

Nature and Environment Day Camp, July 2022

Summary of Education Program.

The NEDC education program provides opportunities for participants to learn about environmental ethics and conservation of the natural environment through guided environmental learning experiences led by scientists and Scout leaders. While exploring terrestrial and stream habitats at Camp Herms and in the surrounding East Bay Regional Park's Wildcat Canyon and Wildcat Creek watershed, Scouts will investigate biodiversity and watershed processes, engage in an environmental restoration service project and gain a sense of themselves as both environmental scientists and informed stewards for the environment. Scout leaders and science mentors will guide investigations, encourage questions, and share their knowledge of local biodiversity, natural history and ecology. Team building, outdoor games and free time will be incorporated between field investigations.

On the first day at Camp Herms, BSA Scouts will engage in a nature-related team building challenge and a scavenger hunt, and begin discussions of environmental ethics. Next, they will begin to explore how water moves in a landscape with four activities – 1) a mini-watershed model, 2) a study of erosion, 3) a transpiration experiment, and 4) a map study of Wildcat Creek watershed.

The next two days will be spent exploring how Wildcat Creek changes over its course and how humans influence the creek. This begins with a full day hike along the more natural, upper reaches of the creek in Tilden Park. At selected points along the way, Scouts will stop to observe the biotic and the physical environment in and out of the creek and consider how humans influence a creek. They will measure and record creek features such as width, depth, water speed, streambed composition, slope, temperature, pH, and light levels. They will also identify and keep track of what kinds of plants and animals they find in and around the creek.

The second day of the creek study will begin at Alvarado park in Richmond where Scouts will examine in detail a short reach of the creek and do an invasive species removal service project before following the creek across an urban landscape to where it enters the Bay at Wildcat Marsh. While on route to the marsh, Scouts will examine and likely remove trash from a fish ladder in the lower reach of the creek. Finally, the group will consider where the water we use comes from and where wastewater goes as they tour a water treatment plant near the marsh.

On the last two days of camp, the focus turns to biodiversity at Camp Herms. Scouts will learn how to ask and answer questions about the natural environment and use some of the tools that field researchers employ to observe, collect and identify wildlife. Activities will include; 1) studying mosquito development 2) making an insect survey and collection, 3) learning techniques for studying nocturnal animals (pitfall traps and night lighting for insects; track plates, live trapping and night photography for small mammals), 4) the use of plot studies to compare biodiversity in different areas of the camp. Finally, at the end of the last day, there will be a wrap-up group discussion of environmental ethics focused on major environmental concerns and Scouts will share their findings from one of their investigations during the week as a poster or short presentation.

Throughout the week during the 3-5:00 period, Scout attendees of the camp have the opportunity meet with certified merit badge councilors to complete the following merit badges: Environmental Science, Nature, Fish and Wildlife Management,

Soil and Water Conservation. Full attendance at the camp and completion of the four listed merit badges qualifies a BSA Scout for a Scout Naturalist patch.