

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

	:	Master File No.	1:00–1898
IN RE: METHYL TERTIARY BUTYL	:	MDL	1358 (VSB)
ETHER ("MTBE") PRODUCTS	:	M21-88	
LIABILITY LITIGATION	:		
	:		
This document relates only to:	:		
<i>Orange County Water District v.</i>	:		
<i>Unocal, et al.,</i>	:		
Case No. 04 Civ. 4968	:		
	:		

**SUPPLEMENTAL DECLARATION OF MICHAEL AXLINE IN SUPPORT OF
PLAINTIFF ORANGE COUNTY WATER DISTRICT’S REPLY IN SUPPORT OF
MOTION TO REMAND PHASE 1 CLAIMS AGAINST DEFENDANTS TEXACO
REFINING AND MARKETING, INC., EQUILON ENTERPRISES LLC, SHELL OIL
COMPANY, D/B/A SHELL OIL PRODUCTS US, ATLANTIC RICHFIELD COMPANY,
F/K/A ARCO PETROLEUM COMPANY, D/B/A ARCO PRODUCTS COMPANY A/K/A
ARCO, BP PRODUCTS NORTH AMERICA, INC., BP WEST COAST LLC**

I, Michael Axline, declare:

1. I am one of the attorneys of record in this case for plaintiff Orange County Water District. I make this declaration from personal knowledge.

2. Attached as Exhibit 1 is a true and correct copy of relevant pages from the Brief of Defendants-Appellees Atlantic Richfield Company, BP Products North America Inc., BP West Coast Products LLC, Shell Oil Company, Equilon Enterprises LLC, and Texaco Refining and Marketing Inc., N/K/A TMR Company, filed on June 8, 2016.

3. Attached as Exhibit 2 is a true and correct copy of relevant pages from Appellees' Petition for Rehearing, filed on June 26, 2017.

4. Attached as Exhibit 3 is a true and correct copy of relevant pages from BP and Shell Defendants' Opposition to Plaintiff Orange County Water Districts' "Motion to Remand" Phase I Claims and Request for a Scheduling Order, filed on August 8, 2017.

5. Attached as Exhibit 4 is a true and correct copy of relevant pages from Orange County Water District's Final Budget Report, Fiscal Year 2006-07.

6. Attached as Exhibit 5 is a true and correct copy of relevant pages from Orange County Water District's Budget Report, Fiscal Year 2007-08.

7. Attached as Exhibit 6 is a true and correct copy of relevant pages from Orange County Water District's Budget Report, Fiscal Year 2008-09.

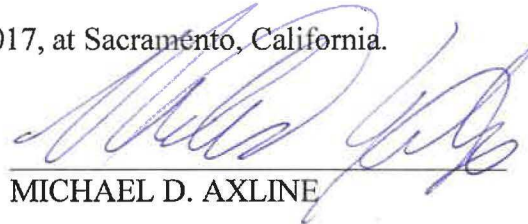
8. Attached as Exhibit 7 is a true and correct copy of the Order Delineating Trial Structure and Schedule, dated September 2, 2016.

9. Attached as Exhibit 8 is a true and correct copy of the Order Denying Defendants' Motion for Summary Judgment, dated November 3, 2016.

10. Attached as Exhibit 9 is a true and correct copy of the Order Denying Defendants' *Daubert* Motion to Exclude the Testimony of Dr. Wheatcraft, dated January 31, 2017.

11. Attached as Exhibit 10 is a true and correct copy of the Judicial Panel on Multidistrict Litigation's Transfer Order, dated June 16, 2004.

Executed this 15th day of August, 2017, at Sacramento, California.



MICHAEL D. AXLINE

EXHIBIT 1

15-3934

IN THE
United States Court of Appeals
FOR THE SECOND CIRCUIT

IN RE: METHYL TERTIARY BUTYL ETHER ("MTBE")
PRODUCTS LIABILITY LITIGATION.

ORANGE COUNTY WATER DISTRICT,

—against—

Plaintiff-Appellant,

TEXACO REFINING AND MARKETING, INC., EQUILON ENTERPRISES LLC, SHELL OIL COMPANY, d/b/a SHELL OIL PRODUCTS US, ATLANTIC RICHFIELD COMPANY, f/k/a ARCO PETROLEUM COMPANY, d/b/a ARCO PRODUCTS COMPANY, a/k/a ARCO, BP PRODUCTS NORTH AMERICA, INC., BP WEST COAST LLC, (DOE 3),

Defendants-Appellees,

(Caption continued on inside cover)

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

**BRIEF OF DEFENDANTS-APPELLEES ATLANTIC RICHFIELD
COMPANY, BP PRODUCTS NORTH AMERICA INC.,
BP WEST COAST PRODUCTS LLC, SHELL OIL COMPANY,
EQUILON ENTERPRISES LLC, AND TEXACO REFINING
AND MARKETING INC., N/K/A TMR COMPANY**

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Shell Oil Company, Equilon
Enterprises LLC, and Texaco
Refining and Marketing Inc., n/k/a
TMR Company*

(Counsel continued on inside cover)

UNOCAL CORPORATION, CONOCOPHILLIPS COMPANY, CHEVRON U.S.A., INC., d/b/a CHEVRON PRODUCTS COMPANY, d/b/a CHEVRON CHEMICAL COMPANY, UNION OIL COMPANY OF CALIFORNIA, INC., TOSCO CORPORATION, EXXON MOBIL CORPORATION, f/k/a EXXON CORPORATION, d/b/a EXXONMOBIL REFINING AND SUPPLY COMPANY, EXXONMOBIL CHEMICAL, CORPORATION, EXXON, CHEMICAL U.S.A., MOBILE CORPORATION, ULTRAMAR, INC., VALERO REFINING AND MARKETING COMPANY, VALERO REFINING COMPANY-CALIFORNIA, VALERO REFINING, TESORO PETROLEUM CORPORATION., (DOE 4), TESORO REFINING AND MARKETING COMPANY, INC., PETRO-DIAMOND, INC., (DOE 6), SOUTHERN COUNTIES OIL Co., (DOE 7), ARCO CHEMICAL COMPANY, (DOE 201), LYONDELL CHEMICAL COMPANY, f/k/a ARCO CHEMICAL COMPANY, G&M OIL COMPANY, INC., 7-ELEVEN, INC., USA GASOLINE CORPORATION, DOES, 9-200, AND DOES 202-1000, INCLUSIVE, CHEVRON CORPORATION, EXXON MOBIL OIL CORPORATION, TMR COMPANY, CHEVRONTEXACO CORPORATION,

Defendants.

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Arco Petroleum Company, d/b/a
Arco Products Company, a/k/a Arco,
BP Products North America Inc. and
BP West Coast Products LLC*

statutorily-defined ‘state agency’ is not in fact a state agency,” a “semantic exercise” the District Court found “[wa]s not helpful.” (SPA-241) Here, OCWD abandons that argument, and instead claims that the District Court’s privity finding violates due process, an argument it never raised below. That new argument lacks merit.

1. Agents Of The Same Government Are In Privity.

In finding privity, the District Court relied on longstanding California law that “agents of the same government are in privity with each other, since they represent not their own rights but the rights of the government.” (SPA-238-239); *Lerner v. Los Angeles City Bd. of Educ.*, 59 Cal.2d 382, 398 (1963); *COAST*, 60 Cal.App.4th at 1073, n.12 (“where one governmental agency represents the interests of the State of California in prior litigation, and another subsequently seeks to pursue the same issue[, t]he agents of the same government are in privity”) (quotations omitted); *Zapata v. Dep’t of Motor Vehicles*, 2 Cal.App.4th 108, 111 (1991) (DA’s office and state agency in privity, because they “acted as agents of the same government” and “represented not their own rights but the right of the government”) (quotations omitted).

As the District Court found, OCWD had “represented on numerous occasions, including in its complaint below, that [OCWD] is an ‘agency.’” (SPA-241) OCWD alleged that it was a “special water agency” (A-4364), which, under

California law, is “any agency of the state for the local performance of governmental or proprietary functions....” (Cal. Gov’t Code § 16271(d)). Under Cal. Water Code § 11102, a water district is a “state agency.” And in a proceeding in the Bankruptcy Court for the Southern District of New York, OCWD averred that it was “first and foremost a state environmental agency.” (A-4826-4828) The support for the District Court’s “state agency” finding was overwhelming, and OCWD does not argue here that it was erroneous.²

2. Privity Was Not Based On “Virtual Representation.”

OCWD now argues that the District Court’s privity finding contravenes the Supreme Court’s rejection of “virtual representation” in *Taylor v. Sturgell*, 553 U.S. 880 (2008). OCWD faults the District Court for not addressing this argument (Br. at 27 n.8), but OCWD never raised it below. It never mentioned *Taylor* and invoked “due process” only in passing, in an entirely different context.³ OCWD, therefore, waived the argument. *Wal-Mart Stores, Inc. v. Visa U.S.A., Inc.*, 396 F.3d 96, 124 & n.29 (2d Cir. 2005); *U.S. v. Braunig*, 553 F.2d 777, 780 (2d Cir. 1977).

² Bolstering its privity ruling was the District Court’s finding that OCWD actively assisted the OCDA’s lawsuits. (SPA-239-240)

³ The section of its summary judgment brief OCWD cites to claim it raised “due process” below argued that because it “rebuffed” OCWD’s eleventh-hour intervention in the OCDA’s action, Shell “implicitly consented” to OCWD’s lawsuit. (Dkt. #381, p.20) The District Court properly rejected that argument. (SPA-246-247)

EXHIBIT 2

15-3934

IN THE
United States Court of Appeals
FOR THE SECOND CIRCUIT

IN RE: METHYL TERTIARY BUTYL ETHER ("MTBE")
PRODUCTS LIABILITY LITIGATION

(Caption continued on inside cover)

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

APPELLEES' PETITION FOR REHEARING

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Enterprises LLC, and Texaco
Refining and Marketing Inc.,
n/k/a TMR Company*

ORANGE COUNTY WATER DISTRICT,

Plaintiff-Appellant,

—against—

TEXACO REFINING AND MARKETING, INC., EQUILON ENTERPRISES LLC, SHELL OIL COMPANY, DBA SHELL OIL PRODUCTS US, ATLANTIC RICHFIELD COMPANY, FKA ARCO PETROLEUM COMPANY, DBA ARCO PRODUCTS COMPANY, AKA ARCO, BP PRODUCTS NORTH AMERICA, INC., BP WEST COAST LLC, (DOE 3),

Defendants-Appellees;

UNOCAL CORPORATION, CONOCOPHILLIPS COMPANY, CHEVRON U.S.A., INC., DBA CHEVRON PRODUCTS COMPANY, DBA CHEVRON CHEMICAL COMPANY, UNION OIL COMPANY OF CALIFORNIA, INC., TOSCO CORPORATION, EXXON MOBIL CORPORATION, FKA EXXON CORPORATION, DBA EXXONMOBIL REFINING AND SUPPLY COMPANY, EXXONMOBIL CHEMICAL, CORPORATION, EXXON, CHEMICAL U.S.A., MOBILE CORPORATION, ULTRAMAR, INC., VALERO REFINING AND MARKETING COMPANY, VALERO REFINING COMPANY-CALIFORNIA, VALERO REFINING, TESORO PETROLEUM CORPORATION., (DOE 4), TESORO REFINING AND MARKETING COMPANY, INC., PETRO-DIAMOND, INC., (DOE 6), SOUTHERN COUNTIES OIL CO., (DOE 7), ARCO CHEMICAL COMPANY, (DOE 201), LYONDELL CHEMICAL COMPANY, FKA ARCO CHEMICAL COMPANY, G&M OIL COMPANY, INC., 7-ELEVEN, INC., USA GASOLINE CORPORATION, DOES, 9-200, AND DOES 202-1000, INCLUSIVE, CHEVRON CORPORATION, EXXON MOBIL OIL CORPORATION, TMR COMPANY, CHEVRONTEXACO CORPORATION,

Defendants.

II. WHILE NOT REQUIRED TO FIND PRIVACY, THE INTERESTS OF THE DISTRICT AND OCDA WERE ALIGNED.

The Panel did not find privity because it concluded that the District's and OCDA's interests were not "aligned" (Op. 13-14) and that the District had interests "distinct from those of the public or those of the OCDA." Op. 13. This was despite the Panel's acknowledgment that the District and OCDA had "significant overlapping interests," and that "the harm that the suits address and the relief sought are similar." Op. 12. For the reasons above, this issue is unnecessary to any finding of privity. To the extent the Panel continues to consider the issue, the Opinion should be reheard because the Panel overlooked or misapprehended both the factual record and California law.

The OCDA brought his actions "on behalf of the People of the State of California" to "protect the public from health and safety hazards" and "prevent destruction of Orange County's groundwater resources." A-4240-79; A-4338-60. Similarly, the District's Complaint also explicitly pled that it was acting to protect public resources on the public's behalf:

The District files this lawsuit to recover compensatory and all other damages, including all funds to investigate, monitor, prevent, abate, or contain any contamination of, or pollution to, groundwaters within the District from MTBE and TBA; to protect the quality of the common water supplies of the District; to prevent pollution or contamination of that water supply; and to assure that the responsible parties -- and not the District nor [sic] the public -- bear the expense.

A-4362-79; *see also* A-4188-90. The District further alleged that it was representing the “water users” within the District. A-4365. In both this decision, and several prior decisions, the district court determined the District was acting as an agency of the State. SPA-84 (“OCWD is not a private entity. Rather, it is a ‘special water agency’ created by statute and charged with the responsibility to ‘maintain, replenish and manage groundwater resources within ... its ‘service area’”); *see also* SPA-49; SPA-178. Its interests did not diverge from those of OCDA.

The Panel also cited *Orange County Water District v. Arnold Engineering Company*, 196 Cal.App.4th 1110 (2011). Op. 12-13 (describing *Arnold* as “the only case that appears squarely to address the District’s privity with the California public”). But as the Opinion acknowledges, “the issue of res judicata was not before the court” there (Op. 13), and its discussion cited by the Panel in no way calls into question the District’s status as an “agent of the government,” or its alignment with OCDA for privity purposes.

In *Arnold*, the court rejected an attempt to disqualify the District’s counsel by applying the California Supreme Court’s decision in *People ex rel. Clancy v. Superior Court*, 39 Cal.3d 740 (1985). *Arnold*, 196 Cal.App.4th at 1115. In *Clancy*, the Court determined that in some (but not all) public nuisance actions, retaining counsel via a contingency fee contract violated the strict “duty of

EXHIBIT 3

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

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In re: Methyl Tertiary Butyl Ether ("MTBE") :
Products Liability Litigation :

**Master File No. 1:00-1898
MDL No. 1358 (VSB)
M21-88**

This Document Relates To: :
Orange County Water District v. Unocal :
Corporation, et al., Case No. 04 Civ. 4968 :
(VSB) :
:
:

The Honorable Vernon S. Broderick

-----X

**THE BP AND SHELL DEFENDANTS' OPPOSITION
TO PLAINTIFF ORANGE COUNTY WATER DISTRICT'S
"MOTION TO REMAND" PHASE I CLAIMS
AND REQUEST FOR A SCHEDULING ORDER**

But even if CMO 116 said what the District claims it does – and it does not – the District completely ignores the fact that when vacating Judge Scheindlin’s order granting summary judgment on res judicata grounds, the Second Circuit merely found that the “current record” before it was not sufficient for a finding of privity – not that privity did not exist. 859 F.3d at 185 (emphasis added). Thus, the court ordered this matter remanded to this Court “for further proceedings consistent with [its] opinion.” *Id.* at 188. The Second Circuit’s Opinion would supersede any prior finding by this Court that the District’s claims against BP and Shell were ready to be remanded to the Central District of California

And such “further proceedings” on privity are fully appropriate and will shed further light on the privity issue. For example, the Second Circuit vacated the judgment in part because it stated that “the record before us does not establish that the District and the OCDA are agents of the same government.” *Id.* at 186. The BP and Shell Defendants, therefore, should be permitted to address this concern expressed by the Second Circuit, which likely was caused in no small part by misrepresentations by the District regarding its status as a “Special District of the State of California.” In its Rule 56.1 statement, for example, the District expressly denied that it was a California “special district,” which by California statute (Cal. Gov’t Code §§ 16271(d), 56036) is defined to be an “agency of the state.” *See* Pl. OCWD’s Local R. 56.1 Statement at 3 (“The District is not a ‘special district,’ or ‘state agency.’”) (Heartney Decl., Ex. 3). The District’s denial was unsupported by any evidence; instead, as Judge Scheindlin found, it was based on a “murky analysis of statutory schemes and legislative intent.” 46 F. Supp. 3d at 451. It is also demonstrably untrue based on the District’s own admissions in recent budgeting and other documents. In its 2017-18 Draft Budget, for example, the District explicitly admits it is a “Special District of the State of California.” OCWD Budget Report FY 2017-18 (under “District

EXHIBIT 4

Final Budget Report

Fiscal Year 2006-07

Orange County Water District



July 1, 2006



Orange County Water District Budget Report Fiscal Year 2006-07

Board of Directors

**Philip L. Anthony
President**

**Jan Debay
1st Vice President**

**Kathryn L. Barr
2nd Vice President**

Wes Bannister

Denis R. Blodeau

Richard Chavez

Shawn Nelson

Stephen Sheldon

Jose Solorio

Roger C. Yoh

♦ ♦ ♦ ♦ ♦ ♦ ♦

**Virginia Grebbien
General Manager**

**ORANGE COUNTY WATER DISTRICT
BUDGET REPORT
FISCAL YEAR 2006-07**

OCWD HISTORY AND CHARACTER

SECTION 1 – GENERAL MANAGER’S MESSAGE

SECTION 2 - STRATEGIC PLAN

SECTION 3 - SUMMARIES

COMBINED SUMMARY
SOURCES AND USES OF FUNDS
BUDGET COMPARISON
GENERAL FUND SUMMARY

SECTION 4 - OPERATIONS AND PROJECT DESCRIPTIONS

DISTRICT MEMBERSHIPS
OVERALL DISTRICT STRUCTURE
COST CENTER PROFILES

SECTION 5 - DEBT SERVICE FUND

SECTION 6 - WATER PURCHASE

SECTION 7 - BASIN EQUITY ASSESSMENT

SECTION 8 - CAPITAL PROJECTS

CAPITAL IMPROVEMENT PROGRAM DETAIL REPORT
GROUNDWATER REPLENISHMENT SYSTEM
MULTI-YEAR DEBT FUNDED CIP SUMMARY

SECTION 9 – NEW EQUIPMENT (FIXED ASSETS) SUMMARY

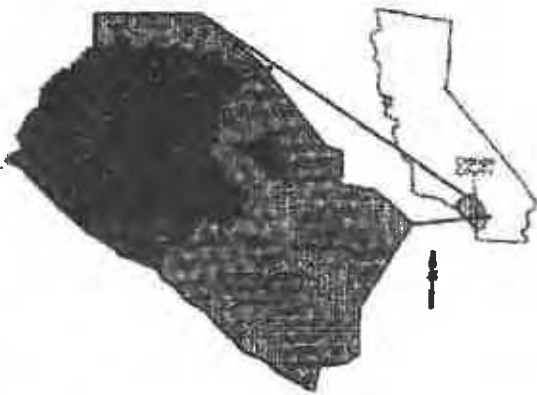
SECTION 10 - REPLACEMENT AND REFURBISHMENT FUND

SECTION 11 - APPENDIX

DETAIL COST CENTER GENERAL FUND BUDGET
ACRONYMS AND ABBREVIATIONS

ORANGE COUNTY WATER DISTRICT HISTORY AND CHARACTER

The District receives an average of only 13 to 15 inches of rainfall annually, yet sustains a population of approximately 2.3 million people. The residents and businesses within the District have two primary sources of drinking water. One source is a natural underground reservoir, called the Orange County groundwater basin. The other source, referred to as imported water, comes from Colorado through the Colorado River Aqueduct and from the Sacramento/San Joaquin Delta in Northern California through the State Water Project.



The groundwater basin was used by early settlers to supplement flows from the Santa Ana River.

As the area developed into a thriving agricultural center, the increased demand upon the subsurface water by the county's many wells resulted in a gradual lowering of the water table. In response, the Orange County Water District was formed in 1933 by a special act of the California State Legislature. OCWD manages the massive groundwater basin that underlies the northwest half of the county, supplying 65-75 percent of the District's total water demand. The remaining 25-35 percent is obtained through the Colorado River Aqueduct and State Water Project via the Metropolitan Water District of Southern California and the Municipal Water District of Orange County.

DISTRICT VITAL STATISTICS

Date of Enactment:	1933
Form of Government:	Special District of the State of California
Area (square miles):	358 (includes 46 annexations)
Employees (full-time):	188

Major Groundwater Producing Agencies:

Anaheim, City of
Buena Park, City of
East Orange County Water District
Fountain Valley, City of
Fullerton, City of
Garden Grove, City of
Golden State Water Company
Huntington Beach, City of
Irvine Ranch Water District
La Palma, City of

Mesa Consolidated Water District
Newport Beach, City of
Orange, City of
Santa Ana, City of
Seal Beach, City of
Serrano Water District
Tustin, City of
Westminster, City of
Yorba Linda Water District

EXHIBIT 5



Budget Report

FY 2007-08

Orange County Water District

July 1, 2007



Orange County Water District Budget Report Fiscal Year 2007-08

Board of Directors

**Philip L. Anthony
President**

**Jan Debay
1st Vice President**

**Kathryn L. Barr
2nd Vice President**

Claudia Alvarez

Wes Bannister

Denis R. Bilodeau

Shawn Nelson

Irv Pickler

Stephen Sheldon

Roger C. Yoh



**Michael P. Wehner
Acting General Manager**

**ORANGE COUNTY WATER DISTRICT
BUDGET REPORT
FISCAL YEAR 2007-08**

OCWD HISTORY AND CHARACTER

SECTION 1 - GENERAL MANAGER'S MESSAGE

SECTION 2 - SUMMARIES

COMBINED SUMMARY
SOURCES AND USES OF FUNDS
GENERAL FUND BUDGET SUMMARY
GENERAL FUND BUDGET COMPARISON
DISTRICT MEMBERSHIPS

SECTION 3 - OPERATIONS AND COST CENTER DESCRIPTIONS

ORGANIZATIONAL STRUCTURE
COST CENTER PROFILES

SECTION 4 - DEBT SERVICE FUND

SECTION 5 - WATER PURCHASE

SECTION 6 - BASIN EQUITY ASSESSMENT

SECTION 7 - CAPITAL IMPROVEMENT PROGRAM

MULTI-YEAR DEBT FUNDED CIP SUMMARY
GROUNDWATER REPLENISHMENT SYSTEM BUDGET
GROUNDWATER REPLENISHMENT SYSTEM ELA COST
SMALL CIP PROJECTS FUNDED BY OPERATING REVENUES

SECTION 8 - NEW EQUIPMENT (FIXED ASSETS) SUMMARY

NEW EQUIPMENT BUDGET FUNDED BY OPERATING REVENUES
NEW EQUIPMENT BUDGET FUNDED BY COMMERCIAL PAPER

SECTION 9 - REPLACEMENT AND REFURBISHMENT FUND

SECTION 10 - COST CENTER DETAILS

DETAIL COST CENTER GENERAL FUND BUDGET
ACRONYMS AND ABBREVIATIONS

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The groundwater basin was used by early settlers to supplement flows from the Santa Ana River.

As the area developed into a thriving agricultural center, the increased demand upon the subsurface water by the county's many wells resulted in a gradual lowering of the water table. In response, the Orange County Water District was formed in 1933 by a special act of the California State Legislature. OCWD manages the groundwater basin that underlies the northwest half of the county, supplying a significant percentage of the District's total water demand. The remaining demand is obtained through the Colorado River Aqueduct and State Water Project via the Metropolitan Water District of Southern California and the Municipal Water District of Orange County.

DISTRICT VITAL STATISTICS

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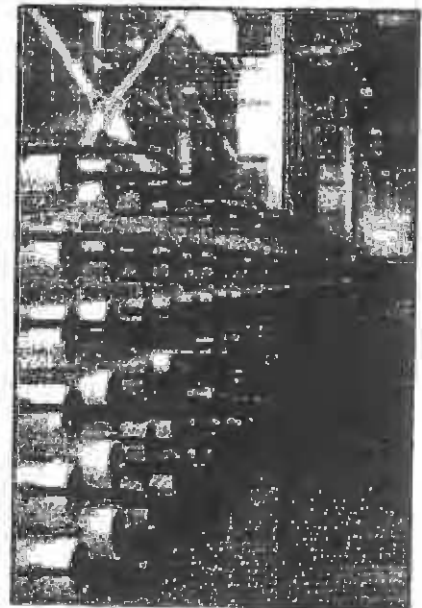
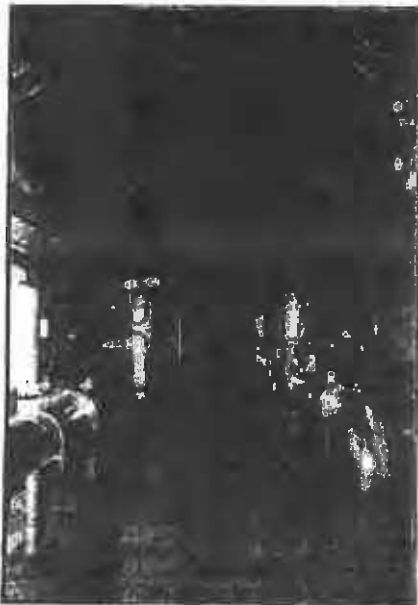
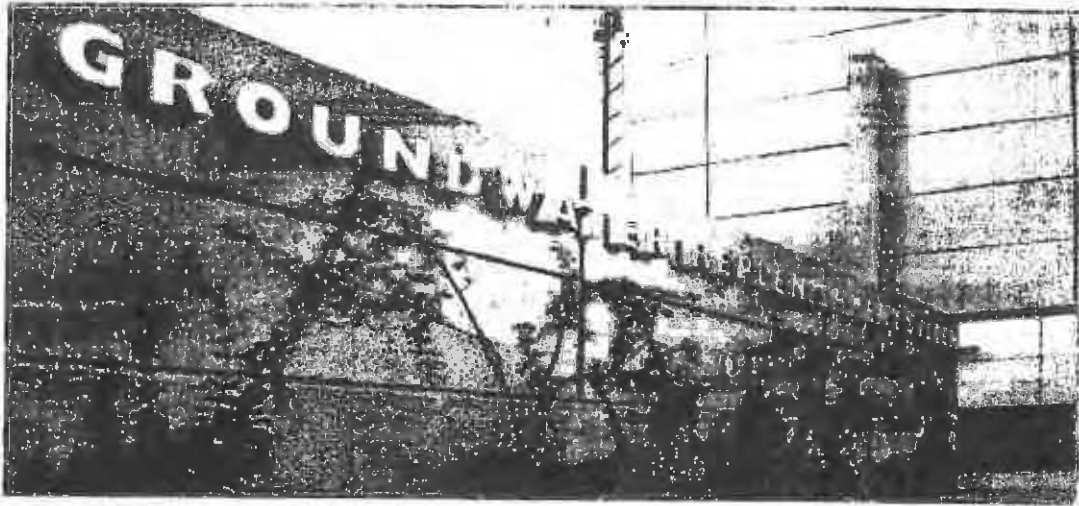
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Irvine Ranch Water District
La Palma, City of

Mesa Consolidated Water District
Newport Beach, City of
Orange, City of
Santa Ana, City of
Seal Beach, City of
Serrano Water District
Tustin, City of
Westminster, City of
Yorba Linda Water District

EXHIBIT 6

Orange County Water District



Budget Report FY 2008-2009



Orange County Water District Budget Report Fiscal Year 2008-09

Board of Directors

**Stephen Sheldon
President**

**Wes Bannister
1st Vice President**

**Denis Blodeau
2nd Vice President**

Claudia Alvarez

Philip Anthony

Kathryn Barr

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Shawn Nelson

Irv Pickler

Roger C. Yoh

♦ ♦ ♦ ♦ ♦ ♦ ♦
**Michael R. Markus, P.E.
General Manager**

**ORANGE COUNTY WATER DISTRICT
BUDGET REPORT
FISCAL YEAR 2008-09**

OCWD HISTORY AND CHARACTER

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SECTION 2 - SUMMARIES

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DISTRICT MEMBERSHIPS
OCWD STAFFING HISTORY

SECTION 3 - OPERATIONS AND COST CENTER DESCRIPTIONS

OCWD ORGANIZATIONAL STRUCTURE
COST CENTER PROFILES

SECTION 4 - DEBT SERVICE FUND

SECTION 5 - OTHER POST EMPLOYMENT BENEFITS

SECTION 6 - WATER PURCHASE

SECTION 7 - BASIN EQUITY ASSESSMENT

SECTION 8 - CAPITAL IMPROVEMENT PROGRAM

MULTI-YEAR DEBT FUNDED CIP SUMMARY
GROUNDWATER REPLENISHMENT SYSTEM BUDGET
SMALL CIP PROJECTS FUNDED BY OPERATING REVENUES

SECTION 9 - NEW EQUIPMENT (FIXED ASSETS) SUMMARY

NEW EQUIPMENT BUDGET FUNDED BY OPERATING REVENUES

SECTION 10 - REPLACEMENT AND REFURBISHMENT FUND

SECTION 11 - COST CENTER DETAIL

GENERAL FUND BUDGET COST CENTER DETAIL
ACRONYMS AND ABBREVIATIONS

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Golden State Water Company
Huntington Beach, City of
Irvine Ranch Water District
La Palma, City of

Mesa Consolidated Water District
Newport Beach, City of
Orange, City of
Santa Ana, City of
Seal Beach, City of
Serrano Water District
Tustin, City of
Westminster, City of
Yorba Linda Water District

EXHIBIT 7

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION**

Case No.: SACV 03-01742-CJC(ANx)

**ORANGE COUNTY WATER
DISTRICT,**

Plaintiff,

v.

UNOCAL CORPORATION, *et al.*,

Defendants.

**ORDER DELINEATING TRIAL
STRUCTURE AND SCHEDULE**

This case involves protracted litigation between Plaintiff Orange County Water District and various oil and gasoline companies as Defendants. Filed originally in 2003, it was referred to multidistrict litigation in 2004 and returned to this District in March 2016. (*See* Dkt. 97 at 2–3.) Plaintiff claims that Defendants’ gasoline stations released

1 the carcinogenic compound Methyl Tertiary Butyl Ether (“MTBE”) into the groundwater
2 it manages. (Dkt. 97 at 4.)

3
4 On May 9, 2016, the parties submitted a status report outlining each side’s
5 preferred trial structure and length. (Dkt. 97. at 10–13.) Plaintiff estimated six months of
6 pre-trial preparation, followed by a three month trial addressing first liability and then
7 damages. (Dkt. 97 at 10–11.) Defendants suggested twenty two months of pre-trial
8 preparation, followed by a four month trial considering first the continuing nuisance
9 claims and then the products liability claims. (Dkt. 97 at 11–13.)

10
11 This Court held a Scheduling Status Conference on June 13, 2016. (Dkt. 107.)
12 Given the prohibitive nature of multi-month trials, the Court ordered the parties to confer
13 and produce a plan whereby multiple shorter trials could take place, each focused on one
14 plume. (Dkt. 108 at 5–6.) The Court indicated that it would consider pre-trial motions,
15 followed by *Daubert* motions, in advance of trial. (Dkt. 108 at 10.) Parties were directed
16 to submit briefs as to how each party proposes the case proceed. (Dkt. 108 at 23.)

17
18 The Court received those briefs on August 22, 2016. Plaintiff proposed an initial
19 trial on Plume No. 2, which encompasses two stations operated by Exxon Mobile. (Dkt.
20 112.) Defendants proposed initial motion practice, followed by trial on Plume Nos. 72
21 and 92, each of which contains one station operated by Chevron and Exxon Mobile,
22 respectively. (Dkt. 113 at 1.) While Plaintiff did not present to the Court a proposed
23 timeline for motions and trial, Defendants expressed their preferences as to timing. (Dkt.
24 113 at 3, 6.)

25
26 Pursuant to Federal Rule of Civil Procedure 42(b), this Court has discretionary
27 authority to, “[f]or convenience, to avoid prejudice, or to expedite and economize,” order
28 separate trial of separate claims or issues. Fed. R. Civ. P. 42(b); *see Boone v. City of Los*

1 *Angeles*, 522 F. App'x 402, 403 (9th Cir. 2013) ("The district court's determination on
2 bifurcation of trials is reviewed for abuse of discretion.") (*quoting Counts v. Burlington*
3 *N. R.R.*, 952 F.2d 1136, 1139 (9th Cir.1991)); *Hayden v. Chalfant Press, Inc.*, 281 F.2d
4 543, 545 (9th Cir. 1960) ("whether [particular] pretrial procedure should be adopted in a
5 particular court is a matter resting in the sound discretion of the trial court").

6
7 Having read and considered the papers presented by the parties, the Court finds
8 this matter appropriate for disposition without an additional hearing. *See* Fed. R. Civ. P.
9 78; Local Rule 7-15.¹ For reasons of judicial efficiency and trial simplicity, Court has
10 determined that **the first trial's scope will be limited to Plume No. 2.**

11
12 In advance of trial, as stated at the July hearing, (Dkt. 108 at 17), the parties will be
13 able to file relevant dispositive motions in accordance with the following briefing and
14 hearing schedule:

- 15 1. ALL Relevant Dispositive Motions filed **October 3, 2016**
- 16 2. Oppositions filed **October 17, 2016**
- 17 3. Replies filed **October 24, 2016**
- 18 4. Hearing on **November 4, 2016 at 1:30 p.m.**

19
20 Following resolution of those motions, if necessary, the Court will then consider
21 a *Daubert* motion relating to Dr. Wheatcraft, according to the following schedule:

- 22 1. *Daubert* Motion as to for Dr. Wheatcraft filed **November 7, 2016**
- 23 2. Opposition filed **November 21, 2016**
- 24 3. Replies filed **November 28, 2016**
- 25 4. Hearing on **December 13, 2016**

26
27
28 ¹ Accordingly, the hearing set for September 13, 2016, at 1:30 p.m. is hereby vacated and off calendar.

- At the July Status Conference, the parties indicated that they will be going to mediation in October. (Dkt. 108 at 9.) The Court requested, and reiterates here, its desire to receive from the parties information as to the mediation schedule as soon as practicable.

6/1/7

-4-

EXHIBIT 8

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION**

Case No.: SACV 03-01742-CJC(ANx)

**ORANGE COUNTY WATER
DISTRICT,**

Plaintiff,

v.

UNOCAL CORPORATION, *et al.*,

Defendants.

**ORDER DENYING DEFENDANTS'
MOTION FOR SUMMARY
JUDGMENT**

I. INTRODUCTION

This case involves protracted litigation between Plaintiff Orange County Water District ("OCWD") and various oil and gasoline companies. Filed originally in 2003, it was transferred to the Multidistrict Litigation Court ("MDL Court") in the Southern

1 District of New York in 2004 and returned to this District in March 2016. (*See* Dkt. 97 at
2 2–3.) Plaintiff claims that Defendants’ gasoline stations released the carcinogenic
3 compound Methyl Tertiary Butyl Ether (“MTBE”) into the groundwater Plaintiff
4 manages. (Dkt. 97 at 4.)

5
6 Upon remand, the Court issued a case management order setting forth, among
7 other things, the briefing and hearing schedule for summary judgment. (Dkt. 121.)
8 Before the Court is Defendants Exxon Mobil Corporation, ExxonMobil Oil Corporation,
9 Chevron U.S.A., Inc., Union Oil Company of California, ConocoPhillips Company, and
10 G&M Oil Company’s motion for summary judgment on damages and declaratory relief.
11 (Dkt. 125.) For the following reasons, the motion is DENIED.¹

12 13 **II. BACKGROUND**

14
15 The facts of this case have been thoroughly described in other orders by the MDL
16 Court.² As relevant here, Plaintiff is responsible for maintaining, replenishing, and
17 managing the groundwater resources within the Orange County Groundwater Basin.
18 (Dkt. 140 at 3.) Plaintiff alleges that Defendants’ “use and handling of MTBE has
19 resulted in contamination and threatened future contamination of groundwater within the
20 geographic region for which OCWD is responsible.” *In re Methyl Tertiary Butyl Ether*
21 (*MTBE*), No. 1:00-1898, 2007 WL 700819, at *1 (S.D.N.Y. Mar. 7, 2007).

22
23 The Parties do not dispute that MTBE was used as an additive in gasoline
24 manufactured and/or sold by Defendants and that MTBE has been released from
25

26
27 ¹ Having read and considered the papers presented by the parties, the Court finds this matter appropriate
for disposition without a hearing. *See* Fed. R. Civ. P. 78; Local Rule 7-15. Accordingly, the hearing set
for November 7, 2016, at 1:30 p.m. is hereby vacated and off calendar.

28 ² *See, e.g., In re Methyl Tertiary Butyl Ether (MTBE) Prod. Liab. Litig.*, 379 F. Supp. 2d 348 (S.D.N.Y.
2005); *In re Methyl Tertiary Butyl Ether (MTBE) Prod.*, 475 F. Supp. 2d 286, 288 (S.D.N.Y. 2006).

1 numerous locations within the Orange County water district. (See Dkt. 144-2 ¶¶ 3, 4, 37,
2 42.) “MTBE causes water to assume a foul smell and taste, and has been identified as an
3 animal carcinogen and a possible human carcinogen.” *In re Methyl Tertiary Butyl Ether*
4 (*MTBE*) *Prod. Liab. Litig.*, 725 F.3d 65, 78 (2d Cir. 2013). “MTBE that enters
5 groundwater moves at nearly the same velocity as the groundwater itself. As a result, it
6 often travels farther than other gasoline constituents, making it more likely to impact
7 public and private drinking water wells. Due to its affinity for water and its tendency to
8 form large contamination plumes in groundwater, and because MTBE is highly resistant
9 to biodegradation and remediation, gasoline releases with MTBE can be substantially
10 more difficult and costly to remediate than gasoline releases that do not contain MTBE.”
11 *Id.* at 80 (quoting Methyl Tertiary Butyl Ether (MTBE); Advance Notice of Intent to
12 Initiate Rulemaking Under the Toxic Substances Control Act to Eliminate or Limit the
13 Use of MTBE as a Fuel Additive in Gasoline, 65 Fed. Reg. 16094, 16097 (proposed Mar.
14 24, 2000)).

15
16 Plaintiff states that in “the late 1990’s and early 2000’s . . . repeatable and
17 widespread MTBE detections appeared . . . giving rise to concern that MTBE releases at
18 many gas stations may not have been properly contained, discovered, or remediated.”
19 (Dkt. 144-2 ¶ 42.) Plaintiff brought suit on May 5, 2003, alleging various causes of
20 action. (See Dkt. 125-3 Ex. 1 (Original Complaint).) “After this case was filed in 2003,
21 it: (i) was transferred from California state court to California District Court, (ii) was
22 transferred from California District Court to the MDL Court in the Southern District of
23 New York, (iii) underwent a decade of discovery and motion practice, (iv) was severed
24 into two phases, one of which remains in the MDL Court, and the other of which was
25 transferred here for trial.” (Dkt. 144-2 ¶ 59.)

26
27 During the course of litigation, the Parties agreed to streamline proceedings by
28 narrowing proceedings to “focus plumes” rather than litigating each of the 500 alleged

1 MTBE release locations. (*See id.* ¶ 63.) Each focus plume contains one or more release
 2 locations. On remand, the Court was presented a case involving seven focus plumes
 3 containing a total of sixteen release locations associated with Defendants. (Dkt. 65 at 4.)
 4 For each location, the MDL Court left for this Court to consider Plaintiff's continuing
 5 nuisance and declaratory relief claims.³ (*Id.*) During the pendency of this litigation,
 6 Plaintiff has expended millions of dollars "to conduct remedial investigations and
 7 assessments to address the presence of MTBE." (Dkt. 125-3 Ex. 11 at 192; *see also id.* at
 8 193 (chart of expenses through 2012).)

9
 10 Notably, Plaintiff's case focuses on harm caused by MTBE that allegedly migrated
 11 *off-site* from the release locations into OCWD aquifers. (Dkt. 140 at 9.) Defendants have
 12 addressed MTBE *at the sites*—each site "is undergoing, or has completed, remediation of
 13 contamination on and emanating from the site." (Dkt. 144-2 ¶ 50.)

14 15 **III. LEGAL STANDARD**

16
 17 The Court may grant summary judgment on "each claim or defense—or the part of
 18 each claim or defense—on which summary judgment is sought." Fed. R. Civ. P. 56(a).
 19 Summary judgment is proper where the pleadings, the discovery and disclosure materials
 20 on file, and any affidavits show that "there is no genuine dispute as to any material fact
 21 and the movant is entitled to judgment as a matter of law." *Id.*; *see also Celotex Corp. v.*
 22 *Catrett*, 477 U.S. 317, 322 (1986). The party seeking summary judgment bears the initial
 23 burden of demonstrating the absence of a genuine issue of material fact. *Celotex Corp.*,
 24 477 U.S. at 325. A factual issue is "genuine" when there is sufficient evidence such that
 25 a reasonable trier of fact could resolve the issue in the non-movant's favor. *Anderson v.*
 26 *Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). A fact is "material" when its resolution

27
 28

³ Two of the sixteen locations have additional claims not relevant to this motion. (*See* Dkt. 65 at 4.)

1 might affect the outcome of the suit under the governing law; materiality is determined
2 by looking to the substantive law. *Id.* “Factual disputes that are irrelevant or
3 unnecessary will not be counted.” *Id.* at 249.

4
5 Where the non-movant will have the burden of proof on an issue at trial, the
6 moving party may discharge its burden of production by either (1) negating an essential
7 element of the opposing party’s claim or defense, *Adickes v. S.H. Kress & Co.*, 398 U.S.
8 144, 158–60 (1970), or (2) showing that there is an absence of evidence to support the
9 non-moving party’s case, *Celotex Corp.*, 477 U.S. at 325. Once this burden is met, the
10 party resisting the motion must set forth, by affidavit, or as otherwise provided under
11 Rule 56, “specific facts showing that there is a genuine issue for trial.” *Anderson*, 477
12 U.S. at 256. A party opposing summary judgment must support its assertion that a
13 material fact is genuinely disputed by (i) citing to materials in the record, (ii) showing the
14 moving party’s materials are inadequate to establish an absence of genuine dispute, or
15 (iii) showing that the moving party lacks admissible evidence to support its factual
16 position. Fed. R. Civ. P. 56(c)(1)(A)–(B). The opposing party may also object to the
17 material cited by the movant on the basis that it “cannot be presented in a form that
18 would be admissible in evidence.” Fed. R. Civ. P. 56(c)(2). The opposing party must,
19 however, show more than the “mere existence of a scintilla of evidence”; rather, “there
20 must be evidence on which the jury could reasonably find for the [opposing party].”
21 *Anderson*, 477 U.S. at 252.

22
23 In considering a motion for summary judgment, the court must examine all the
24 evidence in the light most favorable to the non-moving party and draw all justifiable
25 inferences in its favor. *Id.*; *United States v. Diebold, Inc.*, 369 U.S. 654, 655 (1962); *T.W.*
26 *Elec. Serv., Inc. v. Pac. Elec. Contractors Ass’n*, 809 F.2d 626, 630–31 (9th Cir. 1987).
27 The court does not make credibility determinations, nor does it weigh conflicting
28 evidence. *Eastman Kodak Co. v. Image Tech. Servs., Inc.*, 504 U.S. 451, 456 (1992).

1 However, conclusory and speculative testimony in affidavits and moving papers is
2 insufficient to raise triable issues of fact and defeat summary judgment. *Thornhill Pub.*
3 *Co., Inc. v. GTE Corp.*, 594 F.2d 730, 738 (9th Cir. 1979). The evidence the parties
4 present must be admissible. Fed. R. Civ. P. 56(c). “If the court does not grant all the
5 relief requested by the motion, it may enter an order stating any material fact—including
6 an item of damages or other relief—that is not genuinely in dispute and treating the fact
7 as established in the case.” Fed. R. Civ. P. 56(g).

8 9 **IV. DISCUSSION**

10
11 Defendants seek summary judgment or partial summary judgment of four different
12 issues applicable to each plume. They contend: (1) continuing nuisance claims should be
13 dismissed because Plaintiff did not incur costs to abate MTBE prior to filing the
14 complaint (and any site for which Plaintiff’s continuing nuisance claim can proceed
15 should have damages limited to the three years prior to the complaint’s filing), (2)
16 Plaintiff’s continuing nuisance claim should be dismissed because Plaintiff has failed to
17 present evidence of causation between a site’s MTBE contamination and Plaintiff’s
18 alleged nuisance, (3) Plaintiff’s claim for punitive damages for continuing nuisance
19 should be dismissed, and (4) Plaintiff’s cause of action for declaratory relief should be
20 dismissed. The Court considers and rejects each argument in turn.

21 22 **A. CONTINUING NUISANCE DOCTRINE**

23
24 Defendants argue that Plaintiff is unable to demonstrate any damages *prior* to
25 filing the complaint in this case and that recovering damages incurred *after* filing is not
26 allowed under California continuing nuisance law. (Dkt. 125-1 at 12–15.) They portray
27 California law on continuing nuisance damages as monolithic and unanimous. (*See, e.g.*,
28 Dkt. 144 at 4 (“California law limits damages to those incurred in the three years prior to

1 the filing of the complaint For more than 100 years, the California Supreme Court
 2 has repeatedly stated that the remedy for continuing nuisance is damages incurred in the
 3 three years prior to the filing of a complaint.”.) As discussed below, the doctrine’s
 4 formulations and applications are not monolithic on the issue of post-filing damages,
 5 post-filing pre-judgment damages are available and appropriate for Plaintiff to seek in
 6 this case, and Defendants’ reliance on *People v. Kinder Morgan Energy Partners, L.P.*,
 7 159 F. Supp. 3d 1182 (S.D. Cal. 2016) is misplaced.

8 9 **1. DEVELOPMENT OF CONTINUING NUISANCE DOCTRINE**

10
 11 The California Supreme Court codified continuing nuisance doctrine in the case
 12 *Williams v. S. Pac. R. Co.*, 150 Cal. 624 (1907). The *Williams* Court, examining a
 13 railroad’s trespassing construction of track on the plaintiff’s property, distinguished
 14 between permanent and continuing injury. *Id.* at 625–26. Continuing injury cases are
 15 characterized by transient injury; “it is not presumed that the wrongful conduct will be
 16 continued” and therefore “a new cause of action [arises] at each moment.” *Id.* at 626. In
 17 contrast, permanent injury cases arise when injury has occurred and by definition will
 18 continue forever. *See id.* at 626.

19
 20 The permanent/continuing nuisance distinction “determine[s] the remedies
 21 available to injured parties.” *Baker v. Burbank-Glendale-Pasadena Airport Auth.*, 39
 22 Cal. 3d 862, 868 (1985). In continuing injury cases, each moment gives rise to a claim,
 23 so plaintiffs “can recover only the damages which have accrued up to the institution of
 24 the action.” *Williams*, 150 Cal. at 626; *see also Baker*, 39 Cal. 3d at 869 (“[I]f a nuisance
 25 is a use which may be discontinued at any time, it is considered continuing in character
 26 and persons harmed by it may bring successive actions for damages until the nuisance is
 27 abated. Recovery is limited, however, to actual injury suffered prior to commencement
 28 of each action. Prospective damages are unavailable.”). Victims of a continuing

1 nuisance can, however, bring successive claims for subsequent damage. *Spaulding v.*
2 *Cameron*, 38 Cal. 2d 265, 267 (1952) (en banc) (“The remedy for a continuing nuisance
3 was either a suit for injunctive relief or successive actions for damages as new injuries
4 occurred.”). In permanent injury cases, where injury is irrevocable, “all damages, past
5 and prospective, are recoverable in one action, and the entire cause of action accrues
6 when the injury is inflicted or the trespass committed.” *Williams*, 150 Cal. at 626.

7
8 The rationale for the limitation on damages in continuing injury cases is tied to the
9 fact that the injury is capable of being abated. The paradigmatic measure of damages for
10 permanent nuisance is diminution in property value. *See Spaulding*, 38 Cal. 2d at 270
11 (“[T]he trial court should determine whether or not the nuisance is in fact permanent. If
12 it finds that it is, it should enter judgment for the decrease in market value.”); *see also*
13 *Gehr v. Baker Hughes Oil Field Operations, Inc.*, 165 Cal. App. 4th 660, 663 (2008)
14 (“Under California law, damages for diminution in value may only be recovered for
15 permanent, not continuing, nuisances.”) (citing *Santa Fe P’ship v. ARCO Products Co.*,
16 46 Cal. App. 4th 967, 977–78 (1996)). However, if a nuisance can be abated, once it is
17 removed, “there will no longer be a [nuisance] to depreciate the value of the property.”
18 *Spaulding*, 38 Cal. 2d at 629. For example, airport noise, once removed, will no longer
19 deflate the value of affected property. *See generally Baker*, 39 Cal. 3d 862. Therefore,
20 the paradigmatic judicial resolution of continuing nuisance is ordering defendants to
21 abate the nuisance and compensating plaintiffs for loss of use of their property. *See, e.g.*,
22 *Santa Fe P’ship*, 46 Cal. App. 4th at 980 (“California law limits damages for continuing
23 trespass and continuing nuisance to abatement and loss of use.” (quoting *F.D.I.C. v.*
24 *Jackson-Shaw Partners*, 850 F. Supp. 839, 844 (N.D. Cal. 1994))).

25
26 Obviously, recovering both a judicial order for abatement of the nuisance (or the
27 necessary funds to remediate) *and* prospective damages for decreased property value in
28 continuing nuisance cases would constitute double recovery, an impermissible windfall.

1 *Spaulding*, 38 Cal. 2d at 269 (“Plaintiff would obtain a double recovery if she could
 2 recover for the depreciation in value and also have the cause of that depreciation
 3 removed.”); *Carson Harbor Vill., Ltd. v. Unocal Corp.*, 287 F. Supp. 2d 1118, 1202
 4 (C.D. Cal. 2003), *aff’d sub nom. Carson Harbor Vill. v. Cty. of Los Angeles*, 433 F.3d
 5 1260 (9th Cir. 2006) (“Because they can be abated, however, parties alleging the
 6 existence of a continuing nuisance may not recover diminution in value damages.”).

7

8 2. FORMULATIONS OF THE DAMAGES LIMITATION IN

9 CONTINUING NUISANCE DOCTRINE

10

11 Contrary to Defendants’ contention, California law on continuing nuisance
 12 damages is nuanced and varied. In addition to *Williams*, the California Supreme Court’s
 13 decision in *Baker v. Burbank-Glendale-Pasadena Airport Auth.*, 39 Cal. 3d 862 (1985), is
 14 instructive. *Baker* involved homeowners adjacent to Burbank Airport who sued alleging
 15 that the “noise, smoke, and vibrations from flights over their homes” constituted a
 16 nuisance. *Id.* at 868. The lower court had held that since the flights were operated in
 17 accordance with federal law, they could not be abated and therefore constituted a
 18 permanent nuisance (the statute of limitations barred plaintiffs from seeking relief from
 19 permanent nuisances). *Id.* at 868. After a lengthy exposition on the development of
 20 continuing nuisance doctrine, *see id.* at 868–70, the California Supreme Court held that
 21 “[a]irport operations are the quintessential continuing nuisance,” and accordingly
 22 remanded to the lower court for further proceedings, *id.* at 873. As relevant here, *Baker*’s
 23 exposition of continuing nuisance doctrine contained the following three sentences: “On
 24 the other hand, if a nuisance is a use which may be discontinued at any time, it is
 25 considered continuing in character and persons harmed by it may bring successive actions
 26 for damages until the nuisance is abated. Recovery is limited, however, to actual injury
 27 suffered prior to commencement of each action. Prospective damages are unavailable.”
 28

1 *Id.* at 870 (citing *Phillips v. City of Pasadena*, 27 Cal. 2d 104, 107–08 (1945) in support
2 of the first sentence).

3
4 Many cases, often parroting *Baker*, state the rule that damages accrued after the
5 filing of a complaint cannot be recovered for continuing nuisance. *See, e.g., Kornoff v.*
6 *Kingsburg Cotton Oil Co.*, 45 Cal. 2d 265, 268–69 (1955) (“The general rule appears to
7 be that where a trespass to land is of a permanent nature, all damages, past and
8 prospective, are recoverable in one action, but where the trespass is temporary in
9 character, only those damages may be recovered which have accrued up to the time of the
10 commencement of the action, since it is not to be presumed that the trespass will
11 continue.”); *Gehr*, 165 Cal. App. 4th at 667 (*Baker*’s statement “means that if a private
12 nuisance is deemed to be a continuing nuisance, the plaintiff may bring successive
13 actions for damages (except for diminution in value) incurred prior to the commencement
14 of each successive action until the nuisance is finally abated.”); *Beck Dev. Co. v. S. Pac.*
15 *Transp. Co.*, 44 Cal. App. 4th 1160, 1216 (1996) (“In an action on a permanent nuisance,
16 the plaintiff will be permitted to recover both past and prospective damages while in an
17 action on a continuing nuisance prospective damages are unavailable and recovery is
18 limited to actual injury suffered prior to commencement of each action.”) (citing *Baker*);
19 *Santa Fe P’ship*, 46 Cal. App. 4th at 968 (“[P]revailing law holds damages for
20 prospective harm are unavailable where the nuisance is deemed to be continuing and
21 abatable.”); *Donahue v. Kuntz*, No. B250943, 2015 WL 686573, at *6 (Cal. Ct. App. Feb.
22 18, 2015) (unpublished) (“[A]ttorney fees and costs or damages for emotional distress
23 and prospective harm [are] not recoverable under a continuing nuisance theory.”); *Arcade*
24 *Water Dist. v. United States*, 940 F.2d 1265, 1269 (9th Cir. 1991) (“Instead, Arcade may
25 elect to treat the nuisance as continuing, entitling Arcade to an action not for permanent
26 damages, but rather for only those damages suffered in the two years preceding the filing
27 of its FTCA claim.”) (citing *Baker*); *Bartleson v. United States*, 96 F.3d 1270, 1275 (9th
28 Cir. 1996) (quoting *Baker*); *Prescott v. United States*, 105 F.3d 666 (9th Cir. 1996)

(same); *O'Connor v. Boeing N. Am., Inc.*, 197 F.R.D. 404, 417 (C.D. Cal. 2000) (same); *Torrance Redevelopment Agency v. Solvent Coating Co.*, 781 F. Supp. 650, 653 (C.D. Cal. 1991) (“[T]he continuing aspect of the alleged wrong permitted recovery for damages sustained within the statutory period even though the original wrong fell outside the statute.”) (citing *Mangini v. Aerojet-Gen. Corp.*, 227 Cal. App. 3d 1248, 278 Cal. Rptr. 395, 404 (1991), *reh’g granted, opinion not citeable* (Mar. 20, 1991), *vacated*, 230 Cal. App. 3d 1125 (1991)); *Oildale Mut. Water Co. v. Crop Prod. Servs., Inc.*, No. 1:13-CV-2054 AWI JLT, 2014 WL 824958, at *2 (E.D. Cal. Mar. 3, 2014) (“For claims of continuing nuisance and continuing trespass, only damages that have accrued prior to the filing of a complaint are available. Prospective damages must be sought in successive actions as they accrue.”).

However, Defendants overstate California law when they indicate it is unanimous regarding preclusion of post-filing damages. A number of cases diverge from *Williams*, *Baker*, and their progeny. Particularly relevant here, courts have distinguished between prospective injury and post-filing damages. Specifically, they indicate that the time-of-filing limit in continuing nuisance requires *the injury* to occur before the complaint is filed but *damages* caused by that injury, even if incurred after the complaint’s filing, are recoverable. Implicitly, these cases understand *Williams*’ and *Baker*’s prohibition on prospective damages to preclude post-judgment, damages, not post-filing, pre-judgment, damages. *See, e.g., Joerger v. Pac. Gas & Elec. Co.*, 207 Cal. 8, 27–28 (1929) (“[I]t is first contended that the trial court erred in admitting testimony as to plaintiff’s damages to his crops for the years 1923 and 1924, for the reason that such damages were not within the issues; they having occurred subsequent to the filing of the complaint. The evidence was properly admitted. It was offered and received in support of plaintiff’s claim that damage to his crops for the period involved was in consequence of the unlawful acts of defendants committed prior to the filing of the amended and supplemental complaint. Under such circumstances plaintiff was entitled to recover for

1 the damage resulting after the commencement of the action.”) (citing *Hicks v. Drew*, 117
 2 Cal. 305, 312 (1897); *Bryson v. McCone*, 121 Cal. 153, 159 (1898); and *Berry v. Bank of*
 3 *Bakersfield*, 177 Cal. 206, 211 (1918)); *Spaulding*, 38 Cal. 2d at 267 (“The remedy for a
 4 continuing nuisance was either a suit for injunctive relief or successive actions for
 5 damages as *new* injuries occurred.” (emphasis added)); *Kornoff*, 45 Cal. 2d 265, 269–70
 6 (1955) (citing *Spaulding*); *Shamsian v. Atl. Richfield Co.*, 107 Cal. App. 4th 967, 982
 7 (2003) (allowing claim for damages arising from plaintiff’s ongoing decision to not
 8 attempt to lease contaminated land; plaintiff’s acquisition of contaminated land occurred
 9 within three years of complaint’s filing); *Oildale Mut. Water Co.*, 2014 WL 824958, at *6
 10 (“If damages continue to occur, i.e. if abatable nitrate contamination continues *after the*
 11 *verdict*, then Oildale Water would be forced to file successive lawsuits.” (emphasis
 12 added)); *FMC Corp. v. Vendo Co.*, 196 F. Supp. 2d 1023, 1041 (E.D. Cal. 2002) (“Any
 13 injury to real property of a claimant from the release and entry of contaminants past,
 14 present, and future may be addressed under [continuing nuisance].”).

15
 16 Cases also occasionally diverge from loss of use damages and instead award loss
 17 of rental value damages. *See, e.g., Spaulding*, 127 Cal. App. 2d at 705 (awarding loss of
 18 rental value); *Guttinger v. Calaveras Cement Co.*, 105 Cal. App. 2d 382, 387 (1951)
 19 (“But the damage here was shown to be temporary in character and in such cases the
 20 general rule is that the measure of damages is the difference in the rental or usable value
 21 of the premises before and after the injury.”); *Qualls v. Smyth*, 148 Cal. App. 2d 635, 637
 22 (1957) (same); *Oscar v. Univ. Students Co-Op. Ass’n*, 939 F.2d 808, 815 (9th Cir. 1991),
 23 *reh’g en banc granted, opinion withdrawn*, 952 F.2d 1566 (9th Cir. 1992), *and rev’d on*
 24 *reh’g en banc on other grounds*, 965 F.2d 783 (9th Cir. 1992) (“[T]he usual measure [of
 25 continuing nuisance damages] . . . is loss of rental value.”).

26
 27 //

28 //

3. APPLICATIONS OF CONTINUING NUISANCE DAMAGES

There are two ways courts have applied continuing nuisance damages relevant to this case. First, courts have awarded plaintiffs claiming nuisance the cost of abatement in lieu of equitable injunctive relief ordering defendants' abatement of the nuisance. Second, courts have applied the continuing nuisance damages limitation.

1. Cost of Abatement. The typical paradigm for continuing nuisance damages is abatement and loss of use. *Santa Fe P'ship*, 46 Cal. App. 4th at 980. Abatement is rooted in equitable, injunctive relief. *See, e.g., Katenkamp v. Union Realty Co.*, 6 Cal. 2d 765, 776 (1936) ("[O]ne who suffers damage from a continuing nuisance has two causes of action and two remedies; the one, a suit for damages which is an action at law, and the other, a suit to enjoin or abate the nuisance, which is in equity."). Such equitable relief remains common in continuing nuisance cases. *See, e.g., Mangini v. Aerojet-Gen. Corp.*, 12 Cal. 4th 1087, 1090 (1996) (linking abatement to injunctive relief); *Alexander v. McKnight*, 7 Cal. App. 4th 973, 978 (1992) (describing abatement as equitable relief); *Mitchell v. Superior Court*, 49 Cal. 3d 1230, 1247 (1989) (en banc) (describing "injunction to abate a nuisance"); *Gehr*, 165 Cal. App. 4th at 668 (referring to the court's ability to order defendants to abate nuisances); *Seltzer v. Eugene Burger Mgmt. Corp.*, No. A126308, 2011 WL 1833196, at *6 (Cal. Ct. App. May 13, 2011), *as modified on denial of reh'g* (June 13, 2011) (unpublished) ("The fifth cause of action is also equitable. . . . Plaintiff requested "an order of abatement of the continuing nuisances").

Sometimes, courts award plaintiffs the cost of abatement, rather than issue an injunction ordering defendants' abatement of a nuisance. This occurs even when abatement has not yet occurred and therefore the damages accrued by bearing future remediation costs are necessarily prospective. *See, e.g., De Costa v. Massachusetts Flat Water & Mining Co.*, 17 Cal. 613, 617 (1861) ("This is an action to abate a nuisance, and

1 for damages. The nuisance was caused by the digging of a ditch upon the land of the
 2 plaintiff. The Court ordered the nuisance to be abated, and awarded as damages a sum
 3 sufficient to pay the expense of filling up the ditch, and restoring the land to its original
 4 condition.”); *F.D.I.C.*, 850 F. Supp. at 844 (holding that defendant’s indemnification of
 5 plaintiff’s remediation costs constituted sufficient recovery for abatement damages);
 6 *Gehr*, 165 Cal. App. 4th at 667 n.7 (“Because a continuing nuisance can be abated at any
 7 time, granting damages for both diminution in value and the *cost of remediation* would
 8 unjustly enrich the plaintiff.” (emphasis added)); *Santa Fe P’ship*, 46 Cal. App. 4th at
 9 972 (“[A]ppellants had not suffered any costs for abatement of the nuisance nor loss of
 10 use damages—the only damages recoverable for continuing trespass and nuisance
 11 claims.”); *SPPI-Somersville, Inc. v. TRC Companies, Inc.*, No. 07-5824 SI, 2009 WL
 12 2612227, at *22 (N.D. Cal. Aug. 21, 2009) (same); *F.D.I.C. v. Jackson-Shaw Partners*
 13 *No. 46, Ltd.*, No. CIV. 92-20556 SW, 1995 WL 540076, at *6 (N.D. Cal. Sept. 6, 1995)
 14 (same); *Wilshire Westwood Associates v. Atl. Richfield Co.*, 20 Cal. App. 4th 732, 744–45
 15 (1993) (awarding the cost of pre-filing abatement); *but see Redevelopment Agency of City*
 16 *of Stockton v. Burlington N. & Santa Fe Ry. Corp.*, No. 205CV02087JAM-JFM, 2009
 17 WL 1911061, at *11 (E.D. Cal. July 1, 2009) (“Damages recoverable in continuing
 18 nuisance and continuing trespass cases are limited to those damages incurred prior to
 19 commencement of the action. . . . As a matter of law, the Agency cannot recover under its
 20 nuisance and trespass claims any [remediation] costs incurred after [the date the
 21 complaint was filed].”). Some cases, additionally, limit the types of costs that count as
 22 abatement costs. *See, e.g., F.D.I.C.*, 850 F. Supp. at 844 (“As costs for temporary injury,
 23 abatement costs do not include investigations and permanent injury.”); *San Diego Unified*
 24 *Port Dist. v. TDY Indus., Inc.*, No. CIV. 03CV1146-B(POR), 2006 WL 762838, at *8
 25 (S.D. Cal. Mar. 15, 2006) (same); *cf. City & Cty. of San Francisco v. ExxonMobil Oil*
 26 *Corp.*, No. C 08-03490 MHP, 2009 WL 1189594, at *1 (N.D. Cal. May 4, 2009)
 27 (countenancing claim for continuing nuisance damages which included cost of
 28 investigation and monitoring); *City of Merced Redevelopment Agency v. Exxon Mobil*

1 *Corp.*, No. 1:08-CV-714-LJO-GSA, 2015 WL 471672, at *18 (E.D. Cal. Feb. 4, 2015),
 2 *appeal dismissed* (May 19, 2015) (same).

3
 4 Cases have, however, denied abatement costs incurred more than three years
 5 *before* the filing of a complaint for continuing nuisance. *See, e.g., San Diego Unified*
 6 *Port Dist.*, 2006 WL 762838, at *9 (“As such, any abatement costs for the sand-cap at
 7 Convair Lagoon that occurred in the 1990s, *i.e.* more than three years prior to the filing
 8 dates of both the counterclaims and third party complaint, are time-barred.”); *Sullins v.*
 9 *Exxon/Mobil Corp.*, No. C 08-04927 CW, 2010 WL 11420214, at *1 (N.D. Cal. July 2,
 10 2010) (“Excluded are: costs incurred more than three years prior to filing the
 11 complaint.”); *Universal Paragon Corp. v. Ingersoll-Rand Co.*, No. C05-03100 MJJ, 2007
 12 WL 518828, at *14 (N.D. Cal. Feb. 13, 2007) (“Union Pacific also asserts that any claims
 13 by Defendants’ [sic] for continuing nuisance or continuing trespass are limited to seeking
 14 damages incurred *since* December 12, 2002, three years before it filed suit. . . .
 15 Defendants do not address this argument. Accordingly, the Court finds that to the extent
 16 that Defendants seek damages for a continuing trespass or continuing nuisance, their
 17 damages are limited to those incurred *since* December 12, 2002.” (emphasis added)
 18 (citations omitted)); *City of Richmond v. United States*, No. C-89-2935 DLJ, 1995 WL
 19 354863, at *5 (N.D. Cal. June 2, 1995) (“The Court earlier ruled as a matter of law that
 20 only damages incurred less than three years before bringing the action could be recovered
 21 under continuing nuisance and trespass.”).

22
 23 **2. Limiting Damage Awards.** While many cases state *Baker*’s rule or variations
 24 thereof, only a handful *apply* its limit on prospective damages in continuing nuisance
 25 cases. Of that handful of cases, most deal with prospective damages for diminution in
 26 value, which are more closely akin to permanent nuisance damages. *See, e.g., Mangini*,
 27 230 Cal. App. 3d at 1145 (“[D]efendant notes that plaintiffs seek to recover *all*
 28 diminution in the market value of their property. This *form of relief* is incompatible with

1 a claim based on injuries caused by continuing nuisance.”) (first emphasis added; second
2 emphasis in original); *City of Rialto v. U.S. Dep’t of Def.*, No. EDCV 04-00079-VAP,
3 2004 WL 6067430, at *6 (C.D. Cal. July 12, 2004) (“Plaintiffs seek an exception from
4 the general rule prohibiting non-recovery because they may suffer *post-abatement*
5 damages. Plaintiffs’ argument is unpersuasive.” (emphasis added)) (citing *F.D.I.C.*,
6 *Santa Fe P’ship, Mangini*); *Gehr*, 165 Cal. App. 4th at 668 (denying claim for interest
7 rate differential damages as constituting diminution in value); *F.D.I.C.*, 850 F. Supp. at
8 844 (“Were they not barred, the partnership would, in all likelihood be able to recover
9 diminution in value damages, which might include a component relating to the stigma
10 caused by the contamination As the discussion above reveals, the weight of
11 California courts which have spoken to this issue have rejected attempts to recover such
12 damages under continuing trespass or continuing nuisance theories.” (citations omitted));
13 *California River Watch v. Fluor Corp.*, No. 10-CV-05105-WHO, 2014 WL 6679890, at
14 *4 (N.D. Cal. Nov. 25, 2014) (“Fluor is correct that the damages TSG alleges—stigma
15 and depreciation—are inconsistent with continuing trespass nuisance, which is what TSG
16 has alleged.”); *Bartleson*, 96 F.3d at 1275–76 (noting that “[d]amages for diminution in
17 property value due to stigma have been recognized by the California courts in cases of
18 permanent nuisance” but not continuing nuisance) (collecting cases); *Sullins*, 2010 WL
19 11420214, at *1 (“Excluded are: costs incurred more than three years prior to filing the
20 complaint; diminution in property value; future damages; and consequential and
21 compensatory damages. Allowable damages are: costs of remediation incurred during
22 the three years prior to the filing of the complaint; loss of use and loss of profits during
23 the three years prior to filing the complaint. In addition, injunctive relief to abate the
24 contamination may be ordered by the Court.”); *but see Abarca v. Franklin Cty. Water*
25 *Dist.*, No. 1:07-CV-0388OWW DLB, 2009 WL 1393511, at *10 (E.D. Cal. May 18,
26 2009) (“As stigma damages may be awarded as part of diminution of value in a
27 continuing nuisance claim, it is not appropriate to strike Plaintiffs’ request for stigma
28 damages at this time.”).

1 Turning to cases directly relevant to the issue before the Court, only a handful have
 2 considered damages incurred *between* complaint-filing and judgment. Some cases deny
 3 recovery of such damages. *See, e.g., City of Rialto*, 2004 WL 6067430, at *7 (“This
 4 Court, however, declines to follow *Renz*, a decision rendered by an intermediate appellate
 5 court, considering the weight of authority prohibiting such a recovery.”); *SPPI-*
 6 *Somersville*, 2009 WL 2612227, at *23 n.20 (“The parties do disagree about whether
 7 continuing nuisance and trespass damages include post-filing damages. The Court agrees
 8 with defendants that recovery in a continuing tort claim is limited ‘to actual injury
 9 suffered prior to commencement of each action. Prospective damages are unavailable.’”) (quoting *Baker*, 39 Cal. 3d at 869).

11
 12 Others, consistent with the injury/damages distinction, expressly countenance
 13 recovery of damages that accrue during the lawsuit arising from pre-complaint injuries.
 14 *See, e.g., Spaulding*, 38 Cal. 2d at 270 (“If [the court below finds continuing nuisance], it
 15 should grant injunctive relief and such additional damages as may be proved for the
 16 temporary decrease in the value of the use of the property while the nuisance continued.”) (citing *Bourdieu v. Seaboard Oil Corp.*, 48 Cal. App. 2d 429, 437–38 (1941)); *Greater*
 17 *Westchester Homeowners Assn. v. City of Los Angeles*, 26 Cal. 3d 86, 91–92 (1979)
 18 (awarding damages for aircraft noise through the issuance of judgement); *Guttinger*, 105
 19 Cal. App. 2d at 387; *Starrh & Starrh Cotton Growers v. Aera Energy LLC*, 153 Cal. App.
 20 4th 583, 592 (2007) (“In [continuing nuisances], damages are assessed for present and
 21 past damages only; prospective damages are not awarded because the trespass may be
 22 discontinued or abated at some time, ending the harm.”); *Polin v. Chung Cho*, 8 Cal.
 23 App. 3d 673, 678 (1970) (“Defendants assert that the complaint in seeking future
 24 damages indicates an election by plaintiffs to treat the trespass as permanent. But since
 25 plaintiffs seek an injunction against defendants, the future damages referred to must be
 26 construed to mean those occurring between the time of filing the action and the time of
 27 trial.”) (citing Cal. Civ. Code § 3283); *Kafka v. Bozio*, 191 Cal. 746, 752 (1923)

1 (“[D]amages are confined to the actual injury from the nuisance and its continuance to
 2 the date of the writ.”) (quoting with approval 4 Sutherland on Damages 3849 (4th Ed.));
 3 *Santa Fe P’ship*, 46 Cal. App. 4th at 977 (“with a continuing nuisance a plaintiff can
 4 recover past and present damages, but not future damages, since the abatement order will
 5 terminate the nuisance for the future”) (quoting with approval Miller & Starr, California
 6 Real Estate 2d (1990) § 29:12, p. 85)); *Harris v. Gregory*, No. F059220, 2011 WL
 7 140185, at *3 (Cal. Ct. App. Jan. 18, 2011) (unpublished) (“[P]laintiff could recover only
 8 for actual damages he sustained prior to judgment; he could not recover for any
 9 prospective damages.”) (citing *Linthicum v. Butterfield*, 175 Cal. App. 4th 259, 268
 10 (2009)); *Wallace v. Cass*, No. G036490, 2008 WL 626475, at *11 (Cal. Ct. App. Mar. 10,
 11 2008) (unpublished) (“The damages were awarded for the losses the Plaintiffs have
 12 already suffered-the reduced value of their properties at the time of trial.”); *Walnut Creek*
 13 *Manor, LLC v. Mayhew Ctr., LLC*, 622 F. Supp. 2d 918, 933 (N.D. Cal. 2009) (quoting
 14 *Starrh*); *W. Coast Home Builders, Inc. v. Aventis Cropscience USA Inc.*, No. C 04-2225
 15 SI, 2009 WL 2612380, at *7 (N.D. Cal. Aug. 21, 2009) (allowing claim for damages
 16 calculated based in part on anticipated post-compliant use of land).

17
 18 Similarly, courts that have used loss of rental value to determine continuing
 19 nuisance damages have awarded loss of rental value extending past the time of filing of a
 20 complaint. *See, e.g., Braughton v. NMHCS*, No. H033302, 2009 WL 1506971, at *10
 21 (Cal. Ct. App. May 29, 2009) (unpublished) (“As to the measure of damages, although a
 22 proper measure of damages in some cases of an abatable nuisance may be ‘the temporary
 23 decrease in the value of the use of the property [harmed by the nuisance] while the
 24 nuisance continued.’”) (modification in original) (quoting *Spaulding*, 38 Cal. 2d at 270);
 25 *Carpentier v. Mitchell*, 29 Cal. 330 (1865) (awarding fair rental value from time of
 26 wrongful occupation “to the date of the order of judgment”).

27
 28 //

One particularly thorough case to grant post-filing damages is *Renz v. 33rd Dist. Agric. Assn.*, 39 Cal. App. 4th 61 (1995), decided by the California Court of Appeal. The plaintiffs in *Renz* sought damages for the nuisance of noise, dust, and fumes caused by the defendant, a neighbor. *Id.* at 65. The *Renz* court rejected defendant's post-judgment argument that the plaintiffs' damage award impermissibly included damages accrued after the filing of the complaint. *Id.* at 65. The court held that *Baker's* statement that "[r]ecovery is limited, however, to actual injury suffered prior to commencement of each action," *Baker*, 39 Cal. 3d at 869, was dicta. *Renz*, 39 Cal. App. 4th at 65. Equivalent statements in *Spaulding* were also dicta. *Id.* at 66–67. The *Renz* court's analysis "found no other case authority which contains a *holding* on the issue of whether damages accrued between the commencement and the conclusion of a continuing nuisance action are recoverable in that action. The only California Supreme Court opinions which mention this rule provide no insight into the rationale for prohibiting a continuing nuisance plaintiff from recovering damages accrued between the commencement and conclusion of the action." *Id.* at 65 (emphasis in original). The court noted several non-binding Court of Appeals decisions that mentioned the limit on continuing nuisance damages, often in dicta. *Id.* at 67. Ultimately, the court reasoned that "[i]f damages incurred between the commencement and the completion of the action were not recoverable, plaintiffs in many continuing nuisance actions would be forced to bring an additional action even if they ultimately obtained an injunction preventing further damage. Requiring repetitive litigation is not in the interests of justice and judicial economy." *Id.* at 71. Therefore, pre-judgment, post-filing damages were recoverable. *Id.* at 71.

Unsurprisingly, Plaintiff principally relies on *Renz*. (Dkt. 140 at 14.) In addition to *Renz*, it relies on *Kafka*, 191 Cal. at 751 ("damages are confined to the actual injury from the nuisance *and its continuance to the date of the writ*" (emphasis added)). (Dkt.

140 at 14, 17.) Both of these lines of cases are directly relevant to the Court's application of the law in this case.

4. CONTINUING NUISANCE DAMAGES IN THIS CASE

As previously discussed, continuing nuisance damages do not include prospective damages because, in conjunction with abatement, they would constitute a windfall double remedy. Formulations of continuing nuisance's damages limitation vary, and they include versions that countenance post-filing pre-judgment damages. Courts have awarded plaintiffs claiming nuisance the cost of abatement in lieu of equitable injunctive relief ordering defendants' abatement of the nuisance. Applications of continuing nuisance's damages limitation mostly deal with precluding post-abatement damages for continued injury, such as stigmatic depreciation in property value.

The Court finds that Plaintiff may recover post-filing, pre-judgment abatement expenses. There are no precedential cases with facts on point that preclude post-filing, pre-judgment damages to compensate plaintiffs for abatement activities. *Renz* aptly demonstrates that *Baker*'s statement constitutes dicta—the *Baker* court held that airport operations constituted a continuing nuisance, contrary to the lower court's finding that it was a permanent nuisance, and accordingly remanded for further proceedings. *Renz*, 39 Cal. App. 4th at 67–68 (citing *Baker*, 39 Cal. 3d at 868–69). *Baker* made no holding on what damages are recoverable for continuing nuisance. Furthermore, despite its dicta statement on post-filing damages, the California Supreme Court in *Baker* cited approvingly its earlier decision in *Greater Westchester*, 26 Cal. 3d 86. *Baker*, 39 Cal. 3d at 872. Specifically, *Baker* highlighted the time frame for which *Greater Westchester* awarded damages as indicating that airport noise constituted continuing nuisance. *Id.* at 827 (“In *Greater Westchester* we affirmed damage awards totaling \$86,000 for personal injuries sustained during the period 1967–1975 by persons living near Los Angeles

1 International Airport. Although we did not otherwise identify the nuisance as permanent
 2 or continuing, the time frame given strongly suggests the latter.”). *Greater Westchester*,
 3 however, awarded *post-filing* damages *through the time of judgment*. *Greater*
 4 *Westchester*, 26 Cal. 3d at 91–92 (1979) (stating that plaintiffs filed suit in 1968 and
 5 recovered damages for nuisance through 1975, the date of judgment).

6
 7 Of the few *persuasive* authorities on point, some, such as *Renz*, countenance post-
 8 filing damages. *See Renz*, 39 Cal. App. 4th at 65; *Guttinger*, 105 Cal. App. 2d 460;
 9 *Dolnikov v. Ekizian*, 222 Cal. App. 4th 419 (2013); *Spaulding v. Cameron*, 127 Cal. App.
 10 2d 698, 705 (1954); *Starrh*, 153 Cal. App. 4th at 592; *Polin*, 8 Cal. App. 3d at 678; *Santa*
 11 *Fe P’ship*, 46 Cal. App. 4th at 977; *Harris*, 2011 WL 140185, at *3; *Wallace*, 2008 WL
 12 626475, at *11; *Walnut Creek Manor*, 622 F. Supp. 2d at 933 (quoting *Starrh*).

13
 14 The Court’s conclusion that post-filing, pre-judgment damages are recoverable is
 15 further supported by several strong policy interests. Awarding post-filing, pre-judgment
 16 damages ensures complete recovery and does not conflate permanent and continuing
 17 nuisance damages. As this case aptly highlights, there are three relevant time periods in
 18 which damages accrue: pre-filing, post-filing and pre-judgment, and post-judgment. In
 19 permanent nuisance cases, courts award damages that accrue in all three periods. In
 20 contrast, prospective continuing nuisance damages would allow recovery of both
 21 injunctive abatement relief *and* prospective damages. That clearly constitutes
 22 impermissible double recovery. However, that rationale only justifies precluding post-
 23 judgment damages. In contrast, allowing recovery of post-filing, pre-judgment damages,
 24 that is, through the time the nuisance abates, does not lead to double recovery. Rather,
 25 awarding post-filing, pre-judgment damages prevents partial, incomplete recovery.

26
 27 Allowing incomplete recovery would be unjust. Plaintiff’s case starkly
 28 exemplifies why. Under Defendants’ proposed rule, Plaintiff could recover pre-filing

1 damages. Plaintiff could also receive judicially ordered abatement or alternatively an
2 award of the cost of post-judgment abatement. However, Plaintiff could not recover
3 anything for the staggering costs of thirteen years of MTBE remediation that have
4 accrued as this action has unfolded. Allowing post-filing, pre-judgment damages
5 therefore avoids this unconscionable result. And once again, it will not conflate
6 continuing and permanent nuisance damages. Plaintiff is recovering nothing for the
7 stigmatic depreciation of property, for example.

8
9 Defendants' proposed rule would also lead to perverse incentives. If Plaintiff
10 could not recover costs incurred during litigation, Plaintiff would be tempted into
11 delaying its remediation efforts in order to recover the full cost of abatement post-
12 judgment. Such procrastination, however, would significantly increase the risk to the
13 public and the cost of eventual abatement. It might also hinder the effectiveness of
14 eventual remediation, perhaps making complete remediation of MTBE contamination
15 illusory.

16
17 Finally, Defendants' rule would create a procedural nightmare. In complex cases
18 such as this, where the case is referred to multidistrict litigation, streamlined into "focus
19 plumes," and split into various pieces, multiplying litigation would drastically increase
20 the burden on plaintiffs seeking to protect their interests (and here, the public's drinking
21 water). Requiring Plaintiff to refile every three years during the pendency of the original
22 action would also raise the specter of inconsistent rulings, lead to wholly redundant
23 discovery, and unnecessarily implicate intricate preclusive effects. Furthermore,
24 successive, duplicative actions are prohibited. *See, e.g., Robinson v. United States*, No.
25 2:11-CV-01227-MCE, 2011 WL 5838472, at *4 (E.D. Cal. Nov. 21, 2011) ("Plaintiffs'
26 claim that this complaint should not be dismissed as duplicative because California law
27 permits successive filings of claims for continuing nuisance misses the mark. Even if
28 California law permits successive actions for permanent nuisance, it does not follow that

1 Plaintiffs have the right to file multiple concurrent actions based upon the same subject
 2 matter, as Plaintiffs did here. . . . [T]he relevant standard for dismissing an action as
 3 duplicative is not whether the law permits successive actions, but rather whether the
 4 subsequent action arises out of the same transaction and occurrence.”).

5. *KINDER MORGAN’S DENIAL OF POST-FILING DAMAGES*

8 In a pair of recent decisions, *People v. Kinder Morgan Energy Partners, L.P.*, 159
 9 F. Supp. 3d 1182 (S.D. Cal. 2016) (“*Kinder Morgan I*”) and *People of the State of*
 10 *California v. Kinder Morgan Energy Partners, LP*, No. 07CV1883-MMA (WVG), 2016
 11 WL 1165828, at *1 (S.D. Cal. Mar. 24, 2016) (“*Kinder Morgan II*”), the Southern
 12 District of California held that post-filing damages were not available in a case involving
 13 continuing nuisance damages for soil and groundwater contamination. Defendants
 14 principally rely on those cases and urge the Court to follow *Kinder Morgan’s* denial of
 15 post-filing damages. (Dkt. 125-1 at 14–15; Dkt. 144 at 5, 8–9.) Because the Court does
 16 not believe that *Kinder Morgan I & II* provide “the most complete and most current
 17 statement of continuing nuisance law,” (Dkt. 144 at 8), it will not follow these district
 18 court decisions.

20 Relying on *Baker* and its progeny, defendant Kinder Morgan argued for limiting
 21 damages to those incurred prior to the filing of the case. *Kinder Morgan I*, 159 F. Supp.
 22 3d at 1196. The *Kinder Morgan* court, undertaking “an exhaustive review of relevant
 23 state and federal law,” found for Kinder Morgan and limited damages to those accrued at
 24 the time of the institution of the action. *Id.* at 1196. The court’s analysis of the limitation
 25 on continuing nuisance damages began with *Williams* and then cited many of the cases
 26 that parrot its statement that a plaintiff “can recover only the damages which have
 27 accrued up to the institution of the action.” *Williams*, 150 Cal. at 626; *see Kinder*
 28 *Morgan I*, 159 F. Supp. 3d. at 1197 (collecting cases). Notably, the *Kinder Morgan* court

1 did not cite or engage with the policy justification for the limit on continuing nuisance
 2 damages: preventing the windfall of double recovery (prospective diminution of value
 3 damages and abatement). *See, e.g., Santa Fe P'ship*, 46 Cal. App. 4th at 980.

4
 5 Following *Kinder Morgan I*'s ruling limiting damages, plaintiffs sought
 6 certification of the issue for interlocutory appeal. In *Kinder Morgan II*, the court found
 7 that "there is not a substantial ground for difference of opinion regarding the controlling
 8 question of law." *Kinder Morgan II*, 2016 WL 1165828 at *11. The court distinguished
 9 thirteen cases plaintiffs had cited, stating that "the published cases upon which the City
 10 relies do not support an entitlement to post-filing damages in a continuing nuisance or
 11 trespass action, and are consistent with the California Supreme Court's statement of the
 12 law in *Williams*." *Id.* at *5.

13
 14 The Court respectfully disagrees with substantial parts of *Kinder Morgan II*'s
 15 analysis. As demonstrated above, there are differences of opinion in controlling and
 16 persuasive law on post-filing continuing nuisance damages. In addition, for the reasons
 17 discussed below, *Kinder Morgan II*'s grounds to ignore many of the thirteen on-point
 18 cases are not compelling.

19
 20 1. *Kinder Morgan II* acknowledged that *Carpentier v. Mitchell*, 29 Cal. 330
 21 (1865), is reasonably characterized as a case "awarding fair rental value from time of
 22 wrongful occupation to the date of the order of judgment." *Id.* at *6 (internal quotation
 23 omitted). *Kinder Morgan II* distinguished *Carpentier* on the basis of its being an
 24 ejectment action. *Id.* at *6. The court stated that the remedies for ejectment focus on
 25 possessory interest in land, whereas continuing nuisance focus on damages. *Id.* at *6 n.2.
 26 However, as the court acknowledged, ejectment remedies include damages. *Id.* at *6 n.2.
 27 Simply stated, the ejectment versus continuing nuisance distinction is not persuasive,
 28 particularly since the former is the logical extension of particularly severe nuisances.

1 2. *Kinder Morgan II* dismissed reliance on *Hicks v. Drew*, 117 Cal. 305 (1897), “a
 2 nuisance case in which the Supreme Court reversed the judgment of a trial court based on
 3 a jury instruction that only damages accrued prior to the filing of the complaint could be
 4 recovered.” *Id.* at *6. The nuisance in that case was a retaining wall on defendant’s
 5 property which directed water onto plaintiff’s adjacent property. *Hicks*, 117 Cal. at 307.
 6 *Kinder Morgan II* justified the California Supreme Court’s reversal on the ground that the
 7 retaining wall was most likely a permanent nuisance, for which damages post-filing are
 8 available. *Kinder Morgan II*, 2016 WL 1165828 at *6. That explanation is
 9 unconvincing, however, since *Hicks* limited damages to the immediately preceding two
 10 years, though the wall had been built approximately three years earlier. *Hicks*, 117 Cal.
 11 at 308, 311–12. Such a limitation indicates that the nuisance in *Hicks* was continuing,
 12 and therefore its reversal is directly on point.

13
 14 3. *Kinder Morgan II* similarly construed *California Orange Co. v. Riverside*
 15 *Portland Cement Co.*, 50 Cal. App. 522 (1920), as allowing only “[l]imited damages . . .
 16 post-filing as a remedy for the *permanent* injury to the orange trees.” *Kinder Morgan II*,
 17 2016 WL 1165828 at *6 (emphasis added). *California Orange* involved damage caused
 18 by cement dust to an orchard of orange trees commencing in 1910 and fully abated by
 19 1917. *See California Orange Co.*, 50 Cal. App. at 531. The claim was filed in January
 20 1913, and the plaintiff recovered damages for subpar yields in the post-filing 1913 and
 21 1914 crops. *Id.* at 530–31. Contrary to *Kinder Morgan II*’s characterization of
 22 *permanent* injury, *California Orange* makes clear that “the additional amount [is] made
 23 necessary by the continuing injurious effects of the dust that settled on the trees in the
 24 years 1911 and 1912—injurious effects that would naturally continue to manifest
 25 themselves in the 1913 and 1914 crops, and, possibly, in the 1915 crop also.” *Id.* at 532.
 26 The orchard was not permanently harmed—defendant had installed technology to limit
 27 cement dust in 1913 and by “May, 1917, plaintiff’s trees had *completely recovered*.” *Id.*
 28 at 530 (emphasis added). Not awarding damages following complete abatement of the

1 nuisance cement dust is entirely consistent with continuing nuisance and inconsistent
2 with the presence of a permanent nuisance. Therefore, *California Orange* is also on
3 point.

4
5 4. *Kinder Morgan II* states that it is inaccurate to read *Guttinger v. Calaveras*
6 *Cement Co.*, 105 Cal. App. 2d 460 (1958), as approving a jury instruction countenancing
7 post-filing damages. The *Guttinger* plaintiffs were cattle grazers complaining of
8 nuisance caused by cement manufacture. *Guttinger*, 105 Cal. App. 2d at 385. The jury
9 awarded diminution of rental value and an injunction limiting future cement production,
10 but it is unstated whether the rental value was calculated through the time of trial (as
11 plaintiffs sought) or merely pre-filing. *Id.* at 385, 390. The jury instruction asked the
12 jury to determine the “extent to which [grazing had been] interfered with or denied if at
13 all, since March 15, 1945.” *Id.* at 386. The jury was also instructed to consider evidence
14 on plaintiffs’ loss of income “during the period involved.” *Id.* at 386. *Kinder Morgan II*
15 states that “during the period involved” “is important, as it indicates that damages for the
16 continuing nuisance were limited to a specific period—the instruction did not state ‘to the
17 present.’” *Kinder Morgan II*, 2016 WL 1165828 at *7.

18
19 *Kinder Morgan II* also relied on a subsequent related proceeding between the same
20 parties, *Guttinger v. Calaveras Cement Co.*, 160 Cal. App. 2d 460, 461 (1958). *Id.* at *7.
21 That proceeding characterized plaintiffs’ prior action as seeking “to recover damages
22 alleged to have occurred during the three years immediately preceding the filing of the
23 complaint.” *Guttinger*, 160 Cal. App. 2d at 461. The court also characterized the
24 outcome of the prior proceeding as: “plaintiffs were granted injunctive relief and
25 damages for the *past* injuries suffered to their property.” *Id.* at 462 (emphasis added).

26
27 The Court respectfully disagrees with *Kinder Morgan II* that the phrases “during
28 the period involved” and “damages for past injuries,” and the second *Guttinger* court’s

1 characterization of the first proceeding, preclude reading *Guttinger* as countenancing
 2 post-filing damages. There is no reason to believe the second court's characterization
 3 more than the first's, which states plaintiffs sought damages "up to the time of trial."
 4 *Guttinger*, 105 Cal. App. 2d at 385. Furthermore, in the context of the jury instruction,
 5 which limited damages to those occurring "since March 15, 1945," "during the period
 6 involved" most likely refers to the time from March 15, 1945, through the time of trial.
 7 *Id.* at 386. Finally, in the context of the second proceeding, in which plaintiffs sought
 8 damages from after the injunction's existence, the "past" damages plaintiffs recovered in
 9 the first action most reasonably means damages that accrued before the injunction. There
 10 is no clear indication from either *Guttinger* opinion that plaintiffs recovered lost rental
 11 value damages for only the time prior to filing. Most likely, *Guttinger* did approve a jury
 12 instruction countenancing post-filing, pre-judgment damages, so it is on point and
 13 relevant to this case.

14
 15 5. *Kinder Morgan II* argues that *Spaulding v. Cameron*, 38 Cal. 2d 265 (1952), is
 16 irrelevant to continuing nuisance damages. *Spaulding* involved damage to a house at the
 17 bottom of a canyon caused by levelling operations at the top of the canyon which caused
 18 mud to surround the house and "inundate" the ground level. *Spaulding*, 38 Cal. 2d at
 19 266. The trial court awarded plaintiff damages—\$2,732.29 for physical damage accrued
 20 at the time of trial and \$24,000 for the "continuing threat of future inundations of mud"—
 21 and ordered defendant to abate the nuisance. *Id.* at 266. The California Supreme Court
 22 affirmed the award of \$2,732.29 but remanded because of the inconsistency of future
 23 damages and an abatement injunction. *Id.* at 269 ("It is clear that plaintiff cannot have
 24 both remedies. If defendant obeys the injunction and takes such measures that the
 25 property of the plaintiff will not be endangered or threatened by the existence of such
 26 deposits of loose dirt, there will no longer be a threat to depreciate the value of the
 27 property. Plaintiff would obtain a double recovery if she could recover for the
 28 depreciation in value and also have the cause of that depreciation removed." (internal

1 quotations omitted)). It directed the trial court to “determine whether or not the nuisance
2 is in fact permanent. If it finds that it is, it should enter judgment for the decrease in
3 market value. If it finds that it is not, it should grant injunctive relief and such additional
4 damages as may be proved for the temporary decrease in the value of the use of the
5 property while the nuisance continued.” *Id.* at 270.

6
7 *Kinder Morgan II* wholly relies on a snippet from a subsequent appeal referring to
8 the trial court’s “finding as to diminution of the market value,” *Spaulding v. Cameron*,
9 127 Cal. App. 2d 698, 705 (1954), as implying that “the trial court found the nuisance to
10 be permanent,” *Kinder Morgan II*, 2016 WL 1165828, at *7. The whole sentence
11 containing *Kinder Morgan II*’s snippet is: “The contention that the court’s finding as to
12 diminution of the market value upon which the finding of loss of rental value was based
13 was unsupported by substantial evidence cannot prevail.” *Spaulding*, 127 Cal. App. 2d at
14 705. As discussed above, loss of rental value is a continuing nuisance measure of
15 damages. Furthermore, the opinion states: “plaintiff in open court conceded that in
16 September 1952 defendant had begun extensive [abatement] operations . . . and plaintiff
17 then conceded that the threat of further injury had been substantially eliminated The
18 trial judge visited the property and was evidently satisfied from what he saw that
19 plaintiff’s property was in a perilous position *while it remained unprotected* from the
20 danger of the condition which existed until sometime between September, 1952 and
21 March, 1953 [when defendant completed abatement].” *Id.* at 702, 705 (emphasis added).
22 Therefore, *Kinder Morgan II*’s grounds for distinguishing *Spaulding* is incorrect—
23 overwhelming evidence makes it clear that the trial court found continuing, abated
24 nuisance.

25
26 In addition, even if the trial court had found permanent nuisance, it would not
27 undermine *Spaulding*’s applicability. *Spaulding* explicitly affirmed the award of pre-
28 trial, post-filing damages, regardless of whether or not the nuisance turned out to be

1 continuing or permanent. Clearly, *Spaulding* indicates that even if the nuisance was
 2 continuing, damages through the time of trial (and granting of prospective injunctive
 3 relief) are appropriate.

4
 5 6. *Kinder Morgan II* distinguished *Greater Westchester Homeowners Assn. v. City*
 6 *of Los Angeles*, 26 Cal. 3d 86 (1979) on the grounds that it involved personal injury
 7 nuisance, not property damage nuisance. *Kinder Morgan II*, 2016 WL 1165828, at *8.
 8 In that case, plaintiffs lived north of LAX airport and sued Los Angeles “in inverse
 9 condemnation for property damage and, on a nuisance theory, for personal injuries
 10 allegedly caused by noise, smoke, and vibrations emanating from aircraft.” *Greater*
 11 *Westchester*, 26 Cal. 3d at 91. The Court sees no principled reason to distinguish
 12 between personal injury nuisance and property damage nuisance. Furthermore, *Baker*, on
 13 which *Kinder Morgan II* extensively relied, had identical claims to *Greater Westchester*.
 14 *Id.* at 865–66 (“[P]laintiffs filed suit for inverse condemnation and nuisance caused by
 15 noise, smoke, and vibrations from flights over their homes.”).

16
 17 7. *Kinder Morgan II* also dismissed reliance on several cases that countenance
 18 post-filing damages in continuing nuisance cases for doing so in dicta or without fully
 19 reaching the issue. *Kinder Morgan II*, 2016 WL 1165828, at *8–11 (discussing *Polin*, 8
 20 Cal. App. 3d 673 and *Harris*, 2011 WL 140185⁴). This Court does not disagree with
 21 *Kinder Morgan II* as to the precedential nature of those cases. However, the fact that
 22 they do not reject post-filing damages indicates at the very least that continuing nuisance
 23 damages doctrine is not as unanimous and consistent as Defendants or *Kinder Morgan II*
 24 make it out to be.

25
 26
 27 ⁴ *Kinder Morgan II* also discusses and dismisses *Quarterman v. Kefauver* (Cal. Ct. App. 1997) (which
 28 cites *Renz*) on the basis that it does not squarely reach and resolve the issue of post-filing damages.
Kinder Morgan II, 2016 WL 1165828, at *10. The Court is unable to locate *Quarterman* and, in any
 event, *Kinder Morgan II*'s description of it at the very least makes clear that it does not reject post-filing
 damages. *See id.*

1 8. Finally, *Kinder Morgan II* vehemently disagreed with *Renz*—“[s]imply put, the
 2 case was wrongly decided.” *Kinder Morgan II*, 2016 WL 1165828, at *8. *Renz* held that
 3 “damages incurred between the commencement and the conclusion of a continuing
 4 nuisance action should be recoverable in that action.” *Renz*, 39 Cal. App. 4th at 67–68.
 5 *Kinder Morgan II* accused *Renz* of “misinterpreting prior case law and failing to
 6 acknowledge the California Supreme Court’s decision in *Williams*,” characterized its
 7 holding as arising “from a misapplication—and a complete abdication—of the permanent
 8 nuisance doctrine,” and “eviscerating the doctrine of permanent nuisance for the sake of
 9 equity and disregarding the applicable statute of limitations.” *Kinder Morgan II*, 2016
 10 WL 1165828, at *8–9. The court also discussed *Dolnikov*, 222 Cal. App. 4th 419, which
 11 follows *Renz*, accusing it of the same failings—“just like the court in *Renz*, the appellate
 12 court in *Dolnikov* ignored over a hundred years of settled law to the contrary, failed to
 13 cite *Williams*, and quite clearly chose to ignore well-established law in favor of not
 14 wasting judicial resources. The appellate court decided to eschew the doctrine of
 15 permanent nuisance for purposes of judicial economy.” *Id.* at *10.

16
 17 In addition to accusing *Renz* and *Dolnikov* of granting permanent nuisance relief
 18 for continuing nuisance, *Kinder Morgan II* argued that *Renz*’s reading of *Baker* was no
 19 longer reasonable. *Renz* held that *Baker*’s statement that “[r]ecovery is limited, however,
 20 to actual injury suffered prior to commencement of each action,” *Baker*, 39 Cal. 3d at
 21 869, was dicta. *Renz*, 39 Cal. App. 4th at 65. Subsequently, the California Supreme
 22 Court quoted *Baker*’s statement with approval in *Mangini*, 12 Cal. 4th 1087. Therefore,
 23 *Kinder Morgan II* and Defendants here argue, *Baker*’s statement was its holding,
 24 affirmed in *Mangini*. *Kinder Morgan II*, 2016 WL 1165828, at *10; Dkt. 144 at 6.

25
 26 The Court’s substantive disagreements with *Kinder Morgan II*’s dismissal of *Renz*
 27 and post-filing damages are discussed above. In addition, *Kinder Morgan II* and
 28 Defendants overstate *Mangini*. *Mangini*’s holding was that plaintiffs there “failed to

1 prove a continuing nuisance” and therefore the lower court’s awarding “damages for loss
 2 of use of the property during the three years prior to filing of the complaint” was
 3 improper. *Mangini*, 12 Cal. 4th at 1103. Since *Mangini* did not involve post-filing
 4 damages, its pro-forma quotation of *Baker*’s three sentences—two of which *Renz* agrees
 5 are its holdings—does not undermine *Renz*’s analysis of *Baker*.⁵

6
 7 For these reasons, the Court is unpersuaded by *Kinder Morgan I* and *II*’s denial of
 8 post-filing damages. Rather, the multiple on-point cases that grant post-filing damages
 9 support this Court’s conclusions. Litigation takes time. Recognizing that reality, in
 10 conjunction with the imminent risk MTBE posed and continues to pose for Orange
 11 County, Plaintiff may seek to recover post-filing, pre-judgement damages to compensate
 12 them for costs incurred abating MTBE.

13 14 **B. CAUSATION AND PLAINTIFF’S CONTINUING NUISANCE CLAIM**

15
 16 Defendants urge the Court to grant summary judgment against Plaintiff because,
 17 they claim, Plaintiff has failed to “identify the specific costs incurred and demonstrate the
 18 causal link to releases of MTBE at the specific stations at issue.” (Dkt. 125-1 at 17; *see*
 19 *also* Dkt. 144 at 17 (“OCWD lacks evidence linking recoverable continuing nuisance
 20 damages to the 16 focus stations.”).) The majority of Defendants’ argument rests on lack
 21 of damages accrued prior to Plaintiff filing the complaint in this case. (*See id.*) To the
 22 extent Defendants’ argument survives the Court’s finding regarding post-filing damages,
 23 it is unavailing. Plaintiffs have submitted various expert reports that link MTBE

24
 25 ⁵ The Court is aware that, as Defendants point out, *Renz* has been criticized. (*See* Dkt. 144 at 5–6.) The
 26 grounds for criticism, however, are either equivalent to those raised in *Kinder Morgan* and discussed
 27 *supra* or that cases post-*Renz* continue to quote *Baker* and *Williams* on the continuing nuisance damages
 28 limitation, even though those cases, as noted, do not analyze or apply the rule. *See, e.g., Adobe Lumber,*
Inc. v. Hellman, No. CIV.05-1510 WBS PAN, 2008 WL 4539136, at *3 n.2 (E.D. Cal. Oct. 2, 2008)
 (same grounds as *Kinder Morgan*); *City of Rialto*, 2004 WL 6067430, at *7 (citing cases echoing
Williams and *Baker*).

contamination to specific sites. (*See, e.g.*, Dkt. 125-3 Ex. 10; Dkt. 141 Exs. 5, 7–9, 11.) The Court agrees with the MDL Court that the sufficiency and weight of such evidence is more properly determined through a *Daubert* motion and ultimately by the finder of fact. *See In re Methyl Tertiary Butyl Ether (MTBE) Prod. Liab. Litig.*, 67 F. Supp. 3d 619, 631, 633 (S.D.N.Y. 2014) (“Although defendants present substantial and relatively persuasive evidence that Dr. Wheatcraft’s plume model cannot reliably trace gasoline from each individual station to a corresponding production well, their arguments are better suited for a *Daubert* motion challenging Dr. Wheatcraft’s methodology than for a motion seeking a summary judgment dismissal. . . . [I]t is not my role at the summary judgment stage to decide whether Dr. Wheatcraft can reliably establish causation. . . . Because Dr. Wheatcraft’s testimony creates a factual dispute regarding whether the alleged MTBE contamination at each station at issue has migrated beyond those stations and towards the production wells, summary judgment on this claim is denied.”).

C. PLAINTIFF’S PRAYER FOR PUNITIVE DAMAGES

Defendants argue that the Court should grant summary judgment against Plaintiff on Plaintiff’s claim for punitive damages because punitive damages are unavailable in continuing nuisance cases. (*See* Dkt. 125-1 at 19–21; Dkt. 144 at 19–22.) The grounds for Defendants’ argument are the various cases that state continuing nuisance damages are limited to injury and abatement. (*See id.*) However, none of those cases explicitly consider punitive damages. Rather, they are discussing prospective damages. Defendants present no binding cases holding that punitive damages are barred for continuing nuisance claims, and the Court has found none. Instead, the very few cases presented with the intersection of continuing nuisance and punitive damages countenance such recovery. *See, e.g., Mangini v. Aerojet-Gen. Corp.*, 31 Cal. Rptr. 2d 696, 701, *as modified on denial of reh’g* (Cal. Ct. App. Aug. 1, 1994), *review granted and opinion superseded*, 883 P.2d 387 (Cal. 1994), *and aff’d*, 12 Cal. 4th 1087 (1996) (noting without

criticizing trial court's inclusion of punitive damages in continuing nuisance case); *McCoy v. Gustafson*, 180 Cal. App. 4th 56, 65 (2009) ("Since plaintiff failed to prove a continuing nuisance when the contamination was discovered more than three years prior to the filing of the complaint, her action is barred by the statute of limitations. Accordingly, the jury in this case was properly directed by the verdict form not to find either the amount of compensatory damages or the factual predicate for punitive damages."); *Ruebe v. Parsa*, No. 2D CIVIL B251016, 2015 WL 67039, at *1, *8–10 (Cal. Ct. App. Jan. 5, 2015) (unpublished) (affirming punitive damage award for interference with prescriptive easement that constituted a continuing nuisance); *Barrous v. BP P.L.C.*, No. 10-CV-2944-LHK, 2010 WL 4024774, at *7 (N.D. Cal. Oct. 13, 2010) (noting presence of punitive damages claim in the context of considering unavailability of diminution in value damages for continuing nuisance); *Weikel v. TCW Realty Fund II Holding Co.*, 55 Cal. App. 4th 1234, 1257 (1997) (awarding punitive damages for failure to comply with injunction ordering abatement of continuing nuisance); *Somo v. Chevron Prod., U.S.A.*, No. D050939, 2008 WL 4152962, at *16 (Cal. Ct. App. Sept. 10, 2008) (unpublished) ("[P]laintiffs sought an *ex parte* order to shorten time for a motion for leave to file a second amended complaint to add causes of action for continuing nuisance The court summarily denied the application, . . . [but] the court invited plaintiffs to bring a noticed motion on the matter, warning their counsel it believed his attempt to add a 'punitive damage cause of action'"); *cf. Rickley v. Goodfriend*, No. B192939, 2008 WL 82429, at *3 (Cal. Ct. App. Jan. 9, 2008) (unpublished) (summarizing trial court's finding ambiguously as "[a]ppellants were not entitled to monetary damages for diminution in value of their property 'as this is a continuing nuisance,' or to damages 'based on reduction in fair market value,' or punitive damages.").

The policy justification for limiting prospective damages for continuing nuisance (double recovery) does not implicate the policy justifications for punitive damages. In California, the purpose of punitive damages "is a purely *public* one. The public's goal is

1 to punish wrongdoing and thereby to protect itself from future misconduct, either by the
2 same defendant or other potential wrongdoers.” *Adams v. Murakami*, 54 Cal. 3d 105,
3 110 (1991) (en banc) (citations omitted); *see also Exxon Shipping Co. v. Baker*, 554 U.S.
4 471, 492 (2008) (“[T]he consensus today is that punitives are aimed not at compensation
5 but principally at retribution and deterring harmful conduct.”). The public’s interest in its
6 watershed is paramount, and no case or policy counsels against allowing Plaintiff the
7 opportunity to demonstrate the propriety of punitive damages.

8
9 Finally, Defendants ask this Court to limit the evidence supporting punitive
10 damages to the three years prior to Plaintiff’s filing its complaint and to find that their
11 alleged conduct “does not constitute the type of despicable conduct necessary to support
12 a claim for punitive damages.” (Dkt. 125-1 at 21.) As to the first argument, courts have
13 awarded punitive damages by drawing on evidence that significantly pre-dates the
14 applicable statute of limitations. *See, e.g., Pfeifer v. John Crane, Inc.*, 220 Cal. App. 4th
15 1270, 1299–303 (2013), *as modified on denial of reh’g* (Nov. 27, 2013) (considering
16 evidence from 1960s to evaluate punitive damages in asbestos litigation filed in 2009 for
17 negligence, strict liability, and loss of consortium). Defendants’ attempt to further argue
18 that continuing nuisance is an exceptional, *sui generis* cause of action as to evidence
19 relevant to punitive damages is rejected. Not unlike other contamination and carcinogen
20 cases, Plaintiff submitted various documents indicating Defendants’ knowledge in the
21 1980s regarding MTBE dangers. (*See* Dkt. 141 Exs. 19–24.) Such evidence is relevant
22 to any determination by the finder of fact of punitive damages arising from the continuing
23 nuisance of MTBE infiltration within the applicable statute of limitations.

24
25 Defendants’ second argument goes directly to the weight of the evidence, which is
26 not within the proper domain of this Court. Rather, such determinations, except in rare
27 circumstances such as complete absence of evidence, are the domain of the finder of fact.
28 *See, e.g., Coll. Hosp. Inc. v. Superior Court*, 8 Cal. 4th 704, 720 (1994), *as modified*

(Nov. 23, 1994) (referencing “the traditional rôle of the trier of fact with respect to punitive damage” as being, implicitly, the appropriateness of punitive damages); *Faulkner v. Wausau Bus. Ins. Co.*, 571 F. App’x 566, 569 (9th Cir. 2014) (describing California law as that “[d]eterminations related to assessment of punitive damages have traditionally been left to the discretion of the jury”) (citing *Amadeo v. Principal Mut. Life Ins. Co.*, 290 F.3d 1152, 1165 (9th Cir. 2002)). The Court refuses to usurp the jury’s rightful role.

D. DECLARATORY RELIEF CAUSE OF ACTION

Plaintiff’s operative complaint seeks “[a]n order declaring that Defendants are liable for the full cost of all remedial and other actions necessary to abate and remove MTBE . . . which is contaminating and threatening [OCWD’s] property” and “[a]n order declaring that the Owner/Operator Defendants’ gasoline delivery systems constitute a nuisance.” (Dkt. 125-3 Ex. 2 at 71.) Defendants urge partial summary judgment on Plaintiff’s cause of action for declaratory relief because it is duplicative of Plaintiff’s continuing nuisance claim. (See Dkt. 125-1 at 21–24; Dkt. 144 at 22–25.) Defendants specifically object to Plaintiff’s litigating a separate cause of action for declaratory relief; they do not attack declaratory relief *as a remedy* (though as a remedy they argue in passing that it constitutes impermissible prospective damages). (Dkt. 144 at 22.)

Defendants also rely heavily on the MDL Court’s 2006 dismissal of Plaintiff’s declaratory relief cause of action. (See Dkt. 125-1 at 21–24; Dkt. 144 at 22–25.) The MDL Court stated, “[s]uch relief is identical to that sought under OCWD’s common law claims for products liability, negligence, trespass, and nuisance. Declaratory relief is generally inappropriate where duplicative of other claims in the action as the object of the statute is to afford a new form of relief where needed and not to furnish a litigant with a second cause of action for the determination of identical issues.” *In re Methyl Tertiary*

1 *Butyl Ether (MTBE) Prod.*, 457 F. Supp. 2d 455, 466 (S.D.N.Y. 2006) (quoting *General*
2 *of Am. Ins. Co. v. Lilly*, 258 Cal. App. 2d 465, 470 (1968)).

3
4 However, the MDL Court subsequently recognized that “[i]f any of OCWD’s
5 remaining causes of action, such as those for nuisance or trespass, are determined to
6 require declaratory relief, such relief remains available under those causes of action. For
7 example, OCWD might wish to delay a determination of the amount of its foreseeable
8 future damages in order to expedite adjudication of the narrower issue of defendants’
9 liability. Such a declaration of liability could clarify the parties’ relations sufficiently to
10 obviate further proceedings as to damages, or at least provide OCWD with the benefit of
11 knowing who has liability and who does not so that OCWD can plan its remediation
12 activities accordingly.” *In re Methyl Tertiary Butyl Ether (MTBE)*, No. 1:00-1898, 2007
13 WL 700819, at *3 n.26 (S.D.N.Y. Mar. 7, 2007); *see also In re Methyl Tertiary Butyl*
14 *Ether MTBE Prod. Liab. Litig.*, 824 F. Supp. 2d 524, 528–29 (S.D.N.Y. 2011) (“The
15 claims that survived [the statute of limitations which barred permanent nuisance]
16 included . . . declaratory relief with respect to future expenses OCWD may incur.”
17 (internal quotation omitted)).

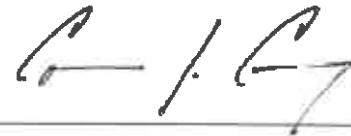
18
19 When the MDL Court remanded the case to this Court, its order listed “Declaratory
20 Relief” separate from continuing nuisance. (Dkt. 65 at 4.) That is consistent with the
21 MDL Court’s statement in the hearing preceding remand that this “is a classic use of
22 declaratory judgment . . . I want a declaration that for future expenses, the defendants
23 have to pay for. It’s got nothing to do with nuisance or being duplicative I said that
24 one of the claims that survived is declaratory relief with respect to future expenses.”
25 (Dkt. 141 Ex. 25 at 32.) The Court agrees with Plaintiff and the MDL Court.
26 Declaratory relief, as an independent cause of action, is not redundant with Plaintiff’s
27 continuing nuisance claim. Pursuant to this order, Plaintiffs can seek to recover post-
28 filing *pre-judgment* abatement expenses. However, *post-judgment* abatement expenses

1 will not be available if the Court orders Defendants to remediate the MTBE. (*See* Dkt.
2 125-3 Ex. 2 at 72 (Plaintiff's Prayer for Relief seeks an "Order compelling Defendants
3 and each of them to abate the public nuisance.")) If the Court does so, under continuing
4 nuisance doctrine, Plaintiff will have to initiate a subsequent action to recover post-
5 judgment abatement expenses. Therefore, declaratory relief would actually streamline
6 such subsequent proceedings. It is not duplicative of Plaintiff's ability to seek *pre*-
7 judgment damages in this action.⁶

8
9 **V. CONCLUSION**

10
11 For the foregoing reasons, Defendants' motion for summary judgment is DENIED.

12
13 DATED: November 3, 2016



14
15 CORMAC J. CARNEY
16 UNITED STATES DISTRICT JUDGE
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26
27 ⁶ The fact that this case has been subdivided into multiple trials on various plumes further highlights the
28 need for declaratory relief. "Declaratory relief may be useful in order to avoid or streamline possible
future litigation over continuing . . . nuisances." *Oildale Mut. Water Co., Inc.*, 2014 WL 824958, at *6.
Sequential trials in this case will examine very similar facts regarding MTBE release within the water
district.

EXHIBIT 9

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION**

Case No.: SACV 03-01742-CJC(ANx)

**ORANGE COUNTY WATER
DISTRICT,**

Plaintiff,

v.

UNOCAL CORPORATION, *et al.*,

Defendants.

**ORDER DENYING DEFENDANTS'
DAUBERT MOTION TO EXCLUDE
THE TESTIMONY DR.
WHEATCRAFT**

I. INTRODUCTION

This case involves protracted litigation between Plaintiff Orange County Water District ("OCWD") and various oil and gasoline companies. Filed originally in 2003, it was transferred to the Multidistrict Litigation Court ("MDL Court") in the Southern

1 District of New York in 2004 and returned to this District in March 2016. (*See* Dkt. 97 at
 2 2–3.) OCWD claims that Defendants’ gasoline stations released the carcinogenic
 3 compound Methyl Tertiary Butyl Ether (“MTBE”) into the groundwater OCWD
 4 manages. (Dkt. 97 at 4.)

5
 6 Upon remand, the Court issued a case management order setting forth, among
 7 other things, the briefing and hearing schedule for a *Daubert* motion regarding OCWD’s
 8 expert, Dr. Stephen Wheatcraft. (Dkt. 121.) Before the Court is Defendants Exxon
 9 Mobil Corporation, ExxonMobil Oil Corporation, Chevron U.S.A., Inc., Union Oil
 10 Company of California, ConocoPhillips Company, and G&M Oil Company’s motion to
 11 exclude Dr. Wheatcraft’s testimony. (Dkt. 151.) For the following reasons, the motion is
 12 DENIED.

13 14 **II. BACKGROUND**

15 16 **A. MTBE and Orange County Water District**

17
 18 The facts of this case have been thoroughly described in other orders by the MDL
 19 Court.¹ As relevant here, OCWD is responsible for maintaining, replenishing, and
 20 managing the groundwater resources within the Orange County groundwater basin. (Dkt.
 21 149 at 2.) “The groundwater basin in Orange County is comprised of three major
 22 aquifers²—Shallow, Principal, and Deep—all hydraulically connected. The Shallow
 23

24
 25 ¹ *See, e.g., In re Methyl Tertiary Butyl Ether (MTBE) Prod. Liab. Litig.*, 379 F. Supp. 2d 348 (S.D.N.Y. 2005); *In re Methyl Tertiary Butyl Ether (MTBE) Prod.*, 475 F. Supp. 2d 286, 288 (S.D.N.Y. 2006).

26 ² “Generally, the term ‘aquifer’ refers to a geologic formation (or more than one geologic formations)
 27 that is porous enough and permeable enough to transmit water at a rate sufficient to feed a spring or a
 28 well, *i.e.* to provide ‘extractive services.’ Aquifers are thus defined in terms of how quickly water may
 pass through the constituent materials rather than in terms of particular geological constituents (sand,
 gravel, clay, sandstone, etc.).” *New Mexico v. Gen. Elec. Co.*, 335 F. Supp. 2d 1266, 1282 (D.N.M. 2004); *see also* Dkt. 154 Ex. 26 (diagram of the OCWD aquifers).

1 aquifer reaches a depth of approximately 200 feet, the underlying Principal aquifer
 2 reaches depths of approximately 1,500 feet, and the Deep aquifer underlies the Principal
 3 aquifer and reaches depths of 2,000 feet or greater. Most of the drinking water
 4 production wells in OCWD's territory draw groundwater from the Principal aquifer at
 5 depths of 300 to 1,000 feet. However, the Principal aquifer is replenished by recharge
 6 water that travels from the ground surface, through the Shallow aquifer, and into the
 7 Principal aquifer." *In re Methyl Tertiary Butyl Ether MTBE Prod. Liab. Litig.*, 824 F.
 8 Supp. 2d 524, 529 n.5 (S.D.N.Y. 2011). The aquifers are separated from each other by
 9 "extensive, low-permeability aquitards," (Wilson Rpt. at 62), which are typically clay and
 10 which impede the flow of water and contaminants, (Dkt. 211 at 82). In addition to
 11 approximately 300 drinking water production wells, OCWD collects groundwater
 12 elevation and quality data from approximately 400 monitoring wells,³ which take samples
 13 from depths of approximately 10 to 15 feet deep. (*See id.* at 40; Wilson Rpt. at 201-03.)
 14

15 OCWD alleges that Defendants' "use and handling of MTBE has resulted in
 16 contamination and threatened future contamination of groundwater within the geographic
 17 region for which OCWD is responsible." *In re Methyl Tertiary Butyl Ether (MTBE)*, No.
 18 1:00-1898, 2007 WL 700819, at *1 (S.D.N.Y. Mar. 7, 2007). MTBE concentration is
 19 measured in parts per billion ("ppb") and the State of California has specified a secondary
 20 maximum contaminant level (the level at which contamination impairs taste and odor) of
 21 5 ppb. (*See* Wilson Rpt. at 66; Dkt. 152 Ex. 1 at 33.) California's Office of
 22 Environmental Health Hazard Assessment has adopted a public health goal of less than
 23 13 ppb based exclusively on human health considerations. (Dkt. 152 Ex. 1 at 33; *see* Dkt.
 24 211 at 110 (referring to the 13 ppb threshold as a primary maximum contaminant level).)
 25

26
 27 ³ In addition to monitoring wells, there are also remediation wells, which reach to the same depth and
 28 are used to remediate contamination. (*See* Dkt. 211 at 24-25.) Remediation wells can be used for both
 monitoring and remediation. (*See id.*) For simplicity, the Court refers to all such wells as "monitoring
 wells."

1 The parties do not dispute that MTBE was used as an additive in gasoline
 2 manufactured and/or sold by Defendants and that MTBE has been released at numerous
 3 gas stations located within OCWD's jurisdiction. (*See* Dkt. 144-2 ¶¶ 3, 4.) "MTBE
 4 causes water to assume a foul smell and taste, and has been identified as an animal
 5 carcinogen and a possible human carcinogen." *In re Methyl Tertiary Butyl Ether (MTBE)*
 6 *Prod. Liab. Litig.*, 725 F.3d 65, 78 (2d Cir. 2013). "MTBE that enters groundwater
 7 moves at nearly the same velocity as the groundwater itself. As a result, it often travels
 8 farther than other gasoline constituents, making it more likely to impact public and
 9 private drinking water wells. Due to its affinity for water and its tendency to form large
 10 contamination plumes in groundwater, and because MTBE is highly resistant to
 11 biodegradation and remediation, gasoline releases with MTBE can be substantially more
 12 difficult and costly to remediate than gasoline releases that do not contain MTBE." *Id.* at
 13 80 (quoting Methyl Tertiary Butyl Ether (MTBE); Advance Notice of Intent to Initiate
 14 Rulemaking Under the Toxic Substances Control Act to Eliminate or Limit the Use of
 15 MTBE as a Fuel Additive in Gasoline, 65 Fed. Reg. 16094, 16097 (proposed Mar. 24,
 16 2000)).

17
 18 OCWD states that in "the late 1990's and early 2000's . . . repeatable and
 19 widespread MTBE detections appeared . . . giving rise to concern that MTBE releases at
 20 many gas stations may not have been properly contained, discovered, or remediated."
 21 (Dkt. 144-2 ¶ 42.) OCWD brought suit on May 5, 2003, alleging various causes of
 22 action. (*See* Dkt. 125-3 Ex. 1 (Original Complaint).) "After this case was filed in 2003,
 23 it: (i) was transferred from California state court to California District Court, (ii) was
 24 transferred from California District Court to the MDL Court in the Southern District of
 25 New York, (iii) underwent a decade of discovery and motion practice, [and] (iv) was
 26 severed into two phases, one of which remains in the MDL Court, and the other of which
 27 was transferred here for trial." (Dkt. 144-2 ¶ 59.)

1 During the course of litigation, the parties agreed to streamline proceedings by
2 narrowing them to “focus plumes” rather than litigating each of the 500 alleged MTBE
3 release locations. (See Dkt. 144-1 ¶ 3.) Each focus plume contains one or more release
4 locations. (See Dkt. 144-2 ¶ 60.) On remand, the Court was presented a case involving
5 seven focus plumes containing a total of sixteen release locations associated with
6 Defendants. (Dkt. 65 at 4.) Notably, OCWD’s case focuses on harm caused by MTBE
7 that allegedly migrated *off-site* from the release locations into OCWD aquifers. (Dkt.
8 144-2 ¶ 36.) Defendants have already addressed MTBE *at the sites*—each site “is
9 undergoing, or has completed, remediation of contamination on and emanating from the
10 site.” (*Id.* ¶ 50.)

11 12 **B. Dr. Wheatcraft**

13
14 OCWD retained Dr. Wheatcraft as an expert in this case to construct groundwater
15 flow and contaminant transport models for MTBE from the focus plumes. (See Dkt. 157
16 at 5.) Such models predict the scope of the harm from MTBE and therefore would
17 corroborate OCWD’s claim that MTBE contamination in the groundwater is a nuisance
18 and will cost millions of dollars to abate. (*Id.* at 6, 9.)

19
20 Dr. Wheatcraft has extensive qualifications and expertise as “one of the country’s
21 foremost hydrogeologists—with over thirty years of experience in the use of computer
22 models to predict contaminant flow in groundwater.” (*Id.*; see also *id.* at 4–6 (describing
23 Dr. Wheatcraft’s career, including multiple honors, reviewing an authoritative
24 groundwater modeling textbook, testifying as an expert in many cases, publishing over
25 sixty peer-reviewed journal articles in the field of groundwater flow and transport, and an
26 academic appointment at University of Nevada, Reno).) Defendants do not challenge Dr.
27 Wheatcraft’s qualifications to offer expert opinions on groundwater flow and MTBE
28 transport. (See generally Dkt. 151.)

C. Dr. Wheatcraft's Work

Groundwater models are used “to obtain a more detailed level of understanding of the processes happening in a groundwater basin.” (Dkt. 161 [Wheatcraft Declaration, hereinafter “Wheatcraft Decl.”] ¶ 14.) Such models rely on mathematical equations and basic principles of physics, (*id.*); computer software is used to apply those principles and solve a model’s equations, (*id.* ¶ 15).

A groundwater basin is essentially a rectangular prism (a three dimensional rectangle). (See Dkt. 154 Ex. 26 at 45.) The top of the basin is the surface of the ground we walk on. (See *id.*) The basin extends into the subsurface of the earth where the aquifers reside. (See *id.*) The ground within the basin is heterogeneous both horizontally and vertically—different locations on the surface and different depths in the earth correspond to different compositions of ground (*e.g.* clay versus sand). (See Dkt. 154 Ex. 23 at 6–7.)

To account for the heterogeneity of the earth, groundwater models represent the three-dimensional basin as a set of grid cells. (See Dkt. 153 [Wilson Declaration, hereinafter “Wilson Decl.”] ¶ 11; Wheatcraft Decl. Ex. 10 at 1.) The set of grid cells is created as follows. First, the groundwater basin’s surface (the ground we walk on) is divided into a set of squares, similar to overlaying the surface with a checkers board. (See Wilson Decl. ¶ 11.) Then, since the groundwater basin is three dimensional, each checker board square is projected down from the surface to the bottom of the basin, so each square is now a three-dimensional rectangle (imagine a building flipped over so it begins on the ground surface and extends into the earth). (See *id.*) Then, each three-dimensional rectangle is subdivided into horizontal layers that correspond to particular depths below the ground surface (layers are analogous to different floors in the flipped over building). (See *id.*) The result is akin to a Rubik’s cube—there is a set of smaller

1 three dimensional rectangles at each layer and a stack of three dimensional rectangles that
2 all correspond to a given checker square on the ground surface. (*See id.*) Each smaller
3 three dimensional rectangle is a grid cell, and each grid cell, since they all correspond to a
4 checker square on the ground surface, has the same length and width. (*See id.*; Dkt. 211
5 at 80–81.) The height of each grid cell and its depth, however, varies, since each layer is
6 different. (*See Wheatcraft Decl. Ex. 8 at 3-36.*)

7
8 The model assumes homogeneity within each grid cell—heterogeneity within the
9 basin as a whole is accounted for through variation *between* grid cells. (*See Wilson Decl.*
10 ¶ 12.) Therefore, the smaller the grid cells—either by increasing the number of squares
11 on the surface (*i.e.* decreasing the length and width of grid cells) or by increasing the
12 number of layers (*i.e.* decreasing each layer’s height)—the more grid cells there are and
13 the more detail that the model can capture concerning variations in ground composition.
14 (*See id.* ¶¶ 11–12.)

15
16 Another relevant model parameter is the “stress period.” (*See Dkt. 152 Ex. 1*
17 [Wheatcraft Report, hereinafter “Wheatcraft Rpt.”] at 24.) The stress period is the time
18 granularity of the model. (*See id.*) In other words, a monthly stress period, as present Dr.
19 Wheatcraft’s models, means that the model makes predictions for MTBE concentration in
20 each grid cell for each month (rather than, for example, each day, week, or year). (*See*
21 *id.*)

22
23 Dr. Wheatcraft’s work relies on two types of groundwater modeling programs—
24 those that model *flow* and those that model *solute transport*. (Wheatcraft Decl. ¶ 16.)
25 Flow models provide “information on future [ground]water levels and groundwater
26 velocities” in an aquifer. (*Id.* ¶ 20.) Flow models input historical data on water levels
27 and water velocity in each grid cell, set various parameters describing the physical
28 property of the grid cell (*e.g.* permeability of the soil), and then solve the constituent

1 physical equations to predict the water level and velocity within each grid cell into the
2 future. (Wilson Decl. ¶ 12; Wheatcraft Decl. ¶ 38.) In addition to predicting the future
3 water levels and velocities *at a particular grid cell*, flow models also predict the location
4 and movement of a *particular volume of water*. (See Dkt. 211 at 19.) Therefore, through
5 “particle tracking” modelers can add a single particle into a particular grid cell’s volume
6 of water and use a flow model to predict its movement. (Wheatcraft Decl. ¶ 18; *see also*
7 *id.* ¶ 20 (Particle tracking “is generally done by releasing a particle of a contaminant at
8 the surface [layer] of the model and tracking its flow path into the future.”).)

9
10 Particle tracking, however, is insufficient to accurately model a contamination
11 plume. (See *id.* ¶¶ 20–21 (“Particle tracking will provide information as to the general
12 direction and average speed of a groundwater contamination plume. . . . [A] groundwater
13 flow model can be utilized to (1) determine whether contaminants released at or near the
14 surface will reach deeper aquifers, and (2) whether the contaminants will be intercepted
15 by [a well].”).) Particle tracking “will not provide information as to the concentration of
16 the contaminant in the plume over time, the overall size and shape of the contaminant
17 plume, or the concentrations of contaminants that will ultimately reach” wells. (*Id.* ¶ 20.)
18 Particle tracking is limited because it treats each volume of water as autonomous and
19 independent of its surroundings; it therefore only accounts for advection (contaminants
20 transported by the velocity of flowing groundwater) whereas contaminant movement and
21 contaminant concentration also depend on biodegradation (the decay or breakdown of
22 contaminants by biological means), diffusion (the movement of a solute from areas of
23 high concentration to areas of low concentration), and dispersion (the mixture of
24 contaminated water with uncontaminated water resulting in reduced contaminant
25 concentration). (*Id.* ¶ 8.)

26
27 In contrast with flow models and particle tracking, *transport* models solve a
28 different set of equations “regarding the behavior of a solute and the interaction of the

1 solute [with its] environment.” (*Id.* ¶ 11.) Accordingly, the output of a transport model
 2 is “a more refined prediction of how much of a given contaminant will arrive” in each
 3 grid cell at each point in time, which collectively reveals the dimensions (length, width,
 4 and vertical depth) of a contaminant plume through time. (*Id.* ¶ 21.) A critical
 5 component of transport models is the “source term,” which is the amount of contaminant
 6 “injected” into each grid cell at each point in time. (Wilson Decl. ¶ 14.) The transport
 7 model takes the source term and contaminant-specific physical parameters (*e.g.*
 8 solubility), solves the model’s set of equations, and outputs contaminant concentrations
 9 per grid cell per stress period. (See Wilson Decl. ¶ 15; Wheatcraft Decl. ¶¶ 19, 21.)

11 OCWD has two groundwater flow models: the basinwide model and the Talbert
 12 model. (See Wheatcraft Decl. Ex. 8 at 3-25–3-37.) The basinwide flow model was first
 13 developed in the early 1990s and has three layers, roughly corresponding to the upper,
 14 middle, and lower aquifers. (Wilson Decl. Ex. 9 [Wilson Report, hereinafter “Wilson
 15 Rpt.”] at 26.) The small number of layers means that the grid cells are comparatively
 16 large and therefore the model is coarse. (*Id.*; Wilson Decl. ¶ 21.) For a subset of the
 17 basin, OCWD developed the Talbert model which, when completed in 2003, has thirteen
 18 layers and was correspondingly more granular and therefore more precise. (Wilson Decl.
 19 ¶ 21; Wilson Rpt. at 26–27; *see also id.* Fig. 2 (map indicating geographic area of
 20 basinwide model and Talbert model).) The three layers of the basinwide model were
 21 subdivided into seven layers, and six low-permeability aquitard layers were added
 22 between each of the seven aquifer layers. (*Id.* at 26–27.) In the basinwide model, the
 23 length and width of grid cells is 500 feet; in the Talbert model the length and width are
 24 250 feet. (Dkt. 211 at 81; Dkt. 152-5 at J14.) As discussed above, the vertical dimension
 25 of the grid cells varies by layer (attempting to match the size of the layer of earth to each
 26 layer of grid cells represents). (See Wheatcraft Decl. Ex. 8 at 3-36.) Both models have
 27 been extensively peer-reviewed, (*see id.* at 3-25–3-37), both utilize MODFLOW (flow
 28 software that is widely used and accepted within the hydraulic science community,

1 (Wheatcraft Decl. ¶ 16)), and both are continually checked by OCWD's comparison of
2 the models' predictions to the daily measurement of actual groundwater levels and
3 velocities, (Dkt. 211 at 15, 17).

4
5 At issue here, Dr. Wheatcraft built on both the basinwide model and the Talbert
6 model to evaluate MTBE plumes in this case. (*Id.* at 14–18.) He added two layers to the
7 basinwide model for a total of five layers. (*Id.* at 15; *see also id.* (Dr. Wheatcraft
8 describing the layers as being added to bring the model up to the ground surface); Wilson
9 Rpt. at 62 (describing the added layers as two intermediate aquitard layers).) Dr.
10 Wheatcraft then built on his five-layer basinwide model to create a more granular model
11 for a subsection of the basin that encompassed many of the plumes at issue in this case.
12 (Dkt. 211 at 17.) He called this more granular model the “TMR model” (an acronym for
13 telescopic measure refinement) and it covers slightly more of the basin than OCWD's
14 Talbert model. (*See id.*; Wilson Rpt. at 62; *id.* Fig. 2.) The TMR model closely
15 resembles the Talbert model—it has fourteen layers, thirteen of which match the Talbert
16 model's layers. (Wilson Rpt. at 62; Dkt. 211 at 17.) The additional layer, which Dr.
17 Wheatcraft calls the “semi-perched aquifer layer”⁴ and which is less than 100 feet deep,
18 sits on top of the thirteen Talbert model layers and represents the surficial alluvial
19 aquifer, the thin layer near the ground at the top of the groundwater basin into which gas
20 stations release MTBE. (Wilson Rpt. at 62–63; Dkt. 152-5 at F37.)

21
22 Dr. Wheatcraft then added the solute transport model MT3D, which is also widely
23 used and accepted within the hydraulic science community, (Wheatcraft Decl. ¶ 16; *id.*
24 Ex. 16), to both of his flow models, (Dkt. 211 at 20–21). MT3D is a software package

25
26 ⁴ Dr. Wilson states that this is incorrect terminology because “[a] perched zone should be separated from
27 aquifers below by an intermediate vadose zone, and the aquifer below should be a water table aquifer.
28 Neither is the case in Dr. Wheatcraft's model; rather, there is a continuous zone of water saturation
between his so-called perched layer and the layer below, meaning his upper layer is not perched.”
(Wilson Rpt. at 62–63.) The precise terminology, however, is not relevant to the analysis in this Order.

1 that takes the outputs of the flow model—groundwater level and groundwater velocity in
2 each grid cell at each point in time—as inputs to determine MTBE concentrations in each
3 grid cell over time. (*See id.*)
4

5 In addition to the groundwater parameters provided by the two flow models, to
6 predict contaminant concentrations in the future, Dr. Wheatcraft had to input into MT3D
7 a “source term.” (*See* Wheatcraft Decl. ¶ 84.) The source term represents the
8 introduction of the contaminant (here, MTBE) into the models. (*See id.*) As his models
9 operate on monthly stress periods, (Dkt. 152-5 at 7), Dr. Wheatcraft had to determine the
10 amount of MTBE released each month, (*see* Wheatcraft Rpt. at 33). Since the MTBE
11 releases were from service stations at ground level, MTBE was only “loaded” as a source
12 term into the top layer of each model. (*Id.*)
13

14 To determine the amount of MTBE to use as the source term for each grid cell at
15 each stress period, Dr. Wheatcraft relied on MTBE data reported by the Defendants
16 through quarterly monitoring reports from the 1980s through 2010. (Dkt. 211 at 23.)
17 The reported data was the concentration of MTBE detected in wells proximate to a given
18 station. (*See* Wheatcraft Rpt. at 30.) Because MTBE concentration was reported
19 intermittently for each well, Dr. Wheatcraft interpolated MTBE concentrations linearly
20 for each month. (*Id.* at 33.) For example, if a given well detected no MTBE in January
21 and 300 ppb MTBE in April, Dr. Wheatcraft would interpolate 100 ppb MTBE in the
22 well for February and 200 ppb MTBE in the well for March. (*See id.* at 33) However,
23 Dr. Wheatcraft did not interpolate beyond the first or last MTBE detection in a given
24 well, so if, for example, the first measured MTBE in a given well occurred in April 1999
25 and the last measured MTBE for the well occurred in May 2003, MTBE concentrations
26 would be zero for each month preceding April 1999 and following May 2003. (Dkt. 211
27 at 23–24.)
28

1 The wells reporting MTBE are not uniformly distributed across OCWD's
2 jurisdiction. Rather, they cluster around known contaminant releases. (*See* Dkt. 152 Ex.
3 4; Wilson Rpt. at 195, 209–59.) Therefore, there are not a set number of wells in each of
4 the models' grid cells. Since there may be one well in a given grid cell and ten in the one
5 next to it, and each is likely to report⁵ different concentrations of MTBE, Dr. Wheatcraft
6 also had to interpolate spatially to determine the average MTBE within a given grid cell
7 (since he had to load the source term was by grid cell by stress period). (Wheatcraft Rpt.
8 at 33–34.) To do this spatial interpolation, Dr. Wheatcraft specified forty-nine equally-
9 spaced points within each grid cell. (*Id.* at 34.) Dr. Wheatcraft utilized inverse distance
10 squared interpolation to average the values of reported MTBE for the given stress period
11 to estimate the MTBE concentration at each of the forty-nine points. (*Id.* at 34; Dkt. 152-
12 5 at 8.) MTBE reports from any wells located within a given grid cell and any wells in
13 the eight adjacent grid cells were used for the forty-nine points within the grid cell in
14 question. (Wheatcraft Rpt. at 33.) The forty-nine resulting MTBE concentrations within
15 a given grid cell were linearly averaged to determine the average MTBE concentration
16 for that grid cell during that stress period. (*Id.* at 34.) Spatial interpolation is performed
17 for each grid cell which had at least one observed concentration of MTBE at some point.
18 (*Id.* at 33.) Finally, because the models were run using a specified *mass* of MTBE as the
19 source term loaded into a given grid cell, the average concentration was multiplied by the
20 volume of water in the grid cell. (*Id.* at 33.) The volume of water in a given grid cell, in
21 turn, was determined by multiplying the volume of the grid cell by its porosity (the
22 percentage of void within the cell). (*Id.* at 33.)

23
24 Dr. Wheatcraft also made three decisions when performing the interpolations
25 described above. First, well samples either report concentration of MTBE or they report
26

27
28 ⁵ As discussed above, the MTBE concentration for each month is a combination of reported
concentrations and Dr. Wheatcraft's interpolations. However, for simplicity, the Court refers to the
MTBE source terms as "reported" for the duration of this Order.

1 that MTBE was not detected. (*Id.* at 30.) When the concentration is non-detect, it means
2 that there was no MTBE above a particular threshold. For example, a non-detect with a
3 threshold of 20 ppb could mean that there was 0 ppb or 19.9 ppb. (*Id.* at 30; *see also* Dkt.
4 168-2 ¶ 5 (“A left censored value [a non-detect to a given threshold] is one that is known
5 only to be less than some value.”) (citing S.P. MILLARD *ET AL.*, ENVIRONMENTAL
6 STATISTICS WITH R 593–97 (2nd ed. 2012)); *id.* ¶ 6 (“There are several ways of dealing
7 with [non-detects to a particular threshold]. The one thing all the literature agrees upon is
8 that you should not ignore the data.”).) The range of thresholds is large—from 10 to
9 800,000. (Wheatcraft Rpt. at 30.) To account for this, for non-detects where the
10 detection limit was 10 ppb or lower, Dr. Wheatcraft treated it as detecting zero MTBE.
11 (*Id.* at 33.) For detection limits higher than 10 ppb, Dr. Wheatcraft treated it as detecting
12 MTBE at a concentration of half of the detection limit—so a non-detect to 400,000 ppb
13 would be input as a detection of MTBE of 200,000 ppb. (*Id.* at 33.) Of the 25,294
14 samples analyzed for MTBE from wells associated with the ten focus plumes in this case,
15 12,216 (48.3%) show detections of MTBE. (*Id.* at 30.) An additional 1,763 were non-
16 detect to a limit greater than 10 ppb. (*Id.* at 30.) Therefore, Dr. Wheatcraft’s models
17 input 13,979 detections out of 25,924 samples, or 55.3%. (*Id.* at 30.)
18

19 Second, Dr. Wheatcraft dealt with the fact that groundwater is constantly moving
20 by assuming that the detections in each stress period represented wholly additional
21 MTBE loading. (Dkt. 152 Ex. 8 at J6; *see also* Dkt. 211 at 149–50.) In other words, if a
22 well reported MTBE of 10 ppb in April and 20 ppb in May, Dr. Wheatcraft would
23 assume that the entire mass of MTBE loaded in April and resulting in the detection of 10
24 ppb in the well had migrated beyond the grid cell by May. (*See* Dkt. 152 Ex. 8 at J6; Dkt.
25 211 at 149–50.) Therefore, the detection of 20 ppb in May represented entirely new mass
26 of MTBE released, rather than an *additional* 10 ppb mass release. (*See* Dkt. 211 at 149–
27 50.)
28

1 Third, Dr. Wheatcraft loaded MTBE throughout each grid cell. As noted above,
2 the models assume that there is homogeneity within a given grid cell. (See Wilson Decl.
3 Ex. 14 at 371 (MARY P. ANDERSON AND WILLIAM W. WOESSNER, APPLIED
4 GROUNDWATER MODELING: SIMULATION OF FLOW AND ADVECTIVE TRANSPORT 6
5 (2002)).) This applies to the MTBE loading as well—when Dr. Wheatcraft loaded
6 MTBE into his models, there was MTBE *throughout* relevant grid cells in the first layer
7 of the model. (See Wilson Rpt. at 201–03; Dkt. 211 at 82–83.) However, since the first
8 layer of the TMR model is between 10 and 100 feet thick, (Dkt. 152 Ex. 8 at F6), and the
9 first layer of the basinwide model significantly thicker, (Dkt. 211 at 83 (hundreds of
10 feet)), MTBE suddenly appearing at the bottom of the layer diverges from the reality of
11 MTBE releases from storage tanks at the top of the layer, (see Wilson Rpt. at 76 – 77).
12 To counteract this systemic limitation, which would bias the models by speeding up the
13 MTBE movement, Dr. Wheatcraft decreased the porosity of the first layer⁶ by 33%—the
14 porosity should have been 0.35 and it was set at 0.2. (Dkt. 168-2 ¶ 23.) Decreasing the
15 porosity decreases the amount of MTBE mass loaded, and thereby counteracts the
16 systemic bias. (*Id.*)

17
18 Once Dr. Wheatcraft determined his source term, he input it, along with the flow
19 models' outputs, into MT3D for both the basinwide model and the TMR model. (Dkt.
20 211 at 20–21.) For each model, Dr. Wheatcraft utilized two different solver algorithms:
21 FD and TVD. (*Id.* at 26–27.) The FD solver “is relatively quick, but at the expense of
22 less accuracy; specifically, the FD solver introduces ‘numerical dispersion’ into the
23 solution, basically spreading the [MTBE] concentration over a larger area than found in
24 reality.” (Wheatcraft Decl. ¶ 19.) In contrast, the TVD solver “is very accurate, with
25 little-to-no numerical dispersion, but requires much longer compute times.” (*Id.*) It takes
26 weeks to run a single TVD simulation. (Wheatcraft Rpt. at 40.)

27
28 ⁶ Dr. Wheatcraft states that he did this with the top layer of his TMR model. (Dkt. 152 Ex. 8 at D9; Dkt. 211 at 103; Dkt. 162-2 ¶ 23.)

Each solver outputs MTBE concentrations for each grid cell, at each layer, for each month between 1990 and 2060. (Wheatcraft Rpt. at 23.) Using the locations of production wells, on the basis of the model runs and Dr. Wheatcraft's professional experience, his expert opinion is that:

1. 190 OCWD production wells will exceed 0.2 ppb MTBE after 10 years.
2. 19 additional OCWD production wells will exceed 0.2 ppb MTBE after 20 years.
3. 28 additional OCWD production wells will exceed 0.2 ppb MTBE after 30 years.
4. 19 additional OCWD production wells will exceed 0.2 ppb MTBE after 40 years.
5. 108 OCWD production wells will exceed 5 ppb MTBE after 10 years.
6. 26 additional OCWD production wells will exceed 5 ppb MTBE after 20 years.
7. 10 additional OCWD production wells will exceed 5 ppb MTBE after 30 years.
8. 11 additional OCWD production wells will exceed 5 ppb MTBE after 40 years.

(*Id.* at 8.)

III. LEGAL STANDARD

The purpose of expert testimony is to "help the trier of fact to understand the evidence or to determine a fact in issue" by providing opinions based on the expert's "scientific, technical, or other specialized knowledge." Fed. R. Evid. 702. "Experts of all kinds tie observations to conclusions through the use of what Judge Learned Hand called 'general truths derived from . . . specialized experience.'" *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 148–49 (1999) (quoting Learned Hand, *Historical and Practical Considerations Regarding Expert Testimony*, 15 HARV. L. REV. 40, 54 (1901)).

"An expert witness—unlike other witnesses—'is permitted wide latitude to offer opinions, including those that are not based on firsthand knowledge or observation,' so

1 long as the ‘expert’s opinion [has] a reliable basis in the knowledge and experience of his
2 discipline.’” *Jinro Am. Inc. v. Secure Investments, Inc.*, 266 F.3d 993, 1004 (9th Cir.
3 2001), *opinion amended on denial of reh’g*, 272 F.3d 1289 (9th Cir. 2001) (quoting
4 *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 592 (1993)); *see Cree v.*
5 *Flores*, 157 F.3d 762, 773 (9th Cir. 1998) (noting that expert testimony is “not subject to
6 the strictures of Federal Rules of Evidence 602 and 803”).

7
8 In addition to relaxed evidentiary rules, designation of someone as an expert
9 confers an “aura of special reliability and trustworthiness” on their testimony.
10 *Cunningham v. Wong*, 704 F.3d 1143, 1167 (9th Cir. 2013) (quoting *United States v.*
11 *Amaral*, 488 F.2d 1148, 1152 (9th Cir. 1973)); *see also Jinro*, 266 F.3d at 1004 (“[T]he
12 opinion of a purported ‘expert’ . . . [is] likely to carry special weight with the jury.”). *But*
13 *see United States v. Laurienti*, 611 F.3d 530, 547 (9th Cir. 2010) (“The determination that
14 a witness is an expert is not an express imprimatur of special credence.”).

15
16 Therefore, the district court has a “special obligation” to serve as a gatekeeper.
17 *Kumho Tire*, 526 U.S. at 147. The district court must determine admissibility of expert
18 testimony, a determination that is “vital to ensur[ing] accurate and unbiased decision-
19 making by the trier of fact.” *Cooper v. Brown*, 510 F.3d 870, 943 (9th Cir. 2007)
20 (citation omitted).

21
22 The Supreme Court delineated this special obligation in *Daubert v. Merrell Dow*
23 *Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and its progeny *Kumho Tire Co. v.*
24 *Carmichael*, 526 U.S. 137 (1999) and *General Electric Co. v. Joiner*, 522 U.S. 136
25 (1997). The “objective” of the district court’s evaluation of expert testimony is to verify
26 its “reliability and relevancy.” *Kumho Tire*, 526 U.S. at 152; *see Fed. R. Evid. 702(a)–(d)*
27 (testimony must “help the trier of fact to understand the evidence or determine a fact in
28 issue,” it must be “based on sufficient facts or data,” it must be “the product of reliable

1 principles and methods,” and the expert must have “reliably applied the principles and
2 methods to the facts or data”). The district court must also conclude that an expert has
3 sufficient “knowledge, skill, experience, training, or education” to render expert opinions.
4 Fed. R. Evid. 702; *see also Primiano v. Cook*, 598 F.3d 558, 563 (9th Cir. 2010), *as*
5 *amended* (Apr. 27, 2010) (“[T]he witness has to be sufficiently qualified to render the
6 opinion.”).

7
8 The “reliability” requirement makes “certain that an expert, whether basing
9 testimony upon professional studies or personal experience, employs in the courtroom the
10 same level of intellectual rigor that characterizes the practice of an expert in the relevant
11 field.” *Kumho Tire*, 526 U.S. at 152. The requirement seeks to “exclude junk science,”
12 *Ellis v. Costco Wholesale Corp.*, 657 F.3d 970, 982 (9th Cir. 2011), not expert opinions
13 that fall within “the range where experts might reasonably differ, and where the jury must
14 decide among the conflicting views of different experts, even though the evidence is
15 ‘shaky,’” *Kumho Tire*, 526 U.S. at 153; *see also id.* at 149 (“[T]he trial judge must
16 determine whether the testimony has ‘a reliable basis in the knowledge and experience of
17 [the relevant] discipline.’”) (modification in original) (quoting *Daubert*). “Vigorous
18 cross-examination, presentation of contrary evidence, and careful instruction on the
19 burden of proof are the traditional and appropriate means of attacking shaky but
20 admissible evidence,” not exclusion. *Daubert*, 509 U.S. at 596.

21
22 The focus of the district court’s reliability determination must be “on principles
23 and methodology, not on the conclusions that they generate.” *Id.* at 595. At the same
24 time, “conclusions and methodology are not entirely distinct from one another” because
25 “[t]rained experts commonly extrapolate from existing data.” *Joiner*, 522 U.S. at 146.
26 “[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to
27 admit opinion evidence that is connected to existing data only by the *ipse dixit* of the
28 expert. A court may conclude that there is simply too great an analytical gap between the

1 data and the opinion proffered.” *Id.* District courts must be careful to evaluate the
2 *specifics* of the methodology offered by experts—not the general techniques that make up
3 the methodology. *See id.* at 153–54 (“[T]he specific issue before the court was not the
4 reasonableness in general of a tire expert’s use of a visual and tactile inspection
5 Rather, it was the reasonableness of using such an approach, along with [the] particular
6 method of analyzing the data thereby obtained, to draw a conclusion regarding *the*
7 *particular matter to which the expert testimony was directly relevant.*”) (emphasis in
8 original).

9
10 In *Daubert* and *Kumho Tire*, the Supreme Court identified the following factors a
11 court *may* use to determine whether the methods and principles employed by an expert
12 are reliable: (1) whether the method “can be (and has been) tested;” (2) whether the
13 method “has been subjected to peer review and publication;” (3) the method’s “known or
14 potential rate of error;” (4) whether there are “standards controlling the technique’s
15 operation;” and (5) whether the method has “general acceptance” within the “relevant
16 scientific community.” *Daubert*, 509 U.S. at 592–94; *accord Kumho Tire*, 526 U.S. at
17 149–50. “[T]he test of reliability is flexible, and *Daubert*’s list of specific factors neither
18 necessarily nor exclusively applies to all experts or in every case.” *Kumho Tire*, 526 U.S.
19 at 141; *see also id.* at 150 (“[W]e can neither rule out, nor rule in, for all cases and for all
20 time the applicability of the factors mentioned in *Daubert*, nor can we now do so for
21 subsets of cases categorized by category of expert or by kind of evidence. Too much
22 depends upon the particular circumstances of the particular case at issue.”). The Supreme
23 Court has emphasized that district courts have discretion to choose any set of reasonable
24 reliability criteria. *Id.* at 158.

25
26 In the Ninth Circuit, a “minor flaw in an expert’s reasoning or a slight
27 modification of an otherwise reliable method does not render expert testimony
28 inadmissible.” *City of Pomona v. SQM N. Am. Corp.*, 750 F.3d 1036, 1048 (9th Cir.

2014) (quotation omitted). At the same time, “faulty methodology or theory,” *id.*, relying on “unsubstantiated and undocumented information,” *Cabrera v. Cordis Corp.*, 134 F.3d 1418, 1423 (9th Cir. 1998), and conclusions based solely upon “subjective beliefs or unsupported speculation,” *Clausen v. M/V NEW CARISSA*, 339 F.3d 1049, 1061 (9th Cir. 2003), *as amended on denial of reh’g* (Sept. 25, 2003), are the “antithesis of . . . reliable expert opinion admissible under *Daubert* and Rule 702,” *Cabrera*, 134 F.3d at 1423.

The “relevance” requirement is rooted in Rule 702’s demand that the expert’s specialized knowledge “help the trier of fact to understand the evidence or to determine a fact at issue.” Fed. R. Evid. 702(a). “Expert testimony which does not relate to any issue in the case is not relevant and, ergo, non-helpful.” *Daubert*, 509 U.S. at 591 (quotation omitted). In the Ninth Circuit, relevancy “simply requires that ‘[t]he evidence . . . logically advance a material aspect of the party’s case.’” *Barabin*, 740 F.3d at 463 (quoting *Cooper*, 510 F.3d at 942); *see also Messick v. Novartis Pharm. Corp.*, 747 F.3d 1193, 1196–97 (9th Cir. 2014) (“Relevancy depends on the particular law at issue because expert opinion testimony is relevant if the knowledge underlying it has a valid connection to the pertinent inquiry.”) (quotation omitted). Simply put, “[t]he relevancy bar is low.” *Messick*, 747 F.3d at 1196.

Finally, for an expert to be qualified to render opinions, the opinions must be within his or her “area of expertise.” *White v. Ford Motor Co.*, 312 F.3d 998, 1008–09 (9th Cir. 2002), *opinion amended on denial of reh’g*, 335 F.3d 833 (9th Cir. 2003). Courts determine an expert’s area of expertise by examining their education, their research, their experiences, and their familiarity with the relevant field. *See, e.g., Primiano*, 598 F.3d at 566 (“Dr. Weiss is a board certified orthopedic surgeon and a professor at Brown University School of Medicine in the Division of Hand, Upper Extremity and Microvascular Surgery, department of Orthopedics. He has published over a hundred articles in peer-reviewed medical journals including several specifically

1 on the elbow and at least one somewhat related to this case, ‘Capitellocondylar Total
2 Elbow Replacement: A Long–Term Follow-up Study.’ He has years of experience
3 implanting various elbow prostheses and has performed five to ten revisions of total
4 elbow replacements that had been performed by other physicians. He has examined the
5 various types of prosthetics available, and has maintained familiarity with the peer-
6 reviewed literature.” Therefore, he is qualified to provide expert opinions on elbow
7 replacement.); *In re Countrywide Fin. Corp. Mortg.-Backed Sec. Litig.*, 984 F. Supp. 2d
8 1021, 1027 (C.D. Cal. 2013) (“Dr. Charles D. Cowan, Ph.D. holds a Bachelor of Arts and
9 a Master of Arts in Economics, both from the University of Michigan, as well as a
10 doctorate in Mathematical Statistics from George Washington University. Dr. Cowan’s
11 experience in the public sector includes serving as the chief statistician for both the FDIC
12 and the National Center for Education Statistics at the U.S. Department of Education. In
13 the private sector, Dr. Cowan served as a director for PricewaterhouseCoopers LLP and
14 consulting firm ARPC before cofounding his own consulting firm, Analytic Focus LLC.
15 Dr. Cowan has designed several economic measurement programs and studies, many of
16 which have included designs for statistical sampling methods. Dr. Cowan has also held
17 several positions in academia and now teaches graduate and undergraduate courses in
18 statistics at the School of Public Health at the University of Alabama. Dr. Cowan has
19 extensive education and experience directly related to the areas of expertise related to his
20 proffered testimony. Dr. Cowan is therefore qualified to serve as an expert witness in the
21 areas of economics and statistics and is further qualified to design and implement
22 statistical sampling studies.”).

23
24 Additionally, qualifications are construed broadly. *See, e.g., Thomas v. Newton*
25 *Int’l Enterprises*, 42 F.3d 1266, 1269–70 (9th Cir. 1994) (“Kuvakas’ declaration stated
26 that he had 29 years of longshore experience, and that he had worked in a variety of job
27 categories for numerous stevedoring companies. Clearly, this lays at least the minimal
28 foundation of knowledge, skill, and experience required in order to give ‘expert’

1 testimony as to the working conditions of experienced longshore personnel.”); *Hangarter*
2 *v. Provident Life & Acc. Ins. Co.*, 373 F.3d 998, 1015–16 (9th Cir. 2004) (“Caliri has
3 twenty-five years’ experience working for insurance companies and as an independent
4 consultant. His experience has included evaluating insurance claims, assisting insureds
5 in dealing with insurance companies to obtain payment of their claims, marketing
6 insurance products, and evaluating insurance policies. Caliri worked for both Unum and
7 Provident as a representative at the time many of the own occupation disability policies
8 like Hangarter’s were sold and has received training on how insurance companies in
9 general, and Defendants in particular, adjust claims. He has also been found qualified to
10 testify on insurance practices and standards within the industry twelve times before (once
11 in an insurance bad faith case), and has never been found to be unqualified.”).
12 Furthermore, “lack of specializations affects the weight of the expert’s testimony, not its
13 admissibility.” *In re Silicone Gel Breast Implants Prod. Liab. Litig.*, 318 F. Supp. 2d
14 879, 889 (C.D. Cal. 2004) (citing *Holbrook v. Lykes Bros. S.S. Co.*, 80 F.3d 777, 782 (3d
15 Cir. 1996)).

16 17 **IV. DISCUSSION**

18
19 OCWD has met its burden of demonstrating that Dr. Wheatcraft’s expert testimony
20 is admissible. *See Cooper*, 510 F.3d at 942 (“It is the proponent of the expert who has
21 the burden of proving admissibility.”) (quoting *Lust v. Merrell Dow Pharms., Inc.*, 89
22 F.3d 594, 598 (9th Cir. 1996)). As a threshold matter, Dr. Wheatcraft’s over forty years
23 of work “as a hydrogeologist with particular emphasis on fate and transport of
24 contaminants in the subsurface,” his “extensive experience in groundwater flow and
25 transport,” and his thorough familiarity with the facts of this case qualify him to offer
26 expert opinions on the transport of MTBE in OCWD’s groundwater. (Wheatcraft Decl. ¶
27 4; *see also id.* ¶¶ 4–8 (describing qualifications and data reviewed in this case); *id.* Ex. 1.)
28 Defendants do not challenge Dr. Wheatcraft’s qualifications to provide expert testimony

1 on MTBE transport. (*See generally* Dkt. 151.) The Court now will analyze the *Daubert*
2 requirements they do challenge—relevancy and reliability.

3
4 **A. Relevancy**

5
6 Defendants own or supply gasoline to gas stations within OCWD’s jurisdiction.
7 (*See* Dkt. 151 at 3.) Gasoline leaks into nature from multiple sources. *In re Methyl*
8 *Tertiary Butyl Ether (MTBE) Prod. Liab. Litig.*, 379 F. Supp. 2d 348, 365 (S.D.N.Y.
9 2005). At gas stations, it can leak into the ground from underground storage tanks that
10 are cracked or are overfilled. (*See id.*)

11
12 “Sometime after 1979, [D]efendants began adding the oxygenate MTBE to
13 gasoline in order to boost octane levels in higher grades of gasoline. . . . Defendants
14 chose MTBE so as to profit from a gasoline refining waste byproduct.” *Id.* “OCWD
15 became acquainted with MTBE contamination in 1995. . . . Soon after, OCWD began
16 systematic testing for MTBE contamination of the groundwater within its district.” *In re*
17 *Methyl Tertiary Butyl Ether (MTBE) Prod.*, 475 F. Supp. 2d 286, 288–90 (S.D.N.Y.
18 2006). MTBE imparts a foul taste and smell to water, rendering it unfit for human
19 consumption. *In re Methyl Tertiary Butyl Ether (MTBE) Prod. Liab. Litig.*, 379 F. Supp.
20 2d at 365.

21
22 Defendants do not contest that gasoline containing MTBE was released at various
23 gas stations. (*See* Dkt. 144-2 ¶¶ 3, 4.) However, they contend that the impact of such
24 releases has already been sufficiently abated at those sites. (*See* Dkt. 234 Ex. 18 at 5 n.4.)
25 OCWD, on the other hand, contends that MTBE has migrated off-site despite and prior to
26 on-site abatement. (*See* Dkt. 157 at 7; *In re Methyl Tertiary Butyl Ether MTBE Prod.*
27 *Liab. Litig.*, 824 F. Supp. 2d at 531.) OCWD, as the steward for the groundwater, alleges
28 that groundwater MTBE contamination constitutes a continuing nuisance and seeks

1 damages to abate the contamination and mitigate its impact on public drinking water
2 wells. (See Dkt. 157 at 7; *In re Methyl Tertiary Butyl Ether (MTBE)*, 2007 WL 700819 at
3 *3 (“Broadly stated, OCWD seeks (1) compensatory damages for expenses it has already
4 incurred while investigating and remediating MTBE contamination in its service area; (2)
5 injunctive relief as necessary to effect future remediation; (3) a declaratory judgment of
6 liability for defendants’ use and handling of MTBE; and (4) additional compensatory
7 damages for reasonably foreseeable future costs of investigation, remediation, and
8 containment of MTBE in its service area.”).)

9
10 Dr. Wheatcraft’s models easily meets the *Daubert* relevancy threshold because his
11 work is essential to OCWD’s case. The presence and magnitude of MTBE contamination
12 within OCWD’s jurisdiction is the cornerstone of this litigation. In addition, OCWD
13 must demonstrate a causal link between Defendants’ MTBE releases and groundwater
14 contamination. Dr. Wheatcraft’s models predicts the fate of MTBE detected in and
15 around Defendants’ gas stations: where it will travel, if and when it will end up at public
16 drinking water wells, and in what concentrations it will infiltrate the aquifers and the
17 public’s water. (Wheatcraft Decl. ¶ 9.) His work is necessary to OCWD proving that
18 MTBE is indeed contaminating, and will continue to contaminate, the drinking water in
19 Orange County managed by OCWD, and that it will cost millions of dollars for OCWD
20 to abate this continuing nuisance.

21
22 Defendants claim that Dr. Wheatcraft’s models do not tie any particular MTBE
23 release at a particular gas station to a particular production well. (Dkt. 151 at 24–25.)
24 They argue his testimony is therefore irrelevant to the issue of causation and should be
25 excluded. (*Id.*) Defendants rely on several pieces of evidence to support this argument:
26 (1) OCWD’s statement to the MDL Court that OCWD “will be providing an expert report
27 linking each station” to production wells, (Dkt. 124 Ex. 28 at 59); (2) the MDL Court’s
28 statement in a case management order that “[t]he issue is whether each release site

1 identified as part of a focus plume contributed to contamination of the wells associated
2 with that plume,” (Dkt. 158 Ex. 8); (3) Dr. Wheatcraft’s deposition answers indicating
3 that he did not isolate any particular station in the models such that the contamination
4 output would represent that station’s contribution to contamination, (Dkt. 124 Exs. 32,
5 33); and (4) the MDL Court’s order denying summary judgment, which reiterated its case
6 management order and stated that “[a]lthough defendants present substantial and
7 relatively persuasive evidence that Dr. Wheatcraft’s plume model cannot reliably trace
8 gasoline from each individual station to a corresponding production well, their arguments
9 are better suited for a *Daubert* motion challenging Dr. Wheatcraft’s methodology,” *In re*
10 *Methyl Tertiary Butyl Ether (MTBE) Prod. Liab. Litig.*, 67 F. Supp. 3d 619, 630–31
11 (S.D.N.Y. 2014).

12
13 Defendants misconstrue those statements and Dr. Wheatcraft’s expert testimony.
14 OCWD’s “promise” to the MDL Court was made during the preliminary delineation of
15 focus plumes in this case and in response to Defendants’ argument that OCWD
16 gerrymandered its designated focus plumes to include stations without evidence that
17 MTBE releases from the stations were actually comingling, not in a proceeding regarding
18 OCWD’s burden of demonstrating causation or the reliability Dr. Wheatcraft’s work.
19 (See Dkt. 158 Ex. 5.) Similarly, the MDL Court’s case management order, in context,
20 makes clear that OCWD must provide evidence that a particular release site *contributed*
21 to the plume in question and ultimately the contamination to the aquifers and drinking
22 wells, not that OCWD must completely isolate the independent impact of each release.
23 (See *id.* Ex. 8.)

24
25 The Court disagrees with Defendants that Dr. Wheatcraft’s deposition testimony
26 undermines his model’s relevance to this case. On the contrary, it constitutes Dr.
27 Wheatcraft’s acknowledgement of the limits of his model—it traces the effect of MTBE
28 plumes, not individual stations. There is no indication that Dr. Wheatcraft believes or

1 represents otherwise in his report. In fact, his opinions are presented for the *entire*
2 OCWD jurisdiction, aggregating the impact of all MTBE focus plumes to identify and
3 present the quantity of drinking water wells that will be impacted by contamination at
4 various concentration thresholds. (*See id.* Ex. 1 at 8; *see also* Dkt. 152 Exs. 6, 7.)
5

6 Notably, the MDL Court accepted his rationale for modeling plumes rather than
7 individual stations—that doing so would artificially decrease the level of contamination
8 because it would ignore the nature of a comingled plume. (*See id.* Ex. 3.) The jury will
9 decide if such rationale is compelling and Defendants are welcome to impeach that
10 rationale on cross examination, but Dr. Wheatcraft's plume-based models easily meet the
11 *Daubert* relevance threshold.
12

13 Stepping back, Defendants are correct that OCWD will have to prove causation to
14 prevail on its continuing nuisance claim. (*See* Dkt. 162 at 9.) In this case, Dr.
15 Wheatcraft's models rely on input data from monitoring wells. (*See* Wheatcraft Rpt. 30.)
16 Dr. Wheatcraft claims that the monitoring wells are those monitoring wells associated
17 with the stations in the ten focus plumes at issue in this case. (*See id.*) From the
18 evidence Defendants provide, it is obvious that monitoring wells can be associated with a
19 particular station. (*See, e.g.,* Wilson Decl. Figs. 7, 15, 16.) If Defendants wish to
20 challenge that link between their stations and the monitoring wells' readings (*e.g.* by
21 arguing that the monitoring wells from which Dr. Wheatcraft derived his source term
22 were reporting MTBE from sources other than their stations), the appropriate forum to do
23 so is at trial before the trier of fact. Dr. Wheatcraft is transparent about the monitoring
24 wells being the source of his MTBE inputs, (*see, e.g.,* Wheatcraft Rpt. at 30–31), and
25 such a challenge does not negate the *relevance* of his testimony insofar as it represents a
26 model for the impact of the MTBE detected in the monitoring wells on the aquifer and
27 the production wells. Alternatively, if Defendants wish to challenge the inclusion of a
28 given station's monitoring wells in a particular plume, they may do so at trial. Dr.

1 Wheatcraft's models' output clearly supports comingling between stations within a given
2 plume. (*See, e.g.*, Wilson Decl. Fig. 15.) The particular delineation of a plume and the
3 extent to which Dr. Wheatcraft's models support inclusion of particular stations in a
4 given plume in no way renders his expert opinions irrelevant.

5
6 Finally, the Court agrees with Defendants that the extent to which each station
7 within a plume contributed to the plume is relevant for damages. (Dkt. 151 at 25.)
8 However, that fact does not render Dr. Wheatcraft's expert opinions irrelevant since the
9 issue of the extent of a plume's contamination is distinct from the issue of a station's
10 contribution to a plume. The appropriate time for Defendants to raise such a distinction
11 is on cross examination, not through an argument that Dr. Wheatcraft's testimony is
12 irrelevant and must be excluded.

13 14 **B. Reliability**

15
16 Dr. Wheatcraft's expert opinions are the product of reliable methodology that is
17 transparent, defined *ex ante*, and consistently applied. This Court's *Daubert* obligation is
18 to identify and exclude junk science that is unsubstantiated, purely subjective, untestable,
19 and conclusory. Contrary to Defendants' assertion, Dr. Wheatcraft's opinions are not
20 junk science.

21 22 1. *Daubert* Factors

23
24 A "key question" to be answered when determining reliability is whether a
25 methodology is testable. *Daubert*, 509 U.S. at 593. "Under *Daubert*'s testability factor,
26 the primary requirement is that '[s]omeone else using the same data and methods . . . be
27 able to replicate the result[s].'" *City of Pomona*, 750 F.3d at 1047 (quoting *Zenith Elecs.*
28 *Corp. v. WH-TV Broad. Corp.*, 395 F.3d 416, 419 (7th Cir. 2005)). "Testability 'assures

1 the opponent of proffered evidence the possibility of meaningful cross-examination
2 (should he or someone else undertake the testing).” *Id.* at 1046 (quoting *United States v.*
3 *Mitchell*, 365 F.3d 215, 238 (3d Cir. 2004)).

4
5 Dr. Wheatcraft’s methodology is encapsulated in his data files and his model code.
6 Such self-contained, independent materials lend themselves to third-party verification and
7 objective challenge. Indeed, by all accounts he has produced his models, data inputs, and
8 data outputs to Defendants for analysis, they have successfully examined them, and they
9 base their arguments in this motion on that examination. (*See generally* Wilson Rpt.;
10 Dkt. 211 at 179.)

11
12 Furthermore, Dr. Wheatcraft consistently applied his methodology. There is no
13 indication that he curated MTBE input data, gerrymandered his model’s scope or scale,
14 inconsistently and arbitrarily altered relevant parameters, or deceptively manipulated his
15 results or conclusions. On the contrary, his report, declarations, and testimony present
16 his modeling decisions clearly. (*See generally* Wheatcraft Rpt.; Dkt. 211; Wheatcraft
17 Decl.) The Court is convinced that such decisions were made *ex ante*, not mid-stream,
18 and were applied consistently. *See City of Pomona*, 750 F.3d 1036, 1045 (9th Cir. 2014)
19 (“There is no record evidence that Dr. Sturchio’s opinion is the product of a hasty,
20 incomplete effort.”).

21
22 “Another pertinent consideration is whether the theory or technique has been
23 subjected to peer review and publication.” *Daubert*, 509 U.S. at 593. At the same time,
24 “[p]eer reviewed scientific literature may be unavailable because the issue may be too
25 particular, new, or of insufficiently broad interest, to be in the literature.” *Primiano*, 598
26 F.3d at 565; *see also Daubert*, 509 U.S. at 594 (“Publication (which is but one element of
27 peer review) is not a *sine qua non* of admissibility; . . . in some instances well-grounded
28 but innovative theories will not have been published. Some propositions, moreover, are

1 too particular, too new, or of too limited interest to be published.”). Therefore, “[t]he fact
2 of publication (or lack thereof) in a peer reviewed journal [is] a relevant, though not
3 dispositive, consideration.” *Daubert*, 509 U.S. at 594.

4
5 The primary building blocks that make up Dr. Wheatcraft’s models have been
6 subjected to peer review. The two computer programs that underlie Dr. Wheatcraft’s
7 models, MODFLOW and MT3D, have been thoroughly reviewed. (Wheatcraft Decl. ¶¶
8 16; Dkt. 211 at 20–21, 164, 191; *see Abarca v. Franklin Cty. Water Dist.*, 761 F. Supp.
9 2d 1007, 1055 n.48 (E.D. Cal. 2011).) Similarly, the two solvers that Dr. Wheatcraft
10 utilized—FD and TVD—have also been thoroughly analyzed by the hydrogeological
11 community. (Wheatcraft Decl. ¶¶ 66, 68–69; Dkt. 211 at 26–28.) Finally, while not
12 peer-reviewed *publication*, Dr. Wheatcraft’s flow models are slightly modified versions
13 of OCWD’s flow models; he verified his flow models’ outputs to ensure they matched
14 the outputs of OCWD’s flow models, which have been peer reviewed and are thoroughly
15 and constantly verified by OCWD hydrologists against actual groundwater conditions.
16 (Dkt. 211 at 15–18; *see Daubert*, 509 U.S. at 594 (emphasizing that publication is “but
17 one element” of peer review).) Notably, Defendants do not raise a *Daubert* challenge to
18 Dr. Wheatcraft’s flow models. (Dkt. 211 at 164 (Dr. Wilson stating, “I’ve criticized the
19 groundwater flow model, but it’s not a *Daubert* kind of issue. It’s not a big deal.”); *see*
20 *generally* Dkt. 151.)

21
22 The remaining major components of Dr. Wheatcraft’s work do not lend themselves
23 to peer review. Dr. Wheatcraft’s two models were custom built for this case and this
24 water district. (*See* Wheatcraft Rpt.; Dkt. 211 at 127–28.) There is no reason to expect
25 such custom models would be published—and by all accounts the structure of Dr.
26 Wheatcraft’s models are constructed consistently with standard modeling procedure (*e.g.*
27 utilizing homogeneous grid cells). (*See* Wheatcraft Rpt; Dkt. 211 at 128 (Dr. Wilson
28 critiquing Dr. Wheatcraft’s parameters, not the construction of the models themselves).)

1 Similarly, the particular interpolations Dr. Wheatcraft employed to delineate MTBE input
2 data are widespread but their use in this case is unsurprisingly not peer reviewed. (Dkt.
3 168-2 ¶¶ 12 – 14; Dkt. 152 Ex. 8 at 7–9, D7; Dkt. 211 at 52, 192.)
4

5 A third pertinent consideration is general acceptance of an expert’s methodology
6 within the relevant scientific community.⁷ *Daubert*, 509 U.S. at 594. The “reliability
7 assessment does not require, although it does permit, explicit identification of a relevant
8 scientific community and an express determination of a particular degree of acceptance
9 within that community. . . . [A] known technique which has been able to attract only
10 minimal support within the community may properly be viewed with skepticism.” *Id.*
11 (quotation omitted).) At the same time, “methods accepted by a minority in the scientific
12 community may well be sufficient. . . . [T]he fact that one party’s experts use a
13 methodology accepted by only a minority of scientists would be a proper basis for
14 impeachment at trial.” *Daubert v. Merrell Dow Pharm., Inc.*, 43 F.3d 1311, 1319 n.11
15 (9th Cir. 1995).
16

17 Courts must also consider whether the discipline itself is reliable. *See Kumho Tire*,
18 526 U.S. at 151 (referencing astrology and necromancy). To that end, the “existence and
19 maintenance of standards controlling” methodology within a field is a significant indicia
20 of discipline reliability. *Daubert*, 509 U.S. at 594; *see also United States v. Sanchez-*
21 *Birruetta*, 128 F. App’x 571, 573 (9th Cir. 2005) (unpublished). A “disagreement over,
22 not an absence of, controlling standards, . . . is not a basis to exclude expert testimony.”
23 *City of Pomona*, 750 F.3d at 1045 (quoting *Chischilly*, 30 F.3d at 1154).
24
25

26 ⁷ The Court deems consideration of the “known or potential rate of error” inapplicable to Dr.
27 Wheatcraft’s work and groundwater modeling more generally. *Daubert*, 509 U.S. at 594. Constructing
28 models and evaluating results is a process that inherently includes expert judgment; it is impossible to
quantify a known rate of error for such work. Furthermore, the predictive power of models (*i.e.* model
errors) is often easily ascertained by comparing predictions to actual outcomes.

1 Notably, many of the elements of Dr. Wheatcraft's work that have not been
2 subjected to peer review are nevertheless generally accepted by groundwater
3 hydrogeologists. For example, the techniques Dr. Wheatcraft used to extract data from
4 monitoring well reports are, by all accounts, widespread and generally accepted. (*See*
5 Wheatcraft Rpt. at 35–37; Dkt. 152 Ex. 8 at J6–J7.) Predictive groundwater and
6 contaminant modeling is inherently uncertain, but the field is sufficiently robust for this
7 Court to give weight to its collective acceptance of given techniques and methodologies.

8
9 Other factors further support the conclusion that Dr. Wheatcraft's work is reliable.
10 While his analysis of MTBE in OCWD was developed for this litigation, the field of
11 groundwater modeling developed and exists independent of litigation. *Cf. Cooper*, 510
12 F.3d at 944 n.29 (“That forensic EDTA testing was engendered and cultivated solely
13 within the context of litigation discounts the reliability of the technology under
14 *Daubert*.”). Furthermore, Dr. Wheatcraft's expert opinions grew “naturally and directly”
15 out of his groundwater modeling experience unrelated to his service as an expert in
16 litigation. (*See* Wheatcraft Rpt. at 10, 20–22.) There is no indication that Dr. Wheatcraft
17 was not just as careful in developing his expert opinions here as he would be in his
18 professional work separate from litigation. *See Daubert*, 43 F.3d at 1317 (“That an
19 expert testifies for money does not necessarily cast doubt on the reliability of his
20 testimony, as few experts appear in court merely as an eleemosynary gesture. But in
21 determining whether proposed expert testimony amounts to good science, we may not
22 ignore the fact that a scientist's normal workplace is the lab or the field, not the
23 courtroom or the lawyer's office.”).

24
25 Finally, to the extent Dr. Wheatcraft diverges from common practices, such
26 deviations are comparatively few and far between, not to mention consistently applied
27 and based on reasonable scientific justifications. (*See, e.g.*, Wheatcraft Rpt. at 29–31
28 (describing approach to high-threshold non-detect data); Dkt. 152 Ex. 8 at D4 (explaining

rationale and scientific justification for approach to high-threshold non-detect data); Dkt. 168 ¶¶ 3–7 (same).) Reasonable justification for “extrapolation from an accepted premise” to an expert’s conclusion is what is required for an expert opinion to be reliable and therefore admissible. *Temple v. Hartford Ins. Co. of Midwest*, 40 F. Supp. 3d 1156, 1160 (D. Ariz. 2014); *see also Env’tl. World Watch, Inc. v. Walt Disney Co.*, No. CV0904045DMGPLAX, 2014 WL 10979866, at *2 (C.D. Cal. Apr. 9, 2014) (“[T]he Court considers whether the conclusion represents unfounded extrapolation from underlying data.”) (citing *United States v. Redlightning*, 624 F.3d 1090, 1112–14 (9th Cir. 2010)). *Cf., e.g., Hall v. Baxter Healthcare Corp.*, 947 F. Supp. 1387, 1410–11 (D. Or. 1996) (“Plaintiffs offer no explanation of why extrapolations from the rodent studies their experts rely upon to humans are warranted here.”).

2. Defendants’ Counterarguments

Defendants and their expert Dr. Wilson offer several counterarguments that Dr. Wheatcraft’s work is unreliable. (See Dkt. 151; Wilson Decl.; Dkt. 162.) Because those arguments rely on unrepresentative slivers of his work, mischaracterize his findings, and hyperbolically attempt to transform professional disagreements about peripheral judgment calls into systematic invalidity, their arguments are unavailing.

a. Accuracy of Dr. Wheatcraft’s Predictions. The majority of Defendants’ critiques really boil down to one argument: because Dr. Wheatcraft’s models do not accurately predict conditions in 2016, they must be unreliable. (See Dkt. 151 at 18–24; Dkt. 162 at 17–25.) As an initial matter, that argument is the opposite of the proper *Daubert* approach to determining reliability, which requires focusing on *methodology* rather than conclusions. *Daubert*, 509 U.S. at 595 (“The focus, of course, must be solely on principles and methodology, not on the conclusions that they generate.”); *Joiner*, 522 U.S. at 146 (“[C]onclusions and methodology are not entirely distinct from one another”

1 because “[t]rained experts commonly extrapolate from existing data.”). The accuracy of
2 a model’s predictions can exemplify identified methodological deficiencies. However,
3 inaccurate predictions will not override the use of sound, testable assumptions and
4 consistent methodology; such inaccuracies are fodder for cross-examination and
5 impeachment, not admissibility.

6
7 Even if inaccuracies were the focus of reliability analysis, Defendants grossly
8 overstate the inaccuracies in Dr. Wheatcraft’s models. Defendants present results solely
9 from Dr. Wheatcraft’s basinwide FD solver model run, even though Dr. Wheatcraft based
10 his opinion on four model/solver combinations. (Wheatcraft Decl. ¶ 54; Dkt. 211 at 28.)
11 Also, Dr. Wheatcraft acknowledges that his basinwide model is inherently less precise
12 than his TMR model—the basinwide grid cells are 500 feet by 500 feet in contrast with
13 the TMR model’s 250 feet by 250 feet, and the basinwide model has five layers rather
14 than fifteen layers. (Dkt. 211 at 81; Wheatcraft Rpt. at 21–24.) The FD solver is also
15 significantly less accurate than the TVD solver, and it is known to systematically disperse
16 contaminants inaccurately. (Wheatcraft Decl. ¶ 51.) Dr. Wheatcraft testified that his
17 basinwide model and the FD solver were utilized as a “first cut” of his model to verify its
18 capabilities in broad strokes. (Dkt. 211 at 27–28; *see also* Wheatcraft Rpt. at 21–24.)
19 Given the structural limitations of the model and solver, it is unsurprising that the
20 resulting MTBE predictions are inflated. To construe those results into the entirety of Dr.
21 Wheatcraft’s work, completely ignoring the TMR model and the TVD solver, the
22 combination on which Dr. Wheatcraft primarily relied, (Dkt. 211 at 111–12), and on that
23 basis to ask the Court to exclude Dr. Wheatcraft is unreasonable.

24
25 In addition to excluding all but the least accurate model outputs, Defendants also
26 conflate average MTBE concentration with production well MTBE concentration. (Dkt.
27 168-2 ¶¶ 21–22; Wheatcraft Decl. ¶ 32.) A production well stretches from the ground
28 surface down hundreds of feet. (Dkt. 211 at 40.) However, it only draws water from

1 deep in the earth. (Wheatcraft Decl. ¶ 32.) Therefore, the concentration of MTBE
2 present in the vicinity of a production well but far above the point from which it draws
3 water is not the concentration of MTBE in the water produced by that well. (See Dkt.
4 168-2 ¶¶ 21–22.) Rather, only the MTBE concentration in the vicinity of the point from
5 which the well draws water is the MTBE concentration that will be present in the water
6 produced by the well. (*Id.*) Translated into Dr. Wheatcraft's models, any given vertical
7 section of the basin is represented by a stack of grid cells, one grid cell for each layer.
8 (See Wheatcraft Decl. ¶ 32.) A production well transverses each grid cell between the
9 surface and the layer from which it draws water. (See *id.*) The models' predicted MTBE
10 concentration for the water produced by the well is the predicted concentration of the grid
11 cell in which the well terminates. (*Id.*) Similarly, the models predict that MTBE will
12 arrive in the production well when it arrives in that grid cell. (*Id.*)

13
14 However, Defendants take the predicted MTBE in each grid cell through which the
15 production well travels and average those values (weighted by each layers'
16 transmissivity) to obtain what they characterize as Dr. Wheatcraft's predicted MTBE
17 concentration in the production well. (Dkt. 168-2 ¶¶ 21–22.) Furthermore, they report
18 that Dr. Wheatcraft predicts MTBE will arrive when the models predict MTBE will be
19 present in the column of grid cells. (See *id.*) The predicted MTBE concentrations often
20 exceed the maximum MTBE concentration ever observed in California (1,900 ppb) and,
21 in at least some cases, significant MTBE contamination would have already occurred.
22 (Dkt. 211 at 115–16; Dkt. 151 at 18–19.) Since such significant contamination has not
23 occurred and, they argue, will never plausibly occur, Defendants claim Dr. Wheatcraft's
24 models are unreliable and unrealistic to the point of constituting junk science. (Dkt. 162
25 at 15–20.)

26
27 Of course, Dr. Wheatcraft's models actually predict that production wells will
28 register MTBE at the time and in the concentrations predicted by the grid cell in the layer

1 of his models corresponding to the depth of the production well. When *that* data is
2 analyzed, both the magnitude and the onset of MTBE contamination match reality much
3 more closely—the presence of MTBE contamination is accurately predicted and peak
4 contamination is, for the vast majority of wells, within the range of observed MTBE
5 concentrations within California. (Dkt. 168-2 ¶¶ 21, 27–28.) When the output data from
6 Dr. Wheatcraft’s TMR model with the TVD solver is examined, nearly half (46%) of the
7 355 production wells are predicted to have a peak MTBE contamination of less than or
8 equal to 10 ppb and 95.5% of them are predicted to have peak concentrations below the
9 maximum recorded in California, 1,900 ppb. (*Id.* ¶ 21.) This is a far cry from
10 Defendants’ characterization that Dr. Wheatcraft makes “outrageous predictions,” (Dkt.
11 162 at 22 n.11), “that could never occur in the real world” because they wildly inflate
12 MTBE contamination, (Dkt. 151 at 18). On the contrary, Dr. Wheatcraft’s models
13 predict contamination within the realm of reasonable possibility.

14
15 In addition to predicting plausible MTBE contamination concentrations, Dr.
16 Wheatcraft’s predictions are also qualitatively accurate—his models correctly identify
17 which wells will have MTBE in 2016 and which will not. Contrary to Defendants’
18 claims that *no* wells have had MTBE and “to date Dr. Wheatcraft is 0 for 81” on
19 predicting contamination, the 87 wells which the TMR model with the TVD solver
20 predicts will have MTBE by now have all tested positive for MTBE, at least at some low
21 level of contamination. (Dkt. 168-2 ¶ 27.) Furthermore, the most precise model predicts
22 that MTBE contamination will not occur in the production wells until some time in the
23 future. (*Id.* ¶ 21.) While Defendants categorically dismiss Dr. Wheatcraft’s accurate
24 prediction of the absence of MTBE contamination as “the equivalent of a broken clock,
25 which is ‘right’ twice a day,” (Dkt. 162 at 21), the Court believes that accuracy manifests
26 in *both* correctly predicting contamination and correctly predicting lack of contamination.
27 It undermines reliability if the models predict no contamination where there is actually
28 contamination just as much as if the models predict contamination where none is present.

1 Even if the Court were to apply the inverted logic of inaccurate conclusion implies
2 unreliable methodology, the qualitative accuracy of Dr. Wheatcraft's models' results'
3 would render the highlighted divergences a question of weight, not admissibility.
4

5 *b. Grid Cell Size.* Defendants also advance several critiques that amount to
6 arguing that Dr. Wheatcraft should have used a model with smaller grid cells and
7 significantly more layers. For example, Defendants harp repeatedly on the fact that Dr.
8 Wheatcraft's basinwide model loads the equivalent of 20 million gallons of leaked
9 gasoline—a wholly unrealistic amount, they argue. (Dkt. 151 at 23; Dkt. 162 at 24–25.)
10 Defendants also take issue with the fact that when MTBE is loaded into the model, it is
11 immediately present at the bottom of the top layer, adjacent to an aquifer, when in
12 actuality it is released at the top of the top layer and only a fraction of it reaches the
13 aquifer. (Wilson Rpt. at 76–77.) In addition, Defendants critique the fact that the models
14 assume all the MTBE in a given grid cell leaves that grid cell by the next stress period.
15 (Dkt. 211 at 150.) Finally, Defendants highlight instances where Dr. Wheatcraft
16 represents a release as leading instantaneously to MTBE hundreds of feet away. (Dkt.
17 151 at 21–22; Dkt. 211 at 147.) These flaws, they argue, lead Dr. Wheatcraft to vastly
18 overestimate the amount of MTBE and its spread in the waterbasin. (*See id.*)
19

20 These purportedly fatal flaws all follow from the size of Dr. Wheatcraft's grid cells
21 and the fact that each grid cell is modeled as homogenous. As discussed above, Dr.
22 Wheatcraft determines the average concentration of MTBE within a grid cell and then
23 multiplies it by the volume of the cell to obtain the mass of MTBE to load into his model.
24 (Wheatcraft Rpt. at 31–35.) Given this homogeneity, MTBE is modeled as present
25 everywhere within a grid cell or absent from a grid cell entirely. (Wheatcraft Decl. ¶ 82.)
26 Therefore, without smaller grid cells, MTBE will inherently be loaded into the models as
27 instantaneously present at the depth equivalent to the size of the top layer. (*Id.*) To
28 compensate for this weakness, Dr. Wheatcraft artificially decreased the porosity of the

1 top layer by as much as 33%, which has the effect of retarding the spread and quantity of
2 MTBE loaded into the model. (Dkt. 168-2 ¶ 23.) All models are approximations, and
3 Defendants have offered no evidence that Dr. Wheatcraft's attempt to compensate by
4 modifying porosity transforms his work into junk science.

5
6 Similarly, the size of the top layer is a significant driver of the quantity of MTBE
7 loaded into the model. (See Dkt. 154 Ex. 34 at 258.) Once again, MTBE is modeled as
8 instantaneously present throughout the top layer of Dr. Wheatcraft's model. (Wheatcraft
9 Decl. ¶ 82.) In the basinwide model, the grid cells are significantly larger than the cells
10 in the TMR model and the top layer is significantly thicker. (See Dkt. 154 Ex. 34 at 258;
11 Dkt. 211 at 80–81.) Those factors, along with the fact that the basinwide model covers
12 more gas stations than the TMR model, means that the basinwide model loads
13 significantly more MTBE than the TMR model. (See Dkt. 154 Ex. 34 at 258.) Dr.
14 Wheatcraft's models load MTBE mass—as described above, monitoring well MTBE
15 detections are converted into the MTBE mass present in each grid cell each month. (Dkt.
16 211 at 152.) After building his models and interpolating the MTBE mass source term,
17 Dr. Wheatcraft performed a sanity check of his mass source term by converting the total
18 MTBE mass loaded into the equivalent amount of gasoline that would have needed to
19 have leaked to release that amount of MTBE. (See Wheatcraft Decl. ¶ 85; Dkt. 211 at 57;
20 Dkt. 152 Ex. 8 at D26.) That calculation reveals that Dr. Wheatcraft's basinwide model
21 loads the equivalent of 20 million gallons of gasoline. (Dkt. 151 at 23.) Defendants harp
22 on that fact at length, castigating Dr. Wheatcraft for “inputting” such an “extraordinary
23 amount” that has “no evidentiary basis.” (Dkt. 151 at 23; Dkt. 162 at 24–25; *see also*
24 Wilson Decl. ¶ 39.)

25
26 First of all, Defendants misconstrue Dr. Wheatcraft's work. Dr. Wheatcraft did *not*
27 determine *ex ante* how much MTBE or gallons of gas to “inject” into his model. (*Cf.*
28 Wheatcraft Decl. ¶ 82; Wilson Decl. ¶ 38.) Rather, the MTBE source term is derived

1 solely from actually reported MTBE concentrations in monitoring wells—those wells are
2 the evidentiary basis for the MTBE. (*See* Wheatcraft Rpt. at 30–31; Dkt. 211 at 58.) The
3 gallons of gasoline calculation was an *ex post* sanity check he performed to verify his
4 models. (Dkt. 154 Ex. 34 at 254.) Second, unsurprisingly, Dr. Wheatcraft’s TMR model,
5 with its smaller grid cells and additional, comparatively thin layers, loads significantly
6 less MTBE, the equivalent of 3 million gallons of leaked gasoline. (Dkt. 151 at 23.)
7 Defendants construe that amount as similarly absurd. (Dkt. 162 at 25.) However, Dr.
8 Wheatcraft has demonstrated that 3 million gallons is realistic. (Dkt. 211 at 56–58.)
9 California regulations mandate that gas tanks have a monitor that detects leaks of 0.2
10 gallons per hour. (Dkt. 211 at 93–94.) Assuming that each gas station in the focus
11 plumes within the TMR model had four tanks (the average number of tanks in an Orange
12 County gas station), each of which leaked 0.2 gallons per hour (the threshold below
13 which stations were not required to be able to detect a leak) for the 14 years that MTBE
14 was definitely used by Defendants, there would be approximately 3 million gallons of
15 gasoline leaked into the ground. (*See* Dkt. 154 Ex. 34 at 254–56.) All of that leakage
16 would be *undetected*; in reality, there were many known, detected gasoline spills during
17 those 14 years. (*See* Dkt. 152 Ex. 4.) Dr. Wheatcraft also argues that *current* detection
18 equipment would still allow 5,000 gallons of gasoline to be released at each station each
19 month without detection; his TMR model loads the equivalent of 12,000 gallons per
20 month, which he argues is reasonable, (Wheatcraft Decl. ¶ 85; Dkt. 152 Ex. 8 at J10), and
21 the Court agrees given the presence of known leaks during the relevant time period. To
22 the extent Defendants challenge the assumptions made in Dr. Wheatcraft’s practice of
23 conducting a sanity check on the grounds that some stations used MTBE gasoline for less
24 than 14 years or implemented leak detection equipment which would detect smaller
25 leaks, (Dkt. 211 at 94, 96–98), such arguments quibble with Dr. Wheatcraft’s
26 methodology for *verifying* the plausibility of his model, are accordingly far removed from
27 the underlying reliability of his modeling methodology, and directly challenge the weight
28 of his testimony, not its admissibility.

1 Dr. Wheatcraft's model choices regarding the movement of MTBE and its
2 presence hundreds of feet away from a detection reflect principled, consistent modeling
3 decisions that also flow from the size of each grid cell. As discussed above, Dr.
4 Wheatcraft interpolates the concentration of MTBE at forty-nine different points within a
5 grid cell, based on the inverse squared distance from a well that detected MTBE.
6 (Wheatcraft Rpt. at 33–34.) He does this for the cell in which a monitoring well is
7 present, as well as the eight adjacent cells. (*Id.*) In some cases in the basinwide model a
8 monitoring well is present on the edge of a grid cell and Dr. Wheatcraft's methodology
9 interpolates the presence of MTBE in the grid cell adjacent to the opposite edge of the
10 monitoring well's grid cell. (*See* Dkt. 211 at 177–78; Wilson Rpt. at 79; *id.* at 209.) In
11 that situation, since the grid cells are 500 feet by 500 feet, the model will predict the
12 presence of MTBE 1000 feet from the monitoring well. (Dkt. 211 at 177–78.)
13 Obviously, if the cells were smaller, Dr. Wheatcraft's method would interpolate MTBE
14 correspondingly closer to monitoring wells. Given the grid cells his models have, Dr.
15 Wheatcraft accounts for this by discounting concentration by the inverse square of
16 distance from the monitoring well, leading to low concentrations in adjacent cells that are
17 far from monitoring wells. (*See* Wheatcraft Rpt. at 33–34.) Furthermore, were Dr.
18 Wheatcraft to only interpolate MTBE into the grid cell in which the monitoring well is
19 present, he would underestimate the amount of MTBE—a monitoring well detecting
20 significant amounts of MTBE on the edge of a grid cell would, under that methodology,
21 ignore the fact that MBTE is likely present mere feet away in the closest adjacent cell.
22 (*See* Dkt. 152 Ex. 8 at J7.) Using homogeneous grid cells presented Dr. Wheatcraft with
23 a choice between two reasonable modeling options; his choice to interpolate the
24 surrounding eight grid cells is a choice that the jury can weigh when evaluating his
25 testimony but does not make his models unreliable.

26
27 The same reasoning applies to Dr. Wheatcraft's choice to model all MTBE as
28 traveling out of a grid cell within each month-long stress period. Defendants agree that,

1 due to groundwater flow, MTBE in groundwater migrates. (See Dkt. 211 at 150.) Grid
2 cell homogeneity and the size of the models dictates that either *all* the MTBE would be
3 modeled as migrating or *none* would be modeled as migrating.⁸ (See Dkt. 152 Ex. 8 at
4 D1.) Dr. Wheatcraft chose to have all of it migrate—a reading of 20 ppb one month and
5 30 ppb the following month would be modeled as 50 ppb of mass loaded over the two
6 months, not 20 ppb the first month and 10 ppb the next month. (*Id.*) That choice was
7 applied consistently and is an approximation of reality. The jury should take that into
8 account when evaluating Dr. Wheatcraft's opinions; it does not render those opinions
9 junk science.

10
11 Defendants also focus on the fact that when Dr. Wheatcraft calculates the mass of
12 MTBE in a grid cell, he multiplies the average concentration by the volume of the grid
13 cell instead of the volume of the water table⁹ within the grid cell. (Wilson Rpt. at 198–
14 200; Dkt. 211 at 152–55.) Were Dr. Wheatcraft to apply Defendants' preferred
15 methodology, he would have significantly increased the complexity of his model, since
16 the water table within a grid cell changes seasonally. (See Wilson Rpt. at 198–200; Dkt.
17 211 at 152–53.) It also would have added another layer of approximation—the precise
18 water level within the grid cell would have to be interpolated, given the size of the grid
19 cell, and therefore the water level would be, on some level, speculative. (See, e.g.,
20 Wheatcraft Decl. Ex. 10 at 24.) It also would miss any MTBE that had not yet reached
21 the water table. Dr. Wheatcraft's choice here, as elsewhere, is a matter of professional
22 judgment, not a matter of entirely unsubstantiated speculation.

23
24 ⁸ The Court can imagine various modifications to Dr. Wheatcraft's MTBE loading that would reflect
25 *some* MTBE migration and not the binary all or nothing (e.g. imputing a fraction of each month's value
26 rather than the entirety). Such modifications may well, however, be untenably complex. Given that Dr.
27 Wheatcraft seems to argue that the choice *is* binary, (see, e.g., Dkt. 152 Ex. 8 at D1), and Defendants do
not challenge that in their filings, the Court assumes that Dr. Wheatcraft could have either all or none of
the MTBE migrate each month.

28 ⁹ The water table is the level below which the ground is saturated with water. (Wilson Rpt. at 81; Dkt.
211 at 152–53.) A gasoline leak near the ground's surface will percolate through the earth to the water
table, where it floats on top of the water. (Dkt. 211 at 66–68, 140–41.)

1 The Court's determination that Dr. Wheatcraft's grid size does not render his
2 models unreliable is further supported by Dr. Wilson's analysis of alternatives. His
3 report makes clear that he would have preferred Dr. Wheatcraft to use a model with
4 significantly smaller grid cells—no larger than 50 feet by 50 feet—and hundreds of
5 layers each only a few feet deep. (*See* Wilson Rpt. at 74–76.) Obviously, such a model
6 would be exponentially more complicated as it would involve approximately 1,000 times
7 more grid cells. Dr. Wilson does not know that there *exists* computing power necessary
8 to run such a model, let alone whether Dr. Wheatcraft had access to such computing (his
9 TMR model took a week to run as is). (*Id.* at 75 (“Such a refined and sophisticated
10 numerical model . . . is probably not feasible.”); *see* Dkt. 158 Ex. 8.) Modeling is a
11 process of building a simplified approximation of reality in service of predicting the
12 future. The question of whether a model is admissible turns on whether its
13 simplifications are reasonable and justifiable *given* the limits of computing power. The
14 Court does not require Dr. Wheatcraft to build a platonic ideal model if it would be
15 unusable. The fact that Defendants do not present a *feasible* alternative to Dr.
16 Wheatcraft's models makes the Court reticent to brand his models junk science;
17 compromises such as grid cell size are appropriately raised on cross examination to
18 influence the weight the jury gives to Dr. Wheatcraft's opinions.

19
20 *C. MTBE Source Term.* Defendants advance one argument that Dr. Wheatcraft's
21 MTBE source term is unreasonably high that is separate from grid cell size: Dr.
22 Wheatcraft's choice of entering high-threshold non-detects as detections of MTBE at a
23 concentration equal to half of the threshold is a particular focus of Defendants' critiques.
24 (Dkt. 151 at 23–24; Dkt. 211 at 140–45.) Defendants present one particular sample
25 where there was a non-detect with a threshold of 800,000 ppb. (Dkt. 151 at 24.) Dr.
26 Wheatcraft, following his consistently-applied rule, treated that as a detect of 400,000
27 ppb. (*Id.*) Defendants impeach Dr. Wheatcraft's decision to do so on the basis that the
28 sample was clearly liquid gasoline, not groundwater. (Dkt. 211 at 140–45.) In such

1 situations, Defendants claim, it is scientific malpractice to not treat the reading as zero.
2 (*Id.* at 173–74.)
3

4 Notably, Defendants do not identify how many of the 1,763 high-threshold non-
5 detects (approximately 7% of the data considered) were samples of liquid gasoline as
6 opposed to groundwater. (*See* Dkt. 151 at 23–24; Wilson Rpt. at 78–79; Dkt. 168-2 ¶ 6.)
7 Furthermore, Dr. Wheatcraft testified that, due to the high solubility of MTBE, it would
8 rapidly dissolve from liquid gasoline, which sits on top of the ground water, making his
9 threshold divided by two a reasonable estimation of MTBE concentration. (Dkt. 211 at
10 67, 173; Dkt. 152 Ex. 8 at J6–J7.) Dr. Wheatcraft has produced sources supporting his
11 substitution method for high-threshold non-detects, (Dkt. 152 Ex. 8 at J6–J7; Dkt. 168-2
12 ¶ 6), and the Court believes his substitution method constitutes a reasoned, professional
13 judgment that does not render his models unreliable. The Court notes, once again, that
14 Dr. Wheatcraft consistently applied a reasonably-justified method to deal with high-
15 threshold non-detects. Defendants seem to believe Dr. Wheatcraft should have curated
16 the data and modified the subset of the 7% that were from liquid gasoline samples. Had
17 he done so, however, he would have introduced *more* subjective arbitrariness into his
18 model, which would cut against its reliability. This would be even more damaging to his
19 models had he only done it in instances where, in his judgment, interpolating the data
20 would give the data point outsize influence due to, for example, infrequent testing for
21 MTBE. (*See* Dkt. 211 at 145.)
22

23 The overall reliability of Dr. Wheatcraft's MTBE source term is supported by the
24 fact that his interpolated MTBE loads fall within the range of observed concentrations
25 rather than exceeding them over time. (Wheatcraft Rpt. at 35; Dkt. 168-2 ¶¶ 15–17.)
26 Were Defendants' characterization accurate—that Dr. Wheatcraft double counts (or
27 quadruple counts) MTBE, disperses it unreasonably widely, and inflates MTBE loading
28 through the size of grid cells—the loaded amount would rapidly exceed the actual

1 readings rather than remain within the range of observed data. (See Wheatcraft Rpt. at
2 35.)

3
4 With all of Dr. Wheatcraft's professional judgments, the fact that he made a
5 choice, clearly documented his choice, and applied it consistently weighs heavily in favor
6 of admissibility. The focus of the Court's inquiry is methodology, and the Court is
7 sensitive to the fact that professional judgment is an inherent component of modeling.
8 The *Daubert* test aims to avoid conveying the imprimatur of expertise on black box
9 methodologies that cannot be systemically explained, duplicated for verification, or
10 interrogated on cross examination. The more subjective a model is, the harder it is to
11 understand and challenge. Were Dr. Wheatcraft to take a much heavier hand in curating
12 way each monitoring well was translated into MTBE loading, he would have introduced
13 inconsistency and significant subjectivity into his expert opinions. Scientific models are
14 reliable when they consist of consistently-applied, reasonable, and understandable
15 decisions. Dr. Wheatcraft's models easily pass that threshold.

16
17 *d. Documentation and Verification.* Another set of Defendants' arguments focus
18 on Dr. Wheatcraft's documentation and verification of his model. (See Dkt. 151 at 14–
19 18; Wilson Rpt. at 64–70.) According to Defendants, Dr. Wheatcraft failed to calibrate
20 his model, failed to report a sensitivity analysis of his model, and did not perform or
21 document model verification. (*Id.*) These arguments are unavailing to render Dr.
22 Wheatcraft's work unreliable. Dr. Wheatcraft has presented evidence that he *verified* his
23 flow models with the already-calibrated OCWD flow models. (See Dkt. 151 at 16
24 (Defendants implying that Dr. Wheatcraft did not *conduct* verification); Dkt. 211 at 15–
25 18.) Since the contaminant transport model MT3D just sits on top of the flow model, Dr.
26 Wheatcraft made the reasonable choice to not needlessly recalibrate once MT3D was
27 included and instead to use all available data to produce the most accurate transport
28 model. (Wheatcraft Decl. ¶ 48 (citing ANDERSON AND WOESSNER, *supra*).) As to

1 sensitivity analysis, Defendants argue that Dr. Wheatcraft “presents incorrect and
2 irrelevant plots for his sensitivity analysis” in his report. (Dkt. 151 at 16; *see* Dkt. 162 at
3 14 (“Dr. Wheatcraft’s so-called sensitivity analysis is meaningless.”).) The ground for
4 Defendants’ assertion is the fact that the sensitivity analysis was run on a non-final
5 version of Dr. Wheatcraft’s model. (*See* Dkt. 151 at 16.) However, Dr. Wheatcraft has
6 stated that the sensitivity analysis on the early models demonstrated that his models were
7 insensitive to variations in certain parameters, making additional sensitivity analysis with
8 the final version unnecessary if those parameters are not modified. (Wheatcraft Decl. ¶
9 46.) Dr. Wilson has admitted that changing particular parameters did not change the
10 models’ result, (*id.* Ex. 11 at 16–17), and Defendants do not argue that pertinent
11 parameters were changed between the sensitivity analysis model and Dr. Wheatcraft’s
12 final models. Therefore, the question of whether additional sensitivity analysis is
13 required is a professional disagreement, not an inherent flaw in Dr. Wheatcraft’s work.
14

15 Defendants also attempt to impeach Dr. Wheatcraft on the basis that he failed to
16 comply with the standards for modeling articulated by the American Society for Testing
17 and Materials (“ASTM”). (Wilson Rpt. at 64–70.) However, as Defendants admit, the
18 standards for modeling are opinions, not truly “consensus” practices to which Dr.
19 Wheatcraft must conform. (*See* Wheatcraft Decl. ¶¶ 23–27.) Dr. Wheatcraft’s decisions
20 regarding verification and calibration are consistent with the range of professional
21 choices recognized by a leading textbook in groundwater modeling, (*Id.* ¶¶ 24–50); in
22 hydrogeology, Dr. Wheatcraft has presented sufficient persuasive evidence that ASTM
23 standards are peripheral to, not determinative of, best practices, (*Id.* ¶ 27). For example,
24 the textbook explicitly countenances Dr. Wheatcraft’s choice to not seclude a portion of
25 data from his model construction to verify it later, a choice made in the name of building
26 the most accurate model possible (by building it based on *all* available data). (*Id.* ¶¶ 47–
27 49; Dkt. 157 17–18.) Deviations from ASTM standards are an important consideration,
28 and such deviations without justification would be an indicia of unreliability, but here,

1 the minor deviations are all adequately explained. The Court refuses Defendants'
2 invitation to transform the *Daubert* inquiry into requiring modelers to precisely adhere
3 adherent to ASTM standards or their equivalent, given that modeling inherently requires
4 professional judgment and customization.

5
6 *e. Miscellaneous Arguments.* Defendants highlight what appear to be minor,
7 isolated coding errors and ask the Court to infer from such issues that Dr. Wheatcraft's
8 models are infected by "systemic lack of quality control/quality assurance." (Dkt. 151 at
9 19–21.) For example, Dr. Wilson claims that Dr. Wheatcraft's database of monitoring
10 well coordinates is "grossly inaccurate." (Dkt. 152 Ex. 5 at J7–J8.) Dr. Wheatcraft has
11 identified a reliable, consistent source for the coordinates (Defendants' data and, when
12 that is unavailable, the Regional Water Quality Control Board's database), and only 10
13 wells—0.1% of the coordinates—were incorrect. On top of that, eight of the instances
14 were due to the official data being mistaken and only *two* were due to a typo. (*Id.*)
15 Despite Defendants' emphatic rhetoric, the Court refuses to impeach the entirety of Dr.
16 Wheatcraft's work as unreliable on the basis of isolated, infrequent errors that are
17 inherent in every complex computer modeling exercise and many of which were beyond
18 his control.

19
20 Finally, Defendants argue that Dr. Wheatcraft's four models' "wildly varying
21 predictions about historical and future concentrations of MTBE" means that "something
22 is terribly wrong with his approach." (Dkt. 151 at 17, 18.) However, the significant
23 distinctions between the basinwide and TMR models (geographic area, grid cell size, and
24 first layer thickness) and between the FD and TVD solvers (FD solvers have unavoidable
25 numerical dispersion) account for differing predictions. Furthermore, Dr. Wheatcraft has
26 made clear that his opinion relies primarily on the TVD solver, whose basinwide and
27 TMR model results are within 50% of each other. (*See* Dkt. 151 at 17; Wheatcraft Decl.

¶ 51 (Dr. Wheatcraft stating that result variations within a factor of two are an indication of model accuracy); Dkt. 151 at 18 (Defendants implicitly agreeing).)

“Basically, the judge is supposed to screen the jury from unreliable nonsense opinions, but not exclude opinions merely because they are impeachable.” *Alaska Rent-A-Car, Inc. v. Avis Budget Grp., Inc.*, 738 F.3d 960, 969–70 (9th Cir. 2013). Dr. Wheatcraft’s models primarily consist of established, thoroughly verified OCWD flow models and widely accepted solvers. His additions, for the most part, add external data—monitoring well detections of MTBE—into the model. The remainder of his methodology consists of professional judgements, such as how to interpolate MTBE, how to account for groundwater flow, and how much verification and sensitivity analysis is necessary. It is that small minority of Dr. Wheatcraft’s methodology which Defendants challenge, which amount to professional disagreement and grounds for impeachment, not exclusion. His models, like all models, have limits and approximate reality but nothing in his work comes close to junk science. Defendants’ attempts to discredit Dr. Wheatcraft’s work and exclude him from testifying at trial are unavailing.

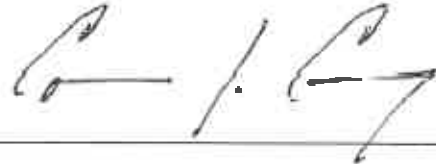
“A factual dispute is best settled by a battle of the experts before the fact finder, not by judicial fiat. Where two credible experts disagree, it is the job of the fact finder, not the trial court, to determine which source is more credible and reliable.” *City of Pomona*, 750 F.3d at 1049. The extent to which Dr. Wheatcraft’s models’ approximations diverge from reality is exactly what the jury should consider when determining the weight of Dr. Wheatcraft’s expert opinions. The Court exercises its gatekeeping function by accordingly deeming his opinions admissible as expert testimony.

//

1 **V. CONCLUSION**

2
3 For the foregoing reasons, Defendants' motion to exclude Dr. Wheatcraft's
4 testimony is DENIED.

5
6
7 DATED: January 31, 2017

A handwritten signature in black ink, appearing to read 'C. J. Carney', is written over a horizontal line.

8
9 CORMAC J. CARNEY
10 UNITED STATES DISTRICT JUDGE
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EXHIBIT 10

JUN 18 2004

FILED
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DOCKET NO. 1358

BEFORE THE JUDICIAL PANEL ON MULTIDISTRICT LITIGATION
IN RE METHYL TERTIARY BUTYL ETHER ("MTBE") PRODUCTS
LIABILITY LITIGATION

Orange County Water District v. Unocal Corp., et al., C.D. California, C.A. No. 8:03-1742

City of Riverside v. Atlantic Richfield Co., et al., C.D. California, C.A. No. 8:04-53

Quincy Community Services District v. Atlantic Richfield Co., et al., E.D. California,
C.A. No. 2:03-2582

City of Roseville v. Atlantic Richfield Co., et al., E.D. California, C.A. No. 2:03-2601

People of the State of California, et al. v. Atlantic Richfield Co., et al., E.D. California,
C.A. No. 2:03-2653

City of Fresno v. Chevron U.S.A., Inc., et al., N.D. California, C.A. No. 3:03-5378

California-American Water Co. v. Atlantic Richfield Co., et al., N.D. California, C.A. No. 3:03-5379

Martin Silver, et al. v. Alon USA Energy, Inc., et al., S.D. California, C.A. No. 3:03-2408

State of New Hampshire v. Amerada Hess Corp., et al., D. New Hampshire, C.A. No. 1:03-486

(Also Pending as D. Rhode Island, C.A. No. 1:03-529)

**BEFORE WM. TERRELL HODGES, CHAIRMAN, JOHN F. KEENAN,
BRUCE M. SELYA,* D. LOWELL JENSEN, J. FREDERICK MOTZ,*
ROBERT L. MILLER, JR., AND KATHRYN H. VRATIL, JUDGES OF THE
PANEL**

TRANSFER ORDER

Presently before the Panel are motions by plaintiffs¹ and some defendants² in these nine actions, pursuant to Rule 7.4, R.P.J.P.M.L., 199 F.R.D. 425, 435-36 (2001), to vacate the Panel's orders conditionally transferring the actions to the Southern District of New York for inclusion in the Section

* Judges Selya and Motz did not participate in the decision of this matter.

¹ Orange County Water District; City of Riverside; Quincy Community Services District; City of Roseville; *People of the State of California* plaintiffs – the State of California and eleven municipalities, local water districts or water companies (Sacramento County Water Agency, Sacramento Groundwater Authority, Citrus Heights Water District, Del Paso Manor Water District, Fair Oaks Water District, Florin Resource Conservation District, Rio Linda Elverta Community Water District, Sacramento Suburban Water District, San Juan Water District, California-America Water Company, and City of Sacramento); California-American Water Company; the eight individuals who are plaintiffs in the Southern California *Silver* action; and State of New Hampshire.

² *City of Fresno*: Duke Energy Merchants, LLC; Duke Energy Trading and Marketing, LLC; Duke Energy Merchants California, Inc.; and Northridge Petroleum Marketing U.S., Inc. *Quincy*: Fuel Star, Inc., and Blue Star Petroleum, Inc.

1407 proceedings occurring there in this docket. A defendant³ in two California actions joins in the motion to vacate the conditional transfer order in these actions. All other responding defendants⁴ favor inclusion of all nine actions in MDL-1358 proceedings.

On the basis of the papers filed and hearing session held, the Panel finds that these nine actions share questions of fact with actions in this litigation previously transferred to the Southern District of New York arising out of allegations that defendants knew about and misrepresented the nature of MTBE resulting in drinking water contamination. Transfer of these actions to that district for inclusion in the coordinated or consolidated pretrial proceedings occurring there will serve the convenience of the parties and witnesses and promote the just and efficient conduct of this litigation. We note that any pending motions to remand to state court can be presented to and decided by the transferee judge. *See, e.g., In re Ivy*, 901 F.2d 7 (2d Cir. 1990); *In re Prudential Insurance Company of America Sales Practices Litigation*, 170 F.Supp.2d 1346, 1347-48 (J.P.M.L. 2001). The Panel further finds that transfer of these actions is appropriate for reasons expressed by the Panel in its original order directing centralization in this docket. The Panel held that the Southern District of New York was a proper Section 1407 forum for actions involving allegations relating to MTBE contamination. *See In re Methyl Tertiary Butyl Ether ("MTBE") Products Liability Litigation*, 2000 U.S. Dist. LEXIS 14901 (J.P.M.L. Oct. 10, 2000).

Opponents argue that the presence of individual and/or local questions of fact as well as differing legal theories in these actions should militate against inclusion of these actions in Section 1407 proceedings. We are unpersuaded by these arguments. Indeed, we point out that inclusion of these actions in Section 1407 proceedings has the salutary effect of placing all the related actions before a single judge who can formulate a pretrial program that: 1) prevents repetition of previously considered matters; 2) allows pretrial proceedings with respect to any non-common issues to proceed concurrently with pretrial proceedings on common issues, *In re Multi-Piece Rim Products Liability Litigation*, 464 F.Supp. 969, 974 (J.P.M.L. 1979); and 3) ensures that pretrial proceedings will be conducted in a manner leading to the just and expeditious resolution of all actions to the overall benefit of the parties.

³ 7-Eleven, Inc.

⁴ Atlantic Richfield Company and BP Products North America Inc.; ExxonMobil Corporation, ExxonMobil Chemical Company Inc., ExxonMobil Corporation, ExxonMobil Oil Corporation, ExxonMobil Pipe Line Company, ExxonMobil Refining and Supply Company, and Mobil Corporation; Chevron U.S.A., Inc., Chevron Chemical Company, Chevron Texaco Corporation, Equilon Services LLC, Equilon Enterprises LLC, Equiva Enterprises LLC, Gulf Oil Corp., Motiva Enterprises LLC, Shell Oil Company, Shell Oil Products Company LLC, Shell Oil Products US, Shell Trading (US) Company, Shell Petroleum, Inc., Star Enterprises, Texaco Corporation, Texaco Inc., Texaco Refining and Marketing Inc., Texaco Refining and Marketing (East) Inc., and TRMI Holding; Valero Energy Corporation, Valero Refining Company California, Valero Marketing and Supply Company, Valero Refining and Marketing Company, Valero Refining Company Louisiana, Valero Refining Company New Jersey, Valero Refining Company Texas, and Valero-Colorado Refining Company; Crown Central Petroleum Corp.; Tesoro Refining & Marketing Co., Tesoro Petroleum Corporation, and Tesoro West Coast Crown Central Petroleum Corporation; Westport Petroleum, Inc.; ConocoPhillips Company; CITGO Petroleum Corporation; Sunoco Inc. and Sunoco Inc. (R&M); Lyondell Chemical Company f/k/a ARCO Chemical Company; Marathon Ashland Petroleum LLC and Marathon Oil Corporation; and El Paso Corporation and El Paso CGP Company.

See In re StarLink Corn Products Liability Litigation, 157 F.Supp.2d 1378 (J.P.M.L. 2001). It may be, on further refinement of the issues and close scrutiny by the transferee judge, that some claims or actions can be remanded to their transferor districts for trial in advance of the other actions in the transferee district. Should the transferee judge deem remand of any claims or actions appropriate, procedures are available whereby this may be accomplished with a minimum of delay. *See* Rule 7.6, R.P.J.P.M.L., 199 F.R.D. at 436-38.

IT IS THEREFORE ORDERED that, pursuant to 28 U.S.C. § 1407, these nine actions are transferred to the Southern District of New York and, with the consent of that court, assigned to the Honorable Shira Ann Scheindlin for inclusion in the coordinated or consolidated pretrial proceedings occurring there in this docket.

FOR THE PANEL:



Wm. Terrell Hodges
Chairman

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On the date below, I served the following document on all counsel in this action electronically through File & Serve:

I declare under penalty of perjury under the laws of the United States of America and the State of California that the foregoing is true and correct.

Kaitlyn Sherer
KAITLYN SHERER