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Deval Patrick
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Richard K. Sullivan, Jr.
Secretary
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Commissioner

July 15, 2013

Town of West Tisbury
Board of Selectman
P.O. Box 278
West Tisbury, MA 02575

Re: Breaching of Tisbury Great Pond, West Tisbury

JUL 18 2013

Dear Board of Selectman;

In response to inquiries related to the breaching of Tisbury Great Pond from the Riparian Owners of Tisbury Great Pond, the Massachusetts Division of Marine Fisheries (*Marine Fisheries*) offers the following guidance related to diadromous fish passage. The Division places much interest and importance on this topic because of the large area Tisbury Great Pond provides for spawning and nursery habitat for the anadromous alewife (*Alosa pseudoharengus*) and white perch (*Morone americana*) and nursery habitat for the catadromous American eel (*Anguilla rostrata*).

We have reviewed a summary of pond openings from the Riparian Owners of Tisbury Great Pond for 1993 to 2005. The Riparian Owners activities are authorized by Chapter 203 of the 1904 Acts of the Massachusetts Legislature. They seek to cut a 10 ft wide by 3 ft deep channel that connects the ocean and Tisbury Great Pond. To maximize the days of water exchange, they seek to make the cut when pond elevation is above 5.0 ft (USGS datum; or about 3.5 ft above sea level), during high tide of a spring tide, and there is low surf and calm conditions or at least low southwest wind. The channel becomes filled in again within several days to several months depending on the wide range of weather and surf condition at this location. In order to support fish passage, pond water quality and target pond elevations, the channel is usually cut 3-4 times per year using an excavator.

The origin of the Chapter 203 authorization is stated to serve the draining of the lowlands and meadows around the great pond. The Act does not address migratory fish; yet there is clear documentation that the openings were essential for supporting the migrations of river herring that supported large and valuable fisheries in the 19th and early 20th centuries (Belding 1921). Belding (1921) described the private leasing of the rights to harvest river herring in Tisbury Great Pond with the first lease approved by the State legislature in 1869 and harvests averaging 1200 barrels of herring in the 1910s. More recent *Marine Fisheries* surveys of anadromous fish in Massachusetts describe the herring migrations into Tisbury Great Pond as dependent on managed beach openings (Reback and DiCarlo 1972; and Reback et al. 2004).

Our position has not changed on the practice of opening Tisbury Great Pond for over 70 years and continues from the Division of Fish and Game (Dept. of Conservation) that preceded our agency. We support the practice of barrier beach openings at Tisbury Great Pond for the purpose of providing passage to migratory diadromous fish and to improve pond salinity for shellfish. Section 19 of M.G.L. Chapter 130 requires property owners to provide passage for sea-run fish and authorizes the Director of *Marine Fisheries* to enforce this requirement and work with property owners to maintain fish passage. We believe the intention of Section 19 applies to the beach cutting for Tisbury Great Pond and find ample

documentation of the practice to support sea-run fish migrations for 150 years. Given our level of review of this situation presently we do not have a firm opinion on whether this activity should receive an exemption under the Wetlands Protection Act or requires authorization from the U.S. Army Corps of Engineers for work in navigable waterways.

Operations and Maintenance Plan. We recommend that the Town of West Tisbury work with the Town of Chilmark and the Riparian Owners of Tisbury Great Pond to develop an Operations and Maintenance Plan for providing sea-run fish passage to Tisbury Great Pond. Section 19 of M.G.L. Chapter 130 also provides the authority to the Director of *Marine Fisheries* to implement O&M plans for fish passageways. In this case, we suggest a cooperative effort with all parties to prepare a draft plan.

The O&M plan can rely on local knowledge and our understanding of the life history needs of sea-run fish specific to the region and Tisbury Great Pond (Evans et al. 2011). We recommend allowing passage between April 1st and June 15th to support the spawning migrations of alewife and white perch and between March 15th and June 30th to support the spring glass eel migration of American eel. We also recommend a fall opening to allow juvenile alewife to exit the pond between September 1st and November 15th and to allow mature American eel to exit between September 1st and October 31st.

In order to simplify the timing of openings we offer the following suggestions. We view this as a conceptual plan and look forward to working with the Towns and the Riparian Owners to develop an O&M plan for fish passage that relates to environmental benchmarks.

Annual Opening #1: near April 1st to allow eel, alewife and white perch spring migrations.

Annual Opening #2: late May to continue passage for spring migrations.

Annual Opening #3: summer as needed to support pond water quality for all aquatic life.

Annual Opening #4: near Sept. 1st to allow alewife, white perch and American eel (adult) emigration.

Sincerely,



Bradford C. Chase
Diadromous Fish Biology and Management Project

Cc:

Maria McFarland, West Tisbury Conservation Commission
Chilmark Board of Selectmen and Conservation Commission
Kent Healy, Riparian Owners of Tisbury Great Pond
Greg Skomal, Eileen Feeny and Christian Petitpas, *Marine Fisheries*, New Bedford

References

- Belding, D. L. 1921. A report upon the alewife fisheries of Massachusetts. Mass. Div. of Fish. and Game, Dept. of Natural Resources, 135 pp.
- Reback, K. E. and J. S. DiCarlo. 1972. Completion report on the anadromous fish project. Mass. Div. Mar. Fish., Publication No. 6496, 113 pp.
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- Evans, N.T., K.H. Ford, B.C. Chase, and J.J. Sheppard. 2011. Recommended Time of Year Restrictions (TOYs) for Coastal Alteration Projects to Protect Marine Resources in Massachusetts. Mass. Div. of Mar. Fish., Tech. Report No. TR-47.