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Date: Mon, Apr 17, 2017 at 3:22 PM
Subject: Marin LAFCO | Draft Report on Central Marin Wastewater Study | Review and Comment Notice
To: Keene Simonds <KSimonds@marinlafco.org>
Cc: Rachel Jones <rjones@marinlafco.org>

Good Afternoon –

Attached to this email is a formal notice inviting all interested parties to review and comment on Marin LAFCO's draft report on its scheduled Central Marin Wastewater Study. The notice is accompanied by the draft report's Executive Summary. Comments are being sought ahead of a current Wednesday, May 31st deadline.

All comments can be directed to Rachel Jones at rjones@marinlafco.org.

Keene

Marin Local Agency Formation Commission

Regional Service Planning |

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NOTICE OF REVIEW AND COMMENT PERIOD

**Draft Report
Central Marin Wastewater Study**

April 17, 2017

Study Responsibilities

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (“CKH”) directs Local Agency Formation Commissions (LAFCOs) to regularly prepare municipal service reviews in conjunction with updating each local agency’s sphere of influence. The legislative intent of the municipal service review and its five-year cycle requirement is to proactively inform LAFCOs in fulfilling their prescribed regional growth management duties in all 58 counties in California. All municipal service reviews must culminate with LAFCOs preparing written statements addressing specific service factors listed under Government Code Section 56430. This includes, most notably, infrastructure needs or deficiencies, growth and population projections, and financial standing.

**Central Marin Wastewater Study |
Draft Report**

Marin LAFCO is pleased to announce the issuance of a draft report prepared as part of a scheduled municipal service review on wastewater services in Central Marin; an approximate 60-square mile area that includes seven public agencies. The underlying purpose of the study is to independently assess the relationship and influencing factors therein in Central Marin between public wastewater demands versus collection, treatment, and disposal capacities relative to Marin LAFCO’s regional growth management duties under State law. Information generated in the study will (a) guide subsequent sphere updates, (b) inform future boundary changes, and (c) if merited serve as the source document to initiate one or more government reorganizations.

A listing of all seven affected agencies follows.

Central Marin Wastewater Study Affected Agencies	
Central Marin Sanitation Agencies	Murray Park Sewer Maintenance District
County Sanitary District No. 1 (Ross Valley)	San Rafael Sanitation District
County Sanitary District No. 2 (Corte Madera)	San Quentin Village Sewer Maintenance District
Las Gallinas Valley Sanitary District	

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Jack Baker, Regular
North Marin Water District
Craig K. Murray, Regular
Las Gallinas Valley Sanitary
Lew Kious, Alternate
Almonte Sanitary District

Jeffrey Blanchfield, Chair
Public Member
Chris Burdick, Alternate
Public Member

The Executive Summary prepared as part of the draft report is attached to this notice. This portion of the draft report – and among other items – highlights central themes underlying the relationship between Marin LAFCO’s growth management interests and public wastewater services in Central Marin now and proceeding over the next 10 years. It also identifies specific recommended actions drawn from the preparation of written statements as required under statute. This includes, most notably, several recommended actions to either immediately enact or further explore governance restructuring – including consolidations – within Central Marin. A copy of the complete draft report, which was presented to the Commission for initial discussion and feedback on April 13th, is available at www.marinlafco.org.

Public Review and Comment Period

Marin LAFCO invites all interested parties to review and comment on the draft report prepared as part of the scheduled Central Marin Wastewater Study. Comments should be provided in e-mail and directed to Rachel Jones at rjones@marinlafco.org no later than **Wednesday, May 31, 2017**. Comments received by this date will be reviewed by staff and ahead of determining whether a final report – with or without additional changes – will be presented to the Commission as early as its June 8th meeting.

Attachments: as stated

CHAPTER TWO EXECUTIVE SUMMARY

1.0 OVERVIEW

This study represents Marin LAFCO’s scheduled municipal service review on public wastewater services within an approximate 60-square mile area of central Marin County. The study has been prepared by staff and consistent with the scope of work approved by the Commission at a noticed public hearing. The underlying aim of the study is to produce an independent assessment of public wastewater service in the region over the next five to ten years relative to the Commission’s regional growth management duties and responsibilities as established by the Legislature. This includes evaluating the current and future relationship between public wastewater demands versus collection, treatment, and disposal capacities region-wide and within the service areas of the seven affected agencies, directly or indirectly subject to the Commission’s oversight. Information generated as part of the study will be directly used by the Commission in (a) guiding subsequent sphere of influence updates, (b) informing future boundary changes, and – if merited – (c) initiating government reorganizations, such as special district formations, consolidations, and or dissolutions.

The underlying purpose of the study is to independently assess the relationship and influencing factors therein in Central Marin between public wastewater demands versus collection, treatment, and disposal capacities relative to the Commission’s regional growth management duties under State law. Information generated in the study will (a) guide subsequent sphere updates, (b) inform future boundary changes, and (c) if merited serve as the source document to initiate one or more government reorganizations.

2.0 KEY ASSUMPTIONS & BENCHMARKS

The study has been oriented in scope and content to serve as an ongoing monitoring program on public wastewater services in Central Marin. It is expected the Commission will revisit the study and its key assumptions and benchmarks therein every five years consistent with the timetable set by the Legislature. This will also allow the Commission – among other items – to assess the accuracy of earlier projections and make appropriate

changes in assumptions and benchmarks as needed as part of future studies. Key assumptions and benchmarks affecting this study's scope and content follow.

2.1 Setting the Study's Timeframe

The timeframe for the study has been oriented to cover the next five to ten year period with the former (five years) serving as the analysis anchor as contemplated under State law. Markedly, this timeframe is consistent with the five-year cycle legislatively prescribed for municipal service reviews under G.C. Section 56430 while providing the Commission flexibility in scheduling its next review on public wastewater services within Central Marin in alignment with resources and priorities.⁷

2.2 Determining the Data Collection Range or Study Period

The period for collecting data to inform the Commission's analysis and related projections on growth, demands, and finances has been set to cover the five-year period from 2010 to 2014. This data collection period – which covers the 60 months immediately preceding the start of work on the study – purposefully aligns with the five-year timeline for the study with the resulting data trends appearing most relevant to the Commission in making near-term projections (i.e., data from the last five years is most pertinent in projecting trends over the next five to ten years).

2.3 Calculating Population Estimates

Residential population calculations in the study have been independently made by Commission for both recent and near-term estimates within all seven affected service areas. Recent population estimates for the service areas are premised on occupied housing driving resident projections based on data collected within all applicable census tracts. Four distinct calculations are made in producing population estimates for each agency and specific to each year that take into account total housing units, local occupancy rates, occupied housing units, and household sizes. Near-term estimates have been similarly calculated for the next five to ten year period based on applying the

⁷ Incorporating projections 10 years out also allows the Commission to proceed with an applicant request for a sphere of influence amendment involving one of the affected agencies within the time period without the concurrent need for a new stand-alone municipal service review.

estimated growth trend in each service area over last 60 months with limited exceptions (i.e., population growth between the last five years is expected to hold over the next five to ten years).

2.4 Making Growth Projections at Buildout

The study includes a cursory review of population and housing totals at buildout for purposes of telegraphing potential long-term growth within each affected agency's service area. Housing unit projections at buildout are based on a review of all subject land use authorities existing housing elements and specific to zoning within existing jurisdictional boundaries.⁸ Population projection totals at buildout are similarly based on applying an agency specific person-per-house amount for every projected housing unit as separately calculated by the Commission.

2.5 Calculating Future Wastewater Demands

Future near-term wastewater demands in the study have been independently calculated by the Commission through 2024 within each affected agency's service area based on overall production trends generated in the preceding five-year period between 2010 and 2014. These projections have been made using linear regression to help *control* for large variances in the recent five-year totals (emphasis). Importantly, these projections have been made by the Commission in the absence of the affected agencies' own projections and are intended only as reasonable estimates of likely and near-term demand-to-capacity relationships going forward.

2.6 Benchmarking Infrastructure Needs and Deficiencies

The study and its analysis focuses on average wastewater demands within specific categories (i.e., dry, wet, and peak periods) generated within each affected agency's service area during the 60-month study period in benchmarking infrastructure needs or deficiencies. This broader focus on averages provides a more reasonable account of system demands generated during the study period and helps to mitigate against one-

⁸ Buildout estimates do not take into consideration future changes in boundaries as well as outside service commitments.

year outliers in step with analyzing overall relationships with collection, treatment, and disposal capacities.

2.7 Benchmarking Financial Solvency

Three diagnostic tools are used in the study to assess and make related determinations on each affected agency's financial solvency based on a five-year review of audited statements from 2010-2014. These diagnostic tools – (a) current ratio, (b) debt-to-net assets, and (c) operating margin – collectively provide the Commission with reasonable benchmarks to evaluate liquidity, capital, and margin and calculated to track both overall trends as well as final year standing.

2.8 Benchmarking Pension Obligations

Three diagnostic tools are used in the study to assess and make related determinations on the strength of the pension obligations for the five affected agencies that provide employees with defined retirement benefits; all of whom have contracts with the California Public Employees Retirement System (CalPERS) or – and to a more limited extent – the Marin County Employee Retirement Association (MCERA). These diagnostic tools – (a) funded ratio, (b) unfunded liability, and (c) active-to-retiree ratio – have been calculated by the Commission based on the three most recent pension statements issued by CalPERS or MCERA covering 2011 to 2014. (Earlier data is not readily accessible at this time.) Further key benchmarks herein include identifying 80% as the minimum threshold for an adequate funded ratio.

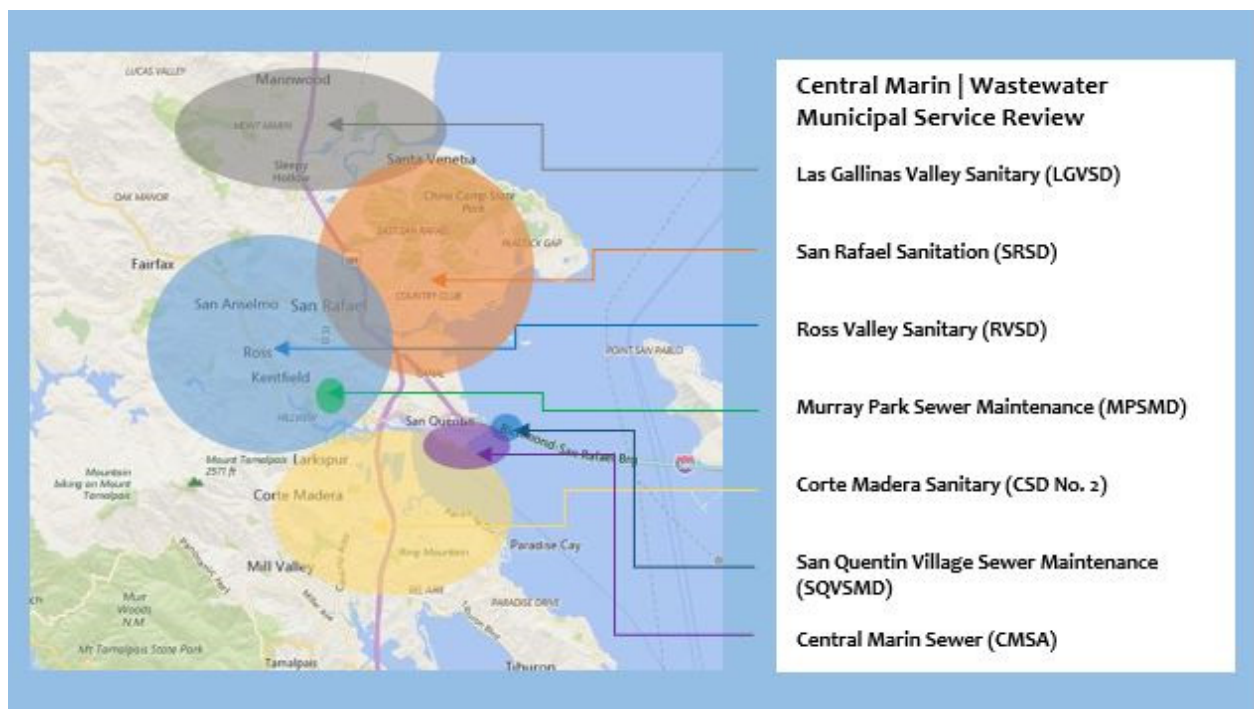
3.0 STUDY ORGANIZATION

This chapter serves as the Executive Summary and outlines the key conclusions and findings generated within the study. This includes addressing the mandatory service and governance factors required by the Legislature anytime the Commission performs a municipal service review. The Executive Summary is preceded by a review of key regional service characteristics (Chapter Three) underlying public wastewater services in Central Marin. Examples include providing regional and agency comparisons with respect to demographics, demands, capacities, costs, and financial resources now and

going forward. The third and final section involves individual agency profiles (Chapter Four) of all seven affected agencies responsible for providing public wastewater services directly or indirectly under the Commission’s jurisdiction in Marin County. These profiles transition between narrative descriptions of the background and development of these agencies’ service areas to quantifying specific data-driven categories, such as population and growth trends, wastewater service capacities, and financial standing.

4.0 AFFECTED PUBLIC AGENCIES | GEOGRAPHIC AREA

The geographic area designated for this study is approximately 60 square miles in size within Central Marin and incorporates therein seven public agencies that provide one or more of the following public wastewater services: collection, treatment, and disposal. These seven affected agencies and their service areas are shown below.



5.0 STUDY SUMMARY

5.1 General Conclusions

This study identifies 12 central themes or conclusions underlying the Commission’s review of the availability, capacity, and performance of public wastewater services in Central Marin now and going forward. These conclusions range in substance from recent usage trends to financial standing and are entirely generated from information detailed in the succeeding sections. Additionally, and as previously

The study’s general conclusions are based on data collected and analyzed by the Commission between 2010 and 2014 and specific to LAFCO’s prescribed growth management interests under State law.

detailed, these conclusions are premised on the Commission’s own independent assessment relative to LAFCO’s growth management interests and drawn from the information collected and analyzed between a five-year period of 2010 to 2014.

- **No. 1 | Agencies’ Substantive Influence on Growth in Marin County**

The seven affected agencies organized to provide public wastewater services in Central Marin directly effect nearly one-half of all county residents as estimated by the Commission, and as such have a significant influence in accommodating - or inhibiting - new growth and development in Marin County. This relationship is marked by the seven agencies’ service areas collectively accounting for an estimated 124,182 total residents and equals 48% of the entire countywide population as of the study period term.

- **No. 2 | Service Areas are Nearing Current Residential Buildout; Growth Exceeding Earlier Estimates**

The Commission projects the seven affected agencies are collectively at 89% of their current planned residential buildout as of the term of the study period with the expectation this ratio will increase to 94% over the succeeding 10-year period. This includes the Commission estimating the affected agencies will collectively add close to 6,530 new residents over the succeeding 10-year period and result in a joint annual growth rate of 0.53% through 2024. Markedly, this Commission projection – which draws on actual trends during the study period – suggests the

region's population is outperforming by more than one-fourth estimates previously made by the Association of Bay Area Governments or ABAG.⁹

- **No. 3 | Increasing Diseconomies of Scale**

As noted in the seven affected agencies' service areas are collectively approaching their respective residential buildout as established by the associated land use authorities and as memorialized in current housing elements. While buildout estimates will change and increase in the future in step with general plan updates, it is reasonable to assume the underlying constraints towards new growth in Central Marin will persist given community preferences, limiting opportunities going forward to spread out costs among a greater pool of ratepayers. The net effect is a diseconomies of scale in which the affected agencies' costs to maintain wastewater infrastructure will continue to exceed associated revenues as evident during the study period with the combined increases in operating expenses outpacing operating revenues by more than three-fold.

- **No. 4 | Variation in Civic Engagement; Board Type Matters**

All seven affected agencies appear generally accountable to their constituents in the ongoing provision of public wastewater services within their respective service areas. The level and effectiveness of engagement between agency and customer in Central Marin, nonetheless, appears expressively highest among LGVSD and RVSD, and demonstrates a direct correlation between board type and responsiveness with favor assigned to independent agencies.

- **No. 5 | Immediate Merit to Reorganize MPSMD and SQVSMD**

It appears two separate governance alternatives are readily merited to improve local accountability and service efficiencies and irrespective of other potential changes under consideration in Central Marin. This involves proceeding with reorganizations to dissolve MPSMD and SQVSMD and concurrently place their respective service areas in RVSD either by consolidation or annexation. These reorganizations would eliminate two dependent special districts governed by the

⁹ Drawing from a publication issued in 2013 ABAG projects the Central Marin region will experience an overall increase in population over succeeding 10-year period of 5,208 and result in an annual population change of 0.42%.

County of Marin and operating under antiquated statutes in favor of recognizing RVSD as the preferred and more able service provider going forward.

- **No. 6 | Additional Merit to Explore Regional Consolidation**

Information collected and analyzed in this study provides sufficient merit for the Commission to evaluate options and merits to reorganize and consolidate public wastewater services in Central Marin and most pertinently among agencies in the Ross Valley and San Rafael Creek Watersheds. This topic – which has been previously reviewed by the agencies specific to assessing cost-savings but not the Commission – responds to Marin LAFCO’s directive to independently assess the notional sense affirmed in this study that consolidation would appear primed to produce greater accountability and efficiency within the combined watershed. The topic should be explored in addendum form and calendared as part of a future workplan. It should be premised on identifying merits/demerits of regionalization in improving costs, accountability, and efficiency while being sufficiently fair to all agencies and their ratepayers in terms of shared control.

- **No. 7 | Wastewater Demands Deintensifying During Normal Conditions**

Overall relative demand – i.e., annual wastewater flow measured by residents – in Central Marin during the study’s five-year term has decreased within all seven affected agencies’ service areas with daily per capita demands declining from 133 to 111 gallons; a reduction of 20%. Similar reductions are also reflected in dry-weather and wet-weather periods with the former measurement – dry-weather – highlighting wastewater demands are deintensifying during normal conditions. This reduction appears most attributed to ratepayer diligence in water conservation in step with the drought; whether conservation practices hold going forward remains uncertain.

- **No. 8 | Wastewater Demands Intensifying During Peak-Day Conditions; Increasing Impacts from Inflow and Infiltration**

Overall – and contrast to other flow measurements – relative peak-day demands in Central Marin have increased within all seven affected agencies’ service areas with the daily per capita demands increasing from 852 to 901 gallons during the study period; a rise of 5.8% and a corresponding peaking factor of nearly 11-fold. This dynamic appears most attributed to changes in weather patterns and a rise in brief storm events yielding higher levels of intensity, leading to more susceptibility of inflow and infiltration within the wastewater system. Projected peak-day conditions do show some improvement in lessening peak-day demand impacts on the wastewater systems going forward with the affected agencies’ combined peaking factor falling under 10-fold by 2024.

- **No. 9 | Collection System Capacities are Sufficient to Accommodate Demands Now and Projected Over the Next 10 Years Without Stress**

The seven affected agencies’ collection systems within Central Marin have sufficient capacities to meet current demands within their respective service areas under normal and peak conditions. This sufficiency is demonstrated by observing the highest agency demand-to-capacity ratio specific to collection systems during peak-day periods was 72% within RVSD. No substantive changes in these ratios are projected by the Commission over the next 10 years.

- **No. 10 | Treatment System Capacities are Sufficient to Accommodate Demands Now and Projected Over the Next 10 Years With Some Stress**

The two entities responsible for providing wastewater treatment services within Central Marin – LGVSD and CMSA – have sufficient capacity based on demand averages over the study period as well as projected flows over the succeeding 10 year period, albeit to different allowances and stress levels. LGVSD is best positioned now and going forward in meeting wastewater demands with no single measurement (i.e., dry, wet, peak) ratio exceeding 70%. CMSA’s treatment capacities are comparatively closer to approaching design and or permit limits and highlighted by current peak and dry weather flows within the contracted service area equaling 79% and 85%, respectively.

- **No. 11 | Near-Term Finances in Generally Good Shape and Highlighted by Liquidity and Capital; Margin Levels Mixed**

A review of the audited financial statements covering five of the seven affected agencies – LGVSD, SRSD, RVSD, CSD No. 2, and CMSA – show these entities finished the study period in generally good financial standing as measured by liquidity, capital, and – albeit at more mixed results – margin levels. This includes noting all five of these affected agencies maintained moderate to high liquidity averages and marked by having no less than 315 days’ cash on hand as well as no less than a 2 to 1 current ratio; meaning the agencies at a minimum ended with \$2 in current assets for every \$1 in short-term liabilities/obligations. All five of the agencies also finished the study period with available capital with no more than 54% in debt relative to net assets. Year-end profit levels as measured by total margin – the net difference between all revenues less all expenses – largely stayed positive with a combined study period average of 14% with the notable exception CSD No. 2 and CMSA both finished the study period with slight losses.¹⁰ Audited statements specific to the other two affected agencies – MPSMD and SQVSMD – were not available as of date of this report.

- **No. 12 | Climate Change Requires Resiliency in Wastewater Planning**

With increasingly serious climate impacts due to higher temperatures, such as more frequent droughts, storm surges and rising sea levels throughout Marin County, all seven affected agencies’ demands, infrastructure and capacities are likely to be disturbed. The affected agencies will have to deal with changes in flow, facilities at risk and erosion, underlying the need for resilience planning. Resiliency is the capacity for a system to absorb a disturbance and still retain its basic function and structure. The affected agencies should explore and implement strategies to reduce risks which allow for flexibility, prepare for external shocks and stresses, and examine issues before solutions, and should be a focus of the Commission in future municipal service reviews.

¹⁰ Total margin includes expensing depreciation.

5.2 Recommendations

The following recommendations call for specific action either from the Commission and/or by the affected agencies based on information generated as part of this study and outlined below in order of their placement in Section 6.0 (Written Determinations). Recommendations for Commission action are dependent on a subsequent directive from the membership and through the adopted work plan.

1. The Commission should proactively work with local agencies – and in particular water, sewer and fire providers – to develop a definition of “disadvantaged unincorporated community” consistent with SB 244 to ensure an appropriate and equitable level of municipal services is available for qualifying areas.
2. CMSA should develop a plan to allocate treatment capacity among its member agencies to enhance regional growth management. This plan would appropriately inform each member agency as well as local land use authorities with more certainty with respect to their ability to forecast and accommodate new development within their jurisdictional boundaries going forward.
3. CSD No. 2 should make additional efforts to distinguish itself as a stand-alone governmental entity separate from the Town of Corte Madera. An example herein would include developing stand-alone contracting arrangements with Corte Madera outlining specific services and costs therein with respect to the existing use of Town staff, supplies, and resources in carrying out District duties.
4. CMSA should reorganize its governing board structure to limit and or remove the City of Larkspur’s presence within the joint powers authority to better align and weight governance with vested participation among member agencies.
5. SRSD should designate the lone board seat statutorily dedicated to a member of the County of Marin to the incumbent holding Supervisor District 1 given it covers nearly all of the District jurisdictional boundary. This designation would provide a more logical and direct match between SRSD voters and their appointed representative.

6. Corrective action is needed to appropriately amend jurisdictional boundaries to better align service areas with existing property lines within the Ross Valley and San Rafael Creek Watersheds. Similarly boundary clean-ups are needed to correct instances where actual service provision in this subregion does not match up with assigned jurisdictional boundaries.
7. The Commission should consider in proceeding with reorganizations to dissolve MPSMD and SQVSMD and concurrently place their respective service areas in RVSD. These reorganizations would eliminate two dependent special districts governed by the County of Marin in favor of recognizing RVSD as the preferred and more able service provider going forward.
8. The Commission should consider authorizing an addendum to fully evaluate options to reorganize and consolidate public wastewater services in Central Marin and most pertinently among agencies in the Ross Valley and San Rafael Creek Watersheds. This topic – which has been previously reviewed by the agencies specific to assessing cost-savings but not the Commission – responds to Marin LAFCO’s directive to independently assess the notional sense affirmed in this study that a consolidation would appear primed to produce greater accountability and efficiency within the combined watershed.
9. Septic systems are increasingly problematic in urban and or developing areas in Central Marin and pose a public safety threat to the health and environment of the agencies’ service areas. The affected agencies should work to identify all septic systems within their respective areas in step with resiliency planning and determining future system risks.
10. Land use authorities in Central Marin should match the affected wastewater service provider with potential development opportunities in its housing elements as a means to plan growth with service.
11. The affected agencies in Central Marin should coordinate efforts to establish policies and protocols in addressing the increasing effects of climate change relative to wastewater services. This includes resiliency planning with respect to droughts, storm events, raising water tables as well as future demands.

6.0 WRITTEN DETERMINATIONS

The Commission is directed to prepare written determinations to address the multiple governance factors enumerated under G.C. Section 56430 anytime it prepares a municipal service review. These determinations are similar to findings and serve as independent statements based on information collected, analyzed, and presented in this study's subsequent sections. The underlying intent of the determinations is to provide a succinct detailing of all pertinent issues relating to the planning, delivery, and funding of public wastewater services in Central Marin as it relates to the Commission's growth management role and responsibilities. An abridged version of these determinations will be separately prepared for Commission consideration and adoption with the final report.

These determinations detail the pertinent issues relating to the planning, delivery, and funding of public wastewater services relative to the Commission's interests. Determinations based on data collected and analyzed between 2010 to 2014.

6.1 Growth and Population Projections

- 1) The Commission estimates there are 124,182 total residents served by the seven affected agencies responsible for providing public wastewater services in Central Marin as of the end of the study period. It is also estimated the combined resident population has increased by 3,037 or 2.54% over the 60-month study period; the net effect resulting in a combined annual growth rate of 0.6%.
 - a) Recent residential growth as estimated by the Commission during the study period has been exceeding by more than one-fourth earlier projections made for the Central Marin region by ABAG.
- 2) The Commission estimates resident growth in Central Marin during the study period has been disproportionately concentrated within SRSD and RVSD. These two agencies collectively account for nearly nine-tenths of all new estimated growth over the preceding 60-month period.

- 3) The Commission assumes calculated growth rates in Central Marin over the five-year study period will generally hold in the near-term, and as such it is estimated the region will experience an overall net increase in population of 6,530 over the succeeding 10-year period and total 130,712 by 2014.
- 4) The Commission estimates the housing market has produced 1,199 new occupied units in Central Marin over the course of the five-year study period. This results in an overall unit density of 2.56 new residents for every new occupied housing unit added in the region.
- 5) RVSD accounts for 37% of all occupied housing units within the region as of the study period term; the most of any of the affected agencies. RVSD also experienced the largest increase in new occupied housing units during the study period tallying 694 or 3.90% overall.
- 6) Should residential buildout plans proceed as currently contemplated by the County of Marin and other overlapping land use authorities the housing unit stock in Central Marin will increase by 3,352 and result in the estimated addition of 8,268 residents; a net increase of 6.7% over the end of the study period.
- 7) Current demographic information shows marked differences between SRSD and the other six affected agencies providing public wastewater services in Central Marin in both economic and social measurements. These differences include SRSD finishing the study period with significantly lower household incomes along with high poverty and unemployment rates. Distinctions among and within the other six affected agencies are less evident with limited exceptions.
- 8) The Commission estimates there are 28,475 total residents within LGVSD that are explicitly served by the District's wastewater collection and treatment system as of the term of the study. It is further estimated LGVSD has experienced an overall population increase of 261 over the preceding five-year period, resulting in an annual growth rate of 0.186%.

- a) New and occupied housing units within LGVSD over the study period is estimated by the Commission at 263 coupled with a net change in persons per household – i.e., an intensity measurement – of (1.2%).
 - b) The Commission estimates LGVSD is at 90% of the service area’s current residential buildout projection relative to applicable land use policies.
- 9) The Commission estimates there are 40,744 total residents within SRSD that are explicitly served by the District’s wastewater collection system as of the term of the study. It is further estimated SRSD has experienced an overall population increase of 1,363 over the preceding five-year period, resulting in an annual growth rate of 0.69%.
- a) New and occupied housing units within SRSD over the study period is estimated by the Commission at 153 coupled with a net change in persons per household – i.e., an intensity measurement – of 2.7%.
 - b) The Commission estimates SRSD is at 93% of the service area’s current residential buildout projection relative to applicable land use policies.
- 10) The Commission estimates there are 40,809 total residents within RVSD that are explicitly served by the District’s wastewater collection system as of the term of the study. It is further estimated RVSD has experienced an overall population increase of 1,356 over the preceding five-year period, resulting in an annual growth rate of 0.7%.
- a) New and occupied housing units during the study period within RVSD are estimated by the Commission at 694 coupled with a net change in persons per household – i.e., an intensity measurement – of (4.5%).
 - b) The Commission estimates RVSD is at 96% of the service area’s current residential buildout projection relative to applicable land use policies.

- 11) The Commission estimates there are 9,874 total residents within CSD No. 2 that are explicitly served by the District's wastewater collection system as of the study term. It is further estimated CSD No. 2 has experienced an overall population increase of 86 over the preceding five-year period, resulting an in annual growth rate of 0.175%.
 - a) New and occupied housing units over the study period within CSD No. 2 is estimated by the Commission at 87 coupled with a net change in persons per household – i.e., and intensity measurement – of (11.1%).
 - b) The Commission estimates CSD No. 2 is at 99% of the service area's current residential buildout projection relative to applicable land use policies.

- 12) The Commission estimates there are 191 total residents within MPSMD that are explicitly served by the District's wastewater collection system as of the term of the study. It is further estimated MPSMD has experienced an overall population increase of 16 over the preceding five-year period, resulting an in annual growth rate of 1.8%.
 - a) New and occupied housing units over the study period within MPSMD is estimated by the Commission at one coupled with a net change in persons per household – i.e., and intensity measurement – of 7.1%.

- 13) The Commission estimates there are 89 total residents within SQVSMD that are explicitly served by the District's wastewater collection system as of the term of the study. It is further estimated SQVSMD has experienced an overall population decrease of six persons over the preceding five-year period, resulting an in annual growth rate of (1.8%).
 - a) New and occupied housing units over the study period within SQVSMD is estimated by the Commission at zero coupled with a net change in persons per household – i.e., and intensity measurement – of (8.8%).

- 14) The Commission estimates there are 95,428 total residents within CMSA that are explicitly served by the District's treatment system as of the term of the study; an amount that includes inmates at San Quentin State Prison. It is also estimated CMSA has experienced an overall population increase of 1,356 over the preceding five-year period, resulting in an annual growth rate of 0.7%.
 - a) New and occupied housing units during the study period within CMSA are estimated by the Commission at 934 coupled with a net change in persons per household – i.e., an intensity measurement – of 0.9%

6.2 Location and Characteristics of Any Disadvantaged Unincorporated Communities in the Area

- 1) There are no unincorporated areas within Central Marin or immediately adjacent therein that presently qualify as disadvantaged under the statewide definition based on recent census information.
- 2) The unincorporated community of Nicasio previously qualified as disadvantaged under the statewide definition before slightly exceeding the median household income threshold in the latest census. This community and its estimated population of 130 is in relative proximity to LGVSD – though outside the District's present sphere of influence – and currently dependent on private septic systems.
- 3) It is possible other unincorporated communities in or adjacent to Central Marin would qualify as “disadvantaged” upon completion of the Commission's scheduled policy review to establish its own definition in implementing Senate Bill 244 (Wolk). The Commission should proactively work with other local agencies – and in particular water, wastewater, and fire providers – in developing a definition to meet the legislation's intent to ensure an appropriate and equitable level of municipal services is available to all qualifying areas.

6.3 Capacity of Public Facilities and Infrastructure Needs and Deficiencies

- 1) The Commission estimates the average total daily flow of wastewater collected by the seven affected agencies in Central Marin during the study period tallies 14.6 million gallons, or 120 gallons for every person. Additional wastewater flow tallies collectively generated over the 60-month period follow.
 - a) Average dry-day wastewater flows during the study period tallies 11.1 million gallons, or 91 gallons for every person.
 - b) Average wet-day wastewater flows during the study period tallies 18.1 million gallons, or 148 gallons for every person.
 - c) Average peak-day wastewater flows generated over 24 hours during the study period tallies 102 million gallons, or 855 gallons for every person.
- 2) The Commission estimates total annual wastewater flows generated among the seven affected public agencies' services areas in Central Marin have decreased overall by (17%) and results in a net daily demand savings of 2.7 million gallons.
- 3) All of the affected agencies experienced decreases in annual wastewater flows in their respective collection systems serving Central Marin during the study period ranging from a high of (23%) in RVSD to a low of (1%) in CSD No. 2.
- 4) Changes in the affected agencies' combined annual wastewater flow totals during the study period closely matches year-end rainfall counts for Central Marin and highlighted in 2013 –the apex of the parallel drought – when collected flows fell to a period low average of 12.8 million per day. This correlation indicates, albeit differently among the collection systems, the existence of excessive infiltration and inflow throughout the region.

- 5) The combined average peaking-factor among the seven affected agencies' service areas in Central Marin generated during the study period tallies 9.2. This amount further quantifies excessive amounts of runoff and or groundwater are entering the collection systems and – among other adverse impacts – contributing to the 317 reported sanitary overflows in the region during the 60-month period.
- 6) It appears the primary sources of excessive infiltration and inflow within Central Marin is occurring within RVSD and SRSD given these agencies' collection systems account for over 90% of all reported overflows during the study period.
- 7) All of the affected agencies with collection systems and or treatment facilities in Central Marin are accounting and funding therein replacement of their capital infrastructure, albeit to different degrees and accordingly producing a sizable range in equipment age among the agencies. The average age of capital equipment among the affected agencies as of the study period term is 21 years and bookmarked by a low – or youngest – of 12 years within CSD No. 2 and a high – or oldest – of 30 years within RVSD.
- 8) All of the wastewater collection systems within Central Marin appear adequately sized in accommodating current and projected flow demands. This comment is substantiated given none of the affected agencies' collection systems' peak-day demands generated during the study period exceed 72% of estimated capacity.
- 9) LGVSD is the entity responsible for treating and disposing all wastewater generated within the Las Gallinas Watershed portion of Central Marin and has adequate capacity to accommodate current and projected flows through the 10-year timeframe of this study. This includes the Commission projection that no demand measurement is expected to reach 70% of capacity now or through 2024.
- 10) CMSA is the entity responsible for treating and disposing all wastewater generated within the Ross Valley and San Rafael Creek Watersheds portion of Central Marin and has adequate – albeit more narrowly – capacity to accommodate current and projected flows through the 10-year timeframe of this study. The most pressing demand measurement within CMSA involves dry

weather flows and highlighted by averages during the study period reaching 85% of the treatment facility's permitted capacity.

6.4 Agencies' Financial Ability to Provide Services

- 1) Approximately three-fourths of operational costs underlying public wastewater services in Central Marin are generated from direct revenues based on a combined earned income ratio generated during the study period of 76%.
 - a) Earned income ratios during the study period ranged from 91% in SRSD to 55% in CSD No. 2; a difference of nearly two-thirds.
- 2) Resident accounts make up no less than 89% of any one affected agency's total wastewater service connections in Central Marin as of the study period term with the average annual residential charge – the principal source of direct revenue – tallying \$710 as of the study period term.
 - a) The annual residential charge for wastewater services in Central Marin as of the study term varies significantly and bookended between \$1,067 in RVSD (Larkspur) and \$472 in MPSMD.
- 3) Opportunities to increase direct revenues among all seven affected agencies in Central Marin in support of their respective public wastewater systems is substantively constrained given two external factors. First, opportunities to spread-out costs among additional customers is limited given community preferences – which are reflected in local land use policies – to limit new growth. Second, opportunities to raise rates and or establish assessments are constrained under State law to require two-thirds voter approval.
- 4) Indirect revenues support the remaining and approximate one-fourth of operational costs underlying public wastewater services in Central Marin and largely derived from the distribution of property taxes. The average property tax distribution rate among the affected agencies - less CMSA as a joint-powers - is 1.9% of the 1.0% in total ad-valorem.

- 5) Large variances exist with respect to individual agency shares of the 1.0% of property tax collected within Central Marin. RVSD receives the highest property tax distribution rate at 7.8% and is more than four times greater than the next highest of 1.5% by SRSD. The lowest distribution rate is SQVSMD at 0.03%.
- 6) The affected agencies in Central Marin finished the study period with a combined net asset total of \$245.2 million as of the study period term. This amount has collectively increased during the study period by 13% and more than one-half greater than the corresponding inflation rate for the greater Bay Area region.
- 7) Overall unrestricted fund balances for the affected agencies in Central Marin collectively tally \$66.0 million at the end of the study period. This amount has collectively increased during the study period by 65% and more than five times greater than the corresponding inflation rate for the greater Bay Area region.
 - a) LGVSD has experienced the largest percentage increase in unrestricted fund balances during the study period at 132% followed by RVSD at 94%, SRSD at 78%, CMSA at 23%, and CSD No. 2 at (16%).
 - b) Information for SQVSMD and MPSMD is not available as of date of this report.
- 8) Five of the seven affected agencies – LGVSD, SRSD, RVSD, CSD No. 2, and CMSA – have pension obligations. These agencies collectively experienced an approximate 29% rise in annual contributions during the study period.
 - a) Increases in annual pension contributions among the five agencies range from 78% in RVSD to 1% in CSD No. 2 (Corte Madera).
- 9) All five affected agencies with pension obligations – directly or indirectly through their parent agency – have improved their funded status over the course of the study period by no less than 7%.

- a) Improvements in funded status among the five agencies range from 16% in LGVSD to 7% in CSD No. 2 (Corte Madera).
- 10) Four of the five affected agencies – LGVSD, RVSD, CSD No. 2, and CMSA - with pension obligations finished the study period with funded status ratios near or above 80%; the standard threshold used in governmental accounting to identify relatively stable pension plans. The remaining agency – SRSD – ended the study period with a funded status of 72%.
 - 11) Four of the five affected agencies – LGVSD, SRSD, CSD No. 2, and CMSA – experienced decreases in their active-to-retiree ratio during the study period. RVSD experienced no change.
 - a) RVSD finished the study period with the highest ratio at 1.81 active employees to every 1.00 retiree, while CSD No. 2 had the lowest ratio with 0.36 active employees to every 1.00 retiree.

6.5 Status and Opportunities for Shared Facilities and Resources

- 1) Ratepayers within the Ross Valley and San Rafael Creek Watershed portion of Central Marin have benefited from the ongoing costs savings associated with the creation of CMSA and construction and operation therein of a single and jointly-owned wastewater treatment facility serving multiple jurisdictions.
- 2) CMSA should develop a formal plan to dedicate remaining treatment capacity among its member agencies based on assigning an ultimate equivalent dwelling unit allocation. This plan would significantly enhance regional growth management by providing each member agency and all associated land use authorities more certainty in their ability to appropriately match wastewater provision with future development projects within their respective jurisdictions.

- 3) There appears to be relatively limited engagement between LGVSD and the remaining affected agencies within Central Marin despite comparatively close service areas. Opportunities should be explored for the benefit of region ratepayers to establish more connectivity among all agencies in sharing costs and expertise commonly underlying the management and operation of public wastewater systems.
- 4) LGVSD has taken a leadership role in investing resources to repurpose wastewater into recycled water supplies for beneficial use within jurisdictional boundary through an ongoing partnership with Marin Municipal Water District. Additional partnerships should be explored to expand the potential reach of repurposed wastewater throughout the rest of Central Marin.

6.6 Local Accountability and Government Restructure Options

- 1) Residents throughout Central Marin similarly benefit from the aptitude and responsiveness of board and senior management within all seven affected agencies. These attributes create trust with ratepayers and help ensure their ongoing financial investment in the agencies' wastewater systems are appropriately safeguarded.
- 2) There has been noticeable improvement in membership relations within CMSA during the course of the study period that ultimately benefits ratepayers. This improvement appears aided in large part to board and management change within RVSD and, among other benefits, contributed to the recent settlement of litigation within CMSA.
- 3) Additional efforts should be taken by CSD No. 2 distinguish its role as a stand-alone governmental entity separate from the Town of Corte Madera. This includes developing stand-alone contracting arrangements with Corte Madera outlining specific services and costs therein with respect to the existing use of Corte Madera staff, supplies, and resources in carrying out District duties.

- 4) CMSA's governing structure appears outdated given the dedication of one of its six-member regular board seats to the City of Larkspur; an entity that ceased wastewater services in 1993 in step with the annexation of its service area to RVSD, and as such is no longer a funding contributor. Reorganization of the board, accordingly, appears appropriate to limit and or remove Larkspur's presence on CMSA to better align and weight governance with vested participation among member agencies.
- 5) SRSD's dependent governance structure would be enhanced by formally designating the lone board seat dedicated to a member of the County of Marin to the incumbent holding Supervisor District 1 given it covers nearly all of the jurisdictional boundary. This designation would provide a more logical and direct match between SRSD voters and their appointed representative.
- 6) Two separate governance alternatives appear readily merited to improve local accountability and service efficiencies in Central Marin. This involves immediately proceeding with reorganizations to dissolve MPSMD and SQVSMD and concurrently place their respective service areas in RVSD by annexation or consolidation. These reorganizations would eliminate two dependent special districts governed by the County of Marin subject and inhibited therein to antiquated statutes in favor of recognizing RVSD as the preferred and more able service provider going forward.
- 7) Irrespective of other determinations it appears appropriate for the Commission to evaluate options to potentially reorganize and consolidate public wastewater services in Central Marin and most pertinently among agencies in the Ross Valley and San Rafael Creek Watersheds. This topic – which has been previously reviewed by the agencies specific to assessing cost-savings but not the Commission – responds to Marin LAFCO's directive to independently assess the notional sense affirmed in this study that a consolidation would appear primed to produce greater accountability and efficiency within the combined watershed.

- 8) Corrective action is needed to appropriately amend jurisdictional boundaries to better align service areas with existing property lines within the Ross Valley and San Rafael Creek Watersheds. Similarly boundary clean-ups are needed to correct instances where actual service provision in this subregion does not match up with assigned jurisdictional boundaries.

6.7 Matters of Local Interests as Required by Policy | Relationship Between Services and Land Use Policies

- 1) There is merit for more connectivity between planning wastewater services with land use policies of the local cities, towns and County of Marin to manage future growth within Central Marin. A coordinated effort among municipalities could also promote better use of federal funds.
- 2) Land use authorities in Central Marin should match the affected wastewater service provider in step with identifying potential development opportunities in housing elements as a means to connect growth with service.

6.8 Matters of Local Interests as Required by Policy | Planning for Climate Change

- 1) The affected agencies in Central Marin should coordinate efforts to establish policies and protocols in addressing the increasing effects of climate change relative to wastewater services. This includes resiliency planning with respect to droughts, storm events, raising water tables as well as future demands.
- 2) The Commission, affected agencies and the County of Marin's Environmental Health Services Department should work to identify all remaining septic systems – active and inactive – within Central Marin and proactively partner in connecting these properties with the appropriate public wastewater system.

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