Wildlife Conservation Board Meeting
November 21, 2019, 10:00am
Natural Resources Building,
First Floor Auditorium
1416 9th Street, Sacramento, California 95814
Example of a pollinator hedgerow planted by Gold Ridge Resource Conservation District to benefit pollinator species.
#8. Recovering and Sustaining Monarch and Pollinator Populations

Narrow leaf milkweed planted as a companion plant with valley oak.

Photo courtesy of Yolo RCD
#8. Recovering and Sustaining Monarch and Pollinator Populations

Resource Conservation Districts routinely work with school groups and community organizations as part of their outreach and educational programs.
Pollinator plants planted by a Resource Conservation District to benefit pollinator species.
In 2019, Xerces Society planted twenty miles of hedgerows for pollinators in the Central Valley including 5 miles with both native milkweed and monarch nectar plants.
#9. California Monarch Recovery Project

Snowy milkweed in a hedgerow along almond orchard in California.

Photo courtesy of Cameron Newell
In 2014, Xerces Society worked with an almond farm in California to restore grassland area that includes milkweed.
A monarch overwintering site at the Fiscalini Ranch Preserve in Cambria where the Xerces Society proposes working with the Cambria Community Services District to develop and implement a site management plan.
#9. California Monarch Recovery Project

A monarch overwintering site in Pismo State Beach
#9. California Monarch Recovery Project

A cluster of overwintering monarchs

Photos courtesy of Candace Fallon (left) and Celestial Reysner (right)
This item has been withdrawn from consideration at this time.
Looking northwest into entrance of Forsyth tract from Arcata Community Forest main road
Looking southwest at main road intersection (above) and with creek culvert (right).
The current low water crossing with its undersized 12-inch diameter culverts has filled with sediment and is impeding fish passage.
#12. Dye Creek Low Water Crossing Fish Passage Planning

Dye Creek running over Shasta Boulevard after a winter storm event. The current culverts are insufficient to handle the average amount of water flow.
The water overflowing on to Shasta Boulevard can create a hazard for vehicles.
#13. Big Valley Wetlands, Expansion 1

Canal along the eastern edge of the property
#13. Big Valley Wetlands, Expansion 1

Westerly view of the property
#13. Big Valley Wetlands, Expansion 1

Northerly view of the property
Northeast view of the property
Garden Bar Preserve Riparian and Wetland Restoration
 Nevada County
#14. Garden Bar Preserve Riparian and Wetland Restoration

3-acre restoration area in foreground and Little Wolf Creek corridor in background
#14. Garden Bar Preserve Riparian and Wetland Restoration

Looking at 3-acre restoration area with back to Little Wolf Creek
Seasonal tributary at western edge of restoration site
#14. Garden Bar Preserve Riparian and Wetland Restoration

Upstream reach of Little Wolf Creek within project area
#14. Garden Bar Preserve Riparian and Wetland Restoration

Downstream reach of Little Wolf Creek within project area
Looking at Little Wolf Creek and location of proposed beaver dam analog
#15. Lake Tahoe Fishing Access (Transfer)
#15. Lake Tahoe Fishing Access (Transfer)

Access to project site off Lake Forest road. Kiosk is to the right of the picture in the background.
#15. Lake Tahoe Fishing Access (Transfer)
#15. Lake Tahoe Fishing Access (Transfer)

Looking back to the Lake Forest boat ramp from the end of the dock.
#15. Lake Tahoe Fishing Access (Transfer)

Lake Forest boat ramp parking lot
#15. Lake Tahoe Fishing Access (Transfer)

Boat launch restroom facility in the background
#15. Lake Tahoe Fishing Access (Transfer)

Lake Forest boat ramp kiosk
#15. Lake Tahoe Fishing Access (Transfer)
Typical Lake Forest campsite

#15. Lake Tahoe Fishing Access (Transfer)
Northeast view of the property looking down on Pope creek.
Looking west from Pope Canyon Road

#16. Cedar Roughs Wildlife Area, Expansion 1
Oak grove with gently sloped open area
#16. Cedar Roughs Wildlife Area, Expansion 1

Looking west from southeastern edge of the property
#16. Cedar Roughs Wildlife Area, Expansion 1

View through oak woodlands to Pope Creek
#17. Monarch Wings Across California, Expansion and Connectivity

Pollinator habitat

Photo courtesy of Pollinator Partnership
Pollinator habitat workshop

Photo courtesy of Pollinator Partnership
#17. Monarch Wings Across California, Expansion and Connectivity

Pollinator identification training

Photo courtesy of Pollinator Partnership
#17. Monarch Wings Across California, Expansion and Connectivity

Pollinator habitat site visit

Photo courtesy of Pollinator Partnership
#18. San Joaquin River Parkway, Ball Ranch Habitat Restoration

View from the northern border of Ball Ranch looking south at annual grassland and oak woodland in the distance.
#18. San Joaquin River Parkway, Ball Ranch Habitat Restoration

Oak woodland at Ball Ranch
#18. San Joaquin River Parkway, Ball Ranch Habitat Restoration

Pond with riparian vegetation at Ball Ranch
#18. San Joaquin River Parkway, Ball Ranch Habitat Restoration

Stand of non-native, invasive Tree of Heaven (*Ailanthus altissima*)
Cattle grazing on Horse Meadow
#19. Sierra Meadow Wetland and Riparian Area Monitoring

Horse meadow channel incision
#19. Sierra Meadow Wetland and Riparian Area Monitoring

Horse Meadow
#19. Sierra Meadow Wetland and Riparian Area Monitoring

Horse Meadow
#19. Sierra Meadow Wetland and Riparian Area Monitoring

Conceptual model, comparing degraded and restored meadow conditions
#20. San Bernardino County Regional Conservation Investment Strategy

Burrowing owl and Desert Tortoise (left) and Santa Ana Sucker (right)

Photos courtesy of Dudek
#20. San Bernardino County Regional Conservation Investment Strategy

Coastal Scrub

Photo courtesy of Dudek
#20. San Bernardino County Regional Conservation Investment Strategy

Joshua Tree

Photo courtesy of Dudek
#20. San Bernardino County Regional Conservation Investment Strategy

Upper Santa Ana River

Photo courtesy of Dudek
Aerial photograph of the Estero Road extension looking northward into the Reserve
#21. Carpinteria Salt Marsh Infrastructure Project Augmentation

Photograph taken in 2017 of the existing culvert running underneath the Estero Road extension
#21. Carpinteria Salt Marsh Infrastructure Project Augmentation

Photograph taken in September 2019 showing Estero Road culvert impacted by sediment
Photograph of Estero Road culvert impacted by sediment and woody debris
#21. Carpinteria Salt Marsh Infrastructure Project Augmentation

Photograph of an informational sign installed in the adjacent Carpinteria Salt Marsh Nature Park
McGinty Mountain Ecological Reserve, Expansion 3
San Diego County
#22. McGinty Mountain Ecological Reserve, Expansion 3

Looking west across the property to the San Diego Bay
#22. McGinty Mountain Ecological Reserve, Expansion 3

Looking northeast from the interior of the property
#23. Central Valley Monarch Butterfly Habitat Enhancement

This item has been withdrawn from consideration at this time.
Coho Salmon in Eel River Watershed listed as threatened under State and Federal Endangered Species Acts

Coho salmon and other salmonids remain in main stem of the Eel River

Substantial decline in tributaries

Barrier removal identified as a primary recommendation in CDFW Coho Recovery Plan

Photo: California Department of Fish and Wildlife
2010 CDFW survey found Strongs Creek watershed to be only tributary to the middle Eel River with suitable summer water temperatures for salmonids.

2017 CDFW Fisheries Restoration Grant Program (FRGP) grant to modify a culvert on Strongs Creek.

Lower Eel River salmonid access to Jameson creek stops at Rohnerville Road crossing.
#24. Jameson Creek Fish Passage Improvement and Restoration

Photos: City of Fortuna
Jameson Creek Slope at Rohnerville Road Crossing

Photo: City of Fortuna
#24. Jameson Creek Fish Passage Improvement and Restoration

Photo 1: Upstream inlet of culvert

Photo 2: Interior of culvert showing damage to corrugated metal pipe

Photo 3: Downstream outlet of culvert

Photos: City of Fortuna
• Reinforced concrete box (RCB) culvert, approximately 12’H x 14’W

• The RCB will be set approximately 3’ below the stream bed and filled with streambed material to provide a natural stream bottom

• “Chute and pools” design to meet depth, velocity and turbulence criteria
2017 CDFW Fisheries Restoration Grant Program (FRGP) grant to modify culvert on Strongs Creek

Project design funded by FRGP, was completed and approved by CDFW and NOAA in March 2019.

CDFW Prop.1 program is providing $1.7m for Rohnerville Road crossing project

Photo: California Department of Fish and Wildlife
Irrigation capabilities for the Willow Creek floodplain and meadow will be improved by the project.
State-threatened greater sandhill cranes nest in the Willow Creek floodplain meadow and associated wetlands.
Emergent wetland at Willow Creek Wildlife Area.
#25. Willow Creek Wildlife Area
Meadow Enhancement

Dilapidated infrastructure at Willow Creek WA
Old corrugated metal half-round risers will be replaced with new cast concrete weirs.

#25. Willow Creek Wildlife Area Meadow Enhancement
#25. Willow Creek Wildlife Area Meadow Enhancement

Failing corrugated metal pipe culverts, set at incorrect elevations will be replaced with HDPE pipe.
#25. Willow Creek Wildlife Area Meadow Enhancement

Willow Creek Wildlife Area looking west
California Western Railway (CWR)

- Built as a logging railroad in 1885
- Commonly referred to as the “Skunk Train”, it is now operated as a heritage passenger railroad.
- Runs approximately 40 miles from Fort Bragg to Willits
  - 33 miles along the Noyo River
- Originally required 113 bridges and trestles as it crossed back and forth over the Noyo river channel.
- That number has been reduced to approximately 30 river crossings.
#26. Upper Noyo River Fish Passage Improvement and Sediment Reduction

Project Location
Three species of ESA listed salmonids:
  - Central California Coast Coho Salmon (Endangered)
  - Northern California Steelhead Trout (Threatened)
  - California Coastal Chinook (Threatened)

The National Marine Fisheries Service (NMFS) Coastal Multispecies Plan considers restoring passage at barriers associated with the California Western Railroad a high priority task.

The project site was identified in a CDFW funded 2013 Fish Passage Assessment as inhibiting fish passage.
#26. Upper Noyo River Fish Passage Improvement and Sediment Reduction

Culvert Outlet

Photo: Trout Unlimited
#26. Upper Noyo River Fish Passage Improvement and Sediment Reduction

Erosion Issues

Photos: Trout Unlimited
• In 2010, Trout Unlimited (TU) received CDFW grant to conduct fish passage assessment of the entire railway
• In 2015, TU received CDFW grant to develop fully-implementable designs
• In 2017, CDFW Senior Hydraulic Engineer approved designs
• Culvert will be replaced by a 50-foot diameter arch
• All CDFW and NMFS criteria for fish passage will be met
• Will be able to convey a 100-yr flood event with associated sediment and large wood.
#26. Upper Noyo River Fish Passage Improvement and Sediment Reduction

Photos: CaliforniaHerps.com

Restore access to 1.15 miles of steelhead and salmon habitat and reduce in-stream sediment.

- Central California Coast Coho Salmon
- North Coast Steelhead Trout
- California Coastal Chinook

Coastal tailed frog
Red-bellied newt
California giant salamander
Foothill yellow-legged frog
#27. Red Mountain

The Campaign to Conserve Frog Lake, Red Mountain, and Carpenter Ridge
The summit of Red Mountain rises above the high-elevation mixed coniferous forests of the Northern Sierra.
The Property’s red summit appears in the lower right corner of this photograph with the upper reaches of the magnificent Carpenter Valley beyond.
A little more than half of the Red Mountain Property contributes to the Euer Valley watershed.
#27. Red Mountain

Red Mountain contains a variety of habitat types that would contribute to a broad matrix of connected, protected land.

Photo courtesy of Robb Hirsch
#27. Red Mountain

Sunset at Red Mountain.

Photo courtesy of Robb Hirsch
California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018 (Proposition 68)

“...protection, restoration, and improvement of upper watershed lands in the Sierra Nevada and Cascade Mountains, including forest lands, meadows, wetlands, chaparral, and riparian habitat, in order to protect and improve water supply and water quality, improve forest health, reduce wildfire danger, mitigate the effects of wildfires on water quality and supply, increase flood protection, or to protect or restore riparian or aquatic resources.”
Forest Conservation Program (2019 solicitation)

- Proposition 68
- Sierra Nevada and Cascade ecoregions
- $60 million for upper watershed
- $\leq$ $30$ million for 2019 solicitation
Forest Conservation Program (2019 solicitation)

- Selection Process
  - Pre-Applications
  - Full Proposals
  - Selection Committee

- Solicitation Priorities
  - Meadows and streams
  - Post-fire recovery
  - Aspen stands
Forest Conservation Program (2019 solicitation)

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solicitation boundary
#28. Upper Truckee River Marsh Restoration

Aerial of the Upper Truckee Marsh in 1930 (left) and of Upper Truckee Marsh and Tahoe Keys in the early 1980’s (right)

Photo courtesy of California Tahoe Conservancy
#28. Upper Truckee River Marsh Restoration

Map courtesy of California Tahoe Conservancy
#28. Upper Truckee River Marsh Restoration
#28. Upper Truckee River Marsh Restoration

Sailing Lagoon
#28. Upper Truckee River Marsh Restoration
#29. Lower Walnut Creek Restoration Project
#29. Lower Walnut Creek Restoration Project
Main channel, Lower Walnut Creek. Habitat has developed on accreted sediments, but with reduced flood capacity.
#29. Lower Walnut Creek Restoration Project

Preliminary steps:
- Return management to local control
- Planning
- Design
- Permitting
#29. Lower Walnut Creek Restoration Project

This project: excavation and grading to re-establish tidal connectivity and create new tidal marsh and adjacent upland habitat.

- North reach
- Middle reach (later phase)
- South reach
Northern reach (near mouth of Walnut Ck), facing south, with Mt. Diablo in background.
#29. Lower Walnut Creek Restoration Project

Walnut Creek, southern reach, facing northeast.
#29. Lower Walnut Creek Restoration Project

Walnut Creek, southern reach, facing west.
#30. Deadman II Forest Resilience Project

Deadman Gulch Restoration Reserve within San Vincente Redwoods

Photo Courtesy of Save the Redwoods League
#30. Deadman II Forest Resilience Project

Dense regrowth following clear cut

Photo Courtesy of Save the Redwoods League
Dense tanoak regrowth competes with conifers
#30. Deadman II Forest Resilience Project

Selective thinning
#30. Deadman II Forest Resilience Project

Reserve Boundaries
- Restoration Reserve
- Working Forest
- Impaired Forest Condition Classes
  - FCC-1
  - FCC-2 (overlay)
  - FCC-3
  - FCC-4
  - Brush

San Vicente Redwoods Management Plan (ESA 2015)
San Joaquin River Parkway, Milburn Pond CEQA and Pond Isolation Design
Fresno County
#31. San Joaquin River Parkway, Milburn Pond CEQA and Pond Isolation Design

View of the Hansen Property from the north side of the river

View of Milburn Pond from the south side of the Ecological Reserve
#31. San Joaquin River Parkway, Milburn Pond CEQA and Pond Isolation Design

Time sequence illustrating the creation of Milburn Pond

Photos courtesy of the DWR
Main berm breach between the pond and the river at low flow in 2017.

Downstream connection between the pond and river at high river flows in 2017.
#31. San Joaquin River Parkway, Milburn Pond CEQA and Pond Isolation Design

Pond berm drilling and substrate sampling in 2017 during preliminary study phase

Photo courtesy of DWR
#31. San Joaquin River Parkway, Milburn Pond CEQA and Pond Isolation Design

Project goals:

- Improve river flows
- Restore habitat and a functioning floodplain
- Protect reintroduced salmon
- Address potential future public access improvements at Milburn Pond

Photo courtesy of DWR
This item has been withdrawn from consideration at this time.
#33. Campbell Ranch Conservation Easement

Typical grasslands and oak woodlands located on the Campbell Ranch
#33. Campbell Ranch Conservation Easement

The Campbell Ranch looking southwest towards Lompoc
Campbell Ranch Conservation Easement

Campbell Ranch California Tiger Salamander habitat with known populations of CTS
Stock ponds on the property provide CTS habitat
Threats to the Campbell Ranch habitat includes conversion to agricultural production, this vineyard is located directly adjacent to the property.
#34. Walker-Hearne Ranch

Walker-Hearne Ranch Parcels
#34. Walker-Hearne Ranch

Channel Islands view from east overlook (top left), Harmon Ridge (top right) and Harmon Oak Creek (bottom)

Photos courtesy of Ventura Land Trust and Dash Dunkell
#34. Walker-Hearne Ranch

Perennial Springs

Photo courtesy of Dash Dunkell
#34. Walker-Hearne Ranch

Mountain lion and mule deer imprints (top left), bobcat (right) and Baja California tree frog (bottom right)

Photo courtesy of Jessica West (imprints), Derek Poulteny (bobcat) and Kate Furlong (frog)
#34. Walker-Hearne Ranch

Existing roads on property

Photos courtesy of Annette Baldwin
#34. Walker-Hearne Ranch

Top ridge of Harmon Canyon Preserve

Photos courtesy of Brooke Ashworth
Boden Canyon Ecological Reserve.

#35. CDFW Land Management Plans, South Coast Region
Overview of Property 1, Boden Canyon Ecological Reserve.
#35. CDFW Land Management Plans, South Coast Region
#35. CDFW Land Management Plans, South Coast Region

Overview of Property 2, Ballona Wetlands Ecological Reserve.
Overview of Property 3, Batiquitos Lagoon Ecological Reserve
Hollenbeck Canyon Wildlife Area

#35. CDFW Land Management Plans, South Coast Region
Overview of Property 4, Hollenbeck Canyon Wildlife Area.
Oak Grove Unit of the San Felipe Valley Wildlife Area Complex.
Overview of Property 5, Oak Grove Unit of the San Felipe Valley Wildlife Area Complex.
Looking northwest at Santa Susana Mountains
#36. Hidden Creeks

Eastern boundary of the property
#36. Hidden Creeks

Property will provide great public access to the Santa Susana Mountains
#36. Hidden Creeks

Looking east from riparian area
#37. Los Angeles River Fish Passage and Habitat Structures Design
Southern Steelhead Trout

- Historical range spans from San Luis Obispo County to the U.S./Mexico border
- Once abundant in the Los Angeles River
- Population drop is attributable to the dense urbanization that occurred in the south coast region
- The river channelization and installation of transportation and flood control infrastructure created fish passage barriers
- Steelhead are now prevented from reaching spawning and rearing areas.
- Listed as endangered by the National Marine Fisheries Service in 1997.

25-in. steelhead caught in LA River, January 1940

Photo: U.S. Bureau of Reclamation
Low to medium flow periods that occur during more than 95% of the year provide no habitat for aquatic species.

Even low flows have a velocity of 5 to 6 ft/s, which is above the cruising speed of southern steelhead trout.
Project Goals

- Converting a single purpose (runoff conveyance) waterway to a multi-purpose (flood control, habitat, aesthetics, and recreation) feature of the urban landscape

- Enhance access of migratory anadromous southern steelhead trout to upstream spawning and juvenile rearing habitat in key tributaries, such as Arroyo Seco

- Provide better access to perennial reaches and more diverse habitats that can serve as refugia for steelhead trout and other native fishes during stressful events such as drought or floods

- Improve population resilience to climate change by increasing local population size over a wider spatial distribution
Looking North Along the Existing Channel Section above 1st Street in Downtown Los Angeles

Photo: Wendy Katagi, Stillwater Sciences
#37. Los Angeles River Fish Passage and Habitat Structures Design

Conceptual Design of Channel and Native Plants Within a Restored Riparian Corridor

Photo: Wendy Katagi, Stillwater Sciences
#37. Los Angeles River Fish Passage and Habitat Structures Design

- Preliminary design and 60% design levels for passage and habitat structure designs
- Permits:
  - USACE Section 408 permit application,
  - USACE Section 404 permit application,
  - CDFW Streambed Alteration Agreement 1600 permit application
  - RWQCB 401 Water Quality permit application.
- California Environmental Quality Act (CEQA) Initial Study

Photo: California Department of Fish and Wildlife