within the range of what the land can bear.

1-11

The infrastructure cost assessment shows the cost of correcting existing deficiencies at \$15 million with 6,000 connections. The \$15 million is a shared responsibility between the City and Arcata USA. Because the table is about Arcata USA and its 190 homes (as of 2005), it would be better to prorate the \$15 million to Arcata USA and use the 190 homes as the number of Existing Connections in Table 6-1. The costs of \$13.64 per month for the existing residents or \$2,552 per existing connection should be the same and should be explained by reference.

The low and high build-out calculation of connection cost should include a market value for the connection and portion of the capital cost for upgrade to the existing pipeline. There is no estimate of the population in 2025 presented. As stated on Page 6-6, Arcata USA is expected to receive 150 additional connections with the proposed Creekside Homes annexation. These homes, unlike new homes will not be assessed a connection charge. The area was considered in the GIS and so the homes go against the build-out capacity. If the low build-out values are accurate, Arcata will build-out with the next 2 homes. If not, what are the economic and development driving forces that would cause the high build-out values to be more realistic? The high build-out value does not result in 205 new homes, but 150 through annexation and potentially 55 new homes. So the number of new

1-11

homes, for which connection fees will be collected, range from 2 to 55 and the estimated cost per connection has not been determined.

The wastewater treatment system infrastructure assessment has 6,388 existing connections and again, represents a larger service area than Arcata USA. The proposed annexation of Creekside Homes is not discussed and the build-out table lists 2 to 205 rather than 2 to 55 as the number of new connections.

Glendale USA and WSA (Page 6-24 and 7-7)

1-12

The low estimate of 159 and high estimate of 1,765 if build-out represents an extremely large range for planning purposes. The costs for connection are only attributed to additional storage and results in a low estimate for connection costs. The cost calculation is curious, given 737 gpd/connection for storage, it would seem initiative that the connection costs would be about the same even between 159 and 1,765 connections when the additional storage ratios and unit costs remained the same.

There seems to be no presentation of economic or development driving forces that would suggest that the high build-out would take place in the next 20 years. The table would be more valuable keeping the Correction of Existing Deficiencies and Low Build-out Estimate, but replacing the High Build-out Estimate with 960 (270+162+528) which represents 2.5% growth over 20 years.

The presentation of wastewater costs is confusing. The cost per connection ranges from about \$4,000 to \$27,000. Two ranges of connections are listed with a single value for treatment expansion of \$5 million. It is unclear how the utility would use this information to make decisions.

Humboldt Hill USA (Page 6-28 and 7-31)

1-13

There is little correlation between the projected housing units for the Humboldt Hill USA and Table 6-6 which includes the Humboldt CSD service area.

Because the discussion was intended to be about Humboldt Hill CSD, the connections and infrastructure upgrade values listed in Table 6-6 should be prorated back to Humboldt Hill USA or change the presentation to be about Humboldt Hill CSD.

The presentation of wastewater system infrastructure is also for the Humboldt Hill CSD rather than Humboldt Hill USA. The low and high estimates are presented with two sets of new and future connections.

It is a question of presentation, but rather than leaving values as being unknown, market values could be used for unit costs that would allow an order of magnitude estimate of costs.

McKinleyville USA and WSA (Page 6-44 and 7-40)

The McKinleyville study area contains both a USA and WSA. The County estimates there were 5,940 and 431 housing units within the McKinleyville USA and WSA, respectively in 2005. Based on the County's housing growth projections of between 0.5% and 2.5%, the McKinleyville USA could have between 6,563 and 9,733 total housing units by 2025, while the McKinleyville WSA could have between 476 and 706 total housing units by 2025. According to Table 1-6, the high build-out estimates for total development potential within the USA and WSA, which takes into consideration physical and zoning constraints, are 10,052 and 568, respectively. Therefore, the growth projections for the WSA are in excess of what the land can bear.

1-14 Table 1-6 lists the Estimate of Potential Dwelling Units at low 2,347 and high 4,249 resulting in a low total of 7,432 and a high total of 9,334. This result differs from the values listed above for low build-out value is 568 and the high value is 10,052.

The low housing projection is 668 (5,753 total) and the high value is limited by the high potential units in McKinleyville WSA only resulting in a total of 9,015 (5085+3793+137)

There are no economic or development pressures that suggest that the high value would be obtained by 2025. It would seem appropriate to list infrastructure requirements and costs for the Correction of Existing Deficiencies, the Low Build-out Estimate, and the estimated housing projection of 2.5% to 2025 of 3,932.

Additional infrastructure should include the market value of the use of existing infrastructure as previously described.

The presentation of wastewater costs contains two ranges of new and future connections, one set of costs, and an unknown calculation of existing connection cost and range of total future connection costs. The cost does not include use of existing infrastructure, the range of costs for future infrastructure, or an understanding of the use of the values. Connection fees are appropriate for new houses, while connection fees should be used to recover operating costs (as opposed to future capital infrastructure costs).

References

1. Community Infrastructure & Services Technical Report. Prepared by Winzler & Kelly Consulting Engineers and Planwest Partners. November 2007.
2. Humboldt 2025 General Plan Update Building Communities A Discussion Paper for Community Workshops. Prepared by Dyett & Bhatia. February 2002.
3. Humboldt County General Plan update website. December 2007.
<http://co.humboldt.ca.us/planning/gp/default.asp>

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, 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 Technical Report 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 was 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. However, buildout projections are compared to the low and high end of the potential growth rate range to determine if available residential development capacity can accommodate the broad range of growth rates utilized.

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 likelihood for error due to the use of broad planning level estimates, or market values, of improvement cost for 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
	Existing Development 2005		5,940
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McK_USA	Low Unit Development Potential Total (existing + future)		8,164
McK_WSA	Low Unit Development Potential Total (existing + future)		554

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.

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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.

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CITY OF EUREKA
COMMUNITY DEVELOPMENT DEPARTMENT

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January 14, 2008

John Miller, Senior Planner
Humboldt County Community Development Department
3015 H Street
Eureka, CA 95501

Subject: Community Infrastructure & Services Technical Report, November 2007

Dear John,

The City has the following comments that should be considered when drafting general plan policy and implementation measures that affect the Eureka Urban Study Areas (USA). Due to the integral nature of the Community Infrastructure & Services Technical Report and draft Community Infrastructure and Services Element, we are providing comments on both documents which should be considered simultaneously. The topics of concern for or comments on both documents center on transportation and waste water treatment.

Population Projections and Circulation

Infrastructure and Services Technical Report

The report does not use a consistent basis for its planning level estimates and the resulting cost of infrastructure estimates:

2-1 **Page xiii** indicates that the report relies on “an evaluation of development potential based on the mid point density of the current General Plan land use designations.”
The “high” estimate is vaguely described as “potential changes in density,” and is supposed to be a basis for the report. However, **page xviii** indicates the Greater Eureka Area Travel Model is based on the County’s proposed Sketch Plan 3, which is a substantial proposed county-wide increase in density. The City Council of the City of Eureka has already informed the County that it is actively opposed to Sketch Plan 3 (now called Alternative B).

2-2 **Page 1-4** suggests an increased population of 13,594 or 10.3% over the next 20 years (145,004 in 2025 minus 131,410 in 2005). However, the Housing AAGR is suggested to be 16.2% (0.81% AAGR) due to reduced household sizes. With 58,015 housing units in 2005 (**page 1-3**), this Housing AAGR of 16.2% will result in 9,398 additional housing units for the entire County. This would apparently result in build-out of the entire current General Plan development potential of the of 9,964 dwelling units (total of low estimate of potential dwelling units in **Table 1-6** on **page 1-7**).

The High Estimate of Potential Dwelling Units in **Table 1-6** totals 24,081 units, or approximately 48 years of growth at the projected levels. However, this increased growth is unequally focused in the South Eureka Area.

- 2-2 From 1995-2005, the South Eureka area grew by 536 housing units (26 units per year). This was 15.3% of the 3,506 new units for the entire County for the same time period. **Table 1-6** suggests that a minimum of 2,700 units will be created in the South Eureka area. This represents 27.1% of all development within the County at a rate of 135 new housing units per year. This “Low Estimate” is five (5) times the historic rate of new construction in the South Eureka Area.
- 2-3 **Page 2.2:** Please provide a reference source for the table.
- 2-4 **Page 2-9:** The City agrees with both statements that 1) our roadways “are already experiencing capacity constraints” as a result of the County’s past growth and 2) “Future development-related growth in the South Eureka USA will add significant vehicle volume to roadways, some of which are already experiencing capacity constraints.” The reason that these roadways are constrained, in part, is the unmitigated traffic from County approved development over the past ten years. However, the County has not put forward any plan to address the impacts of their historic planning practice of approving unmitigated growth that has absorbed the City’s available roadway capacity.
- 2-5 **Pages 2-11 and 2-12:** The County excludes City of Eureka streets and intersections from this table. Numerous City streets and intersections have been significantly impacted by County development. Alternative B will further result in significant transportation impacts to the City of Eureka. A more regional approach to transportation planning that identifies the effects of County land use plans on the City should be undertaken by the County.
- 2-6 **Page 2-20:** None of the 1995 Eureka Community Plan roadway improvement recommendations/mitigation measures have been initiated within the City of Eureka. None of the projects listed in the infrastructure report are directed towards City streets.
- 2-7 **Page 2-23:** The City of Eureka disagrees that only the City’s list of potential projects requires cooperation between local agencies. All of the County projects in **Table 2-9** should be assessed, prioritized and implemented in cooperation between local agencies, especially within the Myrtle town and South Eureka area.
- 2-8 **Page 12-21:** Revenue sources that were omitted include the State Transportation Improvement Program and local sales tax.

Draft Infrastructure and Services Element

Page 7-1: The City concurs that “some roadways in urbanized portions of the unincorporated area (such as Eureka and McKinleyville) are subject to existing and projected areas of congestion.” The arterials and collector streets within the City of Eureka have become seriously congested from the unmitigated traffic from County development in Myrtle town and South Eureka. The County’s focus on road surface condition clouds its responsibility within its urban areas where maintenance needs are shown in the Technical Report to be marginal and where congestion is at its worst. Finally, the draft element is wholly silent on non-vehicular modes of transportation. Pedestrian, bicycle and transit infrastructure, especially in the urban growth areas is critical to orderly development and quality of life.

Pages 7-5 through 7-14: The City is concerned that the County is unable to establish specific goals and policies for its transportation system (although it does so for other infrastructure, such as water and wastewater). Without goals and policies in place for the maintenance and operation of its transportation system, the County has failed to fully address the infrastructure needs and priorities of future development.

Page 7-5: Fair Share Cost Allocation -The proposed “fair share cost allocation” ignores the need to “replace” the roadway capacity “taken” by existing development without paying its fair share. The County needs to take responsibility for the prior and ongoing “take” of City of Eureka street capacity without mitigation or payment of its fair share.

Page 7-6: Sizing of Facilities - The suggestion that the sizing of adequate facilities can be accomplished through the development review process is unworkable for the urban growth areas. Transportation improvements will continue in a haphazard manner unless a specific transportation and circulation improvement plan is adopted for the Myrtle town and South Eureka Area with the cooperation of the City of Eureka and Caltrans.

Page 7-15: Standards - The County will apparently continue not to require development within the City of Eureka sphere of influence to meet City of Eureka standards. This will mean that future annexation of these areas would require acceptance of substandard infrastructure with its higher cost to maintain and operate.

Page 7-16: Adequate Public Infrastructure and Services Standards - The County is lowering the standard to “adequate” without definition. Combining this with the absence of goals and policies, it is unclear how the County intends to mitigate the significant traffic and transportation issues that the current and updated General Plan will have on City of Eureka roadways and intersections.

Page 7-16: Roadway Implementation Measures - This section is silent on how the County will address the cost to recover the capacity previously taken by unmitigated development surrounding the City of Eureka. In addition, it ignores mitigation of traffic and transportation impacts (including pedestrian, bicycle and transit) on adjacent local and State agency road systems. Finally, it ignores implementation entirely. The collection of revenue does not automatically result in constructed improvements, especially in a regional setting where the priority projects may not be within the County or its purview.

Page 7-21: Background - The City is troubled that the Community Infrastructure and Services Technical Report was prepared to support the County Community Infrastructure and Services Element. This would explain why the City of Eureka was not given opportunity to participate in the development of the Element, and why our comments on the Technical Report were only casually included.

There appears to be a disconnect between the Technical Report and the Element. The Technical Report states that it “provides a basis for the roadway improvement goals, policies and programs that will be in the Humboldt County General Plan Community Infrastructure and Services Element.” However, the Element does not include any improvement goals or any improvement policies and only hints at possible improvement programs.

Of note is the representation that the Technical Report was “prepared with extensive input from local service providers.” As far as the transportation infrastructure is concerned, the City Engineer was only informed of the Technical Report at the final hour and invited to provide input well after the document was being drafted. To have limited input in the Technical Report, only to see it not result in any goals or policies in the Element is disappointing.

Page 7-50, Table 1.: Adequate Public Infrastructure and Service Standards for New Development - The City of Eureka can not support the County’s decision to reduce the Peak Hour Level of Service (LOS) standard to D on all its roadways. LOS C has been, and will continue to be, the Peak Hour standard. LOS D is not “adequate” and represents a serious and significant reduction in the quality of life for County and City residents. We are curious why the County has introduced a new “non-peak hour” standard to its review process. The City would like to know the methodology or draft policy measures that support such a Level of Service

Reduction. The new standard will be extremely difficult to incorporate into the Traffic Impact Studies for development, as every hour must now be analyzed.

Lowering the peak hour LOS to D allows the County to ignore its responsibility for its "take" of capacity on City streets through the unmitigated traffic impacts of County development in the Myrtle town and South Eureka areas. This development has already reduced many of the City's streets and intersections to LOS D. Lowering the standard insures that this lowered quality of life for City of Eureka residents will remain for perpetuity. While it may be necessary to tolerate LOS D in some locations if the improvement cost is extraordinary, this new "global standard" is not tolerable for all City and County residents. If the County wishes to "encourage" development by lowering standards, it should do so openly which will require the adoption of overriding considerations for traffic impacts with no feasible mitigation.

Wastewater Treatment and Wastewater Connections

Infrastructure and Technical & Services Technical Report

During the preparation of the Infrastructure and Technical & Services Technical Report, Winzler & Kelly's (W&K) staff met with City of Eureka staff several times to solicit comments on their draft document with respect to Chapter 7, Wastewater Systems. In reviewing the current document it appears important City comments previously provided by City staff to W&K were ignored. Some of those comments are reiterated below, together with new additional comments.

Page xv: In **Table ES-1** in the Executive Summary, under Humboldt Hill USA, South Eureka USA, and Myrtle town USA Urban Study Areas, HCSD is listed as having 4,980 available sewer connections based on its contract with the City of Eureka. There is no documentation cited to support this number. There is some indication this number is derived from Winzler & Kelly's analysis of flows for the Dunn-Robinson-Forster-Gill Ridgewood Village development, where they conclude that the HCSD wastewater system serving the Humboldt Hill Area has existing excess capacity for 3,800 additional EDU's. Winzler & Kelly's Ridgewood Village analysis uses base wastewater flow numbers from an EPA publication to derive their flow numbers for sizing of collection systems. However, the base wastewater flow rates cited in the EPA publication are for design of on-site treatment and disposal systems and do not include any allowance for base infiltration from groundwater. The use of this basis in the context of the Eureka area USAs is inadequate.

2-9 While it may be true that the base wastewater flow for new subdivisions will be reduced somewhat in comparison to pre-1994 subdivisions by lower-flow plumbing fixtures, I/I contributions are a much higher component of overall peak flow, if not immediately, then eventually. I/I from new development is dependent on the amount of new pipeline that has to be constructed to accommodate it (including new service laterals) as well as on the standards to which these lines are built.

HCSD monitors indicated 20-year peak I/I of 20 to 35 gpd per foot of main. If construction, inspection, and testing standards were upgraded (inspections, air or water tests of sewer mains and private side sewers by an agency separate from the development contractor), then new units could be expected to contribute less I/I than existing units initially. However, unplanned I/I increases over time as the system ages will ultimately lead to SSO's as the system approaches, then exceeds, its design capacity. To avoid this problem, designers should employ smart planning and design using higher, more conservative numbers for flow allocations. Assigning short term, unrealistically low numbers to wastewater flows increases the likelihood of the sewer system capacity being exceeded during its design life.

2-10 **Page xxv:** The City of Eureka wastewater collection system I/I is listed as having a peaking factor of eight to ten. This is incorrect. The average I/I peaking factor experienced at the WWTP is just over 5. This is viewed as the average over the entire collection system, with some basins having more I/I and some less. A peaking factor of just fewer than 5 was used in the design of the WWTP. Therefore the I/I peaking factor has not changed appreciably in the ensuing 25 years since the design of the WWTP.

2-11 **Page 7-2:** The last line of this page states McKinleyville has a peaking factor of 2.1 with no context to define either recurrence interval of the peak event (e.g., 5-year, 10-year, etc.) or duration of average and peak flows (e.g., hourly, daily, etc.) and no citation to document methodology used to determine this ratio. The discussion also includes the statement that “well performing collection systems have a peaking factor of three or less.” This is an oversimplification; some systems that are well-managed and maintained and that convey reasonable peak flows without overflows (i.e., are performing well) may have higher peaking factors. Peaking factor is more directly related to system age and is not by itself a reliable indicator of system performance.

2-12 **Page 7-3:** The first full paragraph discusses impact of I/I diluting influent sewage strength and concludes that to meet percent removal requirement for influent at 50-100 mg/l “typically requires tertiary, instead of secondary treatment.” There are two flaws with this statement: 1) 85% removal is a monthly average requirement, not a daily requirement, and peak I/I events generally last only a few days at most (influent at 50-100 mg/l for an entire month would be very unusual); and 2) the Elk River WWTP has not had trouble meeting 85% removal despite being subject to high I/I during heavy rainfall and having no tertiary treatment facilities.

The 2nd full paragraph on this page implies that the Elk River WWTP cannot meet its percent removal requirement. This is inaccurate. The City consistently meets the requirement. As stated above, the requirement is based on monthly average. Peak I/I events typically last only several days, at most.

Page 7-4: The second full paragraph under **Section 7.3** states that “both HCSD’s and Eureka’s collection system experience significant I/I and are near or at capacity in many locations.” It goes on to say that “the Elk River WWTP is also near capacity and experiences problems related to I/I during winter months.” These statements are oversimplifications. Capacity issues occur at only a few locations in the collection systems and only during significant rain events. The proposed Martin Slough system will address many of these. The WWTP has not had I/I related problems other than reduced, but still acceptable, short-term removal efficiency. Although extreme wet weather peak flows approach the design capacity of the plant, the plant is designed to treat all the flows that the collection system conveys, in its current configuration and with the current peaking factor.

2-13 The City’s August 27, 2007 letter to Neal Carnam, authored by Mike Knight, clarified W&K’s misconceptions in plant design capacity versus currently permitted capacity, and also explained that additional plant capacity could be gained by identifying and removing hydraulic or process bottlenecks. However, W&K’s current version of the infrastructure document still states that the WWTP is near capacity. The incorrect assumption in making this statement is that all components of the plant share the same limitations. In fact, each unit process within the WWTP is operating at a different capacity level. So, rather than a total plant expansion to increase capacity, the City’s Wastewater Facilities Plan has preliminarily identified cost effective opportunities to remove bottlenecks to yield increases in capacity. The City feels this strategy will allow affordable, step-wise increases in capacity of the WWTP in order to keep pace with development over the next 20 years. Therefore, a better statement might be: “The Elk River WWTP is approaching capacity limitations in some of its unit processes. However, preliminary

analyses in the City's Wastewater Facilities Plan indicate additional capacity may be gained by removing hydraulic and process bottlenecks. The City feels this strategy will allow step-wise increases in capacity of the WWTP and allow it to keep pace with development over the next 20 year planning horizon."

2-14 **Page 7-5:** The next to last paragraph should be revised to say that after Martin Slough, the Hill Street Pump Station will only have a 0.6 mgd capacity deficit in the 20-year event with current population and without I/I reduction work.

Page 7-6: The last sentence of the first paragraph states: "There is speculation that RWQCB may question the use of blending in upcoming permit renewals." The City takes exception to the inclusion of this type of speculation in this important document. As previously explained in the City's August 27, 2007 letter to Neal Carnam, the City is meeting it's NPDES permit requirements and is not in violation of Section 301(b)(1)(B) of the Clean Water Act. Whatever regulatory changes are adopted in the future regarding the blending issue should be addressed when and if they are adopted. Continuing to include this speculative statement in this document is pointless and misleading; the City again, requests that it be deleted from the document. Consider replacing the last sentence of the 1st paragraph with:

"The City will pursue continued use of blending, consistent with currently proposed EPA policy; however, the Facilities Plan will include a layout that shows the unit processes necessary to route even peak flows through secondary facilities."

The second paragraph implies that EPA has given up on adopting any policy that would include blending. In fact, EPA's proposed policy from 2006, subsequent to the original 2003 blending policy referenced, specifically makes provisions for wet weather "management techniques" that include bypassing of secondary facilities. More information is available at EPA's website: http://cfpub.epa.gov/npdes/wetweather.cfm?program_id=0. The following is an excerpt from this site:

2-15

Wet Weather Discharges

Proposed Policy

Peak Wet Weather Discharges from Municipal Sewage Treatment Facilities

"EPA proposed for public comment a new policy for addressing very high or "peak" flow events at municipal wastewater treatment plants that are a result of significant storm events. The policy follows the joint recommendations of the Natural Resources Defense Council (NRDC) and the National Association of Clean Water Agencies (NACWA). The proposed policy describes limited circumstances when certain management techniques may be used by the operator of a municipal wastewater treatment facility to address very high flows that result from storm events. The policy also indicates how the management of peak flows must be documented in National Pollutant Discharge Elimination System (NPDES) permits.

Aging sewer line infrastructure in many communities allows rain and snow melt to enter sanitary sewer systems. During significant storm events, these high volumes can overwhelm certain parts of the wastewater treatment process and may cause damage or failure of the system. Operators of wastewater treatment plants must manage these high flows to both ensure the continued operation of the treatment process and to prevent backups and overflows of raw wastewater in basements or on city streets. The proposed policy encourages municipalities to make investments in ongoing maintenance and capital improvements to improve their system's long-term performance.

The policy outlines the limited circumstances when these management techniques can be used and how they must be documented in NPDES permits. The policy also stipulates that all NPDES permit limits must be met at all times. The policy encourages further public participation via the National Pollution Discharge Elimination System (NPDES) permit process, and provides for public notification when certain management techniques are used.

The proposed Peak Wet Weather policy is substantially different from the November 2003 proposed "blending" policy. It requires that discharges must still meet all the requirements of NPDES permits and that operators demonstrate that all feasible measures are used to minimize wet weather problems. It also prohibits the use of these peak flow management techniques in systems where high peak flows are due to poor system maintenance or a lack of investment in upgrades to improve treatment capacity. The policy is designed to provide greater national consistency while still incorporating flexibility to recognize site-specific issues. EPA encouraged interested parties to read the proposed policy and supporting materials and to provide written comments. Comments have been received or postmarked on or before January 23, 2006."

2-16 **Page 7-6:** The report states: "In conclusion....Development in Humboldt Hill is mainly limited by the Elk River WWTP's ability to handle increased flows." This statement appears to come out of nowhere, with no backup discussion preceding it. It implies that development in Humboldt Hill is being constrained by the WWTP's capacity limitations. However, in Winzler & Kelly's analysis of flows for the Dunn-Robinson-Forster-Gill Ridgewood Village development, they conclude that the HCSD wastewater system serving the Humboldt Hill Area has existing excess capacity for 3,800 additional EDU's. Given HCSD's remaining unused contractual capacity at the WWTP, according to the W&K wastewater flow calculations for Ridgewood Village the unused contractual capacity would be sufficient to serve at least this many units. Therefore, this statement is misleading in the unqualified manner with which it is written, and should either be qualified or deleted from this section. This statement is also repeated on **page 7-30** and includes a limited backup discussion. However the capacity of the WWTP is currently not inhibiting development in the Humboldt Hill area, as the statement implies. It is only when one considers the aggregate future full development of the south Eureka area does the WWTP capacity become an issue, the magnitude of which will be determined by the ultimate density of development.

2-17 **Page 7-7:** At the bottom of the page is the following paragraph quoted from the Eureka Community Plan; "The Board supports submittal of a General Plan Amendment to remove density limitations placed on the Eggert North, Eggert South, and Robinson-Dunn properties, if such submittal includes a traffic study which documents the traffic service impacts of removal of those densities." There is an inherent flaw if this statement is taken at face value, and this should be pointed out in the report if the statement is to be used therein. Submittal of a traffic study does not guarantee that density restrictions will be removed if the results of the study do not support it. The danger in using this statement is the compounding of errors from the previous Eureka Community Plan, when the County ultimately failed to fully mitigate significant environmental traffic impacts, and failed to implement adopted mitigation.

The fact that the current Traffic Study is trailing the rest of the General Plan Update work is a significant problem. As it relates to wastewater, connections to the MSI require that traffic impact fees are identified and implemented before any connections will be allowed. The issue and methodology of resolving traffic impacts need to be agreed upon by the impacted agencies before density revisions can be addressed. In other words, it is not sound planning practice to

set policy based on the unknown results of future studies. It would be prudent to fully assess the traffic impacts before choosing which sketch plan to adopt.

It is important to discuss at this point the requirement that the Martin Slough Interceptor Environmental Impact Report (EIR) has placed on allowing future sewer connections to the MSI with respect to Traffic Impact Fees. The adopted MSI EIR Mitigation Measure 11-1.3 prohibits connections to the MSI pending the development of a Memorandum of Agreement (MOA) to identify mitigation for cumulative traffic impacts, and the implementation of a Circulation Improvement Fund Program: "The City shall prohibit connections to the Martin Slough Interceptor, or any part of the City's wastewater collection system that will develop additional conveyance capacity as a result of the Martin Slough Interceptor Project, until the MOA and the Program are in place and appropriate funding has been secured for improvements identified in the Program." Thus, the fee cannot be identified until the impacts from the study are known, and connections cannot be made until the money is 'in the bank'.

Pages 7-6 through 7-10: The W&K report cites development figures from the MSI EIR, then proceeds to make comparisons of MSI flows to McKinleyville and Glendale. The comparison to McKinleyville and Glendale is of no value for the reason noted in the third full paragraph on this page: the peak hour per capita flows for McKinleyville and Glendale are for some unspecified recurrence interval (less than the 25-year event used for MSI) determined through some unspecified method. It is misleading to suggest a 40 percent increase in total EDUs served by MSI could be predicted with any confidence at all from this type of comparison. If W&K wants to make such a comparison, then documentation of their specific analysis methods (with comments on accuracy and applicability) should be provided.

2-18 The other issue is that new systems (presumably the basis of comparison used for McKinleyville and Glendale) don't stay new forever. Defects and improper connections occur, and older areas are generally a higher priority for assessment and rehabilitation. So, while I/I may be low initially, it can be expected to increase over time. Furthermore, the report draws conclusions based on these comparisons, stating on **page 7-10**, "This analysis shows that the MSI could potentially have sufficient capacity to serve the additional development within the expanded service area boundary at future densities." While the densities identified in the MSI EIR may be conservatively erring on the side of caution against system overflows, the analysis in the report does not support the conclusion that the MSI can support the increase in density from 9,765 EDU's to 13,581 EDU's, an increase of nearly 40%. It would be more correct to say that the MSI could potentially serve more equivalent dwelling units than it was conservatively designed for; however at this time it is unclear what that actual development number is.

The Node totals provided on **page 7-8** for COE appear to be accurate per our MSI technical memo regarding densities. However, the City has since corrected an error for the Robinson-Dunn property to include the additional 240 primary and associated secondary units that would be allowed under the ECP, for a total of 940 on that property (700 in the area encumbered by the PUD density limitation plus 240 units in the unencumbered area, which equals 940 as identified in Table 2 in Section 2201 of the ECP). Thus, the total for Node 9 for COE is now 519, and not 388. The corrected number was used in determining the Martin Slough Pump Station capacity of 14.1 MGD.

The County numbers provided on **Page 7-8** do not match the numbers the City was provided from the County in letters from Tom Hofweber. For Node 2, the City has 1,752 EDU (W&K 1,865), Node 9 870 EDU (W&K 707) and Node 18 2,682 EDU (W&K 2,362). None of the differences are extraordinary, so there is probably no pressing reason for them to be changed. The City and County may simply want to acknowledge the differences in an effort to work toward consistency in our numbers.

The EDU totals are relatively close for the highest-density scenario; the report states there will be 13,581 EDUs and the City shows 13,940 EDUs in our calculations. The City agrees on the existing EDUs and the additional COE EDUs. The City shows an additional 9,007 County EDUs (high County estimate for future primary and secondary residential development within the County) where the infrastructure report has 8,638 EDUs. Since the City cannot tell where the County numbers came from, it is difficult to comment further.

At the top of **page 7-8**, the report states that “The difference between the City of Eureka MSI project area dwelling unit count at build-out and the ‘high’ dwelling unit count of the portion of the Humboldt County South Eureka ‘high’ within the Martin Slough basin is +1,608 EDUs.” The City is not sure how this number was arrived at, as it does not equal the total of the differences between the MSI project and the County USA High represented in the three nodes listed. According to the information provided by Tom Hofweber to the City, the County’s high-density alternative could be as much as 4,239 EDUs more than what the MSI was approved and designed for; all the additional EDUs are in the County. This total includes all the nodes, plus all the County Add Areas (1 through 8). If we use the total of 7,135 new EDUs generated by the County from primary and secondary residences as provided for in the County’s 8-17-05 letter (all the nodes plus Add Area 5), that total is still 2,367 higher than the City’s MSI project.

The City is curious as to why the numbers seem to be relatively close on the total for the County’s high build-out, yet the City and County disagree on the difference between these two numbers. It would be wise to look further at these development numbers to ensure the report is using the correct numbers, particularly since the report concludes that the MSI project can potentially accommodate all of this additional growth.

The City has been operating under the assumption that the County generally agrees with the numbers used in the Martin Slough Interceptor EIR for build-out under the current Eureka Community Plan. It is certainly important that the City and County more or less agree on these numbers. Agreeing on future development numbers under the updated general plan, numbers that are not accommodated in the design of the MSI, is less important in terms of the MSI project design but is still important to the City. One example of why future development numbers would be important to the City is the impact of those numbers on the future traffic impact fee required before a hook-up can be made to the MSI. If the development numbers are too high, the traffic impact fee will be too low and not enough money would be collected to construct improvements needed to relieve traffic impacts in the City resulting from County development. Secondly, correct numbers are important to HCSD in terms of setting correct hook-up fees, for example. And finally, correct numbers are important to developers and the County to insure infrastructure is adequately sized and costs are allocated properly.

Page 7-8 contains a statement that the area within the HCSD boundaries in the southwest corner of Section 14 is not included in the MSI project. Although within HCSD boundaries, the area is outside the ECP urban limit line. This should be noted to explain why the City did not include it in the project area.

Page 7-8 contains a statement that Add Area E containing the North McKay Tract and Add Area F containing the South McKay Tract were not included in the MSI project area. It should be clarified that although the Add Areas were not included, North and South McKay were included in the MSI project.

W&K refers to letter-designated Add Areas E and F on **Page 7-9**, yet there is no exhibit showing these areas; an exhibit should be included. Based on the map of these areas the County provided, the City does not agree with the following statements:

It should be noted that most of these additional development areas were evaluated by the City of Eureka in the MSI project Final Alternative Analysis Report and EIR . . . The modified service area boundary (as identified in Draft EIR Figure 2-2) included HCSD's current boundaries as well as portions of proposed additions to the HCSD sphere of Influence referred to as 'Add Area E' and 'Add Area F'.

Virtually none of Add Area E (640 acres) was considered in any of the project alternatives, except for perhaps 2 or 3 acres within Basin 2d in Section 12. Thus, it is misleading to state that portions of Add Area E were included in the modified service area boundary identified in the Martin Slough Interceptor EIR. Add Area F appears to be about one-quarter section short of two full sections in size, or roughly 1,120 acres. The only portions of this area included in the modified service boundary alternatives were the County's Add Areas 2 and 3. The City estimated these to be approximately 45 acres and 11 acres respectively, or only around 5% of the 1,120 acres in Add Area F. Again, simply stating that the City's modified service area boundary included portions of these areas without further information is misleading, as the portions included were insignificant.

Page 7-9 at the bottom states that according to City staff, the MSI is being designed to serve a full build-out to 9,765 EDUs. The number of EDUs for the current project is actually 9,701. The City reconciled a couple of errors (such as adding back in the 240 units for Robinson-Dunn, and removing 86 EDU within the coastal zone on the Reardon property), which changed the totals provided in the EIR.

Page 7-6 states "The intent of the (MSI) project is to reduce demands on portions of the city's system that are overloaded and from time to time experience sanitary sewer overflows." The primary intent of the MSI is to develop and construct a wastewater collection and conveyance project that reduces the incidences of sanitary sewer system overflows in the Martin Slough basin, thereby avoiding reductions in water quality in the aquatic environment near the City. This objective will be accomplished by reducing demands on portions of the existing system. Reducing the demands is not the primary intent, but rather is a way of achieving the primary goal of the project.

The City reiterates the December 16, 2005 letter we wrote to Tom Hofweber regarding the MSI project's ability to serve additional County development. The City clearly stated that we will not compromise the ability of the MSI system to contain avoidable wastewater overflows, and thus significant changes in the current design of the project would likely be required to accommodate the additional wastewater flows from the County's increased development numbers. The protection from overflows built into the system cannot be used to bank capacity for future development above what the MSI project was designed for. This would lead either to a reduction in the margin of safety built into the system, or it would mislead those using the W&K report into believing capacity is available where it may not be. While the City noted in our letter that there is a potential for the system to accommodate additional wastewater flows without increasing the potential for unavoidable wet weather overflows, the monitoring of the hydraulic capacity of the system over the years through flow metering will reveal whether or not there will be future additional capacity in the system.

The W&K report seems to be biased in regard to capacity, in that it appears to labor insistently to try and reach a conclusion that the MSI can accommodate all the increased density desired by the County. The report does not address system constraints such as the overriding project purpose and need which is to eliminate and prevent system overflows as opposed to accommodating as many hook-ups as possible. The report seems to summarily conclude, after

very thin analysis, that the MSI could accommodate all of the County's increased growth while the City specifically said it could not. The capacity issues and constraints surrounding the MSI project should be more clearly and accurately represented in this report so proper planning for wastewater disposal can occur in a proactive, rather than reactive manner.

2-19 **Page 7-31:** Table 7-8 lists the I/I Peaking Factor in the South Eureka USA as varying between 6-9. In fact the range varies from 3.3 to 10, with the average being just over 5, for the 20-year return period storm event. See previous comments on Executive Summary.

2-20 **Page 7-46:** The last paragraph under Myrtle town USA states "The District technically has approximately 4,980 available connections." Again (see previous comments for Humboldt Hill USA) there is no documentation to support this number.

Draft Infrastructure and Services Element

The City has also reviewed the draft County's Community Infrastructure and Services Element and offers the following comments relative to wastewater treatment and wastewater connection fees.

Page 7-4: IS-G1 'Adequate Infrastructure and Services' – The problem with the goal as stated is that it does not require infrastructure to be in place prior to approving development. It would be better stated with stronger, more affirmative language, such as "Ensure adequate infrastructure is available prior to approving new development." The corresponding implementation measure IS-1M1 on **pages 7-16 and 7-39**, is similarly weak in assuming that merely adopting an ordinance establishing standards will be adequate progress in addressing the lack of infrastructure. An added sentence ensuring the infrastructure is in place prior to approval of new development would give this implementation measure more validity

Page 7-16: IS-IM5 'Impact Fees' – This implementation measure needs to be strengthened by adding "and Implement" after "Adopt". As stated in the above discussion regarding the Martin Slough Interceptor EIR traffic impact fee requirement, impact fees need to be collected before sewer connections will be allowed. This is also relevant to Implementation Measure IS-IM5 on **page 7-39**, which specifies adoption, but not implementation, of the Impact Fees. Also on **page 7-16**, IS-IM6 'Roadway Infrastructure Impact Fees' should similarly include a statement that the impact fees shall be implemented. This measure should also explicitly define the term "off-site" as including areas within incorporated City boundaries that may be negatively impacted by proposed development in unincorporated County territory.

Page 7-44: IS-IM29 'Coordination with Service Providers' – This implementation measure should be amended by adding that impact fee programs shall be in place and implemented prior to approving proposed development.

Page 7-45: The CEQA analysis concerning roadways is a critical element that appears to be missing. The City is also concerned that the Greater Eureka Area Travel Model (GEATM) is not proposed to be used to evaluate the effects of the County's preferred land use alternatives at the EIR level. Please provide the City the reasoning for not using the GEATM for the General Plan EIR. CEQA findings and results should be derived from the GEATM, or similar model, administered only by registered civil or traffic engineers. Furthermore, to assure proper use and function of the calibrated model, a memorandum of understanding or agreement between Caltrans, the County of Humboldt, and the City of Eureka explaining the proper use and protocol for the GEATM should be executed prior to the County's use of the model for the purposes of CEQA or adopting land use policies.

The County should strive for a land use plan that results in acceptable levels of service through the implementation of all feasible mitigation for traffic impacts to the City of Eureka. The City will not support a land use plan that results in a Statement of Overriding Considerations for traffic impacts to the City of Eureka and greater Eureka area. Finally, the City of Eureka supports that the ongoing use and maintenance of the GEATM be undertaken by the Humboldt County Association of Governments or similar impartial entity. The City supports use of a properly calibrated and implemented regional transportation model for obvious reasons. This should be a General Plan goal the County should strive to accomplish.

Conclusion

The City of Eureka thanks you for the opportunity to comment on the Community Infrastructure & Services Technical Report, as well as the Draft Infrastructure and Services Element for the County's General Plan Update. We look forward to continuing dialog with the County as these documents progress towards completion. Please do not hesitate to contact me should you have any questions or wish to discuss our comments.

Sincerely,



Robert S. Wall, AICP
Senior Planner
Long Range Planning Division

- c David W. Tyson, City Manager
- Kevin Hamblin, Community Development Director
- Brent Siemer, City Engineer
- Mike Knight, Assistant City Manager
- Lisa Shikany, Environmental Planner
- Kurt Gierlich, Deputy City Engineer
- Steve Davidson, HCSD
- Rex Jackman, Caltrans
- Mayor and City Council

Response to Letter 2 from Robert S. Wall, Senior Planner, Long Range Planning Division, City of Eureka

Note: this comment letter contained comments regarding response to Community Infrastructure and Services Element, in addition to comments on the Community Infrastructure and Services Technical Report. Comments regarding the Community Infrastructure and Services Element can be found with other responses to General Plan Update at the following web location www.planupdate.org.

Response to comment 2-1: The commenter generally describes the methodology for low and high projections of development potential within urban study areas. The commenter also identifies the source of the travel demand data in the roads section, Sketch Plan 3 from an earlier phase in the General Plan Update planning process, as an alternative that was opposed by the City of Eureka. No response to comment required.

The commenter further states that Alternative B is Sketch Plan 3. This comment is beyond the scope of the Technical Report because the land use assumptions relating to the high and low development estimates was provided by Humboldt County. The commenter is encouraged to review Part 1, Setting, of the Public Hearing Schedule for the Preliminary Draft Plan, for a discussion of the relationship between the Sketch Plan Alternatives and the proposed Draft Plan.

Response to comment 2-2: The commenter makes statements regarding Section 1.3.2, Humboldt County Population and Housing Growth, as well as comparisons to background information in Table 1-4 and development potential in Table 1-5. The commenter should note that information contained in Section 1.3.2 reflects countywide demographics, which include unincorporated and incorporated areas. Tables 1-5 and 1-6 contain information regarding past growth and future development potential within urban study areas, which are located within the unincorporated area only. In addition, the commenter should note that the estimates of potential dwelling units relate to what the land can bare, not to any specific planning period. For addition description of the development projections, see Section 1.3.1, Development Projections.

Response to comment 2-3: The commenter indicates that Table 2-1, Humboldt County Public Works Road Fund Budget, 2002-2007, does not contain a reference. At the time that this section of the Technical Report was originally prepared, the source of this table was the proposed budget for fiscal year 2007-08. The fiscal year 2007-08 budget has subsequently been adopted and this table has been revised to reflect the new information and a reference has been included.

Response to comment 2-4: This comment agrees with statements found on Page 2-9 and states that the City of Eureka feels that Humboldt County has not put forward plans to address traffic conditions in the South Eureka USA and the City of Eureka. Section 2.4.4.1 has been substantially revised and includes additional information regarding traffic conditions in the City of Eureka. The County agrees that traffic impact fees are needed to help fund future improvements.

Response to comment 2-5: This comment states that Table 2-3, Roadway Capacity by Urban Study Area, does not contain references to City of Eureka streets. This table has been the subject of numerous comments regarding its lack of clarity. Table 2-3 has been divided into two tables, Table 2-3A, Example USA Roadway Segments from the GEATM Showing 2005-2030 ADT Increase of Greater than 50% and Table 2-3B, Example USA Roadway Segments from the GEATM Showing 2005, 2030 V/C Ratios of Greater than 90%. These revisions were made to clarify the relationship between volume to capacity ratios and average daily trips. The narrative in Section 2.4.4.1, Roadways with Capacity Constraints, has been substantially revised to further clarify the interrelationship between City of Eureka streets and the County road network.

Response to comment 2-6: This comment notes that none of the improvements listed on Page 2-20 are directed towards City of Eureka streets. Section 2.7.2, Capacity-Related Roadway Recommended and Planned Improvements, has been substantially revised. Table 2-9, Planned or Proposed System Upgrades/Expansion to Reduce Congestion; Preliminary Cost and Schedules where Defined by USA and Table 2-10, Recommended City of Eureka Transportation Mitigation Projects: For County General Plan Update – Sketch Plan 3 Cumulative Projects Present to the Year 2030, have been combined and the narrative in Section 2.7.2 has been expanded to further describe planned and proposed projects in the south Eureka area and the City of Eureka.

Response to comment 2-7: This comment indicates that the City of Eureka disagrees with a statement on page 2-23 that City of Eureka projects will require analysis to allocate the share of improvement costs between existing and future development and development within and outside the City. See response to comment 2-6 above.

Response to comment 2-8. This comment notes that a source of transportation revenue has been omitted from the discussion on page 12-21. State Transportation Improvement Sales Tax and local sales tax revenue have been added to the discussion of infrastructure financing in Section 12.2.7, Transportation.

See www.planupdate.org for responses to Community Infrastructure and Services Element related comments.

Response to comment 2-9. This comment notes that Executive Table ES-1 does not contain documentation supporting the total number of available connections for HCSD identified. The calculation of the total number of available connections for HCSD can be found in Section 7.4.6.1, Summary, under the heading “Existing Capacity.”

Response to comment 2-10. This comment states that the Technical Report incorrectly identifies the City of Eureka wastewater collection system as having a peaking factor of 8 to 10. The commenter states that the average peaking factor is just over 5, whereas the peaking factor used in this report represents the maximum flow when compared to average daily flows. Page xxv will be revised to reflect to clarify this. See also response to comment 2-19.

Response to comment 2-11. This comment indicates that a statement at the bottom of page 7-2 regarding the McKinleyville CSD peaking factor is not correlated with peak event storm recurrence intervals or storm duration. The commenter also notes that there are a number of issue that effect this number not the least of which is the definition that one uses to define peaking factor. Even with different definitions, the authors believe that peaking factors are an important indicator of the systems performance. This statement will be revised to include the following: “(this peaking factor is based on data provided by the McKinleyville CSD and is not directly correlated with peak event storm recurrence interval or the duration).”

Response to comment 2-12. This comment notes that the discussion on page 7-3 does not accurately characterize the “percent removal requirement” found in local agency wastewater treatment permits. In order to clarify the percent removal requirement, the following paragraph will be added following the first full paragraph on page 7-3:

“It should be noted that the requirement to maintain effluent quality by removing 85% of BOD and TSS in wastewater is based on a 30-day average, rather than on daily records where peak storm events would significantly affect a WWTP’s ability to achieve removal requirements. However, average wet weather wastewater flows can be significantly higher than average dry weather flows and can cause dischargers to violate percent removal requirements.”

Response to comment 12-13. This comment addresses statements regarding the capacity of the Elk River WWTP contained in Section 7.3 HCSD and Eureka. Section 7.3 has been substantially revised based on comments by HCSD and the City of Eureka. The following suggested revision by the City of Eureka regarding plant capacity has been included in Section 7.3 of the Technical Report:

“It should be noted that each unit process (pumps, pipes, tanks, etc.) within the Elk River WWTP may operate at different capacity levels. The Elk River WWTP is approaching capacity limitations in some of its unit processes. The Elk River WWTP infrastructure study is intended to identify hydraulic and process “bottlenecks” and to propose cost effective improvements to increase capacity, rather than construct a total plant expansion. The City expects that this strategy will allow step-wise increases in WWTP capacity that keeps pace with development over the next 20 years.”

Response to comment 2-14. This comment refers to detailed discussion of the Martin Slough Interceptor Project. Based on comments submitted by HCSD and the City of Eureka, the sentence that this comment refers to was deleted because it was not necessary to ensure the readers full understanding of wastewater capacity issues in the greater Eureka area.

Response to comment 2-15. These comments refer to detailed discussion of the Martin Slough Interceptor Project. See response to comment 2-14.

Response to comment 2-16. This comment notes that HCSD’s contractual wastewater capacity at the Elk River WWTP covers the development capacity of the Myrtle town, South Eureka, and Humboldt Hill USA in aggregate. Statements regarding the limitations on development capacity within HCSD related USAs (page 7-6 and 7-30) will be expanded to include the following:

“..., when aggregated with the development potential of other HCSD USAs,...”

Response to comment 2-17 This comment relates to a portion of Section 7.3.1, Martin Slough Interceptor, which has been deleted. Section 2.7.2, Capacity-Related Roadway Recommended and Planned Improvements, has been expanded to address City of Eureka comments and to include discussions regarding the Martin Slough Interceptor traffic mitigation program and the Eureka Community Plan related traffic improvements.

Response to comment 2-18. . This comment refers to detailed discussion of the Martin Slough Interceptor Project. See response to comment 2-14.

Response to comment 2-19. This comment notes that Table 7-8 incorrectly lists the peaking factor range for the South Eureka USA as 6-9. Table 7-8 has been revised to state that the I&I peaking factor is 3.3 – 10 for the South Eureka USA. See also response to comment 2-10.

Response to comment 2-20. This comment refers to a statement on page 7-46 that HCSD has 4,980 available connections, and requests that this statement be documented. See response to comment 2-9.

See www.planupdate.org for responses to Community Infrastructure and Services Element related comments.



HUMBOLDT ASSOCIATION OF REALTORS® INC.

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January 11, 2008

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JAN 14 2008

HUMBOLDT COUNTY
PLANNING DIVISION

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- PRESIDENT-ELECT**
Eric Peterson
- SECRETARY/TREASURER**
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- Kathi Ray
- Jeremy Stanfield
- EXECUTIVE OFFICER**
Lois Lee Busey

Humboldt County Planning Commission
Community Development Services Dept.
Planning Division
3015 H Street
Eureka, California 95501

Re: Humboldt County General Plan Update
Community Infrastructure and Services - Technical Report

Dear Commissioners:

General Comment

The Humboldt Association of REALTORS® has completed an initial review of this lengthy Technical Report and comments first that its size and detail has made it difficult to comprehensively review in the brief time period provided.

We can, at this point however, ask why some topics are included the report, for example; streetlights, parks and recreation, schools, and public utilities? These were not included in the original scope of work when we reviewed the scope document in February, 2007. The inclusion of what appears to be added topics to the Technical Report produces a distraction to more important infrastructure issues. Given this, we suggest no further time should be expended on these subjects.

In addition, although police, fire, stormwater, drainage (including the discussion on culverts) and flood control were listed in the scope of work, we advocate that no additional time should be spent on these either. At least not in the discussion about infrastructure. Perhaps they could be addressed in other elements such as the Safety Element or Open Space Element, as appropriate.

We suggest fire and sheriff issues should not even be in the General Plan. They are jurisdictionally separate from the County, not under County control and are already addressed in separate Master Service Plans. We would also like to comment here that the fire districts should be receiving more Proposition 172 money. Presently they receive some 2% of the revenues. This percentage should be increased substantially given the importance of fire protection.

Our overall emphasis here is that what we consider the core infrastructures – water, sewer and roads – require the most attention. Given their poor condition, as described in the report, we strongly suggest that the County, from this point forward, focus its energies on these three components.

Comment on “Executive Summary”

Table ES-1

Two issues

1. Net Developable Land

3-2

This table is labeled “Summary of Infrastructure capacity limitations within the County”. The title should include the words “and land use density limitations”. The addition is suggested because land use density is included in the table (under “Description of limitations”) and we have concerns with these densities. There is still the issue, as we have expressed previously, regarding accuracy of net developable land (identified in the report effectively as land use densities) assumed by the County. The report discusses determining factors in the development of this table – water/sewer capacity or land use densities (LUD). The LUD (development potential) is determined after adjusting for physical constraints on the land. It is our belief that we have effectively returned to a previous issue, i.e. the previous Northern California Association of Home Builders and Humboldt Association of REALTORS® point about ignoring other factors such as market/economic/owner constraints which also effect land use density/land developability (see April 18, 2007 letter attached):

- The projected development potential estimates appear to be based on the same data as with the ground truthing exercise of five years ago. The County does not appear to have amended the land use maps as per that experience.
- Critical considerations (multiple owners, long term land investment, lack of capital and other market related issues) are still not included as constraints thereby rendering development potential estimates suspect.
- Economic difficulties encountered while trying to develop housing means some projects will never materialize. Disregarding this market reality again, in this report, renders projections unrealistic.

3-3

2. Road Limitations

Road constraints, their condition and carrying capacity, do not appear to be

included in calculating land use densities/development potentials in this table. This constraint is a critical factor when making these calculations. We suggest that if road limitations are not considered then a basic piece of infrastructure information is missing from the picture. Roads need to be given more attention.

The net developable land and road constraints issues lead to the LUD/development potential. The LUD numbers are important. Of the 42 urban study areas listed in Table ES-1, 22 or one-half have a development-controlling factor dictated by the LUD rather than any infrastructure limitation. And the three significant future growth areas, McKinleyville, Fieldbrook/Glendale and south Eureka, are all most restricted by their respective LUD. The accuracy of the LUD therefore is critical when determining where future housing will occur. We still have major concerns as to that accuracy.

Comment on "Introduction"

Development Projections - Section 1.3.1.

3-4 The concerns regarding the LUD numbers discussed above apply here again. Our concern continues with the report's housing development projections. The report assumes the County's calculation of "net developable acreage" is accurate and the report proceeds to use this data as basic underlying data. We still suggest those numbers are not accurate. The use of inaccurate data tends to undermine the strength of the report, specifically, the inaccuracy leads to an unrealistic estimate of how many housing units can be built over the life of this General Plan.

"Humboldt County Population and Housing Growth" - Section 1.3.2.

3-5 This section reports that since 1990, the production rate of housing construction has been faster than the population growth rate and that at the same time, the average size of households has been decreasing. Although not stated in the report, it could be construed from the discussion that the private market therefore has been positively responding to this demographic change. Housing production has been meeting housing demand as the demographics change to smaller households.

Population Growth Projections

3-6 The report states it is using the most current information possible, the July 2007 State Department of Finance (DOF) population numbers, to create a range of housing need projections. Per the report, the housing demand range (due to

population growth) will be from “somewhat lower” than historic rates (0.5% annualized housing demand) to “considerably higher” than past rates. This higher housing demand growth rate could be as high as 2.5% per year according to the report.

Although decreasing household size is taken into account, a problem could arise if this household size decreases faster than projected. If this were to happen, then the concern is that housing demand could outstrip land supply. The real question becomes whether use of the “upper end” of a 2.5% housing demand growth rate is enough to provide for a contingency in the event household sizes decrease even further than projected.

Comment on Implementation Chapter

As the Association has stated previously, this entire planning means little if there is no implementation. The report notes that there were several implementation recommendations made in the 1995 Eureka Community Plan for the south Eureka area. None of them have been executed. We urge the County to achieve a better record than this.

- 3-7 We understand that there are costs associated with implementation. The report identifies many sources of funding to meet these costs. Among them are development impact fees. These fees are typically built into the price of new housing and therefore increase the cost of new homes. This makes construction of affordable housing that much more difficult. We encourage the County to exhaust all other funding sources before exacting development impact fees.

Additional Comments

- 3-8 [• There need to be common goals between the County, cities, communities and CSDs to successfully implement the General Plan.
- 3-9 [• Only Urban Service Study Areas and Water Study Areas are discussed in this report. We suggest that scope is too limited. Future housing supply will also include rural homes built using private wells and septic systems. These should be included in the discussion.
- 3-10 [• The Association does not support any form of down zoning but we do question the County’s interpretation of the state law regarding median point density.
- 3-11 [• The Humboldt Hill and Myrtle Avenue area numbers/costs for infrastructure repairs are not included in the report. These are two of

the future growth areas and the absence of their cost estimates renders the overall infrastructure estimate of \$250 million dollars incomplete.

- 3-12 [
- This report was prepared with a limited scope and limited funds and therefore has produced limited results.

Closing Comment

County staff set a January 1, 2008 deadline on public comment for this Infrastructure Technical Report. Because of its length, we request at least an additional two months be given to allow for adequate public review. Please note that "public" here includes the various community service districts (CSDs). It is our belief they especially need additional time in order to complete a thorough review. We also suggest that the County consider stopping the update process until the CSDs have responded to this technical report and that we have a more comprehensive review of road conditions. The state of the infrastructure impacts all the other General Plan elements and therefore we cannot realistically go forward with the remainder of the update until we know fully the condition of the infrastructure.

We appreciate your consideration of our comments and look forward to continued participation in the General Plan update.

Sincerely,



Tom Hiller
President



Dave Varshock
Government Relations Chair

Attachment

cc: H. C. Board of Supervisors
Kirk Girard, Planning Director
John Miller, Planner
Neal Carnum, Winzler and Kelly
Mike Knight, City of Eureka
Don Lovett, HCSD
Tom Marking, MCSD
Carol Rische, HBMWD

Humboldt Association of Realtors®

Northern California Association of Home Builders

April 18, 2007

Mr. Neal Carnum
Winzler and Kelly Consulting Engineers
633 Third Street
Eureka, California 95501

Re: Humboldt County General Plan - Infrastructure Element

Dear Neal:

We appreciate being asked to participate in your General Plan work project and being invited to attend the CSD meetings. However, we are concerned with the direction the Infrastructure Element is heading. We would like to support an Infrastructure Element which is accurate and realistic. However, we see many problems with the project at this point.

Specifically:

1. County GIS maps
 - a. The projected density ranges appear to be the same as with the previous ground truthing exercise of four years ago. The county does not appear to have amended the maps as per that experience.
 - b. Critical considerations (multiple owners, long term land investment, lack of capital and other market related issues) are not included as constraints thereby rendering density projections suspect.
 - c. Economic difficulties encountered while trying to develop housing means some projects will never materialize. Disregarding this market reality again renders projections unrealistic.
2. We are very concerned with your comment at the April 5th CSD meeting that certain other constraints (road access, power availability, sewer availability, water availability, public safety and surface water run-off limitations) will be considered on a "limited" basis. These are critical constraints. For any density projections to be

considered legitimate, they must include these items on more than a "limited" basis.

3. We are concerned the Element is already slanted towards smart growth policies given your previous comment (Feb. 20) in support of smart growth.
4. We are concerned the Element is being based on information (County GIS maps) which is inaccurate. (See 1a - 1c above.)
5. We are concerned that the "size of the pipes", specifically the size of the sewer drains, as we understand HCSD and MCSD staff's respective descriptions, are not big enough to support the density ranges as projected by County staff.
6. The economic feasibility of major infrastructure projects (e.g. Martin's Slough project) is not being realistically considered. Adjustments in density projections do not appear to be accounted for if Martin's Slough is indefinitely delayed or fails to materialize altogether.
7. In the previous ground truthing exercise (2003), the County ended up abandoning the results (a statistical modifier) that was to be used in arriving at a net buildable land figure. Given this experience, what is the assurance of a more positive result with the current project?
8. We do not seem to have a definition of what is buildable or developable. These terms need to be defined before proceeding. It is difficult to spend time on this project without having a clear understanding of the goals. Each time we attend a meeting, the goals seem to get lost in the discussion.
9. We suggest there should be several levels to your work:
 - a. what is buildable now
 - b. what can easily be remedied to produce additional units
 - c. what the next logical expansion would be
 - d. what could be produced over the next 20 years
 - e. what need to be fixed over the next 50 year horizon

We feel that the present situation is the same as during the previous ground truthing exercise and that the County has not moved forward from its position from four years ago. We are back to the same problem as regards sensible portrayal of land availability and developability. Because the County is not considering a complete physical picture (numbers 2,4, 5, and 6 above) as well as not considering all market and economic constraints, unrealistic densities are being portrayed. This portrayal is leading to a false picture of how the County will meet its housing needs. If we cannot agree on what is buildable, then it is not at all clear our time working on this project is time well spent.

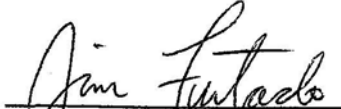
7Mr. Neal Carnum

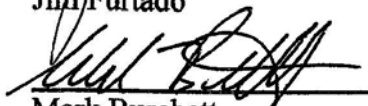
April 18, 2007

Page #3

We request a meeting between the individuals listed below and yourself at your earliest convenience to discuss these issues. Please direct your response to Bob Higgons at 444-8737.

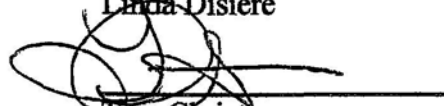
Thank you,


Jim Furtado


Mark Burchett


Bob Higgons


Linda Disiere


Tina Christensen

cc: Kirk Girard, Community Development Services Director
H. C. Board of Supervisors
H. C. Planning Commission

Response to Letter 3 from Tom Hiller and Dave Varshock of the Humboldt Association of Realtors

Response to comment 3-1: The commenter states that no further time should be expended on the topics of street lighting, parks and recreation, schools and public utilities, which were not included within the scope of work of the Winzler and Kelly contract. The commenter further states that no additional time should be spent on police, fire, or stormwater. Comment noted. This comment will be forwarded to the County for consideration.

Response to comment 3-2: This comment notes that the Humboldt Association of Realtors has submitted comments critical of the County's projections of development capacity within urban study areas. The commenter has attached a copy of a prior letter that specified their concerns. The Technical Report on page 1-2 notes the controversy that has surrounded the County's development projections. The discussion on page 1-2 summarizes and responds to what the preparers consider to be the main issues. The Technical Report also states on the same page that "service providers were asked to review the development projections that have been made. Input from the service providers has been valuable and has resulted in revisions to the development estimates."

The comment also indicates that ownership, financial, and market related issues are not factored into the development projections. The Technical Report adequately addresses this comment in page 1-2 in the summary and response to what the preparers consider the main concerns regarding the development projections. In particular, the Technical Report states that "the subjective nature of (the lack of interest by owners in developing at maximum allowable densities) makes it impossible to quantify."

Response to comment 3-3. This comment states that road condition and capacity should be included as a limiting factor in Table ES-1. The narrative preceding Table ES-1 will be modified as follows:

"Roadway capacity is a development limitation and, to a certain extent, can be quantified through Level of Service standards as described in Section 2.4.2, Roadway Capacity and Level of Service (LOS), and Section 2.4.3, Volume to Capacity (V/C) Ratio. However, unlike water quality standards for water and wastewater systems that are regulated pursuant to the federal Clean Water and Safe Drinking Water Acts which involve local, state, and federal agencies, roadway capacity is regulated by the adopted policies of the local land use agency. As a roadway level of service standard is reached or exceeded, traffic delays will necessarily increase but the system continues to function. Unlike water or wastewater systems that reach or exceed capacity and result in a moratorium being imposed by regulators and the service provider, there is no mandatory regulatory response to congested roadways. In addition, unlike water and wastewater systems, roadway capacity in one community can be affected by development in other communities."

This comment also restates the concerns of the Humboldt Association of Realtors regarding the accuracy of the development projections.

Response to comment 3-4. This comment relates to the concerns of the Humboldt Association of Realtors regarding the accuracy of the development projections. See response to comment 3-2.

Response to comment 3.5. This comment restates demographic information contained in Section 1.3.2. No response necessary.

Response to comment 3-6. This comment refers to the range of potential growth rates in the Technical Report, 0.5 to 2.5 percent, which are compared to estimates of development potential within each urban study area. The commenter asks if 2.5 percent is high enough if declines in household size are to increase during the planning period. This housing growth rate range is intended to accommodate a broad potential range of population growth rates in the County over the planning period. The preparers of this Technical Report feel that this range is conservative given the best available information at this time, meaning it contains room for substantial increases in the housing growth above the current rate.

Response to comment 3-7. This comment acknowledges the importance of plan implementation and notes past deficiencies in plan implementation. The commenter further states that the County should exhaust all other funding sources before enacting impact fees. No response to comment necessary.

Response to comment 3-8. This comment states that there needs to be common goals between the various local agencies in the County for the General Plan to be successful. This comment will be referred to Humboldt County. No response to comment necessary.

Response to comment 3-9. This comment states that the Technical Report only addresses infrastructure issues in urban study areas. The scope of work for the Technical Report limited the analysis to infrastructure and service issues within urban study areas. However, the Technical Report and the Water Resources Technical Report does contain information relating to private water supplies and septic systems in Humboldt County. (see pages 27 and 29) This comment will be referred to County staff. No response to comment necessary.

Response to comment 3-10. This comment states that the Humboldt Association of Realtors does not support down zoning and questions the County's interpretation of "median point density." This comment will be referred to Humboldt County. No response to comment necessary.

Response to comment 3-11. This comment states that Humboldt Hill and Myrtle town Avenue costs are not included in this Technical Report. If this comment refers to roadway improvement costs, the commenter should review Table 2 9, Planned or Proposed System Upgrades/Expansion to Reduce Congestion; Preliminary Cost and

Schedules where Defined by USA, for estimated improvement costs to Humboldt Hill Road and Myrtle Avenue. If this comment refers to water costs, the commenter should refer to Table 6-6. If this comment refers to wastewater costs, planning is currently underway by the City of Eureka and HCSD. This planning may be complete and costs estimates available prior to General Plan Update approval.

Response to comment 3-12. This comment suggests that the Technical Report was prepared with limited scope and funds and the results are therefore limited. Although the preparers of this Technical Report agree that available funds limited the scope of work, the commenter should note that this Technical Report is in far greater detail than other background reports prepared for general plan updates in Humboldt County or throughout the State of California.

Humboldt Community Services District

Post Office Box 158 Cutten, Ca 95534 (707) 433-4558 Fax (707) 443-0818

January 31, 2008
Mr. John Miller, Senior Planner
Humboldt County Community Development Department
3015 H St
Eureka, Ca 95501

Subject: Community Infrastructure & Services
Technical Report, November 2007

Dear John:

Thank you for the opportunity to comment on the Infrastructure and Services Element of the County's General Plan Update. Attached, for your consideration, are the District's revisions to the HCSD infrastructure portion of the plan, as we would like to see it.

The following is a general statement of the philosophy behind the requested changes and the reasoning for inclusion and support of the District's request to expand its Sphere of Influence:

Information - The majority of requested changes consist of corrections of factual information specific to our system including capital improvements, system operation and proposed infrastructure to serve existing and proposed growth.

4-1 { Complicated Descriptions - We have suggested that many sections of the plan be deleted, as they are too complicated or technical for the average reader to comprehend. In addition, we feel that many of these sections and paragraphs are not necessary as part of the General Plan and only serve to distract the reader from the important information we wish to convey and have them understand as a basis for good planning decisions. For example, the section on the Martin Slough Interceptor (MSI) includes so much technical information that the premise of the project and the differences in the capacity and growth projections seem to be lost in the minutia.

4-2 { Growth Projections - The County and District have worked very hard to arrive at realistic growth projections that are consistent with zoning, existing constraints and as confirmed in the field as realistic. This exercise resulted in a realistic number for projected planned growth for each planning area. Thus, we believe it best to use the unit counts that were developed rather than a range of possible growth projections based on an (arbitrary) 0.5% to 2.5% housing projection.

Sphere of Influence Expansion – As the County is aware, in 1998 the District requested consideration of a Sphere of Influence Update to include new areas outside its current planning sphere or boundary limits. At that time, it was suggested that we delay the request and include it in the upcoming General Plan Update. The County's premise was that the General Plan Update could potentially support these additional areas and the General Plan Update together with the environmental review could then be used by the District to support its application before the approval agency, LAFCO. We have therefore included these areas (Areas A through L) in the current document and are looking for the County and this General Plan Update to support its inclusion.

As stated in the document, we are proposing specific Sphere of Influence expansion areas for a variety of reasons including:

- Elimination of "Island Areas" that are not contiguous to the planning area in conformance with LAFCO planning guidelines;
- Provide water service to areas with poor water quality as requested by area residents for their health, safety and welfare; and,
- Develop long-term infrastructure planning for areas we believe will be developed in a 50-year development horizon and impact current requests for sewer service and infrastructure.

4-3

We would like to elaborate on our request to include Areas E & F (designated the "Ryan Slough Area") and provide the County some justification for including these areas. Areas E & F are located outside the District's Sphere of Influence or boundary limits. The State Cortese-Knox Act requires that in order to plan for the orderly development and *present* and future needs of development, that these areas be included within their Sphere of Influence. The North, Mid and South McKay Tracts are currently approved for development within the County's Eureka Community Plan. Providing sewer service to these developments could be accomplished by piecemeal, individual facilities (as has been the case in the past) or regionally planned facilities that can be shared by each of these developments. Areas E & F could be considered the easterly extensions of the already approved McKay Tract developments. They share the same topography, development potential and proximity to urban services. When considering whether to include these areas, please ask yourself the following question based on the premise that fifty years ago there were no public services or population concentration in the Cutten / Ridgewood area: "If the Eggert and Robinson (area) tracts currently planned for development (some 3200 units) were built-out (full)..... Where would the County most logical plan for future growth (i.e.: in another 50 years)....?"

Inclusion of the Ryan Slough areas E & F provide us the opportunity to efficiently provide sewer service to *existing* (and future) development and potentially solve the approaching traffic circulation problems. If the County ultimately decides not to include these areas, the District, respectfully, requests the County us provide a detailed written explanation for the basis of and reason for its denial.

Section 7.3 HCSD and Eureka / Martin Slough Interceptor – As stated above, this section contains too much detailed information that may not be appropriate for a General Plan Update. HCSD suggests that a majority of this section be deleted, leaving only the important information necessary for sound planning decisions. The District suggests that the following major premises and conclusions be included:

4-4

- Description of the City of Eureka owned and operated facility, of which HCSD utilizes a percentage of the capacity.
- That the Wastewater Treatment Plant (WWTP) is well run, but nearing its design and permitted capacity.
- The City of Eureka and HCSD are cooperating and conducting a Wastewater Facilities Plan Study to determine the capacity limitations and costs to expand the facility.
- Both the City of Eureka and HCSD are aware that the WWTP will need to be expanded in the immediate future to support existing and proposed growth and are working towards this goal.
- The Martin Slough Interceptor (MSI) was designed to remedy an environmental problem and sized adequately to also serve approved future growth as adopted in the 1995 Eureka Community Plan. This design capacity consideration resulted in the MSI project being considered “non-growth inducing”.
- That additional future growth contemplated in the General Plan Update can be accommodated by other infrastructure planning without recommending that it (can only) be accommodated if there is “excess” capacity left in the Martin Slough Interceptor.
- That the Martin Slough Interceptor (and previously adopted County General Plan) environmental documents require that the County implement a Traffic Impact Fee on new development prior to new development receiving any sewer connections.

Once you have had time to review our suggested changes with staff and the County’s consultant, we would appreciate the opportunity to review the “Draft” final document.

Very truly yours;



Stephen M. Davidson
District Engineer

Response to Letter 4 from Steve Davidson, District Engineer, Humboldt Community Services District

Response to comment 4-1: The commenter states that the Technical Report is too complicated and that unnecessary information should be deleted. The preparers of this Technical Report have worked closely with Humboldt Community Services District (HCSD) to re-write Chapters 6 and 7 and combine the analysis of Urban Study Areas within the boundaries of Humboldt CSD and delete repeated information. In addition, Section 7.3.1, Martin Slough Interceptor, has been re-written based partly upon input provided by HCSD.

Response to comment 4-2: This comment states that the HCSD worked closely with Humboldt County to develop buildout projections, referred to in the comment letter as growth projections. The buildout projections developed cooperatively between HCSD, Humboldt County, and Winzler & Kelly are the basis of the infrastructure analysis in the Technical Report. The comment further states that the growth rates that are used in the Technical Report are arbitrary. The range of growth rates are considered reasonable and contain the growth rate projected by the State of California for Humboldt County and incorporate the request made by members of the public to consider the potential for a higher growth rate. The range of growth rates used in the Technical Report have been compared to the low and high buildout projections in each Urban Study Area to determine if available residential development capacity can accommodate the broad range of growth rates utilized. See response to comments 1-3, 1-7, and 1-10 for additional information.

Response to comment 4-3: This comment reiterates HCSD's request to have its proposed sphere of influence expansion fully described in the Technical Report. The preparers of this Technical Report have worked closely with HCSD to re-write Chapters 6 and 7 to fully describe the proposed sphere of influence expansions, including the rationale for the requests. The findings section of Section 6.6 and 7.5 evaluates the sphere of influence expansion from a service delivery standpoint. This comment further requests that Humboldt County provide a detailed written response to HCSD if the General Plan Update does not support the proposed change in SOI boundaries. This comment has been forwarded to Humboldt County.

Response to comment 4-4: This comment suggests that most of the detailed evaluation of the Section 7.3.1, Martin Slough Interceptor, be deleted and the commenter proposes new language to replace most of the deleted text. Section 7.3.1 has been revised to reflect this comment.

Response to Letter 5 from Steve Davidson, District Engineer, Humboldt Community Services District

Comments contained in this letter are almost identical to Letter 4 from Steve Davidson, District Engineer, Humboldt Community Services District. See responses to Letter 4.

Humboldt Community Services District

Post Office Box 158

Cutten, Ca 95534

(707) 433-4558

Fax (707) 443-0818

January 15, 2008

See Comment Letter 4 - HCSD

Mr. John Miller, Senior Planner
Humboldt County Community Development Department
3015 H St
Eureka, Ca 95501

Subject: Community Infrastructure & Services
Technical Report, November 2007

Dear John:

Thank you for the opportunity to comment on the Infrastructure and Services Element of the County's General Plan Update relating to our district. Attached, for your consideration, are the District's suggested revisions to the HCSD infrastructure portion of the plan.

The following is a general statement of the philosophy behind the requested changes and the reasoning for inclusion and support of the District's request to expand its Sphere of Influence:

Information - The majority of requested changes consist of corrections of factual information specific to our system including capital improvements, system operation and proposed infrastructure to serve existing and proposed growth.

Complicated Descriptions - We have suggested that many sections of the plan be deleted, as they are too complicated or technical for the average reader to comprehend. In addition, we feel that many of these sections and paragraphs are not necessary as part of the General Plan and only serve to distract the reader from the important information we wish to convey and have them understand as a basis for good planning decisions. For example, the section on the Martin Slough Interceptor (MSI) includes so much technical information that the premise of the project and the differences in the capacity and growth projections seem to be lost in the minutia.

Growth Projections - The County and District have worked very hard to arrive at realistic growth projections that are consistent with zoning, existing constraints and as confirmed in the field as realistic. This exercise resulted in a realistic number for projected planned growth for each planning area. Thus, we believe it best to use the unit counts that were developed rather than a range of possible growth projections based on an (assumed) 0.5% to 2.5% housing projection.

Sphere of Influence Expansion – As the County is aware, in 1998 the District requested consideration of a Sphere of Influence Update to include new areas outside its current planning sphere or boundary limits. At that time, the County suggested that we delay the request and include it in the upcoming General Plan Update. The County's premise was that the General Plan Update could potentially support these additional areas. The General Plan Update together with the environmental review could then be used by the District to support its application before the approval agency, LAFCO. We have therefore included these areas (Areas A through L) in the current document and are looking for the County and this General Plan Update to support its inclusion.

As stated in the document, we are proposing specific Sphere of Influence expansion areas for a variety of reasons including:

- Elimination of "Island Areas" that are not contiguous to the planning area in conformance with LAFCO planning guidelines;
- Provide water service to areas with poor water quality as requested by area residents for their health, safety and welfare; and,
- Develop long-term infrastructure planning for areas we believe will be developed in a 50-year development horizon and impact current requests for sewer service and infrastructure.

We would like to elaborate on our request to include Areas E & F (designated the "Ryan Slough Area") and provide the County some justification for including these areas. Areas E & F are located outside the District's Sphere of Influence or boundary limits. The State Cortese-Knox Act requires that to plan for the orderly present and future development needs, that those areas be included within the agency's Sphere of Influence. The North, Mid and South McKay Tracts are currently approved for development within the County's Eureka Community Plan. Providing sewer service to these developments could be accomplished by piecemeal, individual facilities (as has been the case in the past) or regionally planned facilities that can be shared by each of these developments. Areas E & F could be considered the easterly extensions of the already approved McKay Tract developments. They share the same topography, development potential and proximity to urban services. When considering whether to include these areas, we asked ourselves the following question based on the premise that fifty years ago there were no public services or population concentration in the Cutten/Ridgewood area: "If the Eggert and Robinson (area) tracts currently planned for development (some 3200 units) were fully built-out, where would the most logical location for future growth in another 50 years occur?"

Inclusion of the Ryan Slough areas E & F provide us the opportunity to efficiently provide sewer service to *existing* (and future) development and potentially solve the approaching traffic circulation problems. If the County ultimately decides not to include these areas, the District, respectfully requests the County us provide a detailed written explanation for the basis of and reason for its denial.

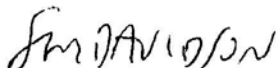
Section 7.3 HCSD and Eureka / Martin Slough Interceptor (MSI) – As stated above, this section contains too much detailed information that may not be appropriate for a General Plan Update. HCSD suggests that a majority of this section be deleted, leaving only that information necessary for sound planning decisions. The District suggests that the following major premises and conclusions be included:

- Description of the City of Eureka owned and operated wastewater treatment plant, of which HCSD utilizes a percentage of the capacity.
- That the Wastewater Treatment Plant (WWTP) is well run, but nearing its design and permitted capacity.
- The City of Eureka and HCSD are cooperating and conducting a Wastewater Facilities Plan Study to determine the capacity limitations and costs to expand the facility.
- Both the City of Eureka and HCSD are aware that the WWTP will need to be expanded in the immediate future to support existing and proposed growth and are working toward this goal.
- The MSI was designed to remedy an environmental problem and sized adequately to also serve approved growth as adopted in the 1995 Eureka Community Plan. This design capacity consideration resulted in the MSI project being viewed “non-growth inducing,” including only proposed growth adopted in the current General Plan but nothing beyond that. That is, the MSI project was designed to accommodate existing and proposed growth only as approved in the 1995 Eureka Community Plan.
- Other infrastructure planning can accommodate additional future growth contemplated in the General Plan Update. It is not necessary, nor correct, to state that proposed additional growth be accommodated only if there is “excess” capacity left in the MSI.
- That the MSI, and previously adopted County General Plan, environmental documents required that the County implement a Traffic Impact Fee on new development prior to new development receiving any sewer connections to the MSI.

Although we have been working with the County for several months on this document, we have had only a short period of time to actually review its final draft form, analyze it, and understand its meaning and intent. We would therefore appreciate additional time to further consider this draft, or subsequent revisions and provide comment.

Very truly yours,

Humboldt Community Services District



Stephen M. Davidson
District Engineer

Response to Letter 5 from Steve Davidson, District Engineer, Humboldt Community Services District

Comments contained in this letter are almost identical to Letter 4 from Steve Davidson, District Engineer, Humboldt Community Services District. See responses to Letter 4.



December 12, 2007

Ms. Bonnie Neely, Chair
Board of Supervisors
Humboldt County
825 Fifth Street
Eureka, California 95501

Subject: Winzler & Kelly Infrastructure Report

Dear Chairperson Neely and Members of the Board:

We sincerely appreciate the opportunity to provide input to your Board and the Planning Commission regarding the Infrastructure Report prepared by Winzler & Kelly. Clearly there has been a massive amount of effort go into the 420-page document dated November 2007.

With the limited amount of time made available to review the report, we have at this point only cursory comments and several questions:

- 6-1 1 The growth areas identified on page xviii of the Executive Summary are as follows:
 - > Humboldt Hill
 - > Ridgewood
 - > Cutten
 - > Myrtle town
 - > McKinleyville CSD areas
 - > Fieldbrook Glendale CSD area
- 6-2 2 On page xxxvii of the Executive Summary, it indicates there are six (6) communities where the cost to provide wastewater is unknown...including two of the major growth areas -- Humboldt Hill and Myrtle town.
- 6-3 3 With the City of Eureka's treatment system currently being evaluated and the results not anticipated until next year, how does one anticipate the impact on the Humboldt CSD's ability to provide sewer hookups? Reference page xxv of the Executive Summary.
- 6-4 4 On page xxvii of the Executive Summary, it states the Humboldt CSD "is currently operating at approximately 60% of contracted flows." Do we know how many hook ups Humboldt CSD currently has available? If not, why not?
- 6-5 5 Is it realistic to assume the rough estimate to provide new and improved infrastructure for the entire County is approximately \$250 million when the cost is unknown for 6 of the communities?
- 6-6 6 What population growth rate assumptions were used?
- 6-7 7 On page xviii of the Executive Summary there are references to Sketch Plan 3 being used to model 2030 traffic volume estimates. Sketch Plans 1, 2 and 3 were being used during earlier years of the General Plan work. However those Sketch Plans were replaced a couple of years ago by Sketch Plans A, B, and C. How are those differences reconciled?
- 6-8 8 Are the Urban Study Areas the most logical growth areas? If they had not been pre-determined by County Planning, where should growth occur over the next 20 years based on existing physical and economic conditions?

We commend all those who have contributed so diligently to this work. HELP especially appreciates the leadership of County Planner Mr. John Miller and Winzler & Kelly's Managing Principal Mr. Neal Carnum, P.E., as well as all those at the special districts who have devoted numerous hours providing input.

It has been our opinion from the beginning that Winzler & Kelly was not provided adequate time to complete the monumental tasks assigned to them on February 15, 2007.

- Task A1: Distribution and Capacity of existing infrastructure
- Task A2: Distribution and Development of Alternative Growth Scenarios
- Task A3: Distribution and Capacity of new infrastructure needed to meet projected growth under alternative growth scenarios (Sketch Plans A, B and C)
- Task A4: Capital Improvements/Public Facilities Technical Report
- Task A5: Draft Development Policy Options (General Plan Element)
- Task B1: Water Supply and Demand
- Task B2: Water Quality
- Task B3: Wastewater Treatment and Disposal
- Task B4: Watershed Features and Processes
- Task B5: Flood Management
- Task B6: Stormwater Management
- Task B7: Water Resources Technical Report
- Task B8: Draft Development Policy Options

Infrastructure is the backbone of the entire General Plan. It affects each and every one of the General Plan elements. We urge the County to extend the Winzler & Kelly contract to allow sufficient time to satisfy the requirements of their contract scope of work.

We agree with those who believe you cannot plan for the future until you know where you are today. It is imperative that the General Plan update process be delayed until such time as the many questions regarding infrastructure can be answered so that each element will be consistent, as required by State law.

Sincerely,

Kay Backer, representing
Members of HELP

cc: Supervisor Jimmy Smith, District 1
Supervisor Roger Rodoni, District 2
Supervisor John Woolley, District 3
Supervisor Jill Geist, District 5
Commissioner Bruce Emad
Commissioner Mary Gearheart
Commissioner Richard Hansis
Commissioner Thomas Herman, Chair
Commissioner Scott Kelly
Commissioner Sef Murguia
Commissioner Jeff Smith
Loretta Nickolaus, CAO
Kirk Girard, Community Development Services Director
Kathy Hayes, Clerk of the Board
Sharon Lodes, Planning Commission Clerk
Neal Carnum, Winzler & Kelly Managing Principal

helpcountyneely7

Response to Letter 6 from Kay Backer, representing members of Humboldt Economic Land Plan (HELP)

Response to comment 6-1 through 6-4: The commenter lists the future growth areas identified at the top of Executive Summary page xviii; notes that wastewater improvement costs of the Urban Study Areas of the HCSD are not yet known; and acknowledges that the City of Eureka and the HCSD are evaluating the wastewater treatment system. The commenter asks how impacts on HCSD's ability to provide hookups can be anticipated and how many HCSD hookups are available.

Information regarding the Humboldt CSD and City of Eureka wastewater collection systems and the Elk River Wastewater Treatment Plant can be found in Section 7.3, HCSD and Eureka, 7.3.1 Martin Slough Interceptor, and 7.4.6, Humboldt Hill USA, 7.4.11, Myrtle town USA, and 7.4.18, South Eureka USA. These sections highlight the challenges faced by the City of Eureka and HCSD in improving their collection and treatment systems as well as the steps that both agencies are taking to plan and design such improvements. As noted in 7.4.6.1, the HCSD reported that they are operating at approximately 60 percent of their contracted capacity at the Elk River Wastewater Treatment Plant, which converts to approximately 4,980 available connections. Section 7.3, HCSD and Eureka, describes the condition of the HCSD and City of Eureka collection system and the Elk River WWTP. Based on input provided by the City of Eureka, this section has been revised to include the following statements regarding wastewater treatment capacity:

“It should be noted that each unit process (pumps, pipes, tanks, etc.) within the Elk River WWTP may operate at different capacity levels. The Elk River WWTP is approaching capacity limitations in some of its unit processes. The Elk River WWTP infrastructure study is intended to identify hydraulic and process “bottlenecks” and to propose cost effective improvements to increase capacity, rather than construct a total plant expansion. The City expects that this strategy will allow step-wise increases in WWTP capacity that keeps pace with development over the next 20 years.”

Response to comment 6-5: The commenter asks if it is “realistic to assume the rough estimate to provide new and improved infrastructure for the entire County is approximately \$250(?)” This Technical Report does not estimate the total cost to improve infrastructure to support the implementation of the proposed General Plan Update. Order of magnitude estimates have been provided for most water and wastewater systems, and some estimates of roadway improvement costs and law enforcement capacity improvements have also been made. During a presentation to the Planning Commission, the preparers of this Technical Report suggested that “at least \$250 million in water and wastewater infrastructure is needed for buildout.” This statement acknowledged the data limitations inherent within this estimate.

Response to comment 6-6: The commenter asks what population growth rate assumptions were used. Please refer to response to Section 1.3.2, Humboldt County

Population and Housing Growth, comments 1-3, 1-7, and 1-10 for information regarding growth rates.

Response to comment 6-7: This comment refers to the use of Sketch Plan-3 2030, full entitlement build-out scenario traffic model outputs in Chapter 2, Road Infrastructure. Additional traffic modeling is beyond the scope of this Technical Report. The analysis in Section 2.4.4, Existing and Projected Capacity Constraints, describes the use to traffic modeling data previously generated using the Greater Eureka Area Traffic Model to identify existing and project roadway capacity constraints. Section 2.4.4 further states that “Sketch Plan 3, or the “Focused Growth” scenario, assumed that development would be primarily in existing developed areas, with limited lower-density development in outlying areas and only a modest extension of existing water service areas. The 2030 projections used to estimate future capacity constraints are thus illustrative of a potential, if not likely, future development pattern.” The preparers of this Technical Report assume that a detailed traffic analysis based on the proposed General Plan Update land use alternatives will be completed as part of the environmental impact report.

Response to comment 6-8: This comment asks if Urban Study Areas are the most logical growth areas and where growth should occur over the next 20 years based on physical and economic conditions. This question is beyond the scope of the Technical Report and instead should be explored with the Planning Commission during General Plan Update policy deliberations.



HUMBOLDT BAY MUNICIPAL WATER DISTRICT

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January 4, 2008

Kirk Girard, Director
~~John~~ Miller, Senior Planner
Planning Division
Community Development Services
County of Humboldt
3015 H Street
Eureka CA 95501

RECEIVED

JAN 07 2008

HUMBOLDT COUNTY
PLANNING DIVISION

Dear Kirk and John:

Thank you for attending our December Municipal Customer meeting to present an overview of the recently-completed "Community Infrastructure & Services Technical Report" and associated draft of the County's "Community Infrastructure and Services Element" for the General Plan update. I would like to acknowledge and thank the County for securing grant funding to complete the Technical Report. I would also like to acknowledge and thank the County for highlighting and studying the critical link between infrastructure – whether it be water, wastewater, roads, storm drainage, flood control, law enforcement, or fire protection - to address the existing service needs within our communities, as well as begin to address infrastructure needs to meet future growth contemplated in the County's General Plan update.

At our Municipal Customer meeting, you requested comments on the Technical Report and draft Infrastructure Element by January 1st, although you acknowledged that comments will continue to be accepted on the proposed Element during the County's ongoing General Plan deliberations.

I apologize for our comments being submitted slightly beyond your requested date of January 1st. The following comments are based on my fairly quick review of the Technical Report and draft Infrastructure Element. Our District may have additional comments once my Board has had the opportunity to review and discuss these documents. I would like to invite you to make a brief presentation to my Board on the Technical Report, proposed Infrastructure Element, as well as the proposed Water Resources Element of the General Plan at our next Board meeting (February 14th). This will enable my Board to better understand the proposed Elements of relevance and importance to us, and to offer any comment they may have at the policy level.

Comments on the “Community Infrastructure & Services Technical Report”

- 7-1 1) I believe the report appropriately summarizes key factors influencing the need for infrastructure improvements and investments within the County as follows:
- a. much of the County’s infrastructure is old, deteriorating and in need of improvement in its current state (that is absent any additional growth);
 - b. additional infrastructure will be required to accommodate growth contemplated in the General Plan update; and
 - c. significant infrastructure improvements and investments are needed to comply with the increasing and complex regulatory requirements.
- 7-2 2) The main body of the report (Section 6.3) briefly addresses HBMWD’s infrastructure needs. The report acknowledges that demands for domestic water will exceed currently available capacity within the planning horizon (that is infrastructure capacity not water supply capacity). As briefly noted in the report, expansion of the existing Ranney Collectors, possibly treatment capacity, and transmission capacity, particularly on the Samoa Peninsula, will be necessary over the longer-term when growth materializes as envisioned in the General Plan update.
- 7-3 3) The “Findings” and “Water and Wastewater” sections of the Executive Summary summarize the needs of retail-level service providers; however, the Executive Summary is completely silent in regards to needs at the wholesale/regional level. I request that you briefly address wholesale/regional needs in the Executive Summary. It is important for planners, developers or other audiences who only read the Executive Summary to understand that investments in the regional water system will be required at some point in the County’s planning horizon as growth materializes. Investments at the regional level will be costly, and will require significant lead time, so it is important that readers are aware of this.
- 7-4 4) The “Next Steps” section suggests that the County could take a leading role in expanding capacity for infrastructure maintenance and development, and that the County could take a leadership role in addressing some of the deficiencies noted in the Technical Report. This area is important for service providers to better understand and discuss with the County. I understand the County will be hosting a meeting soon with service providers to begin such discussions.

Comments on the draft Community Infrastructure and Services Element:

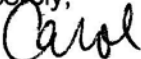
- 1) The “Community Infrastructure and Services Policy” section, and subsequent “Standards” section, requires the establishment and utilization of public infrastructure and services *standards*. It is important for service providers – given the role we play in infrastructure planning and development, as well as service delivery – to be aware of such standards and afforded the opportunity to comment on them as they are being developed.

2) In the "Implementation Measures" section for water and wastewater service providers:

- a. (IS-IM27): An organization for water and wastewater (such as association or authority) to improve water quality and service capacity is proposed. Working at the wholesale level, I am keenly aware of the benefits of sharing resources and "economies of scale." However, I am also aware of the important and intricate relationship between our District and our Municipal Customers who provide retail water services directly to the community. This relationship is important not only at the operational/service level, but also the policy/political level. If the County pursues a regional association or authority, its scope and purpose are important to define, and support and buy-in from the service providers essential for its success.
- b. (IS-IM28): This measure requires "Use of the County General Plan and Zoning Code in determining the size and location of water and wastewater facilities and the extent of services provided." This needs further definition and clarification. It is not appropriate for the County General Plan to dictate the size and location of specific facilities. Service Districts have specific service obligations and must have the latitude to plan for and determine the size and location of specific infrastructure additions.

Thanks once again for addressing our Municipal Customer group and for soliciting comments on these reports. I appreciate the County's efforts and leadership to begin to address the myriad of infrastructure issues we are facing the County. I hope you can join us for a brief presentation to my Board on February 14th.

Sincerely,



Carol Rische
General Manager

Cc: Wholesale Municipal Customers

Response to Letter 7 from Carol Rische, General Manager, Humboldt Bay Municipal Water District

Response to comment 7-1: This comment acknowledges the key factors influencing the need for infrastructure improvements. No response necessary.

Response to comment 7-2: This comment notes that certain required regional improvements have been briefly included in the Technical Report. No response necessary.

Response to comment 7-3: This comment requests that the Executive Summary include information regarding the wholesale/regional water supply and infrastructure needs. The Executive Summary will be revised to include a brief summary of infrastructure improvements and issues facing the Humboldt Bay Municipal Water District.

Response to comment 7-4: This comment notes the capacity building programs identified in the Next Steps section and suggests that Humboldt County fully discuss this concept with local service providers. This comment has been forwarded to Humboldt County.

DEPARTMENT OF TRANSPORTATION

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*Flex your power!
 Be energy efficient!*

January 18, 2008

1-HUM-General
 Community Infrastructure & Services
 Technical Report

John
 John Miller, Senior Planner
 Community Development Services
 Planning Division--County of Humboldt
 3015 H Street
 Eureka, CA 95503

RECEIVED

FEB 05 2008

HUMBOLDT COUNTY
 PLANNING DIVISION

Dear Mr. Miller,

The comments in this letter pertain to the "Community Infrastructure and Services Technical Report" (November 2007). We are currently in the process of reviewing the Draft Community Infrastructure and Services Element, Draft Circulation Element of the General Plan, and we will be sending detailed comments on those documents in the near future.

2.2 Roadway Budget

8-1 This section of the report, as well as other sections, refers to the "Community Facilities Element" of the General Plan. We assume this should read "Community Infrastructure and Services Element." If not please explain.

2.4.1 Roadway capacity estimates from the Greater Eureka Area Travel Model (GEATM)

8-2 "Caltrans staff involved in model maintenance have cautioned against using the model too extensively, until it can be tested and operated more efficiently." We recommend that this sentence be revised to read: "Caltrans traffic modeling staff have pointed out that, while the model is a very effective tool for projecting future conditions, traffic flows, and areas of congestion based on different land use scenarios, other tools and methods are more appropriate for determining specific needed improvements."

2.4.4 Existing and Projected Capacity Constraints

8-3 As noted here and elsewhere in the report, the GEATM includes a future scenario (2030) based on land use assumptions from Sketch Plan 3, the "Focused Growth Scenario." The GEATM has been used effectively here to project future congestion and capacity constraints at a macro-level. The other proposed land-use scenarios under consideration in the General Plan could be applied to the GEATM, in order to give a side-by-side comparison of their respective differences.

2.4.5 Maps of Roadways with Capacity Constraints

It would be useful to have similar maps, showing model outputs (v/c) based on the other land-use scenarios under consideration in the General Plan, to provide a side-by-side comparison of the proposed alternatives.

2.7 Proposed Improvements

“This list includes projects that will be further refined based upon additional analysis performed by using the GEATM.” We recommend that this be revised to read: “This list will be further edited and refined, based on additional analysis using the GEATM, and other appropriate traffic analysis methods and tools.”

8-4 It is important to note that a Travel Demand Model (TDM), such as the GEATM, should not be relied upon as a sole determinant in identifying future improvements. This process should involve input from engineering staff and the use of many different traffic engineering tools to select the particular improvements to each impacted roadway segment. In the case of the Greater Eureka Area, many of these improvements are likely to be removal of bottlenecks and intersection improvements to minimize queues, resulting in greater capacity for the particular roadway segment. Using A TDM to accurately quantify the effect of these kinds of improvements requires experience with TDM modeling in general and specific experience with the local GEATM.

If desired, a further step would confirm the effect of the improvements by re-running the GEATM with the improved segment roadway capacities and/or new links. This would require the calculation of the effect on segment capacity of all improvements along the roadway segment. The new roadway segment capacities would then be input into the GEATM.

Table 2.9. Planned or Proposed System Upgrades/ Expansion to Reduce Congestion; Preliminary Cost and Schedules where Defined by USA

8-5 We recommend that the report include a more detailed description of the source of these projects and how they do or do not relate to the projected Capacity Constraints identified in 2.4.4 and 2.4.5.

p. 2-24, Second Sentence

8-6 Recommend revision to, “. . .additional analysis using the GEATM, as well as other appropriate traffic analysis methods and tools.” (see comment on 2.7)

Table 2-10.

8-7 It should be noted that many of these projects have not been adequately analyzed to determine their need, effectiveness or feasibility. It should also be noted that cost estimates appear to be in 2007 dollars, and that they are likely to be revised, as they are very preliminary.

Appendix A. Figures

8-8 The legend information for the V/C maps is inconsistent throughout Appendix A. For example: The Freshwater Road map displays V/C ranges of 0.1990-0.900 and 0.9001-1.1621. The F Street map has a different range of V/C ratios displayed in its legend, 0.9650-1.4436, 0.0059-0.9000, and 0.9001-2.2406. The Harris Street V/C map displays an entirely different range of V/C ratios in the legend that are not consistent with the other maps. For comparison purposes it is important that the thresholds shown in the maps be consistent.

Although we have not yet completed a comprehensive review of the maps in Appendix A, we have noted several discrepancies between the information contained in them and the output of the GEATM. The maps in Appendix A show several road segments operating with volumes beyond capacity that were not confirmed by the Model. Among the noted differences:

8-9

- The roadway segment on Harris St. located approximately between the intersections of Harris/I Street and Harris/S Street is operating at a V/C range of 0.6000-0.8900 as indicated by the GEATM. The Appendix A map displays this same segment as operating at a V/C range of 0.9789-1.5334.
- Similarly, the Harrison Avenue Appendix A map shows a V/C ratio range of 0.9809-1.2933 in 2005 on the roadway segment between the intersections of Harrison/Buhne and Harrison/Harris, while the Model output for 2005 shows this same roadway segment as operating at a V/C ratio range of (0.6000-8.900).
- The Capital Facilities map focusing on the Humboldt Hill area displays Purdue Drive and Stanford Dr. as operating beyond a 90% V/C ratio in the 2030 scenario. The GEATM reflects a V/C ratio of 0.6000 to 0.8900 for these streets.
- The V/C ratios displayed for Route 101 on the Capital Facilities map do not agree with the GEATM 2030 scenario output. The GEATM shows the same segment of Route 101 as operating entirely beyond the 90% V/C ratio, while the Appendix A map shows intermittent segments on Route 101 where the V/C ratio is below 90%.

General Comments

8-10

As noted in many sections of the report, development of non-motorized and transit facilities are essential components in the transportation network. We support the County's efforts to develop a transportation network that facilitates all modes of travel, including goods movement, bicycles, pedestrians and transit. Context Sensitive Solutions can help create more livable, walkable communities. Development of bicycle and pedestrian facilities, higher density mixed use/ walkable neighborhoods, traffic calming measures (where appropriate), community open-space/ recreation areas, and other measures can reduce the need for motorized vehicles and the problems associated with their increasing use. We encourage planning for self-sufficient neighborhoods as a means of reducing motor-vehicle trips. We recommend that the report include additional language to emphasize this point. We look forward to working closely with County staff to encourage projects related to these concepts.

8-11

p. 1-19 Footnote 5: It appears that this note was meant to appear on a different page or reference a different section.

8-12

We support land use policies that promote greater connectivity of local streets in order to relieve congestion on collectors and arterials.

We support the County in the development of region-wide traffic impact fees as a means to finance transportation improvement projects throughout the County.

8-12 We request that the County continue to consider traffic impacts to the State Highway System when considering development proposals with the potential to generate significant trips to the road network. For more information about thresholds of significance for traffic impacts to State highways and when traffic impact studies should be requested for development proposals, please see the Caltrans Guide for the Preparation of Traffic Impact Studies. The guide is available on-line at: <<http://www.dot.ca.gov/dist1/d1transplan/tisguide-Dec02.pdf>>.

While we have been notified of past hearings and other events related to the development of the General Plan, we were not notified of the availability for comment of this document and the Administrative Draft Elements of the General Plan. Please ensure that we are added to notification lists for future document review, as we value the collaborative planning process.

We look forward to continued work with the County to develop and maintain a safe and efficient transportation network at the local and regional level. If you have questions or need further assistance, please feel free to contact me at the number above.

Sincerely,



REX A. JACKMAN
Chief, District 1 System & Community Planning

Response to Letter 8 from Rex Jackman, Chief, Caltans District 1 System and Community Planning

Response to comment 8-1: This comment identifies references to the Community Infrastructure and Services Element in the Technical Report in Section 2.2 and elsewhere as “Community Facilities Element.” All incorrect references in the Technical Report will be revised.

Response to comment 8-2: Caltrans proposes a revision to a sentence in Section 2.4.1 on page 2-6 regarding the use of the Greater Eureka Area Travel Model. A revision of this sentence will be incorporated into the Technical Report.

Response to comment 8-3: The commenter suggests that land use alternatives under consideration as part of the General Plan Update could be compared to the travel demand data presented in the Technical Report and that maps showing model outputs of this analysis could be presented. Please see response to comment 6-7 for a discussion of the use of Sketch Plan-3 2030, full entitlement build-out scenario travel model data and likely future traffic modeling.

Response to comment 8-4: Caltrans proposes a revision to a sentence in Section 2.7, Proposed Improvements, on page 2-19 regarding the refinement of the traffic analysis using the Greater Eureka Area Travel Model, to add additional language suggesting that additional tools will be incorporated into the refinement of the traffic analysis. The proposed sentence revision will be incorporated into the Technical Report as recommended. The commenter also provides additional information relating travel demand modeling and the use of other inputs in defining future roadway improvements. The preparers of this report expect that these or similar steps will be followed by the County in future travel demand modeling and transportation improvement planning, including the detailed traffic analysis that will be completed as a part of the EIR for this general plan update.

Response to comment 8-5: This comment asks that additional detail regarding the source of information contained in Table 2-9, Planned or Proposed System Upgrades/Expansion to Reduce Congestion; Preliminary Cost and Schedules where Defined by USA. The Technical Report will be revised to better describe the source of information contained in Table 2-9 and how they relate to capacity constraints identified elsewhere in the Technical Report.

Response to comment 8-6: Caltrans proposes a revision to a sentence in Section 2.7.2 on page 2-24 in a manner similar to comment 8-4. The proposed sentence revision will be incorporated into the Technical Report as recommended.

Response to comment 8-7: The commenter notes that the proposed projects contained in Table 2-10 have not been adequately analyzed to determine their need, effectiveness, or feasibility. This and other information suggested in the comment will be incorporated into the discussion preceding Table 2-10.

Response to comment 8-8: The commenter notes that the map legends on figures displaying road segment volume to capacity ratios in Appendix A are not consistent. Maps in Appendix A display volume to capacity ratios for certain urban study area road segments. In general, a single red line indicates road segments whose volume to capacity ratios currently (2005) exceed 90 percent. Green and red lines indicate certain road segments that are expected to be below and above 90 percent in 2030, respectively. The commenter is correct in stating that the range of values displayed in the legends differ, but each map consistently uses red to indicate above 90 percent in 2005, and green to indicate below 90 percent and blue to indicate above in 2030.

Response to comment 8-9: The commenter finds that the volume to capacity ratios (V/C) displayed on several of the figures in Appendix A do not match Caltrans GEATM output for the same segments. The data used to develop the maps in Appendix A is identical to the model output PM maximum volume to capacity ratio data files (for the 2005, and 2030 SK3-full entitlement data sets) provided by the firm that developed the traffic demand model. The V/C data for the four street questioned by Caltrans have been verified to be correct based on the original model output. The V/C data for Route 101 displayed in Appendix A is consistent with the Caltrans GEATM output, in that all segments are beyond 90 percent V/C. The segments on the map showing Route 101 that have V/C of less than 90 percent, referred to by Caltrans as intermittent segments where the V/C is below 90 percent, are interchanges and over crossings. Further consultation between County and Caltrans staff has identified that Caltrans was viewing “daily V/C” data and the Technical Report displays “PM maximum V/C.”

It should be noted that the GEATM, and its use, is still being refined by Caltrans, the City of Eureka, and Humboldt County. The figures in Appendix A are provided for illustrative purposes to generally identify areas with current and future capacity constraints. The GEATM will be refined to ensure the greatest accuracy possible and updated to reflect the proposed General Plan land use alternatives and proposed improvements as part of the General Plan Update EIR and subsequent projects.

Response to comment 8-10: This comment provides support for the County efforts to develop a transportation network that facilitates all modes of travel, encourages planning for self-sufficient neighborhoods. No response to comment necessary.

Response to comment 8-11: This comment states that footnote five on page 1-19 (commenter likely meant 2-19) is not in the correct location and should be moved. This footnote has been moved to the prior sentence.

Response to comment 8-12: The commenter lists policy topics supported by Caltrans, including land use, circulation, and infrastructure funding. This comment will be forwarded to Humboldt County because it relates to General Plan policy and future project review.

-----Original Message-----

From: Richard Swisher [mailto:wcsd@humboldt1.com]

Sent: Friday, December 14, 2007 4:53 PM

To: Miller, John

Subject: RE: Link to Community Infrastructurre and Service Technical Report and Draft Element

John,

I finally found a few minutes to download the Technical Report. The Westhaven sections look good, with all of my previous comments incorporated.

I did see three factual errors that are probably insignificant to the purpose of the document, but for whatever it's worth:

- 9-1 [Page xxxiv of the Findings – the WCSD well is public and located on a parcel owned by the District
- 9-2 Page 5-24 – Westhaven WSA is inside the boundaries of CSA #4
- 9-3 Page 6-143 – The WCSD was approved, including appointment of the first board of directors, by the Board of Supervisors on October 27, 1987
May 17, 1988 was the date of recording of the LAFCo certification.

How's that for nitpicking?

Regards,

Richard Swisher
General Manager
Westhaven Community Services District
PO Box 2015, Trinidad CA
phone & fax (707) 677-0798
wcsd@humboldt1.com

Response to Letter 9 from Richard Swisher, General Manager, Westhaven Community Services District

Response to comment 9-1: This comment notes that the Technical Report incorrectly states on page xxxiv that the well serving Westhaven CSD is private. The Executive Summary and Section 6.5.14 will be corrected to reflect that the well serving this district is publicly owned.

Response to comment 9-2: This comment notes that the Technical Report incorrectly states in Table 5-4, Study Area Recommendations, located on page 5-22, that the Westhaven CSD is located outside the boundaries of County Service Area No. 4. This table will be corrected to reflect that Westhaven CSD is entirely within the boundaries of County Service Area No. 4. In addition, the recommendation will be revised to remove the reference to the formation of a new district or expansion of neighboring district.

Response to comment 9-3: This comment provides corrections to references relating to the formation of the Westhaven CSD on page 6-143. References to the formation of the Westhaven CSD will be revised to reflect these comments.

Slack & Winzler Properties, L.L.C.
P.O. Box 549
Eureka, CA 95502-0549

November 29, 2007

RECEIVED

DEC 03 2007

HUMBOLDT COUNTY
PLANNING DIVISION

County of Humboldt
Community Development Services
Planning Department
Attn: John Miller
3015 H Street
Eureka, CA 95501

**Re: Humboldt County General Plan Update
ROAD INFRASTRUCTURE**

Dear Sir:

I have recently had the opportunity to evaluate a DRAFT copy of Section 2 Road Infrastructure, item 2.1 (Description) through 2.7.2 (Capacity – Related Roadway Recommended and Planned Improvements), including Maps of the planning area lying southerly of the City of Eureka (i.e. the area circumscribed by the south Eureka City Limits, Walnut Drive, Ridgewood Drive and Elk River Road). These documents have been developed by Planwest Partners, Inc.

I am perplexed and dismayed that these documents completely ignore the future needs of an east-west trending circulation route that would connect Walnut Drive and Elk River Road lying northerly Ridgewood Drive, as recognized and delineated in the Eureka Community Plan (refer to FIGURE 17 CIRCULATION MAP of said Plan, a copy of which is attached herewith).

10-1 Within the area contained within Walnut Drive, Ridgewood Drive, Elk River Road and Martins Slough, the Eureka Community Plan identifies the potential of 1240 dwelling units, involving the Robinson/Dunn (now Forster-Gill) and Eggert North (now Slack & Winzler) property ownerships. These potential and future housing units are still recognized in the current updated Housing Element of the County's General Plan and the ultimate availability of these units are extremely important to the credibility and viability of the Housing Element. As a consequence, providing and/or protecting reasonable road access and circulation routes as delineated in Eureka Community Plan are an absolute necessity.

There are four north-trending and somewhat parallel ridges between Walnut Drive and Elk River Road that extend from Ridgewood drive to their ultimate termination in the valley containing Martin's Slough. The ravines between the ridges are extremely steep and deep and would require enormous embankment construction (in excess of 100 feet high) to achieve reasonable grades into and out of the gulleys.

During the initial study efforts (of which I personally attended over 50 of the meetings) of the Circulation Plan of the Eureka Community Plan, in a "broad brush" approach, three east-west road alignments were delineated on the Circulation Map, completely ignoring topographic constraints of the area and thus the Routes were noted as being shown "FOR GRAPHIC PURPOSES ONLY." Ultimately, at the Planning Commission and Board of Supervisor hearings on the Plan, the impractical locations were deleted and the future Circulation Routes, as set forth on Figure 17 of the Plan, were adopted, again being shown for "GRAPHIC PURPOSES ONLY."

Figure 17 of the Plan delineates four northerly trending major Circulation Routes lying north of Ridgewood Drive, being:

1. The extension of Bassford Road from Westgate Drive to the northerly end of the plateau on the Reardon Property.
2. The northerly extension of Hilma Drive, which will service the Eggert North area and connect to an east-west circulation route (described herein-after).
3. A new north-south circulation route connecting Ridgewood Drive (in the general area of the Eggert Road/Ridgewood Road intersection) with Fairway Drive, via Lundblade Drive in the Lundbar subdivision.
4. A new north-south circulation route connecting Walnut Drive, via the general location of Home Drive, to Fairway Drive in the general area of Martin Slough crossing of Fairway Drive.

The Plan also shows a new east-west circulation route which will provide access from Walnut Drive to Elk River Road and will intersect and connect the northerly extension of Bassford Road; the northerly extension of Hilma Drive; and the northerly projection of the two new roads serving the Robinson-Dunn Tract (i.e., Forster Gill). This particular east-west circulation route must cross the Reardon Property in the general location identified on Figure 17, CIRCULATION MAP of the Eureka Community Plan.

While the issue of how circulation route easements or rights of ways would be secured and maintained as various parcels of property were developed was not adequately addressed in the Plan, the subject was extensively discussed, including the suggestion that the County would have to initiate and use their power of Eminent Domain.

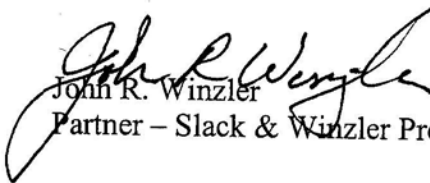
The Plan attempts to cover the issue of protecting Circulation Routes as set forth under SECTION 4220 Goals and Policies, Goal A; ROADWAY NETWORK; "To provide a circulation system that accommodates existing and planned land uses and provides for an efficient movement of peoples goods and services within the Planning Area" – POLICIES: 3. "The County shall require the dedication, extension, widening, and construction of public streets

Mr. John Miller
November 29, 2007
Page 3

as abutting lands are developed or redeveloped." The language "County shall require the dedication" was deemed sufficient to protect the Routes delineated within the Plan.

As to the current DRAFT Road Infrastructure documents, I believe the documents are inadequate in their addressing the area described hereinbefore. The single reference on Table 2-9 Planned & Proposed System Upgrades, etc. – South Eureka USA – Elk River Road – "Construction of Reardon Ranch (Reliever Road)" provides no other literate description or mapping delineation of what scope of activities this subject involves.

Sincerely,


John R. Winzler
Partner – Slack & Winzler Properties, L.L.C.

lcf

c: Neal Carnam


~~Kirk Girard~~

Response to Letter 10 from John Winzler, Partner, Slack & Winzler Properties, LLC

Response to comment 10-1: This comment provides background information regarding the Eureka Community Plan circulation planning process and states that the Technical Report does not contain a discussion of the future north-south and east-west roadway connectors identified on Figure 17, Circulation Map, of the 1995 Eureka Community Plan. Section 2.7.2 Capacity-Related Roadway Recommended and Planned Improvements, has been substantially revised to incorporate a discussion of the Eureka Community Plan Figure 17, the proposed connectors, and the importance of these connectors for planned development. A representation of Figure 17 has also been incorporated into the Technical Report. In addition, further technical analysis that was beyond the scope of this report will be completed as a part of the EIR that is currently being completed for this update to the General Plan.

MEMO
HUMBOLDT COUNTY
DEPARTMENT OF PUBLIC WORKS
LAND USE DIVISION

TO: Planning Commission

FROM: Robert W. Bronkall, Associate Engineer 

DATE: January 17, 2008

RE: **PRELIMINARY REVIEW ON THE DRAFT COMMUNITY INFRASTRUCTURE AND SERVICES ELEMENT (CHAPTER 7) AND DRAFT CIRCULATION ELEMENT (CHAPTER 8) OF THE COUNTY GENERAL PLAN UPDATE**

The Department has completed a PRELIMINARY review of the Draft Community Infrastructure and Services Element (Chapter 7); the November 2007 Community Infrastructure & Services Technical Report by Winzler and Kelly; and the Draft Circulation Element (Chapter 8), all of the County General Plan. These items contain a tremendous amount of technical data that is of great interest and importance to the Department. The Department has developed a list of preliminary comments on specific items in these documents. Those comments were previously provided to the Planning Division of the Community Development Services Department. In addition, the Department has met with the sub-consultant of the Technical Report to provide further comments.

11-1 In general, the documents do a good job of describing the current state of the infrastructure related to the Department's responsibility. One of the Department's biggest concerns is regarding the information listed in Table 2-3 of the Technical Report. The Department has requested that the authors undertake a substantial review of the data to address the Department's concerns.

11-2 The Department has requested that an additional run of the model be performed and added to Section 2.7.2 of the Technical Report. The information in Table 2-3 of the Technical Report does not appear to take into consideration the projects listed in 2.7.2 of the Technical Report to resolve some of the traffic issues.

11-2 When Table 2.3 of the Technical Report is revised, it will provide a good snapshot of the existing conditions, as well as what the future full build-out conditions would be without additional roadways or improvements being constructed. By adding the improvements and re-running the model for Table 2.7.2 of the Technical Report, the results of the improvements on traffic flow will provide guidance for the planning and development of future subdivisions.

11-3 Also, the chapters in the general plan must be coordinated with the current update of the Regional Transportation Improvement Plan. Lack of coordination may result in funding for local projects being withheld.

The Department looks forward to providing an in-depth review of these documents once the initial comments have been incorporated.

Response to Letter 11 from Robert Brockall, Associate Engineer, Humboldt County Public Works Department, Land Use Division

Response to comment 11-1: This comment notes that the Public Works Department has provided verbal comments indicating problems with Table 2-3, Roadway Capacity by Urban Study Area. Table 2-3 and the accompanying narrative have been replaced with Table 2-3A, Example USA Roadway Segments from the GEATM Showing 2005-2030 ADT Increase of Greater than 50%, and Table 2-3B, Example USA Roadway Segments from the GEATM Showing 2005, 2030 V/C Ratios of Greater than 90%.

Response to comment 11-2: This comment indicates that the Public Works Department requests that the GEATM be re-run to include the projects listed in Section 2.7.2, Capacity-Related Roadway Recommended and Planned Improvements. See response to comment 6-7.

Response to comment 11-3: This comment notes that the update to the General Plan should be coordinated with the update of the Regional Transportation Plan. This comment will be forwarded to Humboldt County because it relates to General Plan policy.



MANILA COMMUNITY SERVICES DISTRICT

1901 Park Street • Arcata, California 95521 • 707-444-3803 • Fax 707-444-0231

December 6, 2007

Mr. Carlos Diaz
Winzler & Kelly
633 Third Street
Eureka, CA 95501

Re: County General Plan – Infrastructure Technical Report

Dear Mr. Diaz:

On September 13, 2007 the Manila Community Services Board of Directors sent you a letter in response to the above report regarding Manila. In that letter the board said that the board would inquire of Manila CSD staff regarding addressing “some undersized water mains” and the requirement for fire hydrants to be installed within 250 feet of residential homes.

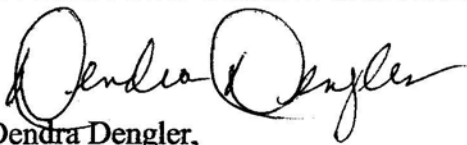
12-1 [With regard to Finding 2.2.3 (see enclosed letter), we are assuming that all homes built since 2001 are following the requirement for fire hydrants to be installed within 250 feet of residential homes, and homes built prior to that followed the previous code.

12-2 [With regard to Finding 2.2.5.1, the Manila CSD Public Works Supervisor informed the board president that all fire hydrants are on six inch (6”) mains or larger.

We hope this is helpful to you.

Sincerely,

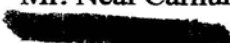
MANILA COMMUNITY SERVICES DISTRICT


Dendra Dengler,
Board President

RECEIVED

DEC 10 2007

HUMBOLDT COUNTY
PLANNING DIVISION

cc: Mr. Neal Carnum, Winzler & Kelly
 Senior Planner, Humboldt County Planning Department



MANILA COMMUNITY SERVICES DISTRICT

1901 Park Street • Arcata, California 95521 • 707-444-3803 • Fax 707-444-0231

RESOLUTION 2007.25

**A RESOLUTION OF THE BOARD OF THE DIRECTORS OF THE
MANILA COMMUNITY SERVICES DISTRICT REAFFIRMING
MANILA'S COMMITMENT TO INCREASE THE SAFETY OF
HIGHWAY 255 AS IT BISECTS THE MANILA COMMUNITY IN
PROMOTION OF THE HEALTH AND SAFETY OF ITS
RESIDENTS.**

WHEREAS, State Route (S.R.) 255 runs through the center of the community and separates not only the residential areas but major community destinations as well,

WHEREAS, the Humboldt County Association of Governments (HCAOG) funded the Manila Community Transportation Plan (MCTP) prepared by Whitlock & Weinberger Transportation, Inc in 2003,

WHEREAS, the MCTP states — The community has a long documented history of concerns relating to the safety of and access of multimodal traffic in Manila. Correspondence with Caltrans and other entities date back to 1985, citing lack of lighting, improper grading, high speeds and dangerous intersections of the highway with county roads. Residents have also identified the absence of pedestrian facilities, landscaping and frequent heavy fog as issues,

WHEREAS, the MCTP states — The collision rate for the three intersections at Lupin Avenue, Pacific Boulevard—Dean Street and Peninsula Drive (south) were all 0.53 collisions per mve (million vehicles entering). The average collision rate for these intersections would be between 0.22 and 0.33 collisions per mve. Therefore, the collision experience at the intersections of S.R. 255 with Lupin Avenue, Pacific Boulevard—Dean Street and Peninsula Drive (south) are higher than what would normally be expected for similar facilities in California, and latest figures also show a 74% increase in collisions between Vance and Lumber Mill (5-18-2005 to 5-18-2006), and latest figures also show a 74% increase in collisions between Vance to Lumbermill (5-19-02 to 5-18-06),

12-3

WHEREAS, the Humboldt County Redevelopment Plan Draft Program EIR November 2005 pg 3.2-17 states that S.R. 255 from Eureka City limits to Mad River Slough was LOS "D" in 2003,

WHEREAS, the MCTP states --- According to Catrans traffic counts, auto activity on S. R. 255 has risen by 25 to 30 percent since the safety corridor was implemented,

WHEREAS, the MCTP states — In May 2003, a survey of Manila residents and non-residents was conducted to gather information about transportation use and the nature of transportation problems in the area. — the intensity of many of the responses was striking. The direct and personal experiences of residents and non-residents related to traffic safety and issues conveyed a real sense of anxiety and stress associated with living and passing through Manila. Drivers and pedestrians alike reported several near collisions and accidents. Many respondents indicated particular concerns about the safety of children and animals traveling along the highway and residential streets of Manila,

WHEREAS, there have been no suggested mitigation measures to account for the increase in traffic on S.R. 255 during the construction period of the Proposed Route 101 Eureka-Arcata Corridor Improvement Project,

WHEREAS, Manila is included in the plan as an environmental justice community to be taken into consideration,

WHEREAS, the Draft EIR for the Proposed Route 101 Eureka-Arcata Corridor Improvement Project has only looked at the affects of each proposed plan on Manila and not the "Short Term Effects" of increased traffic on State Route 255 that is expected to occur during the construction period and until the project is considered stabilized and complete according to the General Construction Permit,

NOW, THEREFORE, BE IT RESOLVED the Board of Directors of the Manila Community Services District, on behalf of the community, requests that the Draft EIR on Proposed Route 101 Eureka-Arcata Corridor Improvement Project address the "short term effects" and long term effects of increased traffic to S.R. 255,

BE IT FURTHER RESOLVED the Board of Directors of the Manila Community Services District, on behalf of the community, requests and recommends that improvements to S.R. 255 such as a "temporary" or permanent lowering of the speed limit, the installation of lighting at Lupin Avenue, Pacific Boulevard-Dean Street and Peninsula Drive, signage, and any other improvements that would bring S.R. 255 to an acceptable and safe level of operation be made before construction on Proposed Route 101 Eureka-Arcata Corridor Improvement Project starts,

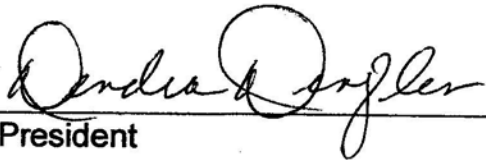
INTRODUCED, PASSED, AND ADOPTED by the Board of Directors of the Manila Community Services District on this 20th day of September, 2007, by the following vote:

AYES: Dendra Dengler, Wilathi Weaver, Violet Glass, Rita Carlson, Charles McDaniels

NAYS: none

ABSENT: none

ATTEST:



President

Board of Directors



Secretary

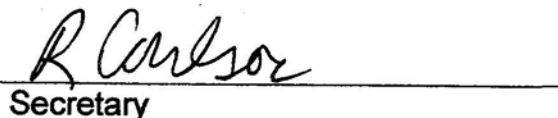
SECRETARY'S CERTIFICATE

I hereby certify that the foregoing is a true and correct copy of Resolution No. 2007.25 passed and adopted at a regular meeting of the Board of Directors of the Manila Community Services District held on the 20th day of September, 2007, by the following vote:

AYES: Dendra Dengler, Wilathi Weaver, Violet Glass, Rita Carlson, Charles McDaniels

NAYS: none

ABSENT: none



Secretary

Response to Letter 12 from Dendra Dengler, Board President, Manila Community Services District

Response to comment 12-1: This comment notes that the Manila CSD assumes that all homes constructed after 2001 meet requirements for proximity to fire hydrants and that homes built prior to 2001 met the then-current code. The Current Deficiencies portion of Section 6.4.8.3 will be revised to reflect this information.

Response to comment 12-2: This comment notes that fire hydrants in Manila are installed on lines six inches and larger. The Current Deficiencies portion of Section 6.4.8.3 will be revised to reflect this information.

Response to comment 12-3: This comment includes Resolution 2007.25 adopted by the Manila Community District Board on September 20, 2007, which contains the district's comments relating to the Caltrans Route 101 Arcata-Eureka Corridor Improvement Plan EIR. The focus of Chapter 2, Road Infrastructure, is on the capacity and proposed improvements to County roads within urban study areas. State Route 255 as it passes through Manila is the responsibility of Caltrans. Roadway safety is an important consideration and the Caltrans Route Concept Report for State Route 255 and the Humboldt County Regional Transportation Plan reflect the need for safety-related improvements to the Manila area portion of this highway. This comment will be forwarded to Humboldt County for consideration as part of the General Plan Update.

To:	Neal Carnam		
From:	Mark Hammer	Project:	Humboldt County Technical Report
CC:	Kay Backer		
Date:	March 14, 2008	Job No:	

RE: Suggestions for the Community Infrastructure and Services Technical Report, Dated November 2007

On March 4, 2008, a meeting was held at Winzler & Kelly Engineering in Eureka with Neal Carnam, Kirk Girard, John Miller, Kay Backer, and Mark Hammer to discuss the comments made by HDR on January 24, 2008. As part of that discussion Mark agreed to identify suggestions for improving the report based on the key HDR comments.

13-1 During the meeting Neal, Kirk, and John stated that the approach to water and wastewater infrastructure planning had changed in the course of the project. The original approach was to project infrastructure needs to year 2025 using the growth rates developed as part of the sketch plans. It was later determined that land use would be used as the basis for future housing and future infrastructure needs. Two projections of buildout were developed using the current General Plan and a higher density plan alternative. The lower land use density (LUD) and higher land use density (HUD) are not related to any specific date in the future.

HDR's concern about using the LUD and HUD for water and wastewater versus the housing (or population) projection, remains. The roadway needs, page 2-9 clearly refers to Sketch Plan 3 and the table shows V/C at year 2030, not at the LUD or HUD.

The table below summarizes the GEATM data for 2005 and 2030 (based on the Sketch Plan 3 assumptions) by Urban Study Area (only those roadways with data in the GEATM are included in the table). V/C ratio and ADT values represent maximum values provided by the GEATM model for specific roadway segments and are not to be interpreted as applying to the entire roadway. Maps of specific roadways follow these tables that identify specific areas of existing and projected congestion are included in Appendix A.

13-2

Table 2-3. Roadway Capacity by Urban Study Area

Urban Study Area	Roadway Name	Functional Classification (DOT)	ADT 2005	ADT 2030	ADT Increase/Decrease 2005-2030 (percent)	2005 MAX V/C Ratio	2030 MAX V/C Ratio
Alderpoint & Garberville	Alderpoint Road	Rural Major Collector	2,967	3,954	33%	28%	88%

13-3 In addition, Table 3-7 projected Sheriff's Office Operations Staff to year 2027. These values were apparently used to determine the facilities needed. There was no discussion of staffing or facilities needed for the LUD or HUD.

13-4 The HUD values range between 20 and 70 years in the future under the high growth plan (Sketch Plan 3) and significantly longer using historic growth rates, in many cases over 100 years. The biggest problem is that a person is not sure how to interpret the need or the costs because there is no timeframe context. It would have been better to have had the water and wastewater infrastructure projected based on population to be consistent with the road and law enforcement projection.

Given the discussion at our meeting and desire to use LUD and HUD for the water and wastewater infrastructure, the balance of this document is focused on improvements to water and wastewater.

This memo addresses the remaining comments:

13-5

1. The presentation of information is overly confusing
2. Development projections lack sound planning assumptions
3. Development projections (higher density land use plan) are overstated
4. The analysis does not provide the necessary information from which policy decisions can be made

Suggestions for improving the Community Infrastructure Report:

13-6

1. Page xiii, The reference to year 2025 should be replaced with a reference to the low and high buildout estimates based on land use. In addition, it is unclear if the report addresses “the timing of facility and service availability.” If not, this should be removed.

13-7

2. Page xiv and description of Table ES-1. It is not clear why the LUD limits available capacity. Available capacity is available capacity even if greater than the LUD. How much capacity is available above the LUD is not reported. This becomes important when the report later presents the infrastructure needs for the high land use development. Suggestion: delete the columns of capacity limitation and description of limitation and report the total available capacity or explain why the LUD is a limitation on existing capacity under the HUD.

13-8

3. Page xxxvi, infrastructure cost summary. I saw in the detailed cost calculations that the cost for LUD and HUD include existing deficiencies, but I could not identify costs for changes in regulations for many of the service providers. Identify regulatory issues included or delete reference.

“the unit costs should be lower under the high buildout scenario due to economies of scale. In the cost calculation section, it states that economies of scale were not included. The lower unit cost is due to a greater number of customers addressing the cost of existing deficiencies. The unit cost of new infrastructure is the same (no economy of scale).

“where the low buildout costs are less than the high buildout costs is usually due to a condition where there is some existing infrastructure that can accommodate the low build out and additional infrastructure is needed in the high buildout case. This implies that the existing infrastructure is free as long as there is capacity and that the capacity is available on a first come, first serve basis.

13-9

The costs should be revised to include the current connection fee as the cost of existing infrastructure. The cost of connecting at HUD may still be more because the unit cost of new infrastructure is higher and the current connection fee may need to be adjusted.

13-10

4. Table ES-3, why are the HUD water and wastewater costs compared with roadway and law enforcement costs. Were roadway and law enforcement both developed based on HUD? Why are the LUD costs not reported? What is the point of the table?

Law enforcement costs are projected to 2027, fire protection costs are projected to 2030, it is unclear if the roadway costs accommodate the LUD or the HUD, but the tables seem to indicated that projections were made to 2030. The LUD and HUD for water and wastewater costs are timeless, but like fire and law enforcement facilities, has a capacity related to population needs. It is unclear why law, fire, and roadways were based on 2030, but water and sewer were developed for LUD and HUD.

Suggestions: Identify the land use capacity associated with the roadway improvements, fire protection, and law enforcement projections.

If none of these are applicable for the high land use development projection, delete the HUD for water and sewer from the report so that the report reflects a future that is consistent for roads, law, fire, water, and wastewater.

Suggestion: provide the date and ENR number associated with the cost values. Is everything reported in 2007 or 2008 dollars? Are some costs projected?

5. Page xxxviii
operational issues outlined herein. While rates for water and sewer service have historically been low and have generally not been adequate to cover the whole cost of providing the service, the increases that will be needed to fund operation and maintenance, capital replacement, and regulatory changes will potentially send "rate shock" through these Districts. Working collaboratively could provide opportunities to reduce the costs for providing these essential services.

13-11

Sections 6.6 and 7.6

Rates. Most service providers within the County have historically charged low rates that generally do not adequately cover the costs of providing water service. This practice has led to degraded systems, deteriorating levels of service, and a lack of reserves to address and improve the situation. The Element will recommend policies and programs the County can implement to get the service providers to conduct rate studies and reduce costs of providing services to reduce "rate shock" within the County.

Where is the nexus for these comments? For the smaller communities, the cost of correcting the deficiencies all at once and out of rates is significant. But the report does not present the current rates or a look at a longer time frame over which deficiencies could be corrected.

13-12

6. Page
Influencing State Regulations: The County could proactively support the water and sewer service providers in affecting legislation and state agencies. In particular, issues related to wastewater disposal could have a profound effect on the county's infrastructure needs.

Where is the nexus for this comment? The costs presented in the report are for rehabilitation, fire, and safety. The comment may refer to Section 7.5, but it was not covered in Section 7.6. Because of the importance, additional detail should be presented in Section 7.6.

13-13

7. Delete section 1.3.2. Humboldt County Population and Housing Growth because the LUD and HUD information were used in the analysis to determine infrastructure needs. There is no point to the population and housing growth information and it's presentation is confusing because it is not used.

13-14

8. In each of the study areas in Section 6.4, there is a comparison between the growth to 2025 and the LUD and HUD. Page 6-6, Arcata for example,
The County estimates there were 190 housing units within the Arcata USA in 2005. Based on the estimated range of housing growth projections of between 0.5% and 2.5%, the Arcata USA could have between 210 and 311 total housing units by 2025. According to Table 1-6, the high build-out estimate for total development potential within the USA, which takes into consideration physical and zoning constraints, is 395 housing units. Therefore, the fair share growth projections for the Arcata USA are within the range of what the land can bear.

This is unnecessary and adds to the confusion of the report. Delete this section in each of the study areas, present only the LUD and HUD values and proceed with the analysis which is based on the LUD and HUD.

13-15

9. In Arcata, for example, the LUD is 2 housing units and the HUD is 205 with a change in units/acre from 0.16 to 16.73. This represents a significant change to the land use and infrastructure required to serve the projected population. A change of this magnitude deserves some consideration (discussion) of the conditions, requirements, and timeframe over which this will occur.

13-15 { There should be a comment as to what is happening in the areas where the LUD is significantly less than the HUD. As projections are made under HUD the question becomes: what conditions support the development to the HUD.

10. Section 6.4 is the general introduction to the calculation of water infrastructure costs. There is no discussion of the cost per connection versus the financing cost (\$/month). In the case of the existing deficiencies, one would expect to see the costs reported in \$/month since they would be paid out of rates. This section did not include a discussion of when the deficiencies would be corrected (it appears to be all at once in year 2008) and no discussion of the time frame over which the debit is to be repaid (20 or 30 years). It is unclear why the cost per connection is represented. It is also not clear what the existing rate is and what is the potential resulting rate.

13-16 { For the LUD and HUD costs, the table presents the cost per connection and \$/month for both the existing repairs and future infrastructure. However, because rates are going up to pay for the identified repairs, the rates for existing and future customers should be the same. The connection fee should be just for the needs of future infrastructure needs. The existing connection fee should be presented along with the connection cost of future infrastructure. It would then be apparent that differences may exist and rate and connection fee studies are warranted.

Each of the tables in Sections 6.4.x.1 should be updated to appropriately reflect the impact of infrastructure on rates and connection fees.

It may be more appropriate to discuss the issue of rates versus connection fees and present the calculation and general discussion of the need for rate studies.

In each section, there should be a statement based on the results of the rate and fee calculation for the LUD and HUD (are they low, high, ok?).

13-17 { 11. Table 7-3 shows that there is adequate wastewater capacity for development. It is hard to tell if the modifications to treatment and flow control are required as part of repairs or just to accommodate development. The I/I upgrades are certainly a repair issue. These need to be separated so that the repairs can be factored into rates and the improvements supporting development are used in the connection charge. Existing rates and charges should be presented.

13-18 { 12. Table 7-5 shows that no new connections are available, but the costs do not include any costs for expansion. The two costs listed for upgrades to meet current regulations and I/I upgrades appear to be maintenance issues and related to rates. The expansion costs for 294-450 new units needs to be determined or explained.

13-19 { 13. Table 7-6 identifies WWTP upgrades, but does not address any WWTP expansion costs. The expansion costs and I/I upgrades should go to rates, while the treatment expansion costs should be determined and go to connection costs.

13-20 { 14. All of the wastewater tables, costs, and discussion need to be reviewed for repair versus expansion costs and appropriate allocation of those costs to rates or connection fees.

Response to Letter 13 from Mark Hammer, HDR

Response to Comment 13-1. The commenter states that the original approach for the Technical Report was to project infrastructure needs to the year 2025 and that a decision was made to base infrastructure needs upon development potential. The decision was made by the preparers of this report based on many years of local experience designing community water and wastewater systems to evaluate the infrastructure needs based upon full build-out rather than the General Plan Update planning period. As Table ES-1 indicates, many local water and wastewater plants are already designed to accommodate planned community build-out, especially the smaller communities. In addition, the slow rate of development in this County, the long economic life of most treatment plant unit processes, and the fact that most improvements are constructed with the use of grant funding, make it more practical to consider build-out population in the design of infrastructure facilities. For these reasons the Low and High development projections were determined to an appropriate basis for evaluating future infrastructure needs rather than projecting population over the planning period.

Response to Comment 13-2. The commenter expresses concern regarding the use of the high and low development potential projections as the basis for the infrastructure analysis. The commenter also suggests that travel demand projections used in the Technical Report are derived using a growth rate between the years 2005 and 2030. See Response to Comment 13-1 for a discussion of the decision to use of the High and Low development potential projections as the basis for the infrastructure analysis.

Travel demand projections in this Technical Report represent output from the Greater Eureka Area Travel Model (GEATM) using the year 2005 (existing) and Sketch Plan-3 2030 (full entitlement build-out) scenarios. The Sketch Plan-3 2030 scenario was chosen because it is a “build out” scenario, similar to the High and Low development projections. Other GEATM model scenarios include year 2020 (using a projected growth rate) and year 2030 (using the same projected growth rate); however, these scenarios were not selected for evaluation in this Technical Report. It is important to understand the historical growth patterns in Humboldt County and the sizes of the communities involved. Based upon this it is our opinion that this report provides more value to the County when it evaluates the needs under a full buildout condition that at a specific point in time. We recognize that other approaches may be appropriate in other locations.

The Sketch Plan-3 2030, full entitlement build-out scenario is not based on a projected rate of population growth. Rather, this scenario represents full build-out of the Sketch Plan 3 land use alternative, as it could occur at some time in the future rather than specifically occurring in 2030. In effect, the Sketch Plan-3 2030, full entitlement build-out scenario is similar to the Low and High build-out projections in that it is not based on a growth rate and is not assumed to occur by a specific year in the future. In addition, the land use assumptions used in the High development potential projections are very similar to those used in the Sketch Plan-3 2030, full entitlement build-out scenario. The Sketch Plan 3 alternative was developed during a prior phase of the General Plan Update process

and informed many of the proposed density increases found in the High unit development projections.

It should be noted that travel demand model output was generated by Humboldt County, the City of Eureka, and Caltrans prior to the preparation of this Technical Report. Travel demand modeling is beyond of the scope of work for the Technical Report. The Technical Report will be revised to ensure that readers understand that the travel demand data represents the Sketch Plan-3 2030, full entitlement build-out, scenario.

Response to Comment 13-3. The commenter notes that Chapter 3, Law Enforcement, includes Sheriff's Office staffing projected to the year 2027, rather than to the end of the General Plan planning period 2025 or based on the Low and High development projections. The projections used in this chapter were provided to the preparers of this Technical Report by the Sheriff's Office and are from a report being prepared by a consulting architect that projected future space needs for County government buildings. Like the transportation modeling data, the Sheriff's Office staffing and space projections were prepared by others, which was also outside the scope of this Technical Report. This facilities report was considered to be the best available information for purposes of the Technical Report and was used to project future Sheriff's Office costs relating to growth. This facilities report is not related to the General Plan Update. The County government space needs projection was not in final form or available at the time that this analysis was completed and all of the assumptions used by the Sheriff's Office and the consulting architect were not known to the preparers of this Technical Report. As a result, the information was presented "as provided" rather than modified to match the future projection years of the General Plan Update planning period. Unlike water, wastewater systems, and roadways it was determined to be appropriate to project law enforcement staffing and facilities to a target planning year rather than to build-out.

Response to Comment 13-4. The commenter states that it is difficult to interpret the need for, or costs of, infrastructure without a "timeframe context" and that water and wastewater costs should have been projected in a manner consistent with roads and law enforcement costs. For a clarification of the assumptions used in roadway capacity projections see Response to Comment 13-2 above. For a clarification of the assumptions used in law enforcement staff and costs projections see Response to Comment 13-3 above.

Response to Comment 13-5. The commenter lists what are referred to as remaining comments from the commenter's prior letter (Comment Letter 1): the presentation of information is overly confusing; development projections and growth rates lack sound planning assumptions; development projections are overstated; and the analysis does not provide the necessary information from which policy decisions can be made. For the most part these comments have been fully addressed in the Response to Comment Letter 1 and this Response to Comments Letter 13. However, the commenter provided additional input regarding the comment "the analysis does not provide the necessary information from which policy decisions can be made." The response to the additional input regarding this comment can be found in Response to Comment Letter 14.

Response to Comment 13-6. The commenter states that the reference to the year 2025 on page xiii (the commenter likely meant page xii) should be replaced with references to the Low and High build-out projections, based on land use. In addition, the commenter states that it is unclear if the Technical Report addresses the timing of facility and services availability and if the Technical Report does not, this reference should be removed.

The reference to the year 2025: “(t)his new General Plan Element will present policies and implementation measures for providing the infrastructure needs to accommodate development within the County through the year 2025,” specifically refers to the General Plan planning period and Community Infrastructure and Services Element. As such, there is no need to remove this reference.

Response to Comment 13-7. The commenter asks why LUD (or “land use density” as indicated in the footnote to Table ES-1) is listed as a factor limiting development potential in Table ES-1. As described in the first paragraph of the section entitled “Current Development Capacity” on page xiii, “(d)development capacity is defined by the allowable density and the physical constraints affecting a parcel, as well as the capacity of service providers.” Land use density, as specified in the Humboldt County General Plan and Zoning Code, is the most important factor limiting current development potential. Current development density cannot exceed the maximum density allowable under the General Plan and Zoning Code. Table ES-1 compares the Low development estimate to the available capacity of either the water or wastewater system, which ever is more limiting, for each USA as an estimate of the amount of development that can occur at this time. The Low unit development estimate is based on the current General Plan. To the extent that a water or wastewater system has capacity beyond the Low unit projections, this is noted in the column labeled “Description of Limitation,” but not counted as available development capacity because the land use regulations do not permit additional development without a modification to the General Plan and Zoning Code. The section of the Executive Summary entitled “Current Development Capacity” was intended to portray the current system capacity and the land use development capacity of each urban study area. Chapters 6 and 7 provide the best available information regarding actual system capacity and estimates of the probable improvement cost to expand systems to accommodate the High unit projections, which represent an increase in development capacity.

Response to Comment 13-8. The commenter notes that a portion of the infrastructure costs in the summary on page xxxvii, Table ES-2, Estimated Unit Cost Summary by USA for Water and Wastewater Infrastructure, are due to improvements needed to address existing deficiencies and changes in regulations. However, the commenter could not identify specific costs relating to changes in regulations. The commenter suggests that this reference should be deleted if regulatory issues are not identified.

As noted in the title of Table ES-2 and the paragraph heading above the narrative describing the table on the previous page (page xxxvi), Infrastructure Cost Summary, this

information is presented in summary form. Cost details and assumptions are provided later in the Technical Report. Examples of cost estimates associated with potential changes in regulations can be found in Chapters 6 and 7. A specific example of future costs relating to potential changes in regulations is described on pages 7-33 and 7-34 relating to the estimated cost of \$1,000,000 to construct an alternative method of treated wastewater disposal for the Loleta wastewater treatment plant.

Response to Comment 13-9. In regards to a statement in the infrastructure cost summary on page xxxvi regarding Low and High unit costs and economies of scale, the commenter states that the current connection fee should be included as the cost of existing infrastructure.

The discussion in Chapters 6 and 7 explicitly states that future connections should buy into existing infrastructure through connection fees and that district specific studies (master plans) or project specific studies (facility plans) should be used to appropriately distribute existing and new infrastructure costs between existing and new users. Such analyses are best undertaken by the affected service provider, not Humboldt County, and are beyond the scope of a background technical report associated with a General Plan Update.

Response to Comment 13-10. The commenter asks why water and wastewater costs are compared with roadway costs and law enforcement costs, if all costs were not projected using the High unit development projection. Table ES-3, Estimated Infrastructure Costs for Humboldt County, presents a summary of projected costs for each infrastructure type, without comparing or summing these costs. The table footnotes the limitations of the projections, differences between the projections, and the need for additional analysis. The associated narrative repeats these limitations.

The commenter also suggests that the Technical Report provide the data and Engineering News Record number associated with cost values and asks what year the dollar values represent. Cost estimates are given in then-current dollars, 2007, unless otherwise specified. Water system improvement cost assumptions are described on page 6-4 and 6-5 and wastewater cost assumptions are described on page 7-11.

Response to Comment 13-11. The commenter asks “what is the nexus” for statements regarding rates on page xxxviii and in the policy recommendations in Sections 6.6 and 7.6. In response to this comment, a new table will be added that displays the current water and wastewater rates and connection fees for local providers. A rate analysis is beyond the scope of this Technical Report. Statements in this Technical Report regarding rates are based on the experience of the Technical Report preparers and conversations with service providers. This Technical Report recommends that service providers update their rates through district specific studies. Chapter 12, Implementation, provides additional findings and recommendations regarding rates (see Section 12.1, Capacity Building). Policy recommendations can be found in the proposed Community Infrastructure and Service Element.

Response to Comment 13-12. The commenter asks “what is the nexus” for the paragraph regarding influencing state regulations on page xl. Section 7.2.1, Sewage Treatment and Disposal Standards, describes the changing regulations that relate to wastewater treatment and disposal. Throughout Section 7.4, Community Wastewater Systems, the affects of changing regulations are described as they relate to individual wastewater treatment systems. Chapter 12, Implementation, provides a description of the potential capacity building and funding opportunities for infrastructure and service providers in Humboldt County. This chapter is the basis for General Plan policy recommendations contained in the Draft Community Infrastructure and Services Element. Section 12.1.1.1, Association of Water and Wastewater Service Providers, is the program recommended by the preparers of this report to address changing regulations. Policy recommendations can be found in the proposed Community Infrastructure and Service Element.

Response to Comment 13-13. The commenter suggests that Section 1.3.2 should be deleted because the Low and High unit development projections were used to analyze infrastructure needs. See Response to Comment 1-1 for a discussion of the use of growth projections and Low and High unit development projections in this Technical Report.

Response to Comment 13-14. The commenter suggests that the statements comparing the Low and High development projections for each USA to the range of potential growth rates (0.5 to 2.5 percent per year) should be deleted. See Response to Comment 1-1 for a discussion of the use of growth projections and Low and High unit development projections in this Technical Report.

Response to Comment 13-15. The commenter is likely referring to Table 1-6, Development Potential in Humboldt County’s USAs and WSAs, on page 1-7 in stating that the difference between the Low and High development potential of 2 and 205 and the estimate of resulting densities of 0.16 and 16.73 dwelling units per acre are significant changes and should be discussed.

Response to Comment 1-8 explains the differences between existing residential density and the resulting density relating to the High and Low development projections. To further simplify the discussions regarding density, Tables 1-5 and 1-6 will be revised such that existing and future densities will be calculated using the same denominator, total USA acres.

Response to Comment 13-16. The commenter states that Section 6.4, Urban Study Areas, does not contain a discussion of the manner in which cost are presented. In particular, the commenter states that there is no description of the presentation of costs per connection and monthly finance cost. A brief discussion of the manner in which costs are presented will be added to Section 6.4.

The commenter also states that the Technical Report does not specify the timeframe in which the deficiencies are to be corrected; that it is unclear why the cost per connection is presented; current rates and the impact on future rates should be specified; and that the

From: Hammer, Mark [Mark.Hammer@hdrinc.com]
Sent: Tuesday, March 25, 2008 8:26 AM
To: Miller, John
Subject: FW: Policy comments.doc

Mark J Hammer, Jr PE

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The basis for the comment includes:

- 14-1 {
1. The water and wastewater facilities required for year 2025 were not developed, therefore I could not foresee how policies could be developed. I now understand that land is the basis for future facilities and given that clarity, there is a basis for policy development.

There is no doubt that a series of policies can be developed given the information available in the report on existing needs and future facilities based on land use.
- 14-2 {
2. I remain concerned in those locations where the LUD is significantly less than the HUD. In areas with significant differences, it seems that they would represent different visions of the future. Are policies going to be developed for the LUD or HUD needs?
 3. The report is confusing at the end of the water and wastewater sections. The sections titled Policy Recommendations state:
- 14-3 {
- This technical report will be used to guide development of the Community Infrastructure and Services Element and the recommended policies therein.
- The water issues to be addressed in the community infrastructure and services element include goals, policies, and programs for the following issues:
- Ability to Function – the need is clear, lumping managerial, financial, aging infrastructure, growth, and regulations together is a rather broad brush.
- Rates – there was no analysis or presentation of rates in the report. It is unclear that rates “generally do not adequately cover the costs of providing water service.” There is an economic estimate of the rate increase due to repairs and system needs, but it is not in the context of existing rates.

Funding of Infrastructure – the need is clear. I found the presentation of repair costs in terms of connection fees to be confusing. Costs should be paid for by rates and it is not clear what the presentation was for. Especially in the wastewater cost estimates, repair and maintenance capital costs were mixed with costs associated with treatment expansion to accommodate growth. These costs should be separate to allow policies to be developed for maintenance versus expansion or regulatory improvements.

14-4

Just as a side note: From the information in the report and our discussion, it seems that there should be a distinction for wastewater treatment between urban and rural areas.

14-5

The aforementioned items relate to existing conditions. It is unclear if any issues related to growth will be developed as policies.

14-6

It is not that the report does not contain the basis for the following items, but that this section stops short. I would have expected to see the list continue with items such as:

Maximum usefulness – maintain adequate levels of facilities and services for existing and new development. This leads to goals for identifying and allocating existing capacity for new growth and maintaining adequate capacity and levels of service to meet future development.

Water supply quality and adequate wastewater treatment – maintain appropriate water quality and levels of wastewater treatment to serve new growth, protect public health, and preserve natural resources. (this could be used to address urban and rural areas separately and address issues related to septic tanks).

Response to Letter 14 from Mark Hammer, HDR

Note: This comment letter is a follow up to Response to Letter 13 from Mark Hammer, HDR. Comment 13-5 contained a list of remaining comments from the prior letter (Comment Letter 1), including: the analysis does not provide the necessary information from which policy decisions can be made. Comment Letter 14 contains additional information from the commenter to clarify the necessary information from which policy decisions can be made.

Response to Comment 14-1. This comment notes that the commenter now understands that land is the basis for future facilities and there is a basis for policy development contained in the Technical Report. No response to the comment is necessary.

Response to Comment 14-2. The commenter notes concern for locations where the Low unit development projections are significantly less than the High unit development projections. The commenter further suggests that these areas may represent different visions of the future, and asks if policies are to be developed relating to this. Policies relating to planned growth within communities, land use, and density are contained in the Land Use Element and Growth Management Element. The Community Infrastructure and Services Element contains policies intended to ensure availability of adequate public infrastructure and services.

Response to Comment 14-3. The commenter lists the issue areas contained in the Policy Recommendations Sections 6.7 and 7.7: ability to function; rates; and funding infrastructure. This comment expresses concerns that the issue statement “ability to function” may be a broad brush characterization; (individual service provider) rates are not adequately analyzed; and costs should be separated between maintenance and expansion. See Response to Comment 13-11. In addition, the commenter is encouraged to review Chapter 12, Implementation, in addition to the summaries of findings and recommendations at the end of each chapter and in the Executive Summary and Chapter 1. In particular, the commenter is encouraged to review Section 12.1.1. The commenter may also want to review the Proposed Draft Community Infrastructure and Services Element to see the broad policies that are proposed to address the issues identified above and that are intended to frame the relationship between the independent service providers and Humboldt County.

Response to Comment 14-4. The commenter suggests that there should be a distinction between urban and rural wastewater treatment. The Technical Report describes the methods of wastewater disposal in each of the urban study areas and provides general information regarding on-site septic systems in Section 7.5, On-Site Systems. In addition, the Water Resources Technical Report provides additional information regarding on-site wastewater treatment in Humboldt County in a section entitled “Private Water System and Wastewater Disposal Systems” on pages 27 to 29. The Community Infrastructure and Services Element proposes levels of service standards that range from urban to rural areas and both the Community Infrastructure and Services the Water Resources Elements contain policies relating to on-site sewage disposal requirements.

Response to Comment 14-5. The commenter states that it is unclear if any issues related to growth will be developed as policies. The commenter is encouraged to review Chapter 12, Implementation, page 23-3, for a listing of recommended programs relating to “Rates and Charges” and “Infrastructure to Support New Development.”

Response to Comment 14-6. The commenter states that it is not that the report does not contain the basis for the following items, maintain adequate levels of facilities and services for existing and new development; and maintain appropriate water quality and levels of wastewater treatment to serve new growth, protect public health, and preserve natural resources. The reader is encouraged to review the proposed policies under the heading Community Infrastructure and Services Policies, in the Community Infrastructure and Service Element, in particular Adequate Public infrastructure and Services Standards. Also, proposed water quality related standards in the Water Resources Element.

MEMO

TO: John Miller
FROM: Thomas K. Mattson, Director of Public Works
RE: Comments on Circulation Plan
DATE: 7/2/08

The Department has reviewed Section 2 (roads) and Section 4 (storm drain) of the revised Community Infrastructure & Services Report. The Department offers the following comments:

- 15-1 [1. The report should be thoroughly proofread not necessarily from a grammatical standpoint, but from a technical standpoint of the data contained within. Examples:
 - 15-2 [a. Tompkins hill road was rated with a low OCI even though the text explained that it was just improved. The OCI should be adjusted;
 - 15-3 [b. Multimodal use of roadways does not include equestrians. Roads such as Central Avenue in McKinleyville have been designed to include a bridle path; and
 - 15-4 [c. Pound Road is listed as having an increase in ADT. This is a short cul-de-sac with limited development potential. The traffic increase is most likely due to the U.S. 101 off-ramp at Herrick. Therefore, this segment should be referred to as Herrick.
- 15-5 [2. When referring to names given to projects or tracts of land (Marina Center, Mid-McKay Tract, etc.) also include the APNs so that the readers of the document, who are not familiar with where these projects are located, can locate the projects. This may not appear to be an issue today, but as years pass, these "common names" for projects or tract of land become obscure references.
- 15-6 [3. Table 2-1 should include a note identifying that these are conceptual projects; that traffic modeling for the EIR may result in changes, revisions, or deletion of the projects on this list.
- 15-7 [4. While not specifically included as part of the technical report, it is important to note that a detailed traffic engineering report will be prepared as part of the general plan update. The traffic engineering report will need to:
 - a. Specify the location of new circulation routes;

- b. The type of facility being built (arterial, collector, local) based upon AASHTO standards;
- c. The recommended roadway cross section to accommodate all road users;
- d. The width of right of way needed; and
- e. Enhancements to existing facilities (add travel lanes, traffic signals, etc...).

15-8

5. While not specifically included as part of the technical report, it is important to note that areas where significant development is planned or expected, a storm drain master plan should be prepared to size main line facilities to be compatible with full build-out of the areas for the Q100 storm. The siting of regional storm water detention facilities should be included if down stream areas (outside of the proposed development areas) cannot handle increased flows. Therefore, the Department recommends that a series of master drainage study be prepared as part of the General Plan process. Additionally, standards for storm water detention basin sizing should be developed.

Response to Letter 1 from Thomas K. Matson, Director of Humboldt County Public Works

Response to comment 15-1: This comment states that the report should be proofread regarding data and grammar. The document has been thoroughly proofread and the data reviewed and revised as necessary.

Response to comment 15-2: This comment states that OCI for Tompkins Hill Road should be adjusted given that this road was recently improved. The Condition Description for Tompkins Hill Road in Table 2 6, Roadway Condition Estimates by USA, has been changed to “Good.”

Response to comment 15-3: This comment states that “equestrian “should be added to discussions regarding multi-modal uses for roadways. Equestrian as a multi-modal use of roadways has been added to Section 2.1, Description on page 2-1 and Section 2.8, Issues to be Addressed in the General Plan Update, on page 2-31

Response to comment 15-4: This comment suggests that the reference to Pound Road should be changed to Herrick Road. The reference to Pound Road has been changed to Herrick Road in Table 2-3B, Example USA Roadway Segments from the GEATM Showing 2005, Sketch Plan-3 2030 (Build-Out), scenario V/C Ratios of Greater than 90%.

Response to comment 15-5: This comment suggests that the reference to projects, such as the Marina Center, should be accompanied by parcel numbers so that future readers can locate the projects. Rather than parcel numbers, names of streets that make up the approximate boundaries of project sites have been provided as locations for reference purposes.

Response to comment 15-6: This comment suggests that Table 2-1 (the commenter is likely referring to Table 2-9 or Table 2-10) should include a note that listed projects and associated information is conceptual and that traffic modeling for the EIR may result in changes, revisions, or deletions of project on the list. This note has been added to the narrative on page 2-26.

Response to comment 15-7: This comment states that a detailed traffic engineering report will need to be completed as part of the General Plan update. This comment has been added to the narrative on page 2-26.

Response to comment 15-8: This comment states that storm drainage master plans should be completed for areas where significant development is planned. This comment has been added to Section 4.6, Issues to be Addressed in the General Plan Update, in Section 4, Storm Drainage & Flood Control.