

**Appendix K. Cuyahoga River Water Quality Standards as Listed in Ohio  
Administrative Code Chapter 3745-1-26**

- (E) The following uses, criteria and conditions shall apply to the Cuyahoga river ship channel.
- (1) The Cuyahoga river ship channel is a unique segment of the Cuyahoga river. It is a federally maintained navigation channel which originates at the Newburgh and South Shore railroad bridge (river mile 5.6) and empties into the Cleveland harbor portion of Lake Erie. The maintenance of the channel is important to commerce and the economic well being of the Cleveland area. The channel averages two hundred seventy feet in width, is maintained at a uniform depth of twenty-three feet and is vertically sheet piled along the vast majority of its length. The physical configuration of the channel results in a ten-day time of travel for a mass of water entering the ship channel at critical low flow conditions.

Modeling projections of water quality in the channel have shown that levels of oxygen demanding materials found in natural waters are sufficient to depress dissolved oxygen below the warmwater habitat criteria. The modeling simulations also indicate that the existing loads of oxygen demanding materials could maintain the warmwater habitat dissolved oxygen criteria if the river depth was decreased to twelve feet. However, this would preclude the use of the channel for commercial navigation.

The physical habitat of the channel and the prevailing background dissolved oxygen regime are insufficient to support any resemblance of the warmwater habitat aquatic life use designation. A use attainability analysis has been conducted and indicates the extant fauna is substantially degraded and the potential for recovery of the fauna to the level characteristic of other Lake Erie river mouths is precluded by irretrievable human induced conditions. However, the ship channel is used by fish as a migratory route in the spring months. This seasonal and stream flow related use shall be recognized and protected through this rule.

Full body contact recreational uses such as rowing, sculling and jet skiing do occur in the ship channel. The ship channel is also used as an industrial water supply but has no potential to support agricultural or public water supply uses.

- (2) Use designations for the Cuyahoga river ship channel are as follows:
- (a) Aquatic life;
- (i) During the months of June through January, and during the remaining months of the year whenever the river flow is less than seven hundred and three cubic feet per second at the United States geological survey gage at Independence (#04208000), the aquatic life use shall be limited resource water - navigation maintenance as defined in rule 3745-1-07 of the Administrative Code.
- (ii) During the months of February through May whenever the river flow equals or exceeds seven hundred and three cubic feet per second at the United States geological survey gage at Independence (#04208000), the aquatic life use shall be fish passage. The fish passage use is defined as

those rivers or other water bodies that have been the subject of a use attainability analysis and have been found to be incapable of supporting and maintaining a balanced, integrated, adaptive community of warmwater organisms but are capable of supporting the passage of warmwater fish during migratory periods.

- (b) Industrial water supply as defined in rule 3745-1-07 of the Administrative Code; and
  - (c) Primary contact recreation as defined in rule 3745-1-07 of the Administrative Code.
- (3) The criteria and other provisions to protect the designated uses of the ship channel 3745-1-26 3 shall be those set forth in rules 3745-1-01 to 3745-1-07 of the Administrative Code with the following exceptions:
- (a) The limited resource water dissolved oxygen criterion shall be 1.5 mg/l minimum. No dissolved oxygen average criteria apply.
  - (b) The fish passage criteria shall be the same as the warmwater habitat criteria in rule 3745-1-07 of the Administrative Code, with the exception that the biological criteria do not apply.

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Table 26-2. Use designations for water bodies in the Cuyahoga river drainage basin.

| Water Body Segment   | Use Designations     |             |             |             |             |             |              |             |             |             |        |             | Comments                        |
|--|----------------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|--------|-------------|---------------------------------|
|  | Aquatic Life Habitat |             |             |             |             |             | Water Supply |             |             | Recreation  |        |             |                                 |
|  | S<br>R<br>W          | W<br>W<br>H | E<br>W<br>H | M<br>W<br>H | S<br>S<br>H | C<br>W<br>H | L<br>R<br>W  | P<br>W<br>S | A<br>W<br>S | I<br>W<br>S | B<br>W | P<br>C<br>R |                                 |
| Cuyahoga river - entirety of ship channel (Newburgh and South Shore (N&SS) railroad bridge (RM 5.6) to the mouth, including the old river channel) |                      |             |             |             |             |             |              |             |             |             |        |             | See paragraph (E) of this rule. |
| - Bath rd. (RM 37.2) to Rockside rd. (RM 13.1)   | +                    | +           |             |             |             |             |              | +           | +           |             |        | +           |                                 |
| - Edison dam (RM 44.6) to North Main st. in Akron (RM 43.9)  | +                    | +           |             |             |             |             |              | +           | +           |             |        | +           |                                 |
| - Lake Rockwell (Cuyahoga river RM 62.0 to RM 57.97)   | +                    |             | +           |             |             |             |              | +           |             |             |        |             |                                 |
| - Troy-Burton township line in Geauga county (RM 83.9) to Lake Rockwell (RM 62.0)  | +                    | +           |             |             |             |             |              | +           | +           |             |        | +           |                                 |
| - all other segments   |                      |             | +           |             |             |             |              | +           | +           |             |        | +           |                                 |
| Burk branch (Burke brook) - uncovered segment adjacent to I-77   |                      |             |             |             |             |             | +            | +           | +           |             |        | +           | Channel modification            |
| Big creek - within boundaries of Cleveland metro park  | *                    | +           |             |             |             |             |              | +           | +           |             |        | +           |                                 |
| - all other segments   |                      |             | +           |             |             |             |              | +           | +           |             |        | +           |                                 |
| Ford branch (Big creek RM 4.4)   |                      |             |             |             |             |             | +            | +           | +           |             |        | +           | Small drainageway maintenance   |
| West creek (Cuyahoga river RM 11.05)   |                      |             | +           |             |             |             |              | +           | +           |             |        | +           |                                 |
| Mill creek   |                      |             | +           |             |             |             |              | +           | +           |             |        | +           |                                 |
| Tinkers creek - Richmond rd. (RM 8.75) to the mouth  | o                    | +           |             |             |             |             |              | +           | +           |             |        | +           |                                 |
| - within boundaries of the J. Arthur Herrick nature preserve (RM 29.3 to 28.9)   | o                    | +           |             |             |             |             |              | +           | +           |             |        | +           |                                 |
| - all other segments   |                      | +           |             |             |             |             |              | +           | +           |             |        | +           |                                 |

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Table 26-2. Use designations for water bodies in the Cuyahoga river drainage basin.

| Water Body Segment  | Use Designations     |             |             |             |             |             |              |             |             |             |        |             | Comments                              |
|---|----------------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|--------|-------------|---------------------------------------|
|   | Aquatic Life Habitat |             |             |             |             |             | Water Supply |             |             | Recreation  |        |             |                                       |
|   | S<br>R<br>W          | W<br>W<br>H | E<br>W<br>H | M<br>W<br>H | S<br>S<br>H | C<br>W<br>H | L<br>R<br>W  | P<br>W<br>S | A<br>W<br>S | I<br>W<br>S | B<br>W | P<br>C<br>R |                                       |
| Wood creek (Tinkers creek RM 2.44)                                      |                      |             |             |             |             |             | +            |             | +           | +           |        | +           | High gradient                         |
| Deerlick run (Tinkers creek RM 3.7) - RM 0.37 to the mouth              | +                    | +           |             |             |             |             |              |             | +           | +           |        | +           |                                       |
| - all other segments  | +                    |             |             |             |             |             | +            |             | +           | +           |        | +           | High gradient                         |
| Southwest branch (Deerlick run RM 0.40)                                 | +                    |             |             |             |             |             | +            |             | +           | +           |        | +           | High gradient                         |
| South branch (Deerlick run RM 0.46) - Egbert rd. (RM 0.45) to the mouth | +                    |             |             |             |             |             | +            |             | +           | +           |        | +           | High gradient                         |
| - all other segments  |                      |             |             |             |             |             | +            |             | +           | +           |        | +           | High gradient                         |
| North branch (Deerlick run RM 0.46)                                     | +                    |             |             |             |             |             | +            |             | +           | +           |        | +           | High gradient                         |
| Hukill tributary (North branch RM 0.50)                                 |                      |             |             |             |             |             | +            |             | +           | +           |        | +           | High gradient                         |
| Ferro tributary (North branch RM 0.50)                                  |                      |             |             |             |             |             | +            |             | +           | +           |        | +           | High gradient                         |
| Hawthorne creek (Tinkers creek RM 7.8)                                  |                      | +           |             |             |             |             |              |             | +           | +           |        | +           |                                       |
| Beaver Meadow run (Tinkers creek RM 10.6)                               |                      | +           |             |             |             |             |              |             | +           | +           |        | +           |                                       |
| Pond brook (Tinkers creek RM 22.5)                                      |                      |             |             | +           |             |             |              |             | +           | +           |        | +           | EOLP ecoregion - channel modification |
| Chippewa creek - st. rte. 82 to the mouth                               | *                    | +           |             |             |             |             |              |             | +           | +           |        | +           |                                       |
| - all other segments  |                      | +           |             |             |             |             |              |             | +           | +           |        | +           |                                       |
| Brandywine creek - Penn Central railroad tracks (RM 2.2) to the mouth   | o                    | +           |             |             |             |             |              |             | +           | +           |        | +           |                                       |
| - all other segments  |                      | +           |             |             |             |             |              |             | +           | +           |        | +           |                                       |
| Stanford run  | o                    | *           |             |             |             |             |              |             | *           | *           |        | *           |                                       |
| Slipper run   |                      | *           |             |             |             |             |              |             | *           | *           |        | *           |                                       |

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| Water Body Segment  | Use Designations     |        |        |        |        |        |              |        |        |            |        |             | Comments |
|---|----------------------|--------|--------|--------|--------|--------|--------------|--------|--------|------------|--------|-------------|----------|
|   | Aquatic Life Habitat |        |        |        |        |        | Water Supply |        |        | Recreation |        |             |          |
|   | S<br>R<br>W          | W<br>H | E<br>H | M<br>H | S<br>H | C<br>H | L<br>W       | P<br>S | A<br>S | I<br>S     | B<br>W | P<br>C<br>R |          |
| Boston run  | o                    | *      |        |        |        |        |              |        | *      | *          |        | *           |          |
| Haskell run   | o                    | *      |        |        |        |        |              |        | *      | *          |        | *           |          |
| Ritchie run   | o                    | *      |        |        |        |        |              |        | *      | *          |        | *           |          |
| Salt run  | o                    | *      |        |        |        |        |              |        | *      | *          |        | *           |          |
| Dickerson run - RM 3.1 to the mouth                             | o                    | *      |        |        |        |        |              |        | *      | *          |        | *           |          |
| - all other segments  |                      | *      |        |        |        |        |              |        | *      | *          |        | *           |          |
| Langes run - RM 2.4 to the mouth                                | o                    | *      |        |        |        |        |              |        | *      | *          |        | *           |          |
| - all other segments  |                      | *      |        |        |        |        |              |        | *      | *          |        | *           |          |
| Robinson run  | o                    | *      |        |        |        |        |              |        | *      | *          |        | *           |          |
| Furnace run - Cuyahoga-Summit county line (RM 8.8) to the mouth | *                    | +      |        |        |        |        |              |        | +      | +          |        | +           |          |
| - all other segments  |                      | +      |        |        |        |        |              |        | +      | +          |        | +           |          |
| Yellow creek - RM 1.5 to the mouth                              | o                    | +      |        |        |        |        |              |        | +      | +          |        | +           |          |
| - all other segments  |                      | +      |        |        |        |        |              |        | +      | +          |        | +           |          |
| North fork  |                      | +      |        |        |        |        |              |        | +      | +          |        | +           |          |
| Woodward creek - Northampton rd. (RM 3.4) to Bath rd. (RM 2.2)  | o                    | *      |        |        |        |        |              |        | *      | *          |        | *           |          |
| - all other segments  |                      | *      |        |        |        |        |              |        | *      | *          |        | *           |          |
| Sand run  |                      | +      |        |        |        |        |              |        | +      | +          |        | +           |          |
| Mud brook   |                      | +      |        |        |        |        |              |        | +      | +          |        | +           |          |

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|---|----------------------|--------|--------|--------|--------|--------|--------------|--------|--------|------------|--------|-------------|---------------------------------------|
|   | Aquatic Life Habitat |        |        |        |        |        | Water Supply |        |        | Recreation |        |             |                                       |
|   | S<br>R<br>W          | W<br>H | E<br>H | M<br>H | S<br>H | C<br>H | L<br>W       | P<br>S | A<br>S | I<br>S     | B<br>W | P<br>C<br>R |                                       |
| Powers brook  |                      | +      |        |        |        |        |              |        | +      | +          |        | *           |                                       |
| Little Cuyahoga river   |                      | +      |        |        |        |        |              |        | +      | +          |        | +           |                                       |
| Ohio canal (little Cuyahoga river RM 2.0) - Summit lake (RM 2.84) to lock 1 (RM 1.25) |                      |        |        | +      |        |        |              |        | +      | +          |        | +           | EOLP ecoregion - channel modification |
| - lock 1 to end of enclosed segment (RM 0.47)   |                      |        |        |        |        |        | +            |        |        |            |        | +           | Channel modification                  |
| - RM 0.47 to the mouth  |                      |        |        | +      |        |        |              |        | +      | +          |        | +           | EOLP ecoregion - channel modification |
| Camp brook (a.k.a. Chessie tributary) (little Cuyahoga river RM 4.1)                  |                      | +      |        |        |        |        |              |        | +      | +          |        | +           |                                       |
| Springfield lake outlet   |                      | +      |        |        |        |        |              |        | +      | +          |        | +           |                                       |
| Wingfoot lake outlet  |                      | +      |        |        |        |        |              |        | +      | +          |        | +           |                                       |
| Union Oil tributary (little Cuyahoga river RM 11.6)                                   |                      | +      |        |        |        |        |              |        | +      | +          |        | +           |                                       |
| Fish creek - headwaters to Sunrise dr. (RM 1.3)                                       |                      |        |        | +      |        |        |              |        | +      | +          |        | +           | EOLP ecoregion - channel modification |
| - all other segments  |                      | +      |        |        |        |        |              |        | +      | +          |        | +           |                                       |
| Plum creek  |                      | *      |        |        |        |        |              |        | *      | *          |        | *           |                                       |
| Breakneck creek   |                      | +      |        |        |        |        |              |        | +      | +          |        | +           |                                       |
| Wahoo ditch   |                      |        |        | +      |        |        |              |        | +      | +          |        | *           | EOLP ecoregion - channel modification |
| Hommon avenue ditch   |                      |        |        |        |        | +      |              |        | +      | +          |        | +           | Small drainageway maintenance         |
| Congress lake outlet (Feeder canal)   |                      |        |        | +      |        |        |              |        | +      | +          |        | +           | EOLP ecoregion - channel modification |
| Potter creek  |                      | *      |        |        |        |        |              |        | *      | *          |        | *           |                                       |
| Black brook   |                      | +      |        |        |        |        |              |        | +      | +          |        | +           |                                       |

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| Water Body Segment   | Use Designations     |             |             |             |             |             |             |              |             |             |            |             |             | Comments |
|--|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|-------------|------------|-------------|-------------|----------|
|  | Aquatic Life Habitat |             |             |             |             |             |             | Water Supply |             |             | Recreation |             |             |          |
|  | S<br>R<br>W          | W<br>W<br>H | E<br>W<br>H | M<br>W<br>H | S<br>S<br>H | C<br>W<br>H | L<br>R<br>W | P<br>W<br>S  | A<br>W<br>S | I<br>W<br>S | B<br>W     | P<br>C<br>R | S<br>C<br>R |          |
| Sawyer brook   |                      | *           |             |             |             |             |             |              | *           | *           |            | *           |             |          |
| Bridge creek   |                      |             | +           |             |             |             |             |              |             | +           | +          |             | +           |          |
| West branch  |                      |             | +           |             |             |             |             |              |             | +           | +          |             | +           |          |
| Butternut creek  |                      |             | +           |             |             |             |             |              |             | +           | +          |             | +           |          |
| Unnamed tributary (Cuyahoga river RM 88.0)                     |                      |             | +           |             |             |             |             |              |             | +           | +          |             | +           |          |
| Johnson Rubber tributary (unnamed tributary RM 2.3)            |                      |             |             |             |             |             | +           |              |             | +           | +          |             | +           |          |
| Tare creek   |                      | *           |             |             |             |             |             |              | *           | *           |            | *           |             |          |
| Doan brook   |                      | *           |             |             |             |             |             |              | *           | *           |            | *           |             |          |
| Shaker Lakes national environmental education landmark         | *                    | *           |             |             |             |             |             |              | *           | *           |            | *           |             |          |
| Ninemile creek   |                      | *           |             |             |             |             |             |              | *           | *           |            | *           |             |          |
| Euclid creek - Anderson road (RM 5.6) to U.S. rte. 20 (RM 2.4) | *                    | *           |             |             |             |             |             |              | *           | *           |            | *           |             |          |
| - all other segments   |                      | *           |             |             |             |             |             |              | *           | *           |            | *           |             |          |
| East branch (Euclid creek RM 3.2)                              |                      |             | +           |             |             |             |             |              |             | +           | +          |             | +           |          |
| Unnamed tributary (East branch RM 1.55)                        |                      |             |             |             |             |             | +           |              |             | +           | +          |             | +           |          |

SRW = state resource water; WWH = warmwater habitat; EWH = exceptional warmwater habitat; MWH = modified warmwater habitat; SSH = seasonal salmonid habitat; CWH = coldwater habitat; LRW = limited resource water; PWS = public water supply; AWS = agricultural water supply; IWS = industrial water supply; BW = bathing water; PCR = primary contact recreation; SCR = secondary contact recreation.