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6 UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
7 AT SEATTLE

8 CITY OF SEATTLE,

9 Plaintiff,

Case No. C16-107-RAJ-MLP

10 v.

ORDER

11 MONSANTO COMPANY, *et al.*,

12 Defendants.

13
14 **I. INTRODUCTION**

15 This matter is before the Court on: (1) Plaintiff City of Seattle's ("City") "Motion to
16 Exclude Proposed Expert Testimony by Richard Pleus" (Pl.'s Pleus Mot. (dkt. # 607)) and
17 "Motion to Strike June 7, 2022 Supplement to the Expert Report of Dr. Richard C. Pleus" (Pl.'s
18 Pleus Strike Mot. (dkt. # 611)); (2) Defendants Monsanto Company, Solutia Inc., and Pharmacia
19 LLC's ("Defendants" or "Monsanto") "*Daubert* Motion to Exclude the Expert Testimony of
20 David O. Carpenter" (Defs.' Carpenter Mot. (dkt. # 608)); (3) Defendants' "*Daubert* Motion to
21 Exclude the Expert Testimony of Mark Chernaik" (Defs.' Chernaik Mot. (dkt. # 612)); and (4)
22 Defendants' "*Daubert* Motion to Exclude Certain Opinions and Related Testimony of Plaintiff
23 Expert Charles D. Cowan" (Defs.' Cowan Mot. (dkt. # 646)).

1 The parties have filed responses (Defs.’ Pleus Resp. (dkt. # 691); Defs.’ Pleus Strike
2 Resp. (dkt. # 684); Pl.’s Carpenter Resp. (dkt. # 675); Pl.’s Chernaik Resp. (dkt. # 662); Pl.’s
3 Cowan Resp. (dkt. # 656)) and replies (Pl.’s Pleus Reply (dkt. # 710); Pl.’s Pleus Strike Reply
4 (dkt. # 699); Defs.’ Carpenter Reply (dkt. # 696); Defs.’ Chernaik Reply (dkt. # 706); Defs.’
5 Cowan Reply (dkt. # 721)) on the respective motions. The Court heard oral argument from the
6 parties on November 28, 2023. (Dkt. # 802.)

7 Having considered the parties’ submissions, oral argument, the balance of the record, and
8 the governing law: (1) the City’s Pleus Motions (dkt. ## 607, 611) are GRANTED in part and
9 DENIED in part; (2) Defendants’ Cowan Motion (dkt. # 646) is GRANTED; (3) Defendants’
10 Carpenter Motion (dkt. # 608) is DENIED; and (4) Defendants’ Chernaik Motion (dkt. # 612) is
11 GRANTED in part and DENIED in part, as further explained below.

12 II. BACKGROUND

13 This case arises out of Defendants’ manufacture and sale of polychlorinated biphenyls
14 (“PCBs”). Through this lawsuit, the City seeks to hold Defendants liable for PCBs that have
15 escaped from their use in industrial and commercial applications into the Lower Duwamish
16 Waterway (“LDW”) and the City’s stormwater and drainage systems. (*See* Second Am. Compl.
17 (dkt. # 267) at ¶¶ 5-15.) The City’s sole remaining cause of action alleges Defendants
18 intentionally manufactured, distributed, marketed, and promoted PCBs in a manner that created a
19 public nuisance harmful to the health and free use of the LDW and the City’s stormwater and
20 drainage systems. (*Id.* at ¶¶ 91-108.) Defendant Pharmacia LLC (a/k/a “Old Monsanto”) was the
21 sole producer of PCBs in the United States from the 1930s until they were banned by Congress
22 in 1977. (*Id.* at ¶ 38.)
23

1 The City’s complaint alleges Old Monsanto knew its PCBs would get into the
2 environment and waterbodies, such as the LDW, through their ordinary use, and that Old
3 Monsanto’s knowledge was based in part on its sales of PCBs to businesses near the LDW and
4 its own use of PCBs at its vanillin plant that operated adjacent to the LDW. (Second Am. Compl.
5 at ¶¶ 61-79.) The City alleges it has incurred past costs, and will incur future costs, for
6 investigation and remediation of the LDW, its source control efforts in the LDW, and for the
7 design and construction of a stormwater treatment plant to reduce PCBs from one drainage basin
8 adjacent to the LDW. (*Id.* at ¶¶ 8, 10, 15, 104-05.)

9 Relevant to the instant motions, in 2005, the Washington State Department of Health
10 (“DOH”) determined it was unsafe for people to eat LDW resident seafood (fish or shellfish that
11 reside in the LDW) due to PCB contamination. (Woerner Omnibus Decl., Ex. A (dkt. # 623-1) at
12 9.) In the 2014 Record of Decision (“ROD”) issued by the U.S. Environmental Protection
13 Agency (“EPA”), the EPA identified resident seafood in the LDW as a risk to human health. (*See*
14 *id.*, Exs. B (dkt. # 623-2) at 29, 53, C (dkt. # 623-3) at 2.) As a result, the EPA found the
15 remedial actions described in its ROD would be necessary to reduce human health risk from
16 consumption of LDW resident seafood. (*See id.*, Ex. B at 134-35.)

17 Based on these allegations, the following experts have been set forth by the parties to
18 testify regarding LDW resident seafood consumption estimates, human health effects of
19 consuming LDW resident seafood, and the impact of PCBs on the contamination to the LDW
20 and human health:

21 **A. Dr. Pleus**

22 Dr. Pleus is a chief toxicologist consultant with a Ph.D. in toxicology from the University
23 of Minnesota. (Gotto Pleus Decl., Ex. A (dkt. # 609-1) at 3.) Dr. Pleus has over 25 years of

1 experience assessing humans exposed to chemical and biological agents via food, consumer
2 products, medicinal and nutritional agents, and the environment. (*Id.*)

3 In this case, Dr. Pleus conducted a human health risk assessment (“HHRA”) of the LDW.
4 (Gotto Pleus Decl., Ex. A at vi.) Dr. Pleus’s HHRA estimates potential PCB exposure to
5 populations that engage in fishing or other recreational activities in the LDW and compared
6 those estimates to U.S. EPA regulatory values. (*Id.*) Dr. Pleus also assessed potential cancer risk
7 using the EPA’s cancer slope factor for PCBs and the potential for non-carcinogenic effects
8 using the EPA’s reference dose for Aroclor 1254. (*Id.*)

9 Relevant to the City’s challenge, in conducting his HHRA, Dr. Pleus relied in part on Dr.
10 David L. Sunding’s estimates for LDW resident seafood consumption. Specifically, Dr. Pleus’s
11 HHRA includes a “tribal scenario” and a “non-tribal scenario.” (Gotto Pleus Decl., Ex. A at 30.)
12 The “non-tribal scenario” is based upon LDW resident seafood consumption estimates provided
13 by Dr. Sunding. (*Id.* at 30, 49.) For his “tribal scenario,” Dr. Pleus’s based his analysis on
14 selected data from a 2000 Fish Consumption Survey of the Suquamish Indian Tribe of the Port
15 Madison Indian Reservation, Puget Sound Region (the “Suquamish Study”). (*Id.* at 49; *see also*
16 *id.*, Ex. H (dkt. # 609-8).)

17 Based on his assessment, Dr. Pleus’s report concluded, on a more probable than not
18 scientific basis, that PCB exposure within the LDW through resident seafood ingestion and
19 recreational scenarios does not present a human health risk. (Gotto Pleus Decl., Ex. A at 57.) As
20 a result, Dr. Pleus concluded cancer risks for LDW users who consume resident seafood from the
21 LDW, or use it for recreational activities, were all within acceptable ranges. (*Id.*)

22 On June 7, 2022, Dr. Pleus served a supplemental expert report. (Gotto Pleus Decl., Ex. B
23 (dkt. # 609-2).) Dr. Pleus’s supplemental expert report “provide[s] updated noncancer hazard

1 indices and lifetime excess cancer risks.” (*Id.* at 1.) Dr. Pleus’s supplemental report also provides
2 mean values for Dr. Sunding’s original and corrected data. (*Id.* at 2-3.) Dr. Pleus issued the
3 supplement to account for adjustments made to Dr. Sunding’s estimates with respect to the LDW
4 non-tribal fish consumption rates. (*See* DeBord Pleus Decl. (dkt. # 693) at ¶ 23; *see also* Gotto
5 Pleus Decl., Ex. B at 1.)

6 **B. Dr. Cowan**

7 Dr. Cowan is a Managing Partner of Analytic Focus, a “national statistics, finance and
8 economics consulting organization,” and has over 40 years of experience in statistical research
9 and design. (Gotto Cowan Decl. (dkt. # 657-1), Ex. A at 4, 58.) Dr. Cowan was a professor of
10 Biostatistics in the School of Public Health at the University of Alabama-Birmingham for over a
11 decade and holds a Ph.D. in mathematical statistics from the George Washington University. (*Id.*
12 at 4, 60.) He has published articles on stroke, cancer, and other issues related to health risk. (*Id.*
13 at 61-64.)

14 Dr. Cowan was retained by the City to review the statistical methods used by Dr. Sunding
15 for his LDW angler population estimate and LDW resident seafood consumption estimates, as
16 well as to review the statistical methodologies used by Dr. Pleus to calculate human health risk
17 based on Dr. Sunding’s provided estimates. (Gotto Cowan Decl., Ex. A at 2.) In his initial expert
18 report, Dr. Cowan opines Dr. Sunding erroneously applied the Chao Estimator to estimate the
19 number of persons who recreationally fish in the LDW and who consume fish caught in the
20 LDW, and that Dr. Sunding’s underlying data employed for such purposes was not appropriate to
21 estimate population sizes. (*Id.* at 3.)

22 Relevant to the instant motions, Dr. Cowan opines Dr. Pleus relied on Dr. Sunding’s
23 erroneous LDW resident seafood consumption estimates, which makes his presented results and

1 findings similarly flawed and unreliable. (Gotto Cowan Decl., Ex. A at 3, 36.) Dr. Cowan
2 additionally opines Dr. Pleus violated numerous statistical principles in arriving at the results
3 provided in his report, which Dr. Cowan concludes “understate[s] the amount of risk that anglers
4 face from cancer and other possible diseases as a result of exposure to PCBs.” (*Id.* at 4, 36-37,
5 57.)

6 As to the opined statistical errors, Dr. Cowan opines Dr. Pleus erred in: (1) his use of
7 median fish consumption values from Dr. Sunding’s data, rather than the mean or decile values
8 which Dr. Sunding also reported; and (2) the application of the lognormal distribution technique
9 to data from Dr. Sunding that did not follow the lognormal distribution. (Gotto Cowan Decl., Ex.
10 A at 37-39.) Dr. Cowan notes Dr. Pleus’s method runs counter to “the EPA recommended
11 method of determining the form of a probability distribution.”¹ (*Id.* at 38.) After correcting for
12 Dr. Pleus’s statistical errors, Dr. Cowan’s report offers recalculated HIs and LECR values using
13 Dr. Pleus’s formulas. (*Id.* at 46-48.)

14 On July 12, 2022, Dr. Cowan issued a supplemental expert report to respond to the
15 supplemental reports issued by Dr. Sunding and Dr. Pleus. (Gotto Cowan Decl., Ex. B (dkt.
16 # 657-2) at 2.) With respect to Dr. Pleus, Dr. Cowan concluded that he continued “to rely on a
17 probability distribution that does not apply to his data and which significantly underestimates the
18 risk of exposure for people eating resident fish they catch in the [LDW].” (*Id.* at 3, 19-20.) Dr.
19 Cowan further opined that despite Dr. Pleus correcting his report to resolve an error he made in
20 “the fitting of the lognormal distribution,” Dr. Pleus continued to select a probability distribution

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22 ¹ “The EPA recommends that, if an analyst has the raw data or six or more percentiles, that the selection
23 of parameter estimates (or the fitting method to fit the distribution) rely on maximum likelihood,
regression methods or matching the moments of the distribution. The EPA further states that, if the
analyst has only one or two summary statistics that expert judgment can be used.” (Gotto Cowan Decl.,
Ex. A at 38.)

1 that did not fit his data and that he otherwise continued to rely on Dr. Sunding’s flawed analysis.
2 (*Id.* at 4, 19-20.)

3 **C. Dr. Carpenter**

4 Dr. Carpenter is the Director of the Institute for Health and the Environment, a
5 Collaborating Centre of the World Health Organization in Environmental Health, and a Professor
6 of Environmental Health Sciences in the School of Public Health at the University at Albany.
7 (DeBord Carpenter Decl., Ex. A (dkt. # 610-1) at 3, 46.) Dr. Carpenter received his Ph.D. in
8 public health from Harvard Medical School and has been employed in biomedical research and
9 public health for nearly 60 years. (*Id.*) He has published over 475 peer reviewed publications,
10 with over 90 concerning the health effects of PCBs. (*Id.* at 4, 53-86.) Dr. Carpenter has also
11 served as an expert witness in approximately ten cases asserting claims against Defendants
12 related to PCBs, including previously providing expert testimony at trial. (*See id.* at 92-96.)

13 In his report, Dr. Carpenter concludes, based on his medical and scientific training, that
14 LDW residents and persons using the LDW for commercial, recreational, or other purposes,
15 including people who consume resident seafood from the LDW, are at greater risk of diseases
16 because of their exposure to PCBs. (DeBord Carpenter Decl., Ex. A at 2, 28.) In sum, Dr.
17 Carpenter opines that: (1) though fish consumption is the most important route of exposure to
18 PCBs in the LDW, “there is also exposure from contaminated soils and sediments and by
19 inhalation of both vapor phase and particulate-bound PCBs in air”; (2) exposure to PCBs
20 increases the risk of many different diseases, “including an increased risk of developing cancer,
21 suppression of immune system function, increased risk of infections and cancer, increased risk of
22 developing diabetes and heart disease, and interference with reproduction and causing a reduced
23 ability to learn and remember”; and (3) the LDW presents a significant environmental justice and

1 health disparities issue because “the individuals at greatest risk are those who are poor or from
2 communities that have a social and/or cultural tradition of catching and eating local fish.” (*Id.*)

3 **D. Dr. Chernaik**

4 Dr. Chernaik holds a Ph.D. in biochemistry from John Hopkins University and is a Staff
5 Scientist for the Environmental Law Alliance Worldwide, where he advises “public interest
6 environmental lawyers outside the U.S. on a variety of scientific matters.” (DeBord Chernaik
7 Decl., Ex. A (dkt. # 614-1) at 1.) He has previously provided expert testimony in state, federal,
8 and international courts regarding the risks chemicals and pollutants pose to humans and the
9 environment. (*Id.* at 1-2.)

10 Dr. Chernaik was retained by the City as a direct expert to provide opinions about the
11 health aspects of exposure to PCBs in the LDW. (DeBord Chernaik Decl., Ex. A at 1.) In his
12 initial expert report, Dr. Chernaik provides four opinions: (1) the Washington State DOH
13 Advisory for the LDW is validly derived and provides basic protections of public health; (2)
14 communities residing in the LDW have characteristics rendering them more susceptible to the
15 health impacts of exposure to PCBs; (3) remedial actions that reduce levels of PCBs in sediments
16 of the LDW would yield substantial benefits; and (4) the EPA’s proposed clean-up in the LDW
17 is primarily based on excessive levels of PCBs with levels of arsenic being a minor
18 consideration. (*Id.* at 1, 10-18.)

19 Dr. Chernaik was additionally retained by the City as a rebuttal expert to rebut the
20 opinions of Dr. Pleus and Dr. David L. Eaton. (DeBord Chernaik Decl., Ex. C (dkt. # 614-3) at
21 1.) As to Dr. Pleus, Dr. Chernaik opined his methodology is invalid, and his opinions are
22 therefore unreliable, because in deriving hazard quotients for exposure to PCBs, Dr. Pleus
23 utilized incorrect inputs about human body weights, and how much PCBs are lost when

1 contaminated fish are prepared for consumption. (*Id.*) As to Dr. Eaton, Dr. Chernaik generally
2 opines the methodology Dr. Eaton uses is invalid, and his opinions are therefore unreliable,
3 because: (1) he made inappropriate assumptions about how to determine the upper estimate of
4 exposure to PCBs in LDW resident seafood; (2) he provides cancer risk assessments and
5 immunotoxicity risk assessments based on wrong biological assumptions about the mechanism
6 of action of PCBs; and (3) he misinterprets margin of error calculations when characterizing the
7 neurodevelopmental and reproductive health risks of exposure to PCBs in LDW resident
8 seafood. (*Id.*)

9 III. DISCUSSION

10 A. Legal Standards

11 Federal Rule of Evidence 702 provides in relevant part:

12 A witness who is qualified as an expert by knowledge, skill, experience, training,
13 or education may testify in the form of an opinion or otherwise if: (a) the expert's
14 scientific, technical, or other specialized knowledge will help the trier of fact to
15 understand the evidence or to determine a fact in issue; (b) the testimony is based
on sufficient facts or data; (c) the testimony is the product of reliable principles and
methods; and (d) the expert has reliably applied the principles and methods to the
facts of the case.

16 Fed. R. Evid. 702. For expert testimony to be admissible under Rule 702, it must satisfy three
17 requirements: (1) the expert witness must be qualified; (2) the testimony must be reliable; and (3)
18 the testimony must be relevant. *See Daubert v. Merrell Dow Pharms., Inc.* (“*Daubert I*”), 509
19 U.S. 579, 589-91 (1993). The proponent of expert testimony has the burden of establishing that
20 the admissibility requirements are met by a preponderance of the evidence. *Id.* at 592 n.10; *see*
21 *also Lust v. Merrell Dow Pharms., Inc.*, 89 F.3d 594, 598 (9th Cir. 1996).

22 Before admitting expert testimony into evidence, the Court acts as a “gatekeeper” in
23 determining its admissibility under Rule 702 by ensuring the testimony is both “relevant” and

1 “reliable.” *United States v. Ruvalcaba-Garcia*, 923 F.3d 1183, 1188 (9th Cir. 2019) (citing
2 *Daubert I*, 509 U.S. at 597). Expert testimony is relevant where “the evidence logically
3 advance[s] a material aspect of the party’s case.” *Estate of Barabin v. AstenJohnson, Inc.*, 740
4 F.3d 457, 463 (9th Cir. 2014) (internal quotations and citation omitted), *overruled on other*
5 *grounds by United States v. Bacon*, 979 F.3d 766 (9th Cir. 2020) (en banc). Testimony is reliable
6 where it has “a reliable basis in the knowledge and experience of the relevant discipline.” *Id.*
7 (quoting *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 149 (1999)).

8 The Supreme Court has noted the reliability inquiry is a “flexible one,” and while the
9 Supreme Court has suggested several factors helpful in determining reliability, trial courts are
10 generally given “broad latitude in determining the appropriate form of the inquiry.”² *United*
11 *States v. Wells*, 879 F.3d 900, 934 (9th Cir. 2018) (quoting *Kumho Tire*, 526 U.S. at 150); *see*
12 *also Messick v. Novartis Pharm. Corp.*, 747 F.3d 1193, 1196 (9th Cir. 2014) (finding Rule 702
13 should be applied with a “liberal thrust” favoring admission) (quoting *Daubert I*, 509 U.S. at
14 588); *United States v. Hankey*, 203 F.3d 1160 (9th Cir. 2000) (Rule 702 is “construed liberally”
15 in considering admissibility of testimony based on specialized knowledge).

16 Furthermore, the reliability inquiry favors admission of testimony as “[s]haky but
17 admissible evidence is to be attacked by cross examination, contrary evidence, and attention to
18 the burden of proof, not exclusion.” *Primiano v. Cook*, 598 F.3d 558, 564 (9th Cir. 2010) (citing
19 *Daubert I*, 509 U.S. at 596). The reliability inquiry test does not seek to measure “the correctness
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21 ² In relevant part, *Daubert I* suggested several reliability factors a trial court may examine to determine
22 the reliability of expert testimony, including: (1) whether a theory or technique can be tested; (2) whether
23 it has been subjected to peer review and publication; (3) the known or potential error rate of the theory or
technique; (4) the existence and maintenance of standards and controls; and (5) whether the theory or
technique enjoys general acceptance within the relevant scientific community. *Daubert I*, 509 U.S. at
592-94; *see also Mukhtar v. California State Univ., Hayward*, 299 F.3d 1053, 1064 (9th Cir. 2002).

1 of the expert’s conclusions but the soundness of [his or her] methodology,” and therefore, when
2 an expert meets the standards established by Rule 702, “the expert may testify[,] and the fact
3 finder decides how much weight to give that testimony.” *Pyramid Techs., Inc. v. Hartford Cas.*
4 *Ins. Co.*, 752 F.3d 807, 814 (9th Cir. 2014) (quoting *Primiano*, 598 F.3d at 564-65).

5 **B. Dr. Pleus**

6 First, the City moves to exclude Dr. Pleus’s initial expert report and to strike his
7 supplemental report. (*See* Pl.’s Pleus Mot.; Pl.’s Pleus Strike Mot.) The City argues Dr. Pleus’s
8 submission of a supplemental report was untimely and goes beyond the permitted
9 supplementation allowed pursuant to Federal Rule of Civil Procedure 26(e). (Pl.’s Pleus Strike
10 Mot. at 3-5.) Regarding Dr. Pleus’s initial expert report, the City argues Dr. Pleus’s opinions as
11 to his “non-tribal scenario” should be excluded because Dr. Pleus relied on Dr. Sunding’s
12 unreliable fish consumption estimates and that he employed unreliable statistical methods—
13 including the use of median values rather than mean or decile values, and use of the lognormal
14 distribution—to Dr. Sunding’s provided data.³ (Pl.’s Pleus Mot. at 4-9.)

15 In addition, the City argues Dr. Pleus’s “tribal scenario” is based on an unrepresentative
16 portion of data contained in the Suquamish Study estimating LDW tribal fishing, which the City
17 contends ignores a more representative study conducted in 1996 of the Tulalip Tribe (“Tulalip
18 Study”) favored by the EPA. (Pl.’s Pleus Mot. at 9-12.) The City notes the Suquamish Study Dr.
19 Pleus employed included fish harvested throughout the entirety of the Puget Sound instead of

21 ³ As previously argued to this Court in its previous motions to exclude the expert testimony of Dr.
22 Sunding, the City also reiterates that Dr. Sunding’s fish consumption estimates are unreliable because: (1)
23 Dr. Sunding relied on data collected during a 10-week period in 1997, which was not representative of the
fish consumption patterns of persons who fished the LDW the other 42 weeks of 1997; (2) the fish
consumption formula employed by Dr. Sunding understates fish consumption; and (3) Dr. Sunding
employed an unreliable avidity adjustment that further understates fish consumption. (Pl.’s Pleus Mot. at
4-5; *see also* dkt. # 791 at 13-22.)

1 just the LDW. (*Id.* at 10 (citing Gotto Pleus Decl., Ex. A at 50).) The City argues that because
2 Dr. Pleus has no data specific to tribal fishing in the LDW, “[Dr. Pleus] has no basis to reach a
3 conclusion regarding whether fish consumption rates of a much larger area that includes the
4 LDW would be higher or lower than that specific to the LDW.” (*Id.*)

5 Defendants counter that exclusion and striking of Dr. Pleus’s supplemental report is not
6 appropriate nor warranted on this record. Defendants argue Dr. Pleus’s supplemental report
7 merely corrects his initial expert report as permitted by Rule 26(e). (Defs.’ Pleus Strike Resp. at
8 1, 3-4.) Defendants additionally contend the City cannot show it would be prejudiced by the
9 introduction of Dr. Pleus’s supplemental report. (*Id.* at 1, 5-6.)

10 As to the challenged bases for his initial expert report, Defendants argue the City
11 inappropriately frames its disagreements with Dr. Pleus’s conclusions as challenges to the
12 reliability of his methodology. (Defs.’ Pleus Resp. at 1-2.) Specifically, Defendants argue that:
13 (1) Dr. Sunding’s fish consumption estimates, which Dr. Pleus relied on, are sufficiently reliable;
14 (2) Dr. Pleus employed reliable statistical methods in calculating non-tribal human health risk
15 because he used conventional lognormal modeling consistent with EPA methodology for fish
16 consumption; (3) the City’s challenges reiterate those made by Dr. Cowan, who Defendants
17 separately argue is unqualified to opine on matters concerning human health risks; and (4) the
18 City’s challenges to Dr. Pleus’s use of data from the 2000 Suquamish Study, rather than data
19 from the 1996 Tulalip Study, for his “tribal scenario” ignores that the Tulalip Tribe does not
20 have accustomed fishing rights in the LDW, while the Suquamish Tribe does, and that the
21 Tulalip Study lacked data specific to the LDW. (*Id.*)

22 As an initial matter, the City argues on reply that Defendants submitted declarations from
23 both Dr. Sunding (dkt. # 692) and Dr. Pleus (dkt. # 365) with their response that should be

1 stricken as impermissible and untimely expert supplements. (Pl.’s Pleus Reply at 1-2.)

2 Defendants did not file a response or surreply to the City’s motion to strike.⁴

3 Without belaboring this aspect, the Court agrees striking both declarations is appropriate
4 for the reasons the Court provided with respect to the declarations previously stricken for Dr.
5 Michael Trapp and Dr. Mark Velleux, which were similarly provided in response to challenges
6 to their expert opinions to bolster opinions provided in their reports.⁵ (See dkt. ## 761 at 12-15,
7 772 at 17-19.) The Court likewise finds Dr. Sunding’s and Dr. Pleus’s declarations here are “in
8 all practical effect [supplemental expert reports] aimed at remedying the deficiencies in [their]
9 report” and therefore, “little more than a back-door effort around the Court’s discovery
10 deadlines.” See *Bell v. Boeing Co.*, 2022 WL 1206728, at *3 (W.D. Wash. Apr. 22, 2022) (citing
11 *Eno v. Forest River Inc.*, 2021 WL 6428636, at *2 (W.D. Wash. July 1, 2021) (finding expert
12 declaration submitted after expert report deadline, and in response to motion to exclude,
13 untimely and that it “d[id] not excuse Plaintiff’s non-compliance with Rule 26(a)”).
14 Consequently, Dr. Sunding’s and Dr. Pleus’s declarations (dkt. ## 365, 692) will be stricken.
15 Any argument implementing their provided rationale will not be considered by the Court.

16 Moving forward, the Court finds a brief recitation of the background and interplay of Dr.
17 Sunding’s and Dr. Pleus’s reports will benefit the Court’s discussion of Dr. Pleus’s reports.

19 ⁴ This Court’s Local Rules require requests to strike material attached to submissions of opposing parties
20 not be presented in a separate motion, but instead be included in the responsive brief to be considered
with the underlying motion. See Local Civil Rule 7(g).

21 ⁵ As noted by the City, neither Dr. Pleus nor Dr. Sunding mentioned any performance of “the
22 Kolmogorov-Smirnov, Anderson Darling, Shapiro-Wilk or other goodness of fit tests” in their initial
expert report nor supplements submitted in this matter. (See Pl.’s Pleus Reply at 1; see also Pleus Decl.
23 (dkt. # 365) at ¶¶ 3-4; Sunding Decl. (dkt. # 692) at ¶¶ 3-5.) The “goodness of fit testing” provided by
both Dr. Pleus and Dr. Sunding in their declarations should have been reflected in their reports or
otherwise produced to the City prior to the submission of the City’s motions challenging each respective
expert’s testimony.

1 *i. Background*

2 On November 21, 2021, Defendants served Dr. Pleus’s initial expert report on the City.
3 (*See* Gotto Pleus Decl., Ex. A at 1.) On February 14, 2022, the City served a rebuttal report
4 issued by its statistics expert Dr. Cowan. (Gotto Pleus Decl., Ex. D (dkt. # 609-4) at 1.) In his
5 rebuttal report, Dr. Cowan criticized Dr. Pleus’s “non-tribal scenario” on multiple grounds,
6 including: (1) Dr. Pleus’s reliance on Dr. Sunding’s erroneous fish consumption estimates; (2)
7 Dr. Pleus’s application of lognormal distribution to Dr. Sunding’s data; and (3) Dr. Pleus’s use of
8 Dr. Sunding’s median rather than mean values for his data, all of which Dr. Cowan found had the
9 effect of understating human health risks to LDW anglers who consume their catch. (*See id.* at
10 36-56.)

11 On April 27, 2022, the City conducted Dr. Sunding’s first deposition. (*See* Gotto Second
12 Sunding Decl., Ex. C (dkt. # 618-3).) At Dr. Sunding’s first deposition, the City noted several
13 errors with Dr. Sunding’s LDW angler population estimate and fish consumption estimates. (*See*
14 *id.* (Sunding Dep. at 158:16-165:25, 182:18-188:11).) On May 2, 2022, Defendants informed the
15 City that Dr. Pleus’s deposition, originally scheduled for May 10, 2022, would need to be
16 rescheduled due to a conflict. (Second Gotto Pleus Decl., Ex. E (dkt. # 613-5).) On May 31,
17 2022, Defendants informed the City Dr. Sunding would be issuing a supplemental report, thus
18 necessitating rescheduling Dr. Pleus’s deposition because of the impact of Dr. Sunding’s
19 forthcoming supplement on Dr. Pleus’s opinions, which the City objected to. (*See* Second Gotto
20 Pleus Decl., Exs. F (dkt. # 613-6), G (dkt. # 613-7).)

21 On June 1, 2022, Defendants served Dr. Sunding’s supplemental report on the City,
22 which revised his LDW resident seafood consumption rates to correct errors identified by the
23 City during Dr. Sunding’s deposition. (*See* Gotto Pleus Decl., Ex. F (dkt. # 609-6) at 1-2, 5, 7-9.)

1 Consequently, on June 7, 2022, Dr. Pleus issued a supplemental report that recomputed his
2 “non-tribal scenario” using Dr. Sunding’s revised consumption estimates. (*See Gotto Pleus*
3 Decl., Ex. B at 1-3.) On June 19-20, 2022, the City took Dr. Pleus’s deposition. (Martin Decl.
4 (dkt. # 686) at ¶ 8.)

5 *ii. Supplemental Expert Report*

6 Rule 26(a)(2)(B)(i) provides that a written expert report must contain “a complete
7 statement of all opinions the witness will express and the basis and reasons for them.” An expert
8 witness has a duty to supplement his or her report “in a timely manner if the party learns that in
9 some material respect the disclosure or response is incomplete or incorrect, and if the additional
10 or corrective information has not otherwise been made known to the other parties during the
11 discovery process or in writing.” Fed. R. Civ. P. 26(e)(1)(A). When a party fails to comply
12 with Rule 26, the sanction of exclusion is automatic and mandatory unless the sanctioned party
13 can show that its violation was either substantially justified or harmless. *See Fed. R. Civ. P.*
14 *37(c)(1).*

15 Supplemental expert reports that merely attempt “to deepen and strengthen the expert’s
16 prior reports” do not fall within the permissible scope of supplemental expert disclosures
17 under Rule 26(e). *Lindner v. Meadow Gold Dairies, Inc.*, 249 F.R.D. 625, 639 (D. Haw.
18 2008) (citation omitted). Rule 26(e) “permits supplemental reports only for the narrow purpose
19 of correcting inaccuracies or adding information that was not available at the time of the initial
20 report.” *Minebea Co., Ltd. v. Papst*, 231 F.R.D. 3, 6 (D.D.C. 2005) (citation omitted); *see also*
21 *Lo v. United States*, 2021 WL 5121745, at *2 (W.D. Wash. Nov. 3, 2021) (“The rule for
22 supplementation does not give license to sandbag one’s opponent with claims and issues which
23 should have been included in the original witness report.” (citation and internal quotations

1 omitted)). To otherwise allow the submission of supplemental reports outside of their
2 permissible scope:

3 [W]ould create a system where preliminary reports could be followed by
4 supplementary reports and there would be no finality to expert reports, as each side,
5 in order to buttress its case or position, could “supplement” existing reports and
6 modify opinions previously given. This practice would surely circumvent the full
7 disclosure requirement implicit in Rule 26 and would interfere with the Court’s
8 ability to set case management deadlines, because new reports and opinions would
9 warrant further consultation with one’s own expert and virtually require new rounds
10 of depositions. That process would hinder rather than facilitate settlement and the
11 final disposition of the case.

12 *Lindner*, 249 F.R.D. at 639-40 (citing *Beller ex rel. Beller v. United States*, 221 F.R.D. 689, 695
13 (D.N.M. 2003)).

14 As previously considered by this Court, Dr. Sunding’s supplemental submission
15 essentially conceded that he utilized an erroneous fish consumption formula in his initial report.
16 (See dkt. # 791 at 16-20.) Relevantly, Dr. Sunding modified his LDW resident seafood
17 consumption rate formula from his initial report by adjusting it to remove the factor for the
18 number of people sharing the catch from the formula’s denominator. (*Id.* at 6 (citing Gotto First
19 Sunding Decl., Ex. C (dkt. # 616-3) at 1-2, 5).) Due to this and other modifications from his
20 initial expert report, this Court determined Dr. Sunding’s supplemental report was untimely and
21 inappropriate because he sought to rehabilitate his methodologies to arrive back at his prior
22 conclusions that LDW angling population and resident seafood consumption rates remained
23 unaffected by LDW fish consumption advisories despite corrections to his data. (*See id.*) Dr.
Pleus’s issued supplemental expert report updated his HHRA data on non-tribal health risks to
reflect Dr. Sunding’s revised LDW seafood consumption rates. (Gotto Pleus Decl., Ex. B at 1-3;
DeBord Pleus Decl. at ¶ 23.) Because this Court has already excluded Dr. Sunding’s reports
based on the identified deficiencies with his supplemental report, and due to his unreliable

1 dependence on the Mayfield Study as discussed further below, Dr. Pleus’s supplemental expert
2 report relying on Dr. Sunding’s revised LDW seafood consumption estimates must similarly be
3 excluded. (*See id.*)

4 Moreover, and independent of concerns with respect to Dr. Pleus’s use of Dr. Sunding’s
5 LDW seafood consumption estimates, Dr. Pleus’s supplemental expert report presents three
6 tables updating non-tribal health risk values. (*See Gotto Pleus Decl., Ex. B at 2-3.*) To the extent
7 Dr. Pleus’s tables reflect recalculations to provide mean values, where he previously used
8 median values in his initial expert report, Dr. Pleus has inappropriately supplemented his expert
9 report to respond to Dr. Cowan. (*Compare id., Ex. B at 2-3 with id., Ex. A at 48, 54.*) Such
10 changes are not proper bases to issue a supplemental expert report. Rule 26(e) does not “create a
11 loophole through which a party . . . who wishes to revise [his] disclosures in light of [his]
12 opponent’s challenges to the analysis and conclusions therein, can add to them to [his] advantage
13 after the court’s deadline for doing so has passed.” *Lo*, 2021 WL 5121745 at *2 (citing *Luke v.*
14 *Fam. Care & Urgent Med. Clinics*, 323 F. App’x 496, 500 (9th Cir. 2009)).

15 *iii. Initial Expert Report*

16 1. Non-Tribal Scenario

17 Dr. Pleus’s HHRA as to his “non-tribal scenario” in his initial expert report relied
18 exclusively on the LDW resident seafood consumption estimates of Dr. Sunding. (*See Gotto*
19 *Pleus Decl., Ex. A at 30, 49.*) Relevantly, in addition to the deficiencies of providing an untimely
20 and inappropriate supplemental expert report, this Court determined Dr. Sunding’s opinions were
21 ultimately founded on unreliable data. (*See dkt. # 791 at 20-21.*)

22 With respect to his LDW resident seafood consumption estimate, Dr. Sunding’s estimate
23 relied on the Mayfield Study (*Gotto First Sunding Decl., Ex. D (dkt. # 616-4)*). The Court found

1 Dr. Sunding’s use of the Mayfield Study to be problematic given his extrapolation of data from a
2 10-week period in the summer of 1997 to an annual population comparison. (*See* dkt. # 791 at
3 21.) Dr. Sunding’s report assumed “that the species anglers catch on the survey day (by the time
4 of the survey) are representative of what they catch and consume over the year and that reported
5 meals can be divided equally among species caught.” (*Id.* (citing Gotto First Sunding Decl., Ex.
6 A (dkt. # 616-1) at 27-28).) But Dr. Sunding’s report failed to provide any basis for a 10-week
7 snapshot of 1997 LDW summer anglers being appropriately representative of annual
8 consumption patterns, and not just the 10-week period captured by the Mayfield Study
9 interviewees.⁶ (*Id.*) As such, this Court determined Dr. Sunding failed to provide a reliable basis
10 to estimate both the LDW year-round angling population and resident seafood consumption due
11 to his reliance on the Mayfield Study. (*See id.*)

12 Given this Court’s previous analysis with respect to the deficiencies contained in both of
13 Dr. Sunding’s reports, Dr. Pleus’s opinions in his “non-tribal scenario” in his initial expert report
14 that relied on Dr. Sunding’s unreliable LDW resident seafood consumption estimates must
15 correspondingly be excluded.

16 2. Tribal Scenario

17 For Dr. Pleus’s “tribal scenario,” the City has failed to identify a proper basis for
18 exclusion of this portion of his opinion. Pursuant to Rule 702(b), the requirement that expert
19 testimony be based on “sufficient facts or data” only requires the Court to engage in “an analysis

21 ⁶ When questioned whether he had any basis to conclude whether the consumption of the Mayfield
22 interviewees during the 10-week period was representative of the consumption pattern of people who
23 fished the LDW during the entire year, Dr. Sunding testified “[t]hat is all the information there is. It’s not
possible to do the kind of cross tabs that you are talking about because Mayfield didn’t collect data
outside the summer. This is the best information I’m aware of on fish consumption in the Duwamish.”
(*See* Gotto Second Sunding Decl., Ex. C (Sunding Dep. at 182:3-16).) In essence, there is no information
capturing the LDW resident seafood consumption of non-summer anglers, *i.e.*, those who did not fish
during the 10-week Mayfield study period.

1 of the sufficiency of underlying facts or data that is quantitative rather than qualitative.” *United*
2 *States v. W.R. Grace*, 455 F. Supp. 2d 1148, 1152 (D. Mont. 2006); *see also* Fed. R. Evid. 702
3 Advisory Committee’s Note to 2000 Amendments. The requirement “is not intended to authorize
4 a trial court to exclude an expert’s testimony on the ground that the court believes one version of
5 the facts and not the other.” *W.R. Grace*, 455 F. Supp. 2d at 1152.

6 On this aspect, Dr. Pleus explicitly provided his rationale for his decision to use the
7 Suquamish Study data rather than the Tulalip Study data for his “tribal scenario” in his report:
8 “Consumption data of resident species of fish and shellfish from the Puget Sound region for the
9 Tulalip Tribe are also available, but the data are not specific to the LDW and so were not used in
10 the HHRA”⁷ (*See* Gotto Pleus Decl., Ex. A at 21.) Though Dr. Pleus acknowledges the
11 Suquamish Study is not solely specific to the LDW, Dr. Pleus explained he chose it because
12 “using data from the entirety of the Puget Sound is not relevant to the LDW.” (*Id.* at 49.) To that
13 end, Dr. Pleus took a subset of the Suquamish Study ingestion rate data that included areas of the
14 LDW (Area 26) and divided by four to restrict his consideration to the area solely containing
15 portions of the LDW (Area 26B). (*Id.* at 49-50.)

16 The City’s contentions that Dr. Pleus should have relied on the Tulalip Study for his
17 “tribal scenario” opinion because of the EPA’s policy preference for it is not a proper basis for
18 its exclusion. *See City of Pomona v. SQM N. Am. Corp.*, 750 F.3d 1036, 1053 (9th Cir. 2014)
19 (“Facts casting doubt on the credibility of an expert witness and contested facts regarding the
20 strength of a particular scientific method are questions reserved for the fact finder.”). As
21

22 ⁷ Defendants additionally note the Tulalip Tribe’s adjudicated “usual and accustomed fishing rights” do
23 not include the LDW. *See United States v. Washington*, 626 F. Supp. 1405, 1530-1532 (W.D. Wash.
1982). Conversely, Defendants argue the EPA treats the Suquamish as having treaty fishing rights in the
LDW. (*See* Defs.’ Pleus Resp. at 12 (citing DeBord Pleus Decl., Ex. M (dkt. # 693-13) at 2 (identifying
Duwamish, Muckleshoot, Suquamish, and Yakama Tribes as having treaty rights to fish in the LDW)).)

1 considered in his report, “no data address tribal fish consumption specifically from the LDW,”
2 including the Tulalip Study. (*See* Gotto Pleus Decl., Ex. A at 50.) The City can address issues
3 with Dr. Pleus’s reliance on the Suquamish Study during his cross-examination.

4 For the above reasons, the City’s Pleus Strike Motion is granted, and the City’s Pleus
5 Motion is granted with respect to the portions of his “non-tribal scenario” opinions relying on Dr.
6 Sunding’s previously excluded data but denied with respect to the “tribal scenario” provided in
7 his report.

8 **C. Dr. Cowan**

9 Defendants next move to exclude a portion of Dr. Cowan’s rebuttal expert testimony on
10 the basis that Dr. Cowan is not qualified to offer expert opinions requiring toxicological
11 expertise or to interpret the results of statistics he seeks to apply.⁸ (Defs.’ Cowan Mot. at 2, 5.)
12 Defendants specifically take issue with Dr. Cowan’s conclusion, identified as his fifth opinion,
13 that “Dr. Pleus takes additional steps to understate the amount of risk that anglers face from
14 cancer and other possible diseases as a result of exposure to PCBs.” (*Id.* at 2 (citing Gotto Cowan
15 Decl., Ex. A at 57).) Defendants contend this specific conclusion “strays into areas requiring
16 expertise in toxicology” and is based on “a series of unfounded statements” throughout Dr.
17 Cowan’s rebuttal report related to alleged risk to anglers from consuming resident fish and
18 shellfish from the LDW.⁹ (*Id.* at 2-3 (citing Gotto Cowan Decl., Ex. A at 46-48, 55).) Defendants
19

20 ⁸ Defendants did not seek to exclude Dr. Cowan’s opinions critical of Dr. Sunding’s work, critical of Dr.
21 Pleus’s or Dr. Eaton’s reliance on Dr. Sunding’s estimates, nor have Defendants moved to exclude Dr.
Cowan’s opinions critical of Dr. Pleus’s statistical methods. (*See* Defs.’ Cowan Mot.)

22 ⁹ Defendants also identify the portion of Dr. Cowan’s supplemental expert report concluding that “Dr.
23 Pleus continues to rely on a probability distribution that does not apply to his data and which significantly
underestimates the risk of exposure for people eating resident fish they catch in the [LDW]” as being
unfounded. (Defs.’ Cowan Mot. at 3-4 (citing Gotto Cowan Decl., Ex. B at 3).)

1 further argue Dr. Cowan cannot offer any of the challenged opinions independent of Dr. Pleus's
2 own participation in this case.¹⁰ (*Id.* at 9-10.)

3 The City responds that Defendants misinterpret Dr. Cowan's opinions. (Pl.'s Cowan
4 Resp. at 1, 5.) The City contends Defendants ignore that quantification of risk in a population
5 requires statistical analysis and that it is only the flaws in Dr. Pleus's statistical techniques used
6 to quantify risk that Dr. Cowan's report rebuts, which remains squarely in his expertise. (*Id.*)

7 As a preliminary matter, Dr. Cowan's rebuttal report addresses statistical flaws in Dr.
8 Sunding's angler population and LDW resident seafood consumption estimates, Dr. Eaton's
9 opinions derived from Dr. Sunding's LDW resident seafood consumption estimates, and Dr.
10 Pleus's reliance on Dr. Sunding's estimates and the statistical techniques that Dr. Pleus used to
11 quantify risk. (*See* Gotto Cowan Decl., Exs. A at 3-4, B at 2-4.) Because this Court has excluded
12 Dr. Sunding's reports, the rebutted portion of Dr. Eaton's testimony (*see* dkt. # 791 at 22-23),
13 and now Dr. Pleus's "non-tribal scenario" testimony based on his reliance on Dr. Sunding's
14 estimates, it does not appear Dr. Cowan's rebuttal testimony will be necessary at trial.

15 Nevertheless, to the extent the City is permitted to offer Dr. Cowan's rebuttal testimony
16 as to Dr. Pleus, Defendants' challenge that Dr. Cowan inappropriately provides opinions in his
17 rebuttal report requiring toxicological expertise is well-taken. Based on his identification of
18 flawed statistical techniques, Dr. Cowan opines Dr. Pleus skewed the quantification of risks
19 produced by his models downward for the portion of the population in the higher percentiles of
20 fish consumption. (*See* Gotto Cowan Decl., Ex. A at 38.) Dr. Cowan is sufficiently qualified to
21 express opinions offered on the statistical techniques employed by Dr. Pleus and how those were
22 quantified downward. (*See id.* at 58-60.)

23 _____
¹⁰ Defendants additionally argue that Dr. Cowan's expert testimony has been excluded in whole or in part
approximately 11 times in the past decade. (Defs.' Cowan Mot. at 10-11.)

1 But Dr. Cowan is not qualified to take the next step and opine what those downward
2 skewed numbers mean with respect to Dr. Pleus’s toxicological scheme. *See Fontana v. City of*
3 *Fed. Way*, 2014 WL 202104, at *6 (W.D. Wash. Jan. 17, 2014) (“An expert in one field cannot
4 express an opinion relying on data that requires expertise in another field.”). Though the City
5 contends that Dr. Cowan is merely working off the models supplied by Dr. Pleus (Pl.’s Cowan
6 Resp. at 5-7), Dr. Cowan lacks the qualifications to provide conclusions that are toxicological,
7 and not statistical, in nature. (*See, e.g.*, Gotto Cowan Decl., Ex. A at 38 (“Dr. Pleus’ tortured
8 computations . . . are designed to produce the lowest risk for the anglers who in fact have the
9 greatest risk.”), 46 (“I recompute these values using Dr. Pleus’ formula and show that there is a
10 proportion of the human population that is at risk from consuming [LDW] fish and
11 shellfish . . .”), 48 (“Dr. Pleus finds no risk when in fact a properly conducted analysis would
12 have shown unacceptable risk for a portion of the population . . .”).)

13 Defendants’ Cowan Motion is therefore granted. To the extent the City is still able to
14 offer Dr. Cowan’s rebuttal testimony at trial, Dr. Cowan is not permitted to testify as to any
15 toxicological conclusions derived from his opinion that the quantification of risks produced by
16 Dr. Pleus’s models was skewed downward for the portion of the population in the higher
17 percentiles of fish consumption.

18 **D. Dr. Carpenter**

19 Defendants next seek to exclude Dr. Carpenter from testifying at trial. Defendants argue
20 that Dr. Carpenter “seeks to testify about possible human health effects due to environmental
21 exposure to PCBs without any specific application or independent analysis relevant to this
22
23

1 case.”¹¹ (Defs.’ Carpenter Mot. at 1.) Specifically, Defendants argue that Dr. Carpenter’s
2 identified opinions should be excluded because: (1) Dr. Carpenter employs an unreliable
3 methodology to support his opinion that exposure to PCBs, at an unspecified dose, increases the
4 risk of diseases because he relies only on epidemiology studies that support his conclusion; (2)
5 Dr. Carpenter’s opinions fail to demonstrate a nexus between PCBs and the alleged public
6 nuisance in the LDW; and (3) Dr. Carpenter failed to conduct any analysis or investigation
7 specific to the LDW.¹² (*Id.* at 2.)

8 The City responds that Defendants generally attempt to frame their arguments against Dr.
9 Carpenter as challenges to the reliability of his methodology, while in fact taking issue with his
10 conclusions offered, which is an inappropriate basis to exclude his testimony.¹³ (Pl.’s Carpenter
11 Resp. at 1.) The City argues Dr. Carpenter’s methodology is sufficiently reliable as his approach
12 to reviewing this literature is used routinely by scientists and experts in court. (*Id.* at 4-7.) The
13 City further contends that Dr. Carpenter’s opinions will assist the trier of fact because he opines
14 on risks that PCBs present to people in Seattle and the community surrounding the LDW, which
15 is relevant to the City’s public nuisance claim. (*Id.* at 7-10.)

17 ¹¹ Curiously, Defendants note they do not seek to exclude Dr. Carpenter’s opinions in their entirety
18 (Defs.’ Carpenter Mot. at 1), but nonetheless outline that they seek to preclude him from testifying about
19 all of the conclusions offered in his summary of opinions. (*Id.* at 1-2; *see also* DeBord Carpenter Decl.,
Ex. A at 2, 7.)

20 ¹² Defendants additionally seek to exclude Dr. Carpenter from offering any opinions regarding harm to
21 fish and wildlife from PCBs. (Defs.’ Carpenter Mot. at 11; Defs.’ Carpenter Reply at 6.) But as
22 acknowledged by Defendants, and Dr. Carpenter’s deposition testimony, Dr. Carpenter testified he does
not intend to offer any such opinion in this case. (*Id.* (citing DeBord Carpenter Decl., Ex. D (Carpenter
Dep. at 128:18-20).) The City has also confirmed that Dr. Carpenter will not offer such opinions, but
acknowledges his report cites to the EPA’s recognition of the harm PCBs can cause to fish and wildlife in
support of his opinions. (Pl.’s Carpenter Resp. at 10.)

23 ¹³ Though the City focused a portion of its response on Dr. Carpenter’s qualifications (Pl.’s Carpenter
Resp. at 1, 3-4), Dr. Carpenter’s qualifications for his opinions were not challenged by Defendants (*see*
Defs.’ Carpenter Mot.; Defs.’ Carpenter Reply at 1).

1 i. Methodology

2 First, the Court disagrees that Dr. Carpenter has utilized an unreliable methodology for
3 his public health opinions or that he inappropriately ignored studies finding negative associations
4 between PCBs and certain health effects. Per his report, Dr. Carpenter’s methodology evaluated
5 potential impacts to human health of PCB exposure by considering the Hill factors, which he
6 then draws conclusions from based on a weight of the evidence approach:

7 The factors suggested for consideration by Hill include a) strength of association,
8 b) consistency of association, c) specificity, d) temporality, e) dose-response
9 relationship, f) plausibility, g) coherence, h) experimental evidence, and i) analogy.
10 These are appropriate standards for evaluating whether or not there is a relationship
11 between exposure and disease, and together consideration of these factors leads to
12 a general “weight of evidence.” Hill did not imply that each of these factors must
13 be met in every case, but that these were appropriate factors for consideration when
14 considering whether an association was really causation.

15 (See DeBord Decl., Ex. A at 4-5.) Dr. Carpenter’s opinions also provide well over a hundred
16 distinct studies in support of his conclusions that PCBs negatively impact human health. (See *id.*
17 at 29-45.) Though Dr. Carpenter did not conduct a systematic overview of all PCB studies,
18 which may have included more consideration of studies preferred by Defendants, Dr. Carpenter
19 testified he reviewed approximately “three file cabinets” full of PCB studies in addition to his
20 significant experience in this area. (See Mueller Carpenter Decl., Ex. A (Carpenter Dep. (dkt.
21 # 676-1) at 31:3-22); see also DeBord Carpenter Decl., Ex. A at 3-4.) Such review is of the sort
22 courts allow experts to testify to where paired with adequate qualifications and background. See,
23 *e.g.*, *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 754 (3d Cir. 1994) (allowing “trained
internist who [had] spent significant time reviewing the literature on PCBs to testify as to
whether PCBs caused illness in plaintiffs” to testify as an expert); see also *Lucido v. Nestle
Purina Petcare Co.*, 217 F. Supp. 3d 1098, 1108 (N.D. Cal. 2016).

1 In addition, Defendants point to Dr. Carpenter’s previous testimony in a Washington
2 Superior Court case having been excluded on the basis that his methodology in that case was
3 incomplete and therefore unreliable. (Defs.’ Carpenter Mot. at 6-7 (citing DeBord Carpenter
4 Decl., Ex. C (dkt. # 610-3)).) In that case, *Lakey v. Puget Sound Energy, Inc.*, the Superior Court
5 of Washington found:

6 [Dr. Carpenter’s] expert opinion, or ultimate conclusion, is a minority view that is
7 not generally accepted in the relevant scientific community. Dr. Carpenter’s
8 methodology for arriving at his opinion is incomplete at best. Dr. Carpenter, who
9 is not an epidemiologist, disregards and dismisses the majority of studies that find
10 no evidence or insufficient evidence to conclude that [electro-magnetic fields], at
the level found on Plaintiff’s property, cause diseases such as leukemia. The failure
to address the majority of studies that do not find reliable evidence of adverse
effects from EMF exposure is inconsistent with how epidemiological research is
evaluated.

11 (DeBord Carpenter Decl., Ex. C at 3.)

12 However, Dr. Carpenter’s opinions here on the impact of PCBs on human health are not a
13 novel or unsupported outlier. *Cf. Henricksen v. ConocoPhillips Co.*, 605 F. Supp. 2d 1142, 1175
14 (E.D. Wash. 2009) (excluding plaintiffs’ experts’ causation testimony “because the studies they
15 rely upon . . . do not support the causation conclusions they make in the face of the
16 overwhelming body of contradictory and inconsistent epidemiological evidence”). Congress
17 banned Defendants from manufacturing and selling PCBs in 1977 because of their risk to
18 humans. *See Toxic Substances Control Act*, 15 U.S.C. § 2601 *et seq.* (1976). Outside of the
19 wealth of studies provided by Dr. Carpenter in his report (*see* DeBord Carpenter Decl., Ex. A at
20 29-45), Defendants’ own experts have also acknowledged PCBs can cause negative human
21 health effects. (*See* Gotto Pleus Decl., Ex. A at 35; Mueller Carpenter Decl., Ex. C (dkt. # 676-3)
22 at 10, 14.)

1 Defendants also challenge that Dr. Carpenter’s methodology fails to appropriately
2 consider the issue of dosage. (Defs.’ Carpenter Mot. at 3, 7-8; Defs.’ Carpenter Reply at 5-6.) On
3 this aspect, Defendants argue dose must be considered to evaluate whether the LDW
4 population’s exposure to PCBs causes human health effects. (*See id.* (citing *In re Bextra &*
5 *Celebrex Mktg. Sales Practices & Prod. Liab. Litig.*, 524 F. Supp. 2d 1166, 1174 (N.D. Cal.
6 2007); *Henrickson*, 605 F. Supp. 2d at 1165-1166 (“The use of the no safe level or linear ‘no
7 threshold’ model for showing unreasonable risk flies in the face of the toxicological law of dose-
8 response, that is, that ‘the dose makes the poison’”)).) The City did not provide any specific
9 argument to this contention. (*See* Pl.’s Carpenter Resp.)

10 Nevertheless, the Court finds Dr. Carpenter’s opinions did not provide any no safe level
11 opinions about PCBs. As noted, Dr. Carpenter instead provided citation to several studies
12 indicating increased risk to human health based on exposure to PCBs. (*See* DeBord Carpenter
13 Decl., Ex. A at 11-28.) Dr. Carpenter’s reliance solely on studies that demonstrated an
14 association between PCBs and human health impacts for the conclusions reached in his opinions
15 goes to the weight of his opinions, and not their admissibility. *See United States v. Sanft*, 2021
16 WL 5278766, at *2 (W.D. Wash. Nov. 13, 2021) (“Defendants may disagree with [an expert’s]
17 opinions and challenge the accuracy of the evidence supporting his conclusions, [but] their
18 challenge goes to the weight of his testimony, not its admissibility.”).

19 *ii. Relevance*

20 Next, Dr. Carpenter’s report appropriately supports his opined conclusions regarding the
21 impact of PCBs on the public nuisance alleged by the City in the LDW. On this aspect, Dr.
22 Carpenter cites to the EPA’s 2014 ROD, a 2013 EPA Environmental Justice Analysis for the
23 LDW, and a 2005 Washington DOH Consultation to demonstrate that PCB exposure at levels

1 currently existing in the LDW are causing adverse health impacts. (See DeBord Carpenter Decl.,
2 Ex. A at 9.) For a public nuisance claim, the City must establish conduct constituting a nuisance.
3 See *Miotke v. City of Spokane*, 101 Wn.2d 307, 309, 331 (Wash. 1984), *abrogated on other*
4 *grounds by Blue Sky Advocs. v. State*, 107 Wn.2d 112 (Wash. 1986). As such, the City bears the
5 burden of proving the unreasonableness of Monsanto’s conduct.¹⁴ See *Lakey v. Puget Sound*
6 *Energy, Inc.*, 176 Wn.2d 909, 923 (Wash. 2013) (citations omitted) (noting that the
7 reasonableness of a defendant’s conduct in a nuisance action is determined by “weighing the
8 harm to the aggrieved party against the social utility of the activity”); see also Wash. Civil
9 Pattern Jury Instruction 380.03.

10 As noted above, expert testimony is relevant if it “logically advance[s] a material aspect
11 of the party’s case.” *Estate of Barabin*, 740 F.3d at 463; see also *Daubert v. Merrell Dow*
12 *Pharms., Inc.* (“*Daubert II*”), 43 F.3d 1311, 1315 (9th Cir. 1995). Expert testimony is not
13 excluded for relevancy where “it speaks clearly and directly to an issue in dispute in the case,
14 and . . . it will not mislead the jury.” *Daubert II*, 43 F.3d at 1321 n.17. Though Dr. Carpenter’s
15 opinions generally address statistical associations or elevated risks of PCB exposure on human
16 health, his testimony is sufficiently tied to the impacts of PCBs on LDW residents and
17 recreational users and will otherwise assist the trier of fact in determining whether Defendants
18 can be held liable for public nuisance.

19 *iii. Foundation and LDW Analysis*

20 Last, Dr. Carpenter’s citation to risks identified by others regarding the impact of PCBs
21 on human health in the LDW is not inadmissible because he failed to conduct a primary analysis.
22

23 ¹⁴ “[T]he key element in a public nuisance action is whether the defendant’s conduct has substantially and
unreasonably interfered with public property or a public right, such as the public’s health.” *Lewis County*
v. Bonagofski, 139 Wn. App. 1033, at *4 (Wash. Ct. App. June 28, 2007).

1 As considered above, Dr. Carpenter cites to the 2014 ROD and other EPA resources regarding
2 the impact of PCBs on human health in the LDW. (*See* DeBord Carpenter Decl., Ex. A at 9.) Dr.
3 Carpenter need not conduct his own public health investigation or analysis to cite to the EPA’s
4 work regarding the potential impacts on the health of the communities in the LDW for his
5 conclusions. *See Daubert*, 509 U.S. at 592 (“An expert is permitted wide latitude to offer
6 opinions, including those that are not based on firsthand knowledge or observation.”); *Kennedy*
7 *v. Collagen Corp.*, 161 F.3d 1226, 1230-31 (9th Cir. 1998) (citation omitted) (“Disputes as to the
8 strength of [an expert’s] credentials, faults in his use of [a particular] methodology, or lack of
9 textual authority for his opinion, go to the weight, not the admissibility, of [his] testimony”).

10 In sum, Defendants’ challenges to Dr. Carpenter’s reliance on studies that show an
11 association between PCBs and human health, whether they are outdated, or whether they are the
12 most fitting studies to consider, is not a proper basis for exclusion. *See City of Pomona*, 750 F.3d
13 at 1053. Such considerations go to the weight of his opinions, which Defendants may address
14 with Dr. Carpenter during cross-examination. *See Bluetooth SIG, Inc. v. FCA US LLC*, 468 F.
15 Supp. 3d 1342, 1349 (W.D. Wash. 2020) (“[T]he factual basis of an expert opinion goes to the
16 credibility of the testimony, not the admissibility, and it is up to the opposing party to examine
17 the factual basis for the opinion in cross-examination.” (internal quotations and citation
18 omitted)). Defendants’ Carpenter Motion is denied.

19 **E. Dr. Chernaik**

20 Finally, Defendants move to exclude “certain opinions” contained in Dr. Chernaik’s
21 expert and rebuttal reports.¹⁵ (Defs.’ Chernaik Mot. at 1-2.) Defendants argue that Dr. Chernaik
22

23 ¹⁵ Defendants’ motion references that they only seek to challenge the admission of “certain opinions”
(Defs.’ Mot. at 1), but subsequently references each of Dr. Chernaik’s conclusions (*id.* at 1-2) and
ultimately requests the exclusion of all his testimony at trial (*see* dkt. # 612-1 at 1).

1 is unqualified to offer opinions about the risks PCBs present to people because he is not a
2 toxicologist. (Defs.’ Chernaik Mot. at 2-4.) Defendants further argue Dr. Chernaik failed to
3 implement a reliable methodology for his opinions that PCBs pose a threat to human health and
4 likewise failed to consider any specific PCB exposure levels for LDW residents or conduct his
5 own risk assessment. (*Id.* at 4-9.)

6 The City counters Dr. Chernaik is well-qualified to offer his opinions based on his
7 background in biochemistry and previous experience consulting on environmental pollutants,
8 including PCBs, that his literature review methodology is well-accepted in his field, and that he
9 has otherwise used reliable datasets in providing his opinions. (Pl.’s Chernaik Resp. at 1.) The
10 City further responds Defendants’ challenges generally go to the weight of Dr. Chernaik’s
11 offered opinions, and not their admissibility. (*Id.*)

12 *i. Qualifications*

13 First, Dr. Chernaik may be qualified as an expert pursuant to his “knowledge, skill,
14 experience, training or education.” Fed. R. Evid. 702. An expert is considered qualified to testify
15 if the expert has “sufficient specialized knowledge to assist the jurors in deciding the particular
16 issues in the case.” *Kumho Tire*, 526 U.S. at 156. Because Rule 702 “contemplates a *broad*
17 *conception* of expert qualifications,” only a “*minimal foundation* of knowledge, skill, and
18 experience” is required. *Hangarter v. Provident Life & Accident Ins. Co.*, 373 F.3d 998, 1015-16
19 (9th Cir. 2004) (internal quotations and citation omitted, emphasis in original).

20 Here, Dr. Chernaik is sufficiently qualified by his relevant experience to opine on the
21 identified subjects in his reports. As previously outlined, Dr. Chernaik is a Ph.D. biochemist who
22 has previously conducted research and provided expert testimony on the risks chemicals and
23 other pollutants can present to people and their communities. (DeBord Chernaik Decl., Ex. A at

1 1-2.) As part of his relevant experience, Dr. Chernaik provided prior consultation on a matter
2 concerning PCB cleanup after a capacitor containing PCBs ruptured. (*Id.*) Defendants fail to
3 convince this Court why specialized knowledge in toxicology or different PCB experience is
4 necessary to support Dr. Chernaik’s opinions given the minimal foundation of knowledge and
5 skill required to qualify his testimony. *See Cypress Ins. Co. v. SK Hynix Am., Inc.*, 2019 WL
6 634684, *3 (W.D. Wash. Feb. 14, 2019) (“[T]he fact that [his] opinions are based only on his
7 knowledge or experience is not enough to disqualify him as an expert.”). A “lack of
8 particularized expertise goes to the weight of [his] testimony, not its admissibility.” *United States*
9 *v. Garcia*, 7 F.3d 885, 890 (9th Cir. 1993) (citing *United States v. Little*, 753 F.2d 1420, 1445
10 (9th Cir. 1984)).

11 *ii. Methodology*

12 Next, as similarly challenged and considered with respect to Dr. Carpenter, the Court
13 finds Dr. Chernaik’s methodology sufficiently reliable. Like Dr. Carpenter, Dr. Chernaik’s
14 approach required him to consider and collate studies exploring the relationship between PCB
15 exposure and different health outcomes. (*See DeBord Chernaik Decl., Ex. A at 2-3, 5-9.*) This
16 approach is reliable given Dr. Chernaik’s relevant background and experience with health
17 impacts stemming from the release of toxic substances. *See In re Paoli R.R. Yard PCB Litig.*, 35
18 F.3d at 754; *Lucido*, 217 F. Supp. 3d at 1108.

19 Dr. Chernaik’s methodology is also dissimilar from the situation presented in *Mancuso v.*
20 *Consol. Edison Co. of New York*, 967 F. Supp. 1437, 1443 (S.D.N.Y. 1997). In that case, the
21 expert witness “self-educated” himself on PCBs and environmental toxic exposure for the
22 litigation. *Id.* The court in *Mancuso* acknowledged that “given the lenient standard applied to an
23 expert’s qualifications,” the expert’s self-education could be sufficient to permit him to testify.

1 *Id.* But the court had serious doubts about the expert witness’s self-education because he
2 significantly relied upon materials solely provided to him by the plaintiff’s counsel and due to
3 his “complete unawareness of or confusion about basic standards of PCB toxicology.” *Id.* at
4 1443-1444.

5 Based on the record before this Court, there is no evidence that Dr. Chernaik did not
6 conduct his own study or review, and Dr. Chernaik possesses sufficient background with the
7 impact of chemicals on biological functions, and experience with the health impacts caused from
8 the release of toxic substances, for his opinions. In any case, Dr. Chernaik’s specific reliance on
9 his cited studies, demonstrating an association between PCBs and negative human health impacts
10 for his conclusions, goes to the weight of his opinions, and not their admissibility. *See Sanft*,
11 2021 WL 5278766 at *2.

12 *iii. Foundation and LDW Analysis*

13 Like Dr. Carpenter, Dr. Chernaik’s opinions cited to the 2014 ROD, in addition to studies
14 conducted by the Washington DOH, Lower Duwamish Waterway Group, and the Washington
15 Department of Ecology regarding levels of PCBs found in the LDW and prior analysis of the
16 impact of PCBs on human health in the LDW. (*See DeBord Chernaik Decl.*, Ex. A at 2-3, 7-10,
17 13-17.) Dr. Chernaik’s citation to risks previously identified by the EPA, Ecology, and others
18 regarding the impact of PCBs on human health in the LDW is similarly not inadmissible merely
19 because he failed to conduct his own primary analysis for the conclusions he drew from that
20 data. *See Kennedy*, 161 F.3d at 1230-31; *Bluetooth SIG, Inc.*, 468 F. Supp. 3d at 1349 (noting
21 experts have “no obligation to conduct a survey of [their] own”). Defendants’ contention that Dr.
22 Chernaik relied on old or outdated data from these studies in citing to such risks is also a weight
23 of the evidence concern, and not an issue of admissibility. *See Sanft*, 2021 WL 5278766 at *2.

1 As to his first three opinions, Dr. Chernaik’s opinions did not act as a mere conduit for
2 the opinions of others. *Cf. Affiliated FM Ins. Co. v. LTK Consulting Serv., Inc.*, 2014 WL
3 1494023, at *7 n.2 (W.D. Wash. Apr. 16, 2014) (“The court agrees that one expert may not
4 simply ‘parrot the opinions’ of another expert . . .”). Dr. Chernaik’s first three opinions
5 appropriately built on previous LDW analysis as support for his independent conclusions about:
6 (1) the impact of the Washington DOH Fish Advisory for the LDW communities; (2) the
7 susceptibility of the LDW communities to health impacts from PCB exposure; and (3) the health
8 benefits that would flow to the LDW communities from PCB remedial action. (*See DeBord*
9 *Chernaik Decl., Ex. A at 10-16.*)

10 However, Dr. Chernaik’s fourth opinion that “the EPA’s proposed clean-up in the LDW
11 is primarily based on excessive levels of PCBs” merely recites portions of the 2014 ROD’s
12 findings and the EPA’s 2021 Explanation of Significant Differences. (*See DeBord Chernaik*
13 *Decl., Ex. A at 16-17.*) Similar to this Court’s prior consideration of Plaintiff’s expert Alison
14 Hiltner (*see* *dk. # 791 at 33*), Dr. Chernaik did not undertake any independent analysis with
15 respect to what constituents of concern were the primary risk contributors to the LDW cleanup
16 nor does it appear he is otherwise qualified to do so. Dr. Chernaik’s fourth opinion thus amounts
17 to lay speculation on a matter requiring technical expertise, and as such, will be excluded from
18 use at trial. *See Fontana*, 2014 WL 202104 at *6; *Moses v. Payne*, 555 F.3d 742, 756 (9th Cir.
19 2009) (“[E]xpert testimony is helpful to the jury if it concerns matters beyond the common
20 knowledge of the average layperson and is not misleading.”).

21 Finally, despite Defendants’ concerns, Dr. Chernaik does not offer any opinions that any
22 specific person living in Seattle or the LDW has suffered a specifically identified health problem
23 due to their exposure to PCBs in the LDW. As noted, Dr. Chernaik’s opinions instead generally

1 offering any toxicological conclusions concerning the human health effects of exposure to PCBs
2 and the alleged risk to LDW anglers from consuming LDW resident seafood; (3) Dr. Chernaik is
3 excluded from offering any opinions with respect to the driver of the EPA's proposed cleanup of
4 the LDW. Dr. Sunding's declaration (dkt. # 692) and Dr. Pleus's declaration (dkt. # 365) are
5 both STRICKEN pursuant to Fed. R. Civ. P. 37(c)(1).

6 The Clerk is directed to send copies of this Order to the parties and to the Honorable
7 Richard A. Jones.

8 Dated this 1st day of December, 2023.

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MICHELLE L. PETERSON
11 United States Magistrate Judge
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