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To: [Planning Division](#)
Subject: Item 6-3 Rancho Meadows
Date: Wednesday, February 21, 2024 10:11:58 AM

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Dear Planning Commissioners:

I would like to see more than 70 percent native plant species, with an emphasis on keystone species, locally native plants, and straight species, incorporated into the Rancho Meadows project.

A scientific study published by researchers at the University of Delaware found that when at least 70 percent of an area was planted in native plants, birds were able to reproduce and survive. But when an area was planted with less than 70 percent native plants, birds could not reproduce because there wasn't enough food for their young. More information is available at <https://www.udel.edu/udaily/2018/october/non-native-plants-birds-insects-washington-chickadee-desiree-narango-doug-tallamy/>.

The project proposal includes a few native plant species, but it needs to include a lot more: enough that more than 70 percent of the plant biomass in the project is native, and mostly species that are locally native to Antioch and/or keystone species. Also, the landscaping plan for this project currently includes a lot of cultivars, and should instead emphasize straight species.

As you know, pollinators are in trouble. And humans need pollinators to provide a lot of the food that we consume.

Wildlife in California has declined by 20 percent, and at least 600 species in California are endangered.

Just two or three miles from this property is the Antioch Dunes National Wildlife Refuge. This Antioch refuge was established to protect a species of butterfly, the Lange's metalmark, found locally and nowhere else on earth. Recently, the US Fish and Wildlife Service has not been able to find any Lange's metalmark butterflies, and it's possible that they are now extinct. It might be too late for this butterfly species, but it's not too late for the many other species of native butterflies, bees, birds, and other wildlife that live in Antioch.

Two of the top reasons why pollinators and wildlife in general are in decline are habitat loss and pesticide use.

Keystone native plant species both feed pollinators and other wildlife and beautify an area too. Keystone species are the plant species native to our area that feed the highest number of pollinators, including native butterflies, bees, birds, etc.

More information about keystone native plant species is available at <https://www.bringingbackthenatives.net/keystone-species-signs> and <https://www.bringingbackthenatives.net/douglas-tallamy-resources>.

Straight species means a plant that is not a cultivar nor that has been bred for particular traits. Research shows that cultivars sometimes provide less food and habitat for pollinators.

There are 271 plants that are native to this neighborhood, according to <https://calscape.org>.

Some of these locally native plants that are also keystone species include:

- Coast live oak (*Quercus agrifolia*)
- Blue elderberry (*Sambucus mexicana*)
- Silver lupine (*Lupinus albifrons*)
- Coyote bush (*Baccharis pilularis*)
- Bush monkey flower (*Diplacus aurantiacus*)
- California rose (*Rosa californica*)
- Yarrow (*Achillea millefolium*)
- Black elderberry (*Sambucus nigra*)
- Nude buckwheat (*Eriogonum nudum*)
- Hooker's evening primrose (*Oenothera elata* ssp. *hookeri*)
- One sided blue grass (*Poa secunda*)
- Pacific fescue (*Festuca microstachys*)

Many different research studies have shown that when people spend time in nature, their mental and physical health is greatly benefited,

and these benefits increase substantially in areas of high biodiversity. Biodiversity is the variety of all living things and their interactions. More information is available at <https://www.nature.com/articles/s41598-019-44097-3> and <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3987044/> and <https://www.sciencedirect.com/science/article/pii/S0169204621000475>.

Biodiversity is also important because we rely on the natural world for so many things: to grow our food, clean our air and water, etc.

By using native plant species in our landscaping, we will increase and protect biodiversity where we live.

Google recently built a new campus in Mountain View. Its Bay View site incorporated 135 native trees of five species, including 84 native oaks. The 88 California native plant species used in the landscaping support birds and other wildlife and are known to host at least 26 locally native butterflies and moths. Its Charleston East site includes 88 percent of new plant species that are native to California, and 73 percent that are native to the local San Francisco Bay region. Once at maturity these plantings are projected to increase the canopy cover of this site from 8 percent to 34 percent. More information is available at <https://www.makingnaturecity.org/precedents/>. It's totally doable to incorporate locally native plants and keystone species into the landscaping in our developments.

Thank you.

Laura Kindsvater
Antioch resident