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Overview of Invasive Species Management in California

LEGISLATIVE ANALYST'S OFFICE

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Hon. Cathleen Galgiani, Chair





Invasive Species

- ☑ ***Not Naturally Occurring.*** Invasive species include plants, animals, insects, other invertebrates, or diseases that do not occur naturally in an area and whose introduction can cause economic or environmental harm.

- ☑ ***Prevalence in California.*** There are about 1,700 invasive species that could threaten California. High-risk invasive species include:
 - Insects that can harm agriculture, such as the Mediterranean Fruit Fly, Glassy-Winged Sharpshooter, and Asian Citrus Psyllid.
 - Aquatic plants and predators that negatively affect the Sacramento-San Joaquin Delta (the Delta), such as water hyacinth and striped bass.
 - Invertebrates that can clog water delivery systems, such as Quagga and Zebra mussels.

- ☑ ***Management of Invasive Species.*** The general strategy to minimize invasive species and their impacts is to focus on prevention, detection, control, eradication, and restoration of ecosystems affected by invasive species.



Overall Funding for Invasive Species Management

Funding for Invasive Species Management^a				
<i>2012-13 Estimated (In Millions)</i>				
Department/Agency	General Fund	Federal Funds	Other Funds	Totals
Food and Agriculture	\$0.8	\$50.3	\$26.0	\$77.1
Parks and Recreation	—	—	3.4	3.4
State Lands Commission	—	—	3.3	3.3
Fish and Wildlife	0.5	—	2.7	3.2
Coastal Conservancy	—	—	0.5	0.5
Other	0.7	—	0.6	1.3
Totals	\$2.0	\$50.3	\$36.5	\$88.8

^a Excludes the Department of Forestry and Fire Protection because data were not available.

- The state currently spends a total of \$88.8 million from a variety of sources to manage invasive species in California. More than half of the funding comes from the federal government.
- As shown in the above figure, many different state departments are involved in the management of invasive species, including aquatic invasive weeds in the Delta.



Many Departments Manage Invasive Species



California Department of Food and Agriculture (CDFA)

- **Activities.** The CDFA manages plant pests by (1) maintaining a list of invasive species, (2) developing management plans for high-priority species, (3) inspecting vehicles entering the state, (4) monitoring pest detection traps, (5) operating a plant pest diagnostic laboratory, and (6) administering numerous pest control and eradication programs.
- **Funding.** The CDFA received \$77 million in 2012-13 to perform invasive species-related activities. This amount includes \$50 million in federal funds, \$20 million from the Food and Agriculture Fund (primarily motor vehicle fuel tax revenues and contributions from federal or industry sources), and \$1.3 million from the Harbors and Watercraft Revolving Fund (HWRF) to eradicate hydrilla from natural and man-made aquatic ecosystems. (The HWRF is funded from motor vehicle fuel taxes from boaters, boat registration fees, and revenues from loans made to fund boating facility improvements.)



Department of Parks and Recreation (DPR)

- **Activities.** The DPR manages invasive species to preserve the diversity of naturally occurring ecosystems in the state. In addition, the Division of Boating and Waterways within DPR is responsible for aquatic weed management and is the only entity in the state allowed to use aquatic pesticides for water hyacinth and egeria densa.
- **Funding.** The DPR received \$3.4 million in 2012-13 from the HWRF to manage invasive species.



Many Departments Manage Invasive Species

(Continued)



State Lands Commission (SLC)

- **Activities.** The SLC regulates water discharges from large ships as part of the Marine Invasive Species Program (MISP).
- **Funding.** In 2012-13, SLC received \$3.3 million from the Marine Invasive Species Control Fund (MISCF) to support the above activities. (The MISCF is funded by fees assessed on vessels entering California ports.)



Department of Fish and Wildlife (DFW)

- **Activities.** The DFW tracks the extent of invasive species, coordinates the response of state agencies through its Aquatic Invasive Species Management Plan, and manages invasive species in state wildlife areas and ecological preserves. The DFW game wardens also enforce laws to prevent the spread of invasive species (such as prohibitions on importing certain species) and inspect vessels as part of the MISP.
- **Funding.** The DFW received \$3.2 million in 2012-13 to manage invasive species, including \$1.3 million from the MISCF, \$1.4 million from the HWRF, and \$500,000 from the General Fund.



Department of Forestry and Fire Protection (CalFire)

- **Activities.** CalFire removes invasive species through prescribed burning and pesticide applications, researches diseases spread by invasive species, monitors forests for the extent of invasive species, and restricts the movement of materials that could spread invasive species.
- **Funding.** Data were not available on specific expenditures, but we estimate that CalFire receives a few million dollars annually for these activities.



Many Departments Manage Invasive Species

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Other Departments

- The Coastal Conservancy received about \$500,000 in 2012-13 in Proposition 84 funds to coordinate and support various eradication programs around San Francisco Bay and Humboldt Bay.
- The Office of Health Hazard Assessment, the State Water Resources Control Board, and the Ocean Protection Council received a total of \$1.3 million in 2012-13 to perform research that supports other departments' efforts.



Other State Efforts That Help Control Invasive Species

- The state also is expected to spend a total of about \$5 million in 2012-13 on various general maintenance activities that in part help control invasive species.
- As operator of the State Water Project, the Department of Water Resources performs maintenance activities that include treatment of aquatic invasive plants and mussels.
- The California Department of Transportation removes weeds from the side of state highways, including invasive plant species.
- In addition to specific activities it performs to directly manage invasive species, CalFire eradicates invasive weeds as part of its efforts to reduce the sources of fuel for wildland fires.



Recent Major Policy Initiatives

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Invasive Species in the Delta. Invasive species have contributed to the decline of the Delta ecosystem and endangered species. Two plans are currently being developed to address invasive species as part of a larger program to improve the Delta.

 - ***Bay Delta Conservation Plan (BDCP).*** The BDCP intends to improve conditions for protected species in the Delta, in part by managing invasive species. Specifically, by (1) continuing the state's current aquatic invasive vegetation management programs, (2) funding programs to prevent introductions of invasive species by boaters, and (3) testing new concepts to reduce invasive predators.
 - ***Delta Plan.*** The Delta Plan requires that certain actions taken in the Delta by state and local agencies must not improve habitat in ways that could increase the presence of invasive species. The plan also recommends that DFW update fishing regulations to reduce predation on endangered species and identify habitat changes that increase invasive species.

- ☑

Statewide Plans for Invasive Species. Chapter 573, Statutes of 2008 (AB 2763, Laird), directed CDFA to develop a plan for the management of invasive species. As a result, two statewide efforts are currently being developed:

 - A programmatic environmental impact report for CDFA's Statewide Plant Pest Prevention and Management Program that is intended to streamline the assessment of the impacts of new invasive species management techniques, minimize the impacts, and to speed implementation of those techniques.



Recent Major Policy Initiatives *(Continued)*

- An update to the strategic framework for protecting California from invasive species developed by the Invasive Species Council of California (composed of state agencies that manage invasive species). The strategic framework includes recommendations that could improve the state's management efforts through better coordination, identifying and sharing best practices, and improving the quality of data on invasive species.