

# Fish Migration Improvement Opportunities: A Snapshot Report

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## *Introduction*

The Central Valley Flood Protection Act of 2008 requires DWR to develop a Central Valley Flood Protection Plan (CVFPP) that, among other objectives, improves habitat quantity, diversity, connectivity, and contributes to the recovery and stability of native species populations. Improvement of the fish migration corridors in the Statewide Planning Area (SPA) is one of many essential components of maintaining species existence and contributing to species recovery. All fish require the ability to move between habitats to: support critical life stages, search for food, and disperse in response to predators or life-threatening circumstances such as low water levels and poor water quality. Several large and small in-stream water and flood management structures exist within the SPA that adversely affect migration by completely denying access to habitat, delaying access, or by directly trapping fish in structure components.

## *Purpose*

The CVFPP's (2012) Conservation Framework promotes the integration of ecosystem enhancement actions (e.g., fish passage and habitat improvements, floodplain restoration) into flood management projects at all levels of planning to produce systemwide benefits. In this Snapshot report, structures that present fish migration issues are identified within three CVFPP Conservation Planning Areas (CPAs). This information represents current conditions and can be used by stakeholders and in the regional flood planning process to identify multiple benefit projects.

## *Methods*

The geographic scope of barrier identification was narrowed to (1) CVFPP CPAs, and (2) rivers/bypasses within CPAs that contain anadromous species and structures with a State Plan of Flood Control (SPFC) component. Within those identified rivers/bypasses, all structures with existing fish passage issues were identified (regardless of purpose or ownership) using secondary data sources. Some primary data was also collected at sites where less information is known. The type and amount of information known about each structure varies, usually according to ownership (less is known about private and federally owned structures). Site-specific information was obtained from a variety of methods and sources that include some combination or all of the following: site visits, technical passage assessment, literature review (published and/or internal documents), and personal communication with agency personnel who have conducted fish rescues and/or carcass recoveries.

Impacts to fish migration vary dramatically between structures based on the species that utilize the migration corridor, channel hydrology, the frequency at which migration is impeded, barrier location within the watershed, and the amount and type of habitat to which the structure impedes fish access, etc. This variance can make project prioritization difficult. To assist planners, a fairly simple method was used to rank and prioritize the structures according to the relative impact they have on native anadromous fish in each river/bypass.

## *Results*

Preliminary regional results are presented in attached maps and a table. Twenty-nine fish passage barriers were identified in the Upper Sacramento, Feather River, and Lower Sacramento CPAs. Some information was also obtained on fish passage barriers in the Lower San Joaquin CPA and is included in the table. However, the Lower San Joaquin CPA assessment is not comprehensive due to time constraints.

Relevant information available in the table includes: the river or bypass containing the structure, structure type, if the structure is part of the State Plan of Flood Control, barrier status, and a problem statement that describes the fish passage issue. Additional site-specific details related to structures or bypasses, unscreened diversions, stranding areas, structure ownership, hydrologic regimes, passage improvement solutions, site photos, and benefits of improving passage at a site are available from DWR's Fish Passage Improvement Program (FPIP). Expanded and detailed planning information will also be presented in a comprehensive report. To request additional information, contact Ray McDowell at [ray.mcdowell@water.ca.gov](mailto:ray.mcdowell@water.ca.gov) (916-651-7192).

CHANNEL WIDE STRUCTURES AFFECTING FISH MIGRATION IN CONSERVATION PLANNING AREAS							
River/ Bypass	Structure Name	Structure Type	SPFC	Barrier Status *	Structure Problem Statement(s)	Priority **	Additional Assessment Needs or Update
Lower Sacramento Conservation Planning Area (Map 1)							
Yolo Bypass	Lisbon Weir	Rock berm reinforced w/ sheet piling, w/ flap gates		temporal	At low tide, the downstream water surface elevation can be up to 2.5 feet below the weir crest and impede fish passage for salmon, steelhead, and sturgeon. At high tide, the weir is submerged and may be passable for salmon and steelhead, but it is likely not passable for sturgeon. During large flood events, the weir is passable for sturgeon, salmon, and steelhead.	2	Modeling of fish passage issues and improvements in the Yolo Bypass are currently underway as part of the DWR and Reclamation-led Yolo Bypass Restoration Project. <a href="http://www.water.ca.gov/environmentalser vices/yolo_bypass_sal monid.cfm">http://www.water.ca.gov/environmentalser vices/yolo_bypass_sal monid.cfm</a>
	Agricultural Crossings (5)	Earthen road crossings/ some culverts		temporal	Five agricultural crossings can impede fish passage or trap fish in the Tule Canal during low flows. During large flood events, the crossings are usually washed out and become passable. The crossings are reconstructed post-flood; so the exact configuration (number/size of culverts, road width, etc.) can vary. The northernmost crossing does not contain culverts and is impassable except during large flood events when Fremont Weir has overtopped.	2	
	Fremont Weir	passive concrete weir	√	temporal	Inflow over Fremont Weir, from the Sacramento Bypass, and from west side tributaries can attract salmon, steelhead and sturgeon into Yolo Bypass via the Toe Drain. Fremont Weir's manually opened fish ladder passes some salmon but not green or white sturgeon. Following flood events, these species are commonly found trapped in the weir's stilling basin and sturgeon are often found stranded throughout the bypass. This weir usually overflows after Tisdale and Colusa Bypasses are inundated.	1	
Cache Creek	Cache Creek Settling Basin weir	Roller compacted concrete weir	√	temporal	The outlet weir at Cache Creek Settling Basin is not passable for adult salmonids migrating upstream, except during extreme high water events when the floodwaters in the Yolo Bypass are greatly elevated (the top of the weir is 12 feet above the downstream sill).	1	Determine feasibility and need for passage improvement.
Sacramento Bypass	Sacramento Weir	manually operated weir	√	temporal	When Sacramento River stage at the I Street Bridge $\geq$ 27.5 feet NGVD, the Sacramento Weir gates are manually opened to allow flood water to spill into the Sacramento Bypass (Bypass), which feeds into the Toe Drain of the Yolo Bypass. During these events, fish may enter the Sacramento Bypass from two directions: (1) from the Sacramento River through the open weir gates, or (2) migrate upstream from the Yolo Bypass due to attraction flows coming from the Sacramento Bypass. Many fish have been found trapped at the weir and throughout the Bypass when flows recede. When the gates are not open, water leaking through the weir gates may also attract fish into the Bypass from the Yolo Bypass and cause stranding since there is no fish passage structure at the weir.	1	Coordinate Sac Weir FPI with ongoing planning efforts, including USACE American River Common Features GRR and Yolo Bypass Restoration.

\*Barrier Status Definitions:

Total – Impassable (downstream and upstream) to all fish at all flows

Partial – Impassable to some fish species during part or all life stages at all flows (dependent on species biological characteristics)

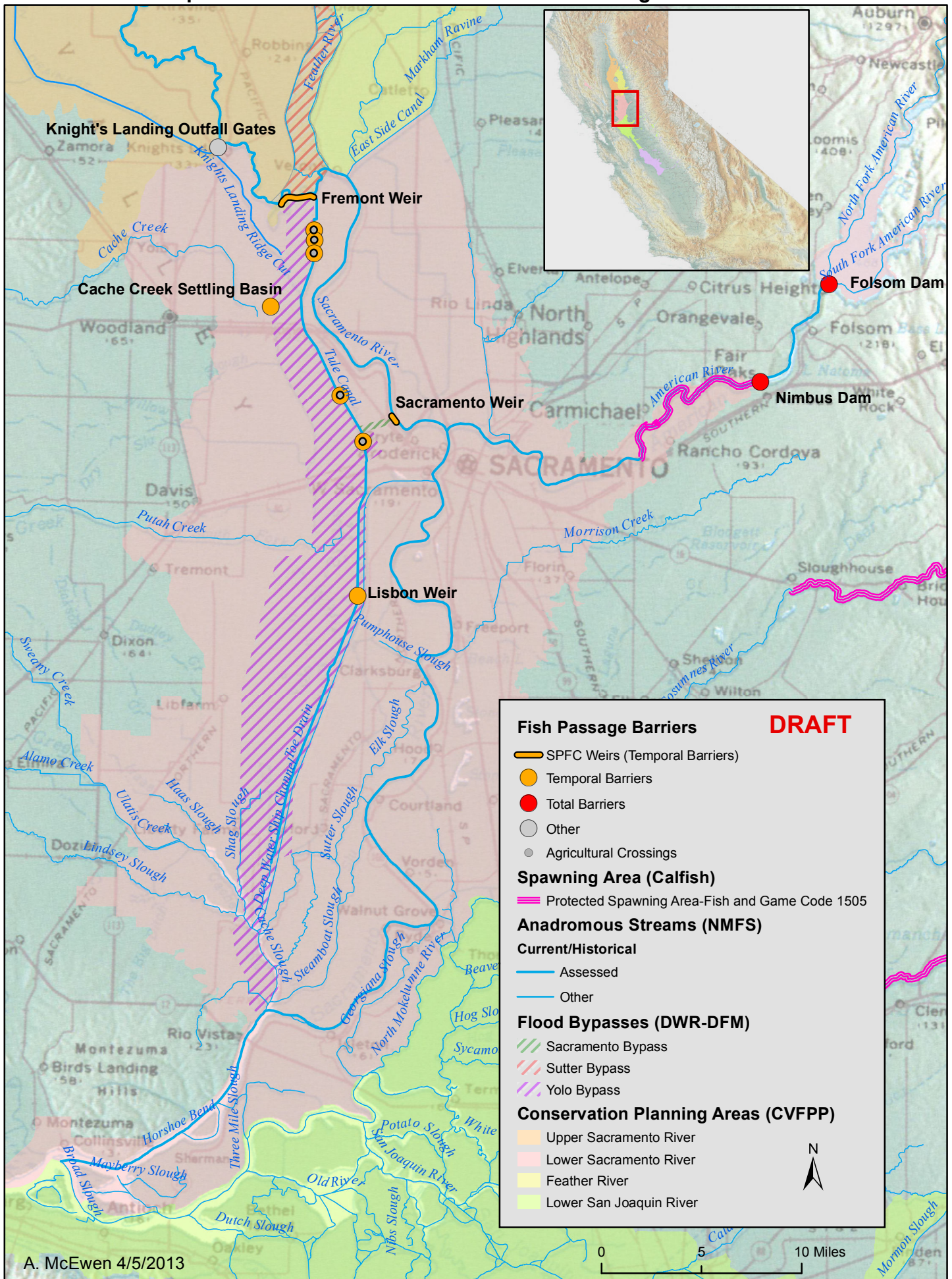
Temporal – Impassable to all fish at certain flow conditions (dependent on flow conditions)

\*\* Priority within each river/bypass BASED ON POTENTIAL FISH IMPACT. See comprehensive report for prioritization methods/details. Improvements at structures with priorities highlighted red may be the most feasible to integrate into flood management projects based on considerations such as structure ownership, legal considerations, and potential or proximity to flood improvement projects.

Structures highlighted yellow require fish passage improvements (volitional or non-volitional) as mandated in Reasonable and Prudent Actions (RPAs) of a NMFS Biological Opinion.



**Map 1. Lower Sacramento Conservation Planning Area Structures**



CHANNEL WIDE STRUCTURES AFFECTING FISH MIGRATION IN CONSERVATION PLANNING AREAS							
<i>River/ Bypass</i>	<i>Structure Name</i>	<i>Structure Type</i>	<i>SPFC</i>	<i>Barrier Status *</i>	<i>Structure Problem Statement(s)</i>	<i>Priority **</i>	<i>Additional Assessment Needs or Update</i>
Feather River Conservation Planning Area (Map 2)							
Feather River (Lower)	Sunset Pumps Diversion Dam (SPDD)	rock diversion dam		temporal	Video monitoring suggests a passage impediment to green sturgeon occurs at the SPDD at flows less than 6,000 cfs, although it is expected there is a flow range that enables passage below 6,000 cfs. A recent acoustic telemetry study suggests that the upstream passage of spring-run Chinook salmon is impeded at the SPDD during flow conditions < 930 cfs. Study results show survival rates of juvenile salmon and steelhead are impacted by the SPDD, either directly or due to the influence of structure on predator advantages.	1	Determine (1) structure op's, (2) passage alt's that improve overall habitat connectivity
	Oroville-Thermalito Complex (3)	varies	v	total	The three channel-wide structures (Fish Barrier Dam, Thermalito Diversion Dam, Oroville Dam) in the Oroville-Thermalito Complex are total barriers to fish passage, ranging from 91 – 770 feet in height. Collectively, they block access to the upper Feather River watershed.	n/a	Passage is not being pursued based on the Habitat Expansion Agreement.

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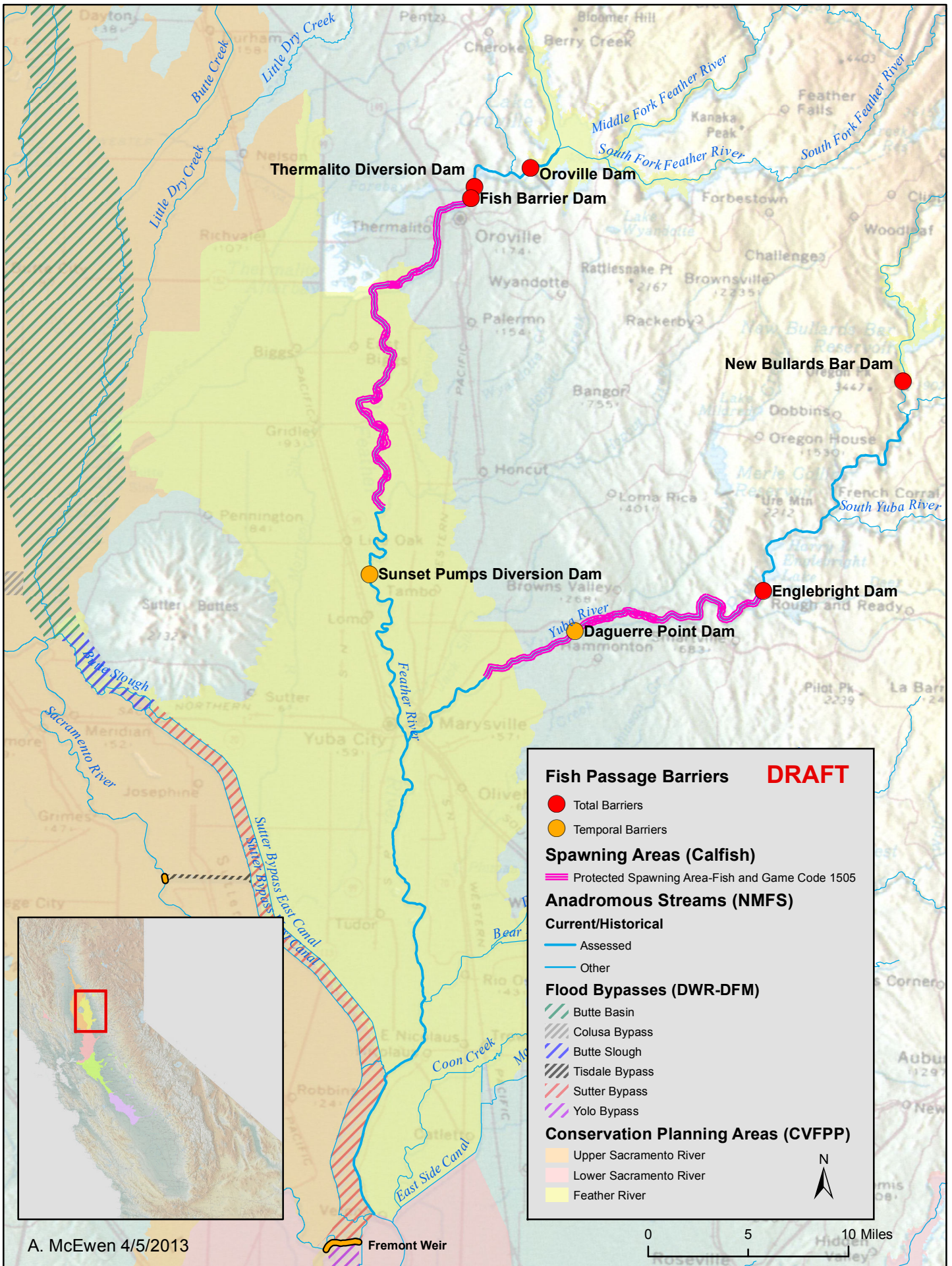
Temporal – Impassable to all fish at certain flow conditions (dependent on flow conditions)

\*\* Priority within each river/bypass BASED ON POTENTIAL FISH IMPACT. See comprehensive report for prioritization methods/details. Improvements at structures with priorities highlighted red may be the most feasible to integrate into flood management projects based on considerations such as structure ownership, legal considerations, and potential or proximity to flood improvement projects.

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**Map 2. Feather River Conservation Planning Area Structures**



CHANNEL WIDE STRUCTURES AFFECTING FISH MIGRATION IN CONSERVATION PLANNING AREAS							
<i>River/ Bypass</i>	<i>Structure Name</i>	<i>Structure Type</i>	<i>SPFC</i>	<i>Barrier Status *</i>	<i>Structure Problem Statement(s)</i>	<i>Priority **</i>	<i>Additional Assessment Needs or Update</i>
Upper Sacramento Conservation Planning Area (Maps 3 - 5)							
Sycamore Slough and Colusa Basin Drainage (CBD) Canal	Knight's Landing [or Sycamore Slough] Outfall Gates (KLOG)	flood control and drainage structure with ten control gates	v	unknown	Structure reduces flood risk to the lower Colusa Basin from Sacramento River backwater during flood events, but provides drainage from the Colusa Basin to the Sacramento River during low flow. When providing drainage (of water originally diverted from Upper Sacramento River), spring and winter-run in the Sacramento River migrating to spawn in the Upper Sacramento River are attracted into the Slough. These fish attempt to pass through the gates into the Colusa Basin Drain (CBD), which leads to a dead-end network of water control structures, diversion pumps, and agriculture drainage ditches. Under specific hydrologic conditions, passage is possible through the gates. An additional pathway to the CBD is through the Yolo Bypass and Knights Landing Ridge Cut. In May 2013, 300 spring and winter-run were rescued from the CBD. Additional fish were not able to be rescued. An incident of such magnitude threatens the genetic integrity of the various runs and poses a serious risk to species viability.	1	Interagency efforts are being planned to: identify the pathway of fish entrance at KLOG vs KLRC, and develop short and long-term solutions, including operational adjustments at KLOG (DFM)
Sutter Bypass: Both canals	Multiple structures (5)	varies		partial	The East and West (Barrow) Canals of the Sutter Bypass contain multiple channel-wide structures (see Map 3) where fish ladder improvements (i.e., the construction of fish ladders) have recently (since 2000) been made. However, the fish ladders were designed for passage of salmonids and did not target passage improvements for green sturgeon. The Sutter Bypass is designated by NOAA Fisheries as green sturgeon critical habitat.	2	Determine habitat suitability for green sturgeon in Sutter Bypass during normal flows.
Sutter Bypass: West Canal	Weir No 1 (Parks Weir)	concrete diversion dam		Temporal, partial	The existing inefficient ladder does not meet NMFS passage criteria for salmonids at low flow conditions, and the dam is no longer necessary for USFWS constructed purpose. The fish ladder is not designed to pass sturgeon. Adult spring-run Chinook salmon were trapped at the site and their carcasses recovered in May 2012 and 2013. Fish passage improvements (e.g., structure removal) here may affect passage at Giusti Weir. The two sites should be considered simultaneously.	1	Identify (1) flow conditions when fish kills occurred, (2) passage alt's that improve overall habitat connectivity.
	Giusti Weir	earthen embankment		potential barrier at low flows	Fish passage is currently provided (at normal flows) in a shallow channel on the eastern side of the small earthen dam. The dam is no longer necessary for upstream diversions. <i>When passage at Weir No 1 is impaired (low flow conditions), Giusti Weir's side channel should be assessed to evaluate passage conditions. This weir is not included in the barrier summary statistics at the end of this report since it is private and has not been evaluated to determine if an issue exists.</i>	See Weir No 1.	Determine minimum flows necessary for passage in bypass channel.
Tisdale Bypass	Tisdale Weir	passive concrete weir	v	temporal	Documented fish rescues were conducted in 2011 and 2012 to rescue juvenile and adult salmon, steelhead, and sturgeon from the weir's stilling basin. Other native protected species rescued were Sacramento splittail. While trapped in the stilling basin, fish are subject to lethal conditions and poaching and their survival is dependent upon a timely CDFW fish rescue (i.e., removal and release). Site conditions including structure height make it a total barrier during overflow events (85% annual probability). No fish passage channel or ladder is provided. This weir overflows the most frequently of the SPFC passive weirs.	1	Identify (1) passage alt's that meet flood mngt goals and provide fish passage, (2) feasibility of linking perennial channel from the WBC to Sac R, (3) bypass stranding areas and stranding reduction strategies.



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Butte Basin Overflow Area	Moulton Weir	passive concrete weir	√	temporal	Juvenile steelhead have been observed trapped in the stilling basin at the weir. Site conditions including structure height make it a total barrier. No fish passage channel or ladder is provided. This weir overflows the least frequently of the SPFC passive weirs. <i>Potential stranding areas exist in the bypass but need further assessment.</i>	2	Conduct cost:fish benefit analysis to determine FPI necessity
Big Chico Creek (Lower)	One Mile Dam	Dam with pool-chute fish ladder		temporal	The existing fish ladder at One Mile Dam (located at the downstream end of Sycamore Pool) does not meet NMFS fish passage criteria. During low flow conditions, the water surface drop height between baffles is greater than the one-foot passage height criteria. Velocity criteria may also be exceeded. During a site visit, multiple resident trout were seen holding in the pool downstream of the dam. No passage attempts were observed.	1	Identify operational adjustments or additional measures required to improve passage
	Sycamore Pool	shallow concrete slab		temporal	During periods when One Mile Dam is not raised to backwater the city pool (located within the stream channel, constructed for city recreation purposes), the upstream end of the pool can develop high gradient, high velocity, shallow sheet flow, which could affect adult migration. The pool itself is not stated to be a SPFC facility, but the Big Chico Creek channel containing the pool is part of the SPFC.	2	Needs to be evaluated when the gates are not raised, over a range of flows.
	Big Chico Creek Gates (Five Mile Dam)	diversion structure: concrete dam with four gate- controlled box culverts	√	temporal	The Big Chico Creek Gates or “Five-Mile Dam” at the upper end of the SPFC project works is a box culvert structure that limits flow down Big Chico Creek during moderate and high flow events. This structure allows flow to be diverted into Lindo Channel and Sycamore Bypass (channel divergence is just upstream of Five Mile Dam). During periods of moderate and high flow, the culverts are inundated creating a pressure gradient with velocities that may be too high for upstream fish passage.	4	Determine (1) frequency and typical duration of passage delays, (2) effect of flow proportion in BCC and Lindo Channel on selection of main migration route
Lindo Channel	Lindo Channel Gates	diversion structure: concrete dam with seven gate- controlled box culverts	√	total	Lindo Channel is an intermittent stream activated by moderate and high flows from Big Chico Creek. The Lindo Channel Gates structure is located at the upper end of Lindo Channel. The structure can be operated to limit flow down Lindo Channel and divert water into the Sycamore Diversion Channel. Grouted riprap was placed downstream of the structure to limit scour at the site, which has since developed large cracks in the grout. At low flows, water flows through the grout cracks. At high flows, high velocity and turbulent hydraulic conditions are created by the steep gradient and pressure flow through the box culverts creating a barrier. In addition, stranding of 2,334 natural run salmonids has been documented in isolated pools throughout Lindo Channel in the fall of a low water year (1988).	3	Determine (1) flow range that allows passage, (2) channel stranding impacts and stranding reduction strategies.

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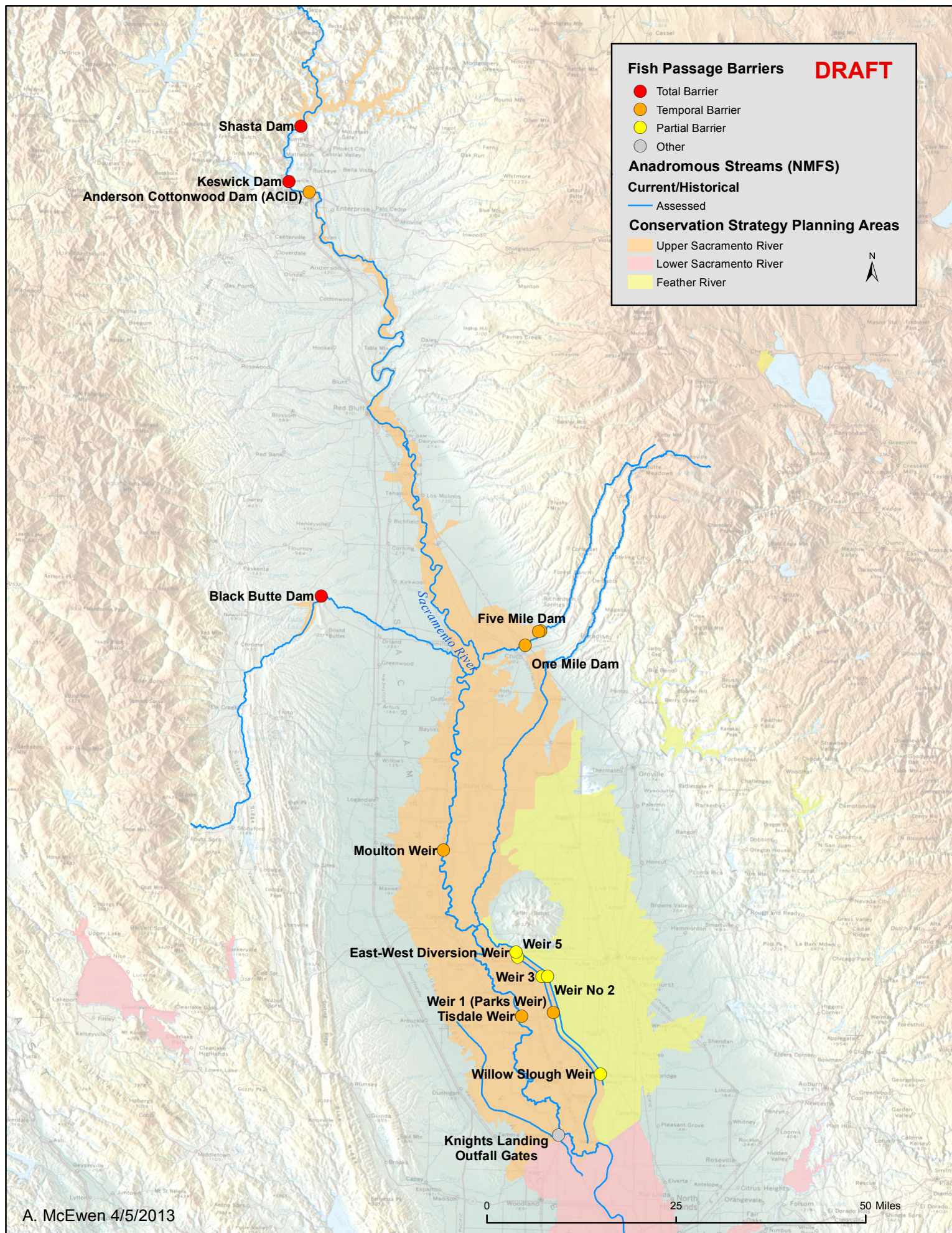
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# Map 3. Upper Sacramento Conservation Planning Area Structures





**Fish Passage Barriers DRAFT**

- SPFC Weirs (Temporal Barriers)
- Other Temporal Barriers
- Partial Barriers (barriers to sturgeon)
- Other

**Anadromous Streams (NMFS)**

**Current/Historical**

- Assessed
- Other

**Flood Bypasses (DWR-DFM)**

- Butte Basin
- Colusa Bypass
- Butte Slough
- Tisdale Bypass
- Sutter Bypass
- Yolo Bypass

**Conservation Planning Areas (CVFPP)**

- Upper Sacramento River
- Lower Sacramento River
- Feather River

**Map Labels:** Moulton Weir, East-West Diversion Weir, Weir No 5, Weir No 3, Giusti Weir, Tisdale Weir, Weir 1 (Parks Weir), Willow Slough Weir, Fremont Weir, Knight's Landing Outfall Gates, Sutter Bypass, East Canal, West Canal, Butte Creek, Old Butte Slough, Yuba River, Bear River, Feather River, Knights Landing, Cache Creek, Colusa Basin Drainage Canal, Sycamore, Williams, Maxwell, Delevan, Princeton, Colusa, Grimes, Sutter Buttes, Kirkville, Robbin, Zamora, Knight's Landing, Knight's Ridge Cut, Knight's Slough, Coon Creek, Outlet, East Side Canal, Tile Canal.

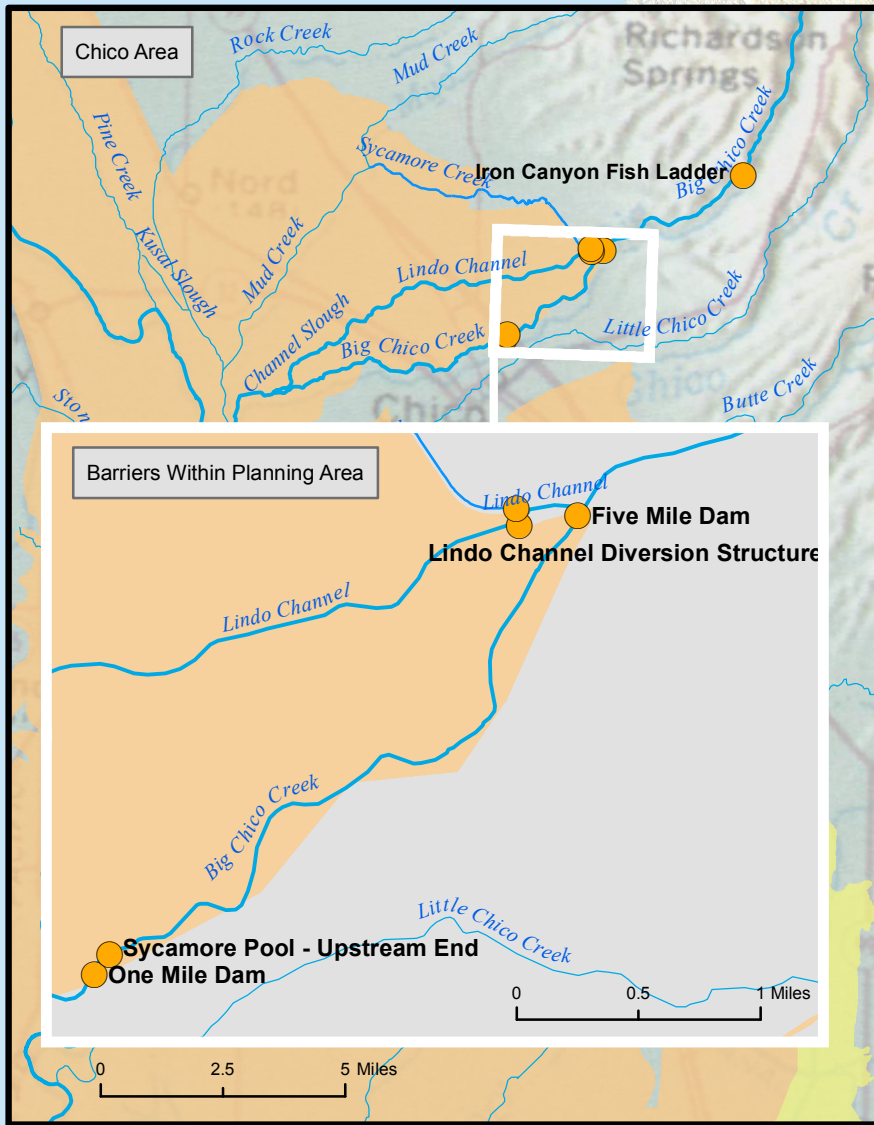
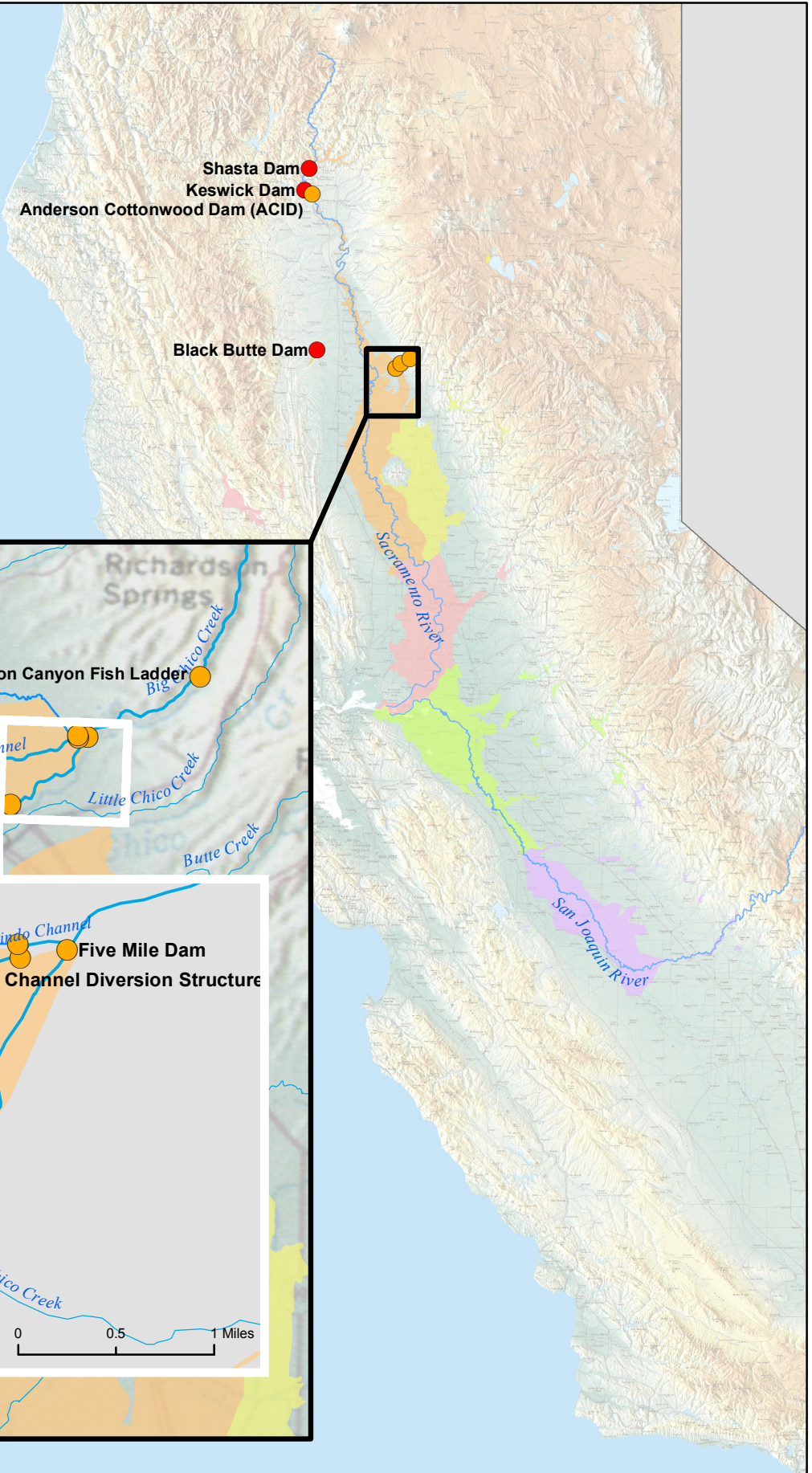
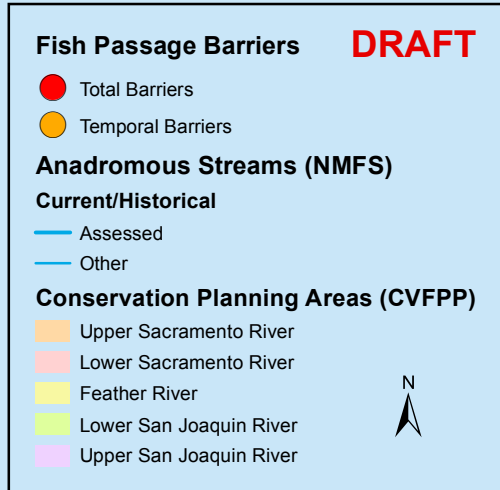
**Scale:** 0 to 10 Miles

**Inset Map:** Shows the location of the study area within California.

A. McEwen 4/5/2013



# Map 5. Upper Sacramento Conservation Planning Area Structures (Chico Area Detail)





ADDITIONAL <sup>i</sup> CHANNEL WIDE STRUCTURES AFFECTING FISH MIGRATION IN CONSERVATION PLANNING AREAS							
<i>River/ Bypass</i>	<i>Structure Name</i>	<i>Structure Type</i>	<i>SPFC</i>	<i>Barrier Status *</i>	<i>Structure Problem Statement(s)</i>	<i>Priority **</i>	<i>Additional Assessment Needs or Update</i>
Lower Sacramento Conservation Planning Area (Map 1)							
American River	Nimbus Dam	base load hydro dam		total	The 87 foot tall dam produces hydroelectricity and creates Lake Natoma reservoir, a regulating reservoir for Folsom Dam. The structure blocks passage to approximately seven stream miles between Lake Natoma and Folsom Dam.	--	Determine feasibility/cost of volitional and non-volitional passage alt's
	Folsom Dam	rim dam		total	The 340 foot tall dam creates Folsom Lake. The structure's main purpose is flood control. There is an estimated 64-83 river miles of accessible habitat above Folsom Lake that is unimpeded by dams or other channel wide structures.	--	
Feather River Conservation Planning Area (Map 2)							
Yuba River (Lower)	Daguerre Point Dam (DPD)	concrete low-head dam		partial and temporal	The fish passage ladders at the DPD are largely ineffective for upstream passage of adult salmon and steelhead at certain flows (e.g., greater than 2,000 cfs) due to ladder location, lack of attraction flows, and design. The DPD is a total barrier to green sturgeon. Juvenile salmonids fall over the 24' dam spillway, potentially making them more prone to injury and increased predation.	--	Litigation and other project constraints have delayed project implementation.
	Englebright Dam	rim dam		total	The 235 foot tall passive structure blocks passage to over 100 stream miles of historical habitat that is currently unimpeded by other structural barriers. The structure no longer serves its original purpose of debris retention during the historical hydraulic mining era.	--	Feasibility study and alternative analysis
Yuba River (North Fork)	New Bullards Bar Dam	variable radius concrete arch dam		total	The 645 foot tall dam creates New Bullards Bar Reservoir and blocks fish access into historical upper Yuba River habitat. The structure has multiple purposes including flood control, water supply, and hydroelectricity. Two studies estimate there are approximately 35 miles of habitat on the North Fork of the Yuba River above NBBD, not including other tributaries.	--	Determine flow mngt needed to restore fish habitat below NBBD.
Upper Sacramento Conservation Planning Area (Map 2)							
Stony Creek (Lower)	Tehama-Colusa Canal (TCC) Temporary Barrier	gravel berm		temporal	A gravel barrier is placed across Lower Stony Creek between September 15 - October 29 and April 1 - May 15. Despite a passage designed for a minimum flow of 40 cfs while the temporary barrier is in place, upstream passage of adult salmonids could be impeded in the fall and downstream emigration of juveniles in the spring. In addition, the Constant Head Orifice (CHO) at the TCC captures a portion of fish migrating downstream at this location and diverts them into the canal. The entrainment of salmonids at the TCC in the spring of 2002 and 2004 was estimated at 328 and 92 juvenile Chinook salmon, respectively.	--	Determine (1) if current in-stream flow management provides adequate conditions for anadromous species, (2) CHO impact on emigrating fish under a range of flow conditions
	Northside Diversion Dam (NDD)	concrete gravity dam		temporal	The NDD blocks upstream passage of most fish February - November when diversions are made to the North Canal. A fish passage assessment concluded healthy average Chinook salmon are expected to be able to jump the structure at flows greater than 1,404 cfs. Passage for other species was not evaluated. The existing opportunistic use by salmonids of Stony Creek is currently limited both spatially and temporally, due to their life cycle, high water temperatures and stream flow.	--	Determine: (1) habitat suitability under a range of flow regimes, (2) potential to improve habitat quality and utilization.
	Unknown	Concrete		total	This structure spans the channel and is approximately 0.5 miles below Black Butte Dam. During site visitation on 6/19/13, water flowed down a shallow, 45 degree paved, 8 foot tall ramp allows water to flow over the structure into another 3 ft drop blocked with rip-rap. The structure is impassable due to height, depth, and velocity considerations.	--	Determine ownership and purpose of structure.

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	Black Butte Dam	earth-fill dam		total	The 156 foot tall dam creates Black Butte Lake. The structure's main purpose is flood control. Several total barriers to fish passage lie upstream of Black Butte Dam in the 51 stream miles historically available. The lack of consistent flows in Stony Creek is also a barrier to migration.	--	Determine upstream habitat suitability and required flow mgmt.
<b>The Upper and Lower San Joaquin CPAs were not evaluated. However, the following information relates to several barriers on the Calaveras River, Lower San Joaquin CPA.</b>							
Stockton Diverting Canal	Central California Traction Railroad Crossing	railroad bridge with grouted concrete and low flow flume		temporal	Due to placement of grouted concrete and riprap at the site to protect the railroad bridge from scour, a barrier exists during low and moderate flows as a result of high velocities, shallow flows, and large jump height. <i>DWR's FPIP developed conceptual plans for improving fish passage at the site.</i>	--	Stockton East Water District is determining if they can fund construction.
Mormon Slough	Caprini Low Water Crossing	concrete crossing with three culverts		temporal	The crossing is a barrier at low to moderate flows due to high velocities, shallow flow, and high turbulence. The crossing is located between two SPFC levees. <i>DWR's FPIP developed design plans for improving fish passage at the site. Stockton East Water District submitted permits for construction.</i>	--	Construction is being completed currently (September 2013).
	Hosie Low Water Crossing	concrete crossing (no culverts)		temporal	The crossing is a barrier at low to moderate flows due to high velocities and shallow depths. <i>This site was identified as a high priority fish passage site.</i>	--	DWR FPIP is looking for funds to develop project designs.
	Bellota Weir	concrete weir and flashboard dam structure		partial and temporal	The structure is situated at the head of Mormon Slough and includes the concrete weir, removable flashboards and steel supports, and a concrete apron. The structure contains two Denil fishways that provide limited fish passage at certain flows. <i>Design plans for fishway replacement have been developed. Fish passage improvement at the site is tied to a Habitat Conservation Plan currently under negotiation, which requires implementation within five years of the HCP final release. Temporary fish passage solutions have been proposed in the interim, but no requirements have been established by regulatory agencies.</i>	--	Identify appropriate temporary fish passage solution
Calaveras River	New Hogan Dam	earthen embankment dam		Total	The 210 foot tall dam creates New Hogan Lake and serves multiple purposes including flood protection and water storage. The structure is a total barrier, blocking approximately 47 miles of historical steelhead habitat. This mileage approximation includes historical habitat that may be currently blocked by other structures.	--	Assess (1) upstream habitat suitability, (2) cost:fish benefit analysis

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Temporal – Impassable to all fish at certain flow conditions (dependent on flow conditions)

**Structures highlighted yellow** require fish passage improvements (volitional or non-volitional) as mandated in Reasonable and Prudent Actions (RPAs) of a NMFS Biological Opinion.

<sup>i</sup> Structures are within the Conservation Planning Area boundary, but did not meet selection criteria (i.e., were not SPFC structures or located on a channel that contained a SPFC structure). However, the structure may be within or downstream/upstream of a designated floodway or adjacent to SPFC works or lands, as well as non-SPFC flood management system components.