

July 13, 2024

To: Melanie Hadden, San Mateo County Harbor District

From Chris Rogers, El Granada

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Turfgrass landscaping near the newly constructed bathrooms at Pillar Point RV Park is inconsistent City of Half Moon Bay ordinance, the Local Coastal Plan, and with the project specifications, and should be replaced with appropriate vegetation that is consistent with the local policies and the Harbor District's own requirement. Although it is a small area, it is highly visible and demonstrates poor adherence to coastal planning objectives and the District's own requirements, which is particularly frustrating given the project is partially in response to a history of non-compliance.

The landscaped mound near the bathrooms consists of an irrigated patch of perennial ryegrass (*Festuca perennis*, also named in some horticultural references as *Lolium perenne* and *Lolium multiflorum*, but all refer to perennial ryegrass). By any name, perennial ryegrass is an invasive non-native grass that invades wildlands on the coast and throughout California, but unfortunately persists in the horticultural trade. The California Invasive Plant Council ([www.cal-ipc.org](http://www.cal-ipc.org)) ranks perennial grass as a moderately invasive plant species, which means it has "substantial and apparent – but generally not severe – ecological impacts on physical processes, plant and animal communities, and vegetation structure."

The planted area also includes several strawberry trees (*Arbutus unedo*), which also are non-native but not invasive nor have high water requirements.



### **Harbor District Specifications**

The deliverables listed on page 43 of the Harbor District's Request for Proposals (RFP) #2019-08 for the restroom and green space services require a "Final planting plan for indicating all plant material names, sizes and quantities. **Plant palette must be coastal native, non-invasive, drought-tolerant species (emphasis added).** The City of Half Moon Bay's median landscaping palette may be used as a reference. Planting plan must comply with the City's Water Efficiency Landscape Ordinance." Page 43 of the RFP is attached for your reference.

Perennial ryegrass is demonstrably inconsistent with all the Harbor District’s plant palette requirements: it is not a coastal native (it is native to Europe, Asia and northern Africa); it is well-documented to be invasive; and it is not drought tolerant.

*Question: Did the Harbor District receive and review a final planting plan and check it for consistency with the specifications, the City ordinance and LCP policies?*

**Half Moon Bay Water Efficient Landscape Ordinance**

I am unaware of any Half Moon Bay planning document that outlines recommended plant species for use in medians, but I am confident that there are no examples of perennial ryegrass being used in the City’s medians.

The City’s Water Efficient Landscape Ordinance in turn references, and is assumed therefore to incorporate by that reference, the State Model Water Efficient Landscape Ordinance (MWELO; California Code of Regulations, Title 23, Sections 490 through 495), excerpted below, which requires:

- (a) For the efficient use of water, a landscape shall be carefully designed and planned for the intended function of the project. A landscape design plan meeting the following design criteria shall be submitted as part of the Landscape Documentation Package.

(1) Plant Material

(E) High water use plants, characterized by a plant factor of 0.7 to 1.0, are prohibited in street medians.

(G) The use of invasive plant species, such as those listed by the California Invasive Plant Council, is strongly discouraged.

Note that items E and G specifically prohibit the use of high water use plants and invasive plants. Several horticulture and turf management sources address the water needs of perennial ryegrass as requiring one inch of irrigation per week, with two to three times per week. According to the UC Davis California Center for Urban Horticulture (<https://ccuh.ucdavis.edu/wucols/water-factors-for-turfgrasses>), optimal irrigation for perennial ryegrass is 80% of evapotranspiration (Eto), which places it among species with the highest water needs (see table below). Perennial ryegrass is not even listed on the statewide database Water Use Classification of Landscape Species, likely because as an invasive species, it is not recommended for use in ornamental landscaping.

**Categories of Water Needs**

<b>Category</b>	<b>Abbreviation</b>	<b>Percentage of ET<sub>o</sub></b>
High	H	70-90
Moderate	M	40-60
Low	L	10-30
Very Low	VL	< 10

Source: Water Use Classification of Landscape Species (WUCOLS IV, 2024, p. 8; <https://ucanr.edu/sites/WUCOLS/files/183514.pdf>)

## **HMB Local Coast Program & Land Use Plan**

The bathrooms and green space project were the result of a protracted effort to force the RV Park vendor into compliance with the City of Half Moon Bay's LCP and implementation of an after-the-fact Coastal Development Permit. Several LCP policies specifically address prohibitions on use of invasive species, and are applicable to the RV Park landscaping:

- 6-66. Invasive Species. **Prohibit the use of invasive plant species for ornamental landscaping** in ESHA (environmentally sensitive habitat area) buffers.  
Note: the adjacent marine environment including sandy beach is considered ESHA; the bathroom and landscaping is within the recommended 100-foot buffer from the marine environment.
- 6-92. Landscaping and Revegetation. Require cut and fill slopes and other areas disturbed by construction activities (including areas disturbed by fuel modification or brush clearance) to be landscaped or revegetated according to site-specific conditions at the completion of grading. Landscape plans shall provide that: a. **Plantings shall be native, drought-tolerant plant species**, and blend with the existing natural vegetation and natural habitats on the site, except as noted below. b. Invasive plant species that tend to supplant native species and natural habitats shall be prohibited.

### **Recommendations**

Non-compliant perennial ryegrass should be removed and replaced with appropriate native grass species or native shrubs that would ultimately ensure reduced water use and maintenance requirements compared with perennial ryegrass. Native drought tolerant grasses that should be considered as a replacement include:

California oatgrass (*Danthonia californica*)

Red fescue (*Festuca rubra*)

Idaho fescue (*Festuca idahoensis*)

California brome (*Bromus carinatus*)

coastal tufted hairgrass (*Deschampsia cespitosa* ssp. *holciformis*)

blue wildrye (*Elymus glaucus* var. *glaucus*)

big squirreltail (*Elymus multisetus*)

Torrey melic (*Melica torreyana*)

Pacific reedgrass (*Calamagrostis nutkaensis*)

purple needlegrass (*Nassella pulchra*)

foothill needlegrass (*Nassella lepida*)

One-sided bluegrass (*Poa secunda*)

Other non-grass perennial shrub species that are routinely planted in habitat restoration projects on the San Mateo Coast are listed below:

Beach burr (*Ambrosia chamissonis*)

Beach sagewort (*Artemisia pycnocephala*)

Beach primrose (*Camissonia cheiranthifolia*)

Coast buckwheat (*Eriogonum latifolium*)

Yarrow (*Achillea millefolium*)

Lizard tail (*Eriophyllum staechadifolium*)

Yellow bush lupine (*Lupinus arboreus*)

Evening primrose (*Oenothera elata* ssp. *hookeri*)

Bee plant (*Scrophularia californica*)

Gumplant (*Grindelia stricta* var. *platyphylla*)

Seaside daisy (*Erigeron glaucus*)