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Subject: Kernen berm revegetation
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Hi John,

As a follow-up to this morning's meeting, I'd like to provide some recommendations for planting out the riparian buffer of Noisy Creek, as well as the berm along Glendale Drive. Given the nature of activities on the Kernen property, the primary objectives of the riparian buffer are to attenuate noise and light pollution and limit encroachment into sensitive habitat. Other beneficial functions include trapping and filtering sediment and pollutants, moderating water temperature, and providing habitat for birds, amphibians, and other wildlife. Although the Buffer Enhancement and Revegetation Plan contains a nice selection of native riparian species, it is geared more toward habitat diversity and visual appeal. Herbaceous species such as California bee plant (*Scrophularia californica*) do provide excellent pollinator habitat, but the emphasis should be on light and noise attenuation. The planting palette should place an emphasis on developing an overstory canopy and visual barrier comprised of evergreen shrubs and trees, which will be a more effective buffer than the proposed selection of mostly deciduous species. However, I recommend keeping some of these species, such as arroyo willow (*Salix lasiolepis*) and Pacific ninebark (*Physocarpus capitatus*), which are fast-growing shrubs that will stabilize disturbed soil and fill in the canopy while other plants get established. Here is a list of suggested species, with a brief explanation of their functionality:

Trees

- Wax myrtle (*Morella californica*) – dense evergreen crown with year-round cover and shade, relatively fast-growing, well suited to riparian areas
- Bay laurel (*Umbellularia californica*) – broad, evergreen crown that produces dense shade, tolerates a range of soil conditions, already established onsite
- Red alder (*Alnus rubra*) – deciduous but easily established and grows rapidly, excellent wildlife habitat, already established onsite
- Black cottonwood (*Populus trichocarpa*) – deciduous but grows rapidly, tough, excellent wildlife habitat
- Shining willow (*Salix lasiandra*) – deciduous but easily established, grows rapidly, excellent wildlife habitat, tolerant of wet soils (this one should be planted closer to the creek)
- Arroyo willow (*Salix lasiolepis*) – deciduous but grows and spreads rapidly, soil stabilization and erosion control, tolerates a wide range of conditions, already established onsite

Shrubs

- Red elderberry (*Sambucus racemosa*) – deciduous but grows rapidly, large canopy,

suiting to riparian areas but tolerates drier soils as well, excellent wildlife habitat

- Pacific ninebark (*Physocarpus capitata*) – deciduous but grows rapidly, extensive root system for soil stabilization, adapted to wetland/riparian conditions, tolerates shade (good once the tree canopy matures)
- Blue blossom (*Ceanothus thyrsifolius*) – extremely dense evergreen shrub, rapid growth, readily available from local nurseries, suited to a variety of conditions (but prefers drier soils on the coast, so plant this farther from the creek)
- Thimbleberry (*Rubus parviflorus*) – deciduous but grows and spreads rapidly, soil stabilization, suited to riparian areas, tolerates shade, excellent wildlife value (forage)

It wouldn't hurt to plant out the understory with some herbaceous perennials like sword fern (*Polystichum munitum*), but the shrub and tree layer should be prioritized. I also think California blackberry (*Rubus ursinus*) will quickly colonize the buffer area from the existing riparian corridor. When planting out, the goal is to create an ecotone – a gradual transition from trees to shorter-stature shrubs. This places important ecological functions closest to the creek while reducing the risk of future conflict (i.e., hazard trees). Cottonwoods, willows, and alders have a short life span and tend to drop limbs, which is beneficial to the creek and associated terrestrial habitat but not as desirable near heavily trafficked areas or structures. I therefore recommend planting these species closer to the creek (along with the evergreens) and transitioning to shrubs as you move farther away. Shrubs can be scattered throughout the buffer, though some will do better in more upland areas (noted above).

Although CDFW has chosen not to exert jurisdictional authority over the roadside ditch along Glendale Drive, planting that portion of the berm with a mix of trees and evergreen shrubs would provide a visual screen for adjacent property owners, potentially addressing one source of conflict. Here is a brief list of some options:

Trees – like the list above, but without cottonwoods and shining willow

- Wax myrtle (*Morella californica*) – dense visual barrier, easily shaped and maintained as a privacy hedge
- Bay laurel (*Umbellularia californica*) – dense visual barrier, also easily maintained as a hedge
- Red alder (*Alnus rubra*) – easily established and grows rapidly
- Arroyo willow (*Salix lasiolepis*) – grows and spreads rapidly, excellent soil stabilization

Shrubs

- Blue blossom (*Ceanothus thyrsifolius*) – dense visual barrier, easily shaped and maintained as a privacy hedge, tolerates drier soils
- Coyote brush (*Baccharis pilularis*) – year-round cover, rapid growth, soil stabilization, tolerant of a wide range of conditions, drought tolerant, already established onsite

As to planting specifications, the Buffer Enhancement Plan does a decent job of outlining site preparation, planting methods, and measures to reduce herbivory. Given the well-documented presence of elk in the area, I do think it will be necessary to protect the plants

with welded wire cages, preferably anchored with wooden posts (or t-post). The cages should eventually be removed once plants are large enough to withstand some browsing.

Finally, CDFW recommends using a native seed mix for interim soil stabilization, such as Nature Seed's [California Native Erosion Control Mix](#).

Please feel free to contact me if you have any questions.

Sincerely,
Katie

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