Oregon

Kate Brown, Governor

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March 29, 2017

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RE: OR 2012 Comment Period - EPA's Proposed Additions to Oregon's 2012 Section 303(d) List and Comments on Oregon Coastal Marine Waters

Dear Ms. Fullagar:

The Oregon Department of Environmental Quality (DEQ) has reviewed the Environmental Protection Agency's (EPA) proposed additions to Oregon's 2012 Section 303(d) list of water quality limited waters needing Total Maximum Daily Loads, along with supporting information published by EPA on December 22, 2016 at https://www.epa.gov/tmdl/partial-approvalpartial-disapproval-oregon-2012-303d-list With the same published notice, EPA also requested information and comments on potential aquatic life impairment in Oregon coastal marine waters.

DEQ is providing general comments on the proposed additions and Oregon coastal marine waters in this letter, a table of specific proposed listings that DEQ finds should not be added to the 303(d) list, and corrections on other proposed listings for EPA's consideration in finalizing the additions to Oregon's 303(d) list (Enclosure 1).

1. Comments on EPA's proposed 303(d) additions

EPA proposed 332 additional 303(d) listings identified in Enclosure 4: EPA Proposed Additions. Information about the specific impairing pollutant, the criteria being applied, the sites with monitoring data evaluated for each listing, a summary of the data supporting the impairment finding, and the raw data assembled by EPA was published in other enclosures and appendices to the proposal. DEQ did a high level review of the proposed listings to verify that correct criteria were used by EPA to evaluate monitoring data and to verify that the data evaluations were consistent with Oregon water quality standards. Correct selection of the applicable criterion and time period to evaluate pollutant data, especially for dissolved oxygen, is critical to reach accurate assessment conclusions. DEQ reviewed details in EPA's raw data and intermediate data evaluation steps only to verify conclusions about specific proposed listings.

Generally, EPA's analysis followed DEQ's 2012 assessment protocols and reached conclusions consistent with Oregon water quality standards. Comments on specific proposed listings that are not justified by EPA's supporting data and evaluation or are otherwise in error are provided

in Enclosure 1 to this comment letter. DEQ found that 25 of the proposed 332 additions should not be added to the 303(d) list.

2. Comments on EPA methodology

EPA provided information in Enclosure 6: EPA Listing Methodology for Oregon 2012 303(d) List on the methodology used to assess data and information for the additional 303(d) listings. EPA generally used DEQ's 2012 Assessment Methodology except for the following parameters.

a. Calculated criteria for toxic substances

EPA followed DEQ's protocols to calculate hardness-based aquatic life criteria for toxic metals and used a default hardness of 25 mg/L where hardness data were not part of EPA's data set. We note that a calculated criterion may be different if site and sample specific hardness data are available to determine the appropriate criterion and subsequent evaluations incorporating hardness data could result in a different conclusion regarding impairment.

b. Total phosphorus

EPA is proposing to list 35 waters for total phosphorus. Oregon does not have a numeric standard for total phosphorus. EPA's methodology used a benchmark of 100 ug/L total phosphorus as published in EPA's 1987 Gold Book for water quality criteria along with corroborating evidence of impairments for nutrient related parameters pH, chlorophyll a, or dissolved oxygen to identify the most problematic waters for 303(d) listings. DEQ has not used such an approach in its assessments.

DEQ's practice has been to evaluate the impacts of nutrients such as phosphorus when related to other impairments such as dissolved oxygen and pH during the development of TMDLs. If needed, DEQ may choose to develop an approach that differs from EPA's for future assessments and 303(d) listing to supplement the established protocols that identify impairments caused by harmful algae blooms, chlorophyll a, dissolved oxygen, pH, and temperature. When TMDLs are developed to address waters with nutrient related problems, DEQ will study the water system to determine what pollutants are causing impairments and can be managed by pollutant loading allocations. It may be that anthropogenic sources of total phosphorus are not the primary cause for impairments, and TMDLs will target other sources, conditions, and parameters for control and water restoration.

3. Comments on Data Quality of Data reviewed by EPA

During DEQ's review of the proposed listings, it came to our attention that some of DEQ's Volunteer Monitoring Data provided to EPA have not yet undergone QA/QC review and are of unknown quality. DEQ's IR assessment methodology specifies that DEQ only use data that is known to be of high quality for 303(d) listing purposes. EPA should consider not using these data until the data are known to be of sufficient quality for 303(d) listing purposes.

4. Comments on EPA's proposal to re-list waters with temperature TMDLs

EPA proposed re-listing 714 waters to Oregon's Category 5 303(d) list as published in Enclosure 7. EPA previously approved delisting these waters from Oregon's 2010 303(d) list after TMDLs to address water temperature conditions were approved by EPA. EPA states the

rationale for now proposing to re-list these waters is that a pending U.S. District Court decision on litigation (Civil No.: 3:12-cv-01751-AC) will invalidate Oregon's temperature TMDLs approved between 2006 and 2010.

Please clarify if EPA's intent is to have these water remain in "Category 4a: Water quality limited, TMDL approved" as well as being re-listed in "Category 5: Water quality limited, 303(d) list, TMDL needed". This is unusual in that waters generally do not have more than one assessment status for the same parameter/segment combination. EPA's final action should state clearly what assessment category/categories these waters are in.

Please also provide guidance on how EPA and DEQ can clearly communicate such an unusual status through all the Clean Water Act programs, and how it will be tracked in EPA's Assessment and Total Maximum Daily Load (TMDL) Tracking and Implementation System (ATTAINS).

5. Comments on disapproved delistings for dissolved oxygen

EPA's protocols for reviewing dissolved oxygen data were consistent with DEQ's assessment protocols for listing:

> "Greater than 10 percent of samples exceed the appropriate criterion and a minimum of at least two exceedances of the criterion for the time period of interest."

However, EPA disapproved delisting 8 waters cited in Enclosure 3 and proposed re-listing those waters for dissolved oxygen impairments during a spawning time period. These include 4 waters in the Tualatin watershed and 4 waters in other watersheds in the Willamette Basin.

DEQ does not agree that these waters should be re-listed, for the reasons discussed below.

a. Disapproved delistings - Tualatin watershed

In the 2012 Integrated Report, DEQ delisted 4 waters based on information indicating the dissolved oxygen spawning criteria were not applicable in the segments in question. DEQ based the delisting conclusion on information provided by OR Department of Fish and Wildlife (8/14/2014) that corroborated conclusions in the 2001 Tualatin River Subbasin TMDL[1] Tualatin Subbasin TMDL (Appendix F, page F-3 and F-4, Figure 3) that salmon, steelhead, and resident trout spawning does not occur in portions or all of these streams. In these waters, the dissolved oxygen spawning criteria therefore are not the appropriate criteria to evaluate data and water impairments. In the event the 2014 ODFW letter was not available for EPA to review with the 2012 303(d) list, DEQ has now posted 2014 Letter from Oregon Department of Fish and Wildlife regarding resident trout in the Tualatin River [2] on DEQ's website and also attached it to this comment letter (Attachment 1). We request that EPA consider this information and determine that delisting the waters in the following table is warranted. Note that the ODFW information clarified that spawning does occur in portions of Johnson Creek, which is only 4 miles long, and

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[1] Tualatin Subbasin TMDL http://www.deq.state.or.us/wq/tmdls/willamette.htm#t

[2] 2014 Letter from Oregon Department of Fish and Wildlife regarding resident trout in the Tualatin River http://www.deq.state.or.us/wq/standards/docs/2014UrbanStreamTroutUse.pdf

the upstream segment of the Tualatin River. DEQ evaluated data showing the spawning criteria were attained in these segments and the data summary provided in the 2012 Integrated Report supports the Category 2: Attaining status determination.

Watershed	Stream	LLID	Record	Miles	Pollutant	Criteria	Action	Listing Status
Tualatin	Dairy Creek	1229958455017	24562	0 to 10.1	Dissolved Oxygen	Spawning	Delisted – Do not re-list	Criteria not applicable
Tualatin	Johnson Creek	1228355454932	24534	0 to 7.7	Dissolved Oxygen	Spawning	Delisted – Do not re-list	Criteria not applicable
Tualatin	Johnson Creek	1228355454932	26029	2.1 to 4	Dissolved Oxygen	Spawning	Added to database	Cat 2: Attaining some criteria/uses
Tualatin	Tualatin River	1226500453377	24507	0 to 62.6	Dissolved Oxygen	Spawning	Delisted – Do not re-list	Criteria not applicable
Tualatin	Tualatin River	1226500453377	25761	62.6 to 75.6	Dissolved Oxygen	Spawning	Added to database	Cat 2: Attaining some criteria/uses
Tualatin	Unnamed (Nyberg Creek)	1227381453844	24512	0 to 1.3	Dissolved Oxygen	Spawning	Delisted – Do not re-list	Criteria not applicable

b. Disapproved delistings – Willamette Basin

EPA disapproved delisting 4 waters in the Willamette Basin that DEQ had delisted based on data reviewed for the 2012 assessment. EPA previously commented on these delistings when proposed by DEQ in the draft 2012 303(d) list, and DEQ responded that the analysis was

correct and data supported a finding of standards attainment. From Response to Comments on Oregon's Draft 2012 Integrated Report [3] (November 2014) page 14-15

> *1. Commenter (3) stated that their review of dissolved oxygen data for the spawning time period in Rock Creek (Record 24501), North Fork Silver Creek (Record 24508), and Silver Creek (Record 24536) did not indicate listing errors in the 2010 303(d) list, or that data for the South Yamhill River (Record 20969) showed attainment. Commenter asserted that delisting actions were not supported by the data.*
>
> *Response: Oregon's dissolved oxygen standard for spawning includes a minimum criterion for dissolved oxygen (11 mg/L) and a minimum level for percent saturation (95%). DEQ uses both parts of the standard to determine if conditions support the fish spawning use. In other words, if a dissolved oxygen result is less than 11 mg/L, and the percent saturation is under 95 percent, the conditions do not meet the standard. If a result is less than 11 mg/L, but the percent saturation is 95 percent or over, the conditions meet the standard. In the cases cited by the Commenter, DEQ found more than 90% of sample results at each station met one or both parts of the standard, and all the stations were found to be attaining the standard, therefore supporting delisting.*

DEQ reviewed EPA's rationale for disapproval, protocol for listing, and data provided in Appendix E, but finds no data to counter DEQ's 2012 Integrated Report conclusions that the standards are attained and delistings are warranted for the following streams.

> Rock Creek (Record 24501) – DEQ's 2012 data review found at STATION 32074 at RM 1.7 from 04/28/2005 to 05/11/2010, 2 of 33 (6%) samples < 11.0 mg/l and < 95% saturation, and the standard was attained.
>
> EPA provided data in Appendix E for 3 sampling results that were not within the spawning time period of January 1 - May 15 and were qualified as "estimated" that nevertheless met the dissolved oxygen percent saturation. EPA also provided several temperature results which may have been confused with dissolved oxygen readings. EPA's data do not justify listing.
>
> North Fork Silver Creek (Record 24508) – DEQ's 2012 data review found at STATION 33193 at RM 2.5 from 01/09/2003 to 03/23/2005, 1 of 10 (10%) samples < 11.0 mg/l and < 95% saturation and the standard was attained.
>
> EPA did not provide any additional data in Appendix E.
>
> Silver Creek (Record 24536) - DEQ's 2012 data review found at STATION 10646 at RM 1.3 from 04/15/2005 to 05/12/2008, 3 of 32 (9%) samples < 11.0 mg/l and < 95% saturation, and at STATION 12061 at RM 5.4 from 10/23/2003 to 10/27/2005, 1 of 9

[3] Response to Comments on Oregon's Draft 2012 Intergated Report http://www.oregon.gov/deq/WQ/Documents/Assessment/2012ResponseToComments_Final_Nov2014.pdf

(11%) samples < 11.0 mg/l and < 95% saturation. These data met the protocol to find the standard was attained in this stream.

EPA provided data in Appendix E for 1 sample result at station 10646 that did not meet the criteria. However, one sample is not sufficient to list a stream, and a listing is not warranted. EPA also provided several temperature results which may have been confused with dissolved oxygen readings.

South Yamhill River (Record 20969) - DEQ's 2012 data review found at STATION 10948 at RM 16.7 from 02/16/2000 to 04/05/2011, 2 of 25 (8%) samples < 11.0 mg/l and < 95% saturation, and the standard was attained.

EPA provided data in Appendix E for Station 10948 for 7 sampling results from 2/1/2011 to 4/29/2014 within the spawning time period of January 1 - May 15. Only 1 of 7 samples in EPA's data set did not meet the criteria and this is not sufficient to list the stream. Two of these samples were evaluated in DEQ's evaluation. Although EPA did not combine the data sets, doing so shows 3 of 30 samples (10 %) of the combined set do not meet the criteria and this is still not sufficient to list the stream.

EPA's additional data do not alter DEQ's conclusions based on data reviewed for the 2012 integrated Report showing these streams are attaining the dissolved oxygen spawning criteria. Therefore, these delistings should be approved as submitted by DEQ and should not be added back into the 303(d) list.

6. Comments on EPA corrections

DEQ concurs with corrections EPA noted in Enclosure 8 to address errors in DEQ's 303(d) listing of 10 streams for biocriteria, one stream with no data for iron due to incorrect station location, and incorrect association of approved TMDLs with two segments of the Coast Fork Willamette River for dissolved oxygen in the spawning time period. Since the TMDL did not address the spawning time period for the Coast Fork Willamette River, the segment from RM 0 to RM 20.5 should be added to the 303(d) list based on data showing impaired conditions, and the other segment from RM 28.5 to RM 38 should be noted as insufficient data to determine impairment.

7. Information and Comments on Oregon coastal marine waters

With Enclosure 2 of EPA's published notice, EPA requested information and comments on potential aquatic life impairment in Oregon coastal marine waters.

Ocean acidification processes and impacts on ocean waters and marine life need further research and information. As summarized in the final report from the experts convened at Stanford University October 17-18, 2016: "Participants recognized that the recommended

chemical parameters and biological indicators are not yet sufficiently advanced (e.g., specific numerical values, threshold conditions) for use as defined management goals or as criteria...."[4]

To assess Oregon's coastal marine waters, DEQ and EPA must make determinations based on Oregon's laws and current applicable and relevant standards. Data and information supporting 303(d) listings must pertain to Oregon waters which include marine waters up to three miles out from Oregon's coast. Only these areas fall within DEQ's authority to list under the CWA 303(d) process, and are waters where Oregon's water quality standards apply. Oregon's current narrative standards for Biocriteria and numeric criteria for pH are applicable and relevant:

> **OAR 340-041-0011**
> **Biocriteria**
> Waters of the State must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities.
>
> **OAR 340-041-0021**
> **pH**
> (1) Unless otherwise specified in OAR 340-041-0101 through 340-041-0350, pH values (Hydrogen ion concentrations) may not fall outside the following ranges:
> (a) Marine waters: 7.0-8.5;

The other narrative standards cited by EPA in Enclosure 2 are less relevant as they pertain to wastewater discharges (**OAR 340-041-0007(1)**) or protecting human consumptive use of fish and aquatic life and water (**OAR 340-041-0007(10)** misidentified by EPA as (11)).

The state of Oregon is concerned about the impacts of ocean acidification to coastal waters and is an active participant in multi-state and federal discussions aimed at furthering the collective understanding of current conditions and the potential for global and local pollutant contributions. However, listing Oregon's jurisdictional ocean waters is unwarranted at this time. DEQ has in previous Integrated Report cycles affirmed our commitment to listing waters within our jurisdiction when data and information show water quality standards are not met. However, none of the data and information available in previous IR cycles or summarized in EPA's Enclosure 2 has been outside the pH limits for marine waters, or has provided a definite causative link to detrimental changes in resident biological communities.

DEQ does not support EPA listing Oregon waters for parameters that do not have established criteria set to protect communities of marine life (aragonite saturation) or based on observations made in offshore waters outside Oregon's territorial limits or on hypothetical and untested projections into future time or at unmonitored locations.

If in response to the request for information, EPA receives additional verifiable and good quality data that identifies locations in Oregon marine water with pH outside the allowable range, DEQ

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[4] Meeting Summary "Ocean Acidification: Setting Water Quality Goals" October 12-18, 2016, Stanford University, Executive summary page 3

will incorporate new 303(d) listings identified by EPA in their final action on Oregon's 2012 303(d) list into the state's planning process for TMDL priorities.

8. Contact

If EPA has any questions or needs additional information about the comments provided in this letter or the enclosure, please feel free to contact Karla Urbanowicz, Water Quality Assessment Program Lead, at 503-229-6099 or urbanowicz.karla@deq.state.or.us .

Thank you for the opportunity to provide these comments for your consideration. DEQ is looking forward to receiving word on EPA's final action for Oregon's 2012 303(d) list.

Sincerely,

Jennifer Wigal
Manager
Water Quality Standards and Assessment Section
Oregon Department of Environmental Quality

Attachment 1 - 2014 Letter from Oregon Department of Fish and Wildlife regarding resident trout in the Tualatin River
Enclosure 1 - OR DEQ Comments on EPA's Proposed 2012 303(d) Additions list (EXCEL)

Cc: Wendy Wiles, Division Administrator, Environmental Solutions, DEQ
Karla Urbanowicz, Water Quality Assessment Program Lead, WQ SAS, DEQ
Eugene P. Foster, Manager, Watershed Management Section, DEQ

Oregon
John A. Kitzhaber, M.D., Governor

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August 14, 2014

Aron Barok
811 SW 6th Ave.
Portland OR 97204

Dear Mr. Aron Barok:

Per your request, I have reviewed the list of streams and stream sections in the Tualatin watershed that you provided to determine native trout spawning and rearing use. My response to each is as follows:

Beaverton Creek – spawning and rearing habitat exists from confluence with Rock Creek upstream to at least Highway 217, and includes many small tributaries like Golf Creek and Walker Creek etc.
Bronson Creek – Spawning and rearing habitat exists from confluence with Beaverton Creek upstream to Saltzman Road.
Cedar Mill Creek - Spawning and rearing habitat exists from confluence with Beaverton Creek upstream to a series of falls at the Cornell Road crossing.
Chicken Creek (RM 0-2.7) – Spawning and rearing habitat for native trout exists in the reach.
Dairy Creek (RM 0-10.1) – This reach only provides migratory and juvenile salmonid rearing habitat, but due to gradient and soft sediment substrate trout spawning does not exist
Dawson Creek (RM 0-4.1) – provides primarily rearing habitat but some spawning is possible.
Johnson Creek (RM 2.1-4) - Spawning and rearing habitat exists.
McKay Creek (RM 0-15.7) – Intermittent spawning and rearing habitat exists.
Tualatin River (RM 0-62.6) – This reach is predominantly a salmon and trout migratory corridor, and due to gradient and substrate does not provide spawning opportunity for resident trout and/or salmon/steelhead rearing.
Nyberg Creek (RM 0-1.3) – This stream only provides rearing and refugia habitat to trout and other salmonids produced in other stream systems in the Tualatin.

I hope this satisfies DEQ's information needs for resident trout spawning and rearing habitat use in these subbasins of the Tualatin River. Please feel free to contact me anytime if you need additional information or clarification on the information provided. Thanks.

Sincerely,

Tom Murtagh
ODFW District Fish Biologist
Clackamas, Oregon

Enclosure1

Oregon Department of Environmental Quality
Comments on EPA's Proposed 2012 303(d) Additions

	A	B	C	D	E	F	G	H	I	J	K	L
1	EPA Row #	Stream Lake	LLID	HUC Name	Miles	Season	Parameter	Data Source	HUC 8 Digit Code	Do Not List	OK To List	Comments - DEQ
2	148	Lobster Creek	1238265443368	ALSEA	0 - 17.7	Spawning	Dissolved Oxygen	DEQ	17100205	Do not list	No	EPA evaluation does not account for % Sat (two-part criterion). Only 1 of 12 samples (8%) failed both parts of DO criterion. Listing not warranted.
3	195	North Beaver Creek	1240123445100	ALSEA	0-9.5	Summer	E. Coli	DEQ	17100205	Do not list	No	Already listed for E. Coli. See Record 24714 Segment 2447 North Fork Beaver Creek RM 0 to 9.5 E. coli summer. EPA addition to 2010 303(d) list based on LASAR Station 33997.
4	72	Drift Creek	1240055444155	ALSEA	0 - 5.3	Year round	Temperature	STORET	17100205	Do not list	No	This segment of Drift Creek is designated for salmon and trout rearing and migration. The applicable temperature criterion is 18.0 degrees C applied to the 7-day-average maximum. Only continuous data are acceptable. EPA applied the incorrect criterion to what appears to be grab temperature data.
5	80	Eel Creek	1241934435768	COOS	0-2.4	Year round	Biocriteria	DEQ	17100304	Do not list	No	Already listed for Biological Criteria. See Record ID 4983 Segment 2569 Eel Creek 1241934435768 RM 0 to 2.5.
6	280	Tenmile Lake	1241746435728	COOS	0-5	Summer	Chlorophyll a	DEQ	17100304	Do not list	No	Already Category 4a. See OR 2012 IR Record 20340 Tenmile Lake 1241746435728/1241367435617. Documented in Tenmile Lakes Watershed TMDL to exceed chlorophyll a criteria. TMDL addresses chlorophyll a associated with algae blooms. Incorrectly added by EPA to 2010 303(d) list. Delisted in OR 2012 IR; de-listing approved by EPA Dec 2017.
7	117	Johnson Creek / Tenmile Lake	1241294435535 / 1241367435617	COOS	0-9.3	Summer	Chlorophyll a	DEQ	17100304	Do not list	No	Station 14018 sample is from an arm of Tenmile Lake, represents lake not creek. Covered by TMDL. See OR 2012 IR Record 20340 Tenmile Lake 1241367435617.
8	59	Crooked River	1212676445778	LOWER CROOKED	0-70	Year round	Copper	DEQ	17070305	Do not list	No	EPA did not provide hardness data, but when using a default hardness of 25 mg/L, the chronic criterion would be 4.47 ug/L. No sample results provided in EPA's raw copper data sheet exceed this criterion, and a listing is not warranted.
9	110	John Day River	1206499457318	LOWER JOHN DAY	0 - 278.2	Year round	Total Phosphorus	DEQ	17070204	Do not list	No	It does not appear that any of the sample results for total phosphorus from the two stations on the John Day River (DEQ Stations 11386 and 11479) are greater than the benchmark value of 100 ug/L used by EPA to identify impairments.
10	315	Willamette River	1227618456580	LOWER WILLAMETTE	0-24.8	Year round	Fish tissue, DDT	STORET	17090012	Do not list	No	This section of the Willamette River LLID 1227618456580 RM 0 to 24.8 is already listed for 4,4 DDT based on fish consumption advisories (see Record ID 7804) and on water column concentrations (see Record 7804). Oregon does not have water quality standards for fish tissue (except for mercury) or for sediment, but does list based on evidence of impairments to beneficial uses such as fish or other aquatic life consumption advisories.
11	43	Chenoweth Creek	1211972456347	MIDDLE COLUMBIA-HOOD	0-7.87	Spawning	Dissolved Oxygen	DEQ Volunteer	17070105	Do not list	No	Designated salmon spawning time period for this stream is October 15 - May 15. Only 1/15 samples within the spawning dates are below 11 mg/L and less than 95% saturation. (EPA error in counting 2 samples from October 14 as within spawning time period and double counting a duplicate sample on 10/17/2013 as 2 exceedances.)
12	160	Malheur River	1169731440585	MIDDLE SNAKE-PAYETTE, LOWER MALHEUR	0-67	Year round	Arsenic	DEQ		Do not list	No	Already listed for arsenic. See Record 24341 Segment ID 11772 Malheur River LLID 1169731440585 RM 0 to 186.1
13	234	Powder River	1170508447455	POWDER	0-156.3	Year round	Arsenic	DEQ	17050203	Do not list	No	Already listed for arsenic. See Record 13610 Segment ID 11779 Powder River LLID 1170508447455 0 to 146.3 (mouth to upstream extent)
14	25	Big Elk Creek	1238753446217	SILETZ-YAQUINA	18.9-29.5	Summer	E. Coli	DEQ Volunteer	17100204	Do not list	No	Already listed for E. Coli. See Record 24681 Segment 31629 Big Elk Creek RM 18.9 to 29.5 E. coli summer. EPA addition to 2010 303(d) list based on LASAR station 34451.
15	11	Bear Creek	1239039450039	SILETZ-YAQUINA	0-5.8	FWS	pH	DEQ Volunteer	17100204	Do not list	No	Data used by EPA (Appendix H) for site "Bear Creek at mouth" show 2 out of 40 or 5% exceedance which does not warrant 303(d) listing.
16	1	Ackerley Creek	1240830440100	SIUSLAW	0 - .5	Spawning	Dissolved Oxygen	STORET	17100206	Do not list	No	Does not account for % Sat (two-part DO criterion). No temperature data provided with EPA data summary. DEQ cannot calculate percent saturation for these results.
17	2	Ackerley Creek	1240830440100	SIUSLAW	0 - .5	Year round	Dissolved Oxygen	STORET	17100206	Do not list	No	Does not account for % Sat (two-part DO criterion). No temperature data provided with EPA data summary. DEQ cannot calculate percent saturation for these results.

Oregon Department of Environmental Quality
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	A	B	C	D	E	F	G	H	I	J	K	L
1	EPA Row #	Stream Lake	LLID	HUC Name	Miles	Season	Parameter	Data Source	HUC 8 Digit Code	Do Not List	OK To List	Comments - DEQ
18	180	Munsel Creek	1240972439677	SIUSLAW	0 - 4.2	Spawning	Dissolved Oxygen	STORET	17100206	Do not list	No	Does not account for % Sat (two-part DO criterion). No temperature data provided with EPA data summary. DEQ cannot calculate percent saturation for these results.
19	269	South Slough Siuslaw River	1240795439718	SIUSLAW	0-2.23	Estuary	Dissolved Oxygen	DEQ Volunteer	17100206	Do not list	No	Questionable data
20	20	Beaver Creek	1228837446461	SOUTH SANTIAM	0 - 16.1	Spawning	Dissolved Oxygen	DEQ	17090006	Do not list	No	For Station 23770, 5 of 10 samples do not meet 11.0 mg/L during resident trout spawning time period Jan 1 - May 1 , but only 1 of those does not meet 95% sat criterion. Do not list.
21	65	Dairy Creek	1229958455017	TUALATIN	0-10.1	Year round	Arsenic	USGS	17090010	Do not list	No	It is unclear from EPA's data summaries what data were available at USGS Station 14206200, and if the two total recoverable data results flagged as "estimated" were converted to the inorganic fraction using the conversion factor of 0.76 (per DEQ and EPA methodology). If not, applying the conversion factor results in no exceedance of 2.1 ug/L. DEQ evaluated a larger data set for the 2012 assessment for [USGS] STATION 14206200 at RM 2 for 56 samples from 05/09/2006 to 12/01/2010, and found only 1 of 56 valid samples exceed the 2.1 ug/L criteria. Additionally, data from [USGS] STATION 14205850 at RM 5.7 for 56 samples from 05/09/2006 to 12/01/2010 had 0 of 56 valid samples exceed the 2.1 ug/L criteria. These data results supported the conclusion that the arsenic in Dairy Creek was Cat 2: Attaining.
22	22	Beaverton Creek	1229133455196	TUALATIN	0-9.8	Year round	Zinc	USGS	17090010	Do not list	No	It appears EPA incorrectly evaluated the data field for sample time (sample_tm) from the USGS station 453004122510301 raw data rather than the zinc concentration result (parameter measurement p01090). DEQ calculated zinc criteria for EPA's data set using a default hardness of 25 mg/L and found that only 1 of 27 sample results had a concentration greater than 36 ug/L, the calculated zinc criterion. These data do not support listing for zinc. Additionally, DEQ evaluated data for the 2012 assessment for [USGS] STATION 453004122510301 at RM 4.9 for 42 samples from 06/06/2007 to 12/06/2010, and found 0 of 42 valid samples exceeded the hardness dependent criteria. Data from this station and [USGS] STATION 453115122542701 at RM 0.5 and [ODEQ] STATION 10480 at RM 1.2 supported the conclusion that the zinc in this section of Beaverton Creek was Cat 2: Attaining.
23	168	McKay Creek	1188411456684	UMATILLA	0 - 15	Year round	Total Phosphorus	DEQ	17070103	Do not list		It does not appear that any of the sample results for total phosphorus from McKay Creek Station 12005 at RM 1.51 are greater than the benchmark value of 100 ug/L used by EPA to identify impairments.
24	171	Metolius River	1212861445954	UPPER DESCHUTES	8.5 - 39.6	Spawning	Dissolved Oxygen	STORET	17070301	Do not list		The spawning criteria applies on the Metolius River for a time period from August 15 - June 15 for Bull Trout and resident trout spawning. Data is available from STORET and LASAR for same station. DEQ LASAR data for Station 10690 shows 1 of 19 samples exceeding the spawning criteria. STORET data (Station 99, same location as DEQ 10690) shows 6 of 58 spawning date samples exceeding spawning criteria. There was % saturation data available for both data sets. The combined data show 7 of 77, or 9% of results exceeding the spawning criteria. Data does not warrant a listing using the assessment protocols.
25	241	Rhea Creek	1197735454935	WILLOW (MIDDLE COLUMBIA)	0-4.74	FWS	pH	DEQ		Do not list	No.	This stream is within the Umatilla Basin with basin specific pH criteria range from 6.5-9.0. None of the pH raw data does not exceed either 8.5 or 9.0.
26	203	North Tenmile Lake	1241456435885	COOS	0-4.5	Summer	Chlorophyll a	DEQ	17100304	Don't list	No	See OR 2012 IR Record 24775 North Tenmile Lake 1241613435770/1241456435885. Documented in Tenmile Lakes Watershed TMDL to exceed chlorophyll a criteria. TMDL addresses chlorophyll a associated with algae blooms. Incorrectly added by EPA to 2010 303(d) list. Delisted in OR 2012 IR; de-listing approved by EPA Dec 2017.

Enclosure1

Oregon Department of Environmental Quality
Comments on EPA's Proposed 2012 303(d) Additions

	A	B	C	D	E	F	G	H	I	J	K	L
1	EPA Row #	Stream Lake	LLID	HUC Name	Miles	Season	Parameter	Data Source	HUC 8 Digit Code	Do Not List	OK To List	Comments - DEQ
27	75	Dry Creek	1210478443363	LOWER CROOKED	~~0—91.6~~ RM 0 to 6.4	Year round	Dissolved Oxygen	STORET	17070305		Yes	The water channel represented as LLID 1210478443363 is more accurately called Dry River. EPA is proposing to add listings for dissolved oxygen, pH and total phosphorus in 2012 , and added a listing for e. coli in 2010. Although the stream is designated for salmon and trout rearing and migration from RM 0 - 91.6, the channel typically contains water only when under irrigation. With monitoring data only one monitoring station at the very north end of the channel, a realistic segment length is probably RM 0 to 6.4 rather than a 91 mile length of dry channel.
28	156	Lytle Creek	1209542443434	LOWER CROOKED	~~0-4.2~~ RM 0 to 9.2	FWS	E. Coli	DEQ Volunteer	17070305		Yes	The headwaters of Lytle Creek are at RM 9.2 and the listed segment should be consistently RM 0 to 9.2
29	157	Lytle Creek	1209542443434	LOWER CROOKED	~~0-4.2~~ RM 0 to 9.2	Summer	E. Coli	DEQ Volunteer	17070305		Yes	The headwaters of Lytle Creek are at RM 9.2 and the listed segment should be consistently RM 0 to 9.2
30	77	Dry River	1210478443363	LOWER CROOKED	0-6.4	FWS	pH	DEQ Volunteer	17070305		Yes	The water channel represented as LLID 1210478443363 is more accurately called Dry River. EPA is proposing to add listings for dissolved oxygen, pH and total phosphorus in 2012 , and added a listing for e. coli in 2010. Although the stream is designated for salmon and trout rearing and migration from RM 0 - 91.6, the channel typically contains water only when under irrigation. With monitoring data only one monitoring station at the very north end of the channel, a realistic segment length is probably RM 0 to 6.4 rather than a 91 mile length of dry channel.
31	78	Dry River	1210478443363	LOWER CROOKED	0-6.4	Summer	pH	DEQ Volunteer	17070305		Yes	The water channel represented as LLID 1210478443363 is more accurately called Dry River. EPA is proposing to add listings for dissolved oxygen, pH and total phosphorus in 2012 , and added a listing for e. coli in 2010. Although the stream is designated for salmon and trout rearing and migration from RM 0 - 91.6, the channel typically contains water only when under irrigation. With monitoring data only one monitoring station at the very north end of the channel, a realistic segment length is probably RM 0 to 6.4 rather than a 91 mile length of dry channel.
32	158	Lytle Creek	1209542443434	LOWER CROOKED	0-9.8	FWS	pH	DEQ Volunteer	17070305		Yes	The headwaters of Lytle Creek are at RM 9.2 and the listed segment should be consistently RM 0 to 9.2
33	79	Dry River	1210478443363	LOWER CROOKED	0 - 6.4	Year round	Total Phosphorus	Storet	17070305		Yes	The water channel represented as LLID 1210478443363 is more accurately called Dry River. EPA is proposing to add listings for dissolved oxygen, pH and total phosphorus in 2012 , and added a listing for e. coli in 2010. Although the stream is designated for salmon and trout rearing and migration from RM 0 - 91.6, the channel typically contains water only when under irrigation. With monitoring data only one monitoring station at the very north end of the channel, a realistic segment length is probably RM 0 to 6.4 rather than a 91 mile length of dry channel.
34	68	Deschutes River	1209151456389	LOWER DESCHUTES	0-100.4	Year round	Copper	DEQ	17070306		Yes	Since data are from one site at the mouth of the Deschutes River, consider limiting segment to RM 0 to 46.4
35	70	Deschutes River	1209151456389	LOWER DESCHUTES	83.6 - 100.4	Spawning (October 15 - June 15)	Temperature	Army Corps of Engineers	17070306		Yes	Note: This appears to be based on USGS data.
36	221	Owyhee River	1170244438120	LOWER OWYHEE	0-200.4	Year round	Lead	DEQ	17050110		Yes	OK to list. However, consider limiting lead to Owyhee River segment below Owyhee Dam, RM 0 to 18, based on one site near mouth, no lead information in or upstream of Lake Owyhee, and consistency with listing for copper RM 0 to 18.
37	162	Malheur River	1169731440585	MIDDLE SNAKE-PAYETTE, LOWER MALHEUR	0-67	Year round	Iron	DEQ, STORET			Yes	Overlaps existing listing Malheur River LLID 1169731440585 RM 49 to 126.8 already listed for iron. See Record 24342 Segment ID 31484.
38	192	~~Newhalem River~~	1238951456889	NEHALEM	33.8 - 36.2	Spawning	Dissolved Oxygen	DEQ	17100202		Yes	Correct spelling is Nehalem River

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1	EPA Row #	Stream Lake	LLID	HUC Name	Miles	Season	Parameter	Data Source	HUC 8 Digit Code	Do Not List	OK To List	Comments - DEQ
39	73	Drift Creek	1240200449111	SILETZ-YAQUINA	~~0-20.9~~	Spawning	Dissolved Oxygen	DEQ Volunteer	17100204		Yes with revised segment	Drift Creek is estuarine water in the lower end. DEQ does not apply DO spawning criteria for estuarine water. Drift Creek is designated for salmon and steelhead spawning from RM 1.32 to 18.7, which would be appropriate for the segment listed for DO spawning. Given the dynamic mixing of salt and freshwater, DEQ uses the conductivity reading taken at the time of the DO measurement to determine whether the estuarine or freshwater DO criterion should be applied to any individual measurement in the lower estuarine segment of Drift Creek.
40	62	Crooked River	1212676445778	UPPER CROOKED	70 - 120	Year round	Total Phosphorus	Storet, DEQ	17070304		Yes	Consider changing segment to RM 109.2-124.2 to bracket the river section with site data showing impairments.
41	97	Honey Creek	1198606424030	WARNER LAKES	0-25.6	FWS	E. Coli	DEQ	17120007		Yes	DEQ's lab has re-assigned the lat/long for DEQ Station 10741 Honey Creek at Plush to be lat 42.41902, long -119.90515. The station plots correctly on Honey Creek LLID 1198606424030.
42	294	Trask River	1238814454680	WILSON-TRASK-NESTUCCA	~~0 - 4.1~~ RM 4.5 to 18.6	Spawning	Dissolved Oxygen	DEQ	17100203		Yes with revised segment	If there is a designated salmon spawning use, the DO spawning criteria apply for the segment and time period. Spawning is designated on the Trask River from RM 2.7 to 4.5 (Oct 15 - May 15), and for RM 4.5 to 18.6 (Sept 1 - June 15). EPA's data for Station 13433 at RM 4.6 in the designated spawning period show 6 out of 22 (27%) exceedance of spawning 11.0 mg/L and 95% sat criteria. So the listing should be for segment 4.5 to 18.6 for spawning based on Station 13433. The lower portion (RM 0 - 2.7) where Station 13331 is located is not designated for salmon spawning and is likely estuarine water where DEQ does not apply spawning criteria for resident trout spawning.
43	96	Heddin Creek	1236155436098	~~WILSON-TRASK-NESTUCCA~~ UMPQUA	0-3.7	Year round	Biocriteria	DEQ	~~17100203~~ 17100303		Yes	Correct this listing to be in HUC 8 Umpqua 17100303