Connections Between California's History/Social Science Standards and California's Environmental Principles and Concepts (EP&Cs)

Approved by the Interagency EEI Model Curriculum Planning Committee¹

As Part of the EEI Model Curriculum Plan

Fourth Grade

¹ Developed under the authority of the Education and the Environment Initiative [Assembly Bill 1548 (Pavley, Chapter 665, Statutes of 2003) and Assembly Bill 1721 (Pavley, Chapter 581, Statutes of 2005). The Interagency EEI Model Curriculum Planning Committee included the State Board of Education, State Department of Education, Secretary for Education, Natural Resources Agency, California Environmental Protection Agency, and CalRecycle (formerly the California Integrated Waste Management Board).

Academic Content Standards	Name of Relevant EEI Unit or Strong Connection Between EP&Cs and Standard	
 Students demonstrate an understanding of the pl features that define places and regions in Californ 		Standards-based Learning Objectives in the Context of California's EP&Cs Students will:
 Explain and use the coordinate grid system of latitude and longitude to determine the absolute locations of places in California and on Earth. 	Possible connections to EP&Cs	 Use the coordinate grid system of latitude and longitude to determine the absolute location of various landforms, bodies of water, vegetation and climatic zones in California and on Earth.
 Identify the state capital and describe the various regions of California, including how their characteristics and physical environments (e.g., water, landforms, vegetation, climate) affect human activity. 	Name of EEI Unit: 4.1.3.3-4.1.5. Reflections of Where We Live	 Describe the differences among the various regions of California, providing examples of landforms, bodies of water, vegetation and climate in each. Give examples of the variety of ecosystems in California. Provide examples of how water, landforms, vegetation and climate affect human activity in California. Identify that the needs of humans in California are met by using goods and ecosystem services from natural systems.
4. Identify the locations of the Pacific Ocean, rivers, valleys, and mountain passes and explain their effects on the growth of towns.	Strong connections to EP&Cs	 Identify that humans depend on California's rivers, valleys, and mountain passes for movement and for the transport of goods and use of ecosystem services. Describe how the Pacific Ocean, and California's rivers, valleys, and mountain passes influence the availability of goods and ecosystem services provided by natural systems for human use. Explain how decisions to settle in certain areas of California and build towns are typically based on geographic features and distribution of natural systems (e.g., forests, rangelands, bodies of water). Provide examples of how the factors influencing the location of towns have changed as the human population in California has grown and technology has advanced. Recognize that although some factors influencing the location of towns in California have changed, human communities are still dependent on the local natural systems for basic resources.
 Use maps, charts, and pictures to describe how communities in California vary in land use, vegetation, wildlife, climate, population density, architecture, services, and transportation. 	Name of EEI Unit: 4.1.34.1.5. Reflections of Where We Live	 Use maps, charts, and pictures to identify and locate the different types of land use, vegetation, wildlife, and climatic zones in California. Use charts and pictures to provide examples and describe the diverse architectural styles and transportation systems in various California communities and show how they are influenced by local natural systems. Use maps, charts, and pictures to compare human population density in different areas of California (e.g., urban, suburban, rural, agricultural, undeveloped). Use maps, charts, and pictures to compare areas representing different population density with areas of varying types of land use, vegetation, wildlife and climate.

2. Students describe the social, political, cultural, and economic life and interactions among people of California from the pre-Columbian societies to the Spanish mission and Mexican rancho periods.		Standards-based Learning Objectives in the Context of California's EP&Cs Students will:
 Discuss the major nations of California Indians, including their geographic distribution, economic activities, legends, and religious beliefs; and describe how they depended on, adapted to, and modified the physical environment by cultivation of land and use of sea resources. 	Name of EEI Unit: 4.2.1. California Indian Peoples and Management of Natural Resources e	 Identify the goods and ecosystem services that were essential to the lives, economies, and cultures of each of the major nations of California Indians. Describe how the regions where different California Indian nations lived supplied them with different natural resources, goods and ecosystem services and resulted in different land use patterns and economic activities in each region. Identify that California Indian nations developed different methods to extract, harvest, transport and consume natural resources. Provide examples of how the extraction, harvesting, transporting and consuming of goods and use of ecosystem services by California Indians influenced the geographic extent, composition, biological diversity, and viability of the natural systems they inhabited. Explain how the California Indian nations modified their physical environment by cultivation of land and use of sea resources.
2. Identify the early land and sea routes to, and European settlements in California with a focus on the exploration of the North Pacific (e.g., by Captain James Cook, Vitus Bering, Juan Cabrillo), noting especially the importance of mountains, deserts, ocean currents, and wind patterns.	Strong connections to EP&Cs	 Identify the reasons for the development of the early land and sea routes used in exploration of the North Pacific (e.g., the discovery, extraction, harvest and consumption of natural resources). Describe the influence of various geographic features including mountains, deserts, ocean currents, and wind patterns on the development of land and sea routes used in European exploration and settlements in California. Recognize the roles of key explorers in the discovery of natural systems that would provide goods and ecosystem services for the continued growth and development of European nations. Provide examples of the effects of exploring the North Pacific on the geographic extent, composition, biological diversity, and viability of natural systems found in that region. Identify how the demographics, distribution and consumption rates of human populations in Europe influenced the geographic extent, composition, biological diversity, and viability of natural systems found in that region.
3. Describe the Spanish exploration and colonization of California, including the relationships among soldiers, missionaries, and Indians (e.g., Juan Crespi, Junipero Serra, Gaspar de Portola).	Strong connections to EP&Cs	 Identify the reasons for the Spanish exploration and colonization of California (e.g., the discovery, extraction, harvest and consumption of natural resources). Describe the influence of various geographic features including mountains, deserts, ocean currents, and wind patterns on Spanish settlements in California. Recognize the roles of key explorers in the discovery of natural systems that would provide for the continued growth and development of European nations. Provide examples of the effects of Spanish settlements on the geographic extent, composition, biological diversity, and viability of natural systems found in that region. Identify how the demographics, distribution and consumption rates of human populations in Spain influenced the geographic extent, composition, biological diversity, and viability of natural systems made during Spanish colonization of California were influenced by the relationships between and the varying perspectives of the soldiers, missionaries, and Indians populating the area.

4. Describe the mapping of, geographic basis of, and economic factors in the placement and function of the Spanish missions; and understand how the mission system expanded the influence of Spain and Catholicism throughout New Spain and Latin America.	Strong connections to EP&Cs	 Identify the reasons for the placement and function of the Spanish missions including the geographic basis, economic factors and availability of the goods and ecosystem services produced by natural systems. Describe the influences of California's mission system on the surrounding natural systems. Identify how the demographics, distribution and consumption rates of human populations in Spain and Latin America influenced the geographic extent, composition, biological diversity, and viability of natural systems in the North Pacific. Describe how the mission system expanded the influence of Spain and Catholicism throughout New Spain and Latin America.
5. Describe the daily lives of the people, native and nonnative, who occupied the presidios, missions, ranchos, and pueblos.	Strong connections to EP&Cs	 Identify how the jobs of the people who lived in the presidios, missions, ranchos, and pueblos of California were related to the extraction, harvesting, transporting and consumption of goods and ecosystem services from natural systems. Describe how the relationship of the native people to natural systems was affected by the growth of human populations centered in and near the presidios, missions, ranchos, and pueblos of California. Provide examples of how the daily lives of the people, native and nonnative, who occupied the presidios, missions, ranchos, and pueblos were influenced by the natural systems in these areas. Identify how the daily lives of the people, native and nonnative, changed over time in response to the growth of human communities and the resulting changes to the local natural systems.
6. Discuss the role of the Franciscans in changing the economy of California from a hunter-gatherer economy to an agricultural economy.	Name of EEI Unit: 4.2.6. Cultivating California	 Identify the differences between hunter-gatherer and agricultural economies. Describe how the daily lives of native and nonnative people changed as the result of shifting from a hunter-gatherer economy to an agricultural economy (e.g., human communities became rooted to one location and had greater influence on local natural systems). Discuss the role of the Franciscans in changing the economy of California from a hunter-gatherer economy to an agricultural economy. Provide examples of how changing the economy of California from a hunter-gatherer economy to an agricultural economy of California from a hunter-gatherer economy to an agricultural economy of California from a hunter-gatherer economy to an agricultural economy influenced the natural systems in different regions of California. Describe how these changes to California's natural systems in turn affected the daily lives of native and nonnative people.
7. Describe the effects of the Mexican War for Independence on Alta California, including its effects on the territorial boundaries of North America.	Strong connections to EP&Cs	 Identify the reasons for the Mexican War for Independence including the desire to control or provide access to certain goods and ecosystem services provided by natural systems. Compare the goods and ecosystem services provided by natural systems in Baja and Alta California. Describe how the differences between goods and ecosystem services provided by natural systems in Baja and Alta California influenced the location and expansion of human communities in these regions.

8. Discuss the period of Mexican rule in California and its attributes, including land grants, secularization of the missions, and the rise of the rancho economy.	Strong connections to EP&Cs	 Discuss the period of Mexican rule in California and its attributes, including land grants, secularization of the missions, and the rise of the rancho economy. Identify how the land grants during the period of Mexican rule in California influenced the extraction, harvesting, transporting and consumption of the goods and ecosystem services provided by California's natural systems. Provide examples of how the period of Mexican rule (e.g., land grants, secularization of the missions, and the rise of the rancho economy) influenced the development of laws and management practices for California's natural resources. Provide examples of how the rise of the rancho economy influenced the natural systems in different regions of California.
 Students explain the economic, social, and political establishment of the Bear Flag Republic through the Gold Rush, and the granting of statehood. 		Standards-based Learning Objectives in the Context of California's EP&Cs Students will:
 Identify the locations of Mexican settlements in California and those of other settlements, including Fort Ross and Sutter's Fort. 	Possible connections to EP&Cs	 Identify the reasons Mexican and other settlements in California were located where they are, including access to the goods and ecosystem services provided by natural systems (e.g., Fort Ross was established as a Russian settlement to hunt sea otter, to grow wheat and other crops for the Russian settlements in Alaska, and to trade with Spanish California. Sutter's Fort was established as a land grant to Sutter from the Mexican government and flourished as an agricultural community and eventually became the center of Gold Rush activities). Provide examples of how economic, social and political decisions in other countries affected the use of goods and ecosystem services from California's natural systems (e.g., Russia's need to supply its Alaskan settlements).
2. Compare how and why people traveled to California and the routes they traveled (e.g., James Beckwourth, John Bidwell, John C. Fremont, Pio Pico).	Possible connections to EP&Cs	 Identify the goods and ecosystem services provided by California's natural systems that attracted various well-known individuals (James Beckwourth, John Bidwell, John C. Fremont, Pio Pico) and the multitudes of individuals and families to migrate to California. Describe how the decisions to settle in some areas of California rather than others were influenced by the goods and ecosystem services provided by the natural systems. Compare how and why people traveled to California and the routes they chose.
3. Analyze the effects of the Gold Rush on settlements, daily life, politics, and the physical environment (e.g., using biographies of John Sutter, Mariano Guadalupe Vallejo, Louise Clapp).	Name of EEI Unit: 4.3.3. Witnessing the Gold Rush	 Identify how the methods used to extract, harvest and transport gold in California influenced the natural systems where the gold was being sought. Using the biographies of John Sutter, Mariano Guadalupe Vallejo, and Louise Clapp, describe how the quest for gold influenced the growth, development and operation of new communities in various parts of California. Describe how the changing resource production and consumption patterns in California during the Gold Rush resulted in the need for new laws, policies, and incentives regarding resource use and management. Identify byproducts of the Gold Rush communities, and the mining and extraction practices that influenced the health of the natural systems in the surrounding areas (e.g., the use of mercury in the refining process). Examine how political and economic decisions made during the Gold Rush influenced the social, economic, political, and legal systems in local communities and in California as a whole.

 Students explain how California became an agricult the transformation of the California economy and its development since the 1850s. 		Standards-based Learning Objectives in the Context of California's EP&Cs Students will:
1. Understand the story and lasting influence of the Pony Express, Overland Mail Service, Western Union, and the building of the transcontinental railroad, including the contributions of Chinese workers to its construction.	Strong connections to EP&Cs	 Identify the role of communication and transportation systems in bringing the goods and ecosystem services produced by California's natural systems (e.g. agricultural products) to other parts of the nation and world. Provide examples of how changes in communication and transportation systems, since the 1850s, have influenced the development of California's agricultural and industrial economic powers. Describe the role of expanding communication and transportation systems and growing demands from other areas of the nation and world, on the rates of consumption of the goods and ecosystem services produced by California's natural systems.
2. Explain how the Gold Rush transformed the economy of California, including the types of products produced and consumed, changes in towns (e.g., Sacramento, San Francisco), and economic conflicts between diverse groups of people.	Strong connections to EP&Cs	 Provide examples of the direct and indirect changes to the surrounding natural systems that came about as a result of the rapid population growth, community construction and operation changes in California's towns (e.g., Sacramento, San Francisco). Describe how the transformation of California's economy, which resulted from the Gold Rush, influenced the types of products produced and consumed in the state and caused economic conflicts between diverse groups of people. Identify how the changes brought about by the transformation of California's economy (i.e., the types and amounts of products produced and consumed) resulted in the consumption of different goods and ecosystem services from natural systems and the production of different byproducts. Using the Gold Rush period in California as an example, describe the influence of consuming goods and ecosystem services and producing different byproducts on natural systems.
3. Discuss immigration and migration to California between 1850 and 1900, including the diverse composition of those who came; the countries of origin and their relative locations; and conflicts and accords among the diverse groups (e.g., the 1882 Chinese Exclusion Act).	Strong connections to EP&Cs	 Identify the role of the goods and ecosystem services provided by California's natural systems in attracting and providing jobs for people who migrated to California between 1850 and 1900. Compare the availability of the goods and ecosystem services provided by California's natural systems to their availability in the immigrants' countries of origin. Discuss immigration and migration to California between 1850 and 1900, including the diverse composition of those who came; the countries of origin and their relative locations; and conflicts and accords among the diverse groups (e.g., the 1882 Chinese Exclusion Act).
4. Describe rapid American immigration, internal migration, settlement, and the growth of towns and cities (e.g., Los Angeles).	Strong connections to EP&Cs	 Explain the role of the goods and ecosystem services provided by California's natural systems in the rapid American immigration, internal migration, settlement, and the growth of towns and cities. Provide examples of the direct and indirect changes to natural systems that resulted from rapid American immigration, internal migration, settlement, and the growth of towns and cities (e.g., the geographic extent, composition, biological diversity, and viability of natural systems). Describe how the rapid American immigration, internal migration, settlement, and the growth of California's towns and cities, affected the state's laws, policies and incentives related to the management of natural systems (e.g., land use and water management laws.)

5. Discuss the effects of the Great Depression, the Dust Bowl, and World War II on California.	Strong connections to EP&Cs	 Recognize the relationship between the Dust Bowl and the Great Depression on the availability and consumption of the goods and ecosystem services from natural systems. Identify the role of human practices (e.g., agriculture) in altering the cycles that operate within natural systems and the relevance of those practices to the Dust Bowl. Provide examples of how the migration to California that resulted from the Great Depression, the Dust Bowl, and World War II influenced the consumption of goods and ecosystem services from California's natural systems (e.g., growth of human communities directly and indirectly consumed natural resources). Recognize that the capacity of natural systems to adjust to these human-caused alterations depends on the scope, scale, and duration of the activity and the nature of their byproducts (e.g., the effects of the "temporary" internment camps (e.g., Manzanar) and migrant work camps (e.g., to house Dust Bowl migrants remain visible on California's landscape after many decades.)
6. Describe the development and locations of new industries since the turn of the century, such as the aerospace industry, electronics industry, large-scale commercial agriculture and irrigation projects, the oil and automobile industries, communications and defense industries, and important trade links with the Pacific Basin.	Strong connections to EP&Cs	 Identify the locations of new industries in California since the turn of the century, such as the aerospace industry, electronics industry, large-scale commercial agriculture and irrigation projects, the oil and automobile industries, communications and defense industries, and the development of important trade links with the Pacific Basin. Identify the influence of new industries, since the turn of the century, on the growth and expansion of human communities in California. Recognize the influence of California's growing communities on the supply and consumption of goods and ecosystem services from the natural systems where they are located. Describe how large-scale commercial agriculture and irrigation projects influence the cycles and processes that operate within natural systems of California. Provide examples of the relationship between the development of new industries in California and the quantities of resources consumed and the quantity and characteristics of the resulting byproducts. Recognize that the byproducts of both new and old industries enter natural systems and that their effects on those systems may be beneficial, neutral, or detrimental.

7. Trace the evolution of California's water system into a network of dams, aqueducts, and reservoirs.	Strong connections to EP&Cs	 Identify the importance of California's water to humans, human communities, and natural systems. Describe how the availability of a reliable supply of clean water influenced the growth of human communities and the development of California's agriculture-based economy. Describe how the development of California's water system has influenced the natural systems of the state (e.g., Mono Lake, Owen's Lake, Salton Sea). Describe how the health of California's water supply. Explain how California's economic health is related to the reliability and quantity of water resources available for human use. Identify the spectrum of considerations that are involved in making decisions about California's water system (e.g., legal factors, economic factors, environmental sustainability, public health, and socio-cultural factors). Describe how the assessment of these decision-making factors have changed over
		time in response to changing conditions, which influences how those decisions are made.

5. Students understand the structures, functions, and powers of the local, state, and		Standards-based Learning Objectives in the Context of California's EP&Cs
federal governments as described in the U.S. Constitution.		Students will:
3. Describe the similarities (e.g., written documents, rule of law, consent of the governed, three separate branches) and differences (e.g., scope of jurisdiction, limits on government powers, use of the military) among federal, state, and local governments.	Possible connections to EP&Cs	 Identify the similarities and differences among federal, state, and local governments' jurisdiction over laws, regulations, policies, and incentives that govern the use, management, and consumption of goods and ecosystem services from natural systems. Describe the similarities (e.g., written documents, rule of law, consent of the governed, three separate branches) and differences (e.g., scope of jurisdiction, limits on government powers, use of the military) among federal, state, and local governments.
4. Explain the structures and functions of state governments, including the roles and responsibilities of their elected officials.	Strong connections to EP&Cs	 Identify the structures and functions of state governments that enforce laws, regulations, and policies regarding the use, management, and consumption of goods and ecosystem services from natural systems. Compare the roles of different state agencies in the use, management, and consumption of goods and ecosystem services from natural systems (e.g., California EPA, Resources Agency and Department of Transportation). Provide examples of the roles and responsibilities of elected officials in governing the use, management, and consumption of goods and ecosystem services from natural systems. Explain the structures and functions of state governments, including the roles and responsibilities of their elected officials, regarding the use, management, and consumption of goods and ecosystem services from natural systems.
5. Describe the components of California's governance structure (e.g., cities and towns, Indian rancherias and reservations, counties, school districts).	Strong connections to EP&Cs	 Recognize that California has laws, regulations, and policies regarding the use, management, and consumption of goods and ecosystem services from natural systems among cities, towns, counties, Indian rancherias and reservations, and school districts. Identify the structures and functions of local governments that enforce laws, regulations, and policies regarding the use, management, and consumption of goods and ecosystem services from natural systems. Describe the components of California's governance structure (e.g., cities and towns, Indian rancherias and reservations, counties, school districts).