

MAJOR FINDINGS FROM THE REMAINING GENERAL PLAN BACKGROUND REPORT CHAPTERS

San Benito County General Plan Update | August 19, 2010

The following is a summary of the major findings from the remaining draft General Plan Background Report chapters, which include:

- Public Facilities and Services (Chapter 7)
- Natural Resources (Chapter 8)
- Scenic Resources (Chapter 9)
- Recreation and Cultural Resources (Chapter 10)
- Safety (Chapter 11)
- Climate Change (Chapter 12)

Chapter 7—Public Facilities and Services Major Findings

7.1: Water Supply and Delivery

- Groundwater is the largest source of the county's water supply. The second largest source is Central Valley Project (CVP) water that is delivered to the Zone 6 portions of the Hollister Valley. The relative proportions of groundwater and CVP water are affected primarily by the availability of CVP water from the United States Bureau of Reclamation (USBR).
- The total water use in Zone 6 has ranged between 35,000 and 50,000 acre-feet per year (AFY) for the last decade (2000—2010). Agricultural water use has generally declined and municipal water use has been relatively steady during the same period.
- Groundwater resources are actively monitored and managed by the San Benito County Water District, which is responsible for importation of water from outside the county and management of surface water resources within the county.

7.2: Wastewater Collection and Disposal

- The majority of all wastewater treatment in San Benito County is provided by four service providers: Sunnyslope Water District, Tres Pinos Water and Sewer District, City of San Juan Bautista, and the City of Hollister. All other wastewater treatment is provided by individual property owners who operate septic systems with either leachfield or sprayfield disposal areas.
- Four of the 54 registered Community Service Areas in the county provide sewer services and treatment. These CSA facilities are considered small community systems, regulated under the Central Coast Regional Water Quality Control Board with oversight by the County. CSA systems include: Cielo Vista, Comstock Estates, Pacheco Creek Estates, and Rancho Larios. The Rancho Larios development is the only CSA that operates a treatment plant with disposal. The other three CSAs have community leachfield disposal systems.

- Based on the LAFCO Municipal Services Review (2007), the Tres Pinos Water and Sewer District provides 113 household connections. The District also contains one treatment plant and a 1.8-acre pond and disposal field.
- The majority of the unincorporated county does not have connections to a public sanitary sewer system. Unincorporated areas served by sanitary sewers include residential subdivisions and areas proposed for urban development on the outskirts of Hollister and San Juan Bautista. Most existing residences use individual septic tanks and leachfield systems.
- There are several thousand individual septic systems throughout the county. Between 1990 and 2010 approximately 1,410 new septic tank installation permits were issued and approximately 962 septic replacements. On average the County reviews and issues 67 new septic system permits and 45 septic replacements per year.

7.3: Storm Drainage and Stormwater Quality

- There is currently (2010) no readily accessible countywide inventory and/or assessment of stormwater drainage systems and stormwater quality conditions.
- The County does not have a comprehensive stormwater master plan, but some facilities have been constructed to serve sub-basins. All private subdivisions have been required to manage stormwater peak flows aggressively.
- The County has made a practice of requiring stormwater quality features in drainage systems for subdivisions, although consistent and/or effective measures are not necessarily required by existing code.
- The County is an active member of the Pajaro River Collaborative and reviews development proposals for consistency with the adopted Integrated Regional Water Management Plan (IRWMP).

7.4: Solid and Hazardous Waste

- ReEcology, a private company, collects all solid waste in the unincorporated portions of the county, including garbage, recycling materials, and yard waste. The company operates 14 to 15 trucks per day. A small portion of the business and residential waste is collected by other private haulers using drop boxes.
- The John Smith Landfill is the only operating active solid waste landfill within the county. It is a Class III municipal waste landfill owned by the County and operated by a private firm, Waste Connections, through a contract administered by the County Integrated Waste Management Department. The facility's receives on average 250 tons of waste per day, 50 percent of which is diverted to recycling. As of 2005 the landfill had a remaining capacity of 3,594,899 cubic yards. The facility is expected to reach capacity and close in 2016.
- There are several compost sites that serve to process inert, green, and agricultural waste within the county. The only recycling site in the county is made up of separation boxes at the John Smith Landfill.

- San Benito County provides a receiving site for household hazardous waste (HHW) disposal at the John Smith Road Landfill site. It receives household hazardous waste, including car batteries, latex paints, used oil and oil filters, antifreeze, medically prescribed hypodermic needles, pesticides, herbicides, fungicides, paints and thinners, and pool chemicals.

7.5: Utilities

- Pacific Gas & Electric (PG&E) is the only purveyor of electricity in the county. In 2009 the county's total electricity consumption was 314,891 million kWh, which included 117,747 million kWh (37 percent) used by residential electricity accounts and 197,144 million kWh (63 percent) used by non-residential electricity accounts. The county's current average electricity demand of 3,148 GWh far exceeds the electricity it produces, as there are no major power generating plants in the county. PG&E maintains three major transmission lines running across the county to substations in Fresno, Merced, and Monterey Counties.
- PG&E is the only purveyor of natural gas in San Benito County and owns the primary gas pipelines. PG&E maintains two natural gas pipeline spines, including two 2- to 12-inch natural gas pipelines that run down the center of San Benito County and split near the middle of the county. There are no natural gas storage facilities within the county. The nearest natural gas and oil refineries and terminals are located in Santa Clara County. In 2009 PG&E delivered 13,069,164 therms to users in the county. Approximately 6,729,063 therms (51 percent) were used by residential customers and 6,438,104 therms (49 percent) were used by non-residential customers.
- AT&T and SBC provide telecommunications services in the county. A variety of internet providers, such as AT&T and Comcast, provide DSL and wireless service. However, the availability of high-speed internet service is limited in the rural areas of the county.

7.6: Law Enforcement

- The San Benito County Sheriff's Office has 32 sworn deputy allocations serving the unincorporated parts of the county, which does not include sworn officers for incorporated cities. This represents a current (2008) staffing level of 1.7 officers per 1,000 residents, based on an unincorporated population of approximately 18,859.
- The County Jail is a 28,000 square foot facility with an average daily population of approximately 100 inmates and a rated capacity of 124 inmates. It has two maximum-security modules with a capacity of 27 inmates each and two medium-security modules with a maximum of 35 inmates each.

7.7: Fire Protection

- Structural fire management responsibilities in the county are distributed between the San Benito County Fire Department, the Aromas Tri-County Fire Department, the Hollister Fire Department, and the San Juan Bautista Volunteer Fire Department. When resources are available and under existing aid agreements, CAL FIRE may assist other departments with structural fires and other types of wildland fire calls.

- Current (2010) County policies recommend maintaining a response time of five minutes for first-response fire engines in local responsibility areas and a response time of 15 minutes for first-response fire engines in State responsibility areas. However, according to the County Fire Department 2008 Annual Report, the County's fire response is severely below standards in terms of time, staff, and equipment. The Annual Report also notes that because of aid from other responders, the County Fire Department was able to provide adequate service.
- In 2008 the County Fire Department received calls for 1,019 incidents. The majority of these incidents were medical-related calls (476 calls or 47 percent). Vehicle incidents (13 percent), fires (12 percent), automobiles (11 percent), false alarms (12 percent), and vehicle accidents (13 percent) accounted for the rest of the major incidents

7.8: Emergency Medical Services

- The County's Emergency Medical Services (EMS) Agency currently (2010) meets most State minimum standards for emergency medical services, but does not meet standards for data management systems, disaster response, and trauma care. As a result, the County has developed short-term and long-term plans to address these deficiencies.
- American Medical Response (AMR) based in Livermore is the current and only emergency ambulance service provider for the county.
- Hazel Hawkins Memorial Hospital is the only local acute-care hospital in the county. As of 2009 it included 70 licensed beds and one paramedic base station. The hospital was designated a Level IV Trauma Center in 2004, although the hospital has not yet implemented a trauma center. As a result, most trauma cases are transported to centers in neighboring counties, including Saint Louise Regional Hospital in Gilroy, Watsonville Community Hospital in Watsonville, Salinas Valley Memorial Hospital in Salinas, or Natividad Medical Center in Salinas.
- The five first fire-related responders in the county include the Hollister City Fire Department, the San Juan Bautista Volunteer Fire Department, the San Benito County Fire Department, the Aromas Tri-County Fire Protection District, and the California Division of Forestry and Fire Protection (CAL FIRE).
- There are no air ambulance service providers based in the county. There are currently five different air ambulance service providers permitted to fly EMS missions in the county, including Calstar, Mediflight, Air Med Team, Lifeflight, and Reach.
- The County has one joint dispatch center that includes one primary public safety answering point (PSAP) and one secondary PSAP based at the County Communications Center at the County jail. The primary PSAP is responsible for responding to all 911 emergency calls and dispatching the appropriate agency. The secondary PSAP is responsible to receiving emergency call information from the primary PSAP and dispatch appropriate fire agencies.
- In 2009 there was an average of 1.2 hospital beds per thousand in San Benito County. In 2009 the California average was 1.9 hospital beds per thousand population. Both of these are considerably lower than the national average of 3.2 hospital beds per thousand in the United States in 2008.

7.9: Schools

- San Benito County has 11 school districts that include 17 elementary schools, two middle schools, and two high schools. The San Benito County Office of Education also operates a Juvenile Hall/Community School and the San Benito County Opportunity School.
- In 2008-2009 the school districts enrolled 11,383 students, who were taught by 523 full-time equivalent teachers, which translates to a pupil-teacher ratio of 22 students for every one teacher. Class size ranged from 9 to 27 pupils, with an overall average of 25 pupils.

Chapter 8—Natural Resources Major Findings

8.1: Water Resources

- The San Benito River is the largest tributary in the county. The river flows from south to north across the county and discharges into the Pajaro River. The Hollister Valley, situated in the northern part of the county and drained by the San Benito and Pajaro Rivers, is home to most of the county's agriculture and its urban areas, including the cities of Hollister and San Juan Bautista.
- The San Benito County Water District operates two reservoirs—Hernandez and Paicines—along the San Benito River for flood control and water conservation. These reservoirs are specifically used to store water in order for the District to manage water releases to downstream surface and groundwater recharge areas.
- There are portions of 12 groundwater basins in the county, which provide water for municipal, agricultural (including limited domestic and livestock), and industrial uses.
- Most groundwater production and use in the county occurs in the Gilroy-Hollister groundwater basin. This basin, composed of alluvial deposits, is characterized by variable aquifer properties and by both unconfined (water table) and confined conditions. The basin has been subdivided into sub-basins based on combination of infrastructure, political boundaries, major roads, and geologic structures.
- Most local groundwater in the county is mineralized and of marginal quality for either drinking and agriculture as a result of natural conditions, and the effects of agricultural activities and urbanization. SBCWD, water purveyors, and other agencies are currently (2010) examining ways to improve groundwater quality with respect to general mineral constituents, such as total dissolved solids, hardness, chloride, boron, and nitrate.
- County groundwater levels were documented at a historic high in 1913 before much groundwater production began. Groundwater levels declined as agricultural and urban pumping increased during the early 20th century, and reached historical lows during the drought in the late 1970s. Subsequently, groundwater levels have recovered in the county as a result of SBCWD recharge activities and the increased use of CVP water in Zone 6 in lieu of groundwater.

8.2: Energy and Mineral Resources

- Electricity consumption in the county in 2007 was 322,807 million kWh, which included 120,089 million kWh (37 percent) used by residential customers and 202,718 kWh (63 percent) used by non-residential customers. These figures represent roughly 2,078 kWh per capita for residential uses. However, the county's current (2010) average electricity demand is 3,148 GWh, which exceeds the electricity it produces. Although there are oil and gas fields within the county, there are currently no thermal power plants of any type within the county.
- Natural gas consumption in the county decreased from 18,837,799 therms in 2006 to 13,069,164 therms in 2009. In 2007 the total natural gas consumption in the county was 15,024,158 therms, which included 6,865,349 therms (45 percent) used by residential customers uses and 8,158,809 therms (54 percent) used by non-residential customers. This results in approximately 118 therms per capita for residential uses.
- Based on 2008 retail gasoline sales, which does not include non-retail sales (such as commercial fleets, governmental entities, and rental facilities), 21 million gallons of gasoline were sold in San Benito County. This is only about 1 percent of the statewide total of 14,633 million gallons of gasoline sold. Similarly, residents and businesses in the county purchased roughly 1.47 million gallons of diesel fuel in 2008, one of the lowest amounts of diesel fuel purchased by any county within the state.
- According to Special Report 146 (SR 146) the estimated aggregate consumption in the Monterey Bay P-C region (which includes San Benito County) through 2030 is 347 million tons. The 786 million tons of permitted reserves in the P-C region exceeded the 50-year projected demand by a factor of two. However, the surplus from the Monterey Bay P-C region was insufficient to offset the shortfall of the South San Francisco Bay P-C region.
- Two Mineral Resources Zones (MRZs) Sectors fall within San Benito County, including Sectors E and F. Sector E includes the Holocene Stream Channel and Terrace Deposits adjacent to the San Benito River and Tres Pinos Creek. This sector zone is located along the channel of the San Benito River from Tres Pinos to the county line in the northwest. Total resources in Sector E were estimated at 226 million tons; all resources were considered PCC grade; and all the resources were classified as MRZ-2. Sector F, which includes the Cretaceous Hornblende Gabbro–Aromas Deposit, extends nearly five miles from Chittenden Pass to Pajaro Gap. This area is also classified as MRZ-2. Aggregate resources in Sector F are considered to be of Portland cement concrete grade (PCC grade) and total resources were estimated to be 395 million tons.
- The updates in OFR 99-01, which include reclassified and newly classified reserves, estimated that the total aggregate resources in San Benito County identified as MRZ-2 totaled 33 million tons for sand and gravel reserves, 113 million tons for sand and gravel resources, and 386 million tons for crushed rock resources. In total, the Monterey Bay P-C region resources classified as MRZ-2 totaled 56 million tons for sand and gravel reserves, 387 million tons for sand and gravel resources, and 213 and 823 million tons for crushed rock and reserves, respectively. Estimated permitted aggregate resources for the Monterey Bay P-C region are 269 million tons, and the projected 50-year consumption through 2047 is 379 million tons. As such, the permitted reserves equal 71 percent of projected consumption. Overall, an estimated 1,210 million tons of aggregate resources underlie the Monterey Bay P-C region (OFR 99-01).

8.3: Biological Resources

- Annual grasslands are the largest habitat in San Benito County. These areas include rangeland, pastures, and tree-dominated habitats.
- Grasslands, riparian woodlands, and aquatic habitats are home to most of the special-status plant and animal species in the county. As such, these habitat types have the highest conservation value for preservation of rare species.
- California Red-Legged Frog, California Tiger Salamander, San Joaquin Kit Fox, Burrowing Owl, and Bell's Vireo are all special status species found in the county. Their habitats also tend to be located near existing developed areas.
- Critical habitat in the county includes areas suitable for California Red-Legged Frog, California Tiger Salamander, and vernal pool Fairy Shrimp.

8.4: Oil and Gas Resources

- There are currently (2010) three known oil and gas fields (Bitterwater, Hollister, and Vallecitos) and a 92 oil and/or gas wells in the county. Of these wells 32 are active, 14 are idle, two are new, 40 are plugged, and four have been cancelled.
- A total of 7,142 barrels of oil and 28,559 million cubic feet of natural gas were produced in the county in 2008.
- There is an estimated 2008 reserve of 101 Mbbl of oil and 63 MMcf of natural gas in the county. San Benito County does not represent a major oil-producing region in California as compared to other counties. For example, the top ten largest oil fields in the state contain between 19,077 to 598,393 Mbbl of reserves, and the ten largest non-associated natural gas fields contain between 1,825 to 329,109 MMcf of reserves.
- There are currently (2010) no known significant geothermal resources in the county.

Chapter 9—Scenic Resources Major Findings

9.1: Scenic Resources

- State Routes 129 and 146, and US 101, are all County-designated scenic highways. SR 146 is the only County-designated scenic highway also eligible for State scenic highway designation. The State also designates SRs 25 and 156 as eligible for State scenic designation.
- The majority of scenic resources within the county consist of rolling terrain that provides mid- to long-range views of rangeland, cropland, rural residential uses, varying agricultural uses, some sparse oak woodland, and historic mining uses and geologic resources in the western portion of the county.
- The San Benito Valley floor offers many short-range views of nearby agricultural and rangelands, medium-range views of the rolling hillsides, and long-range views of the surrounding mountain ranges.

- The County adopted a Scenic Highway (SH) district that permits agricultural uses and some dwelling units, subject to staff approval within the district boundaries. The County also has adopted a sign ordinance to maintain and enhance the aesthetic environment in the county.
- The existing General Plan (1992) recommends the establishment of historic districts for the communities of Tres Pinos, Dunneville, and New Idria; however, no formal zoning designation or districts have been established.
- The County adopted hillside development regulations to help maintain existing rural characteristics, conserve landforms and the natural landscape, and ensure that developments are designed to fit with the characteristics and constraints of the site.
- The County has lighting zones to help site outdoor lighting at appropriate locations that are away from sensitive uses, such as parks.
- Mature blue oaks and valley oak hardwoods cover the western, central, and northeastern portions of the county. The County enforces a canopy retention standard that outlines the amounts of woodland canopy that must be retained during site modifications on a parcel.

Chapter 10—Recreation and Cultural Resources Major Findings

10.1: Parks and Recreation

- While the majority of the county has access to a wide variety of passive recreational facilities, such as open space, recreational vehicular parks, and historical parks, residents have access to few active park facilities, such as pools and sports fields.
- In 2008 there were approximately 2.5 acres of parkland per county resident (144,416 acres of total parkland and 57,784 people).
- Based on the findings documented in the 2009 Draft Parks and Recreation Facilities Master Plan, residents indicated they value the county’s open space and rural character, but desire more countywide trails (i.e., San Benito River Parkway) that would include both trails and various recreation opportunities. Some residents also desired facilities such as a dog park, cultural center, and aquatics center.
- There are currently (2010) a total of 2.29 miles of Class I bike paths and 8.12 miles of Class II bike lanes in the county. There are no Class III bike routes.
- A total of 137 miles of bikeways are proposed in the county over the next 20 years, including 27 miles of Class I bike paths, 59 miles of Class II bike lanes, and 51 miles of Class III bike routes. The majority of the proposed bikeways would be developed as multi-use bike paths along the San Benito River (Class I), bike lanes within the right-of-way of existing roads within the cities of Hollister and San Juan Bautista (Class II), or bike routes along SR 25 to Pinnacles National Monument (Class III).

10.2: Cultural Resources

- There are currently (2010) 1,374 documented historical resources in San Benito County, including 213 prehistoric archeological sites, 287 historic archeological sites, 15 multi-component archeological sites, and 859 historic properties (buildings or structures).
- Of the 859 historic properties in the county, 393 are located in San Juan Bautista, 360 in Hollister, 96 in Paicines or its vicinity, and 10 in Tres Pinos. Of these 859 historic properties, 14 are of national importance.
- Significant or important cultural resources may exist in the subsurface of farmland or urban areas in the county.
- Paleontological specimens have been found in the county and additional specimens may be unearthed during future agriculture and development excavations.

Chapter 11—Safety Major Findings

11.1: Geologic and Seismic Hazards

- According to the USDA Soil Survey, the county's eleven soil associations fall within two groups: soils of the terrace, alluvial fans, and floodplain, which make up approximately 15 percent of the county and often include areas that are cultivated for agriculture; and soils of the uplands which make up 85 percent of the county, cover steep slopes and are underlain by igneous and sedimentary rock.
- Several well-known geologic features traverse San Benito County. The most significant is the San Andreas Fault Zone, a principal active fault identified by the Alquist-Priolo Earthquake Fault Zoning Act. The fault is a right lateral strike slip fault and runs the length of the county.
- Other notable faults in San Benito County include the Calaveras (principal active fault), Sargent, Paicines, Bear Valley, Zayante-Vergeles, and Quien-Sabe Faults.
- The 2008 Report by the Working Group on California Earthquake Probabilities (WGCEP) identified a 93 percent probability of a magnitude 6.7 or greater earthquake, and a 16 percent probability of magnitude 7.5 or greater earthquake occurring during the next 30 years in northern California. The San Andreas and Calaveras Faults have the highest earthquake probability within the county. However, a major earthquake in the San Francisco Bay area could also have significant direct impacts in the county including seismic shaking, liquefaction, and ground rupture.
- The Gabilan and Diablo Ranges consist of highly deformed and metamorphosed sedimentary and igneous rocks. These rock formations have been intensely deformed during the collision of the North American Plate and the Pacific Plate, and have undergone low grades of metamorphism. The low-grade metamorphism has resulted in the alteration of ultramafic rocks to asbestos-containing formations.
- Naturally Occurring Asbestos (NOA) is found in the southern part of the county. The Environmental Protection Agency (EPA) issued the Clear Creek Management Area an Asbestos

Exposure and Human Health Risk Assessment in 2008, which concluded that adults and children visiting the CCMA more than once per year could be exposed to carcinogens such as asbestos above EPA acceptable levels. Since release of the EPA report, the Bureau of Land Management (BLM) has issued a temporary closure order on 30,000 acres within the Serpentine Area of Critical Environmental Concern (ACEC).

- Ground failure and liquefaction have been reported from historical earthquakes within San Benito County near Hollister and San Juan Bautista. During the 1989 Loma Prieta earthquake, sand boils, lateral spreading, and ground settlement were reported at four locations within San Benito County.
- The risk of liquefaction in the county is considered highest near Quaternary alluvial deposits where soil saturation is close to the land surface. No specific liquefaction hazard areas have been delineated in the county; however, the potential for liquefaction is recognized throughout the Santa Clara Valley and other areas where unconsolidated sediments coincide with a high water table.
- Areas at risk for landslides within San Benito are concentrated along steep topographic slopes. Landslides could also occur near Hollister, Tres Pinos, and Paicines. Existing landslides, earthflows, and other similar features are abundant along the numerous faults throughout the county.
- Several abandoned mines within the county have undergone some remediation, including five abandoned mines within the Clear Creek Management Area. These mines include the Aurora, Alpine, Jade Hill, Xanadu, and Larcious Mines. The California Office of Mine Reclamation (OMR) has identified the New Idria Mine as an abandoned mine. The site is listed by OMR for chemical risk. The New Idria mine is now a Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) site; however, the site is not listed on the National Priorities List (NPL).

11.2: Flood Hazards

- Many unincorporated areas in San Benito County are subject to typical rainfall flooding during the winter season, but high risk floodplains are generally confined to narrow corridors along stream channels, except in the most downstream areas surrounding northern Hollister.
- In conjunction with the previous General Plan Update, San Benito County enacted a Flood Plain zoning designation, which precluded development within areas subject to flooding as identified on FEMA maps.
- Some flood prone areas in San Benito County are located in remote tributary valleys that may also be affected landslides and/or combined hazard effects that impair emergency response.
- Land use within floodplains in San Benito County remains largely agricultural with relatively limited residential, commercial, or industrial uses.
- San Benito County is a member of the Pajaro River Watershed Flood Prevention Authority. Large portions of the Parajo River watershed (i.e., San Benito River and Santa Ana Creek) and the Soap Lake Floodplain fall within the county.

- San Benito County could be affected by dam failure inundation from a few, relatively small dams and reservoirs, including the San Justo Reservoir located three miles southwest of Hollister and the Leroy Anderson Dam, which is located in Santa Clara County but has a dam inundation zone that covers a part of San Benito County.

11.3: Wildland Fire Hazards

- CAL FIRE and the Bureau of Land Management have primary wildland fire management responsibilities in the county. The San Benito County Fire Department, Aromas Tri-County Fire Department, Hollister Fire Department, and San Juan Bautista Volunteer Fire Department have lesser responsibilities for wildland fires.
- The expanding wildland urban interface (WUI) area and increasing urban populations create a potential for large, damaging, and costly wildfires. While 56 percent of the county within the San Benito-Monterey Fire Unit has an overall fire hazard rating of high in the SRA, 30 percent is rated very high and 14 percent is rated moderate. However, the most of these areas fall within Monterey County. The majority of the county's assets at risk are ranked at the bottom 80 percent of the low fire hazard rating.
- Annual grassland, oak woodland, brush, and conifer species are the four most distinct wildland fuel types in the San Benito County portion of the San Benito-Monterey Fire Unit
- There is only one designated "target priority area" within San Benito County. This target priority area is located near the San Juan Canyon within Fremont Peak State Park. This area contains large ranches and some single-family and multi-family residential in remote areas.
- Current (2010) County policy recommends maintaining a response time of five minutes for first-response fire engines in local responsibility areas (LRA) and a response time of fifteen minutes for first-response fire engine in SRAs. However, according to the County Fire Department 2008 Annual Report, the County's fire resources are severely below response standards.
- According to the San Benito County Community Wildfire Protection Plan (CWPP), the majority of the county falls within a high fire hazard severity zone, but particularly the lands in the northernmost and eastern portions of the county. Both Hollister and San Juan Bautista fall within urbanized developed areas outside hazard zones. However, the communities of Paicines and Panoche fall within moderate fire hazard severity zones; the communities of Bitterwater and San Benito fall within high fire hazard severity zones; and the community of Idria falls within a very high fire hazard severity zone. The westernmost perimeter of the county, including the Pinnacles National Monument, also falls within very high fire hazard severity zones.
- The California Fire Alliance identifies Aromas and San Juan Bautista as at-risk communities susceptible to wildfire damage. The San Benito County CWPP identifies either other communities with priority ratings for also being "at-risk," including Antelope Valley, Bitterwater, Cienega Canyon, Paicines, Panoche Valley, Ridgemark, San Juan Canyon, and Tres Pinos.

11.4: Human-made Hazards

- The San Benito County Department of Environmental Health (SBDEH) is the designated Certified Unified Program Agency (CUPA) in San Benito County. SBDEH's service area includes the unincorporated parts of the county and incorporated cities.
- SBDEH currently (2010) has an aggressive ordinance for ensuring the safety of the public from hazardous materials generated or used within the county, including an inspection program. As the local enforcement agency, SBDEH helps maintain and update a comprehensive County database that is maintained for tracking purposes by the RWQCB Geotracker Program, the California DTSC Envirostor, and the CalRecycle (formerly California Integrated Waste Management Board), SWIS databases.
- The John Smith Landfill is the only active solid waste disposal site in the county. There are three closed landfill solid waste disposal sites within the county, including Hart's Landfill, Old San Juan Dump, and Teledyne-McCormick-Selph.
- The county contains a total of 101 hazardous waste sites. CalEPA sites include the PG&E gas plant in Hollister, the U.S. Bureau of Land Management Vellecitos Oil Fields approximately 50 miles southeast of Hollister, the former Class I disposal facility adjacent to the John Smith Landfill, and the Joe Asbestos Pit Union Carbide Mine at the southern county boundary.
- There are currently (2010) eight open cleanup program sites in the county, seven of which lie within the city limits of Hollister. There are also 12 open LUST cleanup sites, of which 10 are located in Hollister.
- Over the past 20 years less than 10 clandestine methamphetamine drug labs have been investigated within San Benito County. The last investigation took place in 2005.

11.5: Airport Safety

- There are two public-use airports, one private airport, and three heliports in the county.
- The San Benito County Comprehensive Airport Land Use Plan (2001) establishes safety policies for the two public airports in San Benito County.
- Safety zones and information on the county's private-use airports and heliports are not included in the 2001 Comprehensive Airport Land Use Plan. Most of these facilities have few aircraft operations because they are used for emergency purposes. Therefore, the level of risk due to air safety hazards is low.
- There were approximately 145 based aircraft at the Hollister Municipal Airport in 1997, and 204 were expected to be based at the airport in 2010. Forecasts show a maximum of 265 aircraft, including single-engine, multi-engine propeller, multi-engine jet, and helicopters could be based at the airport by 2020. Total operations are also expected to increase from 53,000 operations per year in 1997 to 92,100 in 2010, and to 136,200 by 2020. General operations are forecast to account for the largest share of total operations at the airport through 2020.

- The Frazier Lake Airpark had 79 based aircraft in 1998 and was expected to have 100 in 2010. By 2020 the number of aircraft is expected to increase to 123. There were 9,800 aircraft operations per year in 1998. Annual operations are expected to increase to 15,900 in 2010, and to 23,900 by 2020.

11.6: Air Quality

- San Benito County is within the North Central Coast Air Basin (NCCAB). The basin is currently (2010) rated as follows:
 - State one-hour ozone standard = moderate nonattainment
 - State eight-hour ozone standard = nonattainment
 - State PM2.5 standard = attainment/classified
 - State PM10 standard = nonattainment
 - Federal eight-hour ozone standard = unclassified/attainment
 - Federal PM10 and PM2.5 standard = attainment/classified
- The basin currently (2010) has a nonattainment status for ozone and particulate matter pollutants. As a result, MBUAPCD is preparing ozone and PM10 attainment plans that will identify new regulations necessary to bring the basin into compliance.
- Emission sources within the county include major reactive organic gases (ROG), nitrogen oxide (NOx), fugitive dust (PM10), and fine particulates (PM2.5). The major sources of these emissions include:
 - ROG = solvent evaporation, farming, and managed burning
 - NOx = motor vehicles
 - PM10 = unpaved roads, wind erosion, and agricultural tillage
 - PM2.5 = managed burning and the combustion of fossil fuels
- Emissions data collected between 2005 and 2009 from both the Pinnacles National Monument and the Hollister-Fairfield Road air quality monitoring stations show violations for the Federal eight-hour and State one-hour ozone standards. However, there were no violations of either the Federal or State PM10 and PM2.5 standards.

Chapter 12—Climate Change Major Findings

12.1: Climate Change

- San Benito County's regional air quality management agency, the Monterey Bay Unified Air Pollution Control District (MBUAPCD), has not yet adopted any significance thresholds for GHG emissions.
- Although MBUAPCD has developed on-road vehicular GHG emission inventories for Monterey and Santa Cruz Counties based on the AMBAG travel model, they have yet (as of Summer 2010) to develop the on-road vehicular inventory for San Benito County.

- Although no GHG inventory has been completed for the county, because agricultural production and its associated farming operations account for a large percentage of the land uses within the county, agricultural operations associated with off-road farming equipment use, irrigation of cropland, and fertilizer applications are expected to be a large contributor to overall GHG emissions in the county.
- Because the majority of the county's population resides between two mountain ranges within a fertile valley floor and is dependent on an agricultural livelihood, climate change may have the greatest effects on the county's agricultural operations, since over time climate change effects may reduce the suitability and productivity of agricultural lands.
- Increased drought, decreased rainfall, and changes in the county's vegetation cover and plant communities due to climate change could increase the risk of wildfire hazards to residential and agricultural uses within the wildland urban interface (WUI) as population increases and urban development encroaches into wildland interface areas over time.
- An increase in average annual temperatures, by itself, could affect San Benito County by increasing evapotranspiration rates that, in turn, decrease reservoir levels (e.g., San Justo, San Luis), increase irrigation demand for cropland, and create potentially greater overall energy consumption to meet air conditioning demands of the growing population.
- Although global climate change models predict an increase in overall precipitation on a worldwide scale, there is no such consistency among the results of regional models that can be applied to San Benito County. Given the uncertainty associated with projecting the amount of annual precipitation, it would be too speculative to determine the reasonably foreseeable direct effects of climate change on physical conditions, specifically precipitation volumes, in San Benito County.

12.2: Greenhouse Gas Emissions Inventory

Note: Information for this section is currently (2010) being prepared by the Association of Monterey Bay Area Governments and will be included in the Final Background Report.

12.3: Effects of Climate Change and Adaptation

- The California Department of Water Resources (DWR) projects that approximately 50 percent of the statewide snowpack will be lost by the end of the century. Although current forecasts are uncertain, it is evident that this phenomenon could lead to significant challenges in securing an adequate water supply for a growing population.
- Average runoff from melting snowpack is usually about 20 percent of the total annual natural runoff and roughly 35 percent of the total usable annual surface water supply in California. The snowpack is estimated to contribute an average of about 15 million acre-feet (MAF) of runoff each year, about 14 MAF of which is estimated to flow into the Central Valley.
- Although an increase in annual average temperature is a reasonably foreseeable effect of future climate change, this change alone would minimally affect the county, especially over the planning horizon of the next 20 years.

- Based on the results of a variety of regional climate models, it is reasonably foreseeable that some increase in annual average temperatures, in the range of 2 to 5°C (3.6 to 9.0°F), will occur in California, and in the county, during the next 100 years.
- Snow is expected to be a smaller part of overall precipitation but will also melt and run off earlier in the year. This change will occur as overall precipitation will likely increase slightly. These two trends will most likely cause reduced summer flows, reduced summer soil moisture, and increased winter flows and flood potential.
- A 15 percent increase in land fallowing is expected to occur under a dry and warm climate scenario. Land fallowing would reduce agricultural productivity and affect the agricultural economy as well as the rural support economies.