MARIN LOCAL AGENCY FORMATION COMMISSION

TOMALES AREA SERVICE REVIEW AND SPHERE OF INFLUENCE UPDATE

DRAFT INITIAL STUDY

Prepared for:

MARIN LOCAL AGENCY FORMATION COMMISSION
555 NORTHGATE DRIVE, SUITE 230
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Prepared by:

500 12TH STREET, SUITE 240
OAKLAND, CA 94607

SEPTEMBER 2009

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September 2009

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INITIAL STUDY

MARIN LOCAL AGENCY FORMATION COMMISSION (MARIN LAFCO)
TOMALES AREA SERVICE REVIEW AND SPHERE OF INFLUENCE UPDATE

Introduction: This Initial Study has been prepared pursuant to the California Environmental Quality Act (CEQA) (Public Resources Code, Section 2100 et seq.) and the *CEQA Guidelines*.

ENVIRONMENTAL CHECKLIST FORM

Project Title:	Tomales Area Service Review and Sphere of Influence Update
Project Location:	Tomales is located in the California coastal zone of Northwest Marin County along Highway One and near Tomales Bay.
Assessor's Parcel Numbers:	102-041-40, 102-041-41, 102-041-42, 102-041-43, 102-041-44, & 102-080-08
Lead Agency:	Marin Local Agency Formation Commission (Marin LAFCO) 555 Northgate Drive, Suite 230 San Rafael, CA 94903
Contact person:	Peter Banning, Executive Officer
Phone:	(415) 446-4409
Project Applicant:	**Marin Local Agency Formation Commission (Marin LAFCO)** 555 Northgate Drive, Suite 230 San Rafael, CA 94903
General Plan Designation:	California Coastal Zone; C-SF6, C-NC, C-AG3
Zoning:	C-ARP-2, C-RSP-7.26, C-VCR:B-4
Surrounding Land Uses:	The project area includes, or is adjacent to residential, commercial, and agricultural uses.

PROJECT DESCRIPTION

The Marin County Local Agency Formation Commission (Marin LAFCO), as part of their periodic review of the relationships between agencies providing municipal services in Marin County, is proposing to adjust the Sphere of Influence (SOI) for the Tomales Village Community Services District (TVCSD). The SOI identifies the probable physical boundaries and service area of the TVCSD. The propose SOI adjustment would allow for the future extension of services to the following six (6) parcels.

Assessor's Parcel	Area	General Plan Designation	Zoning
102-041-40	0.24 Acres	C-SF6	C-RSP-7.26
102-041-41	0.17 Acres	C-SF6	C-RSP-7.26
102-041-42	0.17 Acres	C-SF6	C-RSP-7.26
102-041-43	0.17 Acres	C-SF6	C-RSP-7.26
102-041-44	5.74 Acres	C-AG3/C-SF6	C-ARP-2/C-RSP-7.26
102-080-08	7.29 Acres	C-NC	C-VCR:B-4

The project would not result in any physical improvements, but would accommodate future sanitary service connections at the time the subject properties develop. Marin LAFCO's sphere of influence determinations are intended to answer the question "What local agencies should provide which services to what geographical area as communities change?" As part of this consideration, Marin LAFCO examines likely development and growth within the project area, and the present capacity of public facilities and adequacy of public services which the agency provides or is authorized to provide. (Marin LAFCO, 2008c).

TOMALES VILLAGE COMMUNITY SERVICES DISTRICT (TVCSD)

The TVCSD is a local government agency that serves the Town of Tomales located in the unincorporated area of Marin County. The Town of Tomales is located approximately 15 miles west of Petaluma, and approximately three miles inland from Tomales Bay (**Figure 1** and **Figure 2**). TVCSD was formed in 1999 to provide wastewater collection and treatment service to Tomales, as well as recreation services and park maintenance and operation of the Tomales Community Park. The total operating revenue for TVCSD for Fiscal Year 2008-2009 was $192,913 (Marin LAFCO, 2008a). An elected at-large five-member Board of Directors governs TVCSD and sets policy and sewer rates. TVCSD contracts with Phillips and Associates for operation and maintenance of the wastewater treatment facilities.

PROJECT BACKGROUND

The Marin LAFCO is the lead agency under CEQA for the purposes of conducting the environmental review for the proposed Tomales Area Service Review and Sphere of Influence Update (Project).

The proposed project has emerged from Marin LAFCO's mandate under the Cortese-Knox-Hertzberg Act to perform service reviews and periodically review and update adopted spheres of influence for all cities and special districts in the county (Gov't Code 56425 and 56430). Under this project, TVCSD would be responsible for extending sewer and park services to the identified properties, which are all located within the Tomales community planning area.

Extending sewer service would be likely to reduce potential contamination of the well water that serves the community from in-ground sewage disposal that currently serves individual sites. Marin LAFCO has undertaken the Tomales Area Service Review and Sphere of Influence Update (Marin LAFCO, 2008c) to determine the feasibility of this project. The Sphere of Influence (SOI) Update has been guided by the Tomales Community Plan, Objective PF-1.0, "To limit expansion of [North Marin Water District] NMWD's Sewer Service Area to those properties already within the service area and those properties zoned for higher density development immediately adjacent to the service area…." The proposed SOI has been drawn to include only those properties that are partially or wholly zoned for commercial and residential development at higher densities.

PROJECT PURPOSE AND OBJECTIVES

The project objectives are to:

a. Plan for logical and orderly development and coordination of local government agencies to provide for the present and future needs of the community; and

b. Minimize potential groundwater quality impairment from on-site sewage disposal in, and adjacent to, the Tomales Village Community Services District (TVCSD) wastewater system.

PROJECT ISSUES

There are several issues that are common to multiple issues discussed in the environmental checklist. The following provides a discussion of these issues in order to avoid repetition in subsequent sections of this analysis.

1. Plan Policies: Many Marin Countywide Plan, Local Coastal Program, and Tomales Community Plan policies are applicable to the subject properties. The following policies are particularly germane to the SOI determinations and potential environmental issues.

   Marin Countywide Plan

   Goal BIO-4.1 Restrict Land Use in Stream Conservation Areas. *A Stream Conservation Area* (SCA) is established to protect the active channel, water quality and flood control functions, and associated fish and wildlife habitat values along streams. Development shall be set back to protect the stream and provide an upland buffer, which is important to protect significant resources that may be present and provides a transitional protection zone….

   Coastal, Inland Rural, and Baylands Corridors:

   - For all parcels, provide a development setback on each side of the top of bank that is the greater of either (a) 50 feet landward from the outer edge of woody riparian vegetation associated with the stream or (b) 100 feet landward from the top of bank. An additional setback distance may be required based on the results of a site assessment….

     Implementation Program CD-1.c: Reduce Potential Impacts. Amend the Development Code to calculate potential residential density and commercial floor area ratio (FAR) at the low end of the

applicable range on sites with sensitive habitat or within the Ridge and Upland Greenbelt, the Baylands Corridor, or properties lacking public water or sewer systems except for parcels identified in certified Housing Elements.

Implementation Program CD-5.e: Limit Density for Areas Without Water and Sewer Connections. Calculate density at the lowest end of the Countywide Plan designation range for subdivisions proposed in areas without public water and/or sewer service....

Tomales Community Plan

Policy PF-1.1: Limit Expansion of the NMWD's Sewer Service Area. No major boundary expansion of the North Marin Water District's sewer service area should be permitted into peripheral, low-density residential and agricultural lands.... The boundaries of the ultimate sewer service areas should correlate with the C-VCR, C-CP and C-RSP zoning district boundaries....

2. Reasonably Foreseeable Projects:

   a. Though the proposed project would not result in any physical improvements or directly result in development or growth, CEQA must consider reasonably foreseeable projects that could result from LAFCO's action. Because the proposed project would result in the extension of sewer services, pursuant to CWP Implementation Programs CD-1.c and CD-5.e the project would result in an increase in development potential from the lower to the upper end of the density range established by the Countywide Plan. Accordingly, this analysis assumes build-out at this upper limit as a reasonably foreseeable outcome of the LAFCO action. Similarly, construction is a likely outcome of the extension of urban services to these sites. Though the project would not directly result in construction, this analysis includes mitigations where future construction activity has the potential to result in impact.

   b. The County of Marin is presently reviewing a development proposal for parcels that are within the proposed SOI known as the Sass project. The development proposal would result in the development of 12 home sites where the Countywide Plan and existing Zoning allow for the development of up to 23 residential units. Though there is a pending application to develop 12 home sites, under CEQA, the environmental analysis must consider the possibility that the property could develop at the maximum allowable density allowed by the Countywide Plan.

3. Regulatory Actions: There are a number of requirements that govern land use and development that would occur through the normal exercise of regulatory authority. Examples include issuance of Building Permit, Design Review, Use Permit, Coastal Permit, and Encroachment Permit. Often the exercise of regulatory authority under these

permitting processes is adequate to ensure that impacts would not result from project implementation. Where the operation of legal requirements is adequate to avoid potentially significant impacts, no additional mitigation measures are proposed.

SUBJECT PROPERTIES

Properties located outside the current TVCSD district boundary are not served by the sewer system (Tomales Area Service Review and Sphere of Influence Update, Marin LAFCO, 2008c), but use on-site septic systems that could leak and create a potential groundwater pollution problem. This condition is of particular concern where properties have the potential to develop at higher densities. To address this concern, the project is studying extension of the TVCSD sphere of influence in accord with the policies contained in the 1997 Tomales Community Plan (Community Plan). The proposed project has the potential to modify SOI and service area boundaries, but would not directly result in new construction or expansion of sewer facilities. Any future development proposal that would seek sewer service would be subject to standard County review requirements, including environmental review.

All of the properties within the proposed TVCSD sphere of influence and TVCSD service area boundary constitute the project site. **Figure 3** is an aerial photograph of the general project site. **Figure 4** is an aerial photograph of the specific project site. **Figure 5** shows a comparison of the existing TVCSD sphere of influence and the Planning Area for the 1997 Tomales Community Plan. **Figure 6** shows the proposed adjusted TVCSD sphere of influence and service area boundary. **Figure 7** shows the Tomales Land Use Planning Map from the 2007 Marin Countywide Plan. **Figure 8** shows the 1997 Tomales Community Plan Zoning Map.

There are a total of six (6) existing properties that are proposed for addition ("subject properties"); all are privately owned. No merging of the parcels is assumed in this project. The subject properties are all infill properties in the village of Tomales and none are covered by Marin Agricultural Land Trust (MALT) easements. Two of the properties could possibly be further subdivided and all could be developed with approval by the County of Marin. Five of the properties could also potentially be developed with second residential units. (See **Table IX.1** in the Land Use and Planning environmental setting section.) Similar to all properties in the village of Tomales, the subject properties are underlain by the Wilson Grove Formation groundwater basin and are near Tomales Creek and Walker Creek within the larger Walker Creek watershed that drains to Tomales Bay (Marin County, 2008).

Five (5) of the subject properties are located in northwest Tomales and are developed with one residence, two wells, and several dilapidated accessory barn and shed structures. These properties are bounded by private ranches and Second Street to the north, small residential lots and Carrie Street to the east, Mound Street and private residences to the south and one private ranch to the west. According to the Tomales Community Plan, these five properties could all potentially be developed with both residential units and second residential units. The three (3) northernmost, smaller lots are approximately 7,200 sq ft each and are zoned C-RSP-7.26 (Coastal, Residential, Single-Family Planned/7.26 units per acre) and have the Countywide Plan land use designation of C-SF6 (Coastal Single-Family 4-7 units/acre). These 3 properties could potentially be developed with a maximum of 1 main residential unit each and have the potential for second residential units. The property located diagonally to the northeast (102-041-40) is approximately 10,600 sq ft and is also zoned C-RSP-7.26 and has the land use designation C-SF6. This lot could also potentially be developed with one main residential structure and one second residential unit (**Table IX.1**).

The larger property adjacent to the south of the four smaller properties is approximately 5.74 acres and has split zoning: the western half of the property is zoned C-ARP-2 (Coastal, Agricultural, Residential Planned/2 units per acre) and the eastern half is zoned C-RSP-7.26. This property also has a split in Countywide land use designation; the western portion is C-AG3 (Coastal Agricultural 1 unit/1-9 acres) and the eastern portion is designated C-SF6. Maximum development potential for this property is approximately 22 lots (at 6,000 s.f. each) on the eastern portion of the property, each also potentially having second residential units; the western portion could have one main residential unit and one second unit. This larger parcel is part of a development project currently proposed to the County of Marin to subdivide 3 vacant lots into 12 residential home sites. The proposal is known as the Sass project. The Sass project proposes to subdivide the properties, install infrastructure improvements (such as driveways and roadways), and establish Design Guidelines for future residential structures that would be located on the new lots.

The one (1) subject property located in southeast Tomales is approximately 7.29 acres and is zoned C-VCR:B-4 (Coastal, Village, Commercial-Residential/min. lot area 1 acre), and has a Countywide Plan land use designation of C-NC (Coastal Neighborhood Commercial/Mixed Use 1-20 units/acre, FAR 0.3-0.5) which would potentially allow from 7 to 145 residential units. The southeast property could also potentially be developed with as much as 158,776 square feet of commercial development. (See **Table IX.1**) This lot is currently undeveloped and is bisected by Tomales Creek. This property is bounded by agricultural uses to the east, scenic Highway 1 to the west, and residential and commercial to the north and south.

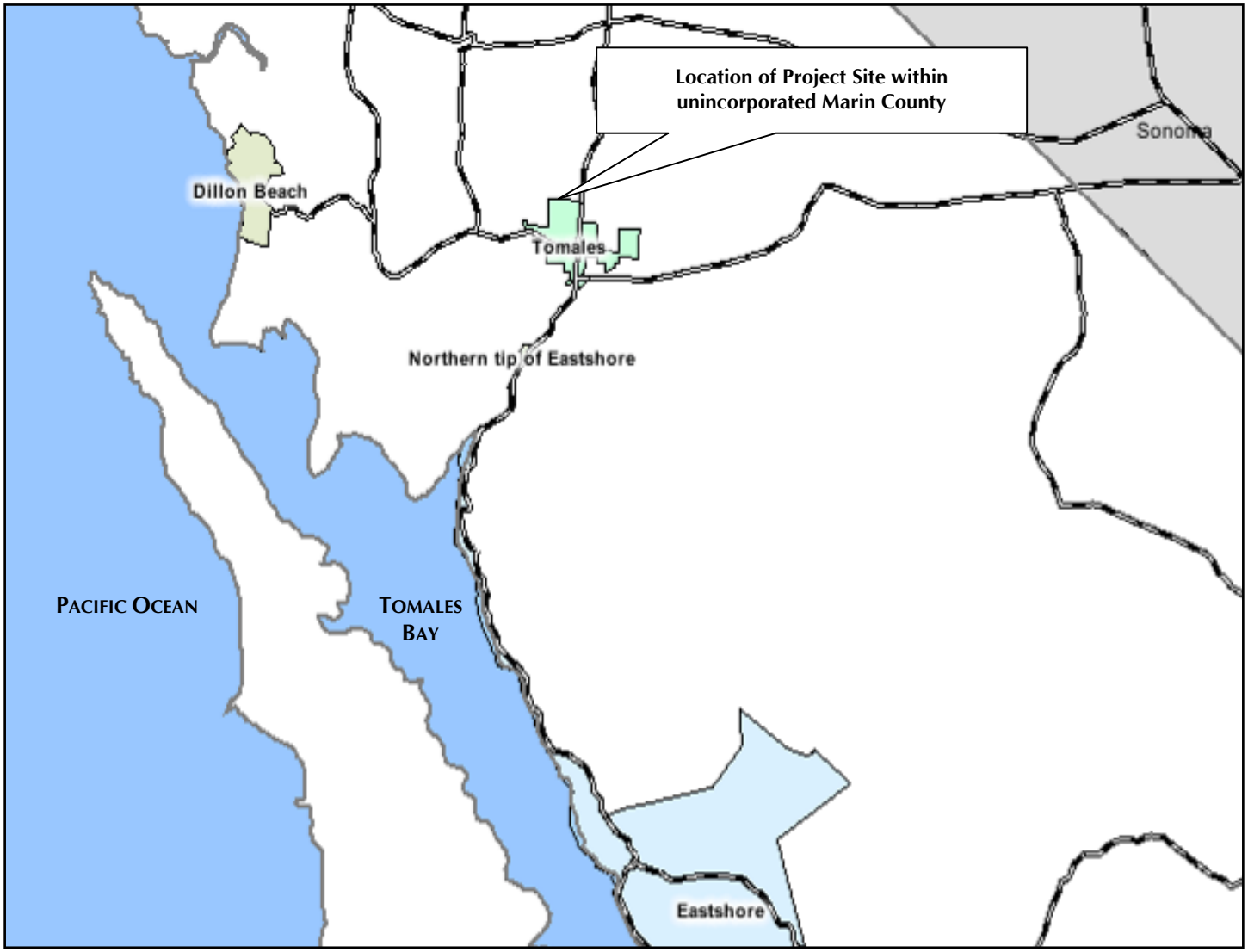
The Community Plan seeks to direct expansion of sewer service to only those properties zoned for higher density development immediately adjacent to the service area. The proposed project would evaluate expansion of the service area to include only properties that are zoned C-VCR or C-RSP with the potential for higher density development, aside from the one northern property that has split zoning. The project does not propose any changes to the existing land use designations, zoning districts, or other policies that pertain to growth management and land use controls in the village of Tomales or greater vicinity.

The village of Tomales is "small and well-defined…that stands in clear contrast to the openness of the surrounding coastal, agricultural countryside" (Marin County, 1997, 1-2). The Community Plan and the 1981 Marin County Local Coastal Program Unit II drew the Planning Area boundary to set land use controls to avoid future "development intrusion into surrounding lands zoned and used for agricultural purposes located within the Marin County Agricultural Preserve" (Marin County, 1997, 1-3). Further discussion of this topic is provided in the Land Use and Planning and Population and Housing Sections of this Initial Study.

FIGURE 1: PROJECT REGIONAL LOCATION

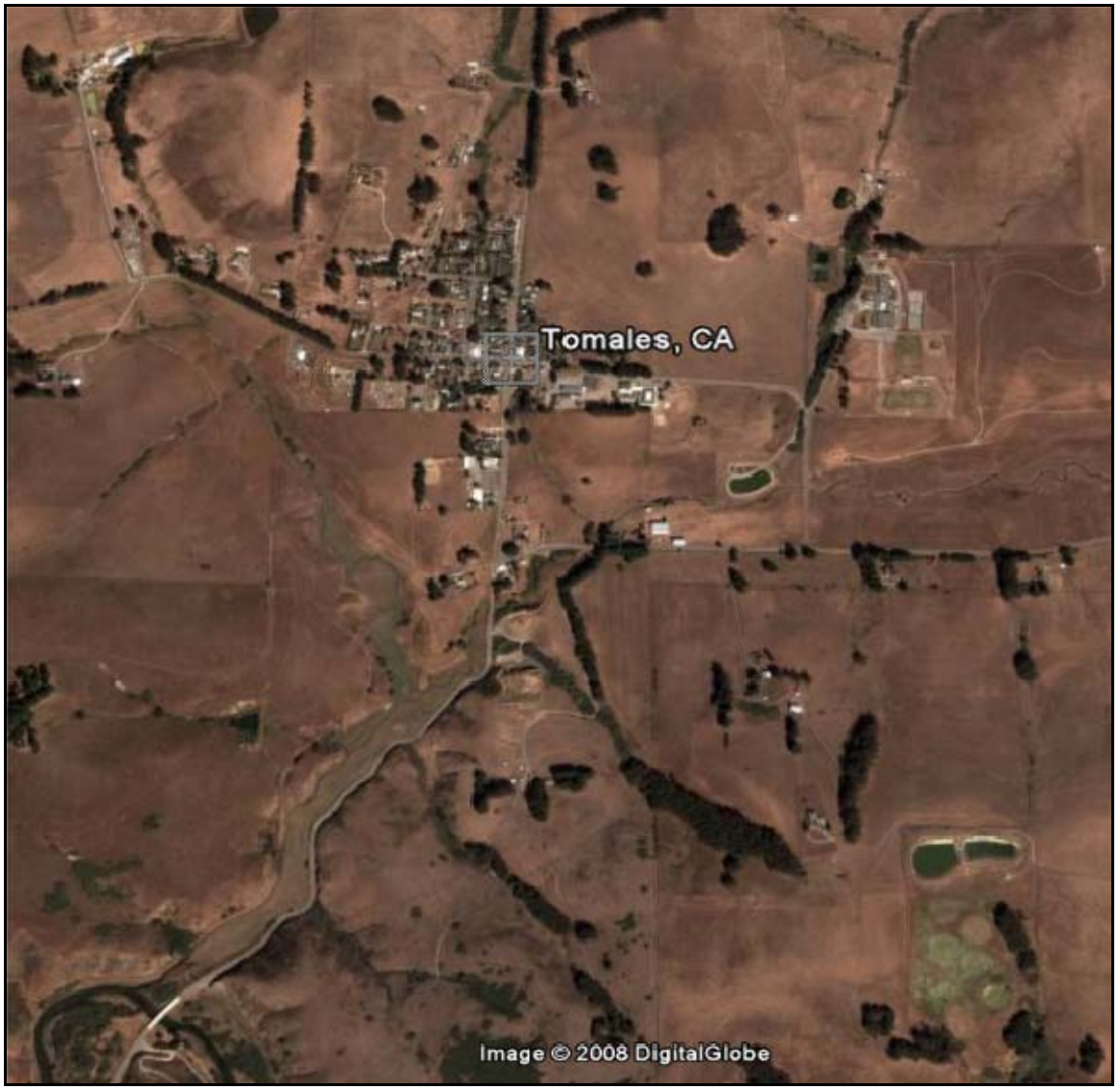
Source: Marin County, 2008.

FIGURE 2: PROJECT VICINITY



Source: Marin County, 2008.

FIGURE 3: AERIAL PHOTOGRAPH OF THE GENERAL PROJECT SITE

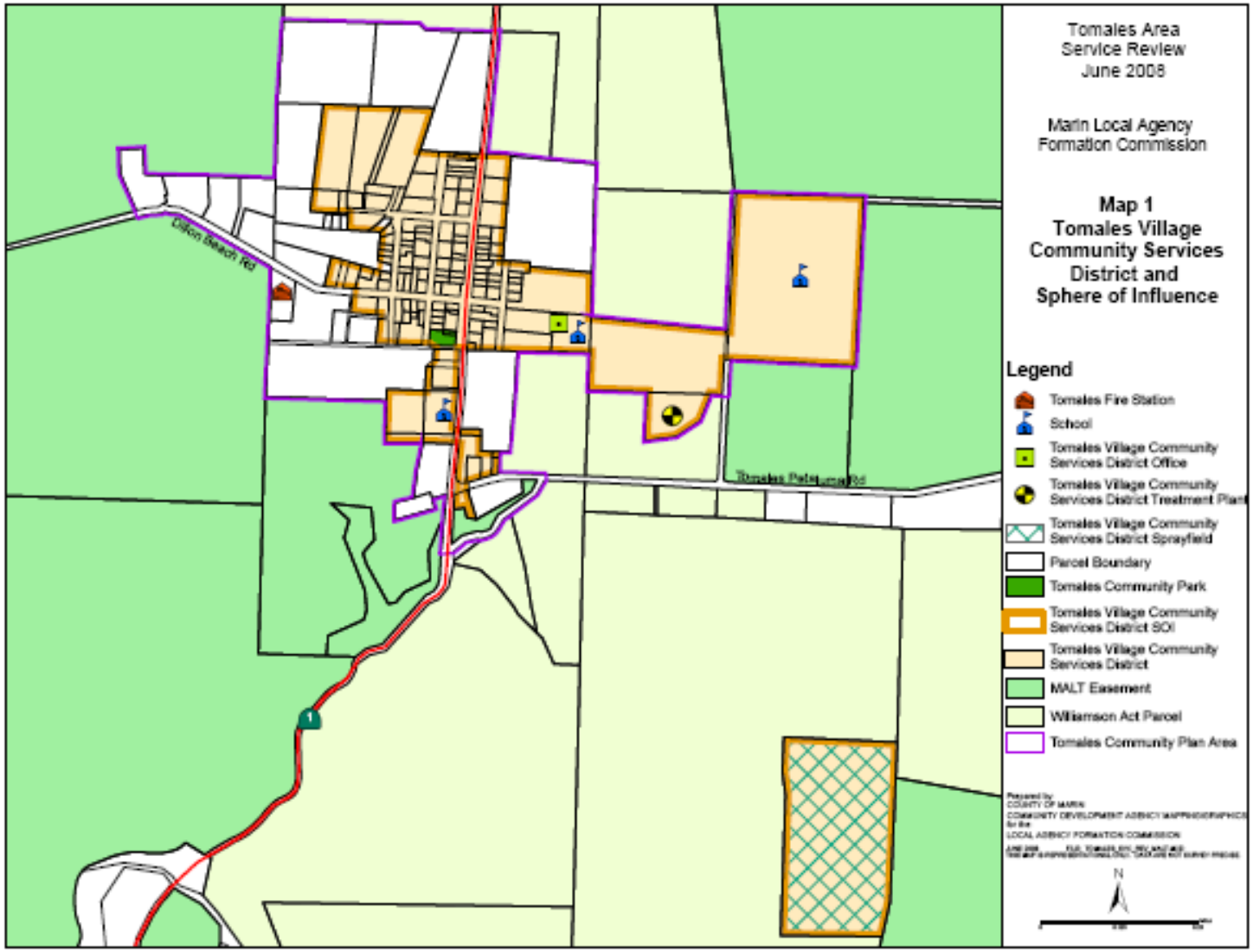


Source: Digital Globe, 2008.

FIGURE 4: AERIAL PHOTOGRAPH OF THE SPECIFIC PROJECT SITE

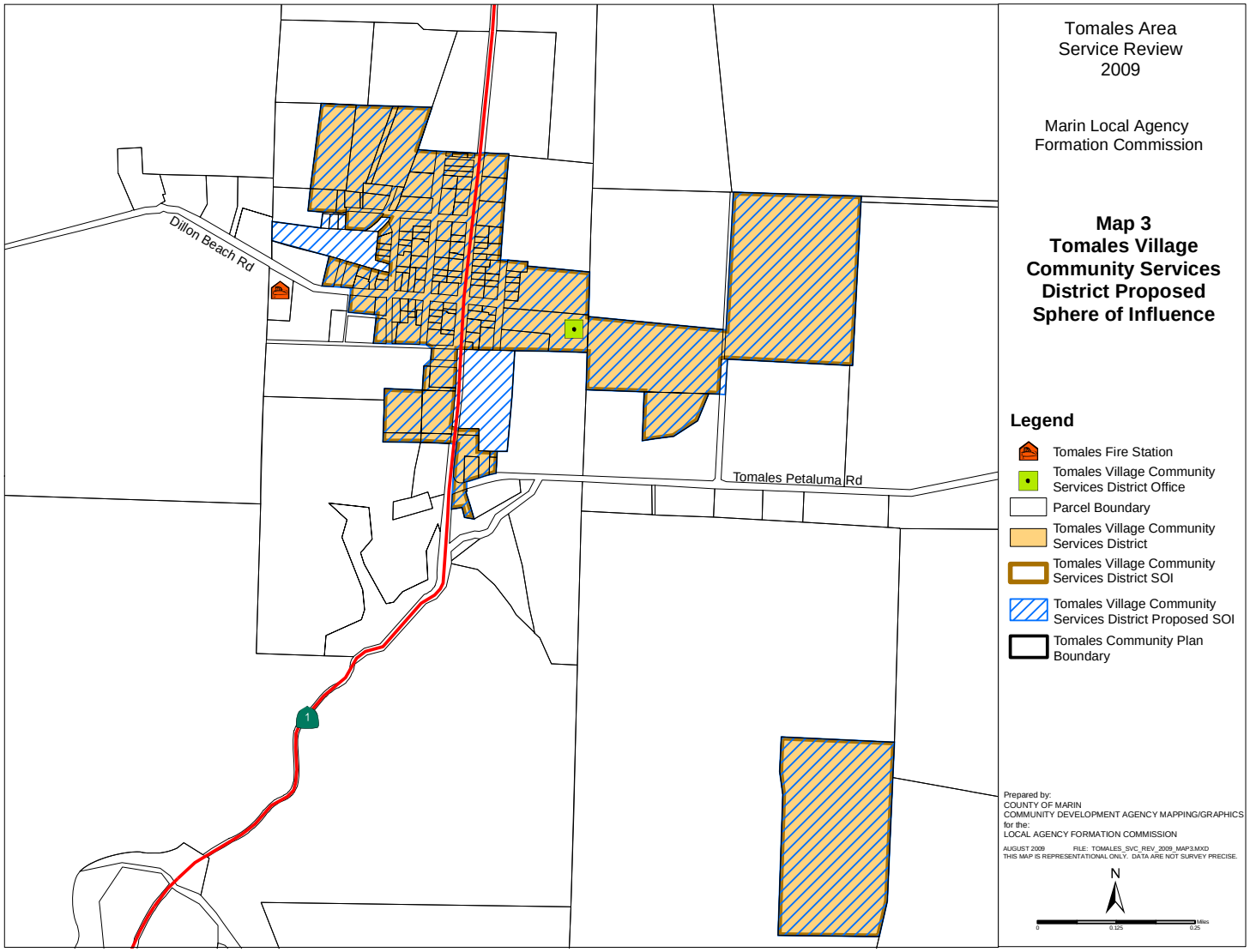
Source: PMC, 2009

FIGURE 5: COMPARISON OF THE EXISTING TVCSD SPHERE OF INFLUENCE AND THE PLANNING AREA FOR THE TOMALES COMMUNITY PLAN



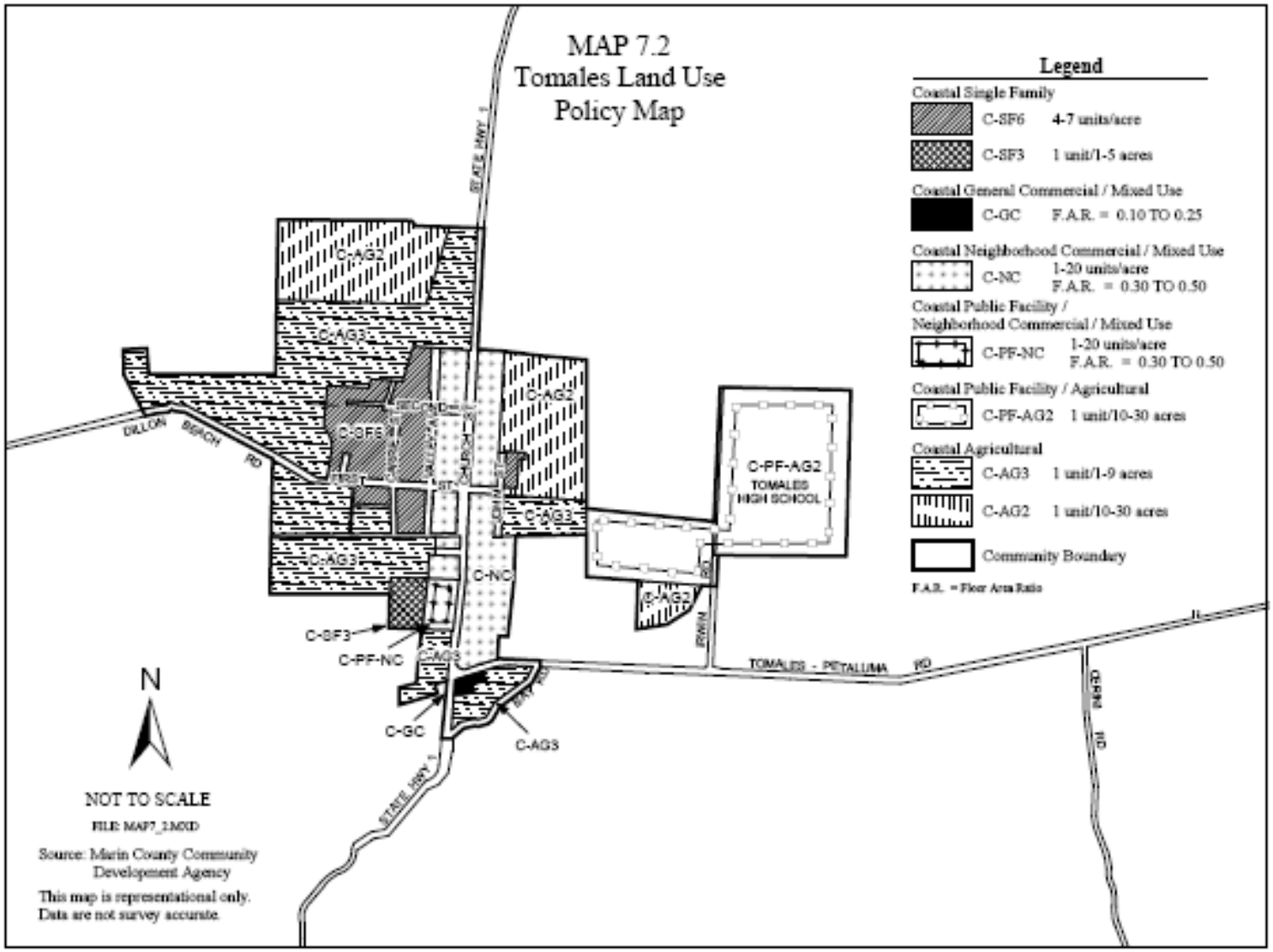
Source: Marin LAFCO, 2008d

FIGURE 6: PROPOSED TVCSD SPHERE OF INFLUENCE AND SERVICE AREA BOUNDARY



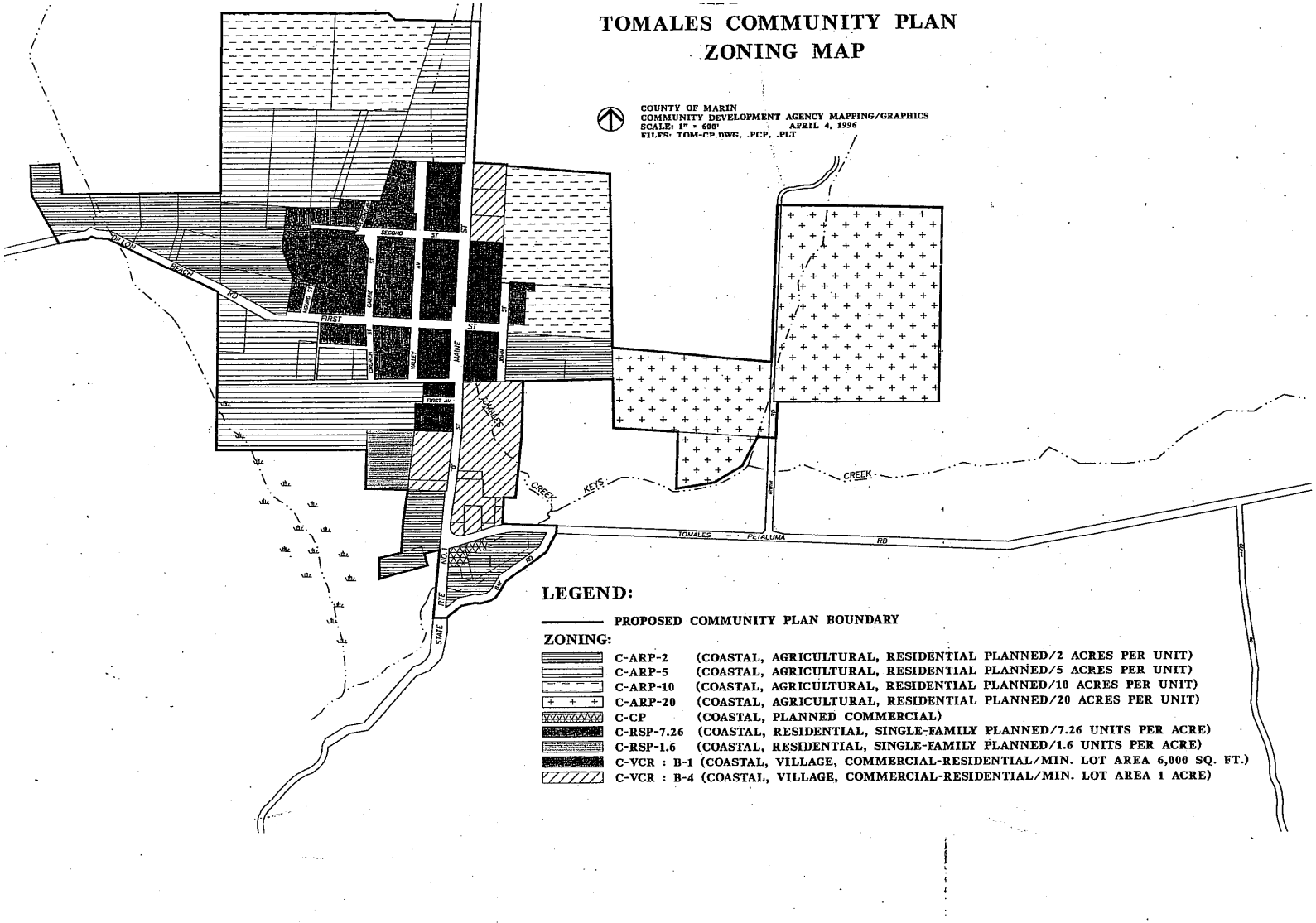
Source: Marin LAFCO, 2009d

FIGURE 7: TOMALES LAND USE POLICY MAP FROM THE 2007 MARIN COUNTYWIDE PLAN



Source: Marin County, 2007

FIGURE 8: 1997 TOMALES COMMUNITY PLAN ZONING MAP



Source: Tomales Community Plan 1997

PROJECT CHARACTERISTICS AND PHASING

The proposed project would place the subject properties within the TVCSD Sphere of Influence (SOI) and enable TVCSD to extend wastewater service to the subject properties, but the actual extension of the wastewater collection system would occur at a later date, as determined by the County of Marin, TVCSD and Marin LAFCO. At the time that properties are annexed to the TVCSD service area, the property would also become subject to park fees as a component of their tax obligation. The project, as an amendment to the TVCSD SOI, would make territory eligible for annexation.

The proposed project would not create an increase in sewer rates for existing and future customers, including residential, agricultural, and commercial customers.

The proposed project does not involve changes to any other services in the vicinity, including fire protection, law enforcement, library services, solid waste, school, road maintenance, community planning, or other services. The proposed project does not involve any Marin County special purpose districts other than the Tomales Village Community Service District. The proposed project does not involve any additional creation, maintenance, or operation of parks or other facilities by TVCSD. It does not include the establishment of a County Service Area to provide water supply services. The proposed project would not affect any existing Joint-Use Agreements or loans.

The proposed project does not involve plans that relate to additional water supply for school irrigation use or for increased emergency water supplies; the proposed project would not expand or create treatment facilities for providing tertiary treated water that would comply with federal requirements for school field irrigation, nor provide an additional one million gallons of emergency water for firefighting.

Table 1 outlines TVCSD's existing wastewater collection system. The wastewater collection system facilities include one lift station, 2.25 miles of gravity sewer, and 1.25 miles of collection lines (Marin LAFCO, 2008c).

TABLE 1:
TOMALES VILLAGE COMMUNITY SERVICES DISTRICT EXISTING WASTEWATER COLLECTION SYSTEM

Description	Quantity
6″ Gravity Sewer	2,605 lf
8″ Gravity Sewer	9,294 lf
2″ Force Main	723 lf
Manholes	42 ea
Cleanouts	16 ea
Service Connections	74 ea
4″ Service Laterals	1,902 lf
Lift Station	1 ea

Source: Marin LAFCO, 2008c.

As summarized in **Table 2,** the proposed project would not impact wastewater treatment capacity in a way that would require the creation of new treatment capacity at the existing wastewater treatment plant, nor require any additional collection ponds or spray fields.

The Tomales Sewage Treatment Plant operates under permit Order 86-86 from the California Regional Water Quality Control Board (TVCSD, 2009a). The permit was issued November 19, 1986 and limits the flow to the wastewater treatment plant to less than 38,000 GPD, prohibits overflow, and restricts the surface disposal (spray) of treated waste to greater than 25 feet from any ephemeral stream, and 100 feet from any other stream, pond, well, or housing. Other requirements of the permit prohibit waste to escape from the discharger's property into waters of the State via surface flow, airborne spray or resurfacing after percolation.

Taking into account possible land use changes consistent with the Marin Countywide Plan, the Tomales Community Plan, and the Local Coastal Program, it is projected that there could be an increase in demand for sewage disposal that would utilize 47% of permitted flows by the year 2012 within the current TVCSD sphere of influence and service area boundary. The addition of the six subject properties to the TVCSD sphere of influence and service area boundary has the potential to increase demand for sewage disposal to 53% of permitted flows by the year 2012. If these properties were added to the TVCSD system, the total projected wastewater demand increase by the year 2012 would represent 7% percent of the regulated/permitted flows. The limits on the current engineered capacity and the current regulated/permitted flow would not be exceeded by the proposed project.

LAFCO Policies. The Commission has adopted the following Policy and Procedure governing requests for sphere of influence amendments:

- *The Commission will at any time receive and schedule hearing requests for amendment to spheres of influence submitted by any person or by resolution of an affected local agency as required by Government Code Section 56428.*

- *The request for sphere-of-influence amendment shall state the nature of the proposed amendment, state the reasons for the request, include a map of the proposed amendment, and contain any additional data and information as may be required by the executive officer.*

- *Minor amendments of adopted spheres of influence may be considered by the Commission concurrently with a proposal for a change of organization. Any significant change to an adopted sphere of influence will be considered independently of and prior to any associated boundary change proposal according to the process for periodic review and amendment of spheres of influence established elsewhere in these Policies, Procedures and Guidelines.*

- *The Commission will undertake requested review of adopted spheres of influence where it determines that significant changes in land use, planning policy, demand for public service, service capabilities, or relationship to other government agencies have occurred.*

- *In scheduling requests for sphere-of-influence review hearings, the Commission may at its option adhere to the five-year cycle established by this policy or set an earlier hearing date.*

TABLE 2:
TOMALES VILLAGE COMMUNITY SERVICES DISTRICT CURRENT AND PROJECTED FLOWS FROM WASTEWATER TREATMENT FACILITY IN DRY WEATHER AND WET WEATHER

	Current Conditions				Projected Conditions				
	Current Engineered Capacity of TVCSD collection and treatment system (gallons per day)	Current (2007) Flows for current TVCSD SOI/Service Area (gallons per day)	Current Regulated/Permitted Flows (gallons per day)	Current Utilization of/Regulated Permitted Flows (%)	Projected Demand Increase within the current TVCSD SOI/Service Area (2012) (gallons per day)	Projected Utilization of/Regulated Permitted Flows without proposed project (%)	Projected Demand Increase proposed for addition to the TVCSD SOI/Service Area (2012) (gallons per day)	Total Projected Demand Increase within the proposed TVCSD SOI/Service Area (2012) (gallons per day)	Projected Utilization of/Regulated Permitted Flows with proposed project (%)
Dry Weather	38,000 GPD	16,000 gpd Average	38,000 gpd	42%	1,000 gpd	47%	3,000 gpd	4,000 gpd	53%
		Not Relevant 18,000 GPD Peak							
Wet Weather	190,000 GPD	37,000 gpd Average	190,000 gpd	20%	1,000 gpd	20%	3,000 gpd	4,000 gpd	21.5%
		116,000 gpd Peak	240,000 GPD Peak	48 %	-40,000 gpd		-40,000 gpd	-40,000 gpd	32 %

FY 2006 – 2007 ADWF = 13,088 GPD AWWF = 32,815 GPD PWWF = 77,000 GPD
FY 2007 – 2008 ADWF = 12,152 GPD AWWF = 37,373 GPD PWWF =116,000GPD
FY 2008 – 2009 ADWF = 15,250 GPD AWWF = 21,060 GPD PWWF = 62,000 GPD
Regulated Flows:
ADWF = Average Dry Weather Flow
AWWF = Average Wet Weather Flow
PWWF = Peak Wet Weather Flow
Wet weather flows are a factor of inflow and infiltration (I&I) of rain water and high ground water, not an effect of increased customers. Consequently, wet weather flows and peak flows are not changed dramatically by increased customers. Peak wet weather flows will decline due to I&I repairs and monitoring.

REGULATORY REQUIREMENTS

The subject properties are governed by the following plans and the policies contained therein:

- Marin County. 2007. Marin Countywide Plan.
- Marin County. 1981. Marin County Local Coastal Program Unit 2. April 1, 2008.
- Marin County. 1997. Tomales Community Plan. March 1997.

REQUIRED PERMITS/ APPROVALS

Anticipated project approvals include, but are not limited to, permits and discretionary actions that would be issued by the following agencies:

- Marin LAFCO
- Tomales Village Community Services District
- Marin County
- California Coastal Commission
- San Francisco Bay Area Regional Water Quality Control Board

RESPONSIBLE/TRUSTEE AGENCIES

- Marin County
- California Coastal Commission
- San Francisco Bay Area Regional Water Quality Control Board
- California Department of Transportation, District 4

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Agriculture Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology/Soils
☒ Hazards & Hazardous Materials	☒ Hydrology/Water Quality	☒ Land Use/Planning
☐ Mineral Resources	☒ Noise	☒ Population/Housing
☐ Public Services	☐ Recreation	☒ Transportation/Traffic
☒ Utilities/Service Systems	☒ Mandatory Findings of Significance	

DETERMINATION: (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Peter Banning, Executive Officer

Sept 4, '09
Date

Marin Local Agency Formation Commission

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063l(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measure identified, if any, to reduce the impact to less than significance.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☒	☐	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Tomales is a small, picturesque, scenic, historic community located approximately 3 miles inland from the coastline. The core downtown area is designated as a historic area by the Marin County Local Coastal Program, and though the subject properties are all infill lots they are also all outside of the historic boundary. The community is characterized by gently rolling grassy hills, trees, Tomales Creek, and historic structures. Scenic Highway 1 runs north-south through the middle of the Village. Tomales Community Park is located across Highway 1 from the southeastern subject property.

The proposed project would not result in any physical changes to any properties. However, by extending the SOI, LAFCO would create the possibility that wastewater service could be extended to the subject properties to serve future potential development. The project sites are located in infill areas in the Town of Tomales on properties designated for residential, commercial, and residential/agricultural uses.

The five northwestern properties are developed with one residence and several dilapidated accessory structures. The southeastern property is vacant and is adjacent to scenic Highway 1, but is away from the coastline. This property does contain an area of trees and other sensitive resources, but if and when development is proposed, it would be required to be setback 100 feet from Tomales Creek where these resources are located. No development is proposed as part of this project, though the proposed Sass project does include recommended Design Guidelines, which could assist in assuring that impact on any aesthetic resources is less than significant.

Photos of the project area are included below.

FIGURE I-A: VIEWS OF APN 102-041-44/290 DILLON BEACH ROAD

Looking north from southern edge of property.

Looking northeast from southern edge of property.

FIGURE I-B: VIEWS OF APN 102-041-41 & 102-041-44/290 DILLON BEACH ROAD.

Looking north from southern edge of 102-041-44.

View of both 102-041-41 and 102-041-44. Looking south from northern edge of 102-041-41.

FIGURE I-C: VIEWS OF APN 102-041-42, -43

APN 102-041-42 Looking south from northern edge of property.

APN 102-041-43 Looking southwest from northern edge of property.

FIGURE I-D: VIEW OF APN 102-041-40

Looking southwest from northern edge of property.

FIGURE I-E: VIEWS OF 102-080-08

Looking southeast from western edge of property.

Looking east from western edge of property.

FIGURE I-F: VIEWS OF 102-080-08

Looking south along Highway 1 from western edge of property.

Looking east from northwestern edge of property.

FIGURE I-G: VIEWS FROM 102-080-08

View of Church of the Assumption across Highway 1 from western edge of 102-080-08.

View of residence across Highway 1 from western edge of 102-080-08.

FIGURE I-H: VIEWS OF TOMALES COMMUNITY PARK

View of park facilities looking east from western edge of park.

FIGURE I-I: VIEWS OF TOMALES COMMUNITY PARK

View of park restroom facilities.

Looking west across Highway 1 at Tomales Community Park from western edge of 102-080-08.

DISCUSSION OF IMPACTS

a) Would the project have a substantial adverse effect on a scenic vista?

Less than Significant. Scenic vistas include natural features such as topography, water courses, rock outcrops, natural vegetation, and man-made alterations to the landscape as viewed from distant vantage points. The project sites are infill properties located within and area that is mostly developed and consist of small businesses, small ranches, and residential units along rural streetscapes. The project sites are all located along or near scenic Highway 1 and in a community with historic resources. Potential impacts to these scenic resource are discussed below in Section 1.b of this document. All of the subject properties are located away from the coastline, are not located in an area that would obstruct views to ridgeline or coastal resources, are adjacent to existing built improvements and would not substantially alter distant views of Tomales, and none of the properties are located within a designated scenic resource area. Therefore, the project is anticipated to have a less than significant impact on a scenic vista.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less than Significant with Mitigation incorporated. The subject properties are located near or along scenic Highway 1. The most southern parcel is located immediately adjacent to Highway 1 and is bisected by Tomales Creek. The Marin Countywide Plan establishes a density range of between 1 and 20 units per acre, and sets development intensity between a floor area ratio of 0.3 to 0.5. The Countywide plan also contains Implementation Program CD-1.c and Implementation Program CD-5.e which limits development to the lower end of the density range where urban services are not available. Under these policies, the maximum development potential at this 7.29 acre site is 7 units and 95,265square feet of commercial development. If this property was included within the TVCSD service area, the site could develop at the higher end of the development density and intensity, or it would have development potential of up to 145 units and 158,776 square feet of commercial. This represents the potential for an increase of up to 138 units and 63,511 commercial square feet over what would presently be permitted.

Design controls established by the County are adequate to ensure that the height, mass, and bulk of structures are compatible with the historic character of Tomales, the scenic values of Highway 1 are protected, and buildings and improvements are sited to minimize tree removal, and preserve rock outcroppings. Site constraints for this property are such that it may be physically difficult to accomplish these aesthetic objectives without environmental impact. Specifically, this site is bisected by Tomales Creek. A strict application of the stream conservation area policies established in the Countywide Plan would limit the developable portions of the property and consolidate development on a comparatively small land area. Given the increase in development potential that could result from the extension of sewer services, and the environmental constraints that apply to this property, future development at this site has the potential to result in the concentration of development on relatively small areas of this property that could negatively alter the character of Scenic Highway 1.

Should, however, development be proposed for this site, it is likely that potential environmental impacts could be reduced by connecting to the TVCSD sewer system rather than using on-site disposal systems. By incorporating the following mitigation measure, the project is modified.

MITIGATION MEASURE

MM I.1 Remove the southeastern property from the proposed TVCSD SOI and service area boundary expansion. At a future point, when and if development is proposed for that property, the future applicant could then apply to expand the TVCSD SOI and service area boundary to include that property.

Timing/Implementation: *Now.*

Enforcement/Monitoring: *TVCSD, Marin LAFCO*

MM I.2 Confirm that development proposals have secured all necessary land use approvals from the County of Marin and the California Coastal Commission, in compliance with CEQA.

Timing/Implementation: *Before extension of sanitary sewer service to any property.*

Enforcement/Monitoring: *TVCSD, County of Marin*

Implementation of the **Mitigation Measure**s **MM I.1** and **MM I.2** would ensure that potential impacts to scenic, natural or historic resources would be reduced to **less than significant**.

Mitigation Measures I.1 and **I.2** are used to mitigate impacts in several sections of this initial study. They are referenced in Biological Resources, Land Use and Planning, Population and Housing, Transportation/Traffic, and Utilities and Service Systems.

c) *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?*

Less than Significant. The reader is referred to discussions (a) and (b) above. This project is administrative and does not propose any development at this time and therefore would not detract from the current visual character of the sites. Though this project would make future development more likely, any development will require a separate action. The Sass project that is proposed for the five northernmost subject properties is subject to Design Review that would restrict future development to a scale and form that is in keeping with the existing visual character of Tomales. Therefore, this impact is considered less than significant and no mitigation is required.

d) *Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

Less than Significant. Any future development that could result from the extension of sewer service will be subject to approval by the County of Marin. The County requires Design Review for all development within the Town of Tomales. The standard analysis that would result from Design Review includes consideration of light and glare and includes requirements that fixtures be sited and designed, and directed to minimize light spill-over and glare. These existing requirements are adequate to ensure that there would be no impact from light or glare.

CONCLUSION REGARDING AESTHETICS

The proposed project, as mitigated would result in less than significant impacts to aesthetics, light, and glare.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURAL RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The proposed project would not result in any physical changes to properties. However, extending sewer service to the subject properties could serve future development. The project sites are located in infill areas in the Town of Tomales and are designated for residential and commercial development. The five northwestern subject properties designate agriculture as one of the allowed uses, as well as residential, but none of the subject properties are designated C-APZ-60, which is the designation given to land which the County has determined should be preserved for agricultural uses. The subject properties are bounded by private ranches and Second Street to the north, small residential lots and Carrie Street to the east, Mound Street and private residences to the south and one private ranch to the west. The most southern of the subject properties is currently undeveloped and is bisected by Tomales Creek.. This property is bounded by agricultural uses to the east, scenic Highway 1 to the west, and residential and commercial to the north and south.

DISCUSSION OF IMPACTS:

a) *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

No Impact. The Farmland Mapping and Monitoring Program of the California Resources Agency has not designated any of the properties as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The five northwestern properties are bounded by private ranches to the north and one private ranch to the west. The southeastern property is not identified as an agricultural parcel. It is bounded to the east by an agricultural parcel

under Williamson Act contract and to the northeast by another agricultural parcel. Implementation of the proposed project would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. There is no impact.

b) *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

Less than Significant Impact. The Tomales Community Plan calls for limiting development to infill areas inside of the Tomales Planning Area boundary and preserving agricultural land that is outside of the Tomales Planning Area. The six subject properties in this project are all located inside the Planning Area boundary. The larger property to the northwest has split zoning with residential zoning on the eastern portion and agricultural-residential zoning on the western portion. The Community Plan calls for development to be focused on parcels with the higher density of one unit per 6,000 square feet, which is the density of the eastern portion of the property. This property is proposed to be included in the expanded TVCSD boundary and sphere of influence area because of the higher-density residential zoning over the eastern portion of the site could result in development at a density that the Community Plan suggests should be served by the sewer system. The proposed project would not disrupt agricultural activities and does not conflict with existing zoning for agricultural use or a Williamson Act contract and separate review will be required for all development proposals. The impact would be less than significant.

c) *Would the project involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use?*

Less than Significant Impact. None of the subject properties are presently used for agricultural activity. All of the subject properties are comparatively small for agricultural activity and abut non-agricultural uses. The larger northwestern subject property includes agriculture as a potential use on its western portion, and residential on the eastern portion. The western portion of the property is approximately 2.14 acres, so a total of one unit could potentially be developed. Under existing conditions, the development of this site would introduce residential structures on, or in close proximity to portion of the property that is zoned for agriculture. Given the comparatively small nature of the subject properties for agricultural use, the absence of agricultural operations, the proximity of theses sites to non-agricultural uses, and the existing General Plan land use designations, the project would not result in conversion of farmland to a non-agricultural use, and the impact is less than significant.

CONCLUSION REGARDING AGRICULTURAL RESOURCES

The project would result in less than significant impacts to agricultural resources.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Result in significant construction-related air quality impacts?	☐	☐	☒	☐
e) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
f) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
g) Would the project substantially increase greenhouse gas emissions or expose people to substantial impacts from global climate change.	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Tomales Village is located in northwest Marin County, approximately three miles from Tomales Bay. The community is within the air district of the Bay Area Air Quality Management District (BAAQMD). The BAAQMD is the public agency entrusted with regulating stationary sources of air pollution in the nine counties that surround San Francisco Bay: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma counties. The nine counties of the San Francisco Bay Area form a regional air basin, sharing common geographical features and weather patterns, and therefore similar air pollution burdens, which cannot be addressed by counties acting on their own.

For criteria pollutants, significance thresholds are based on daily emissions because attainment or non-attainment is based on daily exceedances of applicable ambient air quality standards[1]. Further, several ambient air quality standards are based on relatively short-term exposure effects on human health, e.g., one-hour and eight-hour. For noncriteria pollutants like toxic air contaminants, significance thresholds are based on risk to nearby receptors.

The BAAQMD area is in attainment of the State and federal ambient air quality standards for CO, nitrogen oxides (NOx), and sulfur dioxides (SO2). The BAAQMD area is in non-attainment with the State PM10 and PM2.5 standards. The Bay Area is designated as a marginal non-attainment area for the federal 8-hour ozone standard and as a serious non-attainment area for the California 1-hour ozone standard. BAAQMD has been designated as non-attainment for the new State 8-hour standard.

As discussed in the Countywide Plan, the overall air quality in Marin is high, though the County does recognize that Marin benefits from its upwind location relative to prevailing wind conditions in the rest of the Bay Area. Topographic conditions around the village of Tomales also contribute to overall good air quality since the village is surrounded by low hills that help block emissions from larger cities. The Countywide Plan states that Marin County should seek to reduce pollution generated by land uses and transportation. According to the Countywide Plan, Marin emits nearly 3 million tons of carbon dioxide every year. Vehicle traffic accounts for 50% of the total emissions, and energy use by buildings (residential, commercial and industrial combined) accounts for 41%.

According to the Countywide Plan and BAAQMD, development projects that are of a certain size or larger are considered resulting in potentially significant emissions due to vehicle trip generation rates. A residential project would need to have 320 units or larger to be significant. A commercial development project would depend on what sort of store would be developed. Potentially significant commercial development examples are: a discount store of 87,000 sq. ft or larger, a regional shopping center of 44,000 sq. ft. or larger, and a supermarket of 24,000 sq. ft. or larger.

The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. The project site is located within the San Francisco Bay Area Air Basin (Air Basin). The Air Basin includes San Mateo, Santa Clara, Alameda, Contra Costa, Napa, and Marin counties.

The potential for the development of high pollutant concentrations in the surrounding area and at a given location depends upon the quantity of pollutants emitted in the surrounding area and the ability of the atmosphere to disperse them. The air pollution potential of a given location depends upon the emission density in the surrounding area as well as the atmospheric influences present. Primary pollutant emission densities are highest in areas with high population density, heavy vehicle use, or industrialization. For example, the Bay Area's highest CO concentrations are found in San Jose, where both the atmospheric pollution potential and the emissions are high (BAAQMD, 2008). For secondary pollutants like ozone, which develop over periods of several hours and which are derived from two or more primary pollutants, the evaluation of the pollution potential of a location is more complex. The emission-related ozone potential at a

[1] Attainment is a designation used when an area meets an air quality standard. Non-attainment is when a defined geographic area that does not meet one or more of the federal air quality standards for the criteria pollutants.

given location depends upon precursor emissions that are upwind of (rather than adjacent to) that location. The most direct way of evaluating the potential for exceeding the ozone standard is to review ambient monitoring data for recent years. Violations of the ozone standard are most likely to occur in the west, south, and eastern sides of the Santa Clara Valley (BAAQMD, 2008).

AIR POLLUTANTS OF CONCERN AND HEALTH EFFECTS

Ambient air quality in Hercules is similar to that of the larger San Francisco Bay Area Air Basin. Because of the unique geography and meteorology of Contra Costa County, the City has air pollution issues for several pollutants that the federal government regulates. In particular, there are health-based standards for six air quality pollutants that establish what are the maximum levels of ambient (background) air pollutants that considered safe. These six "criteria pollutants" are ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter 10 microns in size and smaller (PM_{10}), and lead.

Ozone

Ground level ozone, commonly referred to as smog, is greatest on warm, windless, sunny days. Ozone is not emitted directly into the air from point sources (e.g., mobile or stationary); rather, they are formed through a complex series of chemical reactions between reactive organic gases (ROG) and nitrogen oxides (NOx). These reactions occur over time in the presence of sunlight. Ozone is a public health concern because it is a respiratory irritant that increases susceptibility to respiratory infections and diseases, and because it can harm lung tissue at high concentrations. In addition, ozone can cause substantial damage to leaf tissues of crops and natural vegetation, and can damage many natural and manmade materials by acting as a chemical oxidizing agent. The principal sources of the ozone precursors (ROG and NOx) are the combustion of fuels and the evaporation of solvents, paints, and fuels.

Carbon Monoxide (CO)

Carbon monoxide (CO) is an odorless, colorless gas that is formed by the incomplete combustion of fuels. Motor vehicle emissions are the dominant source of CO in the Hercules area. At high concentrations, CO reduces the oxygen-carrying capacity of the blood and can cause dizziness, headaches, unconsciousness, and even death. CO can also aggravate cardiovascular disease. Relatively low concentrations of CO can significantly affect the amount of oxygen in the bloodstream because CO binds to hemoglobin 220–245 times more strongly than oxygen. CO emissions and ambient concentrations have decreased significantly in recent years. These improvements are due largely to the introduction of cleaner burning motor vehicles and motor vehicle fuels. The San Francisco Bay Area has attained the state and national CO standard. CO is still a pollutant that must be closely monitored, however, due to its severe effect on human health.

Nitrogen Oxides

Nitrogen oxides (NO_x) refer to a family of nitrogen-based compounds, including nitric oxide, nitrogen dioxide (NO_2), and other oxides of nitrogen. NO oxides are produced from burning fuels, including gasoline, diesel, and coal. Nitrogen oxides react with volatile organic compounds to form ozone. Nitrogen oxides are also major components of acid rain.

Sulfur Oxides

Sulfur oxides (SOx) are composed mainly of sulfur dioxide (SO_2) and sulfates. Sulfur oxides are pungent, colorless gases (sulfates are solids) formed primarily by combustion of sulfur-containing fossil fuels, especially coal and oil. Some industrial processes, such as production of paper and smelting of metals, produce sulfur dioxide. Sulfur dioxide is closely related to sulfuric acid and plays an important role in the production of acid rain.

Particulate Matter (PM)

Particulate matter can be divided into several size fractions. Coarse particles are between 2.5 and 10 microns in diameter, and arise primarily from natural processes, such as wind-blown dust or soil. Fine particles are less than 2.5 microns in diameter and are produced mostly from combustion, or burning activities. Fuel burned in cars and trucks, power plants, factories, fireplaces and wood stoves produces fine particles. The level of fine particulate matter in the air is a public health concern because it can bypass the body's natural filtration system more easily than larger particles, and can lodge deep in the lungs. The health effects vary depending on a variety of factors, including the type and size of particles. Research has demonstrated a correlation between high PM concentrations and increased mortality rates. Elevated PM concentrations can also aggravate chronic respiratory illnesses such as bronchitis and asthma.

Lead (Pb)

Lead is a metal that is a natural constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment, so it essentially persists forever. Lead was used until recently to increase the octane rating in auto fuel. Since gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels and the use of leaded fuel has been mostly phased out, the ambient concentrations of lead have dropped dramatically.

Toxic Air Contaminants (TACs)

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. Unlike criteria pollutants, no safe levels of exposure to TACs have been established. Instead, TAC impacts are evaluated by calculating the health risks associated with a given exposure. Two types of risk are usually assessed: chronic non-cancer risk and acute non-cancer risk. There are many different types of TACs, with varying degrees of toxicity.

Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations, such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage and death.

It is important to understand that TACs are not considered criteria air pollutants and thus are not specifically addressed through the setting of ambient air quality standards. Instead, EPA and CARB regulate Hazardous Air Pollutants (HAPs) and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology (MACT and BACT) to limit emissions.

Diesel exhaust is a TAC of growing concern in California. In 1998, CARB identified diesel engine particulate matter as a TAC. The exhaust from diesel engines contains hundreds of different

gaseous and particulate components, many of which are toxic, but are not considered to have acute non-cancer risks.

Mobile sources, such as trucks, buses, automobiles, trains, ships and farm equipment are by far the largest source of diesel emissions. Studies show that diesel particulate matter concentrations are much higher near heavily traveled highways and intersections. Land uses where individuals could be exposed to high levels of diesel exhaust include:

- Warehouses
- Schools with high volume of bus traffic
- High volume highways
- High volume arterials and local roadways with high level of diesel traffic.

The State has begun a program of identifying and reducing risks associated with particulate matter emissions from diesel-fueled vehicles. In September 2000, the Air Resources Board approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled engines and vehicles. The goal of the Plan is to reduce diesel PM emissions and the associated health risk by 75 percent in 2010 and 85 percent by 2020. The Plan consists of new regulatory standards for all new on road, off-road and stationary diesel-fueled engines and vehicles, new retrofit requirements for existing on-road, off-road and stationary diesel-fueled engines and vehicles, and new diesel fuel regulations to reduce the sulfur content of diesel fuel as required by advanced diesel emission control systems.

Odors

Odors are typically regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as

odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

REGULATORY FRAMEWORK

Air quality in the Bay Area is regulated through the efforts of federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies primarily responsible for improving the air quality in the region are discussed below, along with their individual responsibilities.

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) is responsible for enforcing the Federal Clean Air Act and the 1990 amendments to it ("Federal CAA"), and the national ambient air quality standards (federal standards) that the EPA establishes. These standards identify levels of air quality for six "criteria" pollutants, which are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect public health and welfare. The U.S. EPA also has regulatory and enforcement jurisdiction over emission sources beyond state waters (outer continental shelf), and sources that are under the exclusive authority of the federal government, such as aircraft, locomotives, and interstate trucking.

Federal Hazardous Air Pollutant Program

Title III of the CAA requires EPA to promulgate national emissions standards for HAPs (NESHAP). The NESHAP may differ for major sources than for area sources of HAPs (major sources are defined as stationary sources with potential to emit more than 10 tons per year [TPY] of any HAP or more than 25 TPY of any combination of HAPs; all other sources are considered area sources). The emissions standards are to be promulgated in two phases. In the first phase (1992–2000), EPA developed technology-based emission standards designed to produce the maximum emission reduction achievable. These standards are generally referred to as requiring MACT. For area sources, the standards may be different, based on generally available control technology. In the second phase (2001–2008), EPA was required to promulgate health risk–based emissions standards where deemed necessary to address risks remaining after implementation of the technology based NESHAP standards.

The CAAA required EPA to promulgate vehicle or fuel standards containing reasonable requirements that control toxic emissions, at a minimum to benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of toxics, including benzene, formaldehyde, and 1, 3-butadiene. In addition, Section 219 required the use of reformulated gasoline in selected U.S. cities (those with the most severe ozone nonattainment conditions) to further reduce mobile-source emissions.

California Air Resources Board

The California Air Resources Board, a department of the California Environmental Protection Agency (Cal EPA), oversees air quality planning and control throughout California. It is primarily responsible for ensuring implementation of the 1989 amendments to the California Clean Air Act (CCAA), responding to the federal CAA requirements, and for regulating emissions from motor vehicles and consumer products within the State. CARB has established emission standards for vehicles sold in California and for various types of equipment available commercially. It also sets fuel specifications to further reduce vehicular emissions.

The amendments to the CCAA establish ambient air quality standards for the State (state standards) and a legal mandate to achieve these standards by the earliest practical date. These standards apply to the same six criteria pollutants as the Federal CAA, and also include sulfate, visibility, hydrogen sulfide, and vinyl chloride. They are more stringent than the federal standards and, in the case of PM_{10} and SO_2, far more stringent.

Tanner Air Toxics Act

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and has adopted EPA's list of HAPs as TACs. Most recently, diesel PM was added to CARB list of TACs.

Once a TAC is identified, CARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate BACT to minimize emissions.

The AB 2588 requires that existing facilities that emit toxic substances above a specified level prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures. CARB has adopted diesel exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators). In February 2000, CARB adopted a new public-transit bus-fleet rule and emission standards for new urban buses. These rules and standards provide for (1) more stringent emission standards for some new urban bus engines, beginning with 2002 model year engines; (2) zero-emission bus demonstration and purchase requirements applicable to transit agencies; and (3) reporting requirements under which transit agencies must demonstrate compliance with the urban transit bus fleet rule. Current and upcoming milestones include the low-sulfur diesel-fuel requirement, and tighter emission standards for heavy-duty diesel trucks and off-road diesel equipment (2011) nationwide.

Air Quality and Land Use Handbook

As part of its Community Health Program, CARB has developed an Air Quality and Land Use Handbook, which is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. CARB is also developing related information and technical evaluation tools for addressing cumulative air pollution impacts in a community. Any recommendations or considerations contained in the Handbook are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts.

The primary goal in developing this document was to provide information that will help keep California's children and other vulnerable populations out of harm's way with respect to nearby sources of air pollution. Recent air pollution studies have shown an association between respiratory and other non-cancer health effects and proximity to high traffic roadways. Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California.

ARB community health risk assessments and regulatory programs have produced important air quality information about certain types of facilities that should be considered when siting new residences, schools, day care centers, playgrounds, and medical facilities (i.e., sensitive land uses). Sensitive land uses deserve special attention because children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the non-cancer effects of air pollution. There is also substantial evidence that children are more sensitive to cancer-causing chemicals.

The Handbook identifies ARB's recommendations regarding the siting of new sensitive land uses near freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities. This list consists of the air pollution sources that have been evaluated from the standpoint of the proximity issue. It is based on available information and reflects ARB's primary areas of jurisdiction – mobile sources and toxic air contaminants.

Bay Area Air Quality Management District

2001 Ozone Attainment Plan

The *2001 Ozone Attainment Plan* was prepared as a proposed revision to the Air Basin's part of California's plan to achieve the national 1-hour ozone standard. The Plan was prepared in response to U.S. EPA's partial approval and partial disapproval of the Air Basin's *1999 Ozone Attainment Plan* and finding of failure to attain the national ambient air quality standard for ozone. The Revised Plan was adopted by the Boards of the co-lead agencies at a public meeting and approved in 2001. In July 2003, U.S. EPA signed a rulemaking proposing to approve the Plan. U.S. EPA also made an interim final determination that the Plan corrects deficiencies identified in the 1999 Plan. Following three years of low ozone levels (2001, 2002 and 2003), in October 2003, U.S. EPA proposed a finding that the Air Basin had attained the federal 1-hour standard and that certain elements of the 2001 Plan (attainment demonstration, contingency measures and reasonable further progress) were no longer required. In April 2004, U.S. EPA finalized the finding that the Air Basin had attained the 1-hour standard and approved the remaining applicable elements of the 2001 Plan: emission inventory; control measure commitments; motor vehicle emission budgets; reasonably available control measures; and commitments to further study measures. U.S. EPA revoked the 1-hour ozone standard effective June 2005.

U.S. EPA transitioned from the national 1-hour standard to a more health protective 8-hour standard. Defined as "concentration-based," the new national ozone standard is set at 85 parts per billion averaged over eight hours. The national 8-hour standard is considered to be more health protective because it protects against effects that occur with longer exposure to lower ozone concentrations. In April 2004, U.S. EPA designated regions as attainment and nonattainment areas for the 8-hour standard. These designations took effect on June 15, 2004. U.S. EPA formally designated the Air Basin as a nonattainment area for the national 8-hour ozone standard, and classified the region as "marginal" according to five classes of nonattainment areas for ozone, which range from marginal to extreme. Marginal nonattainment areas must attain the national 8-hour ozone standard by June 15, 2007. On March 12, 2008, U.S. EPA lowered the 8-hour ozone standard to 0.075 parts per million (ppm). Per CAA, U.S. EPA must designate areas attainment status for the new or revised standards. U.S. EPA is schedule to issue final designations no later than March 2010 unless there is insufficient information to make the designations. California must submit a State Implementation Plan outlining how it will reduce pollution to meet the revised standard no later than 3 years after U.S. EPA's final designations.

Bay Area 2005 Ozone Strategy

The *Bay Area 2005 Ozone Strategy* was developed to address California 1-hour ozone standards. The control strategy for the 2005 Ozone Strategy is to implement all feasible measures on an expeditious schedule in order to reduce emissions of ozone precursors and consequently reduce ozone levels in the Bay Area and transport to downwind regions. In April 2005,established an 8-hour average ozone standard of 0.070 ppm. The 8-hour standard took effect in May 2006. The 1-hour ozone State standard has been retained. The San Francisco Bay Area has been designated as nonattainment with respect to the State 8-hour standard effective July 2007.

BAAQMD has begun a process to update the *Bay Area 2005 Ozone Strategy*. The updated Ozone Strategy will be prepared in cooperation with Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) and will address how the Air Basin will achieve compliance with the State 1-hour and 8-hour air quality standards for ozone as expeditiously as possible, and how the region will reduce transport of ozone and ozone precursors to neighboring air basins.

Bay Area 2009 Clean Air Plan

A clean air plan is a comprehensive strategy to reduce air pollution from both stationary sources, such as factories and refineries, and mobile sources, such as cars, trucks, and construction equipment. The goal of a clean air plan is to reduce air pollution in order to attain air quality standards and protect public health. The Bay Area currently exceeds state ozone standards and must prepare a plan to meet these standards (BAAQMD, 2009).

The Bay Area Quality Management District (District) is preparing the *Bay Area 2009 Clean Air Plan (Plan)*, an update to the *Bay Area 2005 Ozone Strategy*. The District will develop the Plan in association with its regional agency partners, the Metropolitan Transportation Commission, the Association of Bay Area Governments, and the Bay Conservation and Development Commission. The Plan will:

- Review progress in improving Bay Area air quality to date.
- Establish a control strategy including "all feasible measures" to achieve state ozone standards by the earliest practicable date and reduce transport of ozone precursors to neighboring air basins.
- Address ozone, particulate matter, air toxics, and greenhouse gas emissions in a single integrated plan.

The *Bay Area 2009 Clean Air Plan* is scheduled for adoption by the District Board of Directors in fall 2009 (BAAQMD, 2009).

CEQA Air Quality Handbook

The BAAQMD is updating its guidance on how to prepare air quality analyses that meet the intent and requirements of CEQA. When adopted later in 2009, this Handbook will provide new thresholds of significance for both criteria pollutants and climate change. Until that time, the BAAQMD's current CEQA Air Quality Handbook is used to guide this analysis.

Assembly Bill 1493

Assembly Bill 1493 (AB 1493) requires that ARB develop and adopt the nation's first greenhouse gas emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in the state. It citied several risks that California faces from climate change, including reduction in the state's water supply, increased air pollution creation by higher temperatures, harm to agriculture, an increase in wildfires, damage to the coastline, and economic losses caused by higher food, water energy, and insurance prices. Further, the legislature stated that technological solutions to reduce greenhouse gas emissions would stimulate the California economy and provide jobs.

Executive Order S-3-05

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary will also submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

Assembly Bill 32, The California Climate Solutions Act of 2006

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 requires that ARB develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, CARB must develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that the State set a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

Senate Bill 97

SB 97, enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directs the Governor's Office of Planning and Research (OPR) to develop draft CEQA Guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emission" by July 1, 2009 and directs the Resources Agency to certify and adopt the CEQA Guidelines by January 1, 2010.

In the meantime, OPR issued interim guidelines on June 19, 2008 in a technical advisory titled *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*.

Senate Bill 1368

SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 requires the California Public Utilities Commission (PUC) to establish a greenhouse gas emission performance standard for baseload generation from investor owned utilities by February 1, 2007. The California Energy Commission (CEC) must establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the greenhouse gas emission rate from a baseload combined-cycle natural gas fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and CEC.

Office of Planning and Research CEQA and Climate Change Technical Advisory

On June 19, 2008 the Governor's Office of Planning and Research issued a technical advisory titled *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*. The advisory provides technical guidance for addressing the issue of climate change in CEQA documents.

AIR QUALITY ATTAINMENT STATUS

The attainment status for the San Francisco Bay Area Air Basin is summarized in **Table III.1**. An attainment designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A nonattainment designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation(s) was caused by an exceptional event, as defined in the criteria.

Following years of declining emissions and ambient concentrations of ozone, the Bay Area in 1995 was redesignated as an attainment area for the national 1-hour ozone standard. However, unusual heat waves triggered new exceedances of the national ozone standard during the summers of 1995 and 1996. As a result, in 1998 US EPA redesignated the region back into nonattainment status for the national 1-hour ozone standard. The region also periodically exceeds State ambient air quality standards for ozone and particulate matter. Exceedances of air quality standards occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights (for particulate matter) or hot, sunny summer afternoons (for ozone). As noted in **Table III.1**, the Basin is currently designated nonattainment for the State and National ozone standards, as well as the State PM_{10} and $PM_{2.5}$ standards. The Basin is designated either attainment or unclassified for the remaining federal and state ambient air quality standards (BAAQMD 2009).

TABLE III.1:
SUMMARY OF AMBIENT AIR QUALITY STANDARDS & BAY AREA ATTAINMENT STATUS

Air Pollutant	Averaging Time	California Standards (1)		National Standards (2)	
		Concentration	Attainment Status	Concentration (3)	Attainment Status
Ozone	8-Hour 1-Hour	0.070 ppm 0.09 ppm	N(9) N	0.075 ppm	N(4) -- (5)
Carbon Monoxide	8-Hour 1-Hour	9 ppm 20 ppm	A A	9 ppm 35 ppm	A(6) A
Nitrogen Dioxide	Annual Avg. 1-Hour	0.030 ppm 0.18 ppm	A A	0.053 ppm --	A --
Sulfur Dioxide	Annual Avg. 24-Hour 3-Hour 1-Hour	-- 0.04 ppm -- 0.25 ppm	-- A A	0.03 ppm 0.14 ppm -- --	A A 0.5 ppm --
Particulate Matter (PM_{10})	Annual 24-Hour	20 μg/m3 50 μg/m3	N(7) N	-- 150 μg/m3	-- U
Particulate Matter - Fine ($PM_{2.5}$)	Annual 24-Hour	12 μg/m3 --	N(7) --	15 μg/m3 35 μg/m3 (10)	A U
Lead	Calendar Quarter 30-Day Average Rolling 3-Month Average	-- 1.5 μg/m3 --	-- A --	1.5 μg/m3 -- 0.15	A -- --
Sulfates	24-Hour	25 μg/m3	A	--	--
Hydrogen Sulfide	1-Hour	0.03 ppm	U	--	--
Vinyl Chloride	24-Hour	0.01 ppm	NA	--	--
Visibility Reducing Particles	8-Hour (1000 to 1800 PST)	(8)	A	--	--

1 California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter-PM10, and visibility reducing particles are values that are not to be exceeded. The Lake Tahoe CO standard is 6.0 ppm, a level one-half the national standard and two-thirds the state standard.

2 National standards, other than for ozone, particulates, and those based on annual averages, are not to be exceeded more than once a year.

3 National air quality standards set at levels determined to be protective of public health with an adequate margin of safety. Each state must attain these standards no later than three years after the state's implementation plan is approved by the EPA.

4 In June 2004, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.

5 The national 1-hour ozone standard was revoked by US EPA on June 15, 2005,

6 In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.

7 In June 2002, CARB established new annual standards for PM2.5 and PM10.

8 Statewide VRP Standard (except Lake Tahoe Air Basin): Particulates in sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70%. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

9 This standard was approved by the ARB on April 28, 2005 and became effective on May 17, 2006.

10 US EPA lowered the 24-hour PM2.5 standard in 2006. Attainment status has not yet been determined.

ppm = parts per million by volume; μg/m3 = micrograms per cubic meter; mg/m3 = miligrams per cubic meter

A=Attainment; N=Nonattainment; U=Unclassified, NA = Not applicable

Sources: BAAQMD 2009, ARB 2009

AIR QUALITY DESIGNATIONS AND CLASSIFICATIONS

Both the CARB and the USEPA have established air pollution standards in an effort to protect human health and welfare. Geographic areas are designated "attainment" if these standards are met and nonattainment if they are not met. In addition, each agency has several levels of classifications based on severity of the problem. The Bay Area Air Quality Management District (BAAQMD) is classified "nonattainment" or "marginal nonattainment" for the state and federal ozone standards and "nonattainment" for the state PM_{10} and $PM_{2.5}$ standards. The current state and federal designations in the BAAQMD for each criteria air pollutant are shown in **Table III.3**.

TABLE III.2
AIR QUALITY STANDARD ATTAINMENT CLASSIFICATIONS – BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Pollutant	Designation/Classification	
	Federal	State
Ozone – 1-hour	n/a	Nonattainment
Ozone – 8-hour	Marginal Nonattainment	Nonattainment
PM_{10} – Annual Arithmetic Mean	n/a	Nonattainment
PM_{10} – 24-hour	Unclassified	Nonattainment
$PM_{2.5}$ – Annual Arithmetic mean	Attainment	Nonattainment
$PM_{2.5}$ – 24-hour	Unclassified	n/a
CO	Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead (Particulate)	Attainment	Attainment
Hydrogen Sulfide	n/a	Unclassified
Sulfates	n/a	Attainment
Visibility Reducing Particles	n/a	Unclassified

Source: BAAQMD Ambient Air Quality Standards and Bay Area Attainment Status, 2008

GREENHOUSE GAS EMISSIONS & GLOBAL CLIMATE CHANGE

The earth's climate has been warming for the past century. It is believed that this warming trend is related to the release of certain gases into the atmosphere. Greenhouse gases (GHG) absorb infrared energy that would otherwise escape from the earth. As the infrared energy is absorbed, the air surrounding the earth is heated. An overall warming trend has been recorded since the late 19th century, with the most rapid warming occurring over the past two decades. The 10 warmest years of the last century all occurred within the last 15 years. It appears that the decade of the 1990s was the warmest in human history. Human activities have been attributed to an increase in the atmospheric abundance of greenhouse gases. The more commonly recognized GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), water vapor, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (ARB, 2006; CEC, 2008).

There are uncertainties as to exactly what the climate changes will be in various local areas of the earth and what the effects of clouds will be in determining the rate at which the mean temperature will increase. There are also uncertainties associated with the magnitude and

timing of other consequences of a warmer planet: sea level rise, spread of certain diseases out of their usual geographic range, the effect on agricultural production, water supply, sustainability of ecosystems, increased strength and frequency of storms, extreme heat events, air pollution episodes, and the consequence of these effects on the economy (ARB, 2006).

Emissions of GHGs contributing to global climate change are largely attributable to human activities associated with industrial/manufacturing, utility, transportation, residential, and agricultural sectors. About three-quarters of human emissions of CO_2 to the global atmosphere during the past 20 years are due to fossil fuel burning. Atmospheric concentrations of CO_2, CH_4, and N_2O have increased 31 percent, 151 percent, and 17 percent respectively since the year 1750 (CEC, 2008). GHG emissions are typically expressed in carbon dioxide-equivalents (CO_2e), based on the GHG's global warming potential (GWP). The GWP is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, one ton of CH_4 has the same contribution to the greenhouse effect as approximately 21 tons of CO_2. Therefore, CH_4 is a much more potent GHG than CO_2.

Worldwide, California is ranked as the 12th largest emitter of GHGs (CEC, 2008). Based on the most recent GHG emissions inventory, California's gross annual emissions of GHGs in 2004 totaled approximately 497 million metric tons (MMT) of CO_2e. Most of California's emissions, approximately 81 percent, consist of carbon dioxide produced from fossil fuel combustion (CEC, 2006, 2008). As shown, the transportation sector is the single largest category of California's GHG emissions, accounting for approximately 39 percent of the state's total GHG emissions, followed by electricity consumption (from both in-state and out-of-state providers), which accounts for a total of roughly 28 percent of the state's total GHG emissions. The contribution from each of the various other use sectors contribute roughly 6 to 10 percent each to the total GHG emissions inventory (CEC, 2008).

International and National Efforts

International and federal legislation have been enacted to deal with climate change issues. The Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change (IPCC) to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation. The most recent reports of the IPCC have emphasized the scientific consensus around the evidence that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant adverse impacts on the environment, the economy, and human health and welfare are unavoidable (CAPCOA, 2008).

In October 1993, President Clinton announced his Climate Change Action Plan, which had a goal to return GHG emissions to 1990 levels by the year 2000. This was to be accomplished through 50 initiatives that relied on innovative voluntary partnerships between the private sector and government aimed at producing cost-effective reductions in GHG emissions. On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change. Under the Convention, governments agreed to gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change. These efforts have been largely policy oriented. In addition to the national and international efforts described above, many local jurisdictions have adopted climate change policies and programs.

However, thus far little has been done to assess the significance of the affects new development projects may have on climate change (CAPCOA, 2008).

THRESHOLDS OF SIGNIFICANCE

The air quality analysis relies on the thresholds of significance identified in **Table III.3** below.

TABLE III.3:
AIR QUALITY THRESHOLDS OF SIGNIFICANCE

The Bay Area Air Quality Management District (BAAQMD) has developed *CEQA Guidelines* to assist in the analysis of air quality impacts in accordance with CEQA requirements. The following BAAQMD-recommended thresholds of significance are used to determine whether implementation of proposed projects would result in a significant air quality impact (BAAQMD, 1999):
***Short-term Construction Emissions*—**Construction impacts associated with the proposed project would be considered significant if BAAQMD-recommended control measures for construction are not incorporated or implemented.
Long-term Emissions of Ozone Precursors (ROG and NOx) — In accordance with the BAAQMD's *CEQA Guidelines*, operational impacts associated with the proposed project would be considered significant if the project generates emissions of ROG, NOx, or PM10 that would exceed 80 lbs/day/pollutant; or, 15 tons/year/pollutant.
***Toxic Air Contaminants*—**Exposure to TACs would be considered significant if the probability of contracting cancer for the Maximally Exposed Individual would exceed 10 in 1 million or would result in a Hazard Index greater than 1.
***Odorous Emissions*—**Odor impacts associated with the proposed project would be considered significant if the project has the potential to frequently expose members of the public to objectionable odors. In accordance with the BAAQMD's *CEQA Guidelines*, increases in odorous emissions would be considered significant if more than one confirmed complaint per year regarding odors from nearby sources has been received, averaged over a three-year period, or if three unconfirmed complaints per year have been received, averaged over a three-year period.
***Local Mobile-Source CO Concentrations*—**Local mobile-source impacts associated with the proposed project would be considered significant if the project contributes to CO concentrations at receptor locations in excess of the CAAQS (i.e., 9.0 ppm for 8 hours or 20 ppm for 1 hour).
***Cumulative Air Quality Impacts*—**According to the BAAQMD *CEQA Guidelines*, any project that would individually have a significant air quality impact would also have a significant cumulative air quality impact. In addition, projects that are found to be inconsistent with local general plan population or vehicle use projections may conflict with emissions inventories used for air quality planning purposes and, therefore, would be deemed to have a significant impact.

Source: BAAQMD, CEQA Guidelines, 1999.

DISCUSSION OF IMPACTS

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant. The project sites are under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The air quality goals and policies of the BAAQMD's Air Quality Management Plan (AQMP) are based on the land use projections and designations of the Marin Countywide Plan and population growth projections, including the Tomales Community Plan. The proposed project will not change the land use on the subject properties from that which was contemplated in these planning documents.

Projects that are consistent with the Countywide Plan will not increase population or employment, or result in an increase in vehicle miles traveled (VMT) and related mobile source emissions, in conflict with the BAAQMD's air quality planning efforts. Future

development on the subject properties is more likely should this project be approved. None of the subject properties would result in residential development that would result in potentially significant emissions, as discussed in the above environmental setting section. The maximum number of units that could be developed on any of the properties is 145 units, which are fewer than the minimum number of 320 units to be potentially significant. However, the southeastern property could also potentially be developed with a maximum of 158,776 sq. ft. of commercial space. This would exceed the minimum amount of commercial square footage to be considered potentially significant. Removal of the southeastern property as suggested in **Mitigation Measure MMI.1** would remove this potential impact.

Thus, the project would be considered consistent with local air quality plans and attainment efforts. Implementation of the proposed project would not obstruct implementation of any of the proposed control measures contained in the aforementioned air quality plans. Consistency with the County of Marin General Plan and Tomales Community Plan would ensure that the proposed project would be considered to be consistent with the BAAQMD AQMP. Therefore, this impact is less than significant.

b) *Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

Less than Significant with Mitigation Incorporated. There are not any existing air quality violations within the area of the subject properties. The proposed project would not result in any physical changes to any properties. Any future development project will be subject to separate County review, including CEQA review.

PROJECT OPERATION

Long-term operation of the project would result in no net increase in emissions of both attainment pollutants (i.e., carbon monoxide) and non-attainment pollutants (i.e., PM_{10}, ozone precursors). Operation of the project would not contribute to new exceedances of attainment pollutants or continued exceedances of ozone and PM_{10} standards. Because operation of the project would not result in a net increase in criteria pollutant emissions, the project would have a less than significant contribution toward any violation of any air quality standard and would have a less than significant contribution toward an existing or projected air quality violation.

PROJECT CONSTRUCTION

Assuming that approval of this project makes future development more likely, then eventually project construction will occur on the subject properties. Project construction would expose sensitive receptors to minimal and short-term emissions resulting from construction activities. Construction emissions of PM_{10} can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors. Despite this variability in emissions, experience has shown that there are a number of feasible control measures that can be reasonably implemented to significantly reduce PM_{10} emissions from construction. The BAAQMD's approach to CEQA analyses of construction impacts is to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions. According to BAAQMD's CEQA Guidelines, quantification of construction emissions is not necessary and if all of the appropriate control measures provided by the District will be implemented, then air pollutant emissions from construction activities would be considered a less than significant impact.

Application of the BAAQMD's feasible mitigation measures would further reduce potential impacts from site grading or soil disturbance.

MITIGATION MEASURE

MM III.1 The following control measures shall be imposed on new sewer service connection permits and implemented during all phases of future project construction:

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved construction and staging areas at sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- Replace vegetation in disturbed areas as quickly as possible.
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.

Timing/Implementation: *During project construction*

Enforcement/Monitoring: *TVCSD*

With implementation of **Mitigation Measure MM III.1**, construction of the project would have a **less than significant** contribution toward any violation of any air quality standard and would have a **less than significant** contribution toward an existing or projected air quality violation.

c) *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*

Less than Significant. According to BAAQMD's CEQA Guidelines, for projects that do not individually have significant operational air quality impacts, the determination of significant cumulative impact should be based on an evaluation of the consistency of the project with the local general plan.

As discussed under Responses III(a) and (b) above, the project would not result in an individually significant emission of criteria pollutants. The project would not directly change the existing uses on the subject properties, but should development occur as a result of this project it is anticipated that it would be consistent with the Community plan and Countywide general plan. Future development would also require a separate review. This impact is less than significant.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant. Sensitive receptors are generally defined as facilities that house or attract groups of children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Schools, hospitals, residential areas, and convalescent facilities are examples of sensitive receptors. The subject properties are surrounded by residential areas, the southeastern property is fairly near Tomales High School, and it is also across Highway 1 from Tomales Community Park. However, this project is administrative and any future development, though it might be made more likely by this project, would require separate review. If future development is approved, then it would increase traffic on local roads. This could result in elevated CO emissions from motor vehicle congestion that could expose sensitive receptors to elevated CO concentrations. However, based on the project's less than significant impact on traffic congestion, this is not expected to result in exceedances of CO standards. Local mobile-source carbon monoxide emissions near roadway intersections are a function of traffic volume, speed, and delay. Transport of CO is extremely limited because it disperses rapidly with distance from the source under normal meteorological conditions. Under specific meteorological conditions, CO concentrations near roadways and/or intersections may reach unhealthy levels. These concentrations are also impacted by vehicle delay associated with roadways or intersections. According to the BAAQMD CEQA Guidelines, localized carbon monoxide concentrations should be estimated for projects in which:

- Vehicle emissions of CO would exceed 550 lb./day,
- Project traffic would impact intersections or roadway links operating at Level of Service (LOS) D, E or F or would cause LOS to decline to D, E or F,
- Project traffic would increase traffic volumes on nearby roadways by 10% or more.

Average traffic around Tomales is currently LOS A (Sass Traffic Study, 2008). This project would not increase vehicle traffic volumes by more than 10% or generate vehicle emissions of CO in excess of 550 pounds per day. Should the Sass project be approved and all homesites have constructed residential units, daily trips to the northwestern properties would increase by approximately 115 per weekday, 121 per weekend, and by 11 during midday peak hour. The Sass project also proposes to have access to the project site from both the north and the south of the property, which would improve circulation in the area. With the Sass project included, LOS will still be A for the most part, with one period of LOS B during midday peak period at the intersection of Highway 1 and Dillon Beach Road (Sass Traffic Study, 2008).

Should the southeastern property be developed at its maximum potential, then circulation would very likely be a significant impact. Should 145 residential units be developed on that property, or commercial development occur, the number of daily trips would increase a great deal, and circulation onto Highway 1 could be difficult to accommodate. A traffic

study would definitely be required for any such proposed development. However, for the subject project, this impact is considered less than significant.

e) Would the project create objectionable odors affecting a substantial number of people?

No Impact. BAAQMD CEQA Guidelines classify a project that could create objectionable odors as including any of the following: wastewater treatment plant, sanitary landfill, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing, fiberglass manufacturing, rendering plants, coffee roasters, and painting/coating operations including auto body shops. The proposed project is an administrative act that is not a use identified by BAAQMD as one that could create objectionable odors. Potential development resulting by the expansion of the TVCSD is on property zoned for residential, agricultural, and commercial uses, which are also not listed as objectionable. There would be no impact.

f) Would the project contribute significantly to global climate change?

Less than Significant. As described above under the "Environmental Setting" sub-section, increases in GHG emissions could contribute to increases in global average temperatures and climate change. Climate change in turn could lead to sea level rise and other changes in environmental conditions.

The proposed project is administrative and though it may make future development of the subject properties more likely, any future development would require a separate review. Also, the proposed Sass development project on the five northwestern properties is residential and falls below the maximum allowed development on those properties. Any future development on the southeastern property is likely to be restricted by the presence of Tomales Creek and other sensitive resources and is also likely to be well below maximum potential development. The impact is considered less than significant.

g) Would the project substantially increase greenhouse gas emissions or expose people to substantial impacts from global climate change?

Less than Significant. Long-term operations of this project would not result in a net increase in CO_2 emissions that could contribute to global climate change. The cumulative increase in GHG concentrations in the atmosphere has resulted in and will continue to result in increases in global average temperatures and associated shifts in climatic and environmental conditions. Multiple adverse environmental effects are attributable to global climate change, such as sea level rise, increased incidence and intensity of severe weather events (e.g., heavy rainfall, droughts), and extirpation or extinction of plant and wildlife species. Given the significant adverse environmental effects linked to global climate change induced by GHGs, a substantial increase in the emission of GHGs is considered a significant impact. Any potential development that may arise as a result of this project is likely to be residential and below maximum allowed development amounts. As such, the project would likely not result in any net increase in GHG emissions. This impact is **less than significant**.

It is the increased concentration of CO_2 in the atmosphere resulting in global climate change and the associated consequence of climate change that results in adverse environmental affects, which could affect the region in direct and indirect ways:

- Sea level rise that affects the coastline to the west in Tomales Bay;

- Extreme heat conditions, such as heat waves and very high temperatures, which could last longer and become more frequent;
- An increase in heat-related human deaths and infectious diseases and a higher risk of respiratory problems caused by deteriorating air quality;
- Reduce snow pack and stream flow in the Sierra Nevada mountains, affecting winter recreation and water supplies;
- Potential increase in the severity of winter storms, affecting peak stream flows and flooding;
- Changes in growing season conditions that could affect California agriculture, causing variations in crop quality and yield; and
- Changes in distribution of plant and wildlife species due to changes in temperature, competition of colonizing species, changes in hydrologic cycles, changes in sea levels, and other climate-related effects.

The proposed project would not expose residents to sea level rise, adverse heat-related conditions, or changes to natural resources from altered water supplies and increased temperatures.

CONCLUSION REGARDING AIR QUALITY

The project, as mitigated, would result in a less than significant impact to air quality, greenhouse gas emissions, and climate change.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Tomales is a small community with a core downtown area, gently rolling grassy hills, trees, and Tomales Creek. The northwest subject properties have been previously disturbed by grading and minor development. The surrounding area for both northwest and southeast properties consists of commercial, agricultural, and residential development. The southeast property has Tomales Creek and accompanying sensitive resources running north-south through the site and is therefore likely home to several biological resources.

U.S. Fish and Wildlife Service species lists, the California Native Plant Society's *Inventory of Rare and Endangered Plants*, and California Department of Fish and Game's *California Natural Diversity Data Base* (CNDDB) were each reviewed for the U.S. Geological Survey 7.5-minute topographic quadrangles in and near where the project is located (*Point Reyes NE, Tomales, Drakes Bay, Inverness, Valley Ford, Two Rock, and Bodega Head*) to determine the potential for special-status plant and animal species to occur onsite. A list of such species was generated. However, the proposed project would not directly result in any physical changes to the subject properties and would therefore not directly impact any biological resources. Though it would make development more likely, any future development would require a separate review.

DISCUSSION OF IMPACTS

a) *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Less than Significant with Mitigation Incorporated. As indicated above, the proposed project would not directly effect or modify any habitat or special status species. The project does, however, have the potential to support future development on properties that are located within an area known to support habitat for special status species (the Coastal Zone). Of the subject properties, two have the potential to develop at higher density as the result of the proposed SOI extension, the Sass property, and the southeast property within the project area. The applicant in the Sass project has already had several studies prepared to evaluate development on the largest of the northwest properties. A wetlands assessment was completed and a total of approximately 0.9 acres of seasonal wetlands were found on the 5.23 acre northwestern property. The areas appeared to be hydrologically isolated and therefore might not fall under Army Corps of Engineers jurisdiction pursuant to Section 404 of the Clean Water Act. (Macmillan, 2004). The Corps verified this assessment in 2004 and should there be no filling of the wetlands area during development then no Corps permit will be required. (Sass Project Narrative, 2008). A plant ecologist conducted surveys of the 5.23 acre northwestern property and found that the small areas of wetlands on the site are not well developed and do not appear to provide suitable habitat conditions for regionally known sensitive plant species. The plant ecologist stated that there are no known locations of any such sensitive plant species in the immediate area and no such species were found during the4 surveys. He determined that development of the site could occur with relatively minor biological impacts. (Patterson, 2004) An arborist's report was prepared in 2004 in which all trees over 4" in diameter were examined on and around the 5.23 acre northwestern property. It was determined that development of the property would require removal of four trees. An Oregon Oak tree slated for removal is subject to Marin's Native Tree Protection Ordinance. The loss of this tree could be mitigated with planting two other Oregon Oak trees as replacements. (Balcerak Design, 2004). As all of these studies were done in 2004, the County might find it necessary to have the applicant conduct updates to determine if site conditions have changed in the intervening years.

No site specific studies have been prepared for the southeastern property, but this site also contains Tomales Creek and associated riparian habitat. It is likely that the southeastern property supports habitat for special status species. Consequently, future development on the sites proposed for inclusion within the TVCSD has the potential to impact habitat. With the southeast property it would be especially important to examine and mitigate all potential resources that could be impacted by development due to location of the Tomales Creek area.

MITIGATION MEASURE

MM IV.1 All proposed development that occurs on the 5.23 acre Sass property, or on the 7.29 acre southeastern property shall include a study of the species, habitat, and any wetlands areas present on the project site and suggesting mitigation measures that must be complied with to demonstrate that no sensitive or special-status species or habitats are impacted by the proposed development.

Timing/Implementation: *Prior to approval of extension of sewer service; Prior to and during construction*

Enforcement/Monitoring: *TVCSD, Marin County*

With implementation **MM IV.1**, this impact would be considered **less than significant**.

b) *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the CDFG or USFWS?*

Less than Significant with Mitigation Incorporated. As previously mentioned, the proposed project includes a property to the southeast with Tomales Creek running north-south through the site. This riparian corridor likely contains several sensitive species which would be discovered due to implementation of **Mitigation Measure IV.1** above should any development someday be proposed. The proposed project is an administrative act and therefore has no direct impact on any sensitive natural communities, though it does make future development on the subject properties more likely. However, due to the required development setback of 100' from the Creek, development on the southeastern site is likely to be very restricted. According to the CDFG and the USFWS, the subject properties may contain sensitive species. Due to the fact that no development is proposed at this time and with the implementation of **Mitigation Measures I.1 and IV.1**, the impacts are less than significant.

c *Would the project have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption or other means?*

Less than Significant with Mitigation Incorporated. As discussed in section IV.a above, at least one of the subject properties does contain approximately 0.9 acres of known wetlands. The Army Corps of Engineers confirmed that these wetlands are hydrologically isolated and contain mostly non-native species, no sensitive species, and a complete lack of native endemic seasonal wetland species. However, the proposed project is an administrative act and any future development would require a separate review. Therefore, with the implementation of **Mitigation Measure IV.1**, the proposed project would not have any significant effect upon federally protected wetlands.

d *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Less than Significant with Mitigation Incorporated. As shown in the Marin Countywide Plan's Natural Systems and Agriculture Element (2007), there are migratory routes or habitat for native wildlife species within the project vicinity. Riparian corridors, such as Tomales Creek, provide critical movement areas between both aquatic and terrestrial species. The project sites are in infill areas in the Village, but as the Village is small, it is possible that wildlife is still able to migrate through the community. Implementation of the proposed administrative project would not interfere with the movement of any fish or wildlife species or impede the use of native nursery sites or corridors, but any development that might result from this action could potentially impact species movement. Implementation of **Mitigation Measure IV.1** would provide the needed information and mitigation measures for future development and make any potential impact from this project less than significant.

e *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Less than Significant. It is not anticipated that implementation of the proposed project would directly conflict with any local policies or ordinances protecting trees or other biological resources. Marin County does have a tree preservation ordinance. Any future development on the project sites must comply with said ordinance. Compliance with these requirements would ensure that this impact would be less than significant.

f) *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?*

No Impact. There is no adopted Habitat Conservation Plans (HCP) or Natural Community Conservation Plan (NCCP) for the Village of Tomales or County of Marin, nor any conservation plans related to the subject properties; therefore, the project would not conflict with such plans. There are no impacts.

CONCLUSION REGARDING BIOLOGICAL RESOURCES

Implementation of **Mitigation Measures I.1 and IV.1** and compliance with the County's regulations and Department of Fish and Game requirements would ensure that the project would not result in significant impacts to biological resources.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

Tomales Village is a small, historic, coastal village. It was established as a key shipping site in 1850 and was once the location of a North Pacific Coast Railroad Depot. The old Tomales railroad station was once located on the largest northwestern project site, though there is no sign of it now. The core downtown area of the village is included within a Historic Area Boundary established by the Marin County Local Coastal Program, though the project sites are not within that boundary area. There are several historic buildings in this area. The existing residence on the large northwestern property was built in 1911. Though at this time there is no evidence that the house would be considered an historic structure, the status would need to be established as part of the Sass project review.

A cultural resources evaluation was conducted as part of the Sass development proposal in 2003. It found no sign of prehistoric habitation or use of the area, but recommended having experts onsite during initial ground disturbance in case there are more artifacts of the railroad station found. The proposed Sass development is including elements to honor the past railroad station site as part of their project. Other archaeological artifacts have been discovered in the area, such shell fragments and shaped stones.

The proposed project, which is an administrative act, would not result in any physical changes to any of the subject properties. Consequently, the proposed project would not impact any cultural resources, including historic, archaeological, paleontological, or geologic resources or human remains. The surrounding project area for both the northwestern and southeastern subject properties consists of commercial, agricultural, and residential development.

DISCUSSION OF IMPACTS

a-d) Would the project cause a substantial adverse change in the significance of a historical resource, archaeological resource, paleontological resource, unique geological feature, or human remains as defined in § 15064.5?

Less than Significant impact with Mitigation Incorporated. Any future proposed development project would be subject to the provisions of the California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.94 et seq., regarding the discovery and disturbance of human remains. However, the proposed project is administrative and though it may make future development of the subject properties more likely, any future development would require a separate review and mitigation measures to prevent disturbance of any cultural resources.

MITIGATION MEASURE

MM V.1 All construction associated with expansion of the SOI, and all proposed development that occurs on any one of the six subject properties shall include analysis, prepared by a qualified expert, to determine the presence of cultural resources and, if necessary, establish mitigation measures that must be complied with to ensure no cultural resources are impacted by the proposed development.

Timing/Implementation: *Prior to approval of project plans; Prior to and during construction*

Enforcement/Monitoring: *TVCSD, Marin County*

MM V.2 If cultural materials or archaeological remains are encountered during the course of grading or construction, the project contractor shall cease any ground disturbing activities near the find. A qualified archaeologist, approved by Marin County, shall be retained to evaluate significance of the resources and recommend appropriate treatment measures. Treatment measures may include avoidance, preservation, removal, data recovery, protection, or other measures developed in consultation with the Town.

Timing/Implementation: *During construction*

Enforcement/Monitoring: *TVCSD, Marin County*

Upon implementing **Mitigation Measures V.1 and V.2**, the proposed project would have less than significant impact on any cultural resources.

CONCLUSION REGARDING CULTURAL RESOURCES

Implementation of **Mitigation Measures V.1 and V.2**, and observance of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.94 et seq., would result in less than significant impacts to cultural resources.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS: Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

REGIONAL GEOLOGY, FAULTING, AND SEISMICITY

Earthquakes can cause strong ground shaking that may damage property and infrastructure. In more populated areas, the greatest potential for loss of life and property damage can come from ground shaking as a result of a nearby earthquake. The severity of ground shaking at any particular point is referred to as intensity and is a subjective measure of the effects of ground shaking on people, structures, and earth materials. The intensity of shaking generally decreases

with distance away from the source of an earthquake. The degree of damage depends on many interrelated factors. Among these are the Richter magnitude, focal depth, distance from the causative fault, source mechanism, duration of shaking, high rock accelerations, type of surficial deposits or bedrock, degree of consolidation of surficial deposits, high groundwater levels, topography, and design, type, and quality of construction.

Liquefaction occurs when loose sand and silt that is saturated with water behaves like a liquid when shaken by a seismic event, potentially resulting in a loss of soil strength and settling or subsidence. In some instances, lateral movements of the ground surface can also occur as a result of liquefaction through a phenomenon known as lateral spreading. Liquefaction and lateral spreading can constitute a significant geologic hazard causing damage to buildings and other site improvements.

The subject properties are in the northern portion of the Coast Ranges geomorphic province of California, which is characterized by northwest-trending mountain ranges and valleys that generally parallel the major geologic structures such as the San Andreas and Hayward faults. Seismic activity within the Coast Ranges is generally associated with active faults of the San Andreas system, which includes major active faults both east and west of the project sites.

The active fault nearest the subject properties is the San Andreas, located approximately 4.5 kilometers west of the site. There are no known faults in the immediate vicinity or crossing the site.

Several large earthquakes have occurred in the region during historic times. These included several earthquakes on the Hayward fault as well as earthquakes on the San Andreas and Calaveras faults. These earthquakes ranged in Richter magnitude from 6.0 to 8.3.

The oldest mapped bedrock unit within the Coast Ranges Province is the Franciscan Complex, a diverse group of igneous, sedimentary and metamorphic rocks of Upper Jurassic to Cretaceous age (140 to 65 million years old). Since deposition, the bedrock materials have been subjected to faulting and folding. These rocks are part of a northwest-trending belt of material that lies along the east side of the San Andreas fault system. Locally, these older bedrock deposits are overlain by younger, Quaternary age (less than 2 million years old) marsh, alluvial, and colluvial deposits.

LOCAL GEOLOGY AND TOPOGRAPHY

The project sites are located approximately 4 miles inland from Tomales Bay in Marin County. Site elevation ranges from approximately 50 to 200 feet above sea level. The Tomales Creek runs north-south through the southeastern property. In general, the area of the subject properties is gently hilly.

The site is underlain by the Wilson Grove formation, consisting mostly of sandstone that is light colored, moderately weathered, silty, with occasional cemented gravel, and fine to medium grained. The Wilson Grove is near-horizontally bedded, with a slight dip to the north, and is of late Pliocene to Pleistocene age. It is reported to be over 1,000 feet thick in the greater Sebastopol area. The Wilson Grove formation overlies the Franciscan Assemblage where greywacke sandstone is exposed to the south along the banks of Keys Creek. Alluvial deposits of unconsolidated silt, clay and sand are present in Keys Creek and other drainage ravines and valleys in the area.

The site is underlain by over 200 feet of Wilson Grove sediments that decrease in thickness to the south where the Wilson Grove formation is in surface contact with the Franciscan Assemblage.

In the Northern San Francisco Bay Area, plate fault movement is distributed across a complex system of strike-slip, parallel and sub-parallel faults which include the San Andreas, Healdsburg/Rodgers Creek, and Maacama among others. The project properties are not located within an earthquake Fault Zone as defined by California Geologic Survey in accordance with the Alquist-Priolo Earthquake Fault Zone Act of 1972. The nearest faults considered seismically active (experiencing surface rupture within the last 11,000 years) and capable of producing large earthquakes are the San Andreas fault located approximately 2.8 miles (4.5 km) west of the site, the Maacama fault located approximately 17 miles (28 km) east of the site. Based upon empirical data and the length of the San Andreas Fault, the maximum credible earthquake for this fault is approximately 8.3 Magnitude (Richter Scale), or 7.1 Moment Magnitude. The intensity of future shaking will depend on the distance from the site to the earthquake focus, magnitude of the earthquake, and the response of the underlying soil and bedrock.

A number of large earthquakes have occurred within this region in the historic past. Some of the significant nearby events include two 1969 Santa Rosa earthquakes, the 2000 Napa earthquake, and the 1906 San Francisco earthquake. These earthquakes have ranged in Magnitude from 5.0 to 8+. Future seismic events in this region can be expected to produce strong seismic ground shaking at the project sites.

Peak bedrock accelerations the project sites are anticipated to be from three different sources, including Seed and Idriss (1982) and Boore, Joyner and Fumal (1993 and 1997). Based on the results of evaluation conducted on the Sass project site of soil and bedrock acceleration data, anticipated peak bedrock accelerations approaching 0.30g for the Rodgers Creek fault, 0.65g for the San Andreas Fault and 0.25 for the Maacama fault can be expected at the sites.

The northwestern project sites are blanketed with sandy silts and silty sands that are generally stiff and dense. Beneath the silty surface soils, clayey, silty and sandy soils are found that are generally stiff and dense. Highly weathered sandstone bedrock is found at 5.5 feet to 8 feet below the existing ground surface. The bedrock becomes less weathered with depth. The southeastern subject property has not had the same geotechnical studies completed at this time.

Liquefaction at the northwestern project sites is unlikely as the granular soils are generally medium dense to dense, bedrock is found at 5.5 to 8 feet and the water table was not encountered during the time of the investigation (more than 15 feet below the existing ground surface). The potential for other secondary seismic effects to occur at the northwestern project sites, such as lateral spreading and lurching, is considered to be low. Landslides were not identified on the northwestern sites during the investigation. The northwestern sites have a generally flat character while the southeastern property has more topographic variation. (Kleinfelder, 2004)

A series of maps were prepared to provide a geologic basis for the Marin County General Plan Natural Systems and Agriculture Element. These maps show no landslides or active faults in the vicinity of the site.

DISCUSSION OF IMPACTS:

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*

Less than Significant. The subject properties are located approximately 3 miles from the San Andreas fault. The site is not located within a state-designated Alquist-Priolo Earthquake Fault Zone where site-specific studies addressing the potential for surface rupture are required. No known faults traverse the site. Therefore, the potential for impacts associated with fault rupture are considered less than significant.

ii) *Strong seismic ground shaking?*

Less than Significant. The entire San Francisco Bay Area is subject to periodic earthquake ground shaking. The Working Group on California Earthquake Probabilities has estimated that there is a combined risk of 21 percent that a large earthquake (magnitude approximately 6.7 or greater) will occur on the San Francisco segment of the San Andreas fault. Overall, the USGS estimates a 62 percent probability of one or more large earthquakes occurring within the San Francisco Bay Region by the year 2031.

All structures constructed or installed as part of future proposed project would be designed in compliance with the requirements of Title 24 of the Building Code for seismic safety. The Building Code provides minimum standards to preserve the public peace, health, and safety by regulating the design, construction, quality of materials, certain equipment, location, grading, use, occupancy, and maintenance of all buildings and structures.

Compliance with the engineering requirements of the Building Code would ensure that the risk of structural failure during a seismic event is minimized to the greatest degree feasible. As a result, the risk of adverse effects from strong seismic ground shaking would be minimal and is considered a less than significant.

iii) *Seismic-related ground failure, including liquefaction?*

Less than Significant. Earthquakes can cause strong ground shaking that may damage property and infrastructure. In more populated areas, the greatest potential for loss of life and property damage can come from ground shaking as a result of a nearby earthquake. The severity of ground shaking at any particular point is referred to as intensity and is a subjective measure of the effects of ground shaking on people, structures, and earth materials. The intensity of shaking generally decreases with distance away from the source of an earthquake. The degree of damage depends on many interrelated factors. Among these are the Richter magnitude, focal depth, distance from the causative fault, source mechanism, duration of shaking, high rock accelerations, type of surficial deposits or bedrock, degree of consolidation of surficial deposits, high groundwater levels, topography, and design, type, and quality of construction.

Liquefaction occurs when loose sand and silt that is saturated with water behaves like a liquid when shaken by a seismic event, potentially resulting in a loss of soil strength and

settling or subsidence. In some instances, lateral movements of the ground surface can also occur as a result of liquefaction through a phenomenon known as lateral spreading. Liquefaction and lateral spreading can constitute a significant geologic hazard causing damage to buildings and other site improvements.

Compliance with current building code requirements would ensure that all structures installed or constructed on the project site would be designed to withstand the effects of seismic-related ground failure, including on- or off-site landslide, lateral spreading, subsidence, collapse, or liquefaction.

iv) *Landslides?*

Less than Significant with Mitigations Incorporated. The majority of the project area contains moderate slopes and are not adjacent to any significant slopes with landslide or mudflow potential. The 7.29 acre property located in the southeastern portion of the project area is bisected by Tomales Creek, and contains areas where the steepness of the slope is approaching the stability limits of the underlying materials. This condition has the potential to expose future improvements to landslide or slumping, or to cause landslides or slumping as the result of physical improvements. Implementation of **Mitigation Measure I.1** would eliminate this potential impact.

b-d) Would the project result in substantial soil erosion or the loss of topsoil? Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction or collapse? Would the project be located on expansive soil, as defined in Table 18 1 B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Impact. All structures constructed or installed as part of any future proposed project would be designed in compliance with the requirements of Title 24 of the Uniform Building Code (UBC) for seismic safety. The Building Code provides minimum standards to preserve the public peace, health, and safety by regulating the design, construction, quality of materials, certain equipment, location, grading, use, occupancy, and maintenance of all buildings and structures.

The southeastern project site is moderately hilly with the Tomales Creek running though the property, so any potential development should have a thorough study to prevent impact on sensitive resources. Cutting, grading, or filling would need to be properly situated on the property to prevent impact. As discussed above, future proposed development will require separate review.

The proposed project is administrative and though it may make future development of the subject properties more likely, any future development would require a separate review. The use of septic tanks or alternative wastewater disposal systems would be avoided by the approval of this project and requirement of future development to be part of the Tomales Village Community Services District wastewater treatment system. No mitigation is necessary, as **no impacts** or changes to existing conditions associated with geology and soils would occur as a result of the proposed project.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The project proposes to extend sewer service to the subject properties. To the extent that soils or groundwater conditions would render septic systems infeasible, the proposed project would provide a safe alternative to on-site sewage disposal.

CONCLUSION REGARDING GEOLOGY AND SOILS

Implementation of the proposed project, as mitigated, would not result in any significant impacts related to geology and soils, and no mitigation measures are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

HAZARDOUS MATERIALS DEFINED

Under Title 22 of the California Code of Regulations (CCR), the term hazardous substance refers to both hazardous materials and hazardous wastes. Both of these are classified according to four properties: toxicity, ignitability, corrosiveness, and reactivity (CCR Title 22, Chapter 11, Article 3). A hazardous material is defined as a substance or combination of substances that may cause or significantly contribute to an increase in serious, irreversible, or incapacitating illness, or may pose a substantial presence or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been discarded, discharged, spilled, or contaminated or are being stored until they can be disposed of properly (CCR Title 22, Chapter 11, Article 2, Section 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific CCR Title 22 criteria. While hazardous substances are regulated by multiple agencies, cleanup requirements of hazardous wastes are determined on a case-by-case basis according to the agency with lead jurisdiction over the project.

Public health is potentially at risk whenever hazardous materials are, or would, be used. It is necessary to differentiate between the "hazard" of these materials and the acceptability of the "risk" they pose to human health and the environment. A hazard is any situation that has the potential to cause damage to human health and the environment. The risk to health and public safety is determined by the probability of exposure, in addition to the inherent toxicity of a material (DTSC).

Factors that can influence the health effects when human beings are exposed to hazardous materials include the dose the person is exposed to, the frequency of exposure, the duration of exposure, the exposure pathway (route by which a chemical enters a person's body), and the individual's unique biological susceptibility.

EXISTING PROJECT SITE CONDITIONS

According to aerial photographs of the project area, the northwestern project sites have been used for rural residential uses since 1953 (Baur, page 18). Historically, those properties were used by North Pacific Coast Rail Road until 1930. On the five northwestern properties, there is currently one residence and several accessory barn and shed structures, a septic tank, and two wells as existing structures. There are also various piles of debris. There has been storage of vehicles, motor oil, gasoline, and diesel fuel on the largest northwestern property in the past, though there were no underground storage tanks. During the Bauer study, there were no significant visual signs of leaking where the oil was stored (Bauer, page 10). Due to the age of the existing house (almost 100 years old), there may be asbestos containing materials and/or lead-based paint in areas of the house.

The southwestern site is currently vacant and has no proposed development. Aerial photographs going back 16 years show the land as undeveloped. Any future development on that property is likely to be restricted by the presence of Tomales Creek and accompanying sensitive resources and required 100 foot buffer area.

A review of the California Department of Toxic Substances Control (DTSC) EnviroStor Database shows that there are four Leaking Underground Fuel Tank (LUFT) sites within 0.5 miles of the project sites, but no other listed hazard sites.

The Sass project is proposed for the two largest northwestern properties. That project would consist of establishing 12 homesites, development of which would occur over time.

DISCUSSION OF IMPACTS:

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

No Impact. The proposed project, which is an administrative act, does not include any component that bears relation to the transport, use, or disposal of hazardous materials, nor does any component of the project bear relation to a hazardous materials site or risk of upset, emissions, or accident conditions associated with hazardous or acutely hazardous materials. The proposed project would not have any influence upon safety associated with the use and operation of public airports, public use airports, or private airstrips. The proposed project does not have any components that would change existing conditions such that people or structures would be exposed to a significant risk of loss, injury, or death involving wildland fires. The proposed project would not impair implementation of or physically interfere with the implementation of an adopted emergency response or evacuation plan.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant With Mitigation Incorporated. As discussed in VII.a), and VII.c-h), Hazards and Hazardous Materials, the proposed project would not result in the routine transport, use, disposal, handling, or emission of any hazardous materials that would create a significant hazard to the public or the environment. However, potential future construction-related hazards could be made more likely by this project. During the course of future construction on the subject properties, impacts from hazards and hazardous materials could be potentially significant given that construction activities involve the use of heavy equipment, which uses small amounts of oils and fuels and other potentially flammable substances.

MITIGATION MEASURE

MM VII.1 Any future construction staging area for any of the project sites shall be identified on the project plans, including the area that will be used for storing materials and equipment. Storage areas shall be located a minimum of 30 feet away from sensitive uses (nearby residents, operating school facilities, drainages, etc.). During project construction, the staging area shall be fenced, secured, and have access restricted.

Timing/Implementation: *Prior to approval of project plans; Prior to and during construction*

Enforcement/Monitoring: *Marin County*

Implementation of **Mitigation Measure VII.1** would ensure that potential impacts from materials used at the project sites during construction would be reduced to **less than significant**.

c-h) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter mile of an existing or proposed school? Would the project be located on a site which is included on a list of hazardous materials

sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? Would the project for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? Would the project for a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The proposed project, which is an administrative act, does not include any component that bears relation to the transport, use, or disposal of hazardous materials, nor does any component of the project bear relation to a hazardous materials site or risk of upset, emissions, or accident conditions associated with hazardous or acutely hazardous materials. The proposed project would not have any influence upon safety associated with the use and operation of public airports, public use airports, or private airstrips. The proposed project does not have any components that would change existing conditions such that people or structures would be exposed to a significant risk of loss, injury, or death involving wildland fires. The proposed project would not impair implementation of or physically interfere with the implementation of an adopted emergency response or evacuation plan. No mitigation is necessary, as **no impacts** or changes to existing conditions associated with hazards or hazardous materials would occur as a result of the proposed project.

CONCLUSION REGARDING HAZARDS AND HAZARDOUS MATERIALS

Incorporation of **Mitigation Measure VII.1** would insure that implementation of the proposed project would not result in any significant impacts related to hazards and hazardous materials.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☒	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project area is located about 3 miles inland from Tomales Bay in the Tomales Bay watershed. The Tomales Bay watershed extends from Mount Tamalpais and Bolinas Ridge, east to the headwaters of Walker Creek and Nicasio and Lagunitas Creeks, and west to the Inverness Ridge. Tomales village is one of eleven small towns in the Tomales Bay watershed. The Tomales Bay Watershed includes a broad diversity of both aquatic and terrestrial habitats. Much of the local economy is based on the rich natural resource base such as agriculture, mariculture, and recreation-oriented goods and services. (Tomales Bay Watershed Council, 2003).

Tomales Creek, the closest major natural drainage, runs through the middle of the southeastern project property, which is less than 0.5 miles from the northwestern project properties. Keyes Creek lies further south of the project area.

Section 303(d) of the federal Clean Water Act (CWA) requires states to identify the waters of the state that do not meet the CWA's national goal of "fishable, swimmable" and to develop "total maximum daily loads" (TMDLs) for such waters, with oversight of the Environmental Protection Agency (EPA). All areas of the San Francisco Bay are identified on the CWA Section 303(d) list as impaired waters (SWRCB, 2006).

PROJECT SITE ELEVATION AND DRAINAGE

The elevation of the northwest project sites are approximately 110 to 130 feet above sea level with average slopes of 7% across the site. The northwest project sites are located on the south side of an east-west ridge, near the bottom. The area tributary to these sites is partially developed with low-density residential housing. The undeveloped land is covered with grasses, scattered bushes and a few trees. The tributary drainage area is approximately 36 acres. Of this area, approximately 26.2 acres drain to the west side of the project area, discharging into an existing ditch. Approximately 9.9 acres drain to the east side of these project sites and discharge into existing culverts in Carrie Street and down Dillon Beach Road. This drainage flows down Dillon Beach Road before being directed into Tomales Creek on the east side of State Route 1. (Oberkamper, pg 4-5)

Storm runoff comes down from the intersection of Second and Railroad along the west side of Carrie Street. There are minimal drainage provisions along this portion of Carrie Street uphill from the sites. Sediment from runoff was observed along the western edge of Carrie Street by Oberkamper representatives during a site visit. A corrugated metal pipe carries runoff from the west side of Carrie Street to a swale along the east side. Properties east of Carrie Street are lower in elevation and have been prone to flooding. There is also ponding on the Sass property site near the portion of the property that fronts along Carrie Street. The water ponds until it reaches a level where it begins to drain into the corrugated metal pipe discussed above. There is also evidence of sheet flow across a neighboring property that drains into a ditch on the north side of Dillon Beach Road. (Oberkamper, pg 5).

The elevation of the southeast project site ranges from approximately 50 to 200 feet above sea level. The site topography is dominated by Tomales Creek. The site slopes down from Highway 1 into the creek area, and then slopes back upwards to the east and southeast towards the High School site. The site is entirely undeveloped land and, aside from the area taken up by Tomales Creek, is covered with grasses, scattered bushes and a few trees.

The Marin County Stormwater Pollution Prevention Program requires that peak flows from development be controlled to pre-development rates. Project applicants must also be

responsible for maintaining permanent stormwater treatment facilities (such as bio-retention facilities) until the responsibility is transferred to a subsequent owner.

WATER SOURCES

Potable water for Tomales is provided by private, individual wells tapped into local groundwater sources. The Community Plan suggests that there are no area-wide estimates of groundwater availability. The on-site water sources are required to be proven before new development can take place.

A limited-scope hydrological assessment report was written by Kleinfelder, Inc. in 2005, and then updated to a Water Plan for the proposed Sass project in 2008. Two new wells were drilled for the Sass development on the large northwestern subject property. The 2005 study showed that the aquifer was able to transmit groundwater at rates sufficient to supply water to both new wells. Outside wells were not adversely impacted by the pumping tests performed and showed adequate recovery.

There are three potential other sources of water for the area – deep wells and springs, Walker Creek, and Stemple Creek. The Community Plan recommends conducting a Groundwater Supply Study to determine the extent of the local groundwater supply and to develop recommendations for long-range planning. (Marin LAFCO, 2008, page 7)

The northwestern project area is underlain by the Wilson Grove formation, which consists of weakly consolidated sedimentary rocks, and the underlying Franciscan Assemblage. (Kleinfelder, 2004, pg 5) The Wilson Grove formation is a source of local groundwater, which has always been a successful source in the past for providing adequate resources for low-yield residential well use. The Wilson Grove formation is reported to be over 300 feet thick in the greater Tomales area. Recharge takes place in the winter and, since the watershed for the area is relatively small, recharge, even during drought years, would be relatively small. (Kleinfelder, 2004, pg 7).

According to Kleinfelder maps, the southeastern project site is underlain by areas of alluvium, which is unconsolidated stream and valley sediments, and by Franciscan mélange, which is undivided sedimentary and igneous rocks, mostly greywacke sandstone and shale with occasional greenstone and chert. (Kleinfelder, Inc., 2004, geologic map). It is unclear to what degree the groundwater under this project site would differ from the northwestern project site. Future development would need to provide information about on-site water sources before receiving approval.

FLOODING

According to Federal Emergency Management Agency (FEMA) flood hazard maps, none of the project properties is located within a flood hazard zone (FEMA, 2001, 2004). In fact, none of Tomales is in a flood hazard zone, though areas to the south along Keys Creek are in a 100 year hazard zone.

DISCUSSION OF IMPACTS:

a) Would the project violate any water quality standards or waste discharge requirements?

Less than Significant with Mitigations Incorporated. The proposed project would not result in physical changes to any of the project sites. Future development of these sites would result

in site preparation, resurfacing, and other construction activities that could result in minor sedimentation or the release of other construction-related pollutants to area waterways if the project was to occur during the rainy season. Unless future projects implement Best Management Practices to treat stormwater, there could be an impact to water quality standards.

MITIGATION MEASURE

MM VIII.1 Confirm that development proposals are in compliance with the Stormwater Pollution Prevention Program (SWPPP) that identifies specific Best Management Practices to be implemented and maintained on-site during construction in accordance with the NPDES General Construction and Municipal Stormwater Discharge Program permits.

Timing/Implementation: *Before extension of sanitary sewer service to any property, during construction*

Enforcement/Monitoring: *TVCSD, County of Marin*

Implementation of **Mitigation Measure VIII.1** would ensure that potential impacts on water quality standards or waste discharge requirements would be reduced to **less than significant**.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less than Significant. Potable water for Tomales is provided by private, individual wells tapped into local groundwater sources. There are three other potential sources of water in the project area – deep wells and springs, Walker Creek, and Stemple Creek. Recent analysis of water supply in the community indicate that the existing source of local groundwater has always provided adequate water for low-yield residential well use. Because of the potential for seasonal changes, geologic differences within the community, and potential changes in water quality and yield requirements, individual projects are required to demonstrate that adequate water is available to serve the project needs. The requirement that on-site water sources be proven before new development can take place will ensure that groundwater supplies remain adequate.

c-d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Less than Significant with Mitigations Incorporated. The majority of the project site is located in gently sloping areas. The site preparation (e.g. scraping), resurfacing, and other construction activities associated with future development would not substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or off-site or would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. Future development of the 7.29 acre parcel located in the southeastern portion of the project area, however, is bisected by Tomales Creek and development on this site has the

potential to contribute to erosion and siltation within the watershed. Implementation of **Mitigation Measure I.1** would eliminate this potential impact.

e-f) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant. Future development on the subject properties would introduce new impervious surface in the Town of Tomales. While the amount of stormwater runoff would increase as the result of this change, the amount of runoff would not dramatically increased because the project area makes up such a small percentage of the watershed area. No new stormwater drainage facilities or the expansion of the capacity of existing facilities are necessary to accommodate the project.

g-i) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. According to Federal Emergency Management Agency (FEMA) flood hazard maps, none of the project properties is located within a flood hazard zone (FEMA, 2001, 2004). In fact, none of Tomales is in a flood hazard zone. Implementation of the proposed project would not place any housing or other improvements within a flood zone or impede or redirect flood flows. There is no impact.

j) Would the project be at risk of inundation by seiche, tsunami, or mudflow?

No Impact. A seiche is a periodic oscillation of a body of water such as a reservoir resulting from seismic shaking or other causes such as landslides. The project site is not located near any reservoirs or other enclosed bodies of water capable of seiche.

A tsunami is a series of waves that are caused by earthquakes that occur on the seafloor or in coastal areas. The project site is located approximately one mile from the San Francisco Bay margin at more than 40 feet above sea level. The location and elevation of the site are such that it would not be inundated by a tsunami.

A mudflow is a flow of dirt and debris that occurs after intense rainfall or snowmelt, volcanic eruption, earthquakes, and severe wildfires.

The project vicinity is located inland, and is separated from Tomales Bay and the Pacific Ocean by topographic features that will protect the project area from tsunami and siche. The project area contains moderate slopes, but the project site itself is not adjacent to any significant slopes with landslide or mudflow potential. The project area is surrounded by land that has supported stable development for more than 100 years.

CONCLUSION REGARDING HYDROLOGY AND WATER QUALITY

Implementation of **Mitigation Measures MM I.1** and **MM VIII.1** would ensure that potential impacts to water quality would be reduced to **less than significant**.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	☐	☒	☐	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☒	☐	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

Five (5) of the subject properties are located in northwest Tomales and are currently undeveloped except for one residence, two wells, and several dilapidated accessory structures. According to the Community Plan, these properties could all potentially be developed with both residential units and second residential units. The three (3) northernmost, smaller lots are approximately 7,200 sq ft each and are zoned C-RSP-7.26 (Coastal, Residential, Single-Family Planned/7.26 units per acre). These 3 properties could each potentially be developed with a maximum of 1 main residential unit and they each have the potential for second residential units. The property located diagonally to the northeast (102-041-40) is approximately 10,600 sq ft and is zoned C-RSP-7.26. This lot could potentially be developed with one main residential unit and one second residential unit. All of these lots are designated as Coastal Single Family (C-SF6) under the Marin Countywide General Plan, which allows 4-7 units per acre. The larger property adjacent to the south of these four smaller properties is approximately 5.74 acres and has split zoning: the western half of the property is zoned C-ARP-2 (Coastal, Agricultural, Residential Planned/2 units per acre) and the eastern half is zoned C-RSP-7.26. Under the Marin Countywide General Plan, the western portion is designated Coastal Agricultural (C-AG3), which allows 1 unit per 1-9 acres, and the eastern portion is designated C-SF6. Maximum development potential for this property is approximately 22 lots (at 6,000 s.f. each) on the eastern portion of the property, each also potentially having second residential units; the western portion could potentially have one main residential unit and one second unit, for a total of 23 units.

This larger northwestern parcel is part of the Sass development proposal that is currently proposed to the County of Marin. The Sass project proposes to subdivide 3 vacant lots into 12 residential home sites. The Sass project in total proposes the subdivision of the properties, improvement with some infrastructure (such as driveways and roadways), and proposed Design Guidelines for the future residential structures that would be located on the new lots.

The one (1) subject property located in southeast Tomales is approximately 7.29 acres and is zoned C-VCR:B-4 (Coastal, Village, Commercial-Residential/min. lot area 1 acre). Under the Marin Countywide General Plan, this property is designated C-NC (Coastal Neighborhood

Commercial/Mixed Use) which allows 1-20 units per acre. Together, these land use designations would potentially allow from 7 to 145 units. This lot is currently undeveloped and is bisected by Tomales Creek. The lower number of potential units is the property zoning, while the higher potential density is from the General Plan designation. The property could also potentially be developed with commercial development at a floor area ration (FAR) of 0.3-0.5 which could mean from 95,265 square feet to 158,776 square feet of development.

MARIN COUNTYWIDE PLAN

Countywide Plan land use designations for the subject properties are:

- California Coastal Zone; Single Family Residential, 4-7 units per acre (C-SF6)
- California Coastal Zone, Neighborhood Commercial/Mixed Use (C-NC), and
- California Coastal Zone, Agricultural, one unit per 1-9 acres (C-AG3)

Marin Countywide Plan Implementation Program CD-1.c suggests that the Marin County Development Code be amended to calculate residential density and commercial floor area ratio (FAR) at the low end of the density range for properties that lack public sewer systems. In September of 2009, no such Development Code amendment has been completed.

Marin Countywide Plan Implementation Program and CD-5.e states that density is to be calculated at the lowest end of the Countywide Plan designation range for subdivisions proposed in areas without public water and/or sewer service. This Implementation Program applies to residential development.

Table IX.1 below identifies the existing and potential development on each of the subject properties and indicates the development maximums at the lower and upper ends of the density/intensity range established by the Countywide Plan.

For the purpose of evaluating potential environmental impacts, this analysis assumes that extension of sewer service has the effect of increasing the residential development potential on each of these properties from the lower end of the density range to the upper end of the density range. Because Implementation Program CD-5.e does not apply to commercial development, the proposed project would not impact on commercial development potential.

The project area is located within the Coastal Corridor as designated in the Countywide Plan. This Corridor is designated for federal parklands, recreational uses, agriculture, and the preservation of existing small coastal communities, and is governed by the Local Coastal Program.

LOCAL COASTAL PROGRAM UNIT 2

The Marin County Local Coastal Program (LCP) Unit 2, adopted in 1981, establishes residential buildout figures for all of the village areas in Marin County. These numbers are largely based on the County's existing plans at the time the LCP was written, with select modifications to bring the plans into conformance with the Coastal Act. For the village of Tomales, the LCP relies on the community expansion boundary drawn in 1977 to establish a potential buildout number. At the time the program was adopted in 1981, the village of Tomales had 72 existing residential units. The LCP anticipates that at full buildout Tomales village would have 160 residential units.

Therefore, in 1981, when the LCP was adopted, Tomales had the potential for an additional 88 residential units.

TOMALES COMMUNITY PLAN

The Tomales Community Plan contains many policies that direct land use planning. For the purposes of this analysis, it is the policies related to the extension of sewer service and community character, and stream conservation. The following policies are central to the land use analysis.

Policy PF-1.1:	Limits expansion of the sewer service area to the central areas of Tomales. Specifically, the service boundaries are to correlate with the C-VCR, C-CP and C-RSP zoning district boundaries.
Community Goal 1:	Seeks to "Retain the existing small and intimate scale of Tomales village. Limit village expansion and maintain low residential densities and non-residential building intensities to ensure preservation of surrounding Coastal Zone open spaces." (Community Plan, page 1-2).
Policy CD-1.1:	Limits village expansion to infill lots and to retain the small and intimate nature of Tomales village. Development in Tomales should not be "out of scale, size, or social character" with the existing village of Tomales.
Policy CD-2.2:	Limits density on C-VCR sites. "Land zoned as C-VCR should maintain minimum lot sizes for residential purposes as specified by attached "B-district" density suffixes that are shown on the Tomales Community Plan Zoning and Land Use Map. Residential density on C-VCR zoned properties in the commercial core of the village is one unit per 6,000 square feet, as in adjacent, residentially zoned land. C-VCR zoned land in presently undeveloped areas is limited to one residential unit per acre in order to protect and conserve agriculture, views, ridgelines, slopes, and open spaces..."
Policy CD-1.7:	Enforces the Marin Countywide Plan Stream Conservation area requirement requiring a set back of at least 100 feet from Tomales Creek.

Of all of the above documents and their policies – the Countywide Plan (2007), the Community Plan (1997), and the Local Coastal Program (1981), the Countywide Plan, adopted in 2007, is by far the most recent. While the other two documents reflect past development trends, the Countywide Plan provides governing land use designations and the most recent information on potential development projections.

TABLE IX.1:
TVCSD BOUNDARY EXPANSION PROJECT SITE PROPERTY DETAILS

APN	Address	Acreage	Zoning	Marin Countywide General Plan Designation	Current # of Developed Units	Development Potential
102-041-41	Second Street	7,200 sq ft	C-RSP-7.26 (Coastal, Residential, Single-Family Planned/7.26 units per acre)	C-SF6 (Coastal Single Family) 4-7 units/acre	None	1 primary and 1 2nd residential unit
102-041-42	263 Second Street	7,200 sq ft	C-RSP-7.26	C-SF6	None	1 primary and 1 2nd residential unit
102-041-43	Second Street	7,200 sq ft	C-RSP-7.26	C-SF6	None	1 primary and 1 2nd residential unit
102-041-40	Second Street	±10,600 sq ft (.24 acre)	C-RSP-7.26	C-SF6	None	1 primary and 1 2nd residential unit
102-041-44	290 Tomales-Dillon Beach Rd	5.23 acres total (West: approx 2.14 acres East: approx 3.09 acres)	Western: C-ARP-2 (Coastal, Agricultural, Residential Planned/2 units per acre) Eastern: C-RSP-7.26	West: C-AG3 (Coastal Agricultural) 1 unit/1-9 acres East: C-SF6	One	West: 1 unit East: 12-22 units
102-080-08	26700 State Route 1	7.29 acres	C-VCR:B-4 (Coastal, Village, Commercial-Residential/min. lot area 1 acre)	C-NC (Coastal Neighborhood Commercial/Mixed Use) 1-20 units/acre FAR: 0.3-0.5	None	7 units (zoning) 7-145 units (General Plan) 95,265 – 158,776 sq. ft.

DISCUSSION OF IMPACTS

a-b) Would the project physically divide an established community? Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less than significant impact with mitigation incorporated. The proposed project would extend sewer service to properties within the Town of Tomales, and would not directly physically divide the established community. The subject properties are all infill lots located in the Town of Tomales that are designated for agricultural, residential, and commercial use. These uses are similar to existing uses and development on surrounding properties. The proposed project does not propose any changes in existing land use designations or result in development that differs from the type and intensity contemplated in the Countywide Plan. One of the subject properties located in the southeastern portion of the project area is bisected by Tomales Creek. The Countywide Plan and Tomales Community Plan establish a 100 foot Stream Conservation Area buffer as measured from the top of creek bank. Given the location of the creek, the configuration of the subject property, and the intensity of development contemplated by the Countywide Plan, future development at this site has the potential to conflict with Stream Conservation area policies identified in the Countywide Plan, Local Coastal Program, and Tomales Community Plan. Because Countywide Plan policies calculate residential density at the lower end of the density range, the proposed SOI expansion has the potential to compound potential conflicts with stream conservation policies by substantially increasing development potential on this constrained site. Since no development is proposed at this time, it is unknown what could possibly be developed on that site. At the time that development is proposed for this site, potential environmental impacts from sewage disposal would likely be reduced by connecting to the public sewer, but the decision to extend sanitary service should be made through separate, site and project specific review by the County of Marin to evaluate and possibly limit density to meet land use policies.

Implementation of the **Mitigation Measure MM I.1** to remove the 7.29 acre southeastern property from the project description would ensure that potential impacts on land use and planning would be reduced to **less than significant**.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

Less than significant impact with mitigation incorporated. Tomales village is located within the Coastal Zone. Tomales Creek crosses through a portion of the project area and is subject to the Stream Conservation Area (SCA) policies established in the Countywide Plan, the LCP, and the Community Plan. Both the LCP and SCA policies have been established to conserve natural resources. Though the proposed project will not directly result in development, extension of sewage disposal service to the subject properties has the potential to result in greater development intensity than would be allowed under existing Countywide Plan policies.

The County of Marin has established development review requirements that ensure that proposals are consistent with the Countywide Plan, LCP and Community Plan policies and the California Environmental Quality Act (CEQA). Specifically, the County has the authority to impose Design Review, Coastal Permit, Use Permit and Subdivision Map Act requirements

to even minor development proposals. All of these discretionary applications must comply with CEQA. In general, these regulatory controls are adequate to mitigate potential impacts to a less than significant level. Extension of sewer service to the most southeastern property within the project area, however, has the potential to increase development potential from 7 to 145 residential units and/or up to 158,776 sq. ft. of commercial development on property that is subject to the SCA policies. The increase in development potential, together with the environmental constraints of this site, has the potential to conflict with natural community conservation objectives of the SCA. This potential impact can be mitigated to a less than significant level.

MITIGATION MEASURE

MM IX.1 Confirm that development proposals have secured all necessary land use approvals from the County of Marin and the California Coastal Commission, including CEQA.

Timing/Implementation: *Before extension of sanitary sewer service to any property.*

Enforcement/Monitoring: *TVCSD*

Implementation of the **Mitigation Measure MM I.1** and **IX.1** would ensure that potential impacts on land use and planning would be reduced to **less than significant**.

CONCLUSION REGARDING LAND USE AND PLANNING

Incorporation of **Mitigation Measures I.1 and IX.1** would make implementation of the proposed project result in less than significant impacts to land use and planning.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project sites are located on infill parcels within the Village of Tomales that is not currently known to contain mineral resources. The closest designated minerals resource site to the village of Tomales is the Lawson's Landing Quarry located near Dillon Beach, approximately four miles to the west.

The proposed project is administrative and though it may make future development of the subject properties more likely, any future development would require a separate review. The surrounding project area for both sites consists of commercial and residential development that has not been historically used for mining operations.

DISCUSSION OF IMPACTS

a-b) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. The proposed project, which is an administrative act, would not result in any physical changes to any project sites. The proposed project would not result in the loss of availability of mineral resources. No mitigation is necessary, as **no impacts** or changes to existing conditions associated with mineral resources would occur as a result of the proposed project.

CONCLUSION REGARDING MINERAL RESOURCES

Implementation of the proposed project would not result in significant impacts to mineral resources.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. NOISE: Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Vehicle traffic is the most common source of noise in Marin County, with the highest levels occurring along major roadways, such as Highway 1. Tomales Village is a small community with very few sources of significant noise other than Highway 1. Other potential noise sources would occur from large group activity at Tomales Community Park or at places of community congregation (e.g. church). The southeastern property abuts Highway 1 and is exposed to traffic noise from highway use, and to potential noise generated by activity at Tomales Community Park and the Church of the Assumption is located across the highway from the site. The other project sites are surrounded by residential and agricultural land uses.

COMMON NOISE DESCRIPTORS

Community noise levels are measured in terms of the A-weighted decibel (dBA). A-weighting is a frequency correction that correlates sound pressure levels with the frequency response of the human ear.

Additional units of measurement, such as L_{eq}, L_{max}, L_{min}, L_{dn}, and CNEL, have been developed to evaluate the long-term characteristics of sound. The equivalent noise level (L_{eq}) is a single-number representation of the fluctuating sound level in decibels over a period of time. It is a sound-energy average of the fluctuating level. The L_{eq} of a time-varying sound is equivalent or equal to the level of a constant unchanging sound. The L_{eq} is frequently described in terms of the period of time for which noise measurements are taken (e.g., hourly L_{eq}). Maximum noise level (L_{max}) is the loudest noise level measured within a given period, whereas the L_{min} is the minimum measured noise level.

Many communities use 24-hour descriptors of noise levels, such as L_{dn} or CNEL, to evaluate noise impacts. These noise descriptors are typically time-weighted in that noise occurring during sensitive time periods is penalized. For example, the day-night average noise level (L_{dn}) is the 24-hour average of the noise intensity, with a 10 dBA penalty added for nighttime noise (10:00 p.m. to 7:00 a.m.) to account for the greater sensitivity to noise during this period. Similarly, the community noise equivalent level (CNEL) includes a 10 dBA penalty added for nighttime noise (10:00 p.m. to 7:00 a.m.), but also includes an additional 5 dBA penalty for evening noise (7 p.m. to 10 p.m.). Typically, L_{dn} and CNEL are used interchangeably, because the difference between these noise scales is usually less than 1 dBA.

NOISE-SENSITIVE LAND USES

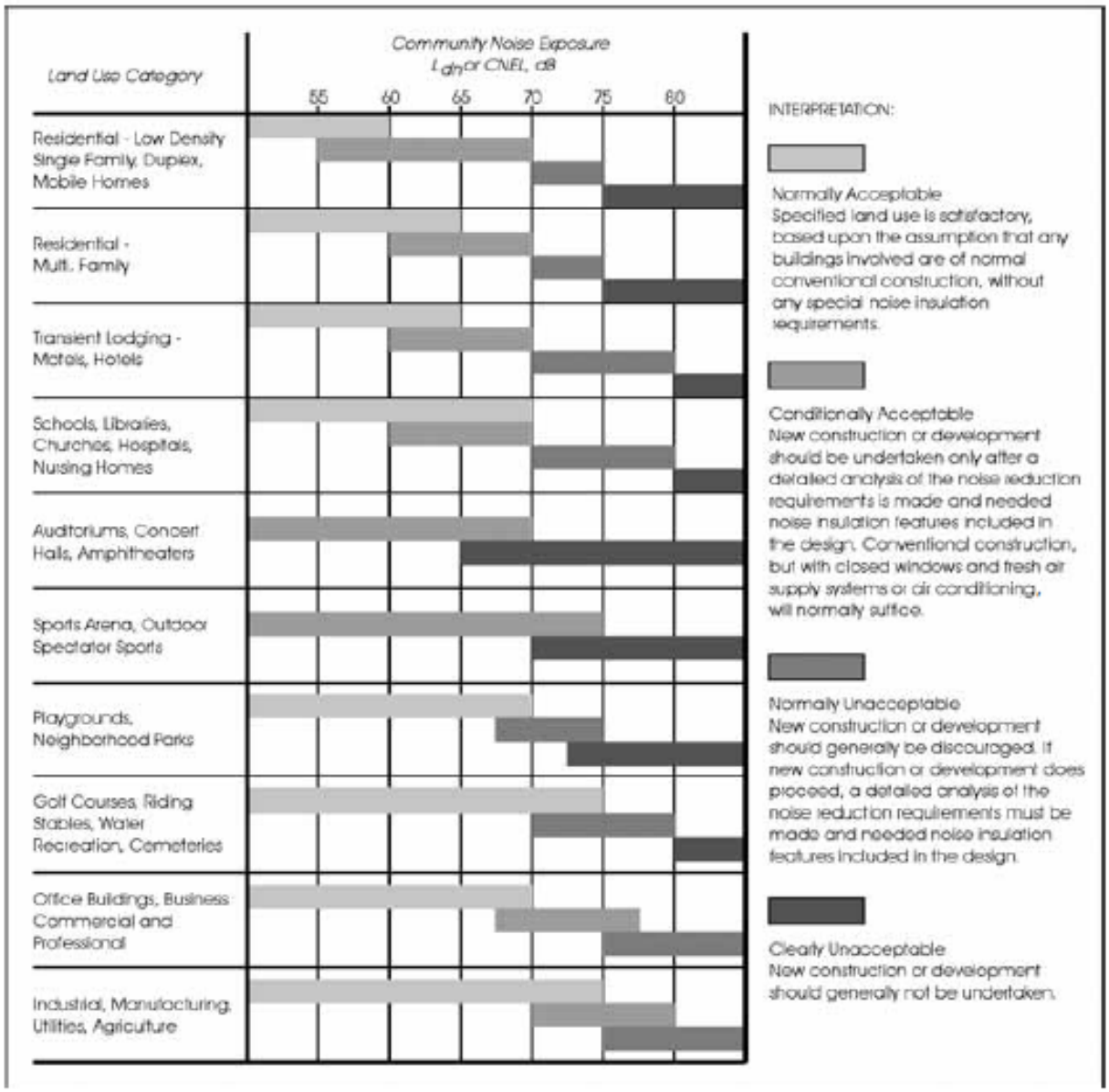
Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are also considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. Project Site A is surrounded by residential uses and is itself considered a noise-sensitive land use.

APPLICABLE NOISE CRITERIA

Marin County

The Built Environment Element of the Marin Countywide General Plan (2007) provides goals, policies, and actions designed to ensure that County residents are not subjected to noise beyond acceptable levels. The General Plan provides noise level performance standards for new projects (see **Table XI.1** below).

TABLE XI.1:
ACCEPTABLE NOISE LEVELS (MARIN COUNTYWIDE PLAN TABLE 3-41)



Source: California Office of Planning and Research, 1998 General Plan Guidelines.

Source: Marin Countywide Plan, 2007

DISCUSSION OF IMPACTS

a) *Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Less than Significant with Mitigation Incorporated. Noise generated by the project would occur during any future short-term construction which could become much more likely from approval and extension of the TVCSD SOI.

The proposed project could result in development on the subject properties. As a result, noise-generating construction activities would be considered to have a **potentially significant** short-term impact.

MITIGATION MEASURE

MM XI.1 The following measures shall be implemented to reduce construction-generated noise levels:

- Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday, and between the hours of 8:00 a.m. and 5:00 p.m. on Saturdays. Construction activities shall be prohibited on Sundays and legal holidays.

- Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.

- All equipment shall be turned off if not in use for more than 10 minutes.

- Marin County shall provide Marin LAFCO with the name and telephone number of the individual empowered to manage construction noise from the project. Marin County shall post an information sign at the construction site entrance that identifies the permitted construction hours and provides a telephone number to call and receive information about the construction project or to report complaints regarding excessive noise levels. The designated construction contact shall record all noise complaints received and actions taken in response, and submit this record to the project planner upon request.

- Interested parties shall be notified a minimum of one week prior to commencing onsite construction activities so that any necessary precautions (such as rescheduling or relocation of interior noise-sensitive activities) can be implemented. The written notice shall include the name and telephone number of the individual empowered to manage construction noise from the project. In the event that noise complaints are received from these land uses, the individual empowered to manage construction noise shall respond to the complaint within 24 hours. To the extent feasible, the response shall include identification of measures being taken by Marin County to reduce construction-related noise. Such measures may include, but are not limited to, the relocation of equipment, use of equipment noise shields, or construction of temporary barriers or curtains.

Timing/Implementation: *Prior to and during construction*

Enforcement/Monitoring: *TVCSD, Marin County*

Use of mufflers would reduce individual equipment noise levels by approximately 10 dBA. Implementation of **MM XI.1** would limit construction activities to the less noise-sensitive periods of the day. With implementation **MM XI.1**, this impact would be considered **less than significant**.

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant. Long-term operational activities associated with the proposed project would not involve the use of any equipment or processes that would result in potentially significant levels of ground vibration. Increases in groundborne vibration levels attributable to the proposed project would be primarily associated with short-term construction-related activities. Construction activities associated with the proposed improvements could require the use of various off-road equipment, such as tractors, concrete mixers, and haul trucks. The use of major groundborne vibration-generating construction equipment, such as pile drivers, would not be required for this project.

Groundborne vibration levels associated with representative construction equipment are summarized in **Table XI.2**. Based on the vibration levels presented in **Table XI.2**, ground vibration generated by construction equipment would not be anticipated to exceed approximately 0.09 inches per second ppv at 25 feet. Predicted vibration levels at the nearest onsite and offsite structures would not be anticipated to exceed the minimum recommended criteria for structural damage and human annoyance (0.2 and 0.1 in/sec ppv, respectively). As a result, this impact would be considered less than significant.

TABLE XI.2:
REPRESENTATIVE VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	Peak Particle Velocity at 25 Feet (In/Sec)
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozers/Tractors	0.003

Source: FTA 2006, Caltrans 2004.

c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant. As discussed in Section XI.a), Noise, implementation of the proposed project would not result in a significant permanent increase in ambient noise levels. As a result, this impact is considered less than significant.

d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant with Mitigation Incorporated. As discussed in Section XI.a) Noise, short-term construction-related activities could result in a temporary increase in ambient noise levels at nearby receptors. As a result, this impact is considered **potentially significant**.

MITIGATION MEASURE

Implementation of **Mitigation Measure MM XI.1**, construction activities would be limited to the less noise-sensitive periods of the day, consistent with requirements typically imposed for noise-generating construction activities by Marin County. With implementation **MM XI.1**, this impact would be considered **less than significant**.

e-f) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not located within an airport land use plan area or within 2 miles of a public use airport or airport strip. The Petaluma Municipal Airport and the Charles Schulz Sonoma County Airport are located well over 10 miles away from the project site. Implementation of the proposed project would not expose individuals to excessive noise levels associated with aircraft operations.

CONCLUSION REGARDING NOISE

The project, as mitigated, would have a less than significant noise impacts.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. POPULATION AND HOUSING: Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☒	☐	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☒	☐	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

As of the 2000 Census, Tomales Village has a population of 210. As discussed in section III Air Quality, according to the Countywide Plan, the estimated maximum build out population for Tomales Village is 342 people. Per the Community Plan, at build out the number of dwelling units in the Planning Area could increase from 91 to 193 units and the population could increase to approximately 440 persons, should services have the potential to accommodate that number. As shown in **Table IX.1** above, assuming the maximum residential density for future development on the five northwestern subject properties, the population could grow by as many as 69.53 people (which would require 27.6 residential units) and by 16.87-349.45 people (7-145 units due to differences between the Community Plan and Marin Countywide Plan) on the southeastern property for an approximate total Tomales population of a minimum of 256 and a maximum of 629. Consequently, existing Countywide Plan land use designations allow for development that would result in a potential population that far exceeds the maximum projected by the Community Plan..

DISCUSSION OF IMPACTS:

a-c) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Less than Significant Impact with Mitigation Incorporated. The proposed project creates the potential for sewer service to be extended to the six properties located within the project area. Presently, the development potential at these sites is restricted to the low end of the density range established by the General Plan. By extending sewer service to

these sites, the project creates the potential that these site could develop at a greater density than policies presently allow.

Project implementation would not result in the displacement of existing housing or displacement of people. However, the proposed project would potentially induce substantial population growth in the area by extending sewer service to sites that have development potential. For 5 of the 6 parcels, inducements to growth would not result in potentially significant impacts because development of these sites could occur in a manner that is compatible with the height, mass, and bulk of surrounding development, and in keeping with the character of the community. Four (4) of the subject properties are of a size that extension of sewer service would not result in additional development potential. For the 5.23 acre site located in the northwestern portion of the project area, development potential would be from 13 to 23 units. While development at this scale would represent a change, the density of development is consistent with the Countywide Plan land use designations. Through existing land use controls, the County of Marin will review development proposals to ensure that the building form and mass are compatible with the surrounding community.

The extension of sewer service to the southeastern property in the project area, however, has the potential to induce growth in a way that could have potentially significant impacts. The Countywide Plan designates land use at this property at a residential density of between 7 and 145 units and commercial development between 95,265 and 158,776 square feet. Because use of a large portion of this property is restricted by the presence of Tomales Creek and the associated Stream Conservation Area restrictions, development at the contemplated intensities has the potential to either impact the riparian resource, result in development that departs from the predominant character of the community, and create driveway access conflicts on Highway 1. These potential impacts may be resolvable through creative design, but without more detailed information about the site or development proposal, the potential for impact can not fully be assessed. By removing this property from the SOI expansion area, potential impacts can be reduced to a less than significant level.

MITIGATION MEASURE

Implementation of the **Mitigation Measure MM I.1** would remove the southeastern property from the proposed service area and SOI and would ensure that potential impacts on population growth would be reduced to **less than significant**.

CONCLUSION REGARDING POPULATION AND HOUSING

Implementation of **Mitigation Measure I.1** would cause potentially significant impacts related to population or housing to be less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII PUBLIC SERVICES: Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services. Would the project result in:				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Parks?	☐	☐	☒	☐
e) Other public facilities?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

FIRE

As described in the Tomales Area Service Review and Sphere of Influence Update document prepared by Marin LAFCO, the existing fire station on Dillon Beach Road has adequate crew and equipment to service the Tomales area. The most important issue is availability of water supply for fire flow. Emergency water supplies are available and accessible at various locations around the village. There is a 69,000 gallon community fire water system that is owned and operated by Marin County Fire Department located on the corner of Railroad and Second Street. It has been in operation since 1999 and includes five fire hydrants. Since this tank and its related water distribution facilities have been constructed, emergency water supply storage capacity and distribution has been adequate to handle a fire for structures in Tomales. This upgrade has given the area an ISO rating of a 4, an improvement from their previous 9 rating.

The High School recently installed a 250,000 gallon water storage tank for the purposes of irrigation and fire protection. There are plans to serve the elementary school and residential areas on the east side of Highway 1 in the future. Four addition hydrants would possibly be installed in the future, depending on grant funding. Should the tertiary treatment level of service be implemented in the future, this could provide one million gallons of emergency water for firefighting in the future, along with irrigation potential. (Marin, 2008c)

POLICE

Tomales Village is an unincorporated area of Marin County. Police services are provided by the Marin County Sheriff's Department out of the West Marin Substation in Point Reyes Station. The California Highway Patrol also regularly patrols Highway 1 and county roads in the area. Additional mutual aid is provided by Sonoma County Sheriffs as needed. (Community Plan 1997).

SCHOOLS

Tomales schools are part of the Shoreline Unified School District. The current Tomales High School was built in the 1960's and currently has approximately 210 students. Tomales Elementary School, located on John Street, is a K-8 school and currently has approximately 240 students. Both schools are currently rated to be in very good condition. According to the Community Plan, the Shoreline Unified School District has adequate capacity to accommodate any increase in student population. There is potential to enhance community recreational opportunities on the high school campus.

PARKS

The TVCSD maintains Tomales Community Park is located at 10 Valley Street, which is adjacent to Highway 1. The park is 0.893 acres with a playground and picnic area and gathering place. In 2008, a parking area, restroom, pump house, and filter system were installed and an open space area was enlarged. There is a question over whether there are sufficient park facilities to accommodate future development in the village of Tomales. However, should the development occur on parcels within the TVCSD service area, development on those parcels would be required to pay new development fees which would contain a park component based on size and population.

EMERGENCY MEDICAL SERVICES

Tomales Village does not have its own emergency medical services. Novato Community Hospital provides medical care, including emergency services, but Marin General Hospital in Greenbrae, is a Level III Trauma Center, and is located approximately 43 miles from Tomales. Medical services from both Marin and Sonoma Counties provide aid as needed. First responders are the local fire units, which do have staff trained as paramedics. If additional help is needed, paramedic units from the fire station in Point Reyes Station are available as well as personnel from the U.S. Coast Guard Training Center at Two Rock. Medical helicopters are also available to respond, staffed by paramedics based at Sonoma County Airport to transport patients to nearby medical facilities. (Community Plan, 1997).

The project sites are located in infill areas of the village of Tomales. The project proposes expanding the TVCSD to allow for future provision of sewer services and park services to six additional properties.

DISCUSSION OF IMPACTS

Information in this section was provided in consultation with TVCSD, Marin LAFCO, and Marin County staff.

a-e) Would the project result in impacts on fire protection, police protection, schools, parks, other public facilities?

Less than Significant Impact. The proposed project would not result in any physical changes to any project sites. The proposed project does not change or intensify the allowable land uses or land use intensity established by the Countywide Plan, nor extend any roads or other infrastructure. The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental

impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services, police protection, schools, parks, or any other public facilities. No mitigation is necessary, as a **less than significant impact** to existing conditions associated with public services would occur as a result of the proposed project.

CONCLUSION REGARDING PUBLIC SERVICES

The project would not result in any significant impacts to fire protection, school, parks, or other public services.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. RECREATION: Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Parks and recreational facilities in the village of Tomales are maintained by the TVCSD. The existing park facilities are discussed above in section XIII Public Services.

DISCUSSION OF IMPACTS:

a-b) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less than Significant Impact. The proposed project would not result in any physical changes to any project sites. The proposed project does not change or intensify the allowable land uses or land use intensity established by the Countywide Plan, nor extend any roads or other infrastructure. All future development would undergo separate environmental review consistent with the California Environmental Quality Act (CEQA) and are not a component of this proposed project.

Existing park facilities are open to public use. The proposed project would also not directly result in a significant increase in the use of existing parks or other recreational facilities, nor does any component of the proposed project include or require the construction of new recreational facilities that might have an adverse physical effect on the environment. Future development resulting from this project would increase the population within the Town of Tomales, and would increase use of recreational facilities. At the time that services are extended to the subject properties, these properties would be required to pay service fees to the TVCSD, including park and recreation fees, to defray service costs.

CONCLUSION REGARDING RECREATION

The proposed project would not result in any significant impacts to recreation.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. TRANSPORTATION/TRAFFIC: Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☒	☐	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The major roadways in the village of Tomales are State Route 1 (a.k.a. Highway 1, a.k.a. Shoreline Highway), Dillon Beach Road, and Petaluma Tomales Road. Highway 1 is a 2-lane regional roadway that runs north-south through the village. Highway 1 is also a scenic highway that has been designated an All-American Road by the U.S. Department of Transportation. Dillon Beach Road is a 2-lane road that runs east-west through the village and is controlled by stop signs at the intersection with Highway 1. The area of Highway 1 near this intersection has several non-standard features due to a very wide shoulder on the west side of the road allowing enough room for perpendicular parking. Dillon Beach Road provides access between Dillon Beach and Tomales. Petaluma Tomales Road is a 2-lane road that provides access between Petaluma and Tomales and ends at a "tee" intersection at Highway 1. Only the westbound approach of Petaluma Tomales Road is stop-controlled at that intersection.

Whitlock & Weinberger Transportation, Inc. was hired to do a Traffic Study in 2005 for the proposed Sass project. The study area included the three major Tomales roadways. At that

time, Highway 1 north of Dillon Beach Road had approximately 1,900 vehicles per day (VPD) on weekends and 2,800 VPD o weekends. South of Dillon Beach Road, Highway had approximately 2,600 VPD on weekdays and 4,000 VPD on weekends. Dillon Beach Road had approximately 1,000 VPD during the week, and 2,300 VPD on weekends. Petaluma Tomales Road had approximately 2,000 VPD on weekdays and 2,900 VPD on weekends. These numbers are based on traffic counts taken in September 2004. (Whitlock 2005, page 4).

The Marin Countywide General Plan establishes that the minimum acceptable Level of Service (LOS) is LOS D. (Marin 2007). All existing Level of Service Calculations show that roads in the Whitlock study area all had LOS A or B. (Whitlock 2005, page 6). As shown below in **Table XV.1**, when examining the potential for impacts due to potential future development the addition of the maximum amount of development on the 5.23 acre northwestern property (23 residential units), the LOS would still never go beyond LOS B.

TABLE XV.1:
SUMMARY OF FUTURE LEVEL OF SERVICE CALCULATIONS

Intersection/Approach	Future Conditions				Future plus Project (23 units)			
	PM Peak		MD Peak		PM Peak		MD Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Dillon Beach Rd/Mound St								
Southbound approach	n/a	n/a	n/a	n/a	10.8	B	11.5	B
2. Shoreline Hwy/Dillon Beach Rd								
Eastbound approach	8.9	A	10.1	B	10.9	B	12.5	B
Westbound approach	9.8	A	11.1	B	12.0	B	13.7	B
3. Shoreline Hwy/Petaluma-Tomales								
Eastbound through-left lane	7.5	A	7.5	A	9.1	A	9.1	A
Westbound approach	9.5	A	9.8	A	11.5	B	11.9	B

California Highway Patrol records for the years of 2000-2003 found that there was one collision at the Highway 1-Dillon Beach Road intersection and one collision at the Highway 1-Petalum Tomales Road intersection. These numbers were below the statewide average rate of accidents figures. (Whitlock 2005, page 5).

Tomales Village pedestrian facilities are fairly limited. There are existing gravel walkways along the north side of Dillon Beach Road east of Carrie Street. The west side of Highway 1 has a concrete walkway that provides access to businesses at the corner of Highway 1-Dillon Beach Road. There are crosswalks across Highway 1 to the elementary school on the east side of Highway 1, and there are crosswalks on the north and east legs of the Highway 1-Dillon Beach Road intersection. (Whitlock 2005, page 6).

Though there are no formally designated bicycle facilities, Highway 1 and Petaluma Tomales Road are heavily trafficked by cyclists.

The Community Plan contains policies, "...to Limit Transportation Improvements to Projects that maintain the rural, scenic character of the planning area roadways, enhance safety but do not

increase the capacity of the road network, and improve pedestrian and bicycle access." (Community Plan, 1997).

DISCUSSION OF IMPACTS

a) *Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?*

Less Than Significant Impact with Mitigation Incorporated. The proposed project would serve future development in the project area. On the southeastern project property, a large portion of the property fronts on to Highway 1, the most traveled roadway within Tomales. This property also has the maximum development potential of 145 residential units, or 158,776 square feet of commercial development. Should this property be developed at its potential maximum, this would result in the potential for many vehicle entrances and exits onto Highway 1, which could result in an increase in traffic, which could also be a safety concern. With the incorporation of **Mitigation Measure I.1**, the southeastern property would be removed from the proposed service area and SOI, and impacts from increased traffic will be less than significant.

b) *Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?*

No Impact. The proposed project serves future development which could cause increases in traffic in Tomales. The proposed Sass project applicant conducted a traffic study that concluded that with the proposed project, LOS in Tomales would be no worse than LOS B at peak traffic times. As shown in **Table XV.1**, should the 5.23 acre northwestern property be developed at maximum potential density, 23 residential units, then LOS would still never go beyond LOS B. Per the Countywide Plan, level of service in must exceed LOS D before impacts are significant. Even if all of the 5 subject properties (assuming the southeastern property were removed from the proposed project description) were developed to the maximum density allowed by the Countywide Plan, traffic generated by this development would not generate volumes that would reduce the LOS at any intersection or road segment to less than LOS D.

c) *Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

No Impact. The proposed project, which is an administrative act, would not result in any changes to any air traffic patterns. No mitigation is necessary, as the proposed project would have ***no impact*** on air traffic patterns.

d) *Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

No Impact. The proposed project, which is an administrative act, would not result in any physical changes to any project sites. There are no design features proposed, so there would be no **impacts**.

e) Would the project result in inadequate emergency access?

No Impact. The proposed project, which is an administrative act, will not result in any physical changes to any project sites. Future development may be made more likely because of this project, but any future proposed project would require separate review. Emergency access would be evaluated at that time. No mitigation is necessary, as the proposed project would have ***no impact*** on emergency access.

f) Would the project result in inadequate parking capacity?

No Impact. The proposed project would have no impacts on existing parking capacity. Any future development resulting from this project would have separate project review and would be required to provide any necessary parking at that time. No mitigation is necessary.

g) Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No Impact. The 2007 Marin Countywide General Plan established new policies supporting increased provisions of transportation alternatives. However, the proposed project is strictly administrative and would not conflict with adopted policies supporting alternative transportation. Future development that could result from this project will require separate review and any alternative transportation needs could be met at that time. No mitigation is necessary, as the proposed project would have ***no impact*** on adopted policies supporting alternative transportation.

CONCLUSION REGARDING TRANSPORTATION AND TRAFFIC

Implementation of **Mitigation Measure I.1** would reduce project impacts related to transportation and traffic to less than significant levels.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☒	☐	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☒	☐	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

WASTEWATER TREATMENT

Due to pressure provided by the California Regional Water Quality Control Board (RWQCB), the TVCSD was formed to manage the sewer service facilities within the TVCSD service boundary area. There are currently 109 active connections being served by the Tomales sewer system.

The Tomales wastewater treatment plant is a biological treatment type, secondary treatment facility designed for an average annual flow of 0.038 mgd. Disposal of the treated effluent is into a storage pond from which an adjacent field is seasonally irrigated. Gravity sewers are predominately six and eight inches in diameter. There is approximately 2.25 miles of existing gravity sewer main and 1.25 miles of collection lines. The collection system includes one lift station. The lift station is equipped with two grinder sewage pumps, each of which are capable

of delivering the 22 gpm (30,000 gpd) design flow. Dual pumps are provided so that one is a standby unit for the other in case one of the pumps becomes inoperable. (TVCSD 2009, page 2, and Marin LAFCO, 2008c).

TVCSD's treatment process includes influent and effluent flow measuring and recording equipment, secondary treatment by aerated ponds, irrigation field, and the high school storage pond and school irrigation areas. The storage ponds provide effluent storage during winter months when irrigation is impractical. The total capacity of the storage pond is based upon storage for a period of 120 days. (Marin LAFCO, 2008c, page 5).

Taking into account possible land use changes consistent with the Marin Countywide Plan, the Tomales Community Plan, and the Local Coastal Program, it is projected that there will be an increase 47% utilization of permitted flows by the year 2012 within the current TVCSD sphere of influence and service area boundary. Taking into account possible land use changes on those properties proposed for addition to the TVCSD sphere of influence and service area boundary, it is projected that there will be an increase to 53% utilization of permitted flows with the proposed project by the year 2012.

According to TVCSD, 15% of total capacity has been set aside for infill projects within District boundaries. The system is currently operating at approximately half capacity. There is adequate capacity to support foreseeable future growth in Tomales.

Please see Tables 1 and 2 above for more information about wastewater facilities in Tomales Village.

Properties that are not included within the service boundary of TVCSD provide sewage disposal via private, on-site septic systems that could create a potential groundwater pollution problem, should the septic systems leak. Avoiding groundwater pollution is one of the motivating factors for expanding the TVCSD service boundary and SOI to properties that are most likely to be developed. According to Rebecca Ng, the Interim deputy Director of Marin County Environmental Health Services, there is evidence that sewer systems also have the potential to leak, so potential groundwater pollution hazards would not be avoided completely. However, it takes many years for new sewer systems to degrade to the point where there is a risk of leaking. Also, by installing new sewer systems, towns are doing their best effort to avoid potential groundwater risks.

WATER FACILITIES

Each property and piece of development in Tomales is responsible for proving and providing its own water supply. Water is provided via private wells tapped into Tomales groundwater.

STORMWATER DRAINAGE

As discussed above, soils underlying the general project areas generally consist of sandy silts and silty sands that are generally stiff and dense. The tributary drainage area is approximately 36 acres. Of this area, about 26.3 acres drain to the west side of Tomales, discharging into an existing ditch. Approximately 9.9 acres drain to the east side of Tomales and discharge into existing culverts in Carrie Street.

The Marin County Stormwater Pollution Prevention Program consists of all local governments within all Marin watersheds. Their goals include preventing stormwater pollution, protecting and enhancing water quality, and helping applicants comply with state and federal regulations.

Applicants for new construction must comply with specific requirements and standards in the State National Pollutant Discharge Elimination System (NPDES) permit covering small municipal separate storm sewer systems throughout California (Phase II permit). This includes preparing a stormwater control plan and a Storm Water Facilities Operation and Maintenance Plan (O&M Plan).

Storm water discharges can be potential sources of pollution. There are no known toxic materials known to have been treated, spilled, or stored on the large northwestern property, as stated by the Stormwater Prevention Plan prepared by Oberkamper & Associates. (Oberkamper 2008b, pg 3). Nothing is known about other properties in this project.

SOLID WASTE

Redwood Empire Disposal provides solid waste collection services for all of West Marin County. Waste is then transported to Redwood Landfill & Recycling Center.

Marin County residents produce about 2.7 pounds of solid waste per person per day (the state average is 2.1 pounds per person per day). Marin County, however, diverts more than 75% of its waste from disposal, which is the highest rate of any county in the state. Marin County produces about 223,000 tons of solid waste each year. Although Marin County disposes approximately 80% of its non-hazardous solid waste locally, Marin County also depends on neighboring communities to manage a significant part of its solid waste stream, all of its hazardous waste, and most industrial wastes. Recyclables such as tires, plastic, aluminum, waste oil, and scrap metal are also processed at facilities located outside of the county. The Redwood Landfill & Recycling Center is a 450-acre site of which 222.5 acres is waste disposal area. The remaining property includes a green and wood waste processing and composting area, leachate impoundment, biosolids processing impoundments, landfill gas flare compound, storm water lagoon, scale house and entrance facility, maintenance shop, and administrative offices.

APPLICABLE PLAN POLICIES

The Community Plan contains policies to focus development on infill parcels that have higher density land use designations. The TVCSD plans to expand service to include properties that are targeted for future development. The Community Plan wants to avoid potential groundwater pollution by including parcels that are likely to be developed in the TVCSD based on the assertion that properties that have sewer service are less likely to leak pollution into the groundwater than those that have septic tanks.

DISCUSSION OF IMPACTS

Information in this section was provided in consultation with TVCSD and Marin County public works and environmental health personnel.

a) *Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

Less than Significant. The proposed project is administrative and would not directly generate wastewater. However, as discussed above, the project could make future development more likely. Future development is likely to produce an additional amount of wastewater that is within the capacity of Tomales' Waste Water Treatment Plant. This is a less than significant impact.

b) *Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Less than Significant with Mitigation Incorporated. All water in Tomales is provided by private individual wells. Expanding the TVCSD service boundary and SOI would result in the construction of new sewer service facilities to serve the subject properties once a future development proposal is approved. In conjunction with each development proposal, the applicant will be required to demonstrate that adequate water is available to serve the proposed development. To compile the information necessary to available water supply, an applicant is required to monitor water levels over time, survey the water levels in existing wells, and monitoring recharge speed to demonstrate that the water supply is adequate to serve the population that is anticipated for each project.

c) *Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Less than Significant. This project would not directly result in any storm water discharge which would require new storm water drainage facilities. However, the project would support future development on the subject properties that may include stormwater drainage facilities. As required by National Pollutant Discharge Elimination System (NPDES) permit requirements, all future project applicants will be responsible for developing a Storm Water Facilities Operation and Maintenance Plan (O&M Plan) and ongoing maintenance of permanent storm water treatment facilities as specified in the O&M Plan until future property owners take over responsibility. This is considered a less than significant impact.

d) *Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

Less than Significant. As discussed in XVI.b above, each individual project site provides its own water. This project is administrative and would have no impact on water supplies. However, future development could result from this project, but each of those potential development projects would be required to prove they can provide their own water supply in the form of wells before they received their building permit. This impact is **less than significant**.

e) *Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?*

Less than Significant with Mitigation Incorporated. The TVCSD provided written comments dated May 21, 2009 in response to a request for information for this initial study. TVCSD states that this project would result in no impact on sewer services. The TVCSD has set aside 15% of total capacity for infill projects such as this one. Currently, the system is operating at less than half capacity. This project would not alter the current flow by more than 20%.

The Tomales wastewater treatment plant is designed for an average annual flow of 38,000 gpd. It is estimated that the system could accommodate a population of up to 450 people. If all 6 of the subject properties were to develop at the maximum density allowed by the Countywide Plan, the potential population could increase to as many as 629 people. Application of **Mitigation Measure I.1**, would remove the 7.29 acre southeastern property

from the project area. Using the current population number of 210 residents, the maximum potential population is 276 people (an increase of 66 people due to this project). This level of demand would be able to be accommodated by the existing wastewater treatment plant.

With the incorporation of **Mitigation Measure I.1**, the wastewater system has the capacity to accept and treat all wastewater generated directly or indirectly by the proposed project and therefore would not require expansion to accommodate project-generated wastewater. This is a less than significant impact.

f-g) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Less than Significant. The proposed project would not result in the generation of any additional solid waste. Solid waste services in Tomales are provided by Redwood Empire Disposal and would be disposed of at the Redwood Landfill & Recycling Center in Marin County, Future development applicants would be responsible for proving sufficient solid waste services could be provided for their project. This is a less than significant impact.

The proposed project would also conform to all applicable state and federal solid waste regulations. Therefore, this is a less than significant impact.

CONCLUSION REGARDING UTILITIES

Implementation of **Mitigation Measures III.1 and VII.1** would cause potential impacts to utilities to be less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. MANDATORY FINDINGS OF SIGNIFICANCE: Does the project:				
NOTE: If there are significant environmental impacts that cannot be mitigated, and no feasible project alternatives are available, then complete the mandatory findings of significance and attach to this initial study as an appendix. This is the first step for starting the environmental impact report (EIR) process.				
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

DISCUSSION OF IMPACTS:

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact. As an administrative act, the project would not result in any physical changes to any project site, the proposed project does not have the potential to directly degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. No mitigation is necessary, as **no impacts** or changes to existing conditions associated with these aforementioned topics would occur as a result of the proposed project.

b-c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact with Mitigation Incorporated. The proposed project, which is an administrative act, would not directly result in physical changes to any of the project site. However, future development of the project sites becomes much more likely should the proposed project be approved and the properties are able to be served by the sewer system. Development of the project sites could have impacts on the local environment. This is expected to have a **less than significant with mitigation incorporated** cumulative impact on aesthetics due to impacts on scenic Highway 1, air quality due to construction and increased vehicle trips, biological resources due to sensitive habitats in and around Tomales Creek, cultural resources, hazards and hazardous materials, land use and planning, noise due to future construction, population and housing due to future development potentially bringing in more residents than would be able to be accommodated, transportation and circulation as it relates to safety and congestion in and out of the parcel adjacent to Highway 1, and Utilities and Service Systems again due to future construction activities and the possibility of future population numbers being too large for service capacities. The proposed project would make future individual projects more likely. These projects could have or result in a significant effect upon the environment and individual projects are required to mitigate their impacts under CEQA. The proposed project could have cumulative effects related to infrastructure needed to respond to forecasted changes in population within the TVCSD boundaries. This topic is under the purview of Marin County, the and the California Coastal Commission and is addressed within the Marin Countywide Plan and Local Coastal Program and the Tomales Village Community Plan.

REPORT PREPARATION AND REFERENCES

INITIAL STUDY PREPARATION

PMC

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