



## Glossary

100-year flood event	<p>The flood having a 1-in-100 (1 percent) chance of being equaled or exceeded in any given year. A structure located within a special flood hazard area shown on a National Flood Insurance Program map has a 26% chance of suffering flood damage during the term of a 30 year mortgage.</p> <p>(Federal Emergency Management Agency, <a href="http://www.fema.gov/">http://www.fema.gov/</a>, accessed June 2009).</p>
200-year floodplain	<p>An area that has a 1-in-200 (0.5 percent) chance of flooding in any given year, based on hydrological modeling and other engineering criteria accepted by the Department of Water Resources.</p> <p>California Government Code Section 65300.2(a)</p>
200-year flood event	<p>A flood event with a 1-in-200 (0.5 percent) chance of being equaled or exceeded in any given year.</p>
500-year floodplain	<p>An area that has a 1-in-500 (0.2 percent) chance of flooding in any given year, based on hydrological modeling and other engineering criteria accepted by the Department of Water Resources.</p>
agricultural stewardship	<p>A public and private commitment to manage and preserve the resources, and the conditions necessary for, a robust and sustainable agricultural industry in California.</p>
anadromous fish	<p>Fish that, while born in fresh water, live in the ocean mostly and breed in fresh water.</p>
annual pass rate	<p>The percentage (on an annual basis) of levees that pass inspections according to Federal and State levee standards (e.g., maintenance, encroachment, etc.).</p>
beneficiary	<p>Partners, interested parties and the general public who receive benefit from a flood management project. The type of benefit may be direct (e.g. property damage reduction) or indirect (e.g. economic losses outside a flood event).</p>
Central Valley Flood Protection (CVFP) Board	<p>The Central Valley Flood Protection Board (formerly The Reclamation Board) was created by the California Legislature in 1911 to carry out a comprehensive flood control plan for the Sacramento and San Joaquin Rivers. The Board has jurisdiction throughout the Sacramento-San Joaquin Valley, which is synonymous with the drainage basins of the Central Valley and includes the Sacramento-San Joaquin Drainage District.</p>



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Central Valley Flood Management Planning Program (CVFMP)	The CVFMP is one program within FloodSAFE California, a multi-year initiative led and managed by the California Department of Water Resources. Primary products of the CVFMP Program are the State Plan of Flood Control Descriptive Document, the State Plan of Flood Control History Document, the Flood Control System Status Report, and the Central Valley Flood Protection Plan (CVFPP).
Central Valley Flood Protection Plan	The CVFPP is a State plan that will describe the challenges, opportunities, and a vision for improving integrated flood management in the Central Valley. The CVFPP will document the current and future risks associated with flooding and recommend improvements to the State-federal flood protection system to reduce the occurrence of major flooding and the consequence of flood damage that could result. The plan will be submitted to the Central Valley Flood Protection Board by January 1, 2012, for adoption by the following July, and will be updated every five years.
conveyance capacity	The maximum rate of flowing water, usually expressed in cubic feet per second (cfs), that a river, canal, or bypass can receive without exceeding a threshold value such as flood stage, or the freeboard distance from the top of a levee.
CVFMP Forum	Valley-wide or regional conference-style public meetings with presentations, workshops, panel discussions, and information booths. These forums are the primary venue for engaging a wide array of interests in discussing draft plan content and gauging agreement, and fostering information-sharing about regional and system-wide flood management challenges and potential solutions. Related FloodSAFE projects and programs will also use CVFMP Forums to engage interested parties efficiently.
CVFPP Work Group	Place-based (e.g. regional) and subject-based (e.g. topic) work groups chartered to develop content and content recommendations for the CVFPP. Work groups are integral parts for developing a broadly-supported CVFPP that reflects the State, federal, tribal, local, regional perspectives, and subject-matter expertise.
design discharge (flow)	The rate of flowing water, usually measured in cubic feet per second (cfs) associated with the water surface profile or water level for which a flood management project was designed.



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- design standard Minimum acceptable requirements for designed construction of flood management facilities (levees, control structures, etc.) when the infrastructure was constructed. Design standards can change over time due to the improved understanding of risk factors; the additions and changes in regulations and law; and social values and benefit considerations. In some cases, design standards today are different then when much of the SPFC facilities were constructed.
- developed area An area of a community that is:
- A. A primarily urbanized, built-up area that is a minimum of 20 contiguous acres, has basic urban infrastructure, including roads, utilities, communications, and public facilities, to sustain industrial, residential, and commercial activities, and
    1. Within which 75 percent or more of the parcels, tracts, or lots contain commercial, industrial, or residential structures or uses; or
    2. Is a single parcel, tract, or lot in which 75 percent of the area contains existing commercial or industrial structures or uses; or
    3. Is a subdivision developed at a density of at least two residential structures per acre within which 75 percent or more of the lots contain existing residential structures at the time the designation is adopted.
      - A. Undeveloped parcels, tracts, or lots, the combination of which is less than 20 acres and contiguous on at least 3 sides to areas meeting the criteria of paragraph (a) at the time the designation is adopted.
      - B. A subdivision that is a minimum of 20 contiguous acres that has obtained all necessary government approvals, provided that the actual “start of construction” of structures has occurred on at least 10 percent of the lots or remaining lots of a subdivision or 10 percent of the maximum building coverage or remaining building coverage allowed for a single lot subdivision at the time the designation is adopted and construction of structures is underway. Residential subdivisions must meet the density criteria in paragraph (a)(3). (Section 59.1 of Title 44 of the Code of Federal regulations)

California Government Code Section 65007 (c)



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ecosystem	An ecosystem consists of all the organisms in a given area interacting with the physical environment. The biotic and physical components in an ecosystem are interdependent, frequently with complex feedback loops. The physical components that sustain the biota of an ecosystem include but may not be limited to the soil or substrate, topographic relief and aspect, the atmosphere, weather and climate, hydrology, geomorphic processes, the nutrient regime, and the salinity regime.
ecosystem rehabilitation	A practice where an ecosystem, that has been degraded or disturbed by a specific human action, is changed to an improved state that is not necessarily the pre-action "natural" state but is defined by providing the basic hydrogeomorphic and ecological processes that support a functioning ecosystem.
ecosystem restoration	A practice where an ecosystem, that has been degraded or disturbed by a specific human action or natural process, is restored to mimic, as closely as possible through the restoration of critical natural processes, conditions which would occur in an area in the absence of human changes to the landscape and hydrology.
ecosystem services	Ecosystem services emanate from a functioning ecosystem and are the beneficial outcomes for the natural environment or for people that result from ecosystem functions. Some examples of ecosystem services are support of the food chain, harvesting of animals or plants, clean water, or scenic views. In order for an ecosystem to provide services to humans, some interaction with, or at least some appreciation by, humans is required.

DFG, California Wildlife Action Plan, 2004



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- encroachment** Any obstruction or physical intrusion by construction of works or devices, planting or removal of vegetation, or by whatever means for any purpose, into any of the following: (1) any flood control project works; (2) the waterway area of the project; (3) the area covered by an adopted plan of flood control; or (4) any area outside the above limits, if the encroachment could affect any of the above.”  
California Code of Regulations Title 23: Section 12899(b)
- environmental stewardship** A commitment to responsibly manage and protect natural resources (water, air, land, plants and animals), and ecosystems in a functional and sustainable manner that ensures they are available for future generations.  
California Department of Water Resources Policy Paper:  
Environmental Stewardship  
DRAFT 2000-03-25
- essential public facilities** Public facilities include, but not limited to, hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities.  
California Government Code Section 65302
- feasible** Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.  
California Water Code Section 8307
- FloodSAFE California** DWR’s multi-faceted initiative launched in 2006 to improve public safety through integrated flood management and reduce potential flood damages in the state’s highest risk areas. Although led at the state level and initially funded by proposition 1E and 84 bond money, FloodSAFE implementation relies on the cooperation and assistance of federal partners, Tribal entities, local sponsors and other stakeholders. The FloodSAFE vision is a sustainable integrated flood management and emergency response system throughout California that improves public safety, protects and enhances environmental and cultural resources, and supports economic growth by reducing the probability of destructive floods, promoting beneficial floodplain processes, and lowering the damages caused by flooding.  
DWR, Draft FloodSAFE Strategic Plan, June 2008.
- flood basin** A bowl-shaped, natural landform that historically or presently receives and retains floodwaters, or an engineered floodwater detention basin, excavated below grade or surrounded by levees.



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flood bypass	An engineered wide and shallow channel or confined floodplain, usually flanked by levees, that receives flood waters to reduce the amount of flow in a river or stream.
flood corridor	A passage way for flood flows including but not limited to bypass systems, channels, levee systems, floodplain easements, culverts, floodwalls, or a combination thereof.
Flood Control System Status Report	A report that will provide an assessment of the status of the facilities included in the State Plan of Flood Control (SPFC) Descriptive Document, identify deficiencies, and make recommendations for improvement. This report will be revised as needed.
flood damages	All damages caused by a flood including physical damage, loss of life, and economic damage.  DWR, Draft FloodSAFE Strategic Plan, June 2008
flood hazard zone	An area subject to flooding that is delineated as either a special hazard area or an area of moderate hazard on an official flood insurance rate map issued by the Federal Emergency Management Agency. The identification of flood hazard zones does not imply that areas outside the flood hazard zones, or uses permitted within flood hazard zones, will be free from flooding or flood damage.  California Government Code Section 65007(d)
flood management	The use of comprehensive methods to manage flood flows, providing multiple benefits in addition to protecting people and property.  DWR, Draft FloodSAFE Strategic Plan, June 2008
flood management system	Refers the structural elements to employed to convey flood flows within the CVFPP Planning Area, including facilities of the State Plan of Flood Control, flood control reservoirs, and non-project levees.
flood prone areas	Areas are subject to flooding.
flood protection	Methods or structural measures used to mitigate flooding or reduce flooding hazards and risks.  Delta Protection Commission, Management Plan Update Compiled Draft Management Plan Glossary November 2009
flood risk	The probability of flooding combined with negative outcomes that could result when flooding occurs.



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floodplain	<p>An area adjacent to a stream or river that experiences occasional or periodic flooding.</p> <p>DWR, Draft FloodSAFE Strategic Plan, June 2008</p>
floodplain management	<p>A decision-making process whose goal is to achieve appropriate use of the nation's floodplains. Appropriate use is any activity or set of activities that is compatible with the risk to natural resources and human resources. The operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to watershed management, emergency preparedness plans, flood control works, and floodplain management regulations.</p> <p>A Blueprint for Change, Sharing the Challenge: Floodplain Management Into the 21st Century, Report of the Interagency Floodplain Management Review Committee to the Administration Floodplain Management Task Force, Washington, D.C., June 1994</p>
floodway, state-designated	<p>The channel of a stream and that portion of the adjoining flood plain required to reasonably provide for the construction of a project for passage of the design flood including the lands necessary for construction of project levee that are regulated by the Central Valley Protection Board.</p>
freeboard	<p>A factor of safety usually expressed in feet above a flood level for purposes of floodplain management. "Freeboard" tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.</p> <p><a href="http://www.fema.gov/plan/prevent/floodplain/nfipkeywords/freeboard.shtm">http://www.fema.gov/plan/prevent/floodplain/nfipkeywords/freeboard.shtm</a></p>
geomorphology, fluvial	<p>Geomorphology is the study of the characteristics, origins, and development of landforms. Fluvial geomorphology is the study of landforms and channel types created by flowing water and the transport of rocks and sediment by water flow.</p>
goals	<p>In the planning process for the CVFPP, goals describe "what" the CVFPP will accomplish. Goals are the broad and enduring values, and direction or desired conditions we want to achieve, without prescribing or suggesting specific actions to achieve them.</p> <p>CVFPP Interim Progress Summary No. 1 April 2010</p>
headcut erosion	<p>A headcut is the sudden change in elevation or knickpoint at the leading edge of a gully.</p> <p>U.S. Department of Agriculture, Agricultural Research Service</p>



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integrated flood management	<p>An approach to dealing with flood risk that recognizes the interconnection of flood management actions within broader water resources management and land use planning; the value of coordinating across geographic and agency boundaries; the need to evaluate opportunities and potential impacts from a system perspective; and the importance of environmental stewardship and sustainability.</p> <p style="text-align: right; font-size: small;">DWR, Draft FloodSAFE Strategic Plan, June 2008</p>
interest-based group	<p>A collection of individuals and/or organizations with common interests in the activities and actions anticipated by the CVFPP.</p>
local jurisdiction	<p>Means a city, city and county, or county.</p>
legacy community	<p>A rural community that is registered as a Historic District by either a state or federal entity.</p>
Levee Flood Protection Zone	<p>An area that is protected, as determined by the Central Valley Flood Protection Board or the Department of Water Resources, by a levee that is part of the facilities of the State Plan of Flood Control, as defined under Section 5096.805 of the Public Resources Code.</p> <p style="text-align: right; font-size: small;">California Government Code Section 65300.2(b)</p>
Moderate Flood Hazard Area	<p>Flood hazard area, as identified on the Flood Insurance Rate Map (FIRM), labeled Zone B or Zone X (shaded), are the areas between the limits of the base flood and the 0.2% annual chance or a 500-year flood.</p> <p style="text-align: right; font-size: small;">Federal Emergency Management Agency, <a href="http://www.fema.gov/">http://www.fema.gov/</a>, accessed June 2009</p>
natural floodplain processes	<p>Processes in a floodplain existing in or produced by nature (rather than by the intent of human beings) e.g. periodic flooding and accompanying deposition of sediment in a floodplain.</p>
natural processes	<p>Processes existing in or produced by nature (rather than by the intent of human beings) e.g. dynamic hydrologic, geomorphic, and biological processes.</p>
neotropical migratory bird	<p>Refers to migratory birds from the neotropic ecozone that includes the Mexican lowlands, Central and South America, the Caribbean islands and southern Florida.</p>



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non-project levee	Any levee that is <u>not</u> part of the State Plan of Flood Control (WC 9602(c)) or other State-federal flood protection facilities. Non- Project levees are typically privately owned or under the authority of a local levee district. <sup>1</sup>
nonstructural improvement	Are projects that are intended to reduce or eliminate susceptibility to flooding by preserving or increasing the flood-carrying capacity of floodways, and include such measures as levees, setback levees, floodproofing structures, and zoning, designating or acquiring flood prone areas.  California Water Code Section 79068(a)
non-urbanized area	A developed area or an area outside a developed area in which there are fewer than 10,000 residents.  California Government Code 65007(e)
objective	Collectively, objectives are intended to define the overall accomplishments of the 2012 CVFPP. The objectives are not specific actions to achieve the goals, but rather quantitative overall measures of success of the plan.  CVFPP Interim Progress Summary No. 1 April 2010
objective release	Channel capacity at critical downstream control points accepted as operating criteria for flood operations of upstream storage facility.  Report on Reservoir Regulation For Flood Control, Appendix I to Master Manual of Reservoir Regulation, January 1997, U.S. Army Corps of Engineers
Operation and Maintenance	Refers to the effort that must be expended to keep project facilities in good working condition so they continue to operate as designed – wear and tear on facilities that are not adequately maintained can reduce their capacity or make them more vulnerable to failure.
project levee	Any levee that is part of the facilities of the State Plan of Flood Control. <sup>1</sup>  California Water Code 9602 (c)
partner	Individuals, organizations and/or agencies with direct responsibilities for activities and actions anticipated by the CVFPP.

<sup>1</sup> Disclaimer: It is important for the reader to understand that a broader definition is often used to describe a project levee as any levee that has been implemented as part of a Federal project. For use with respect to the CVFPP, “project levee” is as defined in the Water Code.



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principle	<p>While goals provide direction on “what” the CVFPP will accomplish, planning principles provide guidance on “how” the CVFPP will be developed and implemented, consistent with the FloodSAFE guiding principles. Initial planning principles for the CVFPP have been grouped into three broad categories: Flood Risk Management, Environmental Stewardship, and Integration and Coordination.</p> <p style="text-align: right;">CVFPP Interim Progress Summary No. 1 April 2010</p>
public safety	<p>Involves the prevention of and protection from events that could endanger the safety of the general public from significant danger, injury/harm, or damage, such as natural and man-made disasters.</p>
public safety infrastructure	<p>Means public safety infrastructure necessary to respond to a flood emergency, including, but not limited to, street and highway evacuation routes, medical care facilities, and public utilities necessary for public health and safety, including drinking water and wastewater treatment facilities.</p> <p style="text-align: right;">California Water Code Section 12646 (d)</p>
rehabilitation	<p>To restore a facility or system (either natural or manmade) to its former condition.</p>
repair	<p>Activities necessary to maintain the functionality of flood management systems that have deteriorated over time and/or do not meet current design standards.</p>
restore/ restoration	<p>The implementation of an action(s) to reestablish or put back something that once existed, but is no longer there, to its original condition.</p>
riparian area	<p>Riparian areas are transitional between terrestrial and aquatic ecosystems and are distinguished by gradients in biophysical conditions, ecological processes, and biota. They are areas through which surface and subsurface hydrology connect water bodies with their adjacent uplands. They include those portions of terrestrial ecosystems that significantly influence exchanges of energy and matter with aquatic ecosystems (i.e., a zone of influence). Riparian areas are adjacent to perennial, intermittent, and ephemeral streams, lakes, and estuarine-marine shorelines.</p>



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rural community	A city, town, or settlement outside of urban and urbanizing areas with expected population less than 10,000 within the next ten years.
Sacramento-San Joaquin Drainage (SSJD) District	Comprises more than 1.9 million acres in the Central Valley generally along and adjacent to the Sacramento and San Joaquin rivers. SSJD District was created in 1913 by the California Legislature to allow survey work and the collection of data of the San Joaquin and Sacramento rivers and tributaries to prepare a report to the Central Valley Flood Protection Board to further the Board's plans for controlling the floodwaters of the rivers, improve and preserve navigation, and the reclamation and protection of the lands that are susceptible to overflow from those rivers and their tributaries. The District's management and control is vested in the Central Valley Flood Protection Board, and according to the Statute, the District can "acquire, own, hold, use, and enjoy any and all properties necessary for the purposes of the District." Central Valley Flood Protection Board, <a href="http://www.cvfpb.ca.gov/">http://www.cvfpb.ca.gov/</a> , accessed June 2009
Sacramento-San Joaquin River Flood Management System	The Sacramento-San Joaquin River Flood Management System comprises all of the following: (a) The facilities of the State Plan of Flood Control as that plan may be amended by the Central Valley Flood Protection Board; (b) Any existing dam, levee, or other flood management facility that is not part of the State Plan of Flood Control if the board determines, upon recommendation of the department, that the facility does one or more of the following: (1) Provides significant systemwide benefits for managing flood risks within the Sacramento-San Joaquin Valley. (2) Includes project levees that protect a contiguous urban area of 10,000 or more residents within the Sacramento-San Joaquin Valley. California Water Code Sections 9602 and 9611
Sacramento-San Joaquin Valley	Lands in the bed or along or near the banks of the Sacramento River or San Joaquin River, or their tributaries or connected therewith, or upon any land adjacent thereto, or within the overflow basins thereof, or upon land susceptible to overflow there from. The Sacramento-San Joaquin Valley does not include lands lying within the Tulare Lake basin, including the Kings River. California Government Code Section 65007(g)
shaded riverine aquatic cover	A nearshore aquatic area occurring at the interface between a river (or stream) and adjacent woody riparian habitat.



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Special Flood Hazard Area	<p>Flood hazard area identified on the Flood Insurance Rate Map (FIRM) defined as the area that will be inundated by the flood event having a 1% chance of being equaled or exceeded in any given year. The 1% annual chance flood is also referred to as the base flood or 100-year flood. SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30.</p> <p style="text-align: right; font-size: small;">Federal Emergency Management Agency, <a href="http://www.fema.gov/">http://www.fema.gov/</a>, accessed June 2009</p>
State Plan of Flood Control	<p>Means the state and federal flood control works, lands, programs, plans, policies, conditions, and mode of maintenance and operations of the Sacramento River Flood Control Project Described in Section 8350 of the California Water Code (CWC), and of flood control projects in the Sacramento River and San Joaquin River watersheds authorized pursuant to Article 2 (commencing with Section 12648) of Chapter 2 of Part 6 of Division 6 for which the Board or the Department has provided the assurances of nonfederal cooperation to the United States, and those facilities identified in CWC Section 8361.</p> <p style="text-align: right; font-size: small;">California Water Code Section 9110 (f)</p>
State Plan of Flood Control Planning Area	<p>The State Plan of Flood Control (SPFC) Planning Area is the geographic area that includes the lands currently receiving flood damage reduction benefits from the SPFC. The SPFC Planning Area is completely contained within the Systemwide Planning Area.</p>
structural improvements	<p>Are projects that are intended to modify flood patterns and rely primarily on constructed components and include such measures as levees, floodwalls, and improved channels.</p> <p style="text-align: right; font-size: small;">California Water Code Section 79068(b)</p>
sustainability	<p>A project is “sustainable” when it is socially, environmentally, and financially feasible for an enduring period.</p>
System	<p>Refers to the Sacramento-San Joaquin River Flood Management System, as described in Section 9611 of the California Water Code.</p>
systemwide	<p>Referring to the scale of an entire system, e.g. the flood management system within Sacramento-San Joaquin River Flood Management System.</p>



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Systemwide Planning Area	The Systemwide Planning Area (SPA) is the geographic area that encompasses lands receiving flood damage reduction benefits from the existing facilities and operation of the Sacramento-San Joaquin River Flood Management System.
transitory storage	The temporary and periodic storage of peak flood flows from adjacent rivers or waterways through the modification of certain floodplain areas acquired through easement or fee title.
upgrade of a project levee	Installing a levee underseepage control system, increasing the height or bulk of a levee, installing a slurry wall or sheet pile into the levee, rebuilding a levee because of internal geotechnical flaws, or adding a stability berm. Notwithstanding the above definition, an upgrade of a project levee does not include any action undertaken on an emergency basis.  California Water Code Section 9651(h)
urban area <sup>2</sup>	A developed area in which there are 10,000 residents or more.  California Government Code Section 65007 (i)
urbanizing area	A developed area or an area outside a developed area that is planned or anticipated to have 10,000 residents or more within the next 10 years.  California Government Code Section 65007 (j)
urban level of flood protection	Level of protection that is necessary to withstand flooding that has a 1-in-200 chance of occurring in any given year using criteria consistent with, or developed by, the Department of Water Resources.  California Government Code Section 65007(k) and Water Code Section 9602(i)

<sup>2</sup> “Urban Area” is also defined in the California Public Resources Code Section 5096.805 (k) as “any contiguous area in which more than 10,000 residents are protected by project levees.” For use with respect to the CVFPP, “project levee” is as defined in California Water Code Section 9602(c).