BEFORE THE
CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

HEARING IN THE MATTER OF
CALIFORNIA DEPARTMENT OF WATER RESOURCES AND UNITED STATES
BUREAU OF RECLAMATION
REQUEST FOR A CHANGE IN POINT OF DIVERSION FOR CALIFORNIA WATER FIX

REBUTTAL TESTIMONY OF ERIK RINGELBERG

Local Agencies of the North Delta, Delta Watershed Landowner Coalition, Bogle Vineyards, Diablo Vineyards, and Stillwater Orchards
I, Erik Ringelberg, do hereby declare:

I. INTRODUCTION

I am an environmental scientist with technical and managerial experience in developing, planning, and permitting large projects, assessing their environmental impacts, and where necessary, developing mitigation.

I have been working in various capacities as a scientist and as a consultant within the Sacramento San Joaquin Delta, and its tributaries, for the past decade. I am currently the California Director of The Freshwater Trust. In that capacity I provide organization, management and planning for quantified conservation and restoration projects in California.

Previously I was the Natural Resources and Land Planning Director, and Ecological Services Director for 6 years at BSK Associates, and prior to that Ecological Services Director for 3 years at Wallace-Kuhl and Associates. (See II-23, SJC-3, Statements of Qualifications.)

In all of my consulting and other positions I have worked extensively with GIS mapping and related analytical and mapping activities to provide visual illustrations to assist in project understanding and development.

II. PURPOSE OF TESTIMONY

The purpose of this testimony is to provide additional information about and further authentication of several figures I assisted in preparing for Local Agencies of the North Delta, Delta Watershed Landowner Coalition, Bogle Vineyards, Diablo Vineyards, Stillwater Orchards, and Islands, Inc. ("LAND et al."), which were submitted with LAND et al.'s case in chief. This testimony rebuts statements made by Petitioners and others that question the reliability of these figures. (See, e.g., Hearing Transcript, November 3, 2016, pp. 175-176.)

III. TESTIMONY

I assisted in the development and production of the following LAND Exhibits (among others): LAND-3, LAND-4, LAND-5, LAND-6, LAND-7, and LAND-57. With respect to LAND-58 and LAND-60, those figures include the same base work, known as GIS layers, that was used for the previously identified LAND Figures. However, the final figures were prepared after I had left BSK Associates. Per LAND’s request, I contacted BSK’s GIS staff to ensure that
staff prepared those figures according to the same methodological approach as the prior figures. Those layers were created under my supervision by GIS technical staff at BSK Associates. Those layers included plan view extractions depicting the facilities proposed for construction by Petitioners in the Delta. These figures are all standard consulting work-product GIS maps used throughout the consulting industry.

To create these figures, we took an underlying base map, one of a set of available basemaps which come standard with the GIS package (namely Arcmap 10.4 software and ESRI World Imagery base map). These basemaps come from a variety of sources and are a composite of all aerial photos and geographic references, similar to Google Earth’s basemaps that most people are familiar with. To display the facilities proposed for construction and operation by Petitioners, we created GIS shape files from the 2015 Public Draft Bay Delta Conservation Plan/California WaterFix Partially Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement and Comments (SWRCB-3, “2015 RDEIR/SDEIS”). We also referred to the project details included in the Delta Habitat Conservation & Conveyance Program - Conceptual Engineering Report, Volumes 1 and 2 for verification. (DWR-212, LAND-65, “2015 CER”). Those shapes files (or layers) were then projected onto the base maps. Project figures provided in the Petition confirm the proposed locations of the tunnels’ intakes. (See SWRCB-1, SWRCB-2.)

The figures are all to scale except where noted otherwise, where they were modified solely for visibility purposes. This is because at the scale that the project encompasses, the tunnels and their approximate alignments would all be seen as a single thin line feature and the relative distances compressed such that features would not be discernable or would overlap other key details. (See e.g., LAND-4, LAND-5 [noting where tunnels not to scale in legend].)

Additional information about each exhibit is provided below.

LAND-3 is a map of the tunnels’ intakes and infrastructure in the northern Delta, which is adapted from materials in the 2015 RDEIR/SDEIS and 2015 CER. The legend depicts the various project components shown on the figure in relation to the underlying geography.
LAND-4 is a map of LAND member districts (see LAND-62) in relation to the tunnels’ intakes and infrastructure, and is also adapted from materials in the 2015 RDEIR/SDEIS and 2015 CER.

LAND-5 is a map of the Bogle water diversions in relation to the tunnels’ intakes. The location of the tunnels’ intakes was adapted from materials in the 2015 RDEIR/SDEIS and 2015 CER. This is a visual representation of the Bogle diversion location descriptions provided in the Bogle Protest (LAND-75, Exhibit A), and the same map as LAND-75, Exhibit B.

LAND-6 is a map of the Diablo Vineyards water diversions in relation to the tunnels’ intakes. The location of the tunnels’ intakes was adapted from materials in the 2015 RDEIR/SDEIS and 2015 CER. This is a visual representation of the Diablo diversion location description provided in LAND-76, Exhibit A, and the same map as included in LAND-76, Exhibit B.

LAND-7 is a map of the Stillwater water diversions in relation to the tunnels’ intakes. The location of the tunnels’ intakes was adapted from materials in the 2015 RDEIR/SDEIS and 2015 CER. This is a visual representation of the Stillwater diversion location descriptions provided by LAND-77, Exhibit A, and the same map as included in LAND-77, Exhibit B.

LAND-57 depicts the private properties that would be necessary for construction of the tunnels’ intakes and associated facilities. Property acquisition information was obtained from a report entitled 2014 Draft DCE CM1 Property Acquisition Management Plan, which was prepared as part of the Delta Habitat Conservation and Conveyance Process. (LAND-69.) The previously prepared base maps showing the tunnels’ intakes adapted from materials in the 2015 RDEIR/SDEIS and 2015 CER, in addition to the assessors parcel numbers (“APNs”) proposed for acquisition that were listed in the 2014 Draft DCE CM1 Property Acquisition Management Plan (LAND-69) to prepare the figures.

LAND-58 was adapted from materials in the 2015 RDEIR/SDEIS and 2015 CER and is based on a preliminary survey of available information regarding well locations and depths in the vicinity of the proposed Tunnels. (See Hearing Transcript, November 10, 2016, pp. 82-83, 229-230.)
LAND-60 depicts Tunnels’ intakes 2 and 3 in relationship to LAND member water rights (see LAND-62) and the water delivery and drainage system of Reclamation District 744. Like all of the figures, the map is adapted from the 2015 RDEIR/SDEIS and 2015 CER. As explained by LAND witness, Russel Van Loben Sels, a farmer and trustee of Reclamation District 744, LAND-60 was supplemented with information provided by him. It identifies the location of the Reclamation District 744 water delivery and drainage system under the footprint of proposed Delta Tunnels Intake number 2. (See also DWR-1, slides 23-25.) Those locations were then placed on the Tunnels basemap. (See Hearing Transcript, Nov. 10, 2016, 46:21-47:20.)

IV. CONCLUSION

As explained above, the information in LAND-3, LAND-4, LAND-5, LAND-6, LAND-7, LAND-57, LAND-58, and LAND-60 is reliable and was prepared according to the normal standards of care applicable to the development of such materials. As such, I see no reason why these exhibits should not be accepted as evidence in this proceeding.

I declare under penalty of perjury under the laws of the State of California that the foregoing statements are true and correct.

Executed on the 23rd Day of March 2017, at Sacramento, California.

[Signature]

Erik Ringelberg