





**USACE Fish Entrainment Screen 2009-2013**



Port of Stockton Fish Entrainment Screen 2013-2018

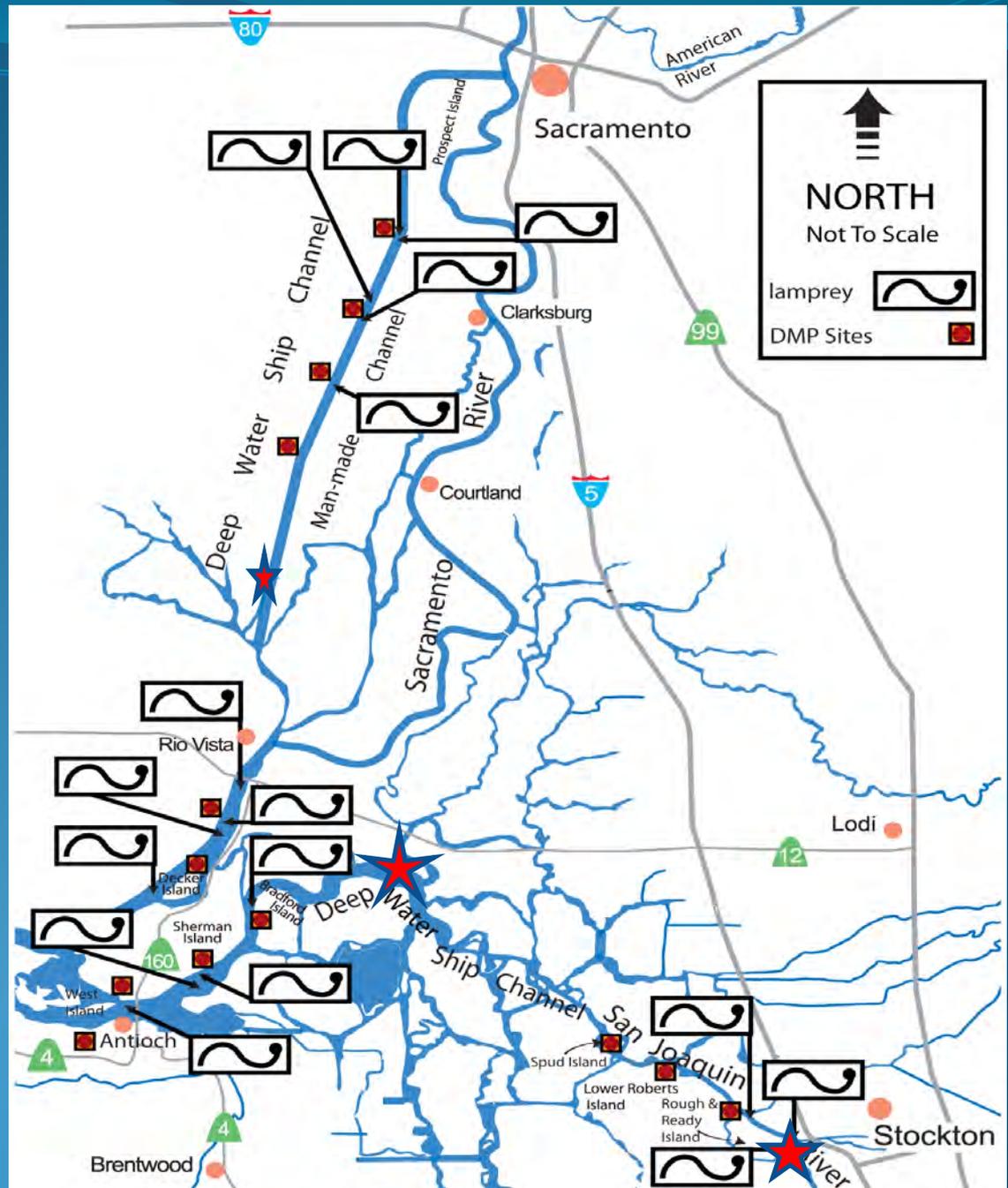


**Port of Stockton Fish Entrainment Screen**



Port of Stockton Fish Entrainment Screen

SRDWSC and SDWSC locations where lamprey were encountered during monitoring from 2006 – 2017.







River Lamprey, *Lampetra ayresii* (macrophthalmia stage)



River Lamprey, *Lampetra ayresii* (ammocete stage)



USACE *Dredge Essayons*: a Trailing Arm Suction Dredge



*Essayons* monitoring “basket”

Clemens, B., Anlauf-Dunn, K., Weeber, M., and Stahl, T. (2019) Public Review Draft Coastal, Columbia, and Snake Conservation Plan for Lampreys in Oregon. Pacific Lamprey, Western River Lamprey, Western Brook Lamprey, Pacific Brook Lamprey. Oregon Department of Fish and Wildlife.

Docker, Margaret F. (2015, 2019). Editor. Lampreys: Biology, Conservation and Control. Volume(s) 1 and 2. *Springer*.

MEC and NAS. (2018). Stockton and Sacramento Deep Water Ship Channel maintenance Dredging and Dredge Material Placement Projects. 2017 Fish Entrainment Monitoring Report. Prepared under contract by Ross Island Sand and Gravel for Sacramento District USACE.

Poirier, J. (2019). Pacific Lamprey 2019 Regional Implementation Plan for the Lower Columbia/Willamette Regional Management Unit Lower Columbia Sub-Unit.

Wenger, A.S., et. al. (2017). A critical analysis of the direct effects of dredging on fish. *Fish and Fisheries*. Volume 18, Issue 5:967-985.

Weitkamp, L.A., Hinton, S.A., Bentley, P.J., (2015.) Seasonal Abundance, Size, and host selection of wester river (*Lampetra ayresii*) and Pacific (*Entsphenus tridentatus*) lampreys in the Columbia River estuary. *Fish Bull.* 113:213-226 (2015). Doi: 10.7755/FB.113.2.9