Technical Support Document

For EPA's Action on the State of Oregon's Revised Water Quality Standards for the West Division Main Canal

Submitted to EPA on June 25, 2012

November 15, 2013

Table of Contents

1. BACKGROUND

1.1 Clean Water Act Requirements for Water Quality Standards

Under Section 303(c) of the Clean Water Act (CWA) and federal implementing regulations at 40 CFR § 131.4, states[1] have the primary responsibility for reviewing, establishing, and revising water quality standards (WQS), which consist of designated uses, water quality criteria to protect those designated uses, and an antidegradation policy. This statutory framework allows states to work with the public, including local communities, to adopt appropriate designated uses (as required in 40 CFR § 13l.10 (a)) and to adopt criteria to protect those designated uses (as required in 40 CFR § 131.11 (a)).

Section 101(a)(2) of the CWA states that "…it is the national interim goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983." CWA Section 303(c)(2)(A) requires water quality standards to "protect the public health and welfare, enhance the quality of water, and serve the purposes of this Chapter." EPA's regulations at 40 CFR § 131 interpret and implement these provisions through a requirement that water quality standards protect CWA Section 101(a)(2) uses unless those uses have been shown to be unattainable, effectively creating a rebuttable presumption of attainability.[2] Unless the state or tribe rebuts this presumption, the uses specified in Section 101(a)(2) of the CWA are presumed attainable and are to be included as designated uses for a water.

Where a state believes that a use specified in CWA Section 101(a)(2) is not attainable and wishes to remove or subcategorize the use, a state must show that the use change will not result in removing an existing use, as defined at 40 CFR § 131.3(e), and complete a use attainability analysis (UAA) consistent with 40 CFR § 131.10(g). EPA's regulatory definition of a UAA is found in 40 CFR § 131.3(g): "Use attainability analysis is a structured, scientific assessment of the factors affecting attainment of a designated use, which may include chemical, physical, biological, and economic factors as described in 40 CFR § 131.10(g)." A UAA is used to evaluate whether a 101(a)(2) use is feasible to attain and can also be used to determine the highest attainable use for a waterbody. The federal regulations at 40 CFR § 131.10(g) require that one of six feasibility conditions be met in order to remove a 101(a)(2) designated use that is not an existing use. These are referred to here as *131.10(g) factors*. If the UAA supports the belief that it is not feasible to attain the use, then the state may remove or subcategorize the use as appropriate.

[1]EPA is using the word "state" in this section since EPA is acting on a state submittal in this decision document. However, where "state" is used, it applies to both states or tribes consistent with the Clean Water Act and associated regulations.

[2] 40 C.F.R. § 131.10(j): "A State must conduct a use attainability analysis as described in 131.3(g) whenever:.." 40 C.F.R. § 131.10(g): "States may remove a designated use which is not an existing use, as defined in § 131.3, or establish sub-categories of a use if the State can demonstrate that attaining the designated use is not feasible because…"

The federal water quality standards regulation at 40 CFR § 131.11(a) requires that states adopt criteria that are based on a sound scientific rationale and that contain sufficient parameters or constituents to protect the designated use.[3] CWA Section 303(c)(2)(B)[4] specifically requires states to adopt water quality criteria for toxic pollutants listed pursuant to Section 307(a)(1) for which EPA has published criteria under 304(a) where the discharge or presence of these toxics could reasonably be expected to interfere with the designated uses adopted by the state. In adopting criteria, states must establish numeric values based on one of the following: (1) EPA's 304(a) guidance; (2) 304(a) guidance modified to reflect site-specific conditions; or, (3) other scientifically defensible methods (40 CFR § 131.11 (b)(1))[5]. In addition, states are to establish narrative criteria where numeric criteria cannot be determined or to supplement numeric criteria. (40 CFR § 131.11 (b)(2)).

From time to time, states are required to review applicable WQS, and as appropriate, modify and adopt revised standards (40 CFR § 131.20). The state must follow its own legal procedures for adopting such standards (40 CFR § 13l.5) and submit certification by the state's attorney general or other appropriate legal authority within the state that the WQS were duly adopted pursuant to state law (40 CFR § 131.6(e)). Section 303(c) of the CWA also requires states to submit new or revised WQS to EPA for review and approval or disapproval.

CWA Section 303(c) requires EPA to review state water quality standards submissions to ensure new or revised designated uses are consistent with the CWA and that new or revised criteria protect the designated uses. New or revised water quality standards adopted by a state are not applicable for Clean Water Act purposes unless and until they are approved by EPA. Furthermore, the federal water quality standards regulations at 40 CFR § l31.21 state, in part, that when EPA disapproves a state's water quality standards, EPA shall specify changes which are needed to ensure compliance with the requirements of CWA and federal water quality standards regulations.

[3] 40 CFR § 131.11(a): "Inclusion of pollutants: (1) States must adopt those water quality criteria that protect the designated use. Such criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use. For waters with multiple use designations, the criteria shall support the most sensitive use."

[4] CWA Section 303(c)(2)(B): "Whenever a State reviews water quality standards pursuant to paragraph (1) of this subsection, or revises or adopts new standards pursuant to this paragraph, such State shall adopt criteria for all toxic pollutants listed pursuant to section 307(a)(1) of this Act for which criteria have been published under section 304(a), the discharge or presence of which in the affected waters could reasonably be expected to interfere with those designated uses adopted by the State, as necessary to support such designated uses. Such criteria shall be specific numerical criteria for such toxic water quality standards pursuant to paragraph (1)…"

[5] 40 CFR § 131.11 (b)(1): Form of criteria: In establishing criteria, States should: (1) Establish numerical values based on: (i) 304(a) Guidance; or (ii) 304(a) Guidance modified to reflect site-specific conditions; or (iii) Other scientifically defensible methods;"

1.2 Oregon's June 25, 2012, WQS Submission and Use Attainability Analysis[6]

The Oregon Environmental Quality Commission (EQC) adopted revised use designations and water quality criteria for the West Division Main Canal (WDMC), Umatilla Sub-basin, on April 26, 2012 and such revisions became effective under State law upon filing with the Oregon Secretary of State on May 21, 2012. On June 14, 2012 the Oregon Attorney General certified that the revisions were duly adopted pursuant to State law, and on June 25, 2012 the Oregon Department of Environmental Quality (ODEQ) submitted the revisions[7] to the U.S. Environmental Protection Agency (EPA or the "Agency") for review and approval or disapproval in accordance with Section 303(c) of the Clean Water Act. The revised water quality standards are located in Oregon Administrative Rules (OARs) 0310 and 0315, contained in Chapter 340, Division 41 and are described in detail in Section 2 of this document.

ODEQ's submission included a UAA that was completed in support of the adopted revisions (entitled the *Water Quality Standards Revision, Water Quality Standards, West Division Main Canal near Hermiston, Oregon*[8]*, June 8, 2012*). ODEQ primarily relied on the following 40 CFR § 131.10(g) factor for its use revisions:[9]

"(4) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modifications in a way that would result in the attainment of the use;"

The WDMC was built in 1916 for the purpose of supplying area farms with water for irrigation, is owned by the U.S. Bureau of Reclamation (USBR), and is operated under contract by the West Extension Irrigation District. The WDMC is located near the cities of Hermiston and Boardman near Oregon's northern border (Figure 1). The head of the canal diverts water from the Umatilla River at Three-Mile Falls Dam during the irrigation season (Figure 2). From there, the constructed, concrete-lined part of the canal extends predominantly westward, to approximately four miles southwest of Boardman, Oregon (Figure 3). The canal then exits the main concrete structure and flows northward via two overflow channels that reconnect at a point roughly one mile southwest of the I-84 Boardman Rest Area. This single overflow channel then continues to the Rest Area and then north to join the Columbia River (Figure 4).

The UAA indicates that the constructed channel was built in upland, while the overflow channels mostly follow natural drainage. While most of the overflow channels segment is un-lined with

[6] Oregon's Use Attainability Analysis Submitted to EPA on June 25. 2012: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality.

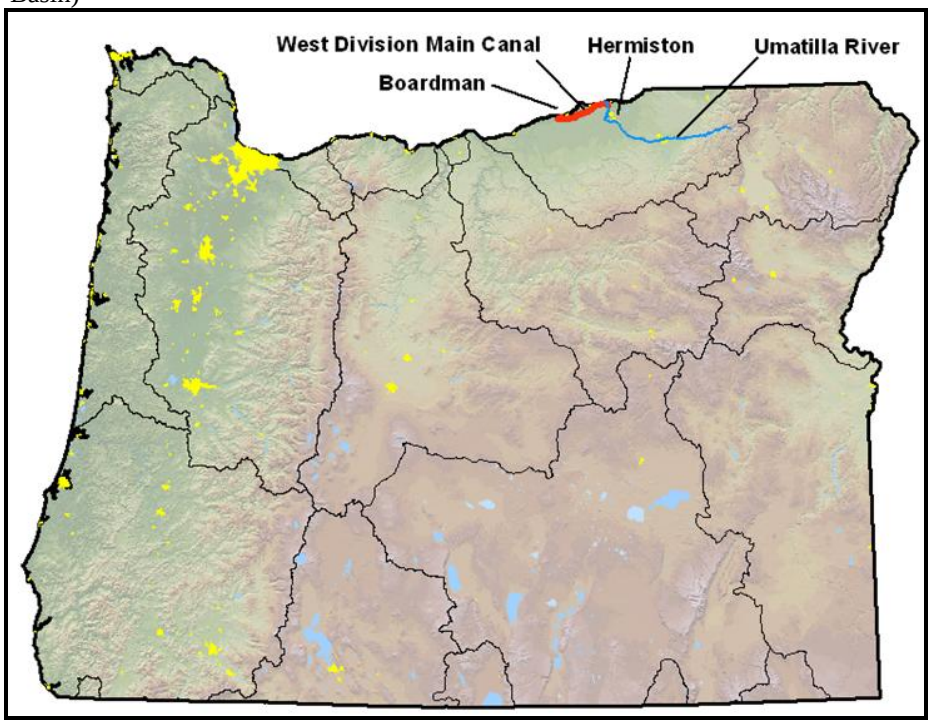
[7] ODEQ 2012. Letter dated June 25, 2012, from Greg Aldrich, Water Quality Division Administrator, Oregon Department of Environmental Quality, Portland, OR, to Michael Bussell, Office of Water, Region 10, U.S. Environmental Protection Agency, Seattle, Washington.

[8] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality.

[9] Although ODEQ mentions 40 CFR § 131.10(g) factor 5 in the UAA, ODEQ stated that it relied primarily on factor 4 for this analysis and therefore, EPA analyzed the information as it applies to factor 4. Only one factor of the six factors needs to be met by the State to be consistent with 131.10(g).

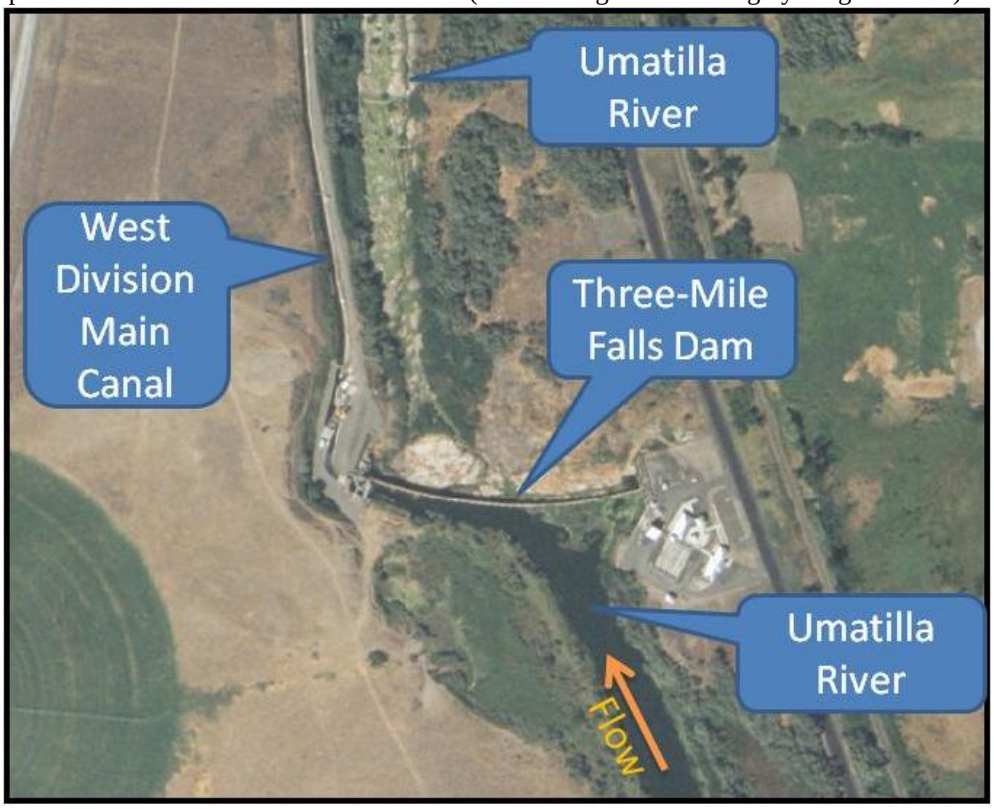
earthen substrate, the uppermost west-trending reach was partly lined with concrete after the original canal construction. The UAA also indicates that there have historically been barriers to fish passage into all but the downstream most portion of the overflow channels. The West Extension Irrigation District participates in the Columbia River exchange of the Umatilla Basin Project, which provides the WDMC with water from the Columbia River at certain times in effort to maintain flow in the Umatilla River for salmon restoration.

Figure 1. Location of West Division Main Canal (the black lines within the Oregon border are basin boundaries – West Division Main Canal (red line) is in the Umatilla/Mid-Columbia/Lake Wallula Basin)[10]



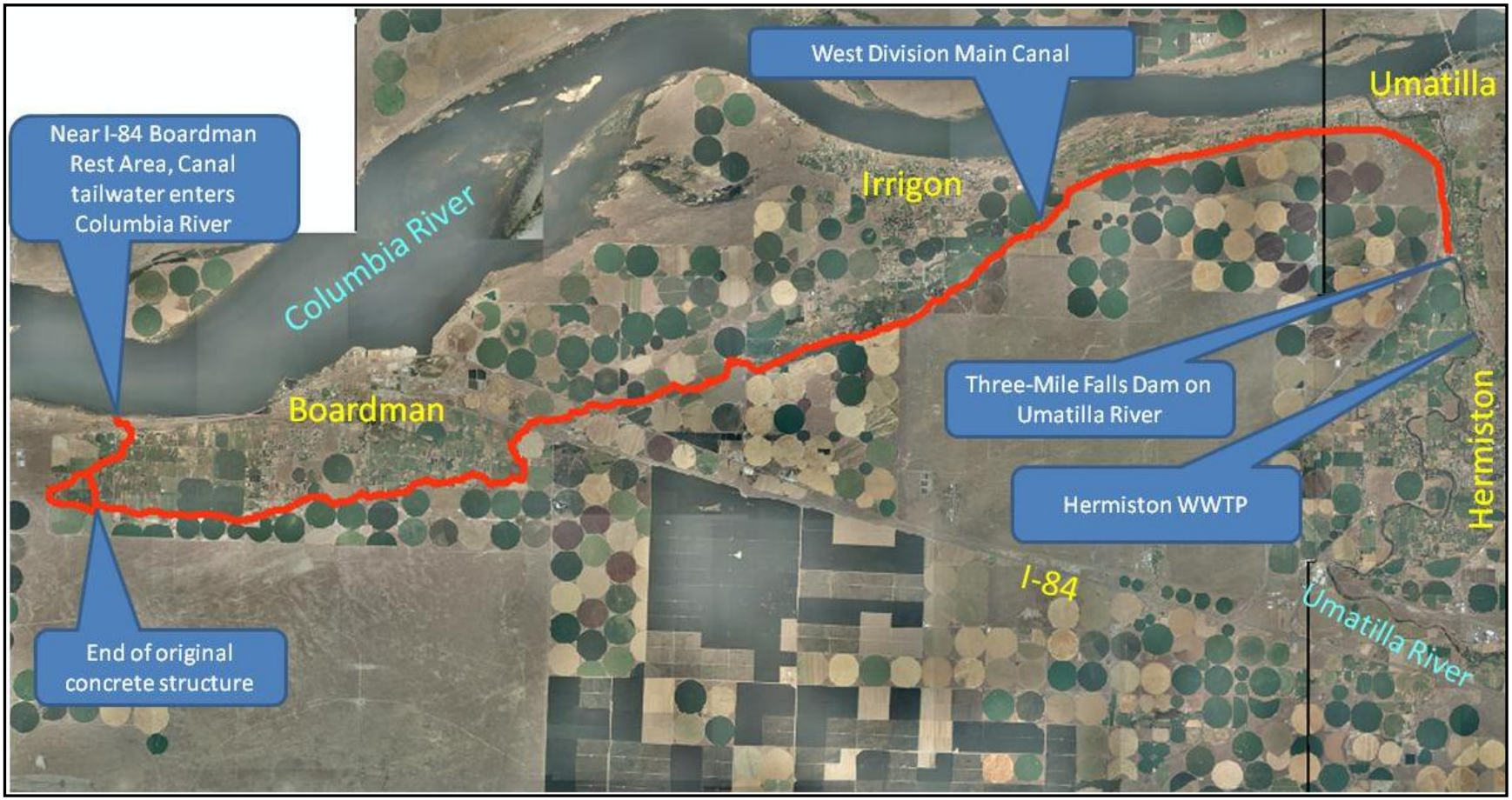
[10] Oregon's Use Attainability Analysis Submitted to EPA on June 25. 2012: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality.

Figure 2. Aerial photograph of Three-Mile Falls Dam and West Division Main Canal point of diversion from the Umatilla River (National Agriculture Imagery Program 2005)[11]



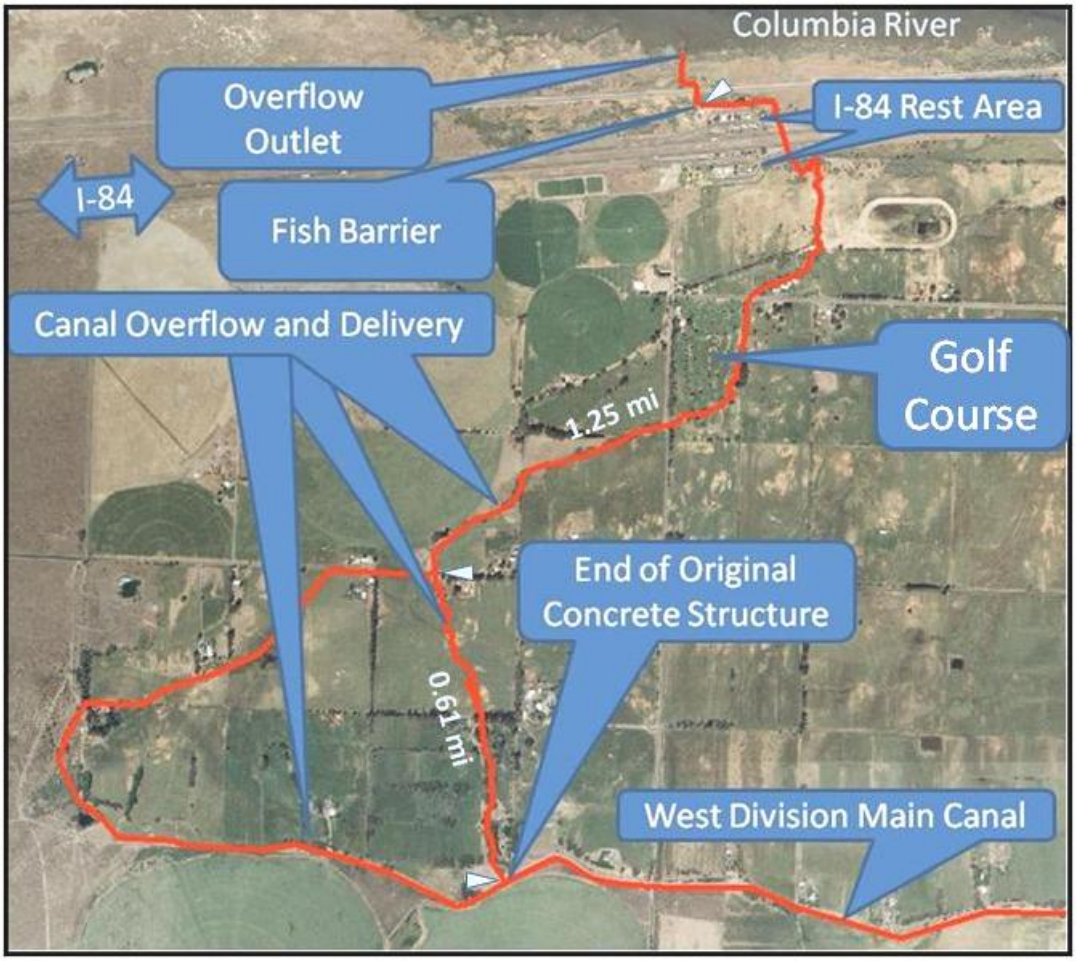
[11] Oregon's Use Attainability Analysis Submitted to EPA on June 25. 2012: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality.

Figure 3. Aerial photograph of West Division Main Canal area, canal shown in red (National Agriculture Imagery Program 2005)[12]



[12] Oregon's Use Attainability Analysis Submitted to EPA on June 25. 2012: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality.

Figure 4. (National Agriculture Imagery Program 2005)[13]



2. OREGON'S NEW AND REVISED WATER QUALITY STANDARDS

2.1 Oregon's Designated Use Revisions

Table 310A below represents the designated uses for the Umatilla Subbasin, which ODEQ interprets to include the WDMC. The red colored text represents the revisions adopted by ODEQ on April 26, 2012.

[13] Oregon's Use Attainability Analysis Submitted to EPA on June 25. 2012: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality.

Table 310A

Designated Beneficial Uses

Umatilla Basin

(340-41-0310)

Beneficial Uses	Umatilla Subbasin	Willow Creek Subbasin	West Division Main Canal – constructed channel [3]	West Division Main Canal – overflow channels [3]
Public Domestic Water Supply[1]	X	X		
Private Domestic Water Supply[1]	X	X		
Industrial Water Supply	X	X	X	X
Irrigation	X	X	X	X
Livestock Watering	X	X	X	X
Fish & Aquatic Life[2]	X	X		
Modified Aquatic Habitat				X
Wildlife & Hunting	X	X	X	X
Fishing	X	X		
Boating	X	X (at mouth)		
Water Contact Recreation	X	X	X	X
Aesthetic Quality	X	X	X	X
Hydro Power	X	X	X	X
Commercial Navigation & Transportation				

[1] With adequate pretreatment (filtration & disinfection) and natural quality to meet drinking water standards.

[2] See also Figures 310A and 310B for fish use designations for this basin. Note: The fish & aquatic life use designations for the West Division Main Canal in this table supersede Figure 310A, which incorrectly identifies Redband trout use in the canal.

[3] The West Division Main Canal extends from the point of diversion from the Umatilla River to the confluence with the Columbia River. The canal consists of two segments. The constructed channel segment extends from the Umatilla River 27 miles down gradient to the flow control gate at the end of the concrete structure as it was originally built (concrete -lining was later added to parts of the overflow channels). The overflow channels segment extends from the lower end of the constructed channel to the outflow to the Columbia River.

Table ~~produced November, 2003~~ revised April 2012

ODEQ described the canal as existing in two segments: (1) The majority of the canal, approximately 27 miles, is the original constructed concrete structure referred to as the "constructed channel" segment of the WDMC; and (2) The remainder of the canal,

approximately 3.8 miles,[14] is the second segment referred to as the "overflow channels," which were modified during the original canal construction and extend from the downstream terminus of the constructed channel to the Columbia River.

ODEQ removed the following designated uses from the entire WDMC: public domestic water supply, private domestic water supply, fish and aquatic life, Redband trout, fishing and boating. ODEQ also replaced the general fish and aquatic life and the Redband trout designated uses, for the overflow channels segment only, with a new aquatic life subcategory designated use called "modified aquatic habitat," and defined it at OAR - 340-041-0002(39):

"Modified aquatic habitat" means waters in which cool or cold-water aquatic communities are absent, limited or substantially degraded due to modifications of the physical habitat, hydrology or water quality. The physical, hydrologic or chemical modifications preclude or limit the attainment of cool or cold water habitat or the species composition that would be expected based on a natural reference stream, and cannot feasibly or reasonably be reversed or abated.

ODEQ retained the following designated uses for the entire WDMC: irrigation, livestock watering, wildlife and hunting, water contact recreation, aesthetic quality, industrial water supply, and hydropower.[15]

In addition to the designated uses revisions, ODEQ removed and revised certain numeric criteria that apply to the entire WDMC and adopted narrative criteria revisions as explained further below in Section 2.2.

2.2 Oregon's Water Quality Criteria Revisions[16]

2.2.1 Numeric Criteria

ODEQ concluded that, due to its removal of public and private domestic water supply, fish and aquatic life, Redband trout and fishing designated uses, the previously applicable water quality criteria associated with these uses would no longer apply to the WDMC. The criteria removed for the entire WDMC by revision at OAR 340-041-0315(2) include: Toxics criteria for aquatic life and human health contained in OAR 340-041-0033; Dissolved oxygen (OAR 340-041-0016); Temperature (OAR 340-041-0028); pH (OAR 340-041-0021); Total dissolved solids (OAR 340-041-0032); Turbidity (OAR 340-041-0036); Biocriteria (OAR 340-041-0011); Nuisance phytoplankton (OAR 340-041-0019), and total dissolved gas (OAR 340-041-0031).

ODEQ adopted numeric criteria for the entire canal to protect irrigation and livestock watering as shown in Table 315 below. The criteria in Table 315 include total dissolved solids as well as a

[14] In a 9/20/12 email from ODEQ (Don Butcher) to EPA (Bill Beckwith), ODEQ provided a map illustrating that the overflow channels segment was approximately 3.8 miles long.
[15] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 23.
[16] Information presented in this section is from Oregon's UAA and represents Oregon's analysis and conclusions: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality.

number of metals. Table 315 applies to both the constructed channel and the overflow channels segments of the canal. ODEQ adopted numeric pH criteria for the constructed channel segment at OAR 340-041-0315 (2)(e) to address the irrigation designated use. ODEQ also adopted numeric pH criteria at OAR 340-041-0315 (2)(f) and warm water dissolved oxygen criteria at OAR 340-041-0315 (2)(d) to protect the "modified aquatic habitat" use for the overflow channels segment. The existing bacteria criteria (OAR 340-041-0009) established to protect water contact recreation continue to apply to the entire WDMC.

Table 315

Water Quality Criteria
West Division Main Canal, Umatilla Basin

Parameter	**For Irrigation** (mg/l, metals as dissolved)	**For Livestock Watering** (mg/l, metals as dissolved)
Total dissolved solids	450	
Arsenic (inorganic)	0.1	0.2
Beryllium	0.1	
Cadmium	0.01	0.05
Chromium	0.1	1
Copper	0.2	0.5
Lead	5	0.1
Mercury		0.01
Nickel	0.2	
Selenium	0.02	0.05
Zinc	2	25

Table Notes and References:
(a) Values from EPA 1973, Water Quality Criteria 1972 (the "Blue Book") unless otherwise noted.
(b) Not an EPA criteria recommendation, but general information on effects at various ranges of TDS is provided (EPA 1973, EPA 1986).

2.2.2 Narrative Criteria

ODEQ retained the applicable statewide narrative criteria found at OAR 340-041-0007[17] for the entire WDMC. ODEQ also adopted site-specific narrative criteria for toxics and sediment, which are located in Oregon's regulations at OAR 340-041-0315(2)(b) and (c), respectively. Below in italicized text are ODEQ's Water Quality Standard Regulations at Division 41: Beneficial Uses, Policies and Criteria for Oregon. The red text signifies ODEQ's newly adopted revisions and the strike-through text signifies language that has been deleted.

340-041-0002: *39) "Modified aquatic habitat" means waters in which cool or cold-water aquatic communities are absent, limited or substantially degraded due to modifications of the physical habitat, hydrology or water quality. The physical, hydrologic or chemical modifications preclude or limit the attainment of cool or cold water habitat or*

[17] EPA disapproved the provision at OAR 340-041-0007(2) August 8th, 2013, however, all other sections of OAR 340-041-0007 (1) – (15) (excluding (2)) are still in effect for Clean Water Act purposes.

the species composition that would be expected based on a natural reference stream, and cannot feasibly or reasonably be reversed or abated.

Basin-Specific Criteria (Umatilla)
340-041-0310
Beneficial Uses to Be Protected in the Umatilla Basin
(1) Water quality in the Umatilla Basin (see Figure 1) must be managed to protect the designated beneficial uses shown in Table 310A (~~November 2003~~April 2012).
(2) Designated fish uses to be protected in the Umatilla Basin are shown in Figures 310A and 310B (November 2003).

340-041-0315
Water Quality Standards and Policies for this Basin
(1) pH (hydrogen ion concentration). pH values may not fall outside the following range: all Basin streams (other than main stem Columbia River and the West Division Main Canal): 6.5-9.0. When greater than 25 percent of ambient measurements taken between June and September are greater than pH 8.7, and as resources are available according to priorities set by the Department, the Department will determine whether the values higher than 8.7 are anthropogenic or natural in origin.

(2) The following criteria apply to the West Division Main Canal and supersede the water quality standards in OAR 340-041-0011 through 340-041-0036:
(a) Canal waters may not exceed the numeric criteria shown in Table 315. These criteria apply from the uppermost irrigation withdrawal to the confluence with the Columbia River;
(b) Toxic substances shall not be present in canal waters in amounts that are likely to singularly or in combination harm the designated beneficial uses of the canal or downstream waters. The presence of substances at naturally occurring levels shall not be considered harmful to the designated uses;
(c) Sediment load and particulate size shall not exceed levels that interfere with irrigation or the other designated beneficial uses of the canal;
(d) The dissolved oxygen criteria contained in OAR 340-041-0016 (4) apply to "overflow channels" segment of the canal (as described in Table 310A) to protect the "modified aquatic habitat" use.
(e) pH values in the "constructed channel" segment of the canal may not fall outside the range of 4.5 to 9.0 in order to protect agricultural uses.
(f) pH values in the "overflow channels" segment of the canal may not fall outside the range of 6.5 to 9.0 in order to protect the "modified aquatic habitat" use.
(~~2~~3) Minimum Design Criteria for Treatment and control of Sewage Wastes in this Basin:
(a) During periods of low stream flows (approximately April 1 to Oct. 31): Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of SS or equivalent control;
(b) During the period of high stream flows (approximately November 1 to April 30): A minimum of secondary treatment or equivalent control and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities at maximum practicable efficiency and effectiveness so as to minimize waste discharges to public waters.

3. EPA'S ACTION

The following actions are based on EPA's review of Oregon's revised water quality standards for the WDMC for consistency with Section 303(c) of the CWA and 40 CFR § 131.

3.1 EPA's Actions on Oregon's Revised Designated Uses and Criteria As They Apply To The Entire West Division Main Canal

3.1.1 Approval of ODEQ's Removal of the Boating Designated Use for the Entire West Division Main Canal

EPA Action
EPA approves ODEQ's revision to OAR 340-041-0310, Table 310A, that removed the boating designated use for the entire WDMC.

EPA Rationale
EPA's approval is based on the conclusion that boating is neither an existing use of the constructed channel, as defined at 40 CFR § 131.3(e), nor is the boating use feasible to attain per 131.10(g)(4).[18] EPA believes ODEQ sufficiently explained why the canal, with its hydrologic modifications, precludes the attainment of a boating designated use and, therefore, has satisfied the first part of 40 CFR § 131.10(g)(4): "*Dams, diversions, or other types of hydrologic modifications preclude the attainment of the use*." ODEQ stated: "*…hydraulic fluctuations, hazards and check dams combine to make boating inappropriate and unsafe. Much of the canal is too small for boating or has too little or no flow for large portions of each year. The canal passes underground beneath Interstate I-84 via a siphon. The canal was not designed or intended to be used for boating.*" With regard to the overflow channels specifically, ODEQ also stated "*Boating is not known to occur, and low water levels, road/culverts and fences render the channels unsuitable for boating*." [19]

In addition, ODEQ satisfied 40 CFR § 131.10(g)(4) "*…it is not feasible to restore the water body to its original condition*" by explaining that restoring the WDMC to its original condition in order to support a boating designated use, (i.e., removing the constructed canal and returning the overflow channels to their original ephemeral or intermittent nature) would effectively remove the waterbody itself, leaving land without a water source for boating. Thus, even if it were feasible to restore the water to its original condition, such restoration would not provide for attainment of a boating use.

Furthermore, ODEQ satisfied the third part of 40 CFR § 131.10(g)(4), which states: "*It is not feasible…to operate such modification in a way that would result in attainment of the use*." ODEQ explained that limiting factors of the canal such as the physical configuration and canal maintenance prevent operating the canal in a way that would result in attainment of a boating designated use. In addition, it is not feasible because additional water would have to be diverted from the Umatilla or Columbia Rivers. The 1988 Umatilla Basin Act (i.e., The Umatilla Basin

[18] 40 CFR § 131.10(g)(4): "Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use."
[19] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality, page 26 and 27.

Project[20]) focused on stream flow restoration, salmon recovery, and irrigation in the Columbia River Basin. It established an "exchange" of water supplies and allocated specific water rights to irrigation districts throughout the year. In order to maintain flows in the overflow channels segment, delivering additional water from the Umatilla could lead to an adverse effect on flows and unintended negative environmental impacts on restoration efforts in the basin.[21]

ODEQ explained that boating is not an existing use in the canal by stating that boating in the canal has never been allowed since initial construction and it is prohibited in the entire WDMC.[22] EPA believes that ODEQ's explanation of the physical characteristics and prohibitions that could preclude boating provided adequate documentation that boating is not an existing use in the WDMC.

Furthermore, although ODEQ removed the boating designated use for the WDMC, the designated recreational use for the canal remains consistent with the CWA section 101(a)(2) use goals because the "water contact recreation" designated use (i.e., primary contact recreation in Oregon) and criteria to protect primary contact recreation were retained for the entire WDMC. In the UAA, ODEQ explained that it was retaining its water contact recreation use and associated criteria because water contact occurs in the course of canal maintenance and "incidental contact by children or other people could occur."[23] This is consistent with options presented by the EPA in its 1994 WQS Handbook, Section 2.1.3, for designating recreation uses that are consistent with CWA section 101(a)(2) and 40 CFR § 131. Those options include designating either primary or secondary contact recreation with bacteria criteria sufficient to support primary contact recreation ("Option 2"). [24]

3.1.2 Approval of the Removal of the Public and Private Domestic Water Supply Designated Uses for the Entire West Division Main Canal

EPA Action
EPA approves ODEQ's revision to OAR 340-041-0310, Table 310A, that removed the public domestic water supply and private domestic water supply designated uses for the entire WDMC.

EPA Rationale
EPA's approval is based on the conclusion that public and private domestic water supply uses are not existing uses for the WDMC as defined at 40 CFR § 131.3(e), and a determination that ODEQ considered the use and value of this waterbody consistent with CWA regulations at 40

[20] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 13.
[21] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 13 and 30.
[22] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality, Page 26.
[23] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality, Page 23.
[24] EPA 1994 Water Quality Standards Handbook, Available at: http://water.epa.gov/scitech/swguidance/standards/handbook/index.cfm

CFR § 131.10(a).[25] In concluding that public and private domestic water supply are not existing uses of the canal, ODEQ stated that use of the WDMC as a public or private drinking water supply has been prohibited by law since 1973 because all active water rights certificates are for irrigation or livestock watering only. ODEQ did note one water rights certificate in 1893 that included domestic use, but stated that there was no delivery infrastructure and that the Oregon Water Resources Department considers the certificate to be inactive. EPA believes that ODEQ provided adequate documentation that public and private domestic water supplies are not existing uses in the entire WDMC.

EPA also agrees with ODEQ's conclusion that the requirement at 40 CFR § 131.10(j) to conduct a UAA as described in 40 CFR § 131.10(g) is stated in terms of when states are adopting or revising "uses specified in section 101(a)(2) of the Act," which do not include water supply designated uses. Therefore, EPA has reviewed removal of the domestic water supply uses from the WDMC based on ODEQ's "*consideration of the use and value of the water for public water supplies*" in accordance with 40 CFR § 131.10(a). In considering the use and value of the WDMC for domestic water supply, ODEQ stated that "*Future use of the canal for non-agricultural purposes is highly improbable…*",[26] and "*The drinking water rights limitations…have no potential to change in either part of the canal.*"[27] EPA has concluded that the use and value of the WDMC for public and private domestic water supply were considered by ODEQ in its decision to remove those uses.

3.1.3 EPA's Partial Approval and Partial Disapproval of the Provision at OAR 340-041-0315(2) (b) as it Applies to the Entire West Division Main Canal

EPA Action

EPA is approving and disapproving, in part, the provision at OAR 340-041-0315(2) (b), which states:

> "*(b) Toxic substances shall not be present in canal waters in amounts that are likely to singularly or in combination harm the designated beneficial uses of the canal or downstream waters. The presence of substances at naturally occurring levels shall not be considered harmful to the designated uses;*

Specifically, the EPA is approving the first sentence and disapproving the second sentence of this provision as it applies to the entire WDMC.

[25] 40 CFR § 131.10(a): Each State must specify appropriate water uses to be achieved and protected. The classification of the waters of the State must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

[26] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality, page 25.

[27] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality, page 28.

EPA Rationale

EPA is approving the first sentence of OAR 340-041-0315(1)(b), which states "*Toxic substances shall not be present in canal waters in amounts that are likely to singularly or in combination harm the designated beneficial uses of the canal or downstream waters."* EPA is approving this sentence because it is consistent with 40 CFR § 131.11 and articulates Oregon's desired water quality goal, which is to ensure that toxic substances do not harm the designated uses in the WDMC or downstream waters.

ODEQ explained in the UAA that "*The proposed narrative criterion for toxic substances augments the proposed numeric criteria for the canal. The narrative criterion will allow DEQ to regulate the discharge of additional toxic pollutants should we obtain information indicating that those pollutant may adversely impact a designated use of the canal or downstream uses."*[28] This is consistent with EPA's 1994 WQS Handbook which explains that narrative criteria serve to supplement numeric criteria for toxic pollutants and can be the basis for establishing chemical-specific limits for waste discharges where a specific pollutant can be identified as causing or contributing to the toxicity and the State has not adopted chemical-specific numeric criteria. Narrative toxic criteria are cited as a basis for establishing whole-effluent toxicity controls in EPA permitting regulations at 40 CFR 122.44(d)(l)(v).[29]

EPA is disapproving the second sentence of this provision, which states "*The presence of substances at naturally occurring levels shall not be considered harmful to the designated uses."* EPA's disapproval is based on the conclusion that the second sentence of OAR 340-041-0315(2)(b) implies that naturally occurring conditions are protective of designated uses, even if those conditions exceed the applicable criteria. ODEQ did not provide a sound scientific rationale to demonstrate that naturally occurring levels of toxic substances protect the designated uses. Therefore, EPA concludes that this provision is inconsistent with the requirement of 40 CFR § 131.11(a)(1) for states to "…adopt those water quality criteria that protect the designated use." Where natural conditions result in exceedances of the applicable criteria, site-specific criteria adoption and/or use revision may be appropriate depending on the circumstances.[30]

Remedy to Address Disapproval Action

In order for ODEQ to remedy this disapproval, ODEQ may delete the second sentence of OAR 340-041-0315(2)(b): *"The presence of substances at naturally occurring levels shall not be considered harmful to the designated uses."* Other options to remedy this disapproval include ODEQ revising the second sentence to include procedures, such as the development of site-specific criteria or use attainability analyses, to account for naturally occurring pollutant levels. EPA's policy for site-specific criteria development for aquatic life designated uses is outlined in the 1997 Tudor Davies Memo "Establishing Site Specific Criteria for Aquatic Life Criteria Equal

[28] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 40.
[29] EPA 1994 Water Quality Standards Handbook, Section 3.5.2, Available at: http://water.epa.gov/scitech/swguidance/standards/handbook/index.cfm
[30] EPA Memorandum: Establishing Site Specific Aquatic Life Criteria Equal to Natural Background, Tudor T. Davies, Office Director of Office of Science and Technology, November 5, 1997.

to Natural Background."[31] Oregon may develop a use attainability analysis according to 40 CFR § 131.10(g)(1),[32] which would allow for the removal or subcategorization of a designated use that is not an existing use, if the state can demonstrate that attaining the use is not feasible because of naturally occurring pollutant concentrations. Due to EPA's disapproval action, only the first sentence of the provision at OAR 340-041-0315(2)(b) is in effect for CWA purposes.

3.1.4 EPA's Approval of OAR 340-041-0315(2)(c) as it Applies to the Entire West Division Main Canal

EPA Action
EPA approves Oregon's regulation at OAR 340-041-0315(2)(c), which states:

> *(c) "Sediment load and particulate size shall not exceed levels that interfere with irrigation or the other designated beneficial uses of the canal;"*

EPA Rationale
Consistent with 40 CFR § 131.11, EPA approves the provision at OAR 340-041-0315(2)(c) because it protects the designated uses of the WDMC and articulates Oregon's desired water quality goal, which is to ensure that sediments and sediment loading do not interfere with irrigation or other designated beneficial uses in the WDMC. ODEQ explained in the UAA that "*The proposed narrative criterion for sedimentation addresses irrigation, where excess fines or large particles can be mobilized into pumps and cause problems with the irrigation equipment or premature wear.*"[33]

3.1.5 Approval of the Revised pH Criteria for the Entire West Division Main Canal

EPA Action
EPA approves Oregon's revision to regulations at OAR 340-041-0315(1), which adds language to exclude the WDMC from the *pH criteria* range of 6.5-9.0. EPA also approves the addition of OAR 340-041-0315(2)(e) that applies a pH criteria range of 4.5-9.0 to the constructed channel and the addition of OAR 340-041-0315(2)(f), which retains the 6.5-9.0 pH criteria range for the overflow channels.

EPA Rationale
EPA approves the exclusion of the WDMC from the pH criteria at OAR 340-041-0315(1), which states (newly added language is underlined):

"*pH (hydrogen ion concentration). pH values may not fall outside the following range: all Basin streams (other than main stem Columbia River and the West Division Main Canal): 6.5-9.0…*"

[31] EPA Memorandum: Establishing Site Specific Aquatic Life Criteria Equal to Natural Background, Tudor T. Davies, Office Director of Office of Science and Technology, November 5, 1997.
[32] 40 CFR § 131.10(g): States may remove a designated use which is not an existing use, as defined in 131.3, or establish sub-categories of a use if the State can demonstrate that attaining the designated use is not feasible because: (1) Naturally occurring pollutant concentrations prevent the attainment of the use;
[33] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality. Page 40.

Oregon's regulation revision leaves the WDMC with applicable pH criteria at OAR 340-041-0315(2)(e) and (f), which are newly adopted regulations that apply separately to the constructed and overflow channels, respectively. Regulations at OAR 340-041-0315(2)(e) state: "*pH values in the "constructed channel" segment of the canal may not fall outside the range of 4.5 to 9.0 in order to protect agricultural uses*." Regulations at OAR 340-041-0315(2)(f) state: "*pH values in the "overflow channels" segment of the canal may not fall outside the range of 6.5 to 9.0 in order to protect the "modified aquatic habitat" use*." EPA is approving OAR 340-041-0315(2)(e) based on the conclusion that the revised pH criteria are protective of the designated uses as required by 40 CFR § 131.11, because the criteria are consistent with EPA's 304(a) pH criteria recommendations for protecting agriculture uses.[34] EPA is approving at OAR 340-041-0315(2)(f) based on the conclusion that the revised pH criteria are protective of the designated uses as required by 40 CFR § 131.11, because the criteria are consistent with EPA's 304(a) pH criteria recommendations for protecting protection of aquatic life.[35]

3.2 EPA's Approval of Oregon's Revised Designated Uses And Criteria For The Constructed Channel Segment

3.2.1 Approval of the Removal of Fish and Aquatic Life and Redband Trout Designated Uses for the Constructed Channel Segment Only

EPA Action
EPA approves ODEQ's removal of its "Fish and aquatic life" and "Redband trout" designated uses at OAR 340-041-0310, Table 310A for the constructed channel.

EPA Rationale
EPA's approval is based on the conclusion that aquatic life is neither an existing use of the constructed channel, as defined at 40 CFR § 131.3(e), nor is it feasible to attain per 40 CFR § 131.10(g)(4). In reaching this conclusion, EPA reviewed ODEQ's assessment of existing uses and whether ODEQ met one of the factors required to remove these designated uses.

ODEQ explains in the UAA that the physical characteristics and operations are not compatible with the protection and propagation of aquatic life: "*Being a constructed, concrete-lined canal built for the purpose of conveying irrigation water, the canal lacks the necessary habitat elements of substrate, pools, refuge, shade, vegetation and stream flow that would be appropriate for fish and other aquatic life. These habitat elements are not an attainable condition for the constructed channel, given that it is concrete-lined*."[36]

ODEQ further explains that the constructed channel segment was built for the authorized purpose of irrigation (and to a lesser extent livestock watering) and was never a natural

[34] US EPA, "*Quality Criteria for Water*," pH criteria recommendation for agricultural uses, Red Book, 1976.
[35] US EPA, "*Quality Criteria for Water*," pH criteria recommendation for agricultural uses, Red Book, 1976.
[36] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality. Page 26.

waterbody.[37] Furthermore, there is a designated irrigation season, from March 1 through October 31, where water is diverted from either the Umatilla or Columbia Rivers into the constructed channel portion of the canal. However, in the off-season between November 1 to February 28, water is not routed to the constructed channel portion of the canal, leaving it dry or void of flowing water.[38] The constructed channel also is actively managed and maintained to exclude aquatic life through the presence of fish barriers in two different locations (one at the upper part of the canal near the Umatilla River point of diversion, and one near the downstream end of the canal). Routine application of aquatic pesticides minimizes the presence of aquatic weeds and other aquatic habitat, and any sedimentation is removed via flushing.[39]

Additionally, the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) have both indicated that threatened or endangered species do not inhabit the WDMC. NMFS confirmed that "*Because ESA-listed fish are not in the canal, NMFS has no comment on Oregon's proposed water quality standards revisions for the West Division Main Canal*."[40] The FWS also confirmed that ESA species are not a concern in the WDMC, "*…the fact that bull trout are not in the subject canal, we don't disagree with your assessment that Oregon's proposed water quality standards revisions for the West Division Main Canal will not affect bull trout.*" [41]

In the UAA, Oregon explains a letter from the Oregon Department of Fish and Wildlife (ODFW) included this statement "*Before 1988 there was the possibility of fish being diverted into the canal, however, in the fall of 1988 a fish screen and bypass facilities were constructed at the canal diversion point to prevent fish from entering the irrigation canal system.*"[42] EPA notes that ODFW stated that there was a "*possibility*" of fish being diverted into the canal, rather than fish were diverted. Furthermore, ODEQ explained in the UAA that prior to the current 1988 fish screen, a screen was in place dating back to the 1960's. The only actual observation of aquatic life discussed in the UAA is for the overflow channels, in a discussion of fish screens for the downstream end of the system, "*A few stray fish were noted above the Interstate-84 rest area (below the golf course shown in Figure 4). District staff believe that fish did not move upstream above this point, based on the presence of additional barriers and lack of reported observations above those barriers.*"[43]

[37] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page ii.
[38] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 26..
[39] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 14.
[40] Email, From Renee Coxen (NMFS) to William Beckwith (EPA), Subject: WQS Revisions to the West Division Main Canal near Hermiston, OR (Hermiston UAA), October 5, 2012.
[41] Email, From Gary Miller (FWS) to William Beckwith (EPA), Subject: WQS Revisions to the West Division Main Canal near Hermiston, OR (Hermiston UAA), August 23, 2013.
[42] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 55.
[43] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 10.

Notwithstanding the absence of observations of aquatic life in the constructed channel, ODEQ made the following statement: "*With regard to the constructed channel, DEQ acknowledges that there are likely transient or temporary, tolerant organisms that use the water... Any aquatic organisms found within the constructed channel would be considered part of a marginal population, at best, and would not be capable of sustaining a stable population due to the hazards and habitat deficiencies of the canal.*"[44] ODEQ went on to conclude, based on guidance in Chapter 4 of EPA's 1994 Water Quality Standards Handbook, that the constructed channel did not have an existing aquatic life use.[45] EPA believes that its guidance in the 1994 Water Quality Standards Handbook provides ODEQ with the discretion to conclude that there is not an existing aquatic life use in the constructed channel.

In the 1994 Water Quality Standards Handbook, EPA also stated that "non-aberrational resident species must be protected, even if not prevalent in numbers or importance." This can be particularly important when considering, for example, the existing uses for naturally intermittent and ephemeral waters where the aquatic community might be described in terms similar to what ODEQ used for the constructed channel (i.e., transient, temporary, and tolerant at least in regards to physical habitat). The natural biology associated with intermittent or ephemeral waters is not aberrational and can have important ecological functions.

In contrast, as discussed above, the constructed channel of the WDMC is not a natural aquatic system and has been managed to exclude aquatic life consistent with its design function of transferring water to fields for irrigation. Transient and temporary aquatic organisms that may have occurred there may be considered aberrational and not constituting an existing aquatic life use. Even if fish have entered the constructed channel as a result of deterioration or maintenance associated with the fish barriers, no evidence has been presented indicating that sustainable populations have established or that threatened or endangered species are present. Based on the information discussed above, EPA believes that ODEQ has provided adequate documentation that aquatic life uses are not existing in the constructed channel of the WDMC.

EPA also concludes that ODEQ satisfied the first part of 40 CFR § 131.10(g)(4), as it states: *"Dams, diversions, or other types of hydrologic modifications preclude the attainment of the use."* ODEQ explains in the UAA why the hydrologic modification (i.e., concrete lining of the canal) precludes the attainment of an aquatic life use in the constructed channel segment. The constructed channel segment is a concrete lined structure (to improve delivery of water for irrigation purposes), that is dry or void of flow for parts of the year, is routinely maintained to prevent aquatic weeds and habitat from forming and to prevent irrigation from being impeded. EPA finds that ODEQ also satisfied the second part of 40 CFR § 131.10(g)(4), which states: "*It is not feasible to restore the water body to its original condition,*" as the constructed channel segment is not (and was never) a natural water body, it does not follow the course of a natural waterbody, and was constructed solely for the purpose of irrigation. In order to restore the water body to its original condition, the state would have to remove the constructed channel altogether

[44] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 23.
[45] EPA 1994 Water Quality Standards Handbook, Chapter 4, Available at: http://water.epa.gov/scitech/swguidance/standards/handbook/index.cfm

and, by extension, the waterbody itself would disappear, leaving no water or habitat for an aquatic life use. Thus, even if it were feasible to restore the water to its original condition, such restoration would not provide for attainment of an aquatic life use.

Lastly, ODEQ satisfied the third part of 40 CFR § 131.10(g)(4), which states: "*It is not feasible…to operate such modification in a way that would result in attainment of the use*." ODEQ explained that managing the constructed channel segment to attain a year round aquatic life use or a "modified" aquatic life use is not feasible because additional water would have to be diverted from the Umatilla or Columbia Rivers. The 1988 Umatilla Basin Act (i.e., The Umatilla Basin Project[46]) focused on stream flow restoration, salmon recovery, and irrigation in the Columbia River Basin. It established an "exchange" of water supplies and allocated specific water rights to irrigation districts throughout the year. In order to maintain flows in the overflow channels segment, delivering additional water from the Umatilla could lead to an adverse effect on flows and unintended negative environmental impacts on restoration efforts in the basin.[47]

Although ODEQ mentions 40 CFR § 131.10(g) factor 5 in the UAA, ODEQ stated that it relied primarily on factor 4 for this analysis and, therefore, EPA analyzed the information as it applies to factor 4. Only one factor of the six factors needs to be met by ODEQ to be consistent with 40 CFR 131.10(g). EPA concludes that ODEQ satisfied factor 4 to remove the fish and aquatic life and Redband trout designated uses from the constructed channel segment of the WDMC.

3.2.2 Approval of the Removal of the Fishing Designated Use for the Constructed Channel Segment Only

EPA Action
EPA approves ODEQ's revision to OAR 340-041-0310, Table 310A, that removed the "Fishing designated use" for the constructed channel segment of the WDMC.

EPA Rationale
EPA's rationale for approving the removal of the fishing designated use for the constructed channel is directly related to the approval action for the removal of the fish and aquatic life and Redband trout designated uses for the constructed channel segment (see Section 3.2.1 above). The removal of those aquatic life uses reflects the reality that the constructed channel segment is without species available for a fishing designated use. EPA believes that ODEQ's demonstration that 40 CFR § 131.10(g)(4) was satisfied for the removal of the aquatic life uses also satisfies 40 CFR § 131.10(g)(4) for the removal of the fishing designated use.

[46] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality. Page 13.
[47] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality. Page 13 and 30.

3.2.3 Approval of OAR 340-041-0315(2) and OAR 340-041-0315(2)(a), as it Applies to the Constructed Channel Segment Only of the West Division Main Canal

EPA Action

EPA approves the criteria revisions at OAR 340-041-0315(2) and OAR 340-041-0315(2)(a) as they apply to the constructed channel segment only.[48] EPA is disapproving these revisions as they apply to the overflow channels segment as explained in Section 3.3.2.

ODEQ's revisions at OAR 340-041-0315(2), OAR 340-041-0315(2)(a) and Table 315 are shown below (new language shown in red text):

> **"340-041-0315**
>
> **Water Quality Standards and Policies for this Basin**
>
> *(2) The following criteria apply to the West Division Main Canal and supersede the water quality standards in OAR 340-041-0011 through 340-041-0036:*
>
> *(a) Canal waters may not exceed the numeric criteria shown in Table 315. These criteria apply from the uppermost irrigation withdrawal to the confluence with the Columbia River; …*

Table 315

Water Quality Criteria
West Division Main Canal, Umatilla Basin

Parameter	**For Irrigation** (mg/l, metals as dissolved)	**For Livestock Watering** (mg/l, metals as dissolved)
Total dissolved solids	450	
Arsenic (inorganic)	0.1	0.2
Beryllium	0.1	
Cadmium	0.01	0.05
Chromium	0.1	1
Copper	0.2	0.5
Lead	5	0.1
Mercury		0.01
Nickel	0.2	
Selenium	0.02	0.05
Zinc	2	25

[48] EPA's action on the other subparts of OAR 340-041-0315(2) are described in Section 3 of this document.

EPA Rationale

EPA's approval of the criteria revisions at OAR 340-041-0315(2) for the constructed channel is based on consistency with regulations at 40 CFR § 131.11. EPA understands that the provision at OAR 340-041-0315(2) deletes the previously applicable criteria at OAR 340-041-0011 through 340-041-0036,[49] and replaces them with newly adopted canal-specific criteria at OAR 340-041-0315(2)(a)-(f). EPA concludes that approving these criteria removals is consistent with the designated use removals that are also being approved with this action for the constructed channel segment. As noted earlier, ODEQ removed, and EPA is approving the removal of the public and private domestic water supply, fish and aquatic life, Redband trout, boating, and fishing designated uses for the constructed channel segment (See Sections 3.1 and 3.2 above). The removed designated uses no longer apply to the constructed channel segment; therefore, the criteria previously in place to protect them are no longer needed. EPA believes the approval of the removal of such criteria is consistent with 40 CFR § 131.11, which requires states to adopt "those water quality criteria that protect the designated use."

The designated uses that remain in effect for CWA purposes for the constructed channel segment are irrigation, livestock watering, wildlife and hunting, water contact recreation, aesthetic quality, industrial water supply, and hydropower.[50] The criteria adopted at OAR 340-041-0315(2), which appear in Table 315, are in place to protect the livestock watering and irrigation designated uses.

The total dissolved solids value of 450 m/l for irrigation in Table 315 was adopted by ODEQ based on public comment and literature concerning the upper limits on total dissolved solids that are needed to protect sensitive crops.[51,52] Information in EPA's Water Quality Criteria 1972 criteria recommendations, indicates that total dissolved solids levels below 500 mg/l are usually not associated with detrimental effects on crops.[53] For these reasons, EPA approves the total dissolved solids criterion of 450 m/l as being consistent with 40 CFR § 131.11 because the criterion is protective of the irrigation designated use.

For the metals listed in Table 315, ODEQ adopted values taken from Water Quality Criteria 1972 and chose to express those values as dissolved metal. EPA approves those values as adding a degree of protection for the irrigation and livestock watering designated uses.

---

[49] The water quality criteria at OAR 340-041-0011 through 340-041-0036 were for biocriteria at OAR 340-041-0011; dissolved oxygen at OAR 340-041-0016; nuisance phytoplankton growth at OAR 340-041-0019; pH at OAR 340-041-0021; temperature at OAR 340-041-0028; total dissolved gas at OAR 340-041-0031; total dissolved solids at OAR 340-041-0032; toxic substances for aquatic life and human health protection at OAR 340-041-0033; and turbidity at OAR 340-041-0036.

[50] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 27.

[51] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 35.

[52] Oregon's Public Comment and Agency Response Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon, Oregon State Department of Environmental Quality, January 5, 2012..

[53] Water Quality Criteria 1972, EPA·R3·73·033,March 1973, page 355. This is commonly referred to as EPA's "Blue Book".

In order to protect the other retained designated uses, ODEQ also retained the statewide general narrative criteria found at OAR 340-041-0007[54], to protect the designated uses for the entire WDMC[55]. In addition, ODEQ adopted the WDMC specific narrative provisions including a provision to prohibit toxics in toxic amounts at OAR 340-041-0315 (b). EPA is approving only the first sentence in OAR 340-041-0315(2)(b), see Section 3.1.3 for details.

ODEQ did not revise the wildlife and hunting designated use in the June 25, 2012 submittal and, therefore, EPA is not acting on the wildlife and hunting designated use. However, EPA acknowledges that Oregon does not currently have numeric criteria to specifically protect its wildlife and hunting use and, for some parameters, that use may be the most sensitive use in the constructed channel segment. EPA also recognizes that it does not have general guidance or recommendations for criteria to specifically protect wildlife uses.

3.3 EPA's Actions on Oregon's Revised Designated Uses and Associated Criteria for the Overflow Channels Segment

3.3.1 Approval of Removal of Criteria Associated with Protection of Public and Private Domestic Water Supply Designated Uses for the Overflow Channels Segment

EPA Action

As noted in Section 3.1.2 of this document, EPA approved the removal of the public and private domestic water supply designated uses for the entire WDMC. As such, EPA is approving the removal of the associated human health criteria that protect drinking water uses in the overflow channels segment.

EPA Rationale

EPA is approving the removal of the human health criteria to protect drinking water uses in the overflow channels segment because it is directly related to the EPA's approval action for the removal of the public and private domestic water supply designated uses for the entire WDMC, as explained in Section 3.1.2. EPA's approval is based on the conclusion that public and private domestic water supply uses are not existing uses for the WDMC as defined at 40 CFR § 131.3(e), and a determination that ODEQ considered the use and value of this waterbody consistent with CWA regulations at 40 CFR § 131.10(a).[56] Because public and private domestic water supply are not existing uses of the canal and are being removed, the associated human health criteria are also being removed.

---

[54] EPA disapproved the provision at OAR 340-041-0007(2) August 8th, 2013, however, all other sections of OAR 340-041-0007 (1) – (15) (excluding (2)) are still in effect for Clean Water Act purposes.

[55] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality. Page 33.

[56] 40 CFR § 131.10(a): Each State must specify appropriate water uses to be achieved and protected. The classification of the waters of the State must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

ODEQ, as described in Table 40 of their water quality standards, provides two different sets of human health criteria; one to protect fish consumption only and one to protect fish consumption and drinking water intake. EPA is approving the removal of only those criteria designed to protect fish consumption and drinking water intake (i.e. "water + organism").[57] EPA believes that ODEQ provided adequate documentation to remove both the public and private domestic water supply uses and associated criteria.

In addition, EPA is disapproving the removal of the fishing designated use for the overflow channels segment and, therefore, is disapproving ODEQ's removal of any associated human health criteria designed to protect fish consumption only (i.e. "organism only"). See Section 3.3.2 and 3.3.3 for further explanation.

3.3.2 Disapproval of Removal of Fish & Aquatic Life and Redband Trout Designated Uses and Adoption of Associated Criteria for the Overflow Channels Segment

EPA Action

EPA disapproves Oregon's revisions to OAR 340-041-0310, Table 310A, that removed the "Fish & aquatic life" and "Redband trout" designated uses and replaced them with a new subcategory use called "Modified aquatic habitat," for the overflow channels of the WDMC. In addition, EPA is disapproving OAR 340-041-0315(2) (except as discussed at Section 3.3.1), OAR 340-041-0315(2)(a) and OAR 340-041-0315(2)(d) as they apply to the overflow channels segment.[58]

As explained in previous sections of this document, EPA is partially approving provision OAR 340-041-0315(2)(b)(see Section 3.1.3), approving provision OAR 340-041-0315(c)(see Section 3.1.4) and approving provision OAR 340-041-0315(2)(f) (see Section 3.1.5 above) for the overflow channels segment.

In addition, as noted in section 3.2.3 of this document, EPA is approving ODEQ's criteria revisions in Table 315 to protect irrigation and livestock watering uses in the constructed channel

[57] Oregon Department of Environmental Quality, Water Quality Standards Regulations, Effective human health criteria adopted by the EQC on June 16, 2011 and approved by EPA on Oct. 17, 2011, TABLE 40: Human Health Water Quality Criteria for Toxic Pollutants, Effective October 17, 2011.

[58] OAR 340-041-0315:*(2) The following criteria apply to the West Division Main Canal, which includes both the constructed channel and overflow channel segments, and supersede the water quality standards in OAR 340-041-0011 through 340-041-0036:*
(a) Canal waters may not exceed the numeric criteria shown in Table 315. These criteria apply from the uppermost irrigation withdrawal to the confluence with the Columbia River;
(b) Toxic substances shall not be present in canal waters in amounts that are likely to singularly or in combination harm the designated beneficial uses of the canal or downstream waters. The presence of substances at naturally occurring levels shall not be considered harmful to the designated uses;
(c) Sediment load and particulate size shall not exceed levels that interfere with irrigation or the other designated beneficial uses of the canal;
(d) The dissolved oxygen criteria contained in OAR 340-041-0016 (4) apply to "overflow channels" segment of the canal (as described in Table 310A) to protect the "modified aquatic habitat" use.
(e) pH values in the "constructed channel" segment of the canal may not fall outside the range of 4.5 to 9.0 in order to protect agricultural uses.
(f) pH values in the "overflow channels" segment of the canal may not fall outside the range of 6.5 to 9.0 in order to protect the "modified aquatic habitat" use.

segment. Although these same uses are applicable to the overflow channels segment, EPA is disapproving the application of Table 315 criteria revisions to the overflow channels. The criteria were applied to the constructed channel based on ODEQ's determination that livestock watering and irrigation were the most sensitive remaining uses for that segment. In light of EPA's disapproval of ODEQ's revisions to the aquatic life uses in the overflow channels, EPA believes it is more appropriate for ODEQ to determine what criteria are necessary to ensure that all designated uses are protected in the overflow channel segments in the process of remeding EPA's disapproval.

EPA Rationale

EPA believes that ODEQ has adequately demonstrated that the fish and aquatic life and Redband trout designated uses are not existing or attainable, under 40 CFR § 131.10(g)(4), for the overflow channels of the WDMC. EPA also acknowledges that ODEQ has demonstrated that a "modified" aquatic life use is appropriate for the overflow channels. However, EPA is disapproving the removal of the fish and aquatic life and Redband trout designated uses, and the adoption of the modified aquatic life use, for the overflow channels because ODEQ's analysis did not adequately identify the aquatic life use that is otherwise existing and attainable in the overflow channels and within the range of biological conditions that are encompassed by the adopted modified aquatic habitat definition. ODEQ also did not demonstrate that the adopted criteria would be sufficient and protective of the modified aquatic life use for the overflow channels segment and, therefore, the disapproved revisions are inconsistent with regulations at 40 CFR § 131.10(g), 40 CFR § 131.11(a)(1) and CWA section 303(c)(2)(B).

ODEQ has not demonstrated that the attainable aquatic life use in the overflow channels would be adequately protected by the warm water dissolved oxygen criteria adopted at OAR 340-041-0315(2)(d). Nor has ODEQ demonstrated that the criteria at OAR 340-041-0011 through OAR 340-041-0036, which were removed with the adoption of OAR 340-041-0315(2), are not necessary to protect the modified aquatic habitat designated use in the overflow channels.

Under the CWA, as explained in Section 1.1 above, water quality standards must protect CWA Section 101(a)(2) uses unless those uses have been shown to be unattainable, effectively creating a rebuttable presumption of attainability.[59] Unless the state rebuts this presumption, the uses specified in section 101(a)(2) of the Act are presumed attainable. Where a state believes that a use specified in section 101(a)(2) is not attainable and wishes to remove or subcategorize the use, the state must show that the use change will not result in removing an existing use and complete a use attainability analysis (UAA) consistent with 40 CFR § 131.10(g).

EPA's current interpretation of regulations at 40 CFR § 131.10(g)[60] provide that where a state adopts new or revised water quality standards based on a use attainability analysis (UAA), it

[59] 40 C.F.R. § 131.10(j): "A State must conduct a use attainability analysis as described in 131.3(g) whenever:.." 40 C.F.R. § 131.10(g): "States may remove a designated use which is not an existing use, as defined in § 131.3, or establish sub-categories of a use if the State can demonstrate that attaining the designated use is not feasible because…"

[60] EPA Federal Register, Volume 78, Number 171, September 4, 2013, Water Quality Standards Regulatory Clarifications, Proposed Rule, Pages [54522-54525] .

must adopt the highest attainable use (HAU). States and tribes must also adopt criteria to protect designated uses as specified in 40 CFR § 131.11(a) and CWA section 303(c)(2)(B).

Consistent with the other designated use revisions adopted for the WDMC, ODEQ presented 40 CFR § 131.10(g)(4) as the primary basis for determining that it is not feasible to attain the fish and aquatic life and Redband trout designated uses in the overflow channels. EPA believes that ODEQ's description in the UAA of the physical characteristics and operation of the WDMC support ODEQ's conclusion that a hydrologic modification (in this case the WDMC itself) precludes the attainment of those designated uses in the overflow channels.

EPA also agrees that it is not feasible to restore the overflow channels to their original condition because doing so would effectively eliminate their use for irrigation and would require ceasing or significantly modifying operation of the upstream constructed channel, which discharges to the overflow channels. Furthermore, while restoring the overflow channels to their original ephemeral or intermittent condition might provide for the aquatic life naturally associated with such waters, such aquatic life would not necessarily represent attainment of Oregon's fish and aquatic life and Redband trout designated uses. Additionally, EPA agrees with ODEQ's conclusion that it is not feasible to operate the overflow channels in a way that results in the attainment of the fish and aquatic life and Redband trout designated uses because that would require more water to be diverted from the Umatilla or Columbia Rivers. As ODEQ explained in the UAA, the Umatilla Basin Project provides for an exchange of water and allocates water for the local irrigation districts. Additional water diverted from the Umatilla River could have negative environmental impacts on the restoration efforts in the basin.[61]

ODEQ explained that the modified aquatic habitat use was intended to represent the limited aquatic life supported by the existing conditions in the overflow channels.[62] In describing the existing aquatic life use in the overflow channels segment, ODEQ stated that: "*limited aquatic life may be present at times in the overflow channels" and "there may be potential for limited aquatic life use, given that much of this segment is earthen rather than concrete-lined and that some habitat features, such as vegetated banks, are present.*"[63] ODEQ also indicated that the overflow channels segment is at a lower elevation, has more permeable channel material and interacts more with groundwater compared to the constructed channel segment, and is "*…not as removed from the surroundings in the way that the constructed channel is with its concrete, berms and roadway. Accordingly, the overflow channels are somewhat more likely to be used by people, birds and other wildlife.*"[64] In addition, the UAA indicates that the fish barrier at the downstream end of the WDMC is located 0.1 mile upstream of the Columbia River, allowing for possible entry into the lower portion of the overflow channels by fish and aquatic life. These characteristics differentiate the overflow channels segment from the constructed channel.

[61] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 13 and 30.
[62] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 27.
[63] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 28.
[64] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 17.

ODEQ's establishment of the modified aquatic habitat use and its specific application to the overflow channels segment was based on an existing use determination for the overflow channels taking into consideration only the knowledge of the physical operation of the canal and was not supported by biological assessment and water quality data, as ODEQ stated in the UAA, "*DEQ does not have biological data for the canal*."[65] Without such information, ODEQ concluded that cold and cool water fish are not present in the overflow channels segment and, thus, only assigned it the warm water dissolved oxygen (DO) criteria at OAR 340-041-0016(4). ODEQ stated that it "*will retain the warm-water aquatic life dissolved oxygen criterion…for the Umatilla basin in the overflow channels in order to protect the modified aquatic habitat in that segment.*"[66] This statement is contrary to EPA's understanding of how ODEQ applies its cool water DO criteria at OAR 340-041-0016(3) to waters east of the Cascades, including the Umatilla basin and the WDMC. In ODEQ's Memorandum, dated June 8, 2010,[67] regarding the application of the cold and cool water dissolved oxygen criteria, ODEQ explicitly states that it applies the cool water DO criteria at OAR 340-041-0016(3) to the ecoregion, Columbia Plateau, which includes the WDMC. Furthermore, due to the location of the lower fish barrier, cold or cool water species may have access from the Columbia River upstream, to at least 0.1 miles of the overflow channels segment.[68]

Regulations at 40 CFR § 131.11(a)(1) require states to adopt criteria that are based on a sound scientific rationale and must contain sufficient parameter or constituents to protect the designated use. ODEQ did not sufficiently explain how the adoption of warm water DO criteria for the overflow channels segment is protective of the modified aquatic habitat use (i.e., the aquatic organisms that are to be protected by the use). Given this, EPA cannot conclude that the warm water DO criteria are consistent with regulations at 40 CFR § 131.11(a)(1), requiring states to adopt criteria that protect the designated use.

Likewise, ODEQ did not provide information necessary to determine if the other criteria revisions (i.e., the criteria deleted by at OAR 340-041-0315(2)), are consistent with 40 CFR § 131.11(a)(1) and CWA section 303(c)(2)(B).[69] In particular, CWA section 303(c)(2)(B) imposes

[65] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 23.
[66] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 33.
[67] ODEQ Memorandum, Subject: Application of DO criteria to "salmon and trout rearing and migration" beneficial use and "redband or lahontan cutthroat trout" beneficial use. Approved by Neil Mullane, Water Quality Division Administrator, June 8, 2010.
[68] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 10.
[69] CWA Section 303(c)(2)(B): "Whenever a State reviews water quality standards pursuant to paragraph (1) of this subsection, or revises or adopts new standards pursuant to this paragraph 1 such State shall adopt criteria for all toxic pollutants listed pursuant to section 307(a)(1) of this Act for which criteria have been published under section 304(a), the discharge or presence of which in the affected waters could reasonably be expected to interfere with those designated uses adopted by the State, as necessary to support such designated uses. Such criteria shall be specific numerical criteria for such toxic pollutants. Where such numerical criteria are not available, whenever a State reviews water quality standards pursuant to paragraph (I), or revises or adopts new standards pursuant to this paragraph, such State shall adopt criteria based on biological monitoring or assessment methods consistent with information published pursuant to section 304(a)(8)." (emphasis added)

specific requirements concerning the adoption of numeric criteria for toxic pollutants listed pursuant to CWA section 307(a)(1). ODEQ did not present a demonstration that the numeric criteria for toxic pollutants at OAR 340-041-0033 for the protection of aquatic life and the protection of human health when contaminated organisms are consumed, which were deleted by the adoption of OAR 340-041-0315(2), are not necessary to protect the overflow channels.

Remedy to Address Disapproval Action

Several approaches could be developed by ODEQ to remedy EPA's disapproval of the removal of the fish and aquatic life and Redband trout designated uses, the adoption of the modified habitat use, and the removal of criteria for the overflow channels segment. Listed below are possible examples of how to remedy EPA's disapproval.

Option 1:

ODEQ could better establish what aquatic life use is attainable for the overflow channels segment and the criteria needed to protect that use. For example, ODEQ could demonstrate that cool and cold water species are absent from the canal and/or that the warm water dissolved oxygen criteria are protective of the aquatic life that use the canal. ODEQ could also provide information necessary to determine if the criteria deleted at OAR 340-041-0315(2) are consistent with 40 CFR § 131.11(a)(1) and CWA section 303(c)(2)(B). With regard to consistency with CWA section 303(c)(2)(B),[70] ODEQ should ensure that numeric criteria are adopted as necessary to be consistent with EPA's program guidance for implementing CWA section 303(c)(2)(B).[71] These demonstrations could include collection of additional biological and/or chemical data as necessary.

Option 2:

ODEQ could adopt the designated uses and revise OAR 340-041-0315(2) as it applies to the overflow channels segment consistent with the EPA's disapproval action.

Until Oregon revises its water quality standards to address EPA's disapproval action or EPA proposes and promulgates replacement standards, the previously EPA approved fish and aquatic life and Redband trout designated uses and associated criteria for the overflow channels segment will remain in effect for CWA purposes for the overflow channels segment.

[70] CWA Section 303(c)(2)(B): "Whenever a State reviews water quality standards pursuant to paragraph (1) of this subsection, or revises or adopts new standards pursuant to this paragraph 1 such State shall adopt criteria for all toxic pollutants listed pursuant to section 307(a)(1) of this Act for which criteria have been published under section 304(a), the discharge or presence of which in the affected waters could reasonably be expected to interfere with those designated uses adopted by the State, as necessary to support such designated uses. Such criteria shall be specific numerical criteria for such toxic pollutants. Where such numerical criteria are not available, whenever a State reviews water quality standards pursuant to paragraph (I), or revises or adopts new standards pursuant to this paragraph, such State shall adopt criteria based on biological monitoring or assessment methods consistent with information published pursuant to section 304(a)(8)." (emphasis added)

[71] EPA's national program guidance is discussed in the National Toxics Rule at 57 FR 60848.

3.3.3 EPA's Disapproval of the Removal of the Fishing Designated Use for the Overflow Channels Segment

EPA Action
EPA disapproves Oregon's revision to OAR 340-041-0310, Table 310A, that removed the "Fishing" designated use for the overflow channels segment of the WDMC. EPA concludes that ODEQ did not meet 131.10(g)(4) in order to remove the fishing use for the overflow channels. In addition, the removal is not consistent with CWA Section 101(a)(2) interim goals.

EPA Rationale
EPA's disapproval is based on the conclusion that ODEQ has not demonstrated, in accordance with 40 CFR § 131.10(g), that fishing and the associated potential for human consumption of aquatic life is not an attainable use in the overflow channels of the WDMC. EPA concurs with ODEQ's determination that an aquatic life use is attainable in the overflow channels segment, as demonstrated by ODEQ's adoption of the modified aquatic habitat use. EPA's disapproval is based ono ODEQ's adoption of OAR 340-041-0315(2), which removed Oregon's numeric criteria for the protection of human health when contaminated aquatic organisms are consumed, at OAR 340-041-0033, from applicability to the overflow channels.

Although ODEQ has separated aquatic life and fishing designated uses, EPA interprets aquatic life uses and the ability to collect and safely consume aquatic life as being inherently linked. As explained in EPA's October 24, 2000 "Dear Colleague" letter, EPA interprets the CWA section 101(a)(2) interim goals to mean that "not only can fish and shellfish thrive in a waterbody, but when caught, can also be safely eaten by humans." [72] Thus it is EPA's position that designated uses for aquatic life need be accompanied by criteria to protect human health unless it is shown in accordance with 40 CFR § 131.10(g) that consumption of aquatic life is not attainable.

In its UAA, ODEQ stated that fishing is not an existing use for the overflow channels segment "*…because fish access to the canal has been limited since well before 1975, fishing is not an existing use. The canal is not stocked and fishing is prohibited. In addition, public access is blocked for most of the canal's length.*"[73] In addition, ODEQ stated, "*The rationale for removing fishing as a designated use [for the overflow channel] is the same as the rationale described in Section 3.6.2 above for removing fish and aquatic life. Because the canal is screened and game fish are not present in the canal, there is no fishing. In addition, the canal is owned by the USBR and managed by the West Extension Irrigation District, who restrict public access and prohibit recreation, including fishing, in the canal*."[74]

With regard to ODEQ's discussion asserting the absence of fish, EPA is concerned that ODEQ may not have fully considered the potential for fish access to the lower portion of the overflow

[72] US EPA, Dear Colleague Letter, Office of Water, Signed by Geoffery H. Grubbs, Director of Office of Science and Technology and signed by Robert H. Wayland III, Director of Office of Wetlands, Oceans, and Watersheds. October 24, 2000.
[73] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality. Page 26.
[74] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon*, June 8, 2012, Oregon State Department of Environmental Quality. Page 30.

channels (see Section 3.3). Furthermore, in addition to ODEQ's statements regarding restricted access and prohibition of fishing, the UAA includes statements which imply that there is public access to the overflow channels, for example: "*The overflow channels are not as removed from the surroundings in the way that the constructed channel is with its concrete, berms and roadway. Accordingly, the overflow channels are somewhat more likely to be used by people, birds and other wildlife. This is part of the reason that DEQ is proposing to retain the designated beneficial uses of water contact recreation and wildlife and hunting,*"[75] and "*the overflow channels have some different properties than the constructed channel, and access is less restricted.*"[76]

Restricted access and prohibitions alone would not be a valid basis under 40 CFR § 131.10(g) to remove the fishing use and associated criteria to protect human health. For example, ODEQ recognized in the UAA that although access is restricted for recreation, people may still use the waterbody for recreation and, therefore, retained primary contact recreational criteria for the entire WDMC.[77] The same rationale applies to fish consumption by humans, although fishing access is restricted, Oregon needs to either protect human health for a fishing use or submit information that verifies fishable species do not exist in the overflow channels segment of the WDMC.

Remedy to Address Disapproval Action

The remedy options for Oregon to address EPA's disapproval of Oregon's revision to OAR 340-041-0310, Table 310A, that removed the fishing designated use for the overflow channels segment, are closely tied to the remedy options listed above (in Section 3.3.2) for EPA's disapproval of the fish and aquatic life and Redband trout designated uses removal and adoption of the modified aquatic habitat. For example, if Oregon clarifies that there are fishable aquatic life species in the overflow channels, then Oregon would remedy the disapproval of the fishing use by, again, adopting the fishing use for the overflow channels segment and associated criteria. If the analysis shows that no fishable species exist, then Oregon may justify that "fishing" is not an attainable use and that removal of the associated criteria is appropriate. However, unless and until Oregon revises its water quality standards to address EPA's disapproval action or EPA proposes and promulgates replacement standards, the previously EPA approved fishing designated use for the overflow channels segment (and any associated human health criteria), will remain in effect for CWA purposes.

3.3.4 EPA's Disapproval of the Modified Aquatic Habitat Definition for the Overflow Channel

EPA Action

EPA disapproves Oregon's new "Modified aquatic habitat" definition at OAR 340-041-0002(39):

[75] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 17.
[76] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 26.
[77] Oregon's Use Attainability Analysis: *Water Quality Standards Revisions, West Division Main Canal Near Hermiston, Oregon,* June 8, 2012, Oregon State Department of Environmental Quality. Page 28.

> *"Modified aquatic habitat" means waters in which cool or cold-water aquatic communities are absent, limited or substantially degraded due to modifications of the physical habitat, hydrology or water quality. The physical, hydrologic or chemical modifications preclude or limit the attainment of cool or cold water habitat or the species composition that would be expected based on a natural reference stream, and cannot feasibly or reasonably be reversed or abated.*

This decision is based on the lack of consistency with the language of 40 CFR § 131.10 and 40 CFR § 131.10(g)(4).

EPA Rationale

EPA is disapproving the definition of DEQ's modified aquatic habitat due to the second sentence of the provision: "…*The physical, hydrologic or chemical composition that would be expected based on a natural reference stream, and cannot feasibly or reasonably be reversed or abated*." The inclusion of the phrase "or reasonably," is inconsistent with the language at 40 CFR § 131.10(g) and 40 CFR 131.10(g)(4), which base attainability decisions on whether it is "feasible" to attain the use:

> (g) States may remove a designated use which is not an existing use, as defined in § 131.3, or establish sub-categories of a use if the State can demonstrate that attaining the designated use is not feasible because: (emphasis added)

In addition to the general language in 40 CFR § 131.10(g), "feasible" is repeated in 40 CFR § 131.10(g)(4):

> "(g)(4) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modifications in a way that would result in the attainment of the use;"(emphasis added)

ODEQ's modified aquatic habitat definition includes "*feasibly or reasonably,"* without explanation for including both terms. The inclusion of "or reasonably" creates ambiguity around what test must be satisfied to designate a modified aquatic habitat use for a waterbody. This ambiguity has the potential to impermissibly broaden the circumstances where Oregon could justify a use revision beyond what 40 CFR § 131.10(g) and 40 CFR § 131.10(g)(4) allow.

Remedy to Address Disapproval Action

Oregon can address EPA's disapproval of OAR 340-041-0002(39) by striking the words "or reasonably" from the modified aquatic habitat definition. This would result in improved consistency between the definition of the modified aquatic habitat use and the federal water quality standards regulation (40 CFR § 131.10(g) and (g)(4)) and dispel any ambiguity in Oregon's definition. Alternatively, Oregon may be able to address this disapproval by submitting more information to EPA regarding the intended interpretation of the phrase "feasibly or reasonably," if that additional information demonstrated that the phrase is not meant to expand the scope of 40 CFR § 131.10(g) and (g)(4). Unless and until Oregon revises its water quality

standards to address EPA's disapproval action, or EPA proposes and promulgates replacement standards, Oregon's definition of modified aquatic habitat is not applicable for CWA purposes.

3.4 Appendix A – EPA Action on ODEQ Regulations

ODEQ Revised Regulation/Provision	EPA Action	
	Approve	Disapprove
340-041-0002(39)		Overflow Channels
340-41-0310 (Table 310A)	Constructed Channel	Overflow Channels
340-041-0310(1)	Entire WDMC	
340-041-0315(1)	Entire WDMC	
340-041-0315(2)	Constructed Channel and Partially Approve for Overflow Channels	Partially Disapprove Overflow Channels
340-041-0315(2)(a)(Table 315)	Constructed Channel	Disapprove Overflow Channels
340-041-0315(2)(b)	Partially Approve for Entire WDMC	Partially Disapprove for Entire WDMC
340-041-0315(2)(c)	Entire WDMC	
340-041-0315(2)(d)		Overflow Channels
340-041-0315(2)(e)	Constructed Channel	
340-041-0315(2)(f)	Overflow Channels	
340-041-0315(3)	Entire WDMC	

*WDMC= West Division Main Canal