

## TESTIMONY OF PAUL M. WELLS

My name is Paul Wells. I am a Professional Engineer, registered in California, license C79426, and a Senior Water Resource Control Engineer with the State Water Resources Control Board (State Water Board), Division of Water Rights (Division). I have over 15 years of water rights experience working in California and New Mexico. I have worked with the Enforcement Section within the Division for about five years. My experience with the Enforcement Section includes investigating potential unauthorized diversions of water and use and inspecting permitted and licensed water right projects for compliance with terms and conditions. A true and correct copy of my resume is Prosecution Team Exhibit WR-16.<sup>1</sup>

My testimony, herein provided, identifies my personal knowledge of the evidence, actions, and rationale for the Division's calculation of the amount of water diverted by the Byron Bethany Irrigation District (BBID) between June 13, 2015, and June 25, 2015. In July 2015, the Division calculated that BBID had diverted 2,067 acre-feet (af) between June 13, 2015, and June 25, 2015. The Division used this amount when issuing an Administrative Civil Liability Complaint (ACLC) against BBID. Pursuant to new information received after issuance of the ACLC against BBID, the Division now calculates that BBID diverted 1,887 af during the June 13, 2015, to June 25, 2015, time period.

My role in the BBID enforcement matter included investigating Division of Water Rights files and other documents, reviewing publicly accessible databases, analyzing documents submitted as part of BBID's response to the Prosecution Team's October 29, 2015, Subpoena, and conducting the calculations described below. I also prepared and maintained portions of the BBID Enforcement File.

### **1. Byron Bethany Irrigation District's Claimed Pre-1914 Appropriative Water Right**

On June 30, 2010, BBID submitted an Initial Statement of Water Diversion and Use (Statement), which the Division designated as Statement 021256 (S021256). (Exhibit WR-84.) Under S021256, BBID claims a pre-1914 appropriative water right to the intake channel to the Banks Pumping Plant in Contra Costa County. As shown in S021256,

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<sup>1</sup> All other exhibits referenced in my testimony are either authenticated at the end of this statement or in the testimony of other State Water Board witnesses.

BBID's original point of diversion was Italian Slough, but the State Water Project required relocation of BBID's point of diversion to the intake channel. An aerial photograph and general location maps of the diversion point and surrounding area are Exhibit WR-91. Exhibit WR-89 is a BBID service area map. In S021256, BBID claimed recent annual water use ranging from 30,000 af to 50,000 af per year for municipal, industrial and agricultural use. After reviewing the Division's files related to BBID's water rights, it does not appear that BBID holds or claims any other appropriative or riparian water rights on record with the State Water Board.

## **2. Byron Bethany Irrigation District's Diversion Data on the California Data Exchange Center**

The California Department of Water Resources (DWR) operates the California Data Exchange Center (CDEC), which provides a centralized database of hydrologic information gathered by various cooperators throughout the State. The data collected by CDEC is used by a variety of parties for a number of purposes including; forecasting water supply, forecasting floods, scheduling reservoir releases, and anticipating water availability. I regularly rely on CDEC data during the course and scope of my duties. The website address of the CDEC homepage is: <http://cdec.water.ca.gov>

It is my understanding and belief that BBID self-reports the amount of water it diverts daily in af to DWR, which converts the diversion amounts to average cubic feet per second (cfs) and posts those amounts on CDEC. The CDEC website lists information for a station identifier called "Byron Bethany Irrigation Dist Diversion" or "BBI," which, I understand and believe, reflects BBID's self-reported daily diversion amounts. Diversion amounts for the BBI Station are publicly available at the following webpage:

<http://cdec.water.ca.gov/cgi-progs/queryDaily?BBI>. This webpage typically shows the average daily diversion from Station BBI for the previous 30 days. Data for days prior to the previous 30 days may be accessed by clicking the "Earlier" link on the page. The diversion data for the BBI station on CDEC is available in average daily cfs. It is my understanding and belief that DWR uses the daily average flow rate in their calculations of an Estimate of the Daily Average Delta Outflow (<http://www.water.ca.gov/dayflow/>).

On July 1, 2015, as directed by my supervisor, I retrieved the June 2-30, 2015, average daily cfs diversion data from CDEC for the BBI station referenced above. The information I downloaded is Exhibit WR-90, and is also listed in Column B of Exhibit WR-146.

### **3. Calculating the Administrative Civil Liability Complaint Diversion Amount by Byron Bethany Irrigation District between June 13, 2015, and June 25, 2015.**

On July 1, 2015, I reviewed the BBI Station diversion data for the June 13, 2015, through June 25, 2015 time period obtained from the CDEC website as described above.

I took the following steps to calculate the water diverted by BBID between June 13, 2015, and June 25, 2015:

- Multiply the average daily cfs value by a conversion factor of 1.9835 to convert from cfs to af per day.
- Round down the calculated value to the next whole number (significant figure adjustment).
- Add the daily values for June 13, 2015 through June 25, 2015.

Using this process, on July 1, 2015, I calculated the water diverted by BBID between June 13, 2015, and June 25, 2015, from the intake channel of the Banks Pumping Plant to be 2,067 af (rounded to significant figures). A copy of this calculation is included in Columns B, C and D of Exhibit WR-146.

I converted the data from cfs to af per day because the civil liability that may be imposed by the State Water Board is partially based on the amount of unauthorized diversion in af. The ACLC (Exhibit WR-4) proposes a penalty based on the calculated diversion amount of 2,067 af from June 13, 2015, through June 25, 2015.

### **4. Byron Bethany Irrigation District's Updated CDEC Diversion Amount**

Based on recent communications with DWR staff (Exhibits WR-110 and 111), and on my review of BBID's emails to DWR providing diversion data (Exhibit WR-93), I now understand the following about the BBI Station diversions as reported on CDEC:

- BBID operators provide a daily volume in af to the DWR Delta Field Division operators via electronic mail (Exhibit WR-93).
- This value is entered into the DWR operations database where an automated process converts daily af into a daily average flow rate.
- The DWR operations database then sends the data to CDEC for posting.

- The amounts posted on CDEC for a particular day represents the previous day's diversions (e.g., May 31 diversions are posted on June 1) (Exhibit WR-111)

Given that the data posted on the CDEC website is in practice one day behind the actual diversions, I recalculated BBID's diversion amounts as reported by CDEC as shown in Column E of Exhibit WR-146. Based on this information, BBID diverted a total of 4,125 af in all of June, 2015, and 1,887 af from June 13, 2015, through June 24, 2015.<sup>2</sup> Thus, 1,887 af represents the amount of water shown by CDEC to have been diverted by BBID during the violation period framed in the ACLC.

##### **5. Byron Bethany Irrigation District's Subpoena Response**

I reviewed BBID's December 15, 2015, response to the Prosecution Team's October 29, 2015, Subpoena for Records and Documents. The Subpoena is Exhibit WR-170.

Among other things, BBID's Subpoena Response included: (1) copies of emails from BBID to DWR which contain daily diversion values for June 1 through June 23, 2015. (Exhibit WR-93), and (2) copy of a table called "BBID – Reported Diversions June 2015" which includes daily diversion values for June 1 through June 30, 2015 (Exhibit WR-94).

Using the daily values provided in BBID's Subpoena response, I calculated the water diverted by BBID from the intake channel of the Banks Pumping Plant between June 13, 2015, and June 24, 2015, to be 1,829.1 af. A copy of this calculation is included in Column F of Exhibit WR-146.

The difference of 57.9 af between the Updated CDEC Diversion Amount described above (1,887 af) and the BBID Subpoena Response amount (1,829.1 af) is due to a difference in reported diversion for June 24, 2015. The diversion value reported on CDEC (after shifting the values by one day) was 71 af (Exhibit WR-90.) The diversion value reported by BBID (Exhibit WR-94) was 7.1 af. It is unclear whether BBID or DWR made an error for the diversion data for June 24, 2015.

##### **6. Byron Bethany Irrigation District's Informational Order Response**

On February 4, 2015, the State Water Board issued Order WR 2015-0002-DWR, requiring pre-1914 and riparian water right claimants representing the top 90 percent of such claimants by volume in the Sacramento and San Joaquin River watersheds and the

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<sup>2</sup> The ACLC violation period was originally the 13 days from June 13<sup>th</sup> to June 25<sup>th</sup>. After adjusting the diversion data by one day, the amended violation period would be the twelve days from June 13<sup>th</sup> to June 24<sup>th</sup>.

Delta to submit information relating to their claimed water right, the monthly amounts of water diverted and the basis of right claimed for diversions in 2014, and monthly diversion information and anticipated monthly diversion information for each month starting with February, 2015, to be submitted by the 5th of each succeeding month until the drought ends. (Exhibit WR-30.)

BBID is subject to Order WR 2015-0002-DWR, and provided an initial response on February 9, 2015. (Exhibit WR-88.) In that response, BBID claims a priority date of May 18, 1914, on the Notice of Appropriation of Water that was attached to the Informational Order. BBID also provided monthly data for 2014 direct diversion amounts and monthly estimates of 2015 projected direct diversion amounts. Those direct diversion amounts and monthly estimates of 2015 projected direct diversion amounts are included in Columns F and J in Exhibit WR-147. On February 9, BBID indicated a projected diversion amount of 4,800 af for June 2015. (Exhibit WR-88)

In addition to filing the initial response to the Informational Order on February 9, 2015, BBID has filed monthly diversion data on the on-line form "Informational Order 2015 Actual Statement Diversions":

[http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/ewrims/curtailment/wateruseinfo\\_actual.php](http://www.waterboards.ca.gov/waterrights/water_issues/programs/ewrims/curtailment/wateruseinfo_actual.php).

I reviewed and downloaded the monthly "Informational Order 2015 Actual Statement Diversions" for BBID on September 14, 2015 (Exhibit WR-92). The 2015 actual statement diversion amounts in Exhibit WR-92 are included in Column G in Exhibit WR-147. The total of the daily diversions reported by BBID for June, 2015, is 2,310 af.

However, BBID's December 15 Subpoena response includes a copy of a table called "BBID – Reported Diversions June 2015" which includes daily diversion values for June 1, 2015, through June 30, 2015 (Exhibit WR-94). These daily diversion values are included Column F in Exhibit WR-146. The table "BBID - Reported Diversions June 2015" also includes a disclaimer indicating that the actual diversions were 4,121.10 af and this reported value includes transferred water in.

## **7. Byron Bethany Irrigation District's Contract Water and Water Supply Agreements**

Statement S021256 (Exhibit WR-84) indicates that BBID holds Contract No. 14-06-200-785- LTR1 with the United States Bureau of Reclamation. After reviewing the Division's

files related to BBID's water rights, it does not appear BBID has any claimed diversions for June 2015 under Contract No. 14-06-200-785-LTR1.

I reviewed the "Informational Order 2015 Actual Statement Diversions" for BBID on September 14, 2015 (Exhibit WR-92). BBID included a comment in the "Additional Comments" section of the form stating:

Fire pressure and suspension for Contra Costa County Airport. BBID received water via supply agreements from Carmichael Water District, Contra Costa Water District and SSJID.

It is my understanding and belief that BBID has not provided any additional information regarding the amounts or timing for any daily diversions made pursuant to these alleged water supply agreements. BBID's Informational Order Response claims a total of 497 af of contract diversions during June, 2015. (Exhibit WR-92.) BBID's subsequent Informational Order responses filed for 2015 also show 497 af in contract diversions for June 2015. (Exhibits WR-95 through WR-99.)

BBID's Informational Order response for June (Exhibit WR-95) indicates that, during June 2015, BBID diverted a total of 497 af under transfer contracts, of which 2 af were for Airport fire suppression and 4 af went to Mariposa Energy. Based on BBID's submittals, these amounts appear to have been for the entire month of June. BBID also indicates that during June 13 through June 30, 2015, BBID provided a total of 160 af to Mountain House Community Services District. (Exhibit WR-95.)

**8. Potential Contract Water Adjustment to the Calculated Diversion Amount by Byron Bethany Irrigation District between June 13, 2015, and June 24, 2015**

As shown above, the water diverted by BBID from the intake channel of the Banks Pumping Plant between June 13, 2015, and June 24, 2015 was calculated to be 1,887 af (or 1,829.1 af based on the documents submitted by BBID in response to the subpoena-Exhibit WR-93 and Exhibit WR-94). The 1,887 af (or 1,829.1 af) diverted by BBID during the ACLC violations period may be adjusted to account for any contract water diverted by BBID from the intake channel of the Banks Pumping Plant between June 13, 2015, and June 24, 2015. While BBID has alleged that it diverted and provided 160 af for Mountain House from June 13 through June 30, 2015 (Exhibit WR-95), it is my understanding and belief that BBID has not provided any information indicating whether

the 160 af was diverted under BBID's claimed pre-1914 right, or diverted under some other contract. It is also my understanding and belief that BBID has not provided any information indicating whether the entire 160 af was diverted between June 13 through 24, 2015, or whether any of the diversions occurred after June 24. Therefore, I am not aware of any available data for the daily diversions of contract water made by BBID from the intake channel of the Banks Pumping Plant between June 13, 2015, and June 24, 2015. On that basis, I do not recommend any adjustments to the calculated diversion amount of 1,887 af (or 1,829.1 af based on the documents submitted by BBID).

**9. Comparison of Byron Bethany Irrigation District's Claimed Diversions from June 13, 2015 through 24, 2015, with Diversions from the Remainder of June, 2015 and Previous Years**

S021256 indicates that BBID diverted approximately 26,179 af in 2009 for municipal and industrial and agricultural use within its boundaries. (Exhibit WR-84.) On July 1, 2013, BBID submitted Supplemental Statements for S021256, for the years 2010, 2011 and 2012. (Exhibits WR-85 through WR-87.) BBID's Supplemental Statements for S021256 each indicate that the District first put water to use in 1917, and that the purpose of use for the District's diversions is irrigation of 12,500 acres. The 2010 Supplement Statement indicates BBID diverted 25,269 af and applied approximately 22,302 af to beneficial use. The 2011 Supplemental Statement indicates BBID diverted 22,344 af and applied 19,779 af to beneficial use. The 2012 Supplemental Statement indicates BBID diverted 32,167 af and applied 28,345 af to beneficial use.

In order to assess the reasonableness of the above-described calculations of BBID's diversions from June 13, 2015, through June 24, 2015, I compared BBID's claimed diversions for the entirety of June 2015, with BBID's projected diversions stated in the Informational Order response, as well as with BBID's reported diversions for the month of June in the years 2010 through 2014. I prepared a table summarizing my results, which is included as Exhibit WR-147. As noted above, and as shown in the table, BBID claims in the Informational Order response to have diverted a total of 2,310 af (or perhaps 4,121.1 af, based on the notation) in the entire month of June, 2015, including 497 af of water from contract purchases.

To complete this analysis, I first reviewed the CDEC database described above to determine BBID's total diversions for June 1 through 30, 2015. (Exhibit WR-90.) As

shown in Column E of Exhibit WR-146, CDEC indicates that BBID diverted a total of 4,125 af during June 2015.

I then reviewed BBID's reported diversion amounts for S021256 for June 2010, 2011, 2012, and 2014 (BBID has not yet reported its diversions for June 2013). These amounts are shown in columns B, C, D, and F on Exhibit WR-147. Based on BBID's available reported diversions for water years 2010, 2011, 2012 and 2014, BBID diverts an average of 4,805 af under S021256 each June. This is comparable to the June 2015 projected diversion amount of 4,800 af provided by BBID in its February 9 Informational Order submittal. (Exhibit WR-88.)

Thus, based on recent reported and projected data, BBID can be expected to divert an average of approximately 160 af each day in June (4800 af/30 days). Multiplying this average daily amount by 12 days (to account for BBID's diversions during June 13 through 24), shows that BBID should have been expected to divert approximately 1,920 af during any 12-day period in June. This is very close to the calculated diversion amount of 1,887 af for the 12-day period starting June 13, 2015, and ending June 24, 2015, and not significantly different from BBID's reported diversion amount of 1,829.1 af during this period. Thus, the Division's calculation that BBID diverted 1,887 af under its claimed pre-1914 right during the violations period from June 13, 2015, through June 24, 2015, appears to be reasonable.

#### **10. Authentication of Exhibits**

Throughout this action, I have prepared and maintained elements of the Enforcement File for this matter. The Prosecution Team Exhibits contain true and correct copies of the following from the Enforcement File:

- WR-84 Initial Statement S021256
- WR-85 2010 Supplemental Statement for S021256
- WR-86 2011 Supplemental Statement for S021256
- WR-87 2012 Supplemental Statement for S021256
- WR-88 February 9, 2015, BBID Information Order Response
- WR-89 Byron-Bethany Irrigation District Service Area Map, Exhibit A to Response to February 2015 Informational Order (S021256)



- WR-90 July 1, 2015, download from CDEC BBI diversions for June 2-30
- WR-91 Aerial of BBID diversion area and general location maps
- WR-92 Informational Order 2015 Actual Statement Diversions for BBID as of September 14, 2015
- WR-93 BBID Daily Diversion Total Emails June 1, 2015, through June 23, 2015 (BBID Subpoena Response pages BBID-SUBP000471 through BBID-SUBP000495)
- WR-94 BBID June 2015 Diversions Table (BBID Subpoena Response page BBID-SUBP000508)
- WR-95 BBID Informational Order Response June 2015 (downloaded July 21, 2015; BBID Subpoena Response Pages BBID-SUBP000509 through 511)
- WR-96 BBID Informational Order Response July 2015 (downloaded August 5, 2015; BBID Subpoena Response Pages BBID-SUBP000505 through 508)
- WR-97 BBID Informational Order Response August 2015 (downloaded September 9, 2015; BBID Subpoena Response pages BBID-SUBP000502 through 504)
- WR-98 BBID Informational Order Response September 2015 (downloaded October 5, 2015; BBID Subpoena Response pages BBID-SUBP000499 through 501)
- WR-99 BBID Informational Order Response October 2015 (downloaded November 5, 2015; BBID Subpoena Response pages BBID-SUBP000496 through 498)
- WR-100 June 19, 2015 Article titled "MH GM searches for water sale," Tracy Press News, Denise Ellen Rizzo (available at [http://www.goldenstatenewspapers.com/tracy\\_press/news/mh-gm-searches-for-water-sale/article\\_2502306e-1610-11e5-9586-df6cf25a0145.html](http://www.goldenstatenewspapers.com/tracy_press/news/mh-gm-searches-for-water-sale/article_2502306e-1610-11e5-9586-df6cf25a0145.html))
- WR-101 June 22, 2015 Article titled "Deal Keeps Mountain House water flowing," Stockton Record, Alex Brietler (available at <http://www.recordnet.com/article/20150622/NEWS/150629914>)
- WR-102 June 22, 2015 Article titled "MH Deal Not Yet Set," Tracy Press News, Michael Ellis Langley (available at

- [http://www.goldenstatenewspapers.com/tracy\\_press/news/mh-water-deal-not-yet-set/article\\_16b23264-1905-11e5-b352-ef45ab2991e2.html](http://www.goldenstatenewspapers.com/tracy_press/news/mh-water-deal-not-yet-set/article_16b23264-1905-11e5-b352-ef45ab2991e2.html))
- WR-103 June 25, 2015 Article titled “Some water agencies in California consider defying state cuts,” SFGate, Kurtis Alexander (available at <http://www.sfgate.com/bayarea/article/Some-water-agencies-in-California-consider-6347901.php>)
  - WR-105 June 12, 2015 Article titled “California curtails senior water rights,” Sacramento Bee, Dale Kassler and Ryan Sabalow (available at <http://www.sacbee.com/news/state/california/water-and-drought/article23849281.html>)
  - WR-106 BBID “Response to State Water Resources Control Board Curtailment Notice of June 12, 2015,” (available at <http://bbid.org/wp-content/uploads/2015/06/BBID-Curtailment-Response-FINAL1.pdf>)
  - WR-107 LYRIS Notice dated June 12, 2015, “Notice of Unavailability of Water and Need for Immediate Curtailment for those Diverting Water in the Sacramento-San Joaquin Watersheds and Delta with a Pre-1914 Appropriative Claim Commencing During or After 1903”
  - WR-108 September 29, 2015 Article titled “Selling California’s water and following acres,” The Packer.com, Mike Hornick (available at <http://www.thepacker.com/news/opinion/selling-california%E2%80%99s-water-and-following-acres>)
  - WR-110 September 17, 2015, email from Aaron Miller, Dept of Water Resources
  - WR-111 October 2, 2015, email from Aaron Miller, Dept of Water Resources (re day shift)
  - WR-146 Table showing BBID daily diversions for the month of June and total diversions for the month of June and the time period between June 13, 2015, and June 25, 2015
  - WR-147 Table comparing reported diversions in prior years with diversions projected and reported in 2015
  - WR-160 Prosecution Team’s Subpoena *duces tecum* dated October 29, 2015