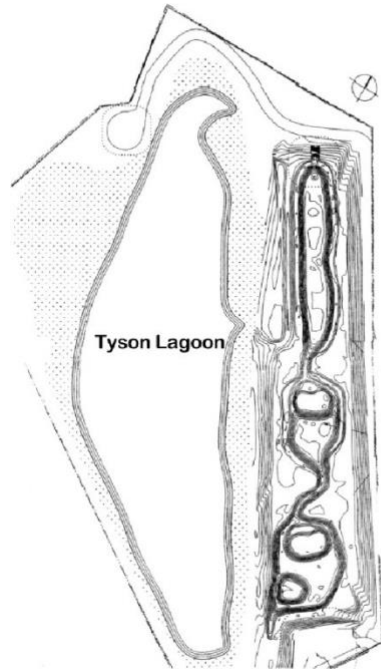


PROJECTS FOR IRVINGTONTON BENCHMARK ENVIRONMENTAL “CHANGE”

Tule Ponds at Tyson Lagoon is a 17 acre open freshwater aquatic environment. The entrance is at 1999 Walnut Ave. The Math Science Nucleus manages the wetland area for Alameda County Flood Control and Water Conservation District.

Our staff provide a safe educational experience to help restore and maintain the local environment. Keeping up a wetland in the middle of a city is difficult because of all the non-native plants that invade the area. Native plants provide a haven for native animals and helps remove carbon from the environment.

Please review this document in its entirety and decide what type of project you are interested in. Then, your group will submit an application to us, and we will review it. All projects are assigned to your group by staff depending on your application. We expect students to do their project in a timely matter and not to abuse or break tools. We have limited projects, so we operate on a first come, first served basis.



Rules – Please read prior to beginning your project:

- a) You have 10 hours to work on the project that best fits your research paper on the environment. We recommend that you spend 3 weekends in a row to complete your project and leave 1 hour to come back and take pictures for your project. **However, all projects must be finished within 5 weeks of starting them. Please schedule which dates you will be visiting Tule Ponds with your group accordingly.**
 - a. In the case that your group comes to Tule Ponds sporadically and does not finish within 5 weeks, you risk losing your project and project area to another group. When you return, your work may depend on our need—we would either put you on a similar project in a different area or your group may end up doing general work.

- b. Please remember that rain can affect work. It is much better to get your hours complete before the rain season begins. It helps us prepare the environment. On days with heavy rain, Saturday volunteer days may be canceled. Thus, it is your responsibility to plan your 10 hours accordingly.
- b) We provide gloves and tools for most projects. Tools should be used for their intended purpose. If tools are broken because of misuse, we will expect your group to replace that item. Playing with tools or trying to harm someone with a tool will get the student banned.
- c) **All students must sign in** when you arrive on the master sign in for all volunteers. Irvington Students also have a project sign in, so it is easy to see how many hours you have accumulated. **So, Irvington students will need to sign in twice.**
- d) **Work times are Saturdays 9 am - 12 pm** and sometimes 1 pm - 3 pm (check calendar). Please be on time; staff members may not assist you soon if you are late, and you may end up losing hours.
- e) **There must be at least 2 members of your group to work.** If a member is by themselves, they can be assigned to another project for that day. If a group member does not do their work, we can ban just the individual, not the entire group. Again, there are a limited number of projects.
- f) You only need to schedule your first day with us (training session), afterwards you don't need to notify us, but you are responsible in completing your project within 5 weeks of your first day.
- g) You can have staff sign your Service forms the day you work or at the end of the project.

Community Service Projects Available

Each project topic includes project and problem description, common tasks, and common project areas (please note this is dependent on availability, need, and seasonality). Projects listed as "limited" tend to go fast. Upon receiving application, we will let you know which project your group will work on.

1. Invasive plant removal (the largest problem on the site; many projects)

Invasive plant removal projects involve the clearing up of assigned areas. We have many non-native plants that need removal including:

- a. Vines including Himalayan Blackberry, Ivy
- b. Curly dock and pepperweed
- c. Pitchfork
- d. Thistle

- e. Some grasses
- f. Others that might pop up

Some native plants also need to be removed because they are aggressive growers.

- a. Cattails (including removal of seed heads)
- b. Native tree saplings

Non-native trees

- a. White ash (seedlings)
- b. Pivet (seedlings)
- c. Buckthorn
- d. Myroban (seedlings)

Please note that depending on the season, certain invasives are more of a problem than others, and there is also the possibility of new invasives propagating around Tule ponds, so project availability will depend on seasonality and need. We encourage you to do your research on the invasive plants you want to do your project on.

2. Animal habitat restoration (limited projects)

We have several areas where the animals (raccoons, opossum, skunk, cats) take cover during the rainy season. You can help clean an area or rebuild some of the structures that need cover. We usually have set areas. We might make new areas that would need to be cleared, especially in blackberry areas.

- a) Clearing areas around raccoon houses
 - a. Students can locate raccoon habitats and preserve the structure, clear brambles and other invasives that may harm animals.
- b) Butterfly habitats
 - a. Students pick one type of butterfly and focus on planting host plants to attract more butterflies
- c) Amphibian habitats
 - a. Keeping back creeks clear
- d) Reptile habitats
 - a. Areas surrounding wetland get dry during the summertime and are inhabited by reptiles. Build wood shelters with logs
- e) Fish habitats
 - a. Cleaning artificial ponds of mud

3. Trash and other debris from surrounding community via storm drains (limited projects)

The trash from surrounding communities comes into the storm drains and need to be removed. We also have a problem with too many branches that get into the waterway and add tannic acid as they deteriorated. Picking up trash and branches is included in this service. These projects span around the entirety of Tule Ponds.

4. Nectar areas for bees, butterflies, hummingbirds (several projects)

Nectar areas must be upkept to provide habitat for our various pollinators. There are several areas that we maintain as Nectar gardens around the site, and common tasks include:

- a) Planting flowers in the greenhouse and then transplanting them to areas pollinators inhabit around Tule Ponds
- b) Clearing invasives from areas and replacing them with nectar gardens using seeds
- c) Remove weeds and develop ways to keep weeds out
- d) Finding native seeds to include in our seed bank

It is common for students to focus on one pollinator and focus on planting flowers used by chosen pollinator as habitat/food.

6. Soil (limited projects)

Making soil areas by mixing native soil with compost. We need soil for the following:

- a) Creating soil for transplanting projects
- b) Adding soil to different areas for native plant growth
- c) Mulching around young trees

7. Upkeeping trails (couple of projects)

Removing invasives from trails, clipping bushes and trees back from trail, adding mulch to trails to create walkable pathways, but also prevent plant growth

Typical areas with need for trail upkeep:

- a) Main trails (between Tyson lagoon and ponds, and trail bordering Tyson lagoon on the west side near Bart)
- b) Small hidden trails hidden by vegetation along the eastern and northern sides of Tyson lagoon