



# Western States Water

## Addressing Water Needs and Strategies for a Sustainable Future

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### **CONGRESS** **FCC/Water Data**

On June 12, the Senate Commerce, Science, and Transportation Committee held an oversight hearing on the Federal Communications Commission (FCC). Witnesses included FCC Chairman Ajit Pai, and FCC Commissioners Michael O'Rielly, Brendan Carr, Jessica Rosenworcel, and Geoffrey Starks. Among other topics, the Commissioners discussed the FCC's efforts to expedite the availability of fifth generation (5G) wireless technology for cell phone networks. In the past several months, the FCC has held two high-band spectrum auctions, for the 28 and 24 GHz bands. The FCC plans to hold further auctions later this year on the 37, 39, and 47 GHz bands, continuing to free up spectrum for commercial use. Chairman Pai said: "We are also taking aggressive action on mid-band spectrum," reviewing laboratory test results on spectrum access systems and "...working with our federal partners on how to effectuate the widespread sharing of the full 450 MHz of this prime mid-band spectrum."

In 2010, the WSWC sent a letter to the FCC requesting that they "undertake a full, transparent and complete analysis, including robust participation by the western States, of the effects of making 500 MHz of radio spectrum available for broadband use within the next 10 years." At that time, the primary concern was the 1675-1710 MHz bandwidth, "used by Federal agencies and States for remote collection of environmental, hydrologic, meteorological, and water quality data via the GOES and POES satellites, and includes streamgaging and water-monitoring networks that are vital to water management and emergency management, including flood warning systems."

Recently, concerns have been raised about the impact of the use of the 24 GHz band, auctioned off for licensed uses in March-May of this year, on the adjacent spectrum, 23.6-24 GHz. The adjacent spectrum is used by the National Oceanic and Atmospheric Administration (NOAA) to measure water vapor in the atmosphere, and according to a Navy Information Brief, this is the only frequency band suitable for this measurement due to the physical properties of the atmosphere. The Brief states: "NOAA and NASA have conducted studies that show interference in passive collection at the 23.6-24 GHz

band from the adjacent 5G band (24.25 GHz); as such it is expected that interference will result in a partial-to-complete loss of remotely sensed water-vapor measurements. It is also expected that impacts will be concentrated in urban areas of the United States first. An additional assumption is that if the U.S. expands into the 24 GHz band, other countries will follow suit and thus impacts will eventually be worldwide, concentrated near densely-populated areas." At the hearing, the Commissioners discounted the validity of the NOAA studies, particularly taking issue with the underlying assumptions of the models, and expressed frustration at the "eleventh hour" attempts to prevent 5G technology from moving forward as quickly as possible.

WSWC sent a letter to Committee Chair Roger Wicker (R-MS) and Ranking Member Maria Cantwell (D-WA) regarding concerns about the risk to water vapor data. "Among the possible unintended consequences, the interference with or loss of this data could potentially impact short-term weather forecasts, impacting the ability of state and federal agencies to prepare for and respond to extreme weather events and associated precipitation, water supply, and flooding. The WSWC supports data collection and distribution programs, including remote satellite sensing, that assist agencies at all levels of government in making sound scientific decisions related to water. The WSWC respectfully requests Congress appropriately address concerns about out-of-band interference. We appreciate the Committee's oversight, and ask that you ensure that the FCC coordinates with NOAA and other federal and state agencies to quantify and analyze the effects of 5G use on the adjacent spectrum, and take further steps as necessary to protect remote sensing in the 23.6-24 GHz range."

Senator Mike Lee (R-UT) introduced legislation in May, the Government Spectrum Valuation Act (S. 1626), which would require the National Telecommunications and Information Administration (NITA) to estimate the value of the electromagnetic spectrum assigned or otherwise allocated to federal entities, between 3 kHz and 95 GHz. This would include a valuation of not only the 23.6-24 GHz bandwidth of potential concern now, but also the 1675-1710 MHz bandwidth of concern in 2010. The bill breaks the electromagnetic spectrum into three parts to be evaluated over the next three years, and every three years thereafter. The value of frequencies

between 3 kHz and 33 GHz would be estimated within the first year. Subsection (d) directs NITA to base its estimate "...on the value that the electromagnetic spectrum would have if the spectrum were reallocated for the use with the highest potential value of licensed or unlicensed commercial wireless services that do not have access to that spectrum as of the date of the estimate." The bill indicates that NITA may consider both the spectrum needs of commercial interests and government capabilities, "preserving the spectrum access necessary to satisfy mission requirements and operations of Federal entities."

## **WATER QUALITY/ ADMINISTRATION** **Harmful Algal Blooms/ EPA**

On May 22, the Environmental Protection Agency (EPA) issued its final Recommended Recreational Ambient Water Quality Criteria for the Cyanotoxins Microcystins and Cylindrospermopsin (84 Fed Reg 26413) – two toxins association with harmful algal blooms – at concentrations to protect human health for swimming and recreation. The final values were revised upward following comments to the 2016 proposed rule, to 8 µg/L for microcystins and 15 µg/L for cylindrospermopsin. The recommended values supplement the 2012 Recreational Water Quality Criteria, and can be used by states and authorized tribes to establish their Water Quality Standards under CWA §304(a), and may serve as the basis for swimming advisories in recreational waters to protect the public.

## **WATER RESOURCES**

### **Washington/Water Rights Decree**

On May 9, the Yakima County Superior Court entered a Final Decree in *Washington Department of Ecology v. Acquavella, et al.* (No. 77-2-01484-5). The Department of Ecology petitioned the court in 1977 to adjudicate the rights to surface water in the Yakima River Basin, which covers 31 tributary watersheds in the counties of Yakima, Kittitas, Klickitat, and Benton, and the lands of the Yakama Nation. Over the past 42 years, more than 4,000 claims were reviewed, and most of them date back to before 1917 when Washington's first surface-water law was adopted. The Final Decree defines the relative priorities of about 2,300 water rights, including claims from individuals, irrigation districts, cities, tribes, and the U.S. Forest Service.

The Department of Ecology's website said: "This has been the largest and longest water rights adjudication in the state's history. It has long been known that water rights are over-appropriated in the Yakima Basin, so it was important to establish who has water rights and the relative priority dates and quantities legally available to water users." The federally reserved water rights for the Forest Service include priority dates of 1893 and 1907 for administrative buildings, fire

prevention and protection, stock watering, dust abatement, road maintenance, pesticide application, power generation, and other forest reserve purposes. There are also Forest Service rights dating to 1964 for winter irrigation of over 470 acres for wildlife habitat and pasture. The Yakama Nation holds various reserved water rights for irrigation, stock, and wildlife dating to 1855, 1859, and 1905, as well as treaty water rights to maintain minimum instream flows for fish and wildlife with a priority date of time immemorial. See <https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-rights/Adjudications/Ecology-v-Acquavella>.

At the Yakima Adjudication Celebration on June 5, Ecology Director Maia Bellon said: "Today we celebrate the many bounties we receive from the Yakima River. Today I want to mark not just the legal aspects of adjudication, but pay our respects to the river." She also thanked the Yakama Nation for their patience during the adjudication, noting that, "Today we are on the ancestral lands of the Yakama people." Alan Reichman from the Washington Attorney General's Office said that there were many reasons the case took so long, including the concerns of the leaders and citizens of the Yakama Nation over whether they would get fair treatment in a state court. "There was a lot of anxiety on both sides," he said. "The Nation has become a partner with other stakeholders to work through the issues and figure out workable solutions." (*Yakima Herald-Republic*, 6/5/19)

## **MEETINGS**

### **WSWC/NASA Workshop**

The WSWC is sponsoring a workshop on technology transfer for water management in the western United States with the National Aeronautics and Space Administration's (NASA) Western Water Applications Office on August 7-9, in Irvine, California. This workshop will bring together NASA scientists with partners from federal and state agencies that have experience with technology transfer to identify best practices to streamline the process and communicate the need to actively plan for an effective transition. The workshop is being held at the Embassy Suites by Hilton – Irvine, Orange County Airport.

### **WSWC/NARF Symposium**

The WSWC and Native American Rights Fund will cosponsor a Symposium on the Settlement of Indian Reserved Water Rights Claims on August 13-15, held at the Harrah's Resort Southern California in Funnar, California. The cut-off date to book rooms is July 13, 2019. The early registration fee deadline for the symposium is June 28.

For further information on these meetings see: <http://www.westernstateswater.org/upcoming-meetings/>.

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