
SACRAMENTO ENVIRONMENTAL COMMISSION

Richard Hunn, Vice Chair
Thomas Malson
Laura Nickerson
Eric Rivero-Montes, Vice-Chair
Josh Rosa
Mark White, Chair
Shelby Witherby

A JOINT COMMISSION APPOINTED BY:
County of Sacramento
City of Sacramento
City of Isleton
City of Folsom
City of Galt
City of Elk Grove

Minutes **Monday, April 19, 2021, 6 pm** **Via Zoom**

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ITEM

- 1 Call to Order – Vice Chair Hunn
- 2 Roll Call – Staff Secretary

Commissioners present: Richard Hunn, Tom Malson, Eric Rivero- Montes, Laura Nickerson, Shelby Withersby. The meeting did not have a quorum.

- 3 Introduction of Commissioners
- 4 Public Comment
There was no public comment made.
- 5 Invasive Species Program- Martha Volkoff, Environmental Program Manager, Invasive Species Program, Fisheries Branch, California Department of Fish and Wildlife and, Thomas Jensen, Environmental Scientist, Invasive Species Program. Fisheries Branch California Department of Fish and Wildlife

Tom Jensen explained that the mission of the Dept. of Fish and Wildlife Invasive Species Program is to prevent no- native introductions (invasive), and reduce the effects of invasive species and prevent their spread. Invasive species include animals and plants, both aquatic and

terrestrial. The best and least costly approach is prevention or, extremely early detection. At those points eradication is feasible and effective. Once an invasive species has populated an area without detection for some time, eradication is unlikely even with intense effort. The species reproduces, displaces natives and eventually dominates the ecosystem. It's when the species is displacing natives that public awareness is heightened and becomes engaged to assist in controlling spread. Invasive species can spread disease, upset the food chain and have economic impacts.

One of the largest programs is the Quagga/Zebra Mussel Monitoring Program. The program intercepts and decontaminates watercraft at California's border, assists water managers with prevention programs /control plans, focuses on early detection and monitoring, and actively engages the public. Quagga was originally found in Lake Mead in 2007, followed by Zebra in the San Justo Reservoir in 2008.

One method used in prevention of the Quagga and zebra mussels is to place an artificial substrate device into the water to attract mussels. Samples are collected to see if mussels are present. Knowing where they are and are not helps prevent spread.

One eradication project centers around the species/population of *Nerodia sipendon* in Roseville and *Nerodia fasciata* in Folsom. *Nerodia* prey on native species and compete with the giant garter snakes. *Nerodia* was probably introduced from a pet owner release. The project involves surveying, trapping and data collection. They breed from June to October. CDFW collaborates with UC. *Nerodia* spread snake fungal disease. In 2017 91 *Nerodia* were removed from Folsom.

Another eradication project focuses on Nutria which are large semi aquatic rodents. They were first discovered in 2018 and to date CDFW and partners have removed 2,201 from California. They have had a devastating effect on wetlands habitats, agriculture, and flood protection infrastructure. Although the CDFW does not encourage hunting of Nutria, property owners may catch and kill them on their property.

A containment project is New Zealand Mud snail. One female can have a million babies. They form dense colonies and mats and can contain approximately 750,000 per sq. ft. in high use areas of rivers and creeks and can displace native species. Decontamination is crucial to stop the spread of the Mud snail and the public is encouraged to report sightings to CDFW as there is not enough staff to survey and monitor all waterways.

Red eared slider and American Bullfrogs are focuses on CDFW control programs. They are found throughout the state in freshwater and can prey on and out compete natives. They spread disease and pathogens. Large scale eradication projects are not possible as they are spread so far across the state so CDFW is developing localized control measures for land owners.

Another control/suppression program in Water Hyacinth. The floating aquatic plants came from South America. They clog waterways and are found throughout the State. Regionally, they are found in the Delta and Lake Natomas. It contaminates drinking water when it decomposes,

clogs water ways, ruins the habitat for water fowl and contributes to high tannin content. Hand removal and containment barriers are methods of control.

Mute Swans are an invasive species native to Europe and Asia. They were introduced for ornamental purposes but can be aggressive and consume large amounts under water vegetation and displace native nesting water fowl. Public siting reports are appreciated and very useful.

Laws prohibit the possession and release of many species that are non-native and invasive but enforcement is reserved for the willful importation of invasive species. CDFW does extensive outreach through workshops, events and newsletters and has an online reporting link on their website. Resources are focused on invasive species that have a high environmental and economic impact.

6 Sacramento-Yolo Mosquito & Vector Control District- Gary Goodman, Manager

The 1915 Mosquito Abatement Act is incorporated into the CA Health and Safety Code. Mosquitoes pose a threat to California's economic development and the health and wellbeing of the public. Mosquitos carry diseases such as: West Nile Virus, Dengue Fever, Malaria, Chikungunya, Zika Virus, Dog Heartworm. These are serious neuro invasive diseases with long term effects so eradicating mosquitos is essential to public health. The Sacramento Yolo Mosquito & Vector Control District provide safe effective and economical mosquito and vector control by the surveillance of mosquitos and vectors to determine the threat of disease transmission and lower annoyance levels. When the District was initially formed, Malaria was the biggest public health threat but now it is West Nile Virus. They work closely with CDPH and UC Davis.

Sacramento has approximately 1.4 million residents and Yolo has approximately 300,000 residents; urban centers are adjacent to agriculture and wetlands. In California there are 53 species of mosquitoes, 24 of those species in the Sacramento region. Not every species transmits disease. They have various habitats and prefer different blood sources. Only the females bite while the males feed on nectar. Mosquitoes have 4 developmental stages, the immature stage requiring stagnant water. That is why the District focuses on education to the public to reduce stagnant and untreated water sources such as storm drains, untreated pools, stagnant water features in the garden, empty plant pots, dog water bowls, and tires that have collected water. Preventing larvae from hatching is a highly effective mosquito control method. The length of time from egg to adult can vary from 3-21 days depending on species. The aggressive Aedes species ~~on~~ takes 3-5 days from egg to adult. Water temperature and weather are important factors in the life cycle timing. Aedes prefer to bite humans. Anopheles species are transmitters of malaria. The Aedes mosquito is nonnative to California and traveled into California from Asia and Mexico. They did exist on the East Coast but not California. They are difficult to control once established as are most invasive species.

The District has an integrated Mosquito management approach which includes: public information, school education, surveillance, biological control, ecological management and chemical control as a last resort. District personnel set and check traps every day to track disease and species types in rice fields, water conveyance systems, water in vegetation areas

and urban catch basins. They also have a fish breeding hatchery program and plant thousands of pounds of mosquito eating fish in Sacramento each season. Planting fish is an example of biological control. The District also assists with ecological control on farm land if needed, to get rid of standing water. They have provided assistance with heavy equipment and labor to Cosumnes River Preserve, CDFW, and US Fish and Wildlife to name a few, to mitigate breeding grounds. Chemical Control is used when adult stage mosquitos are found to be carrying disease. The District is investigating using drones more often in the field to apply pesticides and increase efficiency.

The District also uses chickens as a sentinel for WNV because they can carry it without getting sick. If a chicken tests positive for WNV then the District knows to focus on control measures in that area. Tick surveillance testing for Lyme disease is a large part of disease control. Traps are set heavily in areas where a diseased bird or mosquito has been found.

WNV is under reported because it looks like the flu. In 2016, 442 human cases were reported, in 2020 only 231 were reported. The number of actual cases could conceivably be 30-70% percent higher than reported.

Invasive *Aedes aegypti* was found 2019 in Citrus Heights and in 2020 a large population was found in Arden Arcade and Winters. They only fly about 100 yards so they are being transported by people on soil or in cars. They are originally thought to have come to California on bamboo plants that were shipped across the ocean.

The District encourage residents to take an active part in removing standing water. Traps are inspected frequently to count mosquito samples. Trucks spray out larvicide treatments at night to get material into back yards. This is effective to get disease carriers below detection level.

The district performs disease testing in their own state of the art lab. Innovative control methods are being researched and used such as insect sterilization. This technique has been used by USDA for medfly and fruit fly population reduction. Male mosquitoes are sterilized by either Wolbachia method, which introduces a sterilizing bacteria to the male insect, or by irradiation. The mosquitos are then released into neighborhoods where invasive species are present. They mate with the female but there are no offspring. This results in a significant decline in mosquito populations. In Fresno, a 3 year pilot project reduced invasive species by 95%. Sterilization methods reduce mosquito population without using pesticides.

The District has done some collaborative research projects with UC Davis. One involved analyzing the presence of District applied pesticides in sediments and soils in organic rice fields. The study showed only trace organic residues which confirmed that there is no buildup of contaminant when adult vector control products are used.

There are resistance issues with *Culex pipiens* in suburban areas. Homeowners use pesticides, over water lawns and the run off enters storm drains. Mosquitos can build up resistance to the pesticides. To determine if this is the case the District does bottle bioassays from the same basins being sampled for residue testing which resulted in confirmation of resistance.

7 Approve March 2021 Minutes

Vote was not taken as there was no quorum.

8 Report Back on SEC Commissioner Monitoring of Environmental Issues and Agencies

- SMUD released absolute zero plan by 2030
- Sac City Law and Leg considering building codes requiring electrification on new buildings. Restaurant industry opposes as electric stoves are not ideal for cooking in restaurant environment
- County Planning commission issued an environmental justice report card available on the web
- SMUD regional trail survey is out
- State is requiring groundwater managers to map aquifers and put groundwater plans in place
- Galt Pavilion Boulevard corridor plan for road diet. Did not require EIR.

9 Sacramento County Environmental Management Department Director's Report- Marie Woodin, Director Environmental Management Department

10 Commissioner Comments

11 Adjournment – Next Meeting- May 17th, 2021 6:00 p.m. via Zoom

This meeting is being audiotaped/videotaped in its entirety and will be available at the Environmental Management Department office. Agendas are posted in the offices of the City of Sacramento, Folsom, Galt, Isleton, Elk Grove, and the County of Sacramento and also on the EMD Website at: emd.saccounty.net. Agendas are also forwarded to interested parties upon request.