20:11/01. AGENCIES FEARFUL FOR SALMON SURVIVAL WITH NEW SACRAMENTO RIVER TEMPERATURE PLAN; SENIOR WATER RIGHTS CURTAILED TO DEAL WITH SHORT SUPPLY: After several weeks of uncertainty, state and federal water and fish agencies are nearing completion of a plan to operate Shasta and Keswick Dams on the upper Sacramento River in an attempt to provide sufficient cold water for rearing salmon populations below the dams, while at the same time making good on water contracts – guarantees that are looking more and more like severe overextensions of California’s scant water resources this year. On separate conference calls with stakeholders and media on 16 June, the U.S. Bureau of Reclamation, the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, the California Department of Water Resources, and the California Department of Fish and Wildlife (CDFW) all confirmed that the cold water pool in Shasta Lake reservoir, which is culled from lower depths and mixed with warmer surface water to achieve target temperatures for water releases, is 30% smaller and at least 1 degree warmer than previously thought.

Coupled with ambient air temperatures that are tracking 7 degrees hotter than normal around Redding, CA, where the reservoirs are located, it is clear that the agencies will not be able to meet the 56-degree target temperature, prescribed by the Salmon Biological Opinion,
that is protective of salmon eggs and juveniles. CDFW Director Chuck Bonham confirmed that the agencies are now targeting 57 degrees for water releases over the summer, and noted that “[o]nce you start to get above 58 degrees, you see dramatic increase in mortality percentages, and above 60 degrees, whoa hang on, and any higher than that, you’re talking game over from a fish perspective.”

In developing the new plan, the agencies relied on a temperature-modeling program that has long been recognized as inaccurate. However, the new plan deviates from an earlier plan, rescinded by the State Water Resources Control Board on 29 May, by relying heavily on real-time, adaptive management. The new plan calls for water to be released at 7250 cfs in order to achieve the 57-degree target; during “normal” operating conditions, releases would be as high as 12,000 cfs. The plan essentially calls for the agencies to begin releases at the low level, which admittedly will not protect salmon incubating and rearing below the dams, and to adapt the plan to conditions as the year goes on. There is a huge amount of uncertainty with this plan, which has fish and farm stakeholders frustrated and worried.

The Bureau of Reclamation, which operates the Dam, is retreating from earlier admissions that it did not believe its April temperature measurements of the Shasta reservoir. That disbelief lead to the Bureau’s promulgation of the original operations plan, that was subsequently rescinded by the State Board for failing to include a margin of error to protect salmon. Thereafter, the Bureau confirmed to stakeholders that its April measures were so out of concert with its temperature model that it brought a new temperature probe from Folsom Lake to double-check the measurements; the Folsom probe confirmed the smaller size and hotter temperature of the Shasta cold water pool. In the media conference call on 16 June, Bureau Chief David Murillo took the position that the temperature misjudgment was due to an “instrument calibration error” with the initial measurements.

The announcement of the new temperature plan comes in the wake of the State Board’s historic announcement on 12 June of stop-diversion orders to 114 individuals and agencies holding 276 senior water rights issued between 1903 and 1914. 86 of the rights-holders are along the Sacramento River, where the Shasta operations plan drama has been playing out. The curtailments, which aim to save 1.2 million acre-feet of water, are the first to cut in to senior water rights since 1977. State Board Executive Director Tom Howard stated that the public should prepare for similar announcements every 1-2 weeks over the course of the summer. Curtailment orders have already been sent to about 9,100 junior water rights holders. Actual cessation of curtailments is left to the rights-holders, who are required to submit an online form confirming they have stopped diverting. While the state is permitted to inspect diversion operations to confirm curtailment, there is no way for the state to control water supply to individual water users.

For more information, see this 17 June Maven’s Notebook transcript of the agency-media conference call, and this 16 June Maven’s Notebook article discussing the operations
plan. This [17 June Greenwire article](#) addresses the Bureau’s alleged calibration problem, and a link to Golden Gate Salmon Association Executive Director John McManus’s [challenge to that assessment is available here](#). See also this [12 June Capital Press article](#) on the curtailment order. Photo of Shasta Dam by U.S. National Park Service, public domain.

**20:11/02. DROUGHT RELIEF LEGISLATION PROPOSED BY REP. HUFFMAN, WHO REQUESTS PUBLIC COMMENT BEFORE FINALIZATION:** Representative Jared Huffman (D-California) is in the early stages of proposing comprehensive drought relief legislation that would benefit those states affected by the historic drought gripping much of the western U.S. Rep. Huffman’s bill will provide $1.2 billion in both emergency relief and long-term investment from the Reclamation Fund, which currently has a $10 billion surplus. The bill addresses the drought in four ways: emergency relief, water supply infrastructure investment and planning, improved water management, and investment in planning for inevitable future drought events. In regard to fisheries, the bill specifically requires developing a plan to deal with salmon populations during future drought. Perhaps most striking about this drought bill is Rep. Huffman’s invitation to the public to provide comments on the bill before he submits it to the House of Representatives. This is in stark contrast to Sen. Diane Feinstein’s (D-California) drought legislation, which has been a largely secretive endeavor for the last several months.

For more information, the [draft bill is available](#) at Rep. Huffman’s website. See also [Huffman’s 16 June Sacramento Bee op/ed](#) on the need for Congressional action on drought.

To get involved, check out the [drought page on Rep. Huffman’s website](#), where you can get more information on the bill and submit your comments.

**20:11/03. NOAA PROPOSAL TO REVISE MAGNUSON-STEVENS NATIONAL STANDARD 1 REGULATIONS OPEN FOR PUBLIC COMMENT:** The National Marine Fisheries Service has proposed revisions to implementing regulations of National Standard 1 (NS-1) of the Magnuson-Stevens Fisheries Conservation and Management Act (MSA). The opportunity to submit public comments on the proposed regulations runs through 30 June. NS-1 requires that all Fishery Management Plans for depleted U.S. fish stocks in need of conservation and management seek to “prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.” The regulations up for revision provide in-depth guidance to Regional Fishery Management Councils on how best to prepare Fishery Management Plans to achieve that goal. Implementing regulations for National Standards 3 and 7, which deal with managing stocks throughout their range, and avoiding duplicative management, respectively, are also up for revision.

IFR and PCFFA are opposed to the proposed revisions to NS-1 regulations because they would facilitate backsliding in the fishery protections that have made the MSA a success in rebuilding depleted fish stocks. Specifically, the revisions could reduce the number of stocks that require management plans, extend timelines for rebuilding depleted stocks, and obscure fishery data that should be the foundation of management decisions. These changes are similar to the amendments to the MSA that passed the House of Representatives in H.R. 1335, Rep. Don Young’s (R-Alaska) MSA Reauthorization bill, earlier this month.

For more information, see the [text of the National Standards](#) (NS-1 is 16 U.S.C. § 1851(a)(1)). See also [NMFS’ website on the revisions](#). This [PDF of the redlined regulations](#) is particularly useful to identify proposed changes. Our previous coverage of MSA Reauthorization is available in [Sublegals 20:09/02](#).
20:11/04. TWO MAJOR WEST COAST GROUNDFISH STOCKS REBUILT: The Canary rockfish and petrale sole stocks along the west coast have reportedly been rebuilt to a sustainable level, after having nearly been overfished. The Pacific Fishery Management Council announced 15 June that the two stocks were rebuilt ahead of schedule, having been constrained for over a decade. Rockfish were not expected to rebound to target levels until 2057, but the Council is reporting six times more canary rockfish than in 2000, when the stock was declared overfished. Petrale sole was declared overfished in 2010 and has surpassed its target rebound level as well. In addition to being restricted from catching petrale sole and canary rockfish, fishermen have been restricted from catching multiple other fish species that sole and rockfish rely on as well, including Dover sole and black cod. Some rockfish conservation efforts have even closed sections of the ocean from fishing. Five other west coast fish stocks are currently being rebuilt. NMFS must sign off on PFMC’s recommendation to declare the stocks rebuilt. If approved, new harvest specifications and regulations informed by these assessments would be put in place beginning in 2017.

For more information see this 15 June 2015 Pacific Fishery Management Council article: and this 16 June 2015 KUOW article. Canary Rockfish photo by NOAA, public domain.

20:11/05. NOAA AND CANADA’S DFO PARTNER ON AQUACULTURE: The National Oceanic and Atmospheric Administration (NOAA) has announced a decision to partner with the Canadian Department of Fisheries and Oceans (DFO) in order to cooperate while managing the marine aquaculture sector and to find new areas for regulatory coordination between the two countries. The partnership comes after the 2011 Regulatory Cooperation Council (RCC) was created by President Obama and Prime Minister Harper to encourage regulation between the two countries and to grow both economies. NOAA and DFO plan to work together over the next three years on several issues, including regulation of net pen aquaculture, cooperation on farm to wild fish interactions, and cooperation on regulation and management of offshore aquaculture. PCFFA has advocated for sustainable aquaculture as one component of the future of fisheries, and is optimistic that the agreement between the United States and Canada will lead to thoughtful and responsible aquaculture regulation that will protect wild fish stocks.

For more information see the 17 June 2015 National Marine Fisheries Service announcement, and this September 2011 PCFFA article for Fishermen’s News. See also Sublegals 20:10/08 discussing the Kuterra salmon farm, a model of sustainable aquaculture.

20:11/06. CLIMATE CHANGE TO IMPACT ECONOMIC HEALTH OF US FISHERIES: A report by the National Oceanic and Atmospheric Administration (NOAA) showed the U.S. commercial fishing industry to be worth about $5.5 billion in 2013. However, new studies have shown that as climate change progresses, it will negatively affect fisheries both ecologically and economically. Though seafood’s economic worth is not on par with products like beef, Americans did consume around 14.5 pounds of seafood per person in 2013 and seafood remains a significant economic force. Ocean conditions will be affected by climate change with ocean acidification, which threatens many crustaceans on the west coast, particularly in the Bering Sea. Those crustaceans often form the foundations of intricate food webs. Alaska’s waters produced 60% of the fish harvested in the United States in 2013, and accounts for $1.9 billion in fisheries’ net worth. The Arctic region is facing climate change more rapidly than other ocean regions, and Alaskan king crabs will soon struggle with their shells. The continental shelf
off the northeast coast of the United States is also facing climate change struggles with warming waters. Water temperatures in the ocean have risen at a rate 15 times higher within the last 13 years than in the last 100 years, according to a new study. The continental shelf is home to a large amount of biodiversity and fish species due to its shallow waters.

For more information see this 17 June 2015 E&E News article.

20:11/07. NEW ENGLAND FISHERY MANAGEMENT COUNCIL TO CONSIDER SUSPENSION OF AT-SEA MONITORING OF GROUNDFISH FLEET. For the remainder of the 2015 groundfish fishing season, the New England Fishery Management Council is considering asking the National Marine Fisheries Service to use emergency measures to suspend any and all at-sea monitoring of groundfish boats. The council met for three days in Newport, Rhode Island, and heard comments on the request on 18 June. Many environmentalists oppose reducing at-sea monitoring, but the groundfish industry has supported the initiative, which is in response to an initiative to shift government costs of at-sea monitoring to individual fishermen. Fishermen and committee members are concerned with the fishery’s ability to handle the shifted costs of at-sea monitoring, after slashed quotas and expanded closures in a federally declared fishery disaster have left fishermen vulnerable. The Northeast Seafood Coalition, based in Gloucester, Massachusetts, proposes meeting in the middle and having the government reduce at-sea monitoring, but not completely end it, which would avoid transferring unbearable costs to fishermen. The coalition’s Executive Director argues that the industry stakeholders’ primary concern is finding out how effective the at-sea monitoring program really has been in the past. Costs of at-sea monitoring that will be subsumed by fishermen total at about $800 per day and would be put into effect in August, 2015.

For more information see this 16 June 2015 Gloucester Times article.

20:11/08. WEST COST HIT BY TOXIC ALGAE BLOOM; NO END IN SIGHT FOR RAZOR CLAM CLOSURE: The largest toxic algae bloom in more than a decade has hit the U.S. west coast, and caused a wide range of closures to commercial shellfish and crab fishing. If humans consume seafood contaminated by the toxic bloom – containing the toxin Pseudo-nitzschia – they are prone to seizures, short-term memory loss, and possibly death. While Washington’s Department of Health (DOH) tests commercial seafood, recreational fishermen should refer to the agency’s website, which provides maps of hotspots for toxic algae, in order to protect themselves. DOH member Jerry Borchert reported that the toxic bloom has started surprisingly early this year, and that this year was the first that three types of toxic algae are blooming together. Toxic algae expert Vera Trainer reports that the toxic algae bloom is unprecedented in scale, stretching from Monterey Bay, California, up to Homer, Alaska.

The National Marine Fisheries Service has been hurrying to chart the extent of the toxic algae bloom and has found that it contains the highest concentrations of domoic acid, a natural toxin, ever seen in Monterey Bay and off the coast of central Oregon. As reported Sublegals, the Oregon razor clam and Washington Dungeness crab fisheries have been closed due to the high concentrations of domoic acid. Oregon Department of Fish and Wildlife now reports that there is no chance for razor clamming to resume in Oregon’s beaches before 15 July. Biologists report that they have not yet observed a peak in domoic acid levels, and expect the levels to
continue rising. Before a peak, biologists cannot predict when levels will decrease, but some do not expect an opening before the end of September. Sublegals would like to remind readers that domoic acid can be fatal if consumed in high levels, and cooking or freezing does not destroy the toxin.

For more information see this 17 June 2015 KUOW article and this 16 June 2015 Lincoln County Dispatch article: on the algae blooms, and this 17 June 2015 Statesman Journal article on the razor clam closure.

20:11/09. SANTA BARBARA TO DUST OFF MOTHBALED DESALINATION PLANT IN RESPONSE TO DROUGHT: Santa Barbara, CA City Council members voted unanimously 16 June to reopen a desalination plant built by the city in response to drought 25 years ago, but which never operated because of "Miracle March Rains" that rebuilt the city's water supply. The city intends to ultimately spend $53 million to reopen the plant, which will initially provide up to 25% of the city's water needs. Although the plant construction has secured renewal permits, ostensibly for operation, the environmental impacts of the plant were raised at the City Council Meeting. Santa Barbara Channelkeeper raised concerns about the offshore water intakes for the plant, in which sealife can get trapped. IFR and PCFFA advocate for responsible desalination, which can be accomplished with beach wells rather than offshore intakes so as to minimize entrainment of marine species. Additionally, such operations can take place inland, where there is abundant solar energy to offset desalination's massive energy requirements. Concerns about transporting seawater inland should be allayed by California's extensive knowledge on moving water about the state.

For more information, see this 18 June Santa Barbara Independent article.

YOUR NEWS, COMMENTS, CORRECTIONS: Submit your news items, comments or any corrections to Editor at: tsloane@ifrfish.org, or call the IFR/PCFFA office with the news and a source at either: (415) 561-FISH (Southwest Office) or (541) 689-2000 (Northwest Office). If you have any trouble subscribing or unsubscribing, contact IFR/PCFFA directly at: tsloane@ifrfish.org. Sublegals is a weekly fisheries news bulletin service of Fishlink. “Fishlink” and “Sublegals” are registered trademarks of the Institute for Fisheries Resources. All rights to the use of these trademarks are reserved to IFR. All photos are by IFR unless otherwise accredited. This publication, however, may be freely reproduced and circulated without copyright restriction. Articles taken from Fishlink Sublegals may be freely reposted or reprinted with attribution to “Fishlink Sublegals.” If you are receiving this as a subscriber, please feel free to pass it on to your colleagues.

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