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19 **BEFORE THE STATE WATER RESOURCES CONTROL BOARD**

20 ENFORCEMENT ACTION ENF01949
21 DRAFT CEASE AND DESIST ORDER
22 REGARDING UNAUTHORIZED
23 DIVERSIONS OR THREATENED
24 UNAUTHORIZED DIVERSIONS OF
25 WATER FROM OLD RIVER IN SAN
26 JOAQUIN COUNTY

27 ENFORCEMENT ACTION ENF01951
28 DRAFT ADMINISTRATIVE LIABILITY
COMPLAINT REGARDING
UNAUTHORIZED DIVERSIONS BY
BYRON-BETHANY IRRIGATION
DISTRICT

**CDWA and BCID MOTION IN LIMINE TO
EXCLUDE OR LIMIT THE TESTIMONY OF
(1) BRIAN COATS; (2) KATHERINE
MROWKA; (3) PAUL HUTTON; (4) PAUL
MARSHALL; AND (5) KATHERINE BARE**

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DISTRICT

1 **I. INTRODUCTION**

2 Central Delta Water Agency (“CDWA”) and Banta-Carbona Irrigation District
3 (“BCID”) respectfully move the State Water Resources Control Board (“Board”) for an
4 order:

- 5 1. Excluding any portion of the testimony of Brian Coats or Katherine Mrowka as
6 “expert” testimony regarding water availability determinations.
7 2. Excluding portions of the testimony of Brian Coats and Katherine Mrowka as
8 improper legal conclusions, conclusory, speculative and lacking foundation.
9 3. Excluding the rebuttal testimony of Paul Hutton and Paul Marshall as improper
10 and untimely expert opinion testimony that should have been provided as part
11 of DWR and SWC’s cases in chief.
12 4. Excluding the testimony of Katherine Bare as improper hearsay, speculative,
13 conclusory and lacking proper foundation.

14 This order is sought (1) to ensure the testimony that is admitted in this proceeding
15 is proper fact testimony such that the record underlying the hearing officers’ ultimate
16 decision is sound; and (2) to prevent undue prejudice to BBID, WSID, CDWA, SDWA,
17 WSID, BCID and PID which would result if the substantial new expert opinions of Hutton
18 and Marshall are admitted as rebuttal when they should have been submitted as case in
19 chief testimony. In short - if we are going to do this, let’s do it right.

20 CDWA and BCID have attached to this motion annotated versions of the Coats
21 and Mrowka testimony that highlight the most egregious portions of the testimony that
22 should be excluded, with noted objections for the convenience of the hearing officers
23 (Exhibits A and B). CDWA and BCID also join in and support the Motions in Limine of
24 BBID/SDWA and WSID/PID. Due to the page limits set by the hearing team, it was
25 impossible for each party to fully brief each motion in limine for each witness.

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1 **II. LEGAL STANDARDS FOR ADMISSIBLE TESTIMONY**

2 **A. Expert Testimony and Lay Witness Testimony**

3 Two types of testimony may be offered in an adjudicatory hearing: lay witness
4 testimony and expert witness testimony. (See Evid. Code, §§ 702, 801; Gov. Code, §
5 11513.) But there are significant differences between the two.

6 Lay witness testimony is based on the witness’s personal knowledge of the
7 matters to which he testifies—for example, an event the witness personally saw or
8 heard. (Evid. Code, § 702.) A lay witness cannot testify in the form of an opinion unless
9 the opinion is rationally based on the perception of the witness, and helpful to a clear
10 understanding of his testimony (“i.e., where the concrete observations on which the
11 opinion is based cannot otherwise be conveyed”) (Evid. Code, § 800; *People v. Hinton*
12 (2006) 37 Cal.4th 839, 889, *as modified* (Apr. 12, 2006).)

13 An expert witness, on the other hand, can testify on matters that he has not
14 personally perceived. A witness qualifies as an “expert” if he has “special knowledge,
15 skill, experience, training, or education sufficient to qualify him as an expert on the
16 subject to which his testimony relates.” (Evid. Code, § 720.) An expert witness can
17 testify in the form of an opinion if the opinion is “[r]elated to a subject that is sufficiently
18 beyond common experience that the opinion of an expert would assist the trier of fact,”
19 and “[b]ased on matter (including his special knowledge, skill, experience, training, and
20 education) perceived by or personally known to the witness or made known to him at or
21 before the hearing, whether or not admissible, that is of a type that reasonably may be
22 relied upon by an expert in forming an opinion upon the subject to which his testimony
23 relates, unless an expert is precluded by law from using such matter as a basis for his
24 opinion.” (Evid. Code, § 801.)

25 Expert testimony based on the application of a “new” scientific technique must
26 further satisfy what has been referred to as the *Kelly* standard. Under this standard, a
27 technique is reliable and thus admissible if “the proponent can show: ‘(1) the technique
28 has gained general acceptance in the particular field to which it belongs, (2) any witness

1 testifying on general acceptance is properly qualified as an expert on the subject, and (3)
2 correct scientific procedures were used in the particular case.” (*People v. Therrian*
3 (2003) 113 Cal.App.4th 609, 614; *Harris Transportation Co. v. Air Resources Board*
4 (1995) 32 Cal.App.4th 1472, 1478, *as modified* (Mar. 2, 1995) [“as a general matter the
5 *Kelly* standard is applicable to administrative proceedings”].)

6 Expert testimony must also adhere to strict disclosure requirements to avoid
7 undue prejudice to other parties. Specifically, a previously undisclosed expert may only
8 testify to impeach the testimony of another witness as to a foundational fact, and for no
9 other purpose. (CCP §2034.310.) A previously undisclosed expert may not testify to
10 provide a different opinion. (*Id.*)

11 **B. All Testimony Must Have an Adequate Foundation and not be Speculative**

12 The admissibility or inadmissibility of proffered evidence depends on whether the
13 evidence is supported by a proper foundation - i.e., proof of the supporting preliminary
14 facts. (Evid. C. §§400-401.) This rule is necessary to ensure a tribunal does not admit
15 into evidence conclusory or speculative witness statements for which there is no
16 underlying factual support.

17 **C. Legal Conclusions and Argument are Not Proper Testimony**

18 It is never proper for a lay witness or even an expert witness to provide legal
19 conclusion testimony. (See, e.g., *Summers v. A.L. Gilbert Co.* (1999) 69 Cal.App.4th
20 1155 [discussing prohibition on expert opinions on questions of law]; Evid. C. §702.)

21 **D. Hearsay is not Proper Testimony Unless it Falls within an Approved**
22 **Exception**

23 Hearsay evidence is a statement made outside of the current proceeding offered
24 to prove the truth of the matter asserted in that statement. (Evid. C. §1200.) Hearsay
25 evidence is inadmissible unless there is a legal exception. (Evid. C. §1201.) The reason
26 for this rule is that the trier of fact cannot discern the declarant’s accuracy of perception
27 and veracity from a prior out of court statement. (*People v. Garcia* (2005) 134
28 Cal.App.4th 521, 537.)

1 While the Hearing Officers may rely on hearsay evidence to a limited extent to
2 “supplement or explain” other evidence, it shall not be sufficient in and of itself to support
3 a finding of fact. (Govt. C. 11513(d).)

4 **E. “Me Too” Testimony is Useless, Duplicative and Prejudicial**

5 Testimony that purports to “incorporate” and “agree with” the testimony of other
6 affiliated witnesses has absolutely no evidentiary value or relevance because it lacks
7 adequate foundation (Evid. C. §§ 400-401), and is not based on the personal knowledge
8 of the witness (Evid. Code, § 702.) No evidence is admissible except relevant evidence.
9 (Evid. C. § 350.) The hearing officers can and should exclude “me too” testimony that
10 merely incorporates or agrees with other affiliated testimony as lacking probative value,
11 wasting time and creating undue prejudice. (Evid. C. § 352; Govt. C. § 11513(f).)

12 **F. The Hearing Officers Serve a Mandatory Gate Keeping Function to Exclude**
13 **Improper Evidence**

14 Staff conclusions unsupported by facts are not substantial evidence and may not
15 be relied upon by decision makers. (*Walnut Acres Neighborhood v. City of Los Angeles*
16 (2015) 235 Cal.App.4th 1303, 1315-1316.) Thus, the Hearing Officers must exclude
17 testimony that offers nothing more than a conclusion that the State Board Division staff
18 did something appropriately - these are decisions for the Hearing Officers to make
19 independently.

20 The Hearing Officers also have a substantial gatekeeping responsibility when it
21 comes to expert testimony. (*Sargon Enters., Inc. v Univ. of S. Cal.* (2012) 55 Cal.4th
22 747, 769.) If the officers determine an “expert” witness is basing opinion on an improper
23 matter or on insufficient or unidentified preliminary facts, the officers can exclude it, and
24 more importantly, upon objection from a party, the officer *must* exclude it. (Evid. C. §
25 803.)

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1 **III. BRIAN COATS and KATHERINE MROWKA ARE NOT EXPERTS ON HOW TO**
2 **DETERMINE WATER AVAILABILITY IN THE DELTA.**

3 Coats and Mrowka may testify as to what they did or what they personally
4 observed. They may not testify regarding what others decided or thought, or why others
5 did what they did or did not do. Coats and Mrowka also may not provide unqualified
6 expert opinion testimony. Yet, the proffered Mrowka and Coats testimony is replete with
7 violations of these basic rules.

8 Coats testified clearly in his deposition that his personal involvement in the 2015
9 water availability determination process was limited to a pass through role - with no
10 decision making authority as to how to conduct the analysis and no actual work on the
11 analysis. Upper management directed Coats to determine water availability in the San
12 Joaquin and Sacramento Watersheds and instructed Coats on the sources of supply and
13 demand to consider when determining water availability. Coats then merely relayed
14 upper management's position on what to consider for supply and demand to Jeff
15 Yeazell. (See Coats Depo at 60, marked as WSID Exhibit 150.) Jeff Yeazell prepared
16 Excel spreadsheets that compared full natural flow with estimated water demand and
17 Coats reviewed the formulas Yeazell used in his spreadsheets. (See Coats Depo at 61.)

18 As Coats explained in his deposition, he considered only full natural flow for
19 supply because “[t]hat’s what we were instructed to do by management”—namely John
20 O’Hagan—and did not have any input on supply sources considered. (See Coats Depo
21 at 49, 62, 67-68, 83, 85, 86.) And as to demand, Coats relied on 2010 to 2014 self-
22 reporting by water users, and where available, water users’ responses to the Board’s
23 2015 informational order, as “instructed by upper management, John O’Hagan.” (Coats
24 Depo at 126, 131 [adding that O’Hagan determined the scope of the geographical area
to consider for demand].)

25 Mrowka similarly made no individual decisions regarding how to conduct the
26 water availability analysis in 2015 and performed no actual work on the compilation of
27 supply and demand data for the global spreadsheet. Rather, she had “discussions” with
28 staff that she supervised (Coats and Yeazell) about what to do, and with John O’Hagan

1 and Tom Howard, who ultimately made the decisions. (Mrowka Depo at pp. 24-26,
2 marked as WSID Exhibit 152.)

3 Neither Coats nor Mrowka qualify as experts on how to determine water
4 availability in the Delta because neither possess the “special knowledge, skill,
5 experience, training, or education sufficient to qualify him as an expert on the subject.”
6 (Evid. Code, § 720.) Coats is a chemical engineer by training, not a hydrologist or even
7 a civil engineer. He obtained a degree in chemical engineering and holds a professional
8 license only as a chemical engineer. (Coats Depo at 15.) Coats’s experience,
9 moreover, has not equipped him with the knowledge his training failed to provide.
10 Before the 2014 and 2015 curtailments, Coats’s background was generally limited to
11 certifying consumer products (Coats Depo at 16), performing administrative work for the
12 Board’s Petitions Unit (Coats Depo at 16-17), ensuring that permittees and licensees
13 complied with their water rights’ terms and conditions (e.g., by conducting site visits of
14 permittees and licensees’ diversion facilities) (Coats Depo at 17-18), and supervising
15 engineers who ensure that permittees and licensees are complying with their water rights
(Coats Depo at 19.) None of this work concerned water availability.

16 Coats confirmed in his deposition that aside from his recent curtailment
17 experience, he has no professional experience regarding hydrology or even water
18 quality. (Coats Depo at 23.) Similarly, Mrowka’s testimony confirms she has no prior
19 experience with determining water availability for purposes of ceasing diversions other
20 than working as part of the Division staff group in 2014 and 2015.

21 Neither Coats nor Mrowka could become an expert on water availability through
22 involvement with a group of Division staff who performed a water-availability analysis
23 that neither witness was individually qualified to perform. Case law is extensive on this
24 point. In *People v. Coleman* (1988) 46 Cal.3d 749, as modified (Nov. 2, 1988), for
25 example, the California Supreme Court found a crime laboratory inspector who had
26 performed blood testing for years using a tool called a “hemostick” was not qualified to
27 testify regarding the hemostick. The inspector “had used the test in crime laboratory
28 work for three years and found it reliable after performing the test on substances with an

1 appearance similar to blood,” but despite these years of experience, the Court found he
2 “was not an expert on blood or blood tests, nor did he otherwise have a scientific basis
3 on which to testify as to the reliability of the test.” (*Id.* at 775.) Similarly, in *People v.*
4 *Pearson* (2013) 56 Cal.4th 393, the Court found a distinguished radiologist, who was
5 admittedly an expert in diagnostic medical imaging and could testify as to the presence
6 of a brain abnormality, could not testify as to the effect of the brain abnormality on
7 human behavior. (*Id.* at 445-446.) The radiologist was doubtless qualified in his area of
8 expertise, as someone who practiced as a radiologist for decades, served as a medical
9 director at a medical facility, was a faculty member at the University of California of San
10 Francisco, and received national prizes and published widely in the area of radiology.
11 (*Id.* at 445.) And he also surely had familiarity with the consequences of diseases and
12 abnormalities he diagnosed—but that was not established as his expertise, and as the
13 Court found, a radiologist is not someone who ordinarily testifies on the effect of a brain
14 abnormality on behavior; rather, “[e]vidence of this nature is ordinarily admitted through
15 the testimony of a qualified psychiatrist or neuropsychiatrist.” (*Id.* at 446.) The Court’s
16 logic is instructive here: a chemical engineer, like Coats, is not ordinarily one to testify on
17 matters fit for a hydrologist, and nothing in Coats’ background warrants a different
18 conclusion.

19 Nor does the fact that Mrowka has worked on post-1914 appropriative water right
20 permitting and licensing make her an expert on water availability in the Delta. Water
21 availability in the Delta requires at least a basic understanding of how much water is in
22 the Delta and where it came from, which Mrowka admits she does not have - testifying
23 that she was unaware of the storage capacity of the watercourses within the Legal Delta
24 and did not find it necessary, for purposes of her water availability determinations, to
25 understand the source contributions of water to the Delta. (Mrowka Depo pp. 149:3-
150:14).

26 Courts have time and again recognized that “[t]he fact that the purported expert
27 may be qualified in one field vaguely related to another does not mean that he is
28 qualified in that other field.” (*California Shoppers, Inc. v. Royal Globe Ins. Co.* (1985)

1 175 Cal.App.3d 1, 66- 67; see also *People v. Kelly* (1976) 17 Cal.3d 24, 39 [“In
2 considering whether a person qualifies as an expert, the field of expertise must be
3 carefully distinguished and limited.”].) “[T]he qualifications of an expert must be related
4 to the particular subject upon which he is giving expert testimony. Consequently, the
5 field of expertise must be carefully distinguished and limited’, and [q]ualifications on
6 related subject matter are insufficient.” (*Howard Entertainment, Inc. v. Kudrow* (2012)
7 208 Cal.App.4th 1102, 1115.)

8 Determining water availability in the Delta for the purpose of impacting century old
9 water rights should not be placed on the shoulders of non-experts. The fact that the
10 Division did not have any such experts available on its staff does not mean that the
11 Board should ignore its gatekeeping function and allow unqualified expert testimony to
12 fill the void, essentially giving the Prosecution Team a “pass” on its burden of proof. The
13 law is clear that an expert must be an expert in the specific field which they provide
14 opinion testimony on - a similar field is not enough. (See *People v. Coleman, supra*, 46
15 Cal.3d at 775; *People v. Pearson, supra*, 56 Cal.4th at 445-446; *California Shoppers,*
16 *Inc. v. Royal Globe Ins. Co.* (1985) 175 Cal.App.3d 1 [experienced attorney who often
17 handled cases against insurance companies found not qualified to testify as expert on
18 subject of insurance company practices]; *Miller v. Los Angeles County Flood Control*
19 *Dist.* (1973) 8 Cal.3d 689 [a mechanical engineer with training in hydraulics and
20 hydrology could not testify as an expert on proper building construction in a flood area];
21 *People v. Davenport* (1995) 11 Cal.4th 1171, 1207, *as modified on denial of reh'g* (Feb.
22 21, 1996) abrogated on other grounds by *People v. Griffin* (2004) 33 Cal.4th 536
23 [homicide investigator who had previously reviewed eight corpses was not qualified to
24 give expert opinion on whether victim was impaled before or after her death, in light of
25 witness’s lack of medical, serology, or pathology training].)

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1 **IV. THE DIVISION’S 2015 WATER AVAILABILITY DETERMINATION METHOD**
2 **DOES NOT MEET THE *KELLY* STANDARD FOR ADMISSIBILITY**

3 Expert testimony based on the application of a “new” scientific technique must
4 satisfy what has been referred to as the *Kelly* standard. This standard requires the
5 proponent to show “(1) the technique has gained general acceptance in the particular
6 field to which it belongs, (2) any witness testifying on general acceptance is properly
7 qualified as an expert on the subject, and (3) correct scientific procedures were used in
8 the particular case.” (*People v. Therrian, supra*, 113 Cal.App.4th at 614.)

9 The method Coats describes for determining water availability in the Delta, the
10 2015 Global Spreadsheet, is a new scientific technique. In determining whether a
11 scientific technique is “new” for *Kelly* purposes, courts consider whether a technique has
12 seen “repeated use, study, testing and confirmation by scientists or trained technicians.”
13 (*People v. Leahy* (1994) 8 Cal.4th 587, 605 [a type of field sobriety test found to be a
14 “new” scientific technique despite police officer’s long-standing use of the test; “long-
15 standing use by police officers seems less significant a factor than repeated use, study,
16 testing and confirmation by scientists or trained technicians”].)

17 The 2015 Global Spreadsheet was first used by the Board in 2015 with a modified
18 version used in 2014, but not for the purpose of enforcement. The method is
19 inconsistent with the one other curtailment model Coats’s reviewed (Coats Depo at 21-
20 22), and was reviewed, if at all, by only one other person outside of the Board (Coats
21 Depo at 105).

22 Because the 2015 Global Spreadsheet is a new scientific technique, the
23 Prosecution Team cannot introduce testimony regarding the method unless it can prove
24 the technique has gained general acceptance in the scientific community. To meet this
25 burden, the Prosecution Team was required to present a disinterested expert (i.e., one
26 not personally invested in establishing the technique’s acceptance) who is qualified to
27 testify to the technique’s general acceptance in the relevant scientific community. (*In re*
28 *Jordan R.* (2012) 205 Cal.App.4th 111, 130.) The Prosecution Team has failed to do so
and thus any testimony regarding this new technique is inadmissible.

1 **V. SPECIFIC OBJECTIONS TO THE COATS TESTIMONY**

2 Exhibit A is an annotated version of the Coats testimony with numbered
3 paragraphs and redlines of objectionable testimony with notes regarding the specific
4 objections. These specific objections do not mean that the balance of the testimony is
5 appropriate - but merely mark the most egregious evidentiary problems which must be
6 removed if the testimony is admitted at all.

7 Paragraphs 4-10 and 80 of the Coats Testimony are nothing more than legal
8 arguments (many of which are flat wrong) regarding various aspects of California water
9 law which are improper.

10 Paragraphs 31-36 of the Coats Testimony attempt to describe the methodology
11 behind DWR's Full Natural Flow calculations. Coats has no specialized experience or
12 education that could qualify him to explain DWR's FNF calculations. Coats also has no
13 personal experience making these FNF calculations. Finally, the proper witness to
14 describe these calculations is the DWR staff person who performs them and has
15 provided separate testimony. The Coats testimony on this subject is duplicative and an
16 example of trying to improperly "pile on" concurrence testimony from multiple witnesses
17 even though the witnesses are not qualified on the subject matter.

18 Paragraphs 11-13, 15, 17, 20, 23, 24, 27-28, 45-46, 48, 52, 58, 62-65 and 68-75,
19 76, 81-82 of the Coats Testimony contain conclusory or speculative statements that lack
20 foundational preliminary facts that would make the testimony admissible, paraphrase
21 documents that speak for themselves, or provide Coats' unqualified "opinion" that
22 something done by Division staff was proper. Testimony that is "largely based upon
23 speculation or conjecture" or "otherwise fails to meet a threshold requirement of
24 reliability" is inadmissible. (*Long v. Cal.-Western States Life Ins. Co.* (1955) 43 Cal. 2d
25 871, 882; *People v. Dodd* (2005) 133 Cal.App.4th 1564, 1569.) "As our Supreme Court
26 has stated, any material that forms the basis of an expert's opinion testimony must be
27 reliable. . . . Like a house built on sand, the expert's opinion is no better than the facts
28 on which it is based." (*People v. Dodd, supra*, 133 Cal.App.4th at 1569.)

1 Paragraphs 76 and 80 of the Coats Testimony improperly restate inadmissible
2 hearsay to establish facts.

3 **VI. SPECIFIC OBJECTIONS THE MROWKA TESTIMONY**

4 Exhibit B is an annotated version of the Mrowka testimony with numbered
5 paragraphs and redlines of the objectionable testimony with notes regarding the specific
6 objections. These specific objections do not mean that the balance of the testimony is
7 appropriate - but merely mark the most egregious evidentiary problems that must be
8 removed if the testimony is admitted at all.

9 Paragraphs 4-5, 11, 17, 41-42, 45, 48-49 and 51 of the Mrowka Testimony
10 contain blatant legal conclusions that should be stricken. Mrowka is not a lawyer and
11 cannot provide expert testimony regarding how the law should be applied for the same
12 reasons discussed above.

13 Paragraphs 28-29 of the Mrowka Testimony recite hearsay statements from the
14 Division's own letters, delivered almost 20 years ago, as purported evidence of WSID's
15 sources of water in 2015. This hearsay evidence cannot be relied on to make factual
16 findings regarding what is actually happening in WSID in 2015.

17 Paragraphs 6-8, 12, 14-16, 18-19, 32, and 35-38, 52-53 of the Mrowka Testimony
18 contain conclusory or speculative statements that lack foundational facts or contain
19 unqualified opinion testimony.

20 **VII. THE PREVIOUSLY UNDISCLOSED HUTTON AND MARSHALL EXPERT**
21 **OPINIONS MUST BE STRIKEN AS UNTIMELY AND PREJUDICIAL**

22 CDWA and BCID join in BBID's motion to exclude the testimony of Hutton and
23 Marshall. This testimony is overwhelming new opinion testimony that should have been
24 disclosed in cases in chief and is improper and highly prejudicial at this stage of the
25 proceeding. (CCP § 2034-310.)

26 Both Hutton and Marshall rely extensively on substantial DSM2 modeling work
27 that is unavailable to and could not be reviewed by the other parties and their experts
28 prior to hearing, creating substantial undue prejudice. In particular, Hutton describes

1 DSM2 model runs that purport to modify 2015 Delta inflow data inputs to reflect a “non-
2 project” operation - but there is absolutely no information provided as to how these inflow
3 numbers were modified to reflect this hypothetical scenario and what assumptions were
4 made as part of this effort. Without a transparent explanation of how the modelers
5 adjusted the foundational inputs to the model, there is no foundation from which the
6 Hearing Officers can be assured the new model run has any merit. “Trust that we did it
7 right even though you can’t see what we did” testimony is not only improper - but highly
8 prejudicial to the other parties to the hearing who have no opportunity to understand, let
9 alone rebut, the offered testimony.

10 If the testimony is not stricken, the hearing officers must, at a minimum, defer the
11 hearing and require these two new experts to be made available for immediate
12 deposition. (CCP §§ 2034.610-720.) If Hutton and Marshall are allowed to testify, it is
13 insufficient to simply make these experts available for cross-examination at the hearing
14 for several reasons. The time limits at the hearing prevent sufficient examination to both
15 understand and critique the underlying assumptions for technical modeling. Also, the
16 inability to conduct a pre-hearing deposition of an expert means that other parties cannot
17 obtain assistance from their own experts prior to hearing to understand the opposing
18 parties’ expert work before the hearing to craft appropriate questions for cross-
19 examination, to their prejudice. Finally, dealing with experts in the first instance at a
20 hearing, rather than in a deposition, unnecessarily wastes time and resources of the
21 hearing team and all parties.

22 **VIII. JOINDER OF MOTION TO EXCLUDE BARE**

23 CDWA and BCID also join the WSID/PID motion to exclude the testimony of
24 Katherine Bare. The Bare testimony is replete with unsupported conclusory statements
25 that lack proper foundation.

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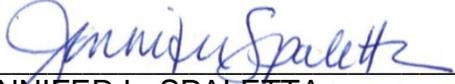
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As we stated at the beginning - if we are going to do this, let's do it right.

Respectfully submitted,

Dated: February 29, 2016

SPALETTA LAW PC

By: 

JENNIFER L. SPALETTA
Attorney for Central Delta Water Agency

Dated: February 29, 2016

HERUM\CRABTREE\SUNTAG



JEANNE M. ZOLEZZI
Attorney for Banta-
Carbona Irrigation District and

TESTIMONY OF BRIAN COATS

Par. 1

I have been an employee of the State Water Resources Control Board (State Water Board) for the past 16 years, and am currently employed by the State Water Board. In 1996 I received a Bachelor of Science Degree in Chemical Engineering from The University of California at Davis, and have been registered as a Professional Chemical Engineer in California since 2011. Since September 2012, I have supervised an enforcement unit in the State Water Board's Division of Water Rights (Division) as a Senior Water Resources Control Engineer. As a Senior Water Resources Control Engineer, I supervise a group of engineers working on water rights compliance and enforcement actions. In my work with the State Water Board, I have become familiar with the California water rights system and with the concepts of water supply and water demand, as well as with the databases used by the State Water Board to collect the information submitted by diverters. A copy of my resume is Prosecution Team Exhibit WR-10.

Par. 2

My testimony, herein provided, identifies my personal knowledge of the evidence, actions, and rationale for the Division's recommendation that an Administrative Civil Liability (ACL) Complaint be issued against Byron-Bethany Irrigation District (BBID), and that a Cease and Desist Order (CDO) be issued against the West Side Irrigation District (WSID). Since January 2014, I have been actively involved with the Division's supply and demand analysis which determines if water supplies are sufficient to meet current water use demands in critical watersheds during the 2014 and 2015 drought.

Par. 3

My written testimony outlines water supply availability analysis the Division undertook in 2015 in order to determine whether there was sufficient supply to satisfy demand in certain watersheds affected by the Drought. I participated in this effort, supervised by Kathy Mrowka and John O'Hagan. I supervised Jeffrey Yeazell, who is an engineer in my enforcement unit. Mr. Yeazell and I conducted the water availability analyses described here and in Mr. Yeazell's testimony (WR-11) at the direction of Ms. Mrowka and Mr. O'Hagan.

Water Rights

Background

Par. 4

~~The State Water Board has been vested by the Legislature with the authority to prevent unauthorized diversions of water and to supervise the water rights priority system. (See, e.g., Wat. Code §§ 174, 186, 1050, 1051, 1051.5, 1052, 1825.) Drought management of water rights is necessary to insure that water to which senior right holders are entitled is actually available to them, which requires that some water remain in most streams to satisfy senior demands at the furthest downstream point of diversion of these senior water rights.~~

*Legal
Conclusion*

*Legal
Conclusion*

Par. 5

~~The water rights priority system provides the primary basis for determining which users may divert water, and how much, when there is insufficient water in the system for all users. If water supplies are insufficient to meet all demands in a given area, due to low rainfall and/or snowpack levels, the water rights priority system is used to allocate limited supplies based on relative priority of rights. With respect to water rights priority, the overriding governing principle is "First in Time, First in Right" which assigns the most protected and senior water right to whoever has documented and preserved their use based on: the date of filing (post 1914), posting (pre 1914) or assignment to private ownership (riparian). While there are many types of specialized water rights, there are three main classes (riparian, pre 1914 and post 1914) which consume the bulk of the State's supplies in any given year.~~

Classes of Rights – Riparian, Pre-1914 and Post-1914

Par. 6

~~Riparian right holders generally have the most senior priority due to their parcel's date of transfer to private ownership. Transfer of the majority of parcels to private ownership in California occurred in the late 1800s which, following the "First in Time, First in Right" principle, results in riparian claims of right having priority over most water rights in California. One limiting constraint to riparian claims of right is they are not allowed to store water; they can only divert natural flows in an adjacent stream or water course. In addition, in the event of a water shortage notice issued to riparian water rights holders, all the riparian right holders in the impacted area must absorb a correlative reduction, or equally share in the reduction, since all riparian rights have an equal priority to the water.~~

*Legal
Conclusions*

Par. 7

~~Pre 1914 claims of right are claims made prior to the Water Commission Act of 1914. Most pre 1914 claims of rights are junior in priority to riparian right holders but can divert non-natural or abandoned sources of water unlike riparian holders. The pre 1914 claims of right can be senior to the above riparian class of right if their posting date occurred prior to the competing riparian parcel's date of transfer to private ownership, again, "First in Time, First in Right."~~

*Legal
Conclusions*

Par. 8

~~The third priority class of rights which are junior to the above two classes are post 1914 water rights which accrued after the Water Commission Act of 1914.~~

Types of Water - Natural, Stored & Abandoned

Par. 9

~~The above three classes are prioritized in order to allocate the limited amount of "natural" water supply. The key word here is "natural," as "stored" or "imported" water is not subject to priority allocation. When water is stored or imported from another watershed, the entity that stored or imported the water has the paramount right to that water. Therefore, while a water shortage notice may have been issued, an entity with stored or imported water may use that water since it is not considered "natural" flow. As mentioned earlier, holders of riparian~~

*Legal
Conclusions*

Par. 9 cont. ~~water rights may not use stored water since they only have the right to divert the natural flow of water abutting their parcel without any provision for storage.~~

~~Water can also be classified as “abandoned” and/or “return flow”. Abandoned water is water that has been used for a purpose with the excess or unneeded amount released with no~~

Legal Declaration

Par. 10 ~~claim of ownership. Since the abandoned water has been used and no longer considered “natural,” it is only currently available for diversion by appropriative diverters which include the pre-1914 and post-1914 classes of water rights. Abandoned water may also be a wastewater discharge from a water treatment plant where the discharger has abandoned its claim to the water. A similar class of abandoned water is called return flow which is excess flow that leaves the field following the application of irrigation water. While return flows can be sourced from riparian or appropriative (pre-1914 and post-1914 water rights) diversions, they are only available for “recapture” by appropriative water rights (pre-1914 and post-1914) since the “non-natural” or “abandoned” designation prevents riparians from diverting.~~

~~Why is this important? When Division staff perform a water supply and demand analysis~~

Par. 11 ~~for purposes of determining water availability during drought, we only consider the natural sources of water for the supply with an adjustment for return flows, if applicable. While abandoned flows may be present, the Division would be double-counting these flows if the original source of water, prior to being classified as abandoned, was sourced from natural flow.~~

Lack of foundation, unqualified opinion testimony

~~These distinctions between classes of water rights mean that it may not always be clear to a junior diverter whether there is sufficient flow in the system to support their diversion. For example, an appropriative diverter may see water near their point of diversion (i.e. pump) and not be sure if that water is available to them or needed to support senior water uses downstream. Similarly, it can be difficult for a riparian to know if water is natural flow, or stored or imported water, and whether, when, and to what extent correlative reductions in water use are needed due to the need to share limited supplies amongst riparians.~~

Par. 12 ~~For example, an appropriative diverter may see water near their point of diversion (i.e. pump) and not be sure if that water is available to them or needed to support senior water uses downstream. Similarly, it can be difficult for a riparian to know if water is natural flow, or stored or imported water, and whether, when, and to what extent correlative reductions in water use are needed due to the need to share limited supplies amongst riparians.~~

~~This is where the Division’s supply and demand analysis becomes necessary. In accordance with the State’s water right priority system, the State Water Board staff notifies diverters of a water shortage when sufficient natural flows in a watershed are not available for a water user’s needs, based on their priority of right.~~

Lack of foundation, unqualified opinion testimony

Par. 13 ~~In accordance with the State’s water right priority system, the State Water Board staff notifies diverters of a water shortage when sufficient natural flows in a watershed are not available for a water user’s needs, based on their priority of right.~~

Drought Notices & Notices of Water Unavailability

On January 17, 2014, Governor Brown issued a state of emergency via Proclamation 1-

Par. 14 ~~17-2014, due to drought conditions (WR-23 is a true and correct copy). In response to the governor’s proclamation, the State Water Board staff issued a notice of surface water shortage~~

Par. 14
cont.

and potential curtailment on the same day which was posted to the State Water Board's website (WR-24 is a true and correct copy). The State Water Board staff notice advised junior-priority water right holders in critically dry watersheds that water may be unavailable in order to satisfy senior-priority water right demands.

Par. 15

~~A water shortage notice, or notice of water unavailability, is a notification to water right holders of a certain priority of right that, due to water shortage conditions, the State Water Board staff has determined water is not available under their priority of right. However, the notice of water unavailability is only a staff determination, it is not an enforceable decision or order of the State Water Board. The notice provides the affected water right holder with the Division's findings of the unavailability of water under their priority of right and the need to cease diversion under that right, the exceptions to the notice for direct diversion of water for power, other nonconsumptive uses and for continued use of previously stored water, and the potential for future enforcement for unauthorized diversions. A water shortage notice does not consider any particular diverter's other senior water rights or alternative basis of right such as water supply contracts, private agreements, transfers or groundwater supplies that may allow the diverter to continue to divert lawfully. The notice is therefore not a State Water Board determination that any individual diverter is taking water without authorization under the Water Code. A diverter who continues to divert after receiving a notice of unavailability is not subject to enforcement or penalties for violating the notice, but may be subject to enforcement for an unauthorized diversion if their diversions do not fall within the exceptions enunciated in the notice and are not entirely authorized by other water rights for which water remains available.~~

Lack of foundation, unqualified opinion testimony, violation of best evidence rule - documents speak for themselves.

Par. 16

On April 25, 2014, Governor Brown issued a proclamation continuing the state of emergency due to the drought which resulted in the State Water Board staff issuing water unavailability notices (WR-25 is a true and correct copy of the April 25, 2014, proclamation). On May 27, 2014, the State Water Board staff issued unavailability notices to all Sacramento and San Joaquin River post-1914 water right holders informing them of the lack of water availability to service their junior-priority water right (WR-26 is a true and correct copy). The unavailability notice extended through the summer, with the last water right holders notified that water was again available for diversion on November 19, 2014 (WR-27 and WR-28 are true and correct copies of the November 2014 notices).

Par. 17

Two months later, similar to 2014, the State Water Board staff issued a notice advising of surface water shortage and potential for curtailment on January 23, 2015 (WR-29 is a true and correct copy). To obtain current and more accurate water right demands for the largest diverters claiming senior (pre-1914 and riparian) rights, the State Water Board issued an

Par. 17
cont.

Informational Order, 2015-0002-DWR (WR-30 is a true and correct copy), requesting supporting information for riparian and pre-1914 claims of right, along with their 2014 water use and projected diversions for 2015. ~~The Division incorporated the Informational Order response information into the 2015 demand calculations.~~

Lack of foundation; Coats did not work on the spreadsheets and has no percipient knowledge

Par. 18

Two months later, Governor Brown issued an Executive Order, Order B-29-15 (WR-31 is a true and correct copy), which confirmed that the prior drought orders and provisions are still in effect due to ongoing drought conditions. After warning post-1914 water right holders of an imminent unavailability notice on April 2, 2015 (WR-32 is a true and correct copy), the State Water Board staff issued an unavailability notice to all post-1914 water rights in the San Joaquin River watershed on April 23, 2015 (WR-33 is a true and correct copy).

Par. 19

A similar staff notice to the Sacramento River and Delta post-1914 water right holders, including WSID, was issued on May 1, 2015 (WR-34 is a true and correct copy; WR-35 is a true and correct copy of the notice addressed to WSID). The May 1, 2015, Notice reflects the State Water Board staff's determination that the existing water available in the Sacramento River and in the Sacramento-San Joaquin Watersheds and Delta is insufficient to meet the demands of diverters with appropriate water right permits or licenses with a priority date of 1914 and later. The methodology underpinning the May 1 Notice is described here and in the Testimony of Jeffrey Yeazell (WR-11).

Par. 20

A similar staff notice to pre-1914 water right holders with priority dates 1903 and later in the Sacramento and San Joaquin River watersheds and Delta, including BBID, was issued on June 12, 2015 (WR-36 is a true and correct copy¹). ~~The June 12, 2015, Notice reflects the State Water Board staff's determination that the existing water available in the Sacramento River and in the Sacramento-San Joaquin Watersheds and Delta is insufficient to meet the demands of diverters with claims of pre-1914 appropriate rights with a priority date of 1903 and later.~~ The methodology underpinning the June 12 Notice is described here and in the Testimony of Jeffrey Yeazell (WR-11).

Best evidence - document speaks for itself; lack of foundation

Par. 21

On July 15, 2015, the State Water Board staff issued a clarification that the earlier 2015 unavailability notices, including the April 23, May 1 and June 12 notices, were not orders to stop diverting (or orders directing "curtailments"), but rather were notices that the State Water Board

¹ WR-37 is a true and correct copy of the mailing list for the June 12 Notice. WR-38 is a true and correct copy of the June 12 Notice addressed to BBID. WR-39 is a true and correct copy of the June 12 Notice issued to Banta-Carbona Irrigation District.

Par. 21
cont.

staff had determined that water was not available to serve the rights at the various priorities in the notices. Exhibit WR-40 is a true and correct copy of the July 15 Clarification.²

Par. 22

On September 17, 2015, due to changing conditions, the State Water Board staff issued a notice of water availability for diversion by pre-1914 water rights holders on the Sacramento River, Feather River, and the Delta (WR-43 is a true and correct copy). BBID's claimed pre-1914 right falls within the scope of the September 17, 2015, Notice. On November 2, 2015, the State Water Board staff issued a notice of temporary water availability for water right holders with pre-1927 rights for the Sacramento River and Sacramento-San Joaquin Delta (WR-44 is a true and correct copy). On November 6, 2015, the State Water Board staff issued a notice that water is available for diversion by all post-1914 water right holders in the Sacramento and San Joaquin River watersheds and the Sacramento-San Joaquin Delta (WR-45 is a true and correct copy). WSID's License 1381 is within the scope of the November 2 and November 6, 2015, Notices.

Supply and Demand Analysis

General Overview

Prior to issuing a notice of water unavailability during the 2014 and 2015 drought, Division staff determined the availability of water for water rights of varying priorities in various watersheds by comparing the current and projected available water supply with the total water right diversion demand.³ ~~The supply and demand analysis concept was developed in response to the 1977 drought, and is used to determine the necessity for issuing a notice of water unavailability compares the available natural water supply with the total water right demand by month for a given watershed. See WR-69, which is a true and correct copy of a graphical summary of a fictitious watershed having three priority of rights (riparian, pre-1914 and post-1914) with varying monthly demands plotted against a natural supply line. This graph, which was prepared in 1977, illustrates the concepts the Division used as a starting point for our analysis in 2014 and 2015. This type of graph summarizes all the water supplies and demands~~

Lack of foundation; Coats testified he made no decisions about how to conduct the analysis

Lack of foundation; speculation; Coats did not create the graph from 1977

² WR-41 is a true and correct copy of the July 15 Clarification issued to BBID. WR-42 is a true and correct copy of the July 15 Clarification issued to WSID.

³ This drought supply and demand analysis is often referred to as a "water availability analysis," and is referred to in that way at times in this statement. ~~It is important to note that the Division's supply and demand analysis during the 2014 and 2015 drought is fundamentally different from the site-specific "water availability analysis" prepared by the Division's Permitting unit in response to water right applications. The Permitting unit regularly conducts these water availability analyses, and Division staff and outside consultants are familiar with that process. To my knowledge, as described here, prior to 2014, no Division staff or outside consultant attempted to conduct a drought supply and demand "water availability analysis" since at least 1977.~~

Lack of foundation, speculation

Par. 23
cont.

for a given area and visually presents a comparison of the data for a particular timeframe. WR-69 comes from Division staff files dating back to 1977 and was prepared alongside a report called the 1977 Dry Year report (WR-152 is a true and correct copy of the 1977 Dry Year Report; WR-79 is a true and correct copy of the Dry Year Report Appendix). When the 2014 Drought effort was started in January 2014, I researched past materials in the Division's File Room and discovered the staff report folder along with the formal 1977 report and appendix.⁴ The 1977 report and appendix describe and recommend that the Division conduct a water supply and demand analysis to determine water availability during severe drought conditions. ~~Due to there not being a drought of this magnitude since 1977, the 1977 report was chosen as the appropriate starting point for the 2014 to 2015 analyses.⁵ However, as described here and in the Testimony of Jeffrey Yeazell, the Division adapted the supply-demand analysis to current conditions, and incorporated the best available information regarding supply and demand, while at the same time reacting to worsening drought conditions. The 2015 methodology is therefore an appropriate basis for supporting the water unavailability notices at issue in the BBID and WSID enforcement proceedings.~~

Speculation; Coats testified he made no decisions and did not work on the spreadsheets; lack of foundation

Coats cannot testify as to whether the approach was appropriate - the hearing officer will decide

Par. 24

~~As one would expect, water demand increases in the summer due to heavier irrigation uses and declines in the fall months after harvest. As for the supply, in the Sacramento-San Joaquin Valley, it builds from the winter into the spring with a peak occurring in early summer after any snow has melted. As illustrated on WR-69, once supply drops and intersects with a demand curve, those water rights above the supply, which correspond to those with the junior most priority, do not have enough water to supply their demand and are notified accordingly.~~

Lack of foundation

Par. 25

To begin the supply and demand analysis for a specific area, like the Sacramento - San Joaquin River Delta Watershed (where BBID's and WSID's points of diversion are located) we begin by looking at the available natural supply as reported by the California Department of Water Resources (DWR).

⁴ WR-69 was authored by Mert K. Lininger who was a program manager in the Division's Application section in 1977. WR-69 was in the 1977 file, but I located it after my deposition in these proceedings. WR-69 is included here for illustrative purposes, and did not form the foundation of the recent actions; the 1977 Dry Year Report provided that foundation.

⁵ Also included in the Division's files, and relevant to this drought, is a 1978 report by the California Department of Water Resources, titled "The 1976-1977 California Drought, A Review." WR-153 is a true and correct copy of this report. The State Water Board's February, 2015, Recommendations for Improving the Administration of the Water Rights Priority System in Dry Years (WR-154 is a true and correct copy) does not provide technical guidance for the 2015 water availability determinations, but the water availability determinations are consistent with that report's general goals.

Watershed Selection

Due to time constraints resulting from the urgency of the worsening drought conditions, Division staff in 2014 chose the watershed boundaries pertaining to the Sacramento River and San Joaquin River based on how they were defined in the 1977 Report. In the 1977 Report, the Sacramento River watershed boundary generally included the area upstream of Shasta along with the streams feeding the Sacramento River all the way down to the northern part of the Delta known as the Sacramento Delta. The San Joaquin River boundary, in 1977, was similarly mapped to include the remaining part of the Central and South Delta known as the San Joaquin Delta with the major tributaries of the Stanislaus, Merced, Tuolumne and San Joaquin serving as the boundaries.

Par. 26

For 2015, Division staff proposed an alternate boundary, with respect to how the Delta demand and supply was allocated, such that the entire Delta geographic boundary was included in both the Sacramento and San Joaquin watersheds, but the associated Delta water use demands were parsed subject to how much monthly supply came from the Sacramento or San Joaquin watershed. For example, if during one month the majority of natural supply entering the Delta came from the Sacramento River watershed, then the majority of total Delta demand, for that month, was allocated to the Sacramento River watershed. ~~Since the natural water supply entering the Delta varies by month, so too would the percentage of demand allocated to the Sacramento and San Joaquin River watersheds.~~

Par. 27

Lack of foundation, unqualified opinion

Par. 28

~~The rationale behind this “pro-rated” allocation of Delta demand is that since the Delta is hydraulically connected to both the Sacramento and San Joaquin Rivers, the Delta’s fresh water demands should be apportioned based on the percentage of fresh water entering the Delta; i.e., if 80% of the fresh water comes from the Sacramento River, 80% of the Delta’s demands should be assigned, for priority allocation determination, to the Sacramento River watershed. The disadvantage to this allocation method, in comparison to the 2014 and prior method, is that the Sacramento River watershed is assigned a greater percentage of the Delta’s demands since the majority of fresh water entering the Delta comes from the Sacramento River watershed.~~

Par. 29

In the case of WSID’s point of diversion, even though it is located in the southern Delta, the pro-rated Delta demand allocated to the Sacramento River watershed was so high, due to the meager fresh water supplies from the San Joaquin River, that WSID’s post-1914 unavailability notice for 2015 (the May 1 Notice) was based on the Sacramento watershed analysis. For BBID, the pre-1914 analysis leading up to the June 12, 2015 notice was based on the combined Sacramento and San Joaquin watershed. Ahead of the June 12 notice, the Division prepared a separate San Joaquin River watershed-only pre-1914 analysis, but this

Par. 29
cont.

would have resulted in much deeper and earlier cuts for pre-1914 claimants such as BBID. The Division also prepared a separate Sacramento River pre-1914 analyses using both a pro-rated and North Delta method. This analysis resulted in the same determination as the combined Sacramento and San Joaquin watershed analysis ultimately used for the June 12 Notice.

**Supply Data – DWR Bulletin 120, Exceedance Forecasts & Daily Full Natural Flows
- Background**

Par. 30

For the supply curve in each watershed, the State Water Board relies upon third-party full natural or unimpaired flow data supplied by DWR in its Bulletin 120 forecasts (see, e.g., WR-109, page 4, which includes a summary of the May 2015 B120 report that shows forecasts for the San Joaquin River; WR-63 is the full May 2015 B120 forecast). DWR publishes these reports every year from February to May where they forecast full natural flow with monthly updates (see the written testimony of Stephen E. Nemeth, WR-17). The B120 reports include full natural flow stations that provide the largest impact to the referenced river's supplies. For the May 1 Notice, which applies to WSID, being included within the pro-rated Sacramento River watershed analysis as described earlier, we looked at the Sacramento River at Bend Bridge, Feather River at Oroville, Yuba River at Smartville and the American River at Folsom Dam as the full natural flow stations used as supplies from the B120 report. For the June 12 Notice, which applies to BBID, since we used a combined Sacramento River and San Joaquin River watershed in the pre-1914 analysis, we added the Stanislaus, Tuolumne, Merced, Upper San Joaquin, Mokelumne and Consumnes River stations to compliment the Sacramento River sources. (See WR-11, Testimony of Jeff Yeazell.)

Par. 31

~~“Unimpaired Runoff” or “Full Natural Flow” represents the natural water production of a river basin, unaltered by upstream diversions, storage, or by export or import of water to or from other watersheds. The full natural flow amount is different than the measured stream flows at given measurement points because the gauged flows increase or decrease depending on upstream operations. For example, while a stream gage may report 50 cubic feet per second (cfs) of flow, the full natural flow upstream of that gage may be 100 cfs since an upstream neighbor is diverting the 50 cfs difference. The Bulletin 120 forecast provides a monthly, full natural flow, water supply probability table for certain watersheds. As there is uncertainty with predicting how much water will actually arrive at each location in the future, statistical probabilities in the form of exceedance percentages are provided which estimate, based on current snowpack data and historical trends, how much full natural or unimpaired water is predicted to be available upstream of the referenced location for the rest of the water year (water years run October 1 through the following September 30).~~

Lack of foundation, Coats has no specialized experience or expertise to testify re the FNF or DWR Bulletins

Par. 32

~~The exceedance percentage, which is listed as the header for each row in the B120 Table (see for example WR 109), is simply the percent of the time that the actual flow is expected to exceed the projected flow. For example, in WR 109, page 4, the first table is for the Stanislaus River below Goodwin Reservoir. Each row of the table is the exceedance forecast percentage with each column being the forecasted month's value in thousands of acre-feet.~~

Same as above

Par. 33

~~One thing immediately noticed is that for past months from October to April, the value is the same for each exceedance forecast and the reason is that there is no uncertainty in what happened for past months, what's done is done. Since WR 109, page 4, was prepared in early May, there was still uncertainty in how much rain would actually be produced going forward hence the different exceedance values for May through September. As the exceedance percentage forecast drops, say to 50%, the forecasted amounts increase since there is now a smaller chance (just 50%) that the actual flows will be higher. Division staff have used DWR's 50%, 90% and 99% monthly exceedance forecasts for its supply and demand analyses, together with DWR's daily full natural flow (FNF) data.~~

Same as above

Par. 34

~~Daily full natural flow data is a calculation, performed by DWR, which uses current stream gage values, known upstream diversions and reservoir data such as changes in storage and posted evaporation numbers, to arrive at the amount of available water for that day. Unlike the monthly B120 forecasts, which are based on actual historical data and current snowpack conditions, the daily FNF is, as the name suggests, a daily tracking tool we use to not only qualify the monthly B120 forecasts but also serves as a "backup" supply in the event the daily averaged monthly B120 forecast is less than the daily FNF. For example, let's say the monthly B120 forecast was 3,000 acre-feet for a particular 30-day month. On a daily basis, the 3,000 acre-feet monthly value works out to a daily averaged 100 acre-feet per day. If the daily FNF values are higher than the 100-acre-feet value, we will use them since a higher water supply is of more benefit to water right holders such as BBID or WSID. In other words, when determining the "supply" side of the supply and demand analysis, the Division makes every assumption conservatively in favor of a greater estimate of supply, which is in the favor of diverters because more supply means water will be available for diversions for a longer period of time.~~

Same as above, lack of foundation, unqualified opinion

Par. 35

~~DWR's daily full natural flow calculations are less accurate than the monthly exceedance calculations because they are based on less data than is available at the completion of each month. Due to the time lag between the effect of upstream operations and downstream flow measurements, calculated daily full natural flow fluctuates from day to day. You can view a daily full natural flow sample taken from DWR's website as WR 155, which shows the full natural flow values for the various stations in thousands of acre-feet.~~

Same as above

~~For example, using the “TLG” row within WR-155, this row of data represents the daily FNF values for each day above La Grange Dam on the Tuolumne River. The first column header is 15, which is for September 15th (since that is when that particular query was executed) with each successive column the next day afterwards. The value in the 15th column is 0.19 thousand of acre-feet, or 190 acre-feet. As I mentioned earlier, some of the daily FNF values are revised with most of any changes occurring to the most recent data which are the columns on the far right of the table. For the days where a “-” is displayed, no data has been posted, which I understand could be due, for example, to the local reservoir operator not supplying data.~~

Same as above

Par. 36

In its supply and demand analysis, in terms of analyzing the amount of water supply available for diversion, Division staff used a combination of DWR forecasted data supplied by the B120 along with the daily FNF data that has actually been measured. WR-47 is a graphical representation of this methodology at the time of the May 1, 2015 Notice, which applies to WSID. WR-48 is a graphical representation of this methodology at the time of the June 12, 2015, Notice, which applies to BBID.

Par. 37

Supply Data – DWR Bulletin 120, Exceedance Forecasts & Daily Full Natural Flows - Application

In the initial stages of a drought supply and demand analysis, the Division will chart the DWR-calculated daily full natural flow as a check against which DWR B120 exceedance forecast to use. For example, if the daily FNF is tracking very close to the 90% monthly supply forecast, we will use the 90% supply forecast as our estimate for analysis. On the other hand, if the daily FNF is tracking between the 90% and 50% forecast, we will use the 50% forecast to base our decisions on; in each case erring on the side of caution and of most benefit to water right holders.

Par. 38

In the case of the May 1, 2015 notice affecting WSID, Division staff chose the 50% and 90% forecasts from the four full natural flow stations in the Sacramento River watershed to use.

Par. 39

For the June 12, 2015 pre-1914 notice affecting BBID, we also included the San Joaquin and Eastside Streams to compliment the Sacramento supplies since the June 12, 2015 notice was a combined watershed analysis. In both cases, the supplies were totaled from February through May 2015 for both the 50% and 90% supply forecasts. Since DWR does not provide a 90% or 99% forecast for the smaller eastside streams entering the Delta (i.e. the Cosumnes and Mokelumne Rivers), the Division used DWR's 50% forecast amount to add to the total which is more generous and, again, provides more supply to the analysis which benefits diverters.

Par. 40

As we move into the late summer period, sometimes the B120 forecast will estimate

Par. 40 cont. zero flow, as was the case for the seven FNF stations in the global San Joaquin River watershed. Despite this, the DWR-calculated daily FNFs may still yield a small positive value.

Par. 41 For example, for the San Joaquin tributary analysis in the summer of 2015, the May 2015 B120 monthly forecast (WR-109, page 4) for the Stanislaus, Tuolumne and Merced Rivers in August and September was zero for the 50% through the 99% exceedance percentages. However, the daily FNF, while low, was above zero for some days so we used the daily FNF trend as a supply estimate. In WR-78, which is a supply and demand graph for the San Joaquin River prepared in August 2015, we see the blue daily FNF line above the B120 supply forecast for July and August (dark blue-50% and violet-90% hashed lines). Since the daily FNF is slightly positive, we used that daily FNF trend in our monitoring since higher supply is of most benefit to the water right holder; even a small positive supply is better than zero.

Par. 42 However, since recent daily FNF data is sometimes revised, any additional unavailability decisions would need to be based off a trend rather than recent data. Daily FNF can change quickly with these revisions. See WR-156 and WR-157, which are true and correct copies of recent supply and demand graphs of the Yuba River watershed, which show the change in the daily FNF over just 9 days. In these two graphs, we see the blue line which represents the daily FNF, smoothing out in the August month. For this reason, analysis decisions in the late summer for both unavailability determinations and potential long-term availability determinations (resulting in the release notices) are based on a daily FNF trend, however, if the B120 monthly forecast is zero, we exclude the recent 5-7 days worth of data that is often subject to revision.

Par. 43 As a check against supply forecasts provided by DWR, unimpaired flow forecasts provided by the California-Nevada River Forecast Center (a federal department under NOAA) under their website's Ensemble option (<http://www.cnrfc.noaa.gov/>) were referenced, from time-to-time, along with real time flow conditions using United States Geological Survey gages (<http://ca.water.usgs.gov/>) . The NOAA unimpaired flow forecasts, while representing different locations, were generally comparable in magnitude to DWR's.

Par. 44 Moreover, DWR continued to provide us with an updated, non-published, June 50% supply forecast (see WR-82, true and correct copy of an email from Sean DeGuzman dated June 8, 2015) in an effort to incorporate late season precipitation events. The June 50% supply update, while appreciated, did not appreciably alter the analysis leading to the June 12, 2015 decision to issue unavailability notices.

Par. 45 We also use the daily FNF values, which are calculated separately from the B120 monthly values, to verify that the B120 monthly forecasts are appropriate. As you can see in WR-52, which is an analysis from August, 2015, that incorporates the monthly values for June,

Par. 45
cont.

the combined Sacramento-San Joaquin graph shows a B120 forecast point for June and the daily FNF line above the B120 point for the first half of the month and below for the latter half of the month, averaging out close to the B120 value. ~~This showed us that DWR's monthly B120 forecasts were appropriate when issuing the water unavailability notices in April through June of 2015, including the May 1 and June 12 Notices.~~

Lack of foundation, improper opinion testimony

San Joaquin River & Delta Supply Supplements – Return Flows & Valley Floor Sources

Par. 46

~~Due to the lower elevations of some areas of the Delta, including some below the incoming tide, Delta diverters often pump lower quality water off of their parcel into the channel while at the same time diverting higher quality water from the channel onto their land. As a result, these diverters may use a smaller net quantity of fresh water, in comparison to the actual amount diverted, for irrigation. The Division attempted to address this occurrence by adjusting the supply and/or demand estimates within the Delta.~~

Par. 47

The Division met with San Joaquin and Delta stakeholders on May 12, 2015 (see WR-80, true and correct copy of a meeting invitation with Delta and San Joaquin stakeholder, including representatives from many of the parties in these actions) to discuss return flows and additional supply sources to be considered for the drought water supply and demand analysis. During that meeting, the stakeholders indicated that applying a 40% reduction to the reported irrigation demand for the Delta would be appropriate to address the actual net irrigation demand. The Division applied this 40% demand reduction by either increasing the available supply, through an adjustment, or by reducing the reported demand.

Par. 48

In addition to these Delta supplements, and following direction in the 1977 Dry Year Report, we added additional supply owing to return flows from the valley floor as specified in the 1977 report. Return flows are simply the excess flow not needed by the irrigated crop (also called irrigation runoff) that return to a stream system. Page 6 of the Appendix to the 1977 Drought report specifies varying percentages by month of return flow for the San Joaquin River watershed (see WR-79). ~~The 1977 Drought report did not allocate any return flows (see page 4 of WR 79) for the Sacramento River.~~

Best Evidence Rule, misstates the document

Par. 49

Lastly, as the full natural flows available to the Sacramento and San Joaquin River watersheds include the B120 stations mentioned earlier, additional supply was added for the other smaller tributaries. DWR's Bay Delta Office published a 2007 report titled, "California Central Valley – Unimpaired Flow Data" which was used to supplement the full natural flow supply for these areas (WR-76 is a true and correct copy of the 2007 report). The 2007 report provides full natural flows for a variety of water year types. Due to snowpack levels in 2015

Par. 49
cont.

being the lowest on record, Division staff opted to choose the 1977 full natural flow values for the excluded areas to best represent a 2015 estimate, since the 1977 snowpack was the next worse value relative to 2015. These excluded area supply values were added to the global Sacramento and San Joaquin River watersheds.

Watershed Supply Summary

Par. 50

Adding up the full natural flow station values (see WR-109, which includes the May B120 summary) with the additional return flow adjustments for the Delta and Valley Floor gives us a monthly total in acre-feet, which is converted into an average daily cubic feet per second for graphical purposes (at two or more exceedance levels). The purpose of converting the monthly total in acre-feet into a daily rate is so that the daily full natural flows can be charted on the same time step, i.e. an apples-to-apples comparison. For example, here is a summary table of the total supply used for the San Joaquin watershed in June. The first row is the total B120 supply forecast for the six FNF stations listed with the second row the expected return flows producing a total of 1,924 cfs for June. WR-78, which is the San Joaquin River watershed 8/19/2015 graph, shows the 1,924 cfs data point as the dark blue point labeled, “Adjusted 50% FNF Forecast” directly above the month of June, which begins the dark blue hashed line.

FNF FORECAST ADJUSTMENT (CFS)		
	June	Reference
CDEC 50% Exceedance FNF Forecast	1,462	Sum of GDW, LGR, EXC, MHB, TLG, and MIL
Return Flow	462	
Adjusted 50% Exceedance FNF Forecast	1,924	

Par. 51

Now that we have a basic understanding of the supply side, we can now move onto the demand side of the analysis.

Demand Data – 4-Year Average Demand & Informational Order Data

Par. 52

To analyze the demand data, the Division relied upon the water right users themselves, who are required to submit their actual monthly use online every 1-3 years, depending on the type of right. ~~The water right users are required to submit this information accurately and to the best of their knowledge, so this represents the best available demand data.~~

Lack of foundation; no evidence of what other demand data was available, unqualified opinion

Par. 53

Since riparian and pre-1914 users are on a 3-year reporting cycle, the most recent year’s demand was not available for all users (i.e. a third of the pre-1914 and riparian users had their 3-years of use ending in one year, the next third a year later and so on). For example, BBID’s 2010-2012 reported use is referenced in WR-85 through WR-87, but BBID will not need

Par. 53
cont.

to report its 2013-2015 use until 2016. Since only the 2010, 2011 and 2012 complete use reports have been submitted, we only have an estimate for future use using an above-average precipitation year (2010) and two average years (2011 and 2012) of which the three-year average may be underreporting actual use in a drought year (i.e. 2014 and 2015). Due to the drought urgency, the Division staff did not have time to refine the demand analysis to account for these staggered reporting dates during the 2014 analysis. But the Division staff implemented a slightly different analysis in 2015 to account for these differences.

Par. 54

During the 2014 drought, the Division used the most recent complete reported demand that was available. Due to the above triennial reporting, the Division only had a complete record of demand for all riparian and pre-1914 water rights for the 2010 year. Unfortunately, 2010 was an above average year for rainfall and not as reflective of a drought year demand.

Par. 55

For the 2015 drought, the Division used a four-year average (years 2010 to 2013 or whatever years in the 2010-2013 range that were available) demand to best represent projected demand for 2015. Since 2014 demand was not due until July 1, 2015, the four-year average demand did not include 2014.

Par. 56

Going a step further, the Division issued an Informational Order in February 2015 (WR-30) which required the top 90% of riparian and pre-1914 water users to provide their 2014 demand in advance of the July 1, 2015 due date as well as their projected 2015 demand by March 6, 2015. The Informational Order was issued to the largest water users in the Sacramento River, San Joaquin River and Sacramento-San Joaquin Delta, and also required monthly reporting of 2015 use, due early the month following any diversions, as a check against the use of their 2014 demand in our 2015 analysis.

Par. 57

In the demand calculation, for the recipients of the Informational Order, their four-year average demand was replaced by the reported 2014 demand. Those not subject to the Informational Order had their demand represented by the four-year average demand described above. For WSID, since they hold a license, Division staff used their 2010-2013 average demand. BBID, being a recipient of the Informational Order, submitted their 2014 and 2015 projected use along with supporting documentation of their pre-1914 claim of right. WR-88 includes a summary report, prepared in response to the Division's February 2015 Informational Order, of BBID's 2014 actual use by month with an estimate for their projected 2015 use. WR-89 is a service area map BBID provided to support their pre-1914 claim of right. The Division included BBID's Informational Order response along with all of the other responses received to adjust the projected 2015 demand data.

Par. 58

Including the Informational Order data, including the data submitted by BBID, resulted in decreased projected demand, which means more water was available for various water right classes for a longer period of time in 2015, as compared to what would have been available using the methodology employed in 2014. ~~This is another example of how the Division's drought water supply and demand analysis methodology in 2015 made every effort to err on the side of caution in favor of diverters.~~

Lack of foundation

Demand Data– Parties Claiming Both Riparian and Pre-1914 Water Rights

Par. 59

For water right holders in the Legal Delta boundary, where BBID's and WSID's points of diversion are located, claiming both a riparian and pre-1914 water right, special consideration was taken. For these holders, stakeholders representing their interests advised that in the event a pre-1914 notice of unavailability was issued, the holders claiming both would "roll over" their pre-1914 amount into the more senior priority riparian right. Provided there are no portions of the water right holders' land that would not qualify as riparian, this approach is allowed since the pre-1914 claim is redundant for direct diversion (i.e., no storage).

Par. 60

To address this possibility, Division staff assigned all reported demand as riparian for those that reported use under both a riparian and pre-1914 water right within the Delta. If Division staff had not taken this course, any demand savings under a pre-1914 unavailability notice may not have been realized since the water right holder would have routed that pre-1914 demand into their riparian priority to compensate.

Demand Data – Quality Control Check

Par. 61

AS described in the Testimony of Jeffrey Yeazell (WR-11), State Water Board staff performs quality control checks on the reported data by removing obvious errors, adjusting the data for excess reporting (i.e., correcting reported irrigation demand in excess of a generous 8 acre-feet/acre water duty, which is the worst case scenario water duty for rice), removing demand for power generation where no water is consumed, removing other nonconsumptive uses such as aquaculture, and making additional changes based on stakeholder comments.

Lack of foundation; no supporting evidence of preliminary facts

Par. 62

The Division posted its water right demand data on its website ~~and invited the public to comment on and correct the data.~~ The Division only received comments from MBK Engineers, a consulting firm for certain water right holders in the Sacramento and San Joaquin watersheds. MBK provided comments on the demand data, which included both the 2014 reported use data for the top 90% of watershed riparian and pre-1914 demand and the 2010 to 2013 four year average demand for the remaining diverters.

Treatment of Delta Demand – Pro-Rated Analysis

Par. 63

Since the Sacramento-San Joaquin Delta is hydraulically connected to both the

Par. 63
cont.

Sacramento and San Joaquin Rivers, and both the Sacramento and San Joaquin supply different amounts of water, ~~the fresh water demands of the Delta are complicated in a supply and demand analysis.~~

Lack of foundation

Par. 64

~~In 2014, the Division used the method adopted in 1977, where the area known as the North Delta had its demands assigned to the Sacramento River analysis, with the Central and South Delta's demands assigned to the San Joaquin River. The problem with this approach is apparent when the San Joaquin River does not supply enough fresh water to satisfy the Central and South Delta demand (as was the case in 2015). In this case, the Sacramento River, being the dominant source of fresh water to the Delta, must bear the burden of any demand not satisfied by the San Joaquin River fresh water supply.~~

Lack of foundation, improper opinion

Par. 65

~~To address this problem, Division staff opted to allocate a proportion of the total Delta demand to both the Sacramento and San Joaquin River analyses based on their respective supplies to the Delta. We proposed this approach in our meeting with San Joaquin River stakeholders on May 12, 2015 (WR-80) who embraced the concept as this would reduce their Delta demand allocation and allow them to divert for longer.~~

Lack of foundation, speculation

Par. 66

The pro-rated demand method totals the full natural flows from select stations in the Sacramento and San Joaquin watersheds and then applies a pro-rated monthly percentage of the Delta demand to that watershed. For example, if, for a given month, 10 units of full natural flow were projected in the Sacramento and 5 units for the San Joaquin River, for a total of 15 units, two-thirds (10/15) of the total Delta demand would be assigned to the Sacramento River analysis with the remaining third (5/15) allocated to the San Joaquin River analysis. As the 2015 summer months approached, less water was available from the San Joaquin River and consequently less Delta demand was assigned to the San Joaquin River analysis.

Par. 67

This pro-rated allocation of Delta demand was more equitable to the San Joaquin watershed than the 2014 allocation since the entire Central and South Delta demand greatly exceeded the small fraction of Delta demand assigned to the San Joaquin River watershed in 2015. For example, the estimated demand attributed to the San Joaquin Delta diverters in 2014 was about 70 percent of the total Delta demand for riparian and pre-1914 rights from May through September, so the 2015 analysis with a maximum of 17 percent attributed to the San Joaquin watershed is conservative for the San Joaquin watershed diverters. These prorated percentages change monthly based on the adjusted full natural flow projections provided by DWR's Bulletin 120 forecast.

Watershed Demand Summary

Par. 68

Using the reported demands for either 2014 for the informational order recipients or the

Par. 68
cont.

2010-2013 four-year average for all others, the State Water Board staff displays the demands graphically according to their respective priorities with the riparian rights at bottom, and the pre-1914 appropriative right demands added and depicted above the riparian demand since all the post-1914s were already advised they were curtailed. The monthly amounts are averaged into cubic feet per second for graphical purposes. WR-78 is the supply and demand analysis for the San Joaquin River watershed with the pro-rated Delta demand published to the Division's website on August 19, 2015. ~~As shown, after the June 12, 2015 unavailability notice was issued, the daily full natural flow dropped quickly into the riparian demand thus confirming, after the fact, the Division's June 12 decision.~~

Lack of foundation, unqualified opinion testimony

Bringing it all together – Supply and Demand Comparison

Par. 69

~~As you can see from WR-47, which is the April 29, 2015 graph showing conditions at the time of the May 1, 2015, Notice, there is insufficient supply to service all post-1914 water rights between the 90% and 99% forecast points (blue and violet dots) which are applicable with the daily FNF trending closer to the 99% forecast line. Looking hindsight at WR-54, which is an October 30, 2015 graph of the Sacramento River watershed with proportional Delta demand, we see that the daily FNF supply trended in the pre-1914 demand levels from May through August. Since the actual daily FNF supply beginning in May 2015 and continuing through August 2015 was not sufficient to satisfy all pre-1914 reported demands, this graph confirms that there was not enough natural flow to satisfy WSID's post-1914 demand from May 1 onwards.~~

Speculation, Lack of foundation, unqualified opinion testimony - the graph shows what the graph shows about data compiled - but cannot be assumed to be equivalent to actual conditions absent foundational fact and proper expert testimony

Par. 70

~~In the case of BBID, at the time the June 12 notice was issued, Division staff based its decision on the June 10, 2015 combined Sacramento/San Joaquin graph⁶ (WR-48) which showed the combined daily FNF trending downward at 11,000 cfs and the B120 monthly forecast total even lower at 9,000 cfs. Since the daily FNF was higher, we based our decision to issue the notices on the daily FNF supply trend, which was about 2,000 cfs less than the demand reported through the 1902 priority year. Looking hindsight, the Division's decision to issue pre-1914 notices at the 1903+ priority level on June 12th was appropriate, as seen in WR-52, which shows the same combined graph two months later. WR-52 shows the daily FNF dropping precipitously in mid-June into the riparian level of demand before July 1. The abrupt mid-June drop in daily FNF into the riparian demand area shows that there was not enough supply to satisfy the remaining pre-1903 water right demands; thus confirming no water was available for BBID's junior priority diversion from June 12 onwards.~~

Lack of foundation, speculation. Coats testified he made no decisions - he cannot now testify as to the basis for others decisions

⁶ Due to limited San Joaquin watershed supplies in comparison to the Sacramento River sources, the Division opted to include the San Joaquin watershed with the Sacramento in the analysis leading to the June 12 Notice, because a separate San Joaquin only analysis resulted in deeper cuts to pre-1914 users

Par. 71

~~A separate analysis (see WR-81) was performed after issuing the BBID ACL, which compared the upstream flow at Vernalis, as measured by a gage, to the pro-rated downstream senior Delta demand which included the 1902 and earlier pre-1914 and riparian users. The Vernalis gage is a location just upstream of the Delta where water quality requirements are often measured. The significance of the Vernalis gage is that it can confirm whether there is enough measured flow (which is different than the full natural flow since measured flow may include storage releases) at its location to satisfy remaining downstream pre-1903 water right demands, which are senior to BBID's priority.~~

Par. 72

~~In the WR-81 comparison, the Division used the same pro-rated percentage method of total Delta demand assigned to the San Joaquin watershed used in the April 23, 2015 notice and compared that demand with the available flow at Vernalis. This comparison shows that the measured flow at Vernalis was insufficient to service the pro-rated remaining senior demand for at least the June 13 through June 25 time period of the ACL Complaint. An additional demand line, seen as a red hashed line (on WR-81), was included in the comparison which displays the entire Central and South Delta demand (which was typically assigned to the San Joaquin watershed and used in the 2014 supply and demand analysis) vs. the substantially reduced pro-rated demand.~~

Lack of foundation; unqualified opinion testimony

Par. 73

~~This comparison shows that even under the best case scenario of using the smaller pro-rated Delta demand, the available flow at Vernalis was needed by downstream senior right holders (riparian and pre-1914 rights with a priority before 1902) and was not available for BBID's diversion during the June 13 through June 25 time period set forth in the ACLC. Moreover, this comparison also demonstrates that no water was available to serve WSID's License 1381 at any time after the May 1 Notice, until November 2015.~~

Water Unavailability Notice with Supporting Graphs

Par. 74

~~WR-36 and WR-83 are complete and accurate copies of the June 12th and June 16th notices sent to BBID. The notices are the same type of unavailability notices that are described above. The June 16th notice clarifies to the Delta Diverters' claiming both riparian right and pre-1914 appropriative right that only their pre-1914 right is affected by the notice. The notices are staff determinations only, and do not constitute a decision or order of the State Water Board or a determination that BBID or any other individual diverter has engaged in an unauthorized diversion of water under the Water Code. The notices do not constitute a determination of the validity of claims to divert water.~~

Best evidence rule, documents speak for themselves

Par. 75

~~WR-48 is the supply and demand analysis posted to the Division's website on June 12, 2015. As shown, as of mid-June 2015, both the daily full natural flow trend and B120 supply~~

Improper/unqualified opinion testimony

Par. 75
cont.

~~forecast for June support the water unavailability notices issued to those diverters with a 1903 and later priority date.~~ Similarly, with respect to WSID, Division staff prepared the same supply and demand analysis for the Sacramento River watershed which included the entire Delta (see WR-34, which is the May 1 Notice, and WR-47, which is the analysis graph supporting the May 1 Notice).

BBID ACL Complaint

Issuance of the ACL Complaint

Par. 76

As described in the testimony of Paul Wells (WR-15), BBID currently only has a single pre-1914 claim of right, Statement S021256, filed on June 30, 2010, for the diversion of water from the Intake Channel to the Banks Pumping Plant in Contra Costa County. The priority date for S021256 is May 18, 1914, as provided by material submitted in response to the Division's February 2015 Informational Order. On June 12, 2015, BBID was notified by mail and through a LYRIS email, to which Rick Gilmore, BBID's General Manager, is subscribed, of the notice of water unavailability which included statement S021256 (WR-107). BBID received this notice no later than June 15 (see WR-106 [BBID's June 15 response]), ~~but likely received it on June 12 with the LYRIS email.~~ *Speculation* Despite this notification, the Division received evidence of BBID's continued diversion, as monitored by the California Data Exchange Center (WR-90) and as discussed in various press publications (see, e.g., WR-10, for the June 13, 2015 to June 25, 2015 time period (see WR-90 and the testimony of Paul Wells, WR-15; ~~see also WR-103 [newspaper article from Thursday, June 25, noting that BBID only shut off its pumps in response to the June 12 Notice on Wednesday, June 24].~~ *Hearsay*

Par. 77

Enforcement Staff developed an ACL Complaint against BBID for the unauthorized diversion of water between June 13, 2015 and June 25, 2015. I reviewed and assisted in the development of the ACL Complaint and the penalty calculation methodology described therein. WR- 4 is a true and correct copy of the ACL Complaint issued to BBID on July 20, 2015. WR-5 is a true and correct copy of the certified mail return receipts indicating service to BBID. WR-6 is a true and correct copy of BBID's request for hearing.

Proposed Civil Liability Amount

Par. 78

Staff analyzed the evidence collected from CDEC and calculated the amount of water that had been allegedly unlawfully diverted by BBID (see written testimony of Paul Wells). To address the unauthorized diversion of water, the ACL Complaint proposes that BBID should be assessed an ACL in the amount of **\$1,553,250** for the unauthorized diversion of water from the Intake Channel to the Banks Pumping Plant based on a calculation that BBID diverted 2,067

acre-feet during the June 13 through June 25, 2015 period. The maximum ACL amount authorized by statute during a drought for an unauthorized diversion is \$1,000 for each day in which the trespass occurred plus a \$2,500 per acre-foot fine. The total potential fine set forth in the ACL Complaint for unlawful diversion of 2,067 acre-feet is \$5,180,500 (13 days at \$1,000 per day plus 2,067 acre-feet at \$2,500 per acre-foot).

Par. 78
cont.

Since issuing the ACL Complaint, the Division has received additional information regarding the BBID diversions during June 13 through 25, 2015. Specifically, BBID has supplied a response to the Prosecution Team's October 29, 2015, Subpoena, and Division staff has also continued to investigate the diversions. (See, Testimony of Paul Wells, WR-15.) Based on this new information, the Division has revised the proposed penalty to incorporate the revised calculation of diversion by BBID of 1,887 acre-feet from June 13 through June 24, 2015. Using this amount, the maximum potential liability is **\$4,729,500** (12 days @ \$1,000/day + 1,887 acre-feet at \$2,500/acre-foot using the same formula).⁷

Par. 79

~~In considering the appropriate amount for the ACL, Water Code section 1055.3 requires that the State Water Board consider all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the nature and persistence of the violation, the length of time over which the violation occurs, and any corrective action taken by the violator.~~

Par. 80

*Legal
Conclusion*

~~In this case, BBID has made unauthorized diversions of water from the Intake Channel to the Banks Pumping Plant (formerly Italian Slough) during the most extreme drought in decades, when there was insufficient water supply available for BBID's claimed water right. BBID was aware that the State Water Board had determined that there was insufficient water supply available for BBID's claimed water right. These unauthorized diversions likely reduced or threatened to reduce the amount of water available for downstream water right holders during an extreme drought emergency. Moreover, BBID's diversions likely reduced the water available for instream resources and riparian habitat within the Delta during an extreme drought emergency.~~

Par. 81

*Conclusory,
Speculation,
Lack of
Foundation*

While it is difficult to quantify for purposes of Water Code section 1055.3 the harm caused by BBID's unauthorized diversions in terms of actual or threatened reductions in water available for downstream water right holders, and it is similarly difficult to quantify any harm caused by the reduction of water available for instream resources and riparian habitat, it is possible to quantify BBID's economic advantage gained through its unlawful diversions. BBID

Par. 82

⁷ As described in the Testimony of Paul Wells, BBID submitted evidence indicating that its diversions ceased after June 24, and that the total diversions during the 12-day violations period may be 1829.1 af, although the evidence is not conclusive. Using this volume, the maximum potential liability would be **\$4,584,750** (12 days @ \$1,000/day + 1,829.1 acre-feet at \$2,500/acre-foot).

Par. 82
cont.

received an economic advantage over other legitimate water diverters in the area by foregoing the costs of buying replacement water during the violation period. ~~In this case, the cost of replacement water can be estimated using a June 10, 2015 statement by Mountain House CSD's General Manager (WR 100), as between \$250 and \$1,000 per acre-foot. At 1,887 acre-foot unlawfully diverted, and using the most conservative estimate of replacement cost of water (\$250/acre-foot), BBID's total avoided cost of purchased water is \$471,750.⁸~~ *Hearsay, lack of foundation, unqualified opinion*

Disincentive Factor

Par. 83

The cost of replacement water alone is not a sufficient basis for setting an ACL under Water Code section 1055.3, because penalties would not be higher than the cost of doing business and violators would have no incentive to comply with the law. Therefore, I determined that using a factor of 3 times the estimated economic benefit is appropriate under these circumstances, given the severity of the drought, the duration and public nature of BBID's violation, and the Division's goal of deterrence. Applying a disincentive factor of three to the replacement cost of water and adding in staff costs in preparing the ACL of \$3,000 brings the recommended ACL amount to **\$1,418,250**.⁹ Should the ACL go to hearing and litigated further, I recommend that all hearing-related expenses be added onto the total liability.

⁸ Using the lower diversion amount suggested by some of BBID's Subpoena response, the total avoided cost of purchased water would be **\$457,275** (\$250/acre-foot times 1,829.1 acre-feet).

⁹ Applying the same disincentive factor to the replacement cost described in the previous footnote, plus adding staff costs, would bring the recommended ACL amount to **\$1,374,825**.

TESTIMONY OF KATHY MROWKA

Par. 1 I have been an employee of the State Water Resources Control Board (State Water Board) for the past 29 years, and I am currently employed by the State Water Board. Since September 2014, I have been the Program Manager for the Enforcement Program in the State Water Board's Division of Water Rights. I am a Supervising Water Resources Control Engineer. A copy of my resume is Prosecution Team Exhibit WR-8.

Par. 2 As a Program Manager, I manage five units (there are normally four units, but the program has been temporarily expanded to five units to provide additional resources for drought response). The units which I manage are responsible for complaint inspections, compliance inspections, drought response, development of regulations, and other tasks, including enforcement actions. The drought response has included determination of adequacy of water supply to serve the various priorities of water rights in the Sacramento-San Joaquin Bay Delta watersheds. It has also included enhanced field presence, including inspections, to determine whether persons or entities have been diverting water after receiving notification from the State Water Board that there is inadequate water supply to serve their priority of right.

Par. 3 I directly supervise, among others, Paul Wells, Brian Coats, who supervises Jeffrey Yeazell, and Victor Vasquez, who supervises Kathryn Bare. My supervisor is the Assistant Deputy Director for Water Rights, John O'Hagan. During my tenure as Program Manager for Enforcement, I have supervised and been directly involved in the drought response activities described herein, as well as in the investigation and development of the enforcement actions against BBID and WSID. I am the Prosecution Team lead in both enforcement actions. In preparing this statement, I reviewed the relevant Enforcement files, and I conducted my own research into the issues discussed here. My testimony, herein provided, identifies my personal knowledge of the evidence, actions, and rationale for the Division's recommendation that the State Water Board issue an Administrative Civil Liability (ACL) Order against Byron Bethany Irrigation District (BBID) and a Cease and Desist Order (CDO) against West Side Irrigation District (WSID or West Side).

DROUGHT WATER AVAILABILITY SUPPLY AND DEMAND ANALYSIS

Par. 4 ~~The State Water Board has been vested by the Legislature with the authority to prevent unauthorized diversions and supervise the water right priority system. (See, e.g., Wat. Code, §§ 174, 186, 1050, 1051, 1051.5, 1052, 1825.)~~ In 2015, California was in the fourth year of drought, the worst drought in decades. Water year 2012 was categorized as below normal,

*Improper
Legal
Conclusion*

Par. 4
cont.

~~calendar year 2013 was the driest year in recorded history for many parts of California, water year 2014 was the third driest in the 119 years of record, and water year 2015 had the lowest snowpack on record. Governor Brown's January 17, 2014 Drought Emergency Proclamation ordered the State Water Board to "put water right holders throughout the state on notice that they may be directed to cease or reduce water diversions based on water shortages," which the State Water Board staff did on January 17, 2014. (WR-23, WR-24.) On April 25, 2014, Governor Brown issued a Proclamation of a Continued State of Emergency related to the drought, which finds that California's water supplies continue to be severely depleted. (WR-25.) On April 1, 2015, the Governor issued Executive Order B 29-15 (Executive Order) to strengthen the state's ability to manage water and habitat effectively in drought conditions. (WR-31.) The Executive Order confirms that the orders and Proclamations, April 25, 2014 Proclamation, and previous drought Executive Orders remain in full force and effect.~~

*Legal Conclusions;
documents speak
for themselves*

Par. 5

Drought management of water rights is necessary to ensure that water to which senior water right holders are entitled is actually available to them, which requires that some water remain in most streams to satisfy senior demands at the furthest downstream point of diversion of these senior water rights. The failure of junior diverters to cease diversion when no water is available under their priority or right has a direct, immediate impact on other diverters. ~~The Division's drought water supply and demand analyses, and the enforcement actions against BBID and WSID, are within the scope of the Board's authority and the Division's scope of work.~~ Although I was not Program Manager for the Enforcement unit during most of 2014 (Mr. O'Hagan served in that capacity then), I have become familiar with the supply and demand analyses conducted during that year. Along with my supervisor, John O'Hagan, I actively participated in the 2015 drought water availability staff determinations, and I am familiar with the supply and demand analyses as supervisor to Brian Coats and Jeffrey Yeazell. As part of my duties, I regularly interacted with members of the public and with the water rights community regarding the drought water availability analyses.

Legal Conclusion

Par. 6

~~I have reviewed the Testimony of Brian Coats (WR-9) and the Testimony of Jeffrey Yeazell (WR-11), and I concur with and incorporate herein their conclusions regarding the availability of water during the relevant periods. In my professional opinion, the 1977 Drought Report provides a conceptual template for a drought supply and demand analysis that is appropriate to make water availability determinations during drought emergencies. Fortunately, the Division staff did not need to perform such an analysis after 1977, until 2014. However, when faced with the significant drought emergency and extreme shortages of water, Division~~

*Improper opinion
testimony*

*Improper
opinion
testimony*

**Par. 6
cont.** ~~staff, particularly Mr. Coats and Mr. Yeazell, did an exemplary job in adapting the 1977 template to modern data processing capabilities using the best available supply and demand information, particularly given the urgent circumstances.~~ The drought water availability analysis methodology evolved from 2014 into 2015 as new and better information was gathered from a variety of sources, including the affected water community. This evolution continues, and the next time this methodology is needed, hopefully not for many years, it will likely be better than last time.

Par. 7 Based on the Division's drought water availability supply and demand analysis conducted by my staff prior to the State Water Board staff's May 1, 2015, Notice of Unavailability, there was no water was available under the priority of License 1381 as of May 1, 2015. The basis for determining that there was no water to serve post-1914 water rights at the priority of WSID's License 1381 is found in the testimony of Brian Coates (WR-9) and Jeff Yaezell (WR-11). The applicable periods of non-availability are: (a) May 27, 2014 (WR-26) through November 12, 2014 (WR-27), and (b) May 1, 2015 (WR-34) through November 2, 2015 (WR-44). ~~The May 1, 2015, Notice is based on an appropriate drought water availability analysis methodology and incorporates the best available supply and demand information.~~

*Conclusory,
improper
opinion
testimony*

Par. 8 Based on the Division's drought water availability supply and demand analysis conducted by my staff prior to the State Water Board staff's June 12, Notice of Unavailability, there was no water was available under the priority of BBID's claimed pre-1914 right as of June 12, 2015. The applicable periods of non-availability are June 12, 2015 (WR-36), until September 17, 2015 (WR-43). The basis for determining that there was no water to serve the priority of the water right during the alleged violation period is described in the testimony of Brian Coates (WR-9) and Jeff Yeazell (WR-11). ~~The June 12, 2015, Notice is based on an appropriate drought water availability analysis methodology and incorporates the best available supply and demand information.~~

*Conclusory,
improper opinion
testimony*

Par. 9 A note regarding the term "water availability analysis": The Division has used the term "water availability analysis" in 2014 and 2015 to describe the drought supply and demand analyses conducted leading to the various notices of unavailability of water, including the ones at issue in the BBID and WSID enforcement proceedings. The Division also uses the term "water availability analysis" to describe a site-specific water availability analysis conducted as part of the water rights permitting process. I worked in the Permitting unit for several years, and I am familiar with the permitting water availability analyses. Those analyses are relatively common, and many private water engineering consultants are familiar with them as well. But

Par. 9
cont.

the drought water availability analysis is fundamentally different – it is a supply and demand analysis methodology that can be used to determine whether water is available for various water right priority levels over entire watersheds or groups of watersheds during extreme drought emergencies. To my knowledge, until 2014, no Division staff or private consultants attempted this type of drought water availability analysis since at least 1977.

WEST SIDE IRRIGATION DISTRICT DRAFT CDO

Par. 10

My testimony describes the basis for issuing the Draft CDO, West Side's water right license, provides a description of the diversion works, describes the drainage works, and discusses the sources of water which West Side uses. My testimony also describes ongoing water supply issues, West Side's conveyance of a portion of its contract rights to City of Tracy (Tracy), and Tracy's wastewater discharges.

Rationale for Issuance of CDO

Par. 11

The draft CDO was issued because the Division obtained evidence demonstrating that West Side diverted or threatened to divert water during periods in 2015 when there was insufficient water to divert under the priority of License 1381. ~~Diversions when water is not available under the priority of the water right are unauthorized diversions, and actual or threatened unauthorized diversions are subject to cease and desist orders under Water Code section 1831.~~ I directly participated in the investigation into West Side's diversions and threatened diversions in 2015, and I supervised Enforcement staff in this investigation as well.

Legal Conclusion

Par. 12

~~I have reviewed the Testimony of Kathryn Bare (WR-13) and I concur with and incorporate herein her conclusions regarding the West Side's diversions during 2014 and 2015, and regarding West Side's threatened diversions.~~ As described in Ms. Bare's testimony, the Division began investigating WSID's potential threatened unauthorized discharges following a citizen complaint received in March, 2015. It became apparent from that investigation that West Side was diverting to at least some extent after the May 1, 2015, Notice of Unavailability (see, e.g., Testimony of John Collins, WR-19). In addition, West Side's attorneys provided a number of communications indicating that West Side would resume diversions during the unavailability period (see particularly WR-125 [July 7, 2015, letter from Jeanne Zolezzi to Tom Howard]).

Improper opinion testimony

Par. 13

This evidence indicated to me that West Side was either actually diverting, or threatening to divert treated wastewater produced by the City of Tracy and/or irrigation return flows, both of which could result in unauthorized diversions in light of the staff determination that no water was available for diversion under West Side's License 1381, as described in the May

Par. 13
cont.

1, 2015, Notice of Unavailability. After careful consideration, these reasons were found to be inadequate basis for continuing diversion (see below). Thus, a draft CDO was issued (WR-1).

Unauthorized Diversions in 2014 and 2015

Par. 14

~~Since the Draft CDO was issued, the Prosecution Team has obtained additional evidence indicating that West Side actually diverted water unlawfully in 2014 and 2015 during periods in which Division staff had determined that no water was available for West Side's License 1381. Based on the documents submitted by West Side in response to the Prosecution Team's October 29, 2015, Subpoena (see Testimony of Kathryn Bare, WR-13), unauthorized diversions actually occurred in 2014, under the Tracy Wastewater Agreement, and in 2015, as described below.~~

Improper conclusion on ultimate issue

Par. 15

~~Of particular relevance for the Draft CDO is the admission by West Side in its Subpoena response that it continued to divert water from May 1 through May 13, 2015, apparently under claim of License 1381, despite the State Water Board staff determinations described in the May 1, 2015, Unavailability Notice.~~ As shown in WR-13, West Side admits to diverting 735.51 acre-feet from the Old River over 13 consecutive days from May 1 to May 13, 2015. In addition, as shown in in WR-13, West Side also continued to divert water under Banta-Carbona Irrigation District's Statement 000495 for a time after the June 12, 2015, Notice, which described the State Water Board staff's determination that there was no water available for diversion by pre-1914 claimants at the level of priority of Banta-Carbona's claimed right.

Document speaks for itself, conclusory

Par. 16

~~Actual unauthorized diversions are a basis for cease and desist orders under Water Code section 1831, subdivision (d). West Side's history of actual unauthorized diversions in the face of Division drought unavailability notices during 2014 and 2015 indicates that West Side remains a threat to resume such unauthorized diversions should Division staff again determine that water is unavailable to serve West Side's License 1381.~~

Conclusory, improper opinion testimony

Threatened Unauthorized Diversions

Par. 17

West Side and the City of Tracy entered into a Wastewater Agreement in 2015 that was nearly identical to a 2014 Wastewater Agreement between them, yet the City of Tracy never sought or obtained the necessary wastewater change petition under Water Code section 1211, ~~and neither West Side nor Tracy had a valid right to divert the wastewater from the Old River during periods in which Division staff had determined that there was no water available to serve West Side's License 1381 (described below and in the Testimony of Kathryn Bare, WR-13).~~ The fact that West Side entered into wastewater agreements in 2014 and 2015 demonstrates

Improper legal conclusions

Par. 17
cont.

that West Side may attempt to enter into a similar agreement with Tracy or some other entity in future drought years.

Par. 18

~~Also, West Side claims to divert tailwater and groundwater accretions collected in its drainage system and discharged from the Bethany Drain into West Side's unregulated intake channel from the Old River. (See below and the Testimony of Kathryn Bare, WR 13.) However, the Division's investigation reveals that West Side does not appear to have the right to divert all of the water collected into the drainage system. Moreover, West Side does not appear to accurately measure the amount of discharge or the amount of diversions to ensure that West Side does not divert more water than is discharged at the Bethany Drain (see WR 13). Without accurately balancing discharges and diversions, West Side threatens to divert more water than it is entitled to divert from the Drain, which would result in the unauthorized diversion of water from the Old River during periods in which Division staff has determined that no water is available to serve West Side's License 1381.~~

Lack of foundation, duplicative

Revised Cease and Desist Order Terms

Par. 19

~~Accordingly, evidence indicates that, absent a CDO barring diversion when no water is available to serve License 1381, West Side will be a threat to again divert water unlawfully should similar low water supply conditions again occur or should the State Water Board staff again determine that no water is available to serve rights at the priority of License 1381. The original Draft CDO contains order terms based on the evidence as known at the time of issuance. Based on the facts as understood today, as described below and in WR 13, I recommend that the CDO order terms be revised as follows:~~

Conclusory, lack of foundation

~~**IT IS HEREBY ORDERED**, pursuant to sections 1831 through 1836 of the Water Code, that West Side Irrigation District immediately cease and desist the unauthorized diversion and threatened unauthorized diversion of water from Old River until:~~

- ~~1. City of Tracy Wastewater Diversions
 - ~~a. Either the City of Tracy or West Side Irrigation District can demonstrate a valid appropriative right under which the District may divert treated wastewater discharged by the City into Old River, and~~
 - ~~b. The State Water Board approves a wastewater change petition for the sale of treated wastewater discharged by the City of Tracy into Old River and diversion by West Side Irrigation District for use within the District's boundaries.~~~~
- ~~2. Intermingled Tail Water Diversions from Old River~~

Improper testimony, This is argument, not factual testimony

Par. 19
cont.

- a. ~~West Side Irrigation District installs measurement devices sufficient to ensure that tail water diversions are limited to the amount of tail water arising from irrigation on West Side Irrigation District's lands.~~
3. ~~Diversions under License 1381~~
 - a. ~~West Side Irrigation District shall cease all diversion under License 1381 during any period in which the State Water Board staff determines that there is insufficient water to support beneficial use at the priority of License 1381.~~
4. ~~Diversions under other Claim of Right~~
 - a. ~~West Side Irrigation District shall cease all diversion under any other claim of right (e.g., contract purchases from another district relying on the other district's pre 1914 right) during any period in which the State Water Board staff determines that there is insufficient water to support beneficial use at the priority of the claim of right.~~

WSID Supplies

License 1381

Par. 20 West Side holds water right License 1381, originally issued on September 28, 1933, and amended on August 19, 2010. License 1381 has a priority date of April 17, 1916, and authorizes the direct diversion of 82.5 cubic feet per second (cfs) from Old River in San Joaquin County from (1) about April 1 to October 31 of each year for irrigation, and (2) from April 1 to October 31 of each year for municipal, domestic and industrial uses. The maximum amount diverted under License 1381 shall not exceed 27,000 acre-feet per annum (afa). (WR-112.) The District's annual Report of Licensee for the years 2007 through 2013 indicate that it diverted an average of 22,543 afa during that period. (WR-115 through 121.)

Par. 21 Order WR 2010-0012-EXEC, an Order approving settlement agreement and partial revocation of License 1381 (reflected in the quantities listed above), describes ongoing water supply constraints. (WR-174, at p. 1-2, 3 [true and correct].) The following statement is incorporated in the settlement agreement:

On September 7, 2004, Licensee informed the Division that it has experienced low water levels in Old River, particularly in the spring months, for several years, which have inhibited its pumping capacity. Licensee did not identify which years had low water levels.

(WR-174, p. 2.)

Par. 22 The annual Reports of Licensee (all reports up to and including the 2014 report) do not claim use of reclaimed water from a wastewater treatment facility, nor do the reports claim use

Par. 22 cont. of groundwater in lieu of available surface water authorized under the license. (WR-115 through WR-122.)

Other Basis of Right

Par. 23 West Side does not hold or claim any other appropriative or riparian water rights on file with the Division of Water Rights.

Restrictions on Water Sources

Par. 24 West Side has indicated that its existing water sources, Old River water and U.S. Bureau of Reclamation (Reclamation) contract, have restrictions. The Old River restriction is low water and poor quality. The cause of the restriction is listed as federal and state pumping and low tides. This has had the effect on operations of being unable to meet demands. (WR-159, p.5 [true and correct].) The restriction on the contract supply is a regulatory constraint.

Historic Diversion Pattern

Par. 25 West Side was organized on October 25, 1915. (WR-163 [true and correct].) When originally formed in 1916, West Side included 11,993 acres of agricultural land. Due to the urbanization surrounding the City of Tracy, approximately 5,800 acres have changed from agricultural to urban uses and have detached from the district, which is now comprised of 6,161 acres. (WR-164 [true and correct].) Total irrigated acreage in 2009 was 5,722 acres. (WR-159, p. 3.)

Par. 26 The West Side diversion facilities are described as follows:

West Side diverts water from Old River through an intake canal about 1.5 miles long. Water moves very slowly in the flat gradient channel which is affected by tides of about 4 feet. The channel is from 4 feet to 8 feet deep depending on tides. Quality of water is poor; 800 to 1,000 T.D.S. The intake canal has been dredged due to bank sloughing and widened over the years. The estimated capacity is about 280 cubic feet per second (cfs). The pumping plant consists of 9 pumps. Water from 4 of the pumps is discharged into the lower main canal which has an estimated capacity of 157 cfs. It is about 10 miles in total length with sub laterals and return flow pipelines throughout the district. Canals and ditches are partially concrete lined. The Upper Main Canal estimated capacity is 218 cfs. It is served by 5 pumps.

Tail water and return flows from upstream Byron-Bethany Irrigation District (BBID) and Plainview Water District contribute up to 20% of their excess. Large quantities of water are required for pre-irrigation prior to planting, leaching of salts and excess required to reach ends of rows of furrow irrigated crops. Return flows are diverted back into the district canals where they are diluted with better quality water for re-use. The tail water return flows are included in the quantities reported on the Report of Licensee. Also included is the water pumped from a 100 hp pump on a deep well located within Section 5, near the southern district boundary. Capacity of the well is 7 cfs. It is used only upon

Par. 26
cont.

demand due to high pumping cost. Pumping and diversion facilities are about the same as licensed in 1933.

(WR-162 [true and correct].)

West Side's facilities were further described in an undated 1987 letter from West Side to

the Division:

Not all of our pumps draft from Old River. The district also operates a well with a 100 H.P. pump discharging into the upper main canal and a well with a 125 H.P. pump discharging into the lower main canal. In addition, the main intake pumps draft water from sources other than Old River. The district's drainage system discharges into the intake canal about 350 yards upstream from the pumping plant, a point which is approximately 0.8 of a canal mile away from Old River. This drain carries not only tail water generated by irrigation within district boundaries but also drain water from neighboring districts such as BBID, Plainview Water District and Banta Carbona Irrigation District (BCID) which are upslope from our service area. In addition our system carries cooling water from the Heinz cannery and flows from both the Tracy Defense Depot and a portion of the City of Tracy's storm water drainage. Some of the city's system is encased in gravel and acts in a fashion similar to a sub-surface agricultural drain in areas with flows year round rather than during storms only. The district re-uses this drain water rather than returning it to the river.

(WR-161 [true and correct].)

~~On October 15, 1987, the Division responded to the undated 1987 correspondence, stating the following:~~

~~According to your February 1987 letter, you are using water from two deep wells, the Tracy storm drain, return flow from three neighboring districts, Tracy Defense Depot drain water and cooling water from the Heinz Cannery all of which has in the past been reported as use under License 1381. This is confusing to say the least. Some of these sources appear to be new surface water which may require the District to file one or more new water right applications or establish some other basis of right to use.~~

*Improper
hearsay*

~~(WR-178 [true and correct].)~~

~~A series of letters between West Side and the Division regarding use of intermingled surface flows is summarized in the Division's September 21, 1998 letter, as follows:~~

~~West Side's June 4, 1992 letter states the water it diverts is intermingled surface flows, contract water from the State Water Project¹, return water from upstream water agencies, treated effluent (wastewater), groundwater, and West Side's own return flows. Our (the Division's) July 27, 1992 letter addressed the use of return flows and treated wastewater that you consider as supplemental water. If this water is abandoned and released into the channel by the upstream entities, this water becomes subject to appropriation. West Side can divert the water under the conditions of License 1381. The exception is when the upstream entity has contractual arrangement with the downstream user(s). If this is the situation, please provide copies of the agreements. If~~

*Improper
hearsay*

¹ This reference appears incorrect. West Side is a Central Valley Project contractor.

Par. 29
cont.

~~not, you may need to file a new application to appropriate water taken in excess of that allowed under License 1381.~~

~~(WR- 177 [true and correct])~~

Par. 30

On April 28, 2004, West Side indicated that it previously used recycled water (under contract) from canneries. (WR- 173 [true and correct].) These sources are apparently no longer available.

Par. 31

In 2009, West Side confirmed that it only delivers surface water, no groundwater sources are used. (WR-159.) To date, West Side has not installed any deep wells due to the depth of the water table in the area, plus water quality has kept farm units from installing any wells of their own. (WR-159, p. 18.) In 2008, West Side charged \$14/af for lands within its boundaries; \$25/af for lands that have detached from West Side; \$75/af for lands that have never been within West Side boundaries; and \$200/af for municipal and industrial water. (WR-159, p. 78.)

WSID Drainage System

Par. 32

~~West Side provides drainage services to lands inside the district as well as lands outside and upslope of the district boundaries. The drainage water (tailwater) from the lands outside and upslope of West Side is being discharged into district's Upper Main Canal (UMC), which conveys irrigation water to the lands within West Side that are served by that facility. The lands that are served by the UMC discharge their drain water (tailwater) into the Lower Main Canal (LMC). The lands served by the LMC discharge their drain water into West Side's drainage system. The drainage system was constructed as a multi-purpose system that receives both tailwater and sub-surface drainage. (WR 159, p. 31.)~~

Lack of foundation, vague as to time period, relevance

Par. 33

In 2009, West Side estimated the quantity of upslope drain water (water entering the district from lands outside and upslope of the district which was being discharged into the UMC) to be 2,500 af. (WR-159, pp. 3, 13, 18.) This 2,500 af cannot be claimed as use under License 1381. The water is used from the upper canal system prior to entering Old River (the source for License 1381). Inasmuch as the water originated outside the district, it cannot be accounted for as return flows from within the district.

Par. 34

In 2009, the irrigation drainage from the service area (in-district surface return flows) was estimated to be 40 to 100 af. Tailwater spill at the lower end of the system was estimated to be 50 to 100 af, with the quantity recovered and reused estimated to be 40 to 80 af. (WR-159, pp. 3, 13, 18.)

Par. 35

~~Only the 40 to 80 af which originated as in-district surface return flows that were recovered may be claimed as having been retained within the district for re-use. In 2014, West Side diverted as follows: March 1,819 af; April 1,859 af; May 3,073 af; and June 1,350 af. (WR-122.) Total 2014 diversion was 8,102 af. (WR-122.) The 2015 reporting form is not yet due. By comparing the 2014 reported use to in-district surface return flows, it is apparent that that West Side's claimed diversions of return flows far exceeded return flows generated within the district.~~

Lack of foundation, legal conclusion

Par. 36

~~In addition to the estimated tailwater spill of 50 to 100 af, the West Side Main Drain contains water from the City. Tracy has two separate outfalls for storm runoff generated within the Westside Channel Watershed². The City and West Side have entered into drainage agreements that have authorized discharges of City storm runoff into West Side facilities and West Side water into City facilities. The 2002 Drainage Agreement authorizes the City to discharge a maximum rate of 145 cfs into the West Side Main Drain. The West Side Main Drain is a tailwater ditch that conveys irrigation tailwater and urban runoff from designated portions of the City and conveys it to the West Side intake area connecting to Old River at Wicklund Road. (WR 192, pp. 1.15, 2.4 [true and correct].)~~

Relevance - no foundation as to time period for drainage relevance to this action

Par. 37

~~Exhibit WR-165 is true and correct copy of a map prepared by Kathryn Bare at my direction which shows that tailwater from outside of the West Side district boundaries contributes flow to both the West Side Intake Canal and Old River. Exhibit WR 165 links physical locations along the drainage system to Google earth images showing the flows in the drainage system and drainage facilities. This map shows that in August of 2015, there was flow in the canal, and that flow came from areas outside of the West Side district boundaries. (WR-165.) As documented in the section "Sources of Water Treated at City Wastewater Plant", the Tracy water is foreign water. Insofar as this flow enters Old River, or commingles with Old River flows in the West Side Intake Canal, diversion of the flow must occur under valid appropriative right.~~

Lack of foundation, misstates document, map can't show flow. Lack of foundation, Legal Conclusion

Water in West Side Intake Canal

Par. 38

~~The water in the West Side Intake Canal consists of Old River water, and any irrigation return water collected in the Main Drain. The District's Main Drain collects irrigation return water from District landowners (40 to 100 af), irrigation return water from lands upslope and outside~~

Speculation, Lack of Foundation Relevance, no reference to current time period for information

² The Westside Channel Watershed is 12.9 square miles in overall area. It encompasses roughly the west half of the developed area for the City, plus additional undeveloped areas. The West Side Main Drain serves a roughly 2-square mile portion of the overall watershed and there is the DET 10/11 with its pump station and force main (extending to Old River to the north) that has the capacity to serve the remaining majority of the overall watershed. (WR-192, p. 2.3 [true and correct].)

Par. 38
cont.

~~the District's boundaries, and municipal drainage from lands within the City of Tracy, and discharges that return water directly into the District's Intake Canal approximately 1,200 feet upstream from the District's pumping station, and approximately 4,500 feet downstream from the Intake Canal opening to Old River. Old River flow includes treated wastewater discharged from the Tracy wastewater facility, return flows from Tracy (at Tracy's Old River discharge location), and native river water. Thus, water drawn into the Intake Canal by West Side's pumps is commingled flows. Unappropriated water flowing in artificial channels may be appropriated the same as water flowing in natural channels. (State Water Board Decisions D-878 [WR 194] and D-1241 [WR 195].) Thus, commingled flows in the Intake Canal are subject to appropriation. West Side apparently does not precisely measure the volume or rate of discharge from Main Drain into the District's Intake Canal.~~

Speculation, Lack of Foundation, Legal Conclusion

WSID Water Quality

Par. 39

West Side has previously indicated that surface drainage water quality limits the usefulness of this water source. (WR-159, pp. 11, 13, 14.) In 2009, the surface water concentration ranged from 500 – 800 mg/l; with an average of 700 mg/l. The TDS for surface water was 100 – 400 ppm. Tailwater quality was 800 to 900 TDS, with an average of 850. The TDS was noted as a usage limitation associated with drainage water, requiring blending with water obtained under contract with Reclamation to reduce the high TDS. (WR-159, pp. 11, 13, 14.) These problems are exacerbated by drought conditions.

WSID Water Source – Old River vs Tidal Flows

Right Issued to Divert Old River Flows:

Par. 40

In connection with West Side's original application for a water right, a protest was filed by East Contra Costa Irrigation Company on the basis of potential injury to East Contra Costa Irrigation Company (Protestant). The protest was addressed by the State Water Commission³ (Commission), which determined that there was an ample supply for both projects. The Commission's letter states: "it was explained that the protest of the East Contra Costa Irrigation Company had been filed so that there would be no question as to its priority...In view of the above the Commission has approved the application of the West Side Irrigation District with the usual condition prescribed by statute, that such approval is subject to all existing rights." (WR-175 [true and correct].) Such review, analysis and conclusions would not be required for diversion of unconstrained Delta tidal flows, since such flows would not be depleted by diversion

³ The State Water Commission was predecessor agency to the State Water Board.

Par. 40
cont.

with resultant diminishment of supply to Protestant. Only diversions from Old River (the identified source in West Sides' Application) would result in diminished supply. The Commission confirmed in its 1917 letter that it had approved the application to appropriate the waters of Old River. (WR-176 [true and correct].) Thus, I conclude that only the waters of Old River, and not Delta tidal flows, were considered in determining whether to issue a permit leading to License 1381 (Application 000301).

Par. 41

~~Lending weight to this determination is the reasonable use doctrine. The State Water Board has continuing authority under Water Code sections 100 and 275 to enforce the requirements of the California Constitution, Article X, § 2, which directs that the water resources of the state be put to beneficial use to the fullest extent, and that water not be wasted or unreasonably used. (Wat. Code, § 100, 275; Cal. Const., art. X, § 2.) It further provides that rights to the use of water are limited to such water as is reasonably required for the beneficial use served, and does not extend to the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of the water. The reasonable use doctrine applies to the diversion and use of both surface water and groundwater, and it applies irrespective of the type of water right held by the diverter or user. (Peabody v. Vallojo (1935) 2 Cal.2d 351, 366-367.) What constitutes an unreasonable use, method of use, or method of diversion depends on the facts and circumstances of each case. (People ex rel. State Water Resources Control Board v. Forni (1976) 54 Cal.App.3d 743, 750.) Under the reasonable use doctrine, water right holders may be required to endure some inconvenience or to incur reasonable expenses. (Id. at pp. 751-752.)~~

Improper and unqualified legal opinion

Par. 42

~~Assignment of Old River flows to the permit on West Sides' application, and not tidal waters, is consistent with the reasonable use doctrine. Requiring West Side to use lower quality tidal waters when fresher, higher quality Old River water was available would have been inconsistent with the reasonable use doctrine. Inasmuch as the point of diversion is subject to tidal influence, the right holder was subject to some expense or inconvenience associated with the approximate 4 foot change in water height associated with the tides and resultant fluctuations in water quality.~~

Same as above

City of Tracy Wastewater Facility

Par. 43

The City operates a wastewater treatment plant and discharges treated wastewater effluent to Old River, a water of the United States, pursuant to Order R5-2012-0115 (WR-184.) The City discharges approximately 9 million gallons per day ("mgd"), which is equivalent to 14

Par. 43
cont.

cfs, on a substantially continuous basis into Old River upstream from the District's point of diversion under License 1381. (See Testimony of Kathryn Bare, WR-13.)

Tracy Sources of Water

Par. 44

The City obtains water supplies from the following sources:

- 11,120 acre feet of water per year (afa) of South San Joaquin Irrigation District (SSJID) pre-1914 Stanislaus River water, coupled with an agreement with Reclamation to store water in New Melones Reservoir;
- Reclamation contract water as follows:
 - 5,000 af of Ag water assigned from the Banta Carbona Irrigation District/Reclamation contract to Tracy in 2004,
 - 5,000 af of Ag water assigned from the West Side/Reclamation contract (2,500 af assigned on February 27, 2004 and 2,500 assigned in December 2013) to Tracy
 - 10,000 af of M&I water under City/Reclamation contract delivered from the Delta-Mendota Canal;
 - 630 afa of Byron Bethany Irrigation District (BBID) Reclamation contract water assigned to Tracy in 1991 (water obtained from Plain View Water District (PVWD) contract, but PVWD has been incorporated into BBID);
- 2,430 af of BBID pre-1914 water pursuant to April 2014 Exchange Agreement between BBID and Reclamation;
- Extraction from nine groundwater wells totaling 930 af in 2013.

(WR-193, pp. 24 – 27, 34, 37, 38 [true and correct].)

Par. 45

These water supplies are used to serve City customers, with the return water from municipal use eventually being treated at the wastewater plant. Insofar as these water supplies are used for irrigation and any runoff enters the ditch system, such runoff is foreign in source and/or time to the Old River flow. Similarly, the City's treated wastewater discharges are foreign in source and/or foreign in time to the Old River flow. ~~Use of foreign waters is contingent on having valid appropriative right.~~ *Legal Conclusion*

Par. 46

To clarify the sources of water treated at the wastewater facility, I note that the City's NPDES permit allows the treatment plant to accept wastewater from the City and up to 850,000 gallons per day, equivalent to about 1.3 cfs, from the Leprino Foods Company. The City serves as water supplier to Leprino Foods Company. Therefore, the City's treated wastewater

Par. 46
cont.

discharges identified in the NPDES permit are foreign in source and/or foreign in time to the Old River flows. (WR-184.)

Disposition of Treated Wastewater

Par. 47

In 2009, West Side did not have any recycled water available to it. (WR-159, p. 17.) Until 2014, the City abandoned the wastewater treatment plant discharge to Old River. The Testimony of Kathryn Bare (WR-13) describes the Wastewater Revocable License Agreements between the City of Tracy and West Side during 2014 and 2015; that testimony is incorporated by reference as if restated here. As described in WR-13, WSID diverted approximately 1,287 acre-feet of Tracy's wastewater discharges pursuant to the 2014 Agreement. The City and WSID adopted a similar agreement in 2015, although that Agreement was terminated by the City prior to commencement (see WR-13), as a result of discussions with the Division.

Authorizations Needed to Use Treated Wastewater

Par. 48

~~Either the City of Tracy or West Side must have a valid appropriative right in order to divert from a downstream location treated wastewater discharged into Old River. (See Water Rights Decision 1638 [WR 208].) Diversion of foreign waters must be accomplished under an appropriative right. West Side cannot rely on License 1381 to divert Tracy's wastewater flows during periods in which the State Water Board staff has determined that no water is available under License 1381.~~

Legal Conclusion

Par. 49

~~In addition, a wastewater change petition is required for the change in point of diversion and place of use of discharged treated wastewater. Until the 2014 and 2015 Agreements, the City of Tracy abandoned its wastewater flows into the Old River, where they were available for diversion by West Side during periods when water is available for diversion under License 1381. However, the 2014 and 2015 Agreements represent a change in place and purpose of use of Tracy's wastewater, and diversion of such flows at the West Side facility commensurately reduces instream flows, triggering the need for a wastewater change petition. (Wat. Code § 1211.) The City of Tracy must first file a wastewater change petition and obtain the State Water Board's approval before allowing West Side to divert water under the 2014 or 2015 Wastewater Agreements.~~

Legal Conclusion

*Lack of foundation,
legal conclusion*

BYRON-BETHANY IRRIGATION DISTRICT ACL COMPLAINT

Par. 50

This section of my testimony discusses the rationale for issuance of the ACL Complaint, BBID's claimed pre-1914 appropriative right, water which BBID contracts for, sells, and uses, and the recommended ACL penalty amount.

Rationale for Issuing the ACL Complaint

Par. 51

The BBID ACL Complaint was issued because the Prosecution Team gathered evidence beginning in June, 2015, indicating that BBID diverted water after June 12, 2015, during a period when there was insufficient water to divert under the priority of BBID's pre-1914 right. This evidence includes public statements by BBID representatives, such as a June 25, 2015, article in SFGate.com (apparently an online affiliate of the San Francisco Chronicle) noting that BBID had only shut off its pumps on Wednesday, June 24, and quoting BBID general manager as stating that the resumption of pumping was "a possibility." (WR-103.) Based on this and similar statements, I directed staff to review BBID's CDEC diversion records, which indicated that BBID had diverted for several days after the June 12 Notice at rates generally similar to its diversions before the June 12 Notice. (See Testimony of Paul Wells, WR-15.) ~~Diversions when water is not available under the claimed priority of the water right are unauthorized diversions under Water Code section 1052.~~

*Legal
Conclusion*

Par. 52

~~The fact that the Division was conducting this type of supply and demand analysis in anticipation of notices of water unavailability that might reach claimed pre-1914 water rights was well known among the water rights community, including to BBID.~~ In April 2014, the State Water Board began posting information regarding lack of water availability and anticipated supply shortfalls for watercourses in several watersheds. The analyses for the Sacramento-San Joaquin Rivers and Scott River watersheds continued to be updated and announced publicly through 2015. In addition, on May 21, 2015, Daniel Kelly, attorney for BBID, sent an email to myself and others on behalf of BBID describing a meeting which he and I both attended, and proposing that BBID would voluntarily reduce diversions by 25% to avoid curtailments.⁴ (WR-172 is true and correct.) BBID received notification on June 12, 2015 (exhibits WR-36 through 38, and 107) that there was no water available to divert, but chose to continue its diversions at rates generally similar to before the June 12 Notice. Thus, the Prosecution Team issued the ACL Complaint.

Speculation

Par. 53

~~I have reviewed the Testimony of Paul Wells (WR-15) and I concur with and incorporate herein his conclusions regarding BBID's diversions during the period June 13 through 24, 2015. As described in Mr. Wells' testimony, BBID diverted approximately 1,887 acre-feet during that period, without a basis of right.~~

*Lack of
foundation,
duplicative*

⁴ This same email describes how BBID self-reports its daily diversions to the Department of Water Resources for posting to the internet.

BBID's Claimed Pre-1914 Right

Par. 54

In preparation for this witness statement, I reviewed Division files and other available records to examine the scope and extent of BBID's claimed pre-1914 right. The claimed pre-1914 water right of BBID is recorded in Statement 21256 (WR-84). The Statement lists the capacity of the diversion works as 350 cubic feet per second (cfs). The Initial Statement, filed in 2010, lists diversion of 26,179 acre-feet (af). It also lists the maximum annual water use in recent years as 50,000 af, and the minimum as 30,000 af. The Initial Statement indicates that diversion occurs during all months of the year, and identifies the year of first use as 1917.

Par. 55

As part of this matter, I reviewed additional documents relating to BBID's development and early water use. On May 18, 1914, Byron-Bethany Irrigation Company, predecessor to BBID, filed a Notice of Appropriation of Water. The notice was for use of 40,000 miner's inches measured under a 4-inch pressure. (Exhibit WR-196 at Appendix A [true and correct].) The point of diversion was a point where the west bank of Old River intersected the south bank of a branch or channel making south from said Old River and designated as Italian Slough. 40,000 miner's inches are equivalent to 1,000 cfs.⁵ During 1915-16, the Byron-Bethany irrigation project was initiated. The original company pursuing the irrigation project was organized during 1915-16, and commenced to run water through the ditches in May, 1917. (Exhibit WR-179 [true and correct].)

BBID's Pre-1914 Right Transfers and Exchanges

Par. 56

BBID has, at various times, sold some of its claimed pre-1914 water to other entities. For example, in April 2012, BBID entered an agreement with Westlands Water District to deliver up to 5,000 acre-feet per year under its claimed pre-1914 right. (Exhibit WR-191, WR-197 [true and correct].) In April 2014, BBID and Reclamation entered into a draft contract for exchange of up to 4,725 acre-feet per year to for the Tracy Hills Water Supply Project. (Exhibit WR-198, WR-199 [true and correct].) BBID contracts to provide 9,413 afa of its pre-1914 water supply to the Mountain House Project Area for Municipal and Industrial (M&I) purposes. (Exhibit -196, p. 4 [true and correct].) The water is diverted from a separate pump near the BBID pump on the Banks Intake Channel.

Par. 57

Despite these various agreements to provide water to other entities, there is no evidence indicating whether BBID or any other entity diverted water under BBID's claimed pre-1914 appropriative right in order to satisfy these agreements during the alleged violation period. The

⁵ [www.convertunits.com/from/miner's+inch+\[AZ,+CA,+OR\]/to/cubic+feet+per+second](http://www.convertunits.com/from/miner's+inch+[AZ,+CA,+OR]/to/cubic+feet+per+second)

Par 57
cont.

available evidence indicates that BBID's diversions during the alleged violations period were solely for its own irrigation purposes. (See WR-98 [BBID's Informational Order response for June 2015].)

Other BBID Water Supplies

Par. 58

BBID has apparently entered into contracts to secure additional drought water supply. BBID contracted with Contra Costa Water District (Contra Costa) for a short-term water transfer of up to 4,000 af. (Exhibit WR-200, p. 1 [true and correct]) However, it appears that no transfer water was made available to BBID until August 4 to 7, and again on August 23 through 30, 2015. The total volume transferred was 240 af in 2015. (Exhibits WR-201, WR-202, WR-203, WR-204 [true and correct].) BBID has a long-term Central Valley Project contract with Reclamation (Exhibit WR-205 [true and correct].) However, in 2015, Reclamation provided zero water for agricultural use under this contract. (Exhibit WR-206, p. 3 [true and correct].) BBID banks water in San Luis Reservoir for summer water supply. In 2015, BBID was notified that there wouldn't be enough water in the DMC to obtain the San Luis Reservoir water. (Exhibit WR-207 [true and correct].)

Par. 59

In summary, there is no available evidence indicating that BBID may have had alternate supplies to explain the diversions during the alleged violations period.

Proposed Liability Amount

Par. 60

Water Code section 1052 provides the maximum civil liability that can be imposed by the State Water Board in this matter for the unauthorized diversion and use of the water during a drought period is \$1,000 for each day of trespass plus \$2,500 for each acre-foot of water diverted or used in excess of that diverter's water rights. As described in the Testimony of Paul Wells (WR-15), evidence demonstrates that BBID's unauthorized diversions occurred over twelve days, from June 13, 2015, to June 24, 2015, and totaled 1,887 acre-feet.⁶ There is no evidence demonstrating that BBID diverted any of this amount under some other valid claim of right. As described in the Testimony of Brian Coats (WR-10), the maximum civil liability for the alleged violations is \$4,729,500 [12 days at \$1,000 per day plus 1,887 af at \$2,500 per af].

Par. 61

California Water Code section 1055.3 requires that, in determining the amount of civil liability, the State Water Board consider all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the nature and persistence of the violation, the

⁶ As described in Mr. Wells' Testimony, there some evidence indicating that BBID's unauthorized diversions may instead total 1,829.1 acre-feet, however, this evidence is unclear and potentially unreliable. Therefore, the Prosecution Team recommends administrative civil liability based on the more reliable estimate, 1,889 acre-feet.

Par. 61
cont.

length of time over which the violation occurs, and any corrective action taken by the violator. The Testimony of Brian Coats (WR-10, pages 21-22) describes the application of these factors in this case such that the Prosecution Team recommends that the Board adopt an ACL in the amount of **\$1,418,250**. I concur in the application of the Section 1055.3 factors as described by Mr. Coats, and I incorporate that portion of his testimony into my testimony by this reference.

Par. 62

I would add to this discussion by requesting that the Board send a strong signal to the regulated water rights community by adopting the full recommended penalty. From my professional interactions with the regulated community, it is my belief that a substantial ACL penalty against BBID would provide a strong disincentive to others who may be tempted to disregard State Water Board staff notices of water unavailability.

Par. 63

The ACL Complaint (WR-4, paragraph 40) indicates that the Prosecution Team would consider adjustment to the recommended ACL penalty if BBID would provide evidence of the amounts of water diverted during the violations period that were for health and safety needs or critical power generation. The Prosecution Team made this offer because BBID is known to be serving water to Mountain House Community Service District and to power generation facilities that may be deemed critical energy suppliers. BBID and Mountain House Community Service District apparently took corrective actions to secure water available via contract and transfer, although the evidence is insufficient to determine whether BBID diverted any water for Mountain House during the violations period.

Par. 64

The ACL Complaint took into consideration that BBID had apparently stopped its diversions on or around June 25 (now understood to be June 24). However, a cursory review of CDEC records indicates that BBID continued diversions starting in July, and continued diverting most days until September 17, 2015, when water was again available under its claimed pre-1914 right. Exhibit WR-171 is a true and correct copy of a plot taken from CDEC's BBID records (<http://cdec.water.ca.gov/cgi-progs/queryDaily?BBI>) that shows diversions from July through September, 2015. The Prosecution Team notes, without drawing any conclusion, that BBID re-commenced diversions on or around July 16, which is the day that the Prosecution Team issued the WSID Draft CDO. Then BBID briefly ceased diversions starting on or around July 20, when the Prosecution Team issued the BBID ACL Complaint. As part of these proceedings, the Prosecution Team issued a Subpoena seeking, among other things, records of these diversions, but BBID successfully obtained a protective order requiring it only to produce records from June 1 through June 30, 2015.

Par. 65

Because BBID has not provided information sufficient to determine whether, or how much, water it may have diverted for Mountain House Community's basic health and safety needs during the violations period, and because BBID appears to have resumed diversions around the time of issuance of the ACL Complaint without providing any information as to the nature of these diversions, there is no additional basis to adjust the proposed ACL penalty, and I do not recommend any adjustments.

Par. 66

The Division estimates that its staff cost to investigate the unauthorized diversion issues and develop the enforcement documents to be \$3,000 (through development of the ACL Complaint only). The estimated staff cost for hearing preparation cited in the ACL is about \$10,000. This staff cost assumed only the cost of testimony preparation and hearing participation. The cost has exceeded the initial estimate due to the roughly 35 hours expended by staff in depositions requested by BBID, and an additional 100 plus hours expended on deposition and other discovery matters by counsel.

AUTHENTICATION OF EVIDENCE

Par. 67

All exhibits noted as "true and correct" above are true and correct copies of the documents listed in the Prosecution Team's Exhibit Identification Index. In addition, Exhibits WR-158 and WR-166 are true and correct copies. Although discussed and authenticated in other witness statements, I have personal knowledge that the following Prosecution Team Exhibits are also true and correct copies of file documents and/or official State Water Board staff notices, and could if called upon testify as to their authenticity: WR-1 through 6, 23 through 45, 83 through 89, 100 through 108, 112 through 131, 141, and 152 through 154.