

Alameda County Fish and Wildlife Propagation Fund Final Report 2018-2019

Project Title: Benthic Macroinvertebrate Monitoring in Codornices Creek

Organization: Friends of Five Creeks

Organization type: Fiscally sponsored by Berkeley Partners for Parks

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Thanks to generous funding from the Alameda County Fish and Wildlife Committee during the 2016-2017 funding cycle, Friends of Five Creeks surveyed Codornices Creek for Benthic Macroinvertebrates (BMI) in spring of 2017. BMI surveys allow us to evaluate long-term trends in watershed health, rather than the momentary and highly variable snapshot that nutrient or dissolved oxygen sampling provide. We found that BMI populations indicated a fairly low creek health level, which was supported by our physical habitat assessments which found many urban influences to the creek site.

This year, we expanded our monitoring to three sites on Codornices Creek: Kains Ave, the site of imminent creek restoration; Albina Ave, upstream of Kains Ave; and 6th St, downstream of Kains Ave. We will return to monitor these sites again after the creek restoration project is complete and compare our results over the years, with the goal of determining whether the restoration project improved creek health and how that compares to sections of the creek both upstream and downstream.

We worked with 7 adult volunteers to complete the surveys, which involved using a net to collect samples from the bottom of the creek, as well as answering questions about the physical habitat of each site. The samples were sent to BioAssessment Services for identification down to the genus level. By tallying the results and including the tolerance value of each genus, we found that while the Kains Ave site had the most BMI individuals, they were on average the least sensitive to pollution. We also noted that BMI at the Kains Ave site had lower feeding group diversity than at the other sites, indicating a lack of diversity of habitat and feeding substrates. This issue will hopefully be addressed by the restoration project, and we look forward to completing this survey again after the project is finished.

Thanks to the Committee, we will now be able to make a report back to the restoration crew comparing the Kains Ave site with upstream and downstream locations. We were also able to involve community members in this important data collection process. We believe that this hands-on training will result in more engaged and highly trained citizen scientists in Alameda County, who can continue to educate their neighbors and work towards improved water quality and habitat for native fish for years to come.

Thank you for your support of our watershed protection program!



Volunteers measure the width of the creek



The site of future restoration