

July 29, 2014

**Comments on the Public Draft Bay-Delta Conservation Plan (BDCP) and
Draft BDCP Environmental Impact Report/Environmental Impact Statement
Golden Gate Salmon Association**

Sent via email to BDCP.Comments@noaa.gov

What follows are the comments of the Golden Gate Salmon Association regarding the proposed Bay Delta Conservation Plan, or BDCP. GGSA is opposed to the BDCP in its current form because in short, as currently planned, it will eventually wipe out our salmon fishery. It is also premature pending a State Water board determination on Delta outflow requirements.

The Golden Gate Salmon Association is a coalition representing sport and commercial salmon fishermen as well as related businesses and an American Indian tribe.

The BDCP purports to improve conditions for Central Valley salmon by shifting the majority of water diversion in wet years from the existing south Delta pumps to the new intakes in the north Delta. While it is true that the existing water diversions in the south Delta are deadly to salmon and many other species, the BDCP plan calls for continued use of these pumps in addition to the new north Delta intakes. Existing controls on south Delta pumping are likely to be weakened under the BDCP which is sure to cause even more damage to salmon.

While it's true that the primary problem for Central Valley salmon primarily stem from water diversion and other manmade habitat modifications throughout the Sacramento River and Delta, the BDCP plans to take as much or more of the currently over allocated water desperately needed by salmon. Taking even more water out of the system under the BDCP will insure water is not there for salmon when needed. No matter what possible improvements to wetland or flood plain habitat might be made, they won't compensate for the basic river flows needed to flush juvenile salmon out of the Central Valley in the winter and spring, nor for the water needed for successful spawning in the fall.

BDCP is Premature Pending State Water Board Delta Flow Needs

GGSA believes that the BDCP cannot be accurately planned, sized or designed until the State Water Board first concludes its Delta outflow determination. Only then will we all know what water may or may not be surplus to basic environmental needs and potentially available for export in a new conveyance. Planning a new conveyance based on delivering a target volume of water far greater than what the environment can withstand is not an approach GGSA supports.

GGSA agrees with the comment from Friends of the River regarding this issue made in [a letter](#) sent June 4, 2013:

The Delta Reform Act requires in pertinent part that "For *the purpose of informing planning decisions* for the Delta Plan and the Bay Delta Conservation Plan, the board [SWRCB] *shall*, pursuant to its public trust obligations, *develop flow criteria* for the Delta ecosystem *necessary to protect public trust resources*. In carrying out this section, the board shall review existing water quality objectives and use the best available scientific information. The flow criteria for the Delta

ecosystem shall include the volume, quality, and timing of water necessary for the Delta ecosystem under different conditions." California Water Code § 85086 (c)(1)(emphasis added).

The determination of flow criteria by the SWRCB has *not* been done. The federal agencies participate in the SWRCB processes. The SWRCB process is the correct one to set flow objectives as opposed to the BDCP Delta Water Tunnels process. Moreover, SWRCB determined water quality standards are then subject to EPA review for approval or disapproval under section 309 of the Clean Water Act. The BDCP process is simply a Department of Water Resources effort to make a premature and unlawful decision to develop the massive Delta Water Tunnels before, rather than after, determining whether updated flow objectives would even allow such quantities of water to be diverted upstream away from the Delta. Selection of the Tunnels alternative is a planning decision. By law, BDCP planning decisions must be informed by SWRCB determinations. The most important BDCP planning decision to ever be made--whether or not to construct new upstream conveyance--cannot be made lawfully until the SWRCB determinations have been made.

BDCP Increases Threats to Upstream Spawning Habitat

The draft BDCP document acknowledges fundamental threats to winter run salmon.

“In the Sacramento River spawning reaches, modeled water temperatures at Bend Bridge were higher (Figure 5.G-3) and minimum flow rate were lower (Figure 5.G-4) under the ESO compared to EBC2 scenarios, particularly during the ELT. These differences in Sacramento River conditions cause lower survival in ESO scenarios relative to EBC2 scenarios in the alevin and fry stages and are ultimately reflected in lower escapement under ESO.” (BDCP Page 5.G-54)

And

“The number of years with poor redd dewatering conditions would be 11% and 8% higher under ESO_EL T and ESO_LL T relative to EBC2_EL T and EBC2_LL T, respectively.” (BDCP Page 5C.5.2-67)

GGSA agrees with concerns pointed out in earlier feedback from the National Marine Fisheries Service in their so-called [red flag comments](#). Although these comments responded to the administrative draft, the issues they address remain problematic.

The NMFS red flag comments warn that the BDCP is expected to cause the extinction of winter and spring run salmon in the main stem Sacramento River. This appears to be a continuing valid concern as evidenced by the BDCP statements above. GGSA believes threats to winter run are likely to also have a deadly effect on the commercially valuable fall run our industry relies on.

Page 12, Red Flag Comments

...the fact that the cumulative effects of the project when combined with effects of climate change and other baseline conditions is showing the potential extirpation of mainstem Sacramento River populations of winter-run and spring-run Chinook salmon over the term of the permit remains as a serious concern.

BDCP's own internal analysis show multiple problems including high winter and spring-run salmon egg mortality below Keswick dam in the summer and fall during dry and critically dry years because reservoirs could be drained by exports early in the year.

The modeling clearly shows higher river temperatures are expected in many years in the upriver sections critical to spawning and egg incubation. Temperatures exceeding 56 degrees for more than three days are deadly to incubating salmon eggs. Fish may return to spawn, but their eggs will die from the heat. It only takes a few years of conditions like this to wipe out the runs. We already suffer egg loss in the upper river due to excessive water temperatures extending much higher downriver than those targeted in the 2009 salmon biological opinion. BDCP promises to make this situation worse.

If BDCP conditions extirpate winter and spring run in the main stem, the fall run will certainly also suffer. Many of the same upstream conditions needed by winter run are needed by fall run.

Replacement of the existing salmon biological opinion with a 50 year BDCP Habitat Conservation Plan could eventually lead to an ESA listing of the fall run which in turn will end salmon fishing. The best advocates for salmon and their freshwater needs, salmon fishermen, would disappear.

In many recent years, water managers have been unable to attain the preferred 56 degree requirement called for in the 2009 salmon OCAP biological opinion at Bend Bridge, Jelly's Ferry or even Ball's Ferry (which is supposed to be attained 85 percent of the time). Taking even more water out of the system, and taking it earlier in the year, as envisioned under BDCP, will make this bad situation considerably worse.

The Fish Screens Will Be Highly Damaging to Juvenile Salmon

GGSA incorporates by reference the comments of Dave Vogel, Senior Scientist, Natural Resources Scientists Inc. on the problems posed by the fish screens in his comments titled:

June 6, 2014

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In short, the sweeping and bypass velocities are insufficient, siting of the screens insures this can't be fixed, the length of the screens are too long and they are sited too close to avoid serious damage to juvenile salmon. Estimation of juvenile salmon losses fail to account for predation when the intakes are not diverting. They also fail to adequately assess the cumulative damage juvenile salmon will experience when impinged on all three intake screens.

The BDCP admits the fish screens are likely to provide predator habitat but fails to adequately account for the true losses likely to occur.

Too Little Water Will Remain Below the BDCP Intakes For Salmon Outmigration

Presuming juvenile salmon survive passage by the diversion intakes, survivors will be more likely to get drawn off course into the deep delta through Georgiana Slough or other avenues than under current conditions, which are already very bad. Flows needed to carry them through the

Delta would be reduced or absent or dependent on a water users dominated adaptive management panel. BDCP acknowledges the likelihood of increased reverse flows at Georgiana Slough but promises to address the problem by adjusting operations, something GGSA doesn't find credible.

“Operations will be managed at all times to avoid increasing the magnitude or frequency of flow reversals in Georgiana Slough.” (BDCP Page 4-18)

“At this point, implement Level III post-pulse bypass rule (BDCP Table 3.4.1-2) so that bypass flows are sufficient to prevent any increase in duration, magnitude, or frequency of reverse flows at two points of control: Sacramento River upstream of Sutter Slough and Sacramento River downstream of Georgiana Slough. These points of control are used to prevent upstream transport toward the proposed intakes and to prevent any more upstream transport into Georgiana Slough than under existing conditions.” (BDCP Page 3.4-17)

NMFS commented on this in its red flag comments:

The modeling analysis in the Admin Draft indicates that the Evaluated Starting Operations (ESO) will generally result in a reduction in flows below the north Delta diversions, but that those reductions will not result in increased duration or magnitude of reverse flows at the Georgiana Slough junction. This conclusion is relatively counter-intuitive....

GGSA agrees that this is not only counter intuitive, it's wrong. Reduced flows downstream of the proposed intakes will undoubtedly result in greater duration and magnitude of reverse flows at Georgiana Slough. These are deadly to out-migrating juvenile salmon. Georgiana Slough is a one way trip to death for juvenile salmon. After being sucked in by reverse flows, the best a juvenile salmon can hope for is to survive to the Delta pumps and be salvaged there. NMFS estimates the vast majority of juvenile salmon sucked into Georgiana perish.

The BDCP models clearly show taking much more water from January through June leaves a relative trickle downstream of the new planned diversion intakes. The BDCP presumes this relative trickle will be enough to aid out migration of juvenile salmon downstream of the intakes, through the bay, and safely out to sea.

BDCP's own internal analysis shows reduced flows downstream of the North Delta intakes creating a problem in the lower Sacramento River. Flow between Rio Vista and Chipps Island is known to be strong correlate of salmon survival and these flows will be reduced at critical times of the year from January to June, during peak juvenile salmon out migration when more water, not less, is needed in the river.

The ESO operations under BDCP consistently worsen flow conditions, and therefore decrease the survival probability compared to EBC2 (existing biological conditions). Flows at Rio Vista during the critical winter and spring out migration under BDCP proposed operations are worse than current conditions, meeting needed flows in less than 40 percent of years in March, versus less than 50 percent of years currently.

GGSA believes minimum flows at Rio Vista, needed to aid juvenile salmon outmigration are at least 25,000 cfs during spring migration and these won't be met under most BDCP scenarios.

Size matters

Even with three 3,000 cfs intakes, instead of the five originally planned, the two 40 foot diameter pipes are big enough to divert the entire Sacramento River at most times of the year. GGSA believes it likely that two additional intakes could be added at a future date. The best environmental insurance against this would be to downsize the twin tunnels before they're built. The size of the tunnels currently invites adding intakes to eventually take more water. Why do we need 15,000 cfs tunnels to move a maximum of 9,000 cfs of water from the three intakes?

Indeed, On BDCP Page 5.B-7, the BDCP points at this, saying: "The 15,000 cfs-capacity tunnels would allow gravity-driven transport of water from the three new 3,000 cfs intakes on the left bank of the Sacramento River ...".

Again, we hearken back to our original position that the size can't be determined in advance of the State Water Board's delta outflow determination. BDCP planners have yet to provide a credible reason for proceeding with twin 40 foot tunnels. Only a physical size restriction on the structures, tied to results of the State Water Board Delta outflow decision, will work to protect environmental concerns.

Reliance on Yolo Bypass Already Required

BDCP planners acknowledge the danger to juvenile salmon poised by the proposed intakes and counter with a plan to shunt juvenile salmon into the Yolo Bypass. Doing so would deliver these fish safely from the intakes.

Currently the Yolo Bypass only receives flood waters in years when flows are high enough to overtop the Fremont Weir. The BDCP envisions modifying the weir to flood the bypass in more water year types than is currently the case. Even if the weir is so modified, GGSA is skeptical water will be found in dry and critically dry years to flood the bypass and make it work. If it is, even less water will be available as Delta outflow below the intakes and reverse flows will be exacerbated. In addition, the 2009 salmon biological opinion already requires steps be taken to bring the Yolo Bypass online as a rearing ground for salmon, regardless of whether the BDCP is built or not. BDCP's baseline description fails to acknowledge this and other environmental improvements required by the salmon and smelt biological opinions.

The 2009 salmon biological opinion also requires the restoration of thousands of acres of wetland habitat in the Delta to aid salmon recovery. No one should mistake promises from BDCP proponents of wetland restoration as being tied to construction of the BDCP since this is required regardless of whether the BDCP is ever built or not. Again, these required improvements are illegally omitted from BDCP's baseline description.

Much of the Habitat BDCP Proposes to Restore Outside Areas Used by Salmon

A considerable percentage of the wetland habitat BDCP proposes to restore in the Delta is not useful to juvenile salmon. Much of it is located in the interior or south Delta which is off the natural migration corridor of most juvenile salmon and therefore would not likely be used as rearing or migratory habitat. BDCP fails to acknowledge this, instead positing that all restored wetland habitat around the delta will aid listed salmon and other species.

Adaptive Management and Governance Dominated by Water Users Are Non Starters

BDCP is full of promises to adaptively manage in order to address yet to be known problems or

known problems for which the answers are currently not clear. To do this, BDCP propose to vest far too much control in the hands of south of Delta water users over adaptive management decisions affecting listed species.

In [a study](#) conducted for American Rivers and the Nature Conservancy, study authors found:

.. when examined in detail, the draft BDCP blurs the lines between implementation and regulation and grants the permittees unusual decision authority.

It's not credible to argue that salmon-friendly decisions will be made in times of drought when water users, representing agricultural interests are the dominant decision making group. Pressure from water users and agricultural interests during the drought of 2014 to waive or weaken salmon protections demonstrates exactly what to expect next time the interests of water users is positioned opposite the interests of salmon advocates.

The drought response of 2014 saw the water users succeed in getting the federal Endangered Species Act waived when the OMR pumping restrictions were exceeded and again when the I/E ratio pumping restriction was waived in the spring of 2014.

These experiences in 2014 undermine the idea that adaptive management in BDCP can and will work on behalf of listed species. The salmon fishing community has zero belief that when push comes to shove, adaptive management decisions will be made that favor salmon. We challenge BDCP supporters to point to a single instance where this has occurred with any HCP.

The American Rivers/Nature Conservancy study also found:

Additionally, the regulatory assurances in the Plan, especially the “no-surprises” policy, place undue financial responsibilities on the state and federal governments if certain modifications to the Plan become necessary during its 50-year term.”

GGSA agrees. Relative to “no surprises”, BDCP seeks a 50 year permit to operate a facility for which there's no good analogue.

Proponents of BDCP are seeking a promise that a permit will shield them from unpleasant surprises at some future date if it's discovered the project is illegally taking listed species. Instead, damage to listed species and the environment would more likely be mitigated by taxpayers through state and federal offices, something GGSA disagrees with. At a minimum, a more responsible approach would be to require testing of simulated pieces of BDCP to help answer the many unanswered questions before any permit is awarded.

South Delta Pumps Controls Likely to Weaken

The current proposal calls for dual conveyance under various scenarios which would use existing south Delta water intakes in addition to the new proposed intakes, during wet years. Existing weak controls on south Delta diversions would be replaced by a new set of even weaker operational criteria that would leave salmon even more exposed to death associated with south delta pumping operations than currently.

The BDCP Fails to Recover Listed Species

The BDCP purports to at best, avoid take and jeopardy to listed species. This is a threshold lower than the recovery standard GGSA believes any project should be held to. The existing state and federal water projects have been primary reasons two salmon runs are ESA listed in California now. Any project that replaces the existing highly flawed system should provide conditions that will recover these listed runs, something BDCP fails utterly at.

In short, the current plan to build the BDCP represents a big over reach by those south of the Delta coveting salmon water. These entities make no secret of their disdain for current salmon protections embodied in the 2009 salmon biological opinion and have worked tirelessly to get these protections weakened and removed so they can take more water. Northern California's ecosystem needs more of this water, not less, something the BDCP will never provide. Neither Delta smelt, green sturgeon, steelhead, nor winter and spring run salmon will ever recover if more water is taken as envisioned by the BDCP.

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