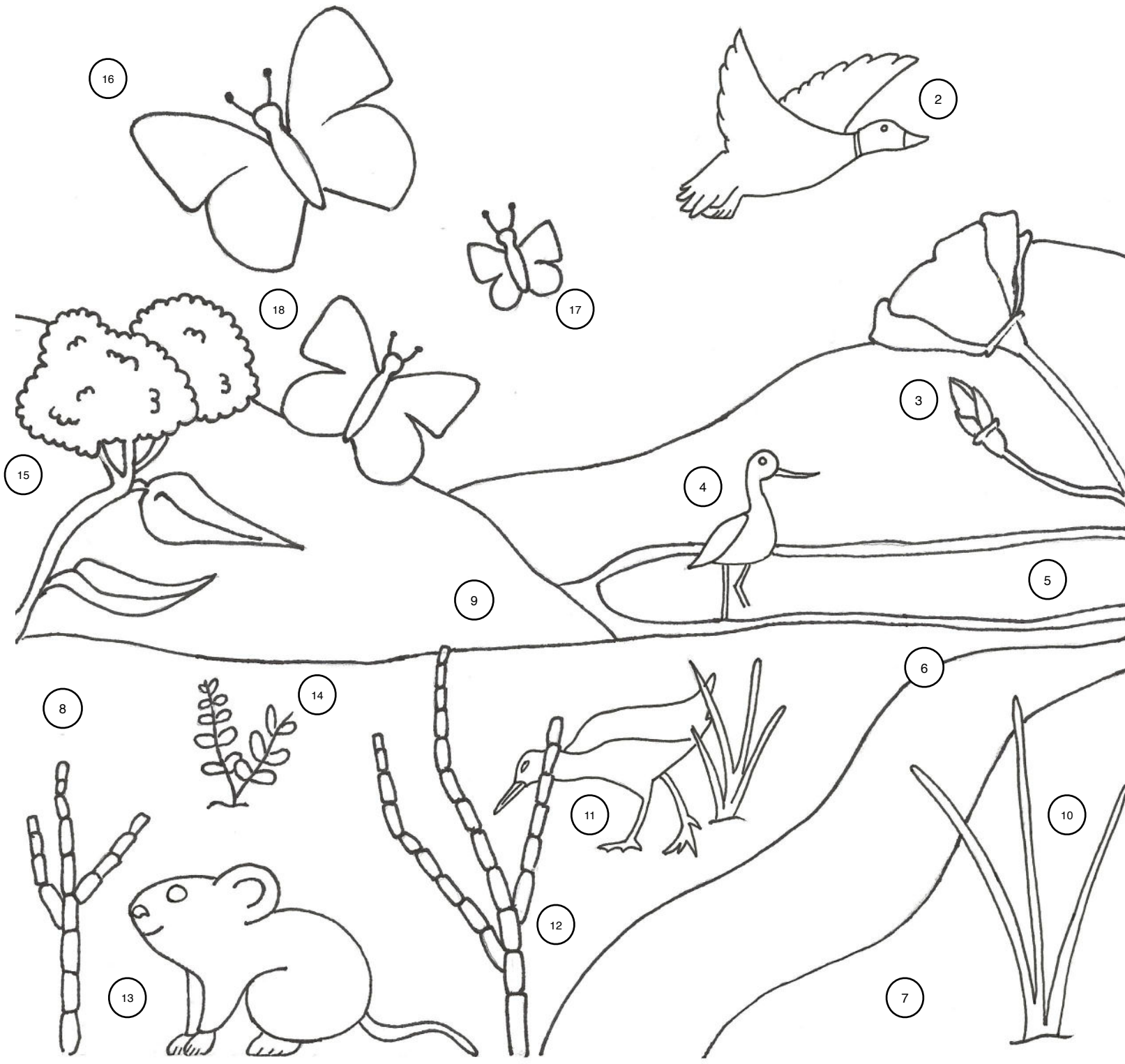


# Don Edwards San Francisco Bay National Wildlife Refuge

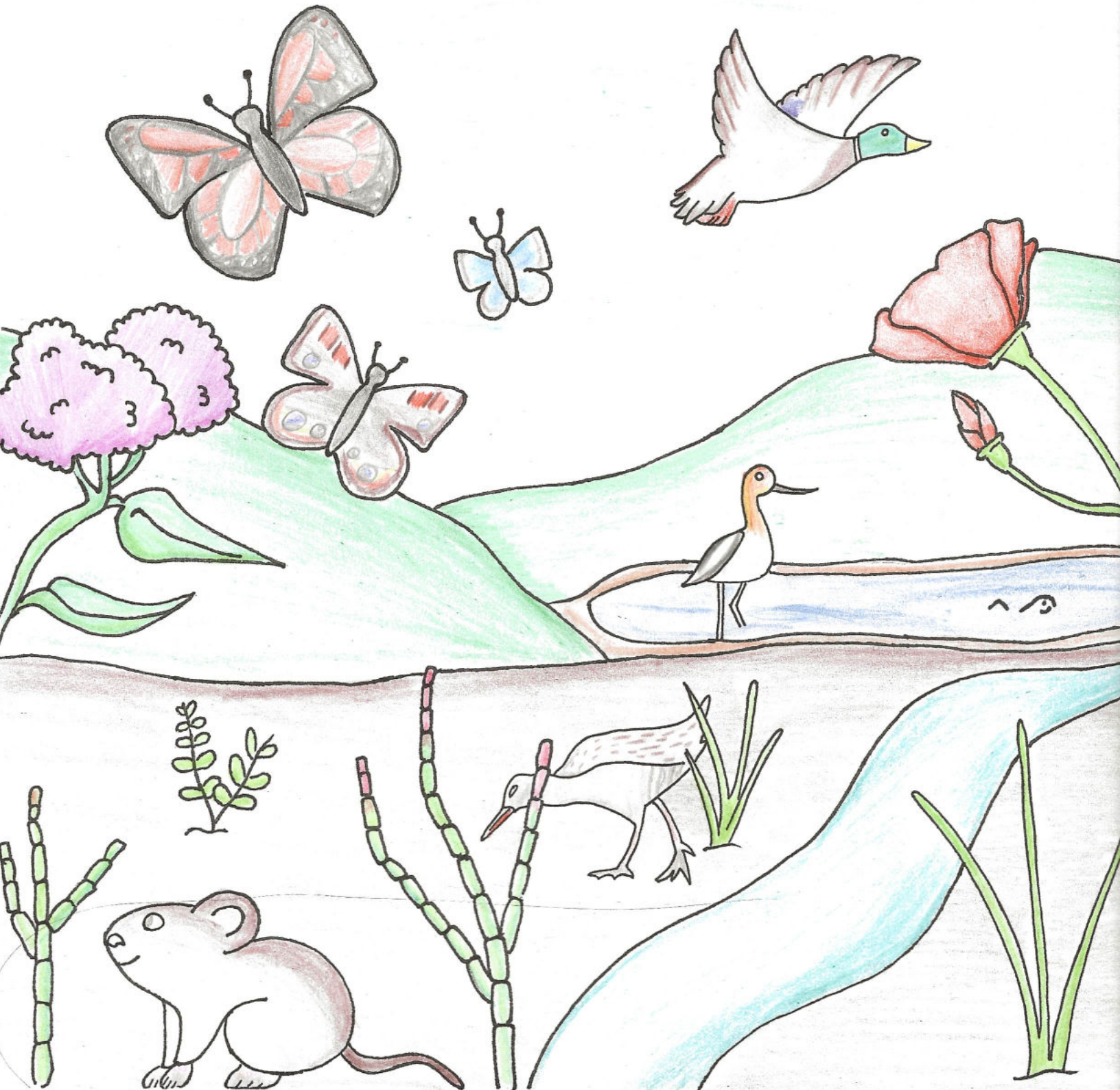
Keep our watersheds clean and our Bay habitats healthy





# Don Edwards San Francisco Bay National Wildlife Refuge

Keep our watersheds clean and our Bay habitats healthy



1. **Don Edward San Francisco Bay National Wildlife Refuge** was established in 1972 by a group of local citizens who wanted to protect remaining wildlife habitat for the benefit of wildlife and people. With the help of Congressman, Don Edwards, they succeeded. The Refuge is a 30,000-acre oasis for migratory birds and endangered species.
2. The **Mallard** is a duck with a hefty body, rounded head, and a wide bill. Mallards have a brown body, white tail, white underwings, and blue secondary wings. Males are identified by their metallic green head and neck. Mallards stay at the Refuge year-round and eat aquatic plants and invertebrates.
3. **California Poppy** is the California state flower. The Poppy has four bright orange yellow silky petals and blooms from March to October.
4. The **American Avocet** is a common summer resident at the Refuge. The Avocet is a large and slim shorebird with a striking white-and-black pattern. During breeding season, the Avocets feathers on its head and neck turn a pinkish tan. They are one of the very few birds in the world with a long upturned bill.
5. **Salt Ponds** were originally salt marsh habitats that were converted to salt ponds to harvest salt. Many salt ponds in the Bay Area have been restored back to original tidal salt marshes. Restored salt ponds serve as feeding and nesting habitat for migratory birds.
6. The **Tidal Slough** is a natural waterway where tidal water from the bay flows in and out of the salt marsh habitat. The slough supports a wide variety of aquatic life. Plankton, small plants, and zooplankton, small animals, drift in the water. Larger aquatic animals such as fish and harbor seals are also found in the tidal slough habitat.
7. The **Mudflats** are at the bottom of the Tidal Slough and are exposed when the tide is out. The mudflat habitat supports an abundance of life with an estimated 40,000 organisms living in two handfuls of mud - most of the organisms are microscopic (not visible to the naked eye) The larger and more visible creatures that live in the mudflats are snails, mussels, worms, and clams.
8. The **Salt Marsh** is where land and saltwater from the bay meet. The salt marsh is constantly flooded water and supports a variety of plant and animal species. The plants and animals that live in the marsh such as Pickleweed and the Salt Marsh Harvest Mouse have adapted to living in salty conditions.
9. The **Upland** is a freshwater habitat where native California plants grow. Since it is a freshwater habitat a variety of plants and animals live in the Upland. You might see a jackrabbit, gopher snake, lizard, hummingbird, and even a Peregrine Falcon in the Upland.
10. **Tule** is a reed-like plant that can grow up to 7 feet tall. This plant is found in both brackish (mix of fresh and saltwater) and freshwater marshes. Native Americans used tule to build boats, houses, mats, skirts, and much more.
11. The **California Ridgway's Rail** is an endangered species that lives at the Refuge. They are secretive birds that hide in dense vegetation. They are the size of a chicken with a cinnamon-brown colored body. Rails eat insects, worms, small mammals, crustaceans, and cordgrass.

12. **Pickleweed** is a low-growing salt tolerant plant that spreads across the salt marsh. The leaves look like a series of small pickles. They have tiny white flowers that bloom from April to September. Pickleweed takes water up through its roots and stores excess salt in its top “pickles”. In the fall, the top parts turn red and fall off, getting rid of the plant’s extra salt.
13. The **Salt Marsh Harvest Mouse** is an endangered species that lives at the Refuge and is only found in the salt marshes of the San Francisco Bay. It is about the size of your thumb with a rich brown color and lighter-colored fur on its belly.
14. **Alkali Heath** grows in the dry parts in the salt marsh and is salt tolerant. Alkali heath gets rid of salt just like humans do - sweating it out. It has small oval shaped leaves and small pink flowers that bloom from May to November.
15. **Milkweed** is grown in the Upland habitat as food for larval monarch butterflies. The flower clusters at the tips of the stems are greenish-white to purplish-white.
16. The **Monarch Butterfly** stops at the Refuge along its migratory journey to South American and Mexico in the fall. They have large orange wings with black borders and small white circular markings. Caterpillars eat Milkweed which is poisonous. Monarchs are poisonous to birds, their coloring reminds predators that they are not appetizing to eat.
17. The **Western Pygmy Blue Butterfly** is the smallest butterfly in North America, and one of the smallest in the world. It has brown wings with a white fringe and blue near its body. Caterpillars will eat saltbush, fat hen, and pickleweed.
18. The **Common Buckeye Butterfly** is observed at the Refuge all year. It is an aggressive species, often seen chasing other butterflies. It is light brown with several large eyespots with two orange bars at the top of each wing. Caterpillars will eat Monkey Flower.

**Keep our watersheds clean and our Bay habitats healthy.**

A watershed is an area of land that drains water into a creek, river, lake, wetland, bay, or groundwater aquifer. Trash and pollutants enter our watersheds when rain or lawn irrigation washes off surfaces like sidewalks and streets and carries pollution into storm drains and creeks, and eventually out to the Bay without any treatment. Pollution in our watersheds degrades the environment, harms wildlife habitat, and ultimately hurts human health. Keep watersheds clean and our Bay habitats healthy by picking up trash and preventing pollution from entering storm drains which drain into the San Francisco Bay.

To learn more about protecting our watersheds visit: [www.mywatershedwatch.org](http://www.mywatershedwatch.org).

