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Benicia Salinity Control Gates to add 7 to 43 million Acre feet of Fresh water NOW!

Additional submitted attachment is included below.

Benicia Salinity Control Gates

By Joseph Rizzi 707-208-4508 Joseph_ Rizzi@sbcglobal.net

7 Million Acre Feet (MAF) can be added in 2015 if we simply install "Benicia Salinity Control Gates" at the base of the new Benicia / Martinez bridge. 35 MAF in wet years and 7 MAF in dry years to save the Delta, environment, cities and farmers too. FYI... 7 MAF = 2.28 trillion gallons

\$3 million to put in Temporary partial dam by <u>AquaDam</u> to limit water in about 1 months time for 2015, while the more permanent gates can be designed and installed at the foot of the bridge. Alternate Temp. dam by <u>DamltDams</u> quick to install and remove.

Benicia Salinity Control Gates – <u>Not</u> a dam, barrier or locks stopping all flow of water. Always an open section to allow boats and aquatic life to FREELY travel in and out of each zone. Gates would keep the Fresh Delta water separated from the Salty Bay water and stop salt water incursion by limiting the flow of fresh water out of the area. 1.3 MAF is needed to naturally keep the salt water out of the Delta and in the Bay, which in dry years 7 MAF goes to the bay and 5 MAF is to be exported south. This is much better than simply releasing more water from the reservoirs in the north to keep the salinity back and help the aquatic life. This would keep the Delta at closer to the high tide water level constantly with slower moving flows which will help the levies last longer. <u>Most important</u> benefits would be that more water can flow from the north Sacramento River naturally through the Delta to the pumps in Tracy for more usable water availability.

Benicia Bridge - added gates to the base of bridge supports. Most of the work has already been done! Wow! This turns the Suisun Marsh and Delta is to Fresh water reservoirs, but more importantly it makes the Delta healthier for fish and other aquatic life while allowing more water to flow south. The Co-Equal goal: → http://tinyurl.com/kno3ugg

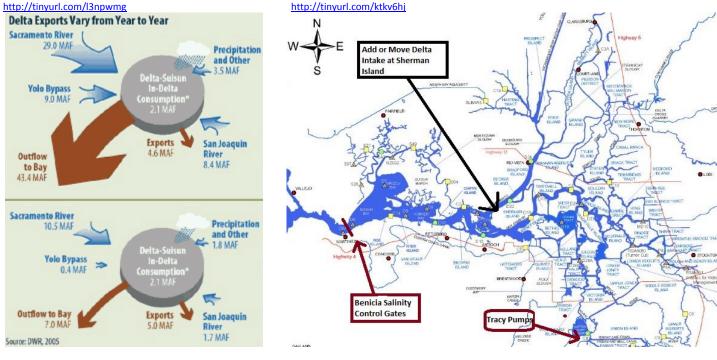
Positive Environmental Benefit – No adverse environmental problems, because the water way is never blocked. This helps the aquatic life in the Delta at the same time allowing less water to be required to be release to keep the salt water back.

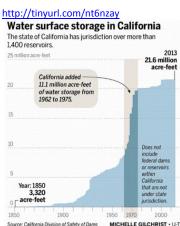
http://tinyurl.com/punsotf ← 1931 DWR study of Barriers in bay. (pg. 39 states 1.3 MAF needed to hold back salt waters naturally without locks. Dry years have 7 MAF going to bay and 43.4 MAF in wet years. →
http://tinyurl.com/3npwmg) NOAA Water way charts for depths → http://tinyurl.com/q5fthlt

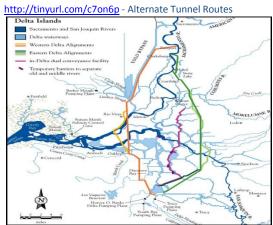


The Benicia Bridge cost 1.3 billion, it should not cost that much to add gates between the support columns. But even if it did cost that much or more, it is well worth the investment to add Millions of Acre Feet of FRESH water for all to enjoy. Wiki Delta estimates 95 sq miles of water storage. Wiki: Suisun Marsh DWR: Salinity Control Gates report.

We have the Reservoir capacity now (if you do not think so ask your selves when was the last time the water was required to be spilled over the dams?)







To avoid reversing Delta water way flows and keep the 5 MAF of water export, at least one pipeline should be created to capture water on the north side of Sherman Island.

30 foot diameter pipeline from Sherman Island to Tracy Pumps would be less than 20 miles and can be located next to Rail lines for ease of access and would be able to supply 3.28 MAF with a 20 foot elevation difference. FYI.. 40 foot tunnel for 37 miles with 20 foot elevation difference would supply up to 5 MAF. Flow CalcTool Running the pipelines near the Rail line and Freeway would allow for a nearly straight route to Sherman Island and it could be done above ground which is significantly less expensive than tunnels and the railway can be used to haul away dirt and deliver pipes.

Water is let out of dams for 1) Hold back Salt intrusion from Bay seawater. 2) Keep Fish cool. 3) Water for use. Benicia Gates would help on items 1 and 3 but not 2. Warm water can KILL fish – but we just need to give the fish COOL rest stops along their journey and fixing up their spawning area by – adding deep pools of water in the rivers for fish to cool down and rest on those hot summer days. This is what nature does and we can shade these pools too if needed like a big oak tree that nature would put near the river. Also make sure that the spawning areas get water from a previously deep water shaded pool and shade the spawning area which would be shallower waters. We need to think and try and recreate what nature does or had that we can help create in the dryer years so we can all survive together.