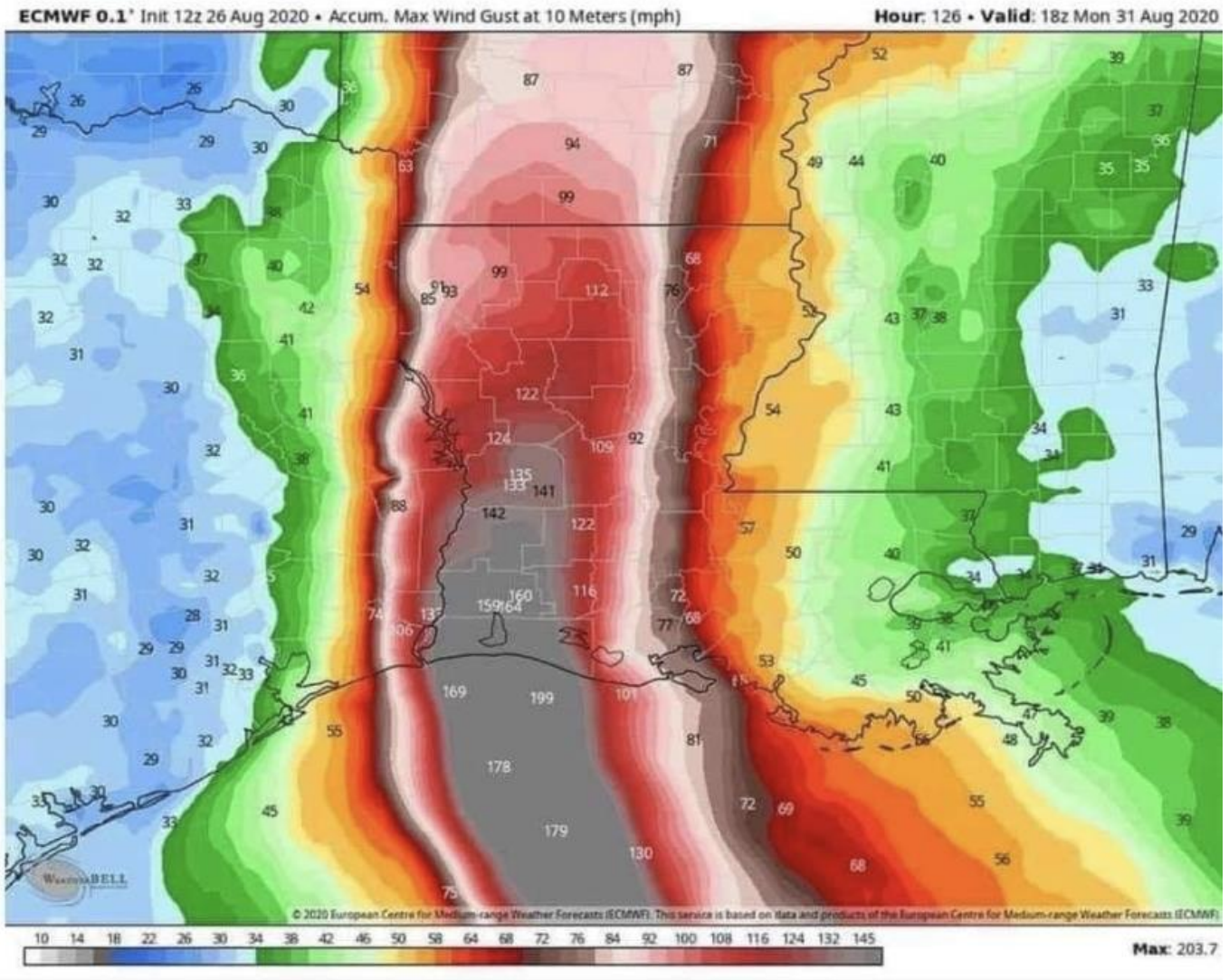
Water Resources Management Updates

Louisiana Water Resources Commission

September 30, 2020

Hurricane Laura Impacts



Wind speeds, Hurricane Laura

Credit: ECMWF; thanks to Comm. Lindsay Gouedy for forward

Hurricane Laura – Drinking Water Impacts

- At peak measure, **103** public water systems (8% of PWS in LA) deemed inoperable due to power outage, inadequate backup power, physical damage, or a combination of the above.

- **56** of these were Community water systems (w/potential for at least 15 connections or servicing 25 or more of the same residents annually).

- At peak measure, **149** PWS (12% of PWS in LA) were on a boil water advisory. **123** of these were Community water systems.

- In the primarily affected areas, **41%** of PWS experienced outages and BWA directly related to Hurricane Laura.

LOUISIANA DEPARTMENT OF HEALTH
Engineering Services

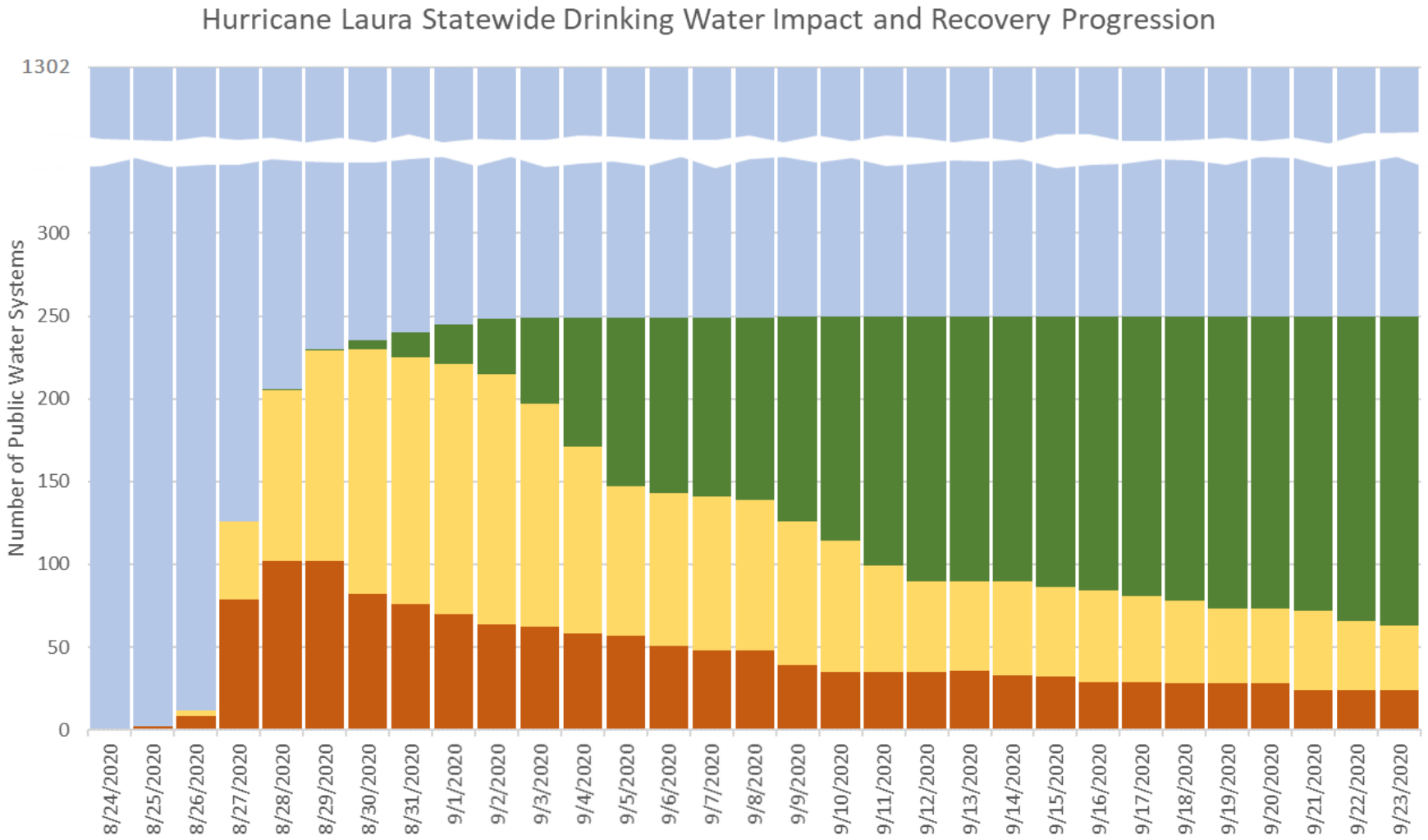
- **12** public water systems have elected to remain closed to the public for an extended period of time to conduct necessary repairs. These systems are no longer counted as “active” PWS.
- As of 9/24/20, **10** water systems remained on the list of systems with outages. Three of those were community systems serving a population of 2,366.

LOUISIANA DEPARTMENT OF HEALTH
Engineering Services

- LDH conducted field assessments 8/30 – 9/4
- Partners involved in field assessments were LRWA, USACE, EPA, CDC
  - 92 water systems in 8 Parishes
  - 500+ hours spent in initial field effort
- LRWA assets (generators) delivered: 37 in 13 Parishes
- GOHSEP provided 40 generators to 33 water systems in 14 parishes in response to requests from Parish OEP.
- LRWA crews, workforce aid: 63 crews in 11 parishes (onsite evaluations, leak detector, meter shutoff, etc.)
  - 800+ hours spent in initial field effort

LOUISIANA DEPARTMENT OF HEALTH
Engineering Services

- 250 public water systems impacted by this event.
- Total population affected ~630,000.



LOUISIANA DEPARTMENT OF HEALTH
Engineering Services

Department of Environmental Quality – Hurricane Laura Impacts

- As expected following storms matching the intensity of Hurricane Laura, water quality conditions in Lake Charles, Prien Lake and likely other waterbodies in the region were severely impacted.
- As a result of reported fish kills in both lakes, LDEQ initiated a rapid assessment of water quality in both lakes on September 11, 2020.
- Two teams from Baton Rouge conducted instrument readings to monitor for dissolved oxygen, dissolved oxygen percent saturation, pH, conductivity, salinity, and temperature.

- Dissolved oxygen was found to be 0.0 mg/L from the surface to the bottom at eleven sites around Lake Charles. Similar results were observed at Prien Lake with the highest dissolved oxygen level being 0.16 mg/L.
- The water quality standard for both lakes is 5.0 mg/L.
- Dissolved oxygen is used as an indicator of water quality because fish require oxygen in the water to survive. Other monitored parameters were similar to those found historically in the lakes.

DEQ

- During hurricanes trees, branches, and leaves are frequently thrown into the water where they begin to rapidly decay. The decay is caused by naturally occurring bacteria, populations of which quickly grow due to the availability of excess nutrients in the water. As bacteria populations in the water and sediment expand they consume oxygen needed by fish, leading to fish kills.
- In the case of Lake Charles and Prien Lake, much of the vegetation was likely thrown into the water in the forested areas of the Calcasieu River watershed upstream of the two lakes.
- In addition, the combination of heavy winds, waves, and an influx of saltwater is believed to have stirred up naturally occurring sediments on the lake bottoms and caused erosion of marsh areas surrounding the lakes.

DEQ

- All of these impacts would have contributed to the rapid bacterial growth and resulting reduction in dissolved oxygen.
- As a result, the extensive and unfortunate fish kill in the lakes is thought to have been caused by naturally occurring conditions following Hurricane Laura. LDEQ will continue to monitor the conditions in Lake Charles and Prien Lake.
- LDEQ may soon initiate similar water quality monitoring to determine what effect, if any, the storm had on other waterbodies in areas affected by Hurricane Laura.

Sabine River Authority

Warren Founds, III, Exec. Director

- Close to 1000 trees down along the Sabine River Diversion Canal and around local SRA office.
- SRA parks & recreational facilities suffered similar damage to trees and some building damage.
- The dam complex had debris all along the embankment (dam), spillway, and in front of the powerhouse intake.
- Getting close to being back to normal in northern portions but “a ways to go" in Sulphur.
- Note on recent water sales: Nothing new out of Toledo Bend but diversion canal sales have grown almost 20% in the past two years with increased development, including SASOL & a new Entergy plant.

Other Reports

Bayou Lafourche Fresh Water District

Ben Malbrough, Exec. Director

- Completion of $2.5 Water Control Structure in Napoleonville. Will allow BLFWD to create a reservoir for the residents of Ascension and Assumption Parish in the event of reduction in pumping capacity at the MS River. Jointly funded by the Delta Regional Authority and BLFWD.
- Out-to-bid on Thibodaux Weir Removal Project. With the completion of the WCS in Napoleonville, the water supply is now protected for all municipal users, allowing BLFWD to move forward on removing the weir. Has protected water supply for the City of Thibodaux since 1970, but an operational hindrance to BLFWD while also preventing residents from utilizing Bayou Lafourche for its full recreation capacity.

Bayou Lafourche Fresh Water District

- Partnership with the Barataria Terrebonne National Estuary Program (BTNEP) to advance efforts to reduce and ultimately eliminate an ongoing problem in the Bayou Lafourche watershed of untreated/improperly treated sewerage being discharged into Bayou Lafourche.
- Inspection of home treatment systems are currently underway and grant opportunities are being made available to home owners whose systems are found to be faulty or not working properly.
- Part of this effort is funded through DEQ while other phases are funded through EPA's Gulf of Mexico Program.

Bayou Lafourche Fresh Water District

- Final environmental regulatory phase for a $65 million pump station facility to be constructed adjacent to the existing facility in Donaldsonville on the batture of the MS River.
- Design is complete, and once we receive final environmental permissions, we will immediately begin advertising for construction.
- New facility will more than triple the current capacity of fresh water that BLFWD is able to divert from the MS River to Bayou Lafourche.
- This fresh water is extremely critical for the more than 300,000 residents of Ascension, Assumption, Lafourche, and Terrebonne (who rely upon it for potable water)
- Also critical to get this freshwater flow to the estuaries of lower Lafourche and Terrebonne Parishes which are seeing some of the most rapid land loss rates on the globe, attributed partly to saltwater intrusion.

Dept. of Agriculture & Forestry

Ongoing Soil & Water Conservation District PL-566 watershed plans:

- The Upper Delta SWCD, in consultation with Iberville Parish, West Baton Rouge Parish, the Village of Maringouin, and other partners, is nearing completion of the Upper Terrebonne basin watershed plan.
- The Vermilion SWCD is moving forward with the Hebert canal watershed plan, as is the Madison SWCD on the Walnut Bayou watershed plan; these SWCDs are working with their partners on the initial stakeholder engagement segments of their plan development.
- Recently submitted applications for 566 watershed plan funding are from the Boeuf River SWCD seeking a plan for the Steep Bayou watershed, and the Iberia SWCD seeking a plan for the Jefferson Canal watershed.
- The primary focus of each of these plans is flood prevention, and with plans in place the sponsoring SWCDs will seek project funds from sources such as Capital Outlay or the LA Watershed Initiative.

Department of Environmental Quality – Water Quality Certification Update

- Section 401 of the Clean Water Act requires the certification of all federal licenses and permits in which there is a discharge of fill material into navigable waters. The certification is used to determine whether an activity, as described in the federal license or permit, will impact established site specific water quality standards.
- The Louisiana Department of Environmental Quality (LDEQ) is charged with issuing these WQCs. See: La. R.S. 30:2074(A)(3) and LAC 33:IX.Chapter 15. Recently, the United States Environmental Protection Agency (USEPA) made changes to the timeframes for obtaining a 401 WQC from the LDEQ. These changes are summarized below:

- At least 30 days prior to submitting a certification request, the project proponent shall request a pre-filing meeting with the certifying authority. (b) The certifying authority is not obligated to grant or respond to the prefiling meeting request.
- Proponent (fka Applicant) must submit a written request for water quality certification to LDEQ and copy the Corps of Engineers. Date of submittal will start the clock for review by LDEQ.
- The Corps of Engineers will notify LDEQ of acceptable reasonable time for issuance ***not to exceed one year*.**
- The criteria has been changed from “discharge into navigable waters” to “point source discharges”
- Application must contain the following statements on the WQC request:
- ‘The project proponent hereby certifies that all information contained herein is true, accurate, and complete, to the best of my knowledge and belief’; and
- ‘The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.’

DEQ

- LDEQ may take one of four actions pursuant to its section 401 authority: Grant certification, grant certification with conditions, deny certification, or waive its opportunity to provide a certification.
- **However, under the revised rule, LDEQ must issue the certification decision within a reasonable period of time, which shall not exceed one year, and that there is no tolling provision to stop the clock at any time, including time needed for the LDEQ to request or receive additional information from the project proponent.**

- **If the certifying authority (LDEQ) has not acted on a request for the WQC within the "reasonable time period" established by the Corps of Engineers, the certification requirement will be waived and the federal agency may proceed to issue the license or permit.** A certifying authority may expressly waive the certification requirement. Under the final rule, certifying authorities may also implicitly waive the WQC requirement by failing or refusing to act.

- **Note that this is a significant change in that it now requires LDEQ to act within a specific time-frame established by another agency, and makes no allowances for delays caused by the applicant/proponent of the project at issue. While, under the prior regulatory framework, the Corps of Engineers has always had the ability to move forward if the LDEQ did not act on a water quality certification within a year, this option has rarely, if ever, been utilized. However now, if the LDEQ cannot, even though no fault of its own, process the WQC request within the timeframe established by the Corp of Engineers, it simply loses its ability to make a determination on the certification request and will be deemed to have waived the requirement.**

https://www.epa.gov/sites/production/files/202007/documents/clean_water_act_section_401_certification_rule.pdf

"Days" refers to calendar days as opposed to business days.

Capital Area Ground Water Conservation Commission

- Voted at June 2020 meeting to move forward with Phase II of the long-term strategic planning effort with the Water Institute of the Gulf
- Earlier this month, hired Gary Beard, P.E., as new Executive Director: priority goals – address Legislative Auditor findings from 2019, complete planning effort, strengthen regulatory framework
- Hopefully can get an update on his work as part of December meeting

Water Resource Management Bills in Legislative Special Session

- **HB 21 Zeringue** Authorizes CPRA to administer through CEAs all integrated coastal protection projects no matter to which entity funds are appropriated
- **HCR 3 Bourriaque** Memorializes Congress to require FEMA to grant La. full Federal funding for disaster expenses associated with Hurricane Laura or to grant La. ability to utilize alternate sources of Federal funds as a needed match
- **SB 5 Hewitt** Authorizes Plaquemines Port, Harbor and Terminal District to apply for designation as a foreign trade zone
- **SB 7 Hewitt** Restructures Louisiana Deep Water Gulf Transfer Terminal Authority board of commissioners