

STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

In re: Draft Order 2009-00XX-DWR)
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Woods Irrigation Company)
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TESTIMONY OF CHRISTOPHER
NEUDECK

I am Christopher H. Neudeck, P. O. Box 844, Stockton, California 95201. I am a registered Civil Engineer in the State of California and have worked with the Delta Islands including flood control, drainage and irrigation for the past twenty-five (25) years. I am the District Engineer for numerous reclamation districts in the Sacramento/San Joaquin Delta (Delta) and I am familiar with the history of reclamation of lands in the Delta including the Upper Division of Roberts Island which is the area of concern in this proceeding. The engineering firm of Kjeldsen, Sinnock & Neudeck, Inc. of which I am a principal is the engineer for Reclamation District No. 544 which encompasses the area of concern and adjoining districts Reclamation District No. 17 and Union Island Reclamation Districts 1 and 2. I am very familiar with the area including the waterways, levees, drains and irrigation facilities. A statement of my qualifications is submitted as a separate exhibit.

My testimony will be in three main parts. The first is my testimony previously presented in the Mussi, et. al. Draft CDO proceedings begun on May 5, and continued until June 9, 2010. That testimony is presented here as WIC Exhibit 4A, including attachments. I apologize ahead of time if there is any confusion given that my written testimony from that proceeding was numbered differently. On direct examination for this matter, I will go through that testimony and the attachments/exhibits thereto in more depth.

Briefly, that prior testimony for the Mussi et. proceeding was presented to establish that Duck Slough existed along what is now (generally) Inland Drive on Middle Roberts Island, through at least 1911, that portions of it were designated "canals" as of 1913, and those canals were connected to Burns Cut-off, if not other main channels. The purpose of that testimony was to show that certain property maintained a connection to a waterway up until the time the current water delivery system (used by Mussi et. al.) was installed. Since that testimony, we have discovered other evidence which not only confirms my conclusions in that matter, but confirms that Duck Slough existed until sometime in 1926.

That other evidence is the California Third District Court of Appeal 1941 case of *Nelson et.al. v. Robinson et. al.* (47 Cal.App.2nd 520). WIC Exhibit 4B is the Westlaw copy of the case. Briefly, that case involved a dispute between landowners on Roberts Island over seepage and drainage.

The facts of the case (pages 523 and 524) show us that it involved a predecessor in interest (Vasquez) to Mussi et.al and dealt with the lands to the immediate west and southwest of the Mussi property; which lands which are in the are labeled the "Pocket." WIC Exhibit 4C is an enlargement of a portion of the 1919 San Joaquin County Assessor map showing the location of the plaintiff Nelson and defendant, Robinson and Vasquez properties. The following pages of the exhibit are the January 24, 1903 deed showing Nelson first getting the property, and the March 10, 1946 Order for Final Distribution showing the Nelson property leaving his estate. These allow us to identify the lands referenced in the *Nelson et. al. v Robinson et. al.* case.

At the very end of page 527 the court states: "Following the seepage which became visible in 1926, and in response to plaintiffs' demands said defendants engaged men and equipment and spent time and money on plaintiffs' land, leveling the same, and eliminated a slough which said defendants maintained full of water immediately east of the defendants' (sic) lands during 1926." That latter reference to "defendants' lands" is obviously a typo as the dispute involved seepage from Robinson et. al. to Nelson's land which is on the *west* side of Robinson. Thus working on Nelson's land would have involved the filling of a slough along their common border, not a slough along the east of Robinson's land. The "slough" referenced as being filled in, can only be Duck Slough, and thus Duck Slough's existence is now confirmed through 1926, not just 1911.

This reference to a slough maintained full of water is important for the subject hearing on Woods Irrigation Company in that it confirms the existence of a waterway (Duck Slough) that Mr. Blake shows to border lands on Roberts Island owned by Stewart et. al., which lands were subsequently purchased by the Woods Bros. Hence, the Stewart et. al. lands, as they were sold over time between 1889 and 1892 (per the testimony of Mr. Blake) were abutting Duck Slough, a waterway, in addition to Middle River, Burns Cut-off and any other interior island sloughs.

The second part of my testimony is also contained in my previously submitted testimony in the Mussi et.al. matter, which itself incorporated earlier testimony by me in the Term 91 hearings. WIC Exhibit 4D includes the relevant excerpts from those prior testimonies as well as the DWR study underlying my conclusions. Briefly, the DWR study confirms that the shallow groundwater of Roberts Island is directly connected to the waters in the main channels. That is to say, when the waters in the channels rise, the ground water rises and vice versa.. Hence, any ditch, canal or slough that is deep enough (and unlined) will fill with water because it is connected to the surrounding channels.

The third part of my testimony deals with the issue of calculating an amount for the pre-1914 diversions of WIC. To summarize, WIC asserts that it has a pre-1914 right to divert water for use by its shareholders, or others who may be in contract with it. It is my understanding that, generally, a pre1914 right requires a showing of use before 1914, and some quantification of the amount put to use. I believe others are testifying regarding WIC diversions before 1914. I will address the amounts which were diverted before and after 1914.

Our investigation of the WIC records has not yet revealed any direct measurements of the amounts of water applied to Woods lands prior to 1914. I understand that some of the corporate records were destroyed many years ago.

Mr. Blake's testimony includes WIC 6O and 6P which are two recorded agreements dated September 29, 1911. The two 1911 agreements commit WIC to deliver water to lands owned by E.W.S. Woods and to lands owned by Jesse Wilhoit and Mary Douglas. The agreement to furnish water to the E.W.S. Woods lands references a delivery of 44.80 cfs, while the agreement to furnish water to the Wilhoit-Douglas Tract lands references delivery of 32.86 cfs. At first impression these numbers seem odd as it is unlikely that the irrigation system at that time could measure flow this accurately. However, a closer examination of the 1911 agreements indicates how these numbers were developed.

The E.W.S. Woods agreement describes the acreage to be furnished water using metes and bounds language and then states "... and containing 4480 acres, more or less." The Wilhoit-Douglas Tract agreement similarly states "Containing 3,286.37 acres, more or less." We see then that the parties to the agreements (which included the shareholders of the WIC), assumed a delivery of 1 cfs per 100 acres of lands, i.e. 44.80 cfs for 4,480 acres and 32.86 cfs for 3,286.37 acres.

However, it appears the parties made an error. In the E.W.S. agreement the total acreage of 4,480 relates to *one* of three described parcels or areas of land, *not* to all the lands to which water was promised. The first page of the E.W.S. Woods agreement describes one area and gives a total of "12.74" acres. Later on, still on the first page the agreement describes another area and gives a total of "769.32" acres. At the very bottom of the second page the agreement gives a total of "4480" acres after a much longer description of an area of land. Hence, the agreement describes 12.74 acres plus 769.32 acres plus 4,480 acres, which totals 5,262.06 acres.

The agreement clearly commits WIC to furnish water to *all* these lands, not just the 4,480. Later in the agreement under section "Fifth" it identifies some area as "dry lands" which are "not now within the reasonable possibilities or (sic) irrigation of the Company's canals." ["Dry" did not necessarily mean without any water, it apparently meant without access to the WIC canals.] However, it is clear from this section that it was the intent to eventually furnish this land with water and not exclude it from getting water. Hence, when the agreement designated "44.80 cfs" it was incorrectly anticipating delivering water to 4,480 acres (instead of the 5,262.06 acres specified in the agreement) and apparently not expressing a limit on the diversion rate. It is not reasonable to conclude the 44.80 cfs was to cover 5,262.06 acres when the accompanying agreement for the Wilhoit-Douglas lands were assigned 32.86 cfs for 3,286.37 acres. Clearly the E.W.S. Woods' lands were 5,262.06 acres, not 4480 acres.

This however is not the end of the calculation. In the minutes of the WIC meeting of April 14, 1913, (WIC Exhibit 4E) the WIC Board ratifies the action of the President and Secretary who signed an agreement with E.W.S. Woods. The referenced agreement is included in the minutes and the exhibit. This agreement "released" lands totaling 370 acres from the 1911

agreement. It clarified that canals for irrigation and drainage for this 370 acres have never been constructed, and need not be constructed. I assume that 370 acres developed a source of water which was closer than the WIC facilities. Hence, the size of the E.W.S. Woods lands was decreased to (5,262.06 minus 370) 4,892.06 acres.

From these 1913 minutes and agreement, we can assume that since WIC specifically released some lands from the benefits of the 1911 contracts to receive water (for the reason that irrigation canals were not constructed), it means the rest of the lands were indeed being delivered water through the WIC system. In fact, when we look at the 1908-1910 map entitled "Woods Bros. Lands and Reclamation District No. 524," (WIC Exhibit 6J) the 1911 map entitled "Subdivision of the Wilhoit-Douglas Tract" (attached to WIC Exhibit 6P) and the 1914 "Map of San Joaquin Delta" by Henderson and Billwiller, Civil Engineers, (WIC Exhibit 6K) we see that an irrigation system which was able to deliver water to all parts of the WIC was indeed in place prior to 1914, confirming our conclusion based on the WIC minutes.

The minutes do not contain any other references to the amounts being delivered, but each year there are entries showing the Board fixing the rate/assessment/tax necessary "to pay the expenses of maintenance of the system of irrigation and cost of furnishing water" as evidenced in WIC Exhibit 4F attached hereto which are the Minutes for October 20, 1913, and September 25, 1914. From this I conclude that the WIC was in fact delivering water to all its lands (except the 370 acres) before and after 1914. Thereafter, the Minutes continue to show taxes or assessments each year which confirm the continued use of water.

I also note that much later in 1957, WIC filed a *Complaint to Quiet Title to Corporate Stock and for Declaratory Relief*, included herewith as WIC Exhibit 4G. In the Complaint, the Corporation (WIC) states on page 5; "Attached hereto and marked as "Exhibit B", and incorporated by reference herein, is a legal description of the exterior boundaries of the tract of land *irrigated by the plaintiff since it commenced operation in 1911. Continuously since the date of said agreements (the 1911 agreements to furnish water) the plaintiff has been irrigating and draining the lands* so described and set forth." [Emphasis added]

From this we can conclude that WIC has been providing water for all the Woods Bros. lands since at least 1911 through 1957.

All of this results in the following calculations. The E.W.S. Woods lands under the 1911 agreement (after subtracting those released in the 1913 agreement) consist of 4,892.06 acres, and the Wilhoit Douglas lands consist of 3,286.37, for a total of 8,178.43 acres. Using the 1 cfs per 100 acres anticipated in the 1911 agreements yields 81.78 cfs. This would be the amount actually being put to use by WIC immediately before and after 1914. Pursuant to our conversations with SWRCB staff, I understand they use an estimate of 1 cfs per 80 acres as an average use of water in the Delta, not per 100 acres. Using this number (8,178.43 divided by 80) yields a diversion rate of 102.23 cfs. Under the SWRCB staff calculations, this would be the amount actually being put to use by WIC immediately before and after 1914.

In addition to this number, we saw from Mr. Blake's testimony that all of the Woods Bros. lands at the time of the 1911 agreements had retained an uninterrupted connection to a waterway, and or the ability to get water when any such connection was lost. Hence, WIC would appear to be able to divert from 81.78 cfs to 102.23 cfs under the pre-1914 right it claims, and any additional amounts above such a diversion rate could be pursuant to the riparian lands within the service area.