



PRUNUSKE CHATHAM, INC.

M E M O

Date: October 18, 2012

To: Laura Saunders and Kathie Lowrey

From: Joan Schwan, Vegetation Ecologist

Subject: Follow-Up Botanical Visit for Doran Regional Park and Westside Regional Park, Boat Launch Improvement Project

As stated in PCI's September 2012 *Biological Resources Site Analysis Report*, I tentatively identified a small population of rare plants at the proposed dredge disposal area at Doran's Cypress Day-use Area. A population of approximately 7 pink sand verbena (*Abronia umbellata*) plants was present at the western end of the proposed dredge materials disposal area. These appeared to be the rare (CNPS List 1B.1) variety, var. *breviflora*, for which there is a CNDDDB record from 1987 documented in this area (CDFG 2012). I recommended a follow-up visit later in the season to confirm varietal identification once mature fruits were available.

I revisited the site on October 3, 2012. With this inspection, I determined that the plants did not key out clearly to either variety but had traits of both the rare variety (var. *breviflora*) and the more common variety (var. *umbellata*). Identification and keying was based on the Jepson eFlora (Baldwin et. al 2012); additional floras consulted were the 1993 Jepson Manual (Hickman 1993) and Flora of North America (Galloway 2004). The plants I examined had the following traits, which match the Jepson eFlora description of var. *breviflora*:

- 10-14 flowers per inflorescence
- Flower limb 6-7 mm wide
- Flower tube 8-9 mm in length
- Inflorescence relatively sparse
- Small population

The traits that matched the description of var. *umbellata* were:

- Flower throat surrounded by a white spot, not cream or yellow
- Fruit wings poorly to well-developed (but very variable)

I communicated with Dr. Richard Spellenberg, author of the Nyctaginaceae Family section (which includes *Abronia*) of the 1993 Jepson Manual to seek his opinion. He noted that intermediates between varieties are not unusual. He advised classifying individuals based on the variety with which they shared a greater number of traits. Dr. Spellenberg also noted that there is no current living expert in *Abronia* of whom he was

aware. I also tried to contact Andy Murdoch, the author of the Nyctaginaceae section in the second edition of the Jepson Manual (2012) but have not received a response.

Given that the plants found at the proposed dredge disposal site share a greater number of traits with the description of var. *breviflora*, I would consider them to be part of the special-status taxa, *Abronia umbellata* var. *breviflora*. In addition, the California Native Plant Society recommends protection of populations intermediate between rare and common taxa (Sims 2012). Protection and/or mitigation measures for this population should be developed if project activities are still planned at this location.

References

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Galloway, L. 2004. *Abronia*. In: Flora of North America Editorial Committee, eds. 1993+. *Flora of North America North of Mexico*. 16+ vols. New York and Oxford. Vol. 3, pp. 356-357. Accessed October 2012 at: http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=100040

Hickman, James C. (ed.). 1993. *The Jepson Manual*. Berkeley, CA: University of California Press.

Sims, Aaron, Rare Plant Botanist, California Native Plant Society. 2012. Personal communication via telephone, October 18, 2012.