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| DEClogoR | **MIXING ZONES and SPAWNING AREAS****A Side-by-Side Comparison of DEC’s Regulations,** **HB 85, and HB 86 (2011 Legislative Session)** |

**Introduction to Mixing Zone Comparison Chart**

The subject of whether and when Department of Environmental Conservation (DEC) should permit mixing zones (MZs) in fish spawning areas has attracted significant public interest for several years.

DEC proposed changes to the MZ regulations and sought public comment during an extended public comment period from July 26 – November 1, 2004. The Department then proposed substantially different regulations and a second public comment period ran from October 17 – December 19, 2005. DEC adopted amended regulations governing MZs in 2006. *See* 18 AAC 70.240. Note that the “old” (2003) regulations, prior to the 2006 amendments are still being used for permitting MZs. Under the Clean Water Act, the current, 2006 regulations cannot be used until the Environmental Protection Agency (EPA) approves them. EPA approval is pending and it is not unusual for the approval process for regulations changes to take several years.

Since the 2006 regulations amendments, there have been several bills introduced before the Alaska Legislature to change the law and also a citizens’ initiative to similar effect (identified as 07WIFI, certified by the Lt. Governor on Nov. 8, 2007). There are currently two bills pending with the legislature, HB 85 and HB 86.

Either bill would, if enacted, change the way that mixing zones in spawning areas are regulated. However, they would do so in different ways. It is not a simple matter to summarize the similarities and differences between the four laws (that is, the “old” 2003 regulations that are still in use, the current 2006 regulations that are awaiting EPA approval, and the two pending bills), because there are several variables to consider, such as: which fish species and life stages are covered; how a “spawning area” is defined; and what sorts of exceptions are allowed.

The attached chart illustrates how the four different laws address these variables. The chart necessarily condenses the details of the four laws into a simplistic form, to allow for easy comparison. Anyone who wishes a comprehensive understanding of how the bills would change the existing approach to MZs in spawning areas must undertake a more searching inquiry, by actually comparing the language of the laws side-by-side. This chart is not meant as a substitute for a detailed analysis, but rather as an introduction to this important issue.

Questions concerning this chart should be directed to Nancy Sonafrank, Program Manager, Water Quality Standards, Assessment and Restoration Programs, 451-2726.

MIXING ZONES & SPAWNING AREAS

A Side-by-Side Comparison of DEC’s “Old” and Current Regulations, HB 85 & 86 (2011)

**PROHIBITIONS AND CONDITIONS**

| **Topic** | **“Old” 2003 Regulation (still in use)** | **Current Regulation (2/06) (not effective yet)** | **Pending Bill, HB 85** **(1-18-2011)** | **Pending Bill, HB 86** **(1-14-2011)** |
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| **Which Anadromous[[1]](#footnote-1) Fish Species are Covered?** | Prohibits MZs in spawning areas for salmon and all other anadromous fish, such as lampreys and smelts, even if not specifically listed. | Prohibits MZs in spawning areas for five species of Pacific salmon. Also prohibits MZs in spawning areas for other listed anadromous species including rainbow trout, Arctic char, Dolly Varden, whitefish, and cutthroat trout. | Prohibits MZs in spawning areas for salmon and all other anadromous fish, such as lampreys and smelts, even if not specifically listed. | Prohibits MZs in spawning areas for salmon and all other anadromous fish, such as lampreys and smelts, even if not specifically listed. |
| **Which Resident (i.e. non-anadromous) Fish Species are Covered?** | Prohibits MZs in spawning areas for fourteen listed fish species including trout, grayling, landlocked salmon, etc. | Prohibits MZs in spawning areas for fourteen listed fish species including trout, grayling, landlocked salmon, etc. | Prohibits MZs in areas with resident fish redds for fourteen listed fish species including trout, grayling, landlocked salmon, etc. | Prohibits MZs in areas with resident fish redds for fourteen listed fish species including trout, grayling, landlocked salmon, etc. |
| **What waters are Protected by MZ Prohibitions?** | Streams, rivers, and other flowing fresh waters. | Lakes, streams, rivers, or other flowing fresh waters. | Lakes, streams, rivers, or other flowing fresh waters. | Lakes, streams, rivers, or other flowing fresh waters. |
| **What Life Stages Are Protected?** | Includes all life stages present during spawning, incubation and rearing. |  Includes life stages present during spawning, incubation and rearing. | Spawning only, but includes the area even when spawning fish are not present. |  Spawning only, but includes the area even when spawning fish are not present. |
| **What is meant by a “Spawning Area”? Just a physical area, or also consideration of when fish spawn there?** | No specific reference to time in definition of spawning. In practice, spawning considered by F&G and DNR to have both location and time characteristics in which spawning fish, eggs or alevins are present. | A spawning area has both location and time characteristics. In other words, it is a spawning area only when fish are spawning there. | A spawning area is the physical location where spawning occurs. It is a spawning area, even when fish are not spawning there. | A spawning area is the physical location where spawning occurs. It is a spawning area, even when fish are not spawning there. |
| **Must DEC Consult with Other Agencies?** | Not required, but common practice to consult with F&G and DNR. | Requires approvals and consultations with the Departments of Fish and Game or Natural Resources concerning spawning areas and mitigation plans. | Not required, except in the narrow context of turbidity MZs for placer mines. | Not required, except in the narrow context of turbidity MZs for placer mines. |
| **Is there an annual report required for authorized MZs?** | Not required by MZ regulations. Permits often require monthly discharge and ambient water quality monitoring and reporting.  | Not required by MZ regulations. Permits often require monthly discharge and ambient water quality monitoring and reporting. | Annual report required from MZ permittees on amount, nature and description of pollutants to post on web. Activities exempted: streambed disturbance, water turbidity, private sewage systems. Pollutants exempted from reporting: temperature, acidity or alkalinity, dissolved oxygen. | Not required. |

**EXCEPTIONS TO PROHIBITIIONS ON MIXING ZONES**

| **Topic** | **“Old” 2003 Regulation (still in use)** | **Current Regulation (2/06) (not effective yet)** | **Pending Bill, HB 85** **(1-14-2011)** | **Pending Bill, HB 86** **(1-14-2011)** |
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| **Exception for Existing Mixing Zones (i.e. “Grandfather Rights” for Mixing Zones.)** | Not allowed. No “grandfather rights” for MZs that fish start spawning in. | Allows permittees to keep MZs if fish start spawning there after the MZ is first authorized. | Allows public or private domestic wastewater permittees (or domestic facilities that have never been permitted) to keep MZs if fish start spawning there after the MZ is first authorized (or after the date of initial operation of the facility), but only for the “useful life” of the facility. Also grandfathers MZs in spawning areas if they were authorized five or more years before the effective date of the bill. | “Grandfather rights” limited to municipal and village wastewater facilities. Allows MZs during the useful life of the facility if fish spawning was not ongoing at the time of initial authorization. |
| **Exception for Mixing Zones for Pollutants that Don’t Harm Aquatic Life.** | No exception allowed. | Allows MZs in spawning areas of listed resident species (but not salmon) for pollutants that do not affect aquatic life, such as fecal coliform, if there is also no adverse effect to future spawning, incubation and rearing. | No exception for pollutants that don’t harm aquatic life. | No exception allowed. |
| **Exception for Mixing Zones Where Adverse Effects are Mitigated.** | Not allowed. | For listed resident species only (but not salmon), allows a MZ with a mitigation plan approved under state mitigation policies and after consultation with the Departments of Fish and Game or Natural Resources. | Not allowed. | Not allowed. |
| **Exception for Placer Mines.** | No specific exception, but in practice MZs allowed when spawning fish, eggs, and alevins are not present and there is no effect on future spawning, incubation, and rearing. | No specific exception, but eligible for other exceptions meeting conditions listed above. MZs allowed when spawning is not occurring and there is no effect on future spawning, incubation and rearing. | Includes exception for a turbidity MZ for placer mines with concurrence of ADF&G that there will be no adverse effects on present or future spawning, incubation, or rearing. | Allows a MZ for turbidity for a placer mine in a spawning area (location) with certain restrictions, including restricting the discharge to periods when spawning is not occurring. |
| **Exception for Seafood Processors.** | No specific exception, but **a**llows mixing zone when spawning fish, eggs, and alevins are not present and the MZ would not affect future spawning, incubation, and rearing. | No specific exception, but eligible for other exceptions meeting conditions listed above. | Not allowed. | Not allowed. |
| **Exception for some Publicly-owned Treatment Works.** | No specific exception, but allows mixing zone when spawning fish, eggs, and alevins are not present and the MZ would not affect future spawning, incubation, and rearing. | No specific exception, but eligible for other exceptions meeting conditions listed above. | Allows public or private domestic wastewater permittees (or domestic facilities that have never been permitted) to keep MZs if fish start spawning there after the MZ is first authorized (or after the date of initial operation of the facility), but only for the “useful life” of the facility.  | Limited “grandfather rights” for MZs for municipal and village wastewater facilities only during the useful life of the facility if fish spawning was not ongoing at the time of initial authorization. |

1. “Anadromous” means a fish or fish species that spends portions of its life cycle in both fresh and salt waters, entering fresh water from the sea to spawn. [↑](#footnote-ref-1)