# **Atlantic States Marine Fisheries Commission**

# **American Eel Advisory Panel Call**

# **Draft Agenda**

Thursday June 28, 2018 1:30 -3:00 p.m.

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

Webinar URL: https://global.gotomeeting.com/join/751010517

Join the conference call:

Phone: 1-888-585-9008 followed by the Conference Room: 853-657-937

- 1) Welcome/Review draft agenda (M. Delucia, Chair) 1:30-1:35 p.m.
- 2) **Draft Addendum V** (*K. Rootes-Murdy*) 1:35-2:10 p.m. Objective: Present Draft Addendum and get recommendations from the AP on preferred options from each of the sections in the document.
- 3) **ME Eel Aquaculture Proposal** (*ME Staff*) 2:10 p.m.-2:40 a.m. Objective: Present the Proposal and collect comments from the AP
- 4) Dominican Republic Workshop on American Eel (M. Delucia) 2:40-2:55 p.m. Objective: Provide an Update on the Workshop including next steps and ask for any comments from the group.
- 5) Any other business 3:00 p.m.
  - Elect a new Chair

# **Atlantic States Marine Fisheries Commission**

# DRAFT ADDENDUM V TO THE AMERICAN EEL FISHERY MANAGEMENT PLAN FOR PUBLIC COMMENT

Commercial Yellow and Glass/Elver Eel Allocation and Management



**ASMFC Vision:**Sustainably Managing Atlantic Coastal Fisheries

# **April 2018**

(Revised 5/7/2018; Corrected information on Maine Yellow Eel Quota under Option 3 on pages 20 and 31)

#### **Public Comment Process and Proposed Timeline**

In October 2017, the American Eel Management Board initiated the development of an addendum to the Interstate Fishery Management Plan (FMP) to address the commercial management of yellow and glass/elver life stage fisheries starting in the 2019 fishing season. This Draft Addendum presents background on the Atlantic States Marine Fisheries Commission's (Commission) management of American eel, the addendum process and timeline, and a statement of the problem. This document also provides management options for public consideration and comment.

The public is encouraged to submit comments regarding this document at any time during the public comment period. The final date comments will be accepted is **Friday June 15, 2018 at 5:00 p.m**. Comments may be submitted at state public hearings or by mail, email, or fax. If you have any questions or would like to submit comment, please use the contact information below.

Mail: Kirby Rootes-Murdy, Senior FMP Coordinator Email: <a href="mailto:comments@asmfc.org">comments@asmfc.org</a>
Atlantic States Marine Fisheries Commission (Subject: Draft Addendum V)
1050 North Highland Street, Suite 200A-N Phone: (703) 842-0740
Arlington, VA 22201 Fax: (703) 842-0741

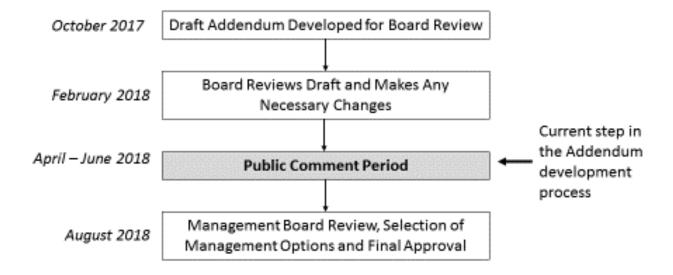


Table of Contents	
1.0 Introduction	3
2.0 Overview	3
2.1 Statement of Problem	3
2.2 Background	4
2.3 Description of the Fishery	6
2.3.1 Glass Eel/Elver Fishery	6
2.3.2 Yellow Eel Fishery	8
2.4 Status of the Stock	10
3.0 Proposed Management Program	10
3.1 Proposed Options for Maine Glass Eel Quota	10
3.2 Proposed Options of Glass Eel Aquaculture Plans	12
3.3 Proposed Options for Yellow Eel Coastwide Cap, Management Trigger, ar by-state Allocations	
Issue 1: Coastwide Cap	13
Issue 2: Management Trigger	15
Issue 3: Allocation	17
Issue 4: Quota Transfers	25
3.4 Timeframe for Addendum Provisions	26
4.0 Compliance	27
References	28
Appendix I. Addendum IV (2014) Aquaculture Plan Provisions	29
Appendix II. Modified Addendum IV Quotas (Option 3) Explained	30
Appendix III. Calculations for Option #5 Sub-Options	34
Appendix IV. State Yellow Eel Quotas under each Coastwide Cap Option	35

#### 1.0 Introduction

The Atlantic States Marine Fisheries Commission (Commission) has coordinated interstate management of American eel (*Anguilla rostrata*) from 0-3 miles offshore since 2000. American eel is currently managed under the Interstate Fishery Management Plan (FMP) and Addenda I-IV to the FMP. Management authority in the exclusive economic zone (EEZ) from 3-200 miles from shore lies with NOAA Fisheries. The management unit is defined as the portion of the American eel population occurring in the territorial seas and inland waters along the Atlantic coast from Maine to Florida.

The Commission's American Eel Management Board (Board) approved the following motions on October 17, 2017:

Move to initiate an addendum to consider alternative allocations, management triggers, and coastwide caps relative to the current management program for both the yellow and glass eel commercial fisheries starting in the 2019 fishing season.

This Draft Addendum proposes alternate commercial quota and aquaculture provisions for glass eels (both glass and elvers), coastwide commercial landings caps, alternative management triggers if caps are exceeded, and commercial allocations for the yellow eel fishery.

#### 2.0 Overview

#### 2.1 Statement of Problem

The Commission's Interstate Fisheries Management Program (ISFMP) Charter establishes fairness and equity as guiding principles for the conservation and management programs set forth in the Commission's FMPs. Allocations for the commercial fisheries of American eel have strived to achieve these principles through Addendum IV to the American eel FMP. In 2014, Addendum IV outlined a new coastwide commercial quota system for yellow and glass/elver life stage fisheries for American eel. Specifically for the yellow eel fishery, Addendum IV set an annual commercial coastwide landings quota (referred to as the Coastwide Cap) of 907,671 pounds that included two management triggers:

- 1. The Coastwide Cap is exceeded by more than 10% in a given year (998,438 pounds); or
- 2. The Coastwide Cap is exceeded for two consecutive years, regardless of percent overage. Exceeding one of the two triggers would result in automatic implementation of state-by-state quotas.

Since the implementation of Addendum IV, states have raised several concerns about the current management structure. The management trigger provision that if there is a second-year overage of any amount is troublesome to some jurisdictions given the inherent uncertainty of the landings data. The FMP requires states to report commercial landings by life stage, gear type, month, and region, although not all states were able to

provide this level of information for either the benchmark (2012) or updated (2017) stock assessment. In addition to not always having a complete data set to distinguish landings by life stage, there are other potential biases present in the commercial yellow eel data set. At least a portion of commercial American eel landings are from non-marine waters. Even with mandatory reporting, requirements do not always extend outside marine districts. Additionally, misreporting between conger eel, hagfish, slime eel, and American eel has been known to occur. Despite these uncertainties, the commercial landings do represent the best data available and are indicative of the trend of total landings over time.

Estimated landings indicate that the Coastwide Cap was exceeded by less than 10% in 2016. Therefore, if the Coastwide Cap is exceeded by any amount in 2017, state-by-state quotas would be implemented. Many have expressed concern that a small overage in 2017 could result in significant economic consequences for multiple jurisdictions. States have also expressed concern that the current Coastwide Cap was set independent of any ability to quantify the amount of change in landings necessary to affect fishing mortality rates and spawning stock status. Neither of those stock status elements are currently calculated for American eel due to a lack of data. In addition, states have expressed concern that moving to state-specific quotas for the American eel yellow life stage fishery would create a new administrative burden. Finally, equitable allocation of this resource is particularly difficult given the variation in the availability of the resource and the market demand for eels up and down the Atlantic coast.

Additionally, Addendum IV specified an annual glass eel commercial quota for Maine of 9,688 pounds for the 2015-2017 fishing seasons, and that it be re-evaluated after 3 years (prior to the start of the 2018 fishing season). In October 2017, the Board specified a glass eel commercial quota for Maine of 9,688 pounds for the 2018 fishing season. The state of Maine has expressed interest in increasing their glass eel quota, which requires a new addendum.

#### 2.2 Background

American eel inhabit fresh, brackish, and coastal waters along the Atlantic, from the southern tip of Greenland to Brazil. American eel eggs are spawned and hatch in the Sargasso Sea. After hatching, leptocephali—the larval stage—are transported to the coasts of North America and the upper portions of South America by ocean currents. Leptocephali then transform into glass eels via metamorphosis. In most areas, glass eel enter nearshore waters and begin to migrate up-river, although there have been reports of leptocephali found in freshwater in Florida. Glass eels settle in fresh, brackish, and marine waters, where they undergo pigmentation, reaching the elver life stage. Elvers subsequently mature into the yellow eel phase, most by the age of two years.

The ASMFC American Eel Board first convened in November 1995 and finalized the FMP for American Eel in November 1999 (ASMFC 2000a). The goal of the FMP is to conserve and protect the American eel resource to ensure its continued role in its ecosystems

while providing the opportunity for commercial, recreational, scientific, and educational uses (ASMFC 2000a). The FMP requires all states and jurisdictions to implement an annual young-of-year (YOY) abundance survey to monitor annual recruitment of each year's cohort (ASMFC 2000a, 2000b). In addition, the FMP requires a minimum recreational size and possession limit and a state license for recreational harvesters to sell eels. The FMP requires that states and jurisdictions maintain existing or more conservative American eel commercial fishery regulations for all life stages, including minimum size limits. Each state is responsible for implementing management measures within its jurisdiction to ensure the sustainability of its American eel population.

Since the FMP was approved in 1999, it has been modified four times. Addendum I (approved in February 2006) established a mandatory catch and effort monitoring program for American eel. Addendum II (approved in October 2008) made recommendations for improving upstream and downstream passage for American eels. Most recently, Addendum III (approved in August 2013) made changes to the commercial fishery, specifically implementing restrictions on pigmented eels, increasing the yellow eel size limit from 6 to 9 inches, and reducing the recreational creel limit from 50 fish to 25 fish per day. In October 2014, the Board approved Addendum IV which set goals of reducing overall mortality and maximizing the conservation benefit to American eel stocks (ASMFC 2014). The Addendum established a Coastwide Cap of 907,671 pounds of yellow eel, reduced Maine's glass eel quota to 9,688 pounds (2014 landings), and allowed for the continuation of New York's silver eel weir fishery in the Delaware River. For yellow eel fisheries, the Coastwide Cap was implemented starting in the 2015 fishing year and established two management triggers: (1) if the Coastwide Cap is exceeded by more than 10% in a given year, or (2) the Coastwide Cap is exceeded for two consecutive years regardless of the percent overage. If either one of the triggers are met then states would implement state-specific allocations based on average landings from 1998-2010 with allocation percentages derived from 2011-2013. Please note the Coastwide Cap specified in Addendum IV (907,671 pounds) is slightly above the combined state-by-state allocations (907,669 pounds) due to a rounding error. For all subsequent tables in this document that reference status quo state allocations, the combined state-by-state allocations is set equal to 907,699 pounds.

The objectives of Draft Addendum V are to:

- 1) Re-evaluate Maine's glass/elver eel quota based on updated information;
- 2) Re-evaluate the Coastwide Cap and management triggers to include recent fishery performance and updated landings data, and to ensure the overarching goal of the FMP
- to conserve and protect the American eel resource to ensure its continued role in the ecosystems while providing the opportunity for its commercial, recreational, scientific, and educational use is met; and
- 3) Address allocation issues including difficulties in equitable allocation and the administrative burden that would result from state-by-state quotas.

#### 2.3 Description of the Fishery

#### 2.3.1 Glass Eel/Elver Fishery

Life stage glass and elver eel harvest along the Atlantic coast is prohibited in all states except Maine and South Carolina. Prior to the implementation of the FMP, Maine was the only state compiling glass eel and elver fishery catch statistics. Under the FMP, all states are now required to submit fishery-dependent information. In recent years, Maine was the only state reporting substantial glass eel or elver harvest.

#### Maine Glass Eel/Elver Fishery

Since the implementation of the 9,688 pound glass eel quota for Maine in 2015 through Addendum IV, landings have tracked close to the quota. In both 2016 and 2017, landings were 97% and 96% of the quota, respectively, after being much lower in 2015 (5,260 pounds).

	Table 1. Maine's Glass	/Elver Eel Landings 2007-201	7 (Source: ACCSP)
--	------------------------	------------------------------	-------------------

Year	Landings	Value	
2007	3,714	\$1,287,479	
2008	6,951	\$1,486,353	
2009	5,199	\$514,629	
2010	3,158	\$592,405	
2011	8,585	\$7,656,345	
2012	21,610	\$38,791,627	
2013	18,081	\$32,926,991	
2014	9,688	\$8,440,333	
2015	5,260	\$11,389,891	
**2016	9,399	\$13,388,040	
**2017	9,282	>\$12,000,000	

<sup>\*\*</sup>Preliminary landings

In 2012, Maine's glass eel landings hit an all-time high of 21,610 pounds with a landed value of over \$38 million. This huge spike in price per pound created a gold rush mentality that brought with it poaching problems that most thought Maine could not overcome, and there was a call to close the fishery all together. Over the next two years, the Maine Department of Marine Resources (MEDMR) responded by instituting a voluntary reduction in harvest of 35% from the 18,076 pounds that was landed in 2013. This established the first glass eel quota for Maine at 11,749 pounds. Maine then

instituted individual fishing quotas, and penalties were moved from civil to criminal and included a "two-strike" provision where a harvester license would be permanently revoked. Also in 2013, MEDMR began to develop a swipe card program that would allow dealers to enter daily landings data quickly and allow MEDMR staff to analyze that data within 24 hours of receipt, as well as serve as a fishery management tool to implement an individual fishing quota (IFQ) for harvesters. The original harvester-to-dealer system was expanded in 2015 to include dealer-to-dealer transactions. With the implementation of Addendum IV, the elver quota was cut another 11%, reducing Maine's glass eel quota to 9,688 pounds. Since the implementation of the 9,688 pound glass eel quota, landings have tracked close to the quota with the exception of 2015 where a late spring with ice and high water contributed to a drop in landings – down to 5,260 pounds.

Since 2014, MEDMR has been able to effectively track the individual quotas of approximately 900 active harvesters each season as well as the overall quota. In a two-year period, over 23,000 daily landings reports did not need to be key-entered by MEDMR staff due to the Swipe Card System, and only two card failures were reported. In addition, the number of fishery-related infractions reported by the Marine Patrol dropped from over 200 in 2013 to under 20 in 2014 through 2016. The addition of the dealer-to-dealer swipe card program resulted in a difference of just over 120 pounds (approximately 2%) between what dealers reported purchasing directly from harvesters to what was exported from Maine dealers in 2015. These 120 pounds is likely attributed to shrinkage (die off between initial purchases to final shipment) and did not raise concerns for MEDMR staff.

Given their high market value, poaching of glass eels and elvers is known to be a serious problem in several states. Enforcement of the regulations is challenging due to the nature of the fishery (very mobile, nighttime operation, and high value for product). However, the recent cooperation between the State's enforcement agencies and the USFWS remains a high priority and has resulted in several convictions for violation of the Lacey Act.

#### North Carolina Aquaculture

Addendum IV to the FMP also allows approved Aquaculture Plans from states and jurisdictions to harvest up to 200 pounds of glass/elver eel annually from within their state waters for use in domestic aquaculture activities. The American Eel Farm (AEF) in North Carolina is the only facility to have applied and been approved for domestic aquaculture, which they have done annually since 2016. Fishing did not take place in 2016 due to permitting issues in North Carolina. In 2017, a total of 0.25 pounds of glass eels were harvested of the 200 pound quota. North Carolina Division of Marine Fisheries (NCDMF) submitted an amended plan on behalf of AEF for 2018-2020 which was approved by the Board in August 2017.

#### 2.3.2 Yellow Eel Fishery

Coastwide Description

Yellow eel landings have varied considerably over the years due to a combination of market trends and availability. These fluctuations are evident both within states and jurisdictions, as well as at a regional level. Such fluctuations pose significant management challenges with regard to balancing sustainable landings and access to the resource with economic considerations. Over the last 19 years, total coastwide landings have ranged from a low of approximately 717,698 pounds in 2002 to a high of approximately 1,189,455 pounds in 2011. State reported landings of yellow/silver eels in 2016 totaled 943,808 pounds (Table 2), which represent an 9% increase in landings from 2015 (868,122 pounds). 2016 yellow eel landings increased in Maine, Rhode Island, Connecticut, Maryland through Virginia, and Florida but decreased in all other states and jurisdictions.

**Table 2.** State-by-state Yellow Eel Landings: 1998-2016. Source: Personal Communication from State and Jurisdictions, January 2018.

Year	ME	NH	MA	RI	СТ	NY	NJ	DE	MD	PRFC	VA	NC	SC	GA	FL	Total
1998	0		3,456	967	5,606	16,867	94,327	131,478	301,833	209,008	123,837	91,084			13,819	992,741
1999	0		3,456	140	10,250	7,882	90,252	128,978	305,812	163,351	183,255	99,939			17,533	1,011,093
2000	0		2,976	25	4,643	5,824	45,393	119,180	259,552	208,549	114,972	127,099			6,054	894,577
2001	9,007		3,867	14,357	1,724	18,192	57,700	121,515	271,178	213,440	97,032	107,070			14,218	929,523
2002	11,617		3,949	22,965	3,710	30,930	64,600	99,529	208,659	128,595	75,549	59,940			7,587	717,698
2003	15,312		4,047	24,883	1,868	8,296	100,701	155,516	346,412	123,450	121,091	172,065			8,486	1,082,614
2004	29,646		5,328	19,858	1,374	5,354	120,607	137,489	273,142	116,263	123,812	128,875			7,330	969,318
2005	17,189	Time series	3,073	22,001	337	27,726	148,127	111,200	378,659	103,628	66,956	49,278	Time series	Time series	3,913	932,087
2006	27,489	average of	3,676	1,034	3,443	10,601	158,917	123,994	362,966	83,622	82,756	33,581	average of	Time series – average of – less than 400 – pounds –	1,248	894,192
2007	14,251	less than 400	2,853	1,230	935	14,881	169,902	139,647	343,141	97,361	56,512	37,937	_		7,379	886,470
2008	3,882	pounds -	3,297	8,866	6,046	15,025	137,687	80,002	381,993	71,655	84,031	23,833	pounds		15,624	832,475
2009	2,285	pourius	1,217	4,855	435	12,676	118,533	59,619	335,575	58,863	117,974	65,481	pourius		6,824	784,420
2010	2,605		322	3,860	167	12,179	105,089	69,355	524,768	57,755	77,263	122,104			11,287	986,937
2011	2,666		368	2,038	60	36,451	120,576	92,181	715,162	29,010	103,222	61,960			25,601	1,189,455
2012	12,775		462	1,484	2,228	35,603	113,806	54,304	590,412	90,037	121,605	64,110			11,845	1,100,881
2013	4,596		2,499	2,244	546	42,845	90,244	82,991	587,872	32,290	100,379	33,980	1		15,059	997,052
2014	4,320		3,903	2,353	1,390	38,143	91,225	62,388	619,935	49,293	109,537	60,755		[	14,092	1,057,467
2015	3,559		2,255	1,538	2,271	50,194	88,828	44,708	493,043	31,588	86,715	57,791			5,632	868,122
2016	4,509		1,705	2,651	2,445	36,371	67,422	44,558	583,578	58,223	96,336	39,911			6,034	943,808

Note: Due to data confidentiality rules, annual landings for New Hampshire, South Carolina, and Georgia are not shown rather the time series landings average of less than 400 pounds.

#### State-by-state Descriptions

The yellow American eel fishery in Maine occurs in both inland and tidal waters. Yellow eel fisheries in southern Maine are primarily coastal pot fisheries managed under a license requirement, minimum size limit, and gear and mesh size restrictions. New Hampshire has monitored its yellow eel fishery since 1980; reporting effort in the form of trap haul set-over days for pots or hours for other gears has been mandatory since 1990. Small-scale, commercial eel fisheries occur in Massachusetts and Rhode Island and are mainly conducted in coastal rivers and embayments with pots during May through November. Connecticut has a similar small-scale, seasonal pot fishery for yellow eels in the tidal portions of the Connecticut and Housatonic rivers. All New England states presently require commercial fishing licenses to harvest eels and maintain trip-level reporting.

Licensed eel fishing in New York occurs primarily in the Hudson River, the upper Delaware River (Blake 1982), and in the coastal marine district; prior to a closure starting fishing also occurred in Lake Ontario. A slot limit (greater than 9 inches and less than 14 inches to limit PCB exposure) exists for eels fished in the tidal Hudson River (from the Battery to Troy and all tributaries upstream to the first barrier), strictly for use as bait or for sale as bait only. Due to PCB contamination of the main stem, commercial fisheries have been closed on the freshwater portions of the Hudson River and its tributaries since 1976. The fishery in the New York portion of the Delaware River consists primarily of silver eels collected in a weir fishery. In 1995, New York approved a size limit in marine waters. New Jersey fishery regulations require a commercial license, a minimum mesh, and a minimum size limit. A minimum size limit was set in Delaware in 1995. Delaware mandated catch reporting in 1999 and more detailed effort reporting in 2007.

Maryland, Virginia, and Potomac River Fisheries Commission have primarily pot fisheries for American eels in Chesapeake Bay. Large eels are exported whereas small eels are used for bait in the crab trotline fishery, except in Virginia. Ninety-five percent of all American eel harvest in Virginia is by pots, and eel pots are the major pot gear. Virginia implemented a voluntary buyer reporting system in 1973 and a mandatory harvester reporting system, for all seafood species began in 1993. Since 1991, it has been mandatory that eel pots are equipped with mesh that cannot be less than one-half inch (1/2") by one-half inch (1/2"), with at least one unrestricted 4-inch by 4-inch square escape panels consisting of 1/2-inch by 1-inch mesh, regardless of pot shape. Maryland did not require licenses until 1981. Effort reporting was not required in Maryland until 1990. The Potomac River Fisheries Commission has had harvester reporting since 1964, and has collected eel pot effort since 1988.

North Carolina has a small, primarily coastal pot fishery that fluctuates with market demands. The majority of landings come from the Albemarle Sound area, with additional landings reported from the Pamlico Sound and "other areas." No catch records are maintained for freshwater inland waters, and no sale of eels harvested from

these waters is permitted. Landings for "other areas" reported by the state come from southern waterbodies under the jurisdiction of NCDMF. South Carolina instituted a permitting system over ten years ago to document total eel gear and commercial landings. Pots and traps are permitted in coastal waters for the yellow eel life stage fishery; fyke nets and dip nets are permitted for glass eels.

American eel fishing in Georgia was restricted to coastal waters prior to 1980 when inland fishing was permitted (Helfman et al. 1984). Landings data are available for the states, but effort data is not because no specific license is required to fish eels. The Florida pot fishery has a minimum mesh size requirement in the fishery and it is operated under a permit system.

#### 2.4 Status of the Stock

The last peer reviewed and accepted benchmark stock assessment was approved for management use in 2012. Analyses and results indicated that the American eel stock had declined and that there were significant downward trends in multiple surveys across the coast. It was determined that the stock was depleted but no overfishing determination could be made based on the analyses performed.

The 2012 benchmark stock assessment was updated in 2017 with data through 2016. All three trend analysis methods (Mann-Kendall, Manly, and ARIMA) detected significant downward trends in some indices. The Mann-Kendall test detected a significant downward trend in six of the 22 YOY indices, 5 of the 15 yellow eel indices, 3 of the 9 regional indices, and the 30-year and 40-year yellow-phase abundance indices. The remaining surveys tested had no trend, except for two which had positive trends. The Manly meta-analysis showed a decline in at least one of the indices for both yellow and YOY life stages. For the ARIMA results, the probabilities of being less than the 25th percentile reference points in the terminal year for each of the surveys were similar to those in ASMFC 2012 and currently three of the 14 surveys in the analysis have a greater than 50% probability of the terminal year of each survey being less than the 25th percentile reference point. Overall, the occurrence of some significant downward trends in surveys across the coast remains a cause for concern and the assessment maintained that the stock remains depleted.

#### 3.0 Proposed Management Program

The following options were developed from the Board motion from October 2017. The options are organized by the specific life stage fishery and issue item.

#### 3.1 Proposed Options for Maine Glass Eel Quota

**Note**: This addendum proposes changes to Maine's glass/elver eel quota as specified in Addendum IV. The following items will remain components of the commercial glass/elver eel fishery management program:

- **Quota Overages**: For any state or jurisdiction managed with a commercial glass/elver eel quota, if an overage occurs in a fishing year, that state or jurisdiction will be required to deduct their entire overage from their quota the following year, on a pound for pound basis.
- Reporting Requirements: Any state or jurisdiction with a commercial glass eel
  fishery is required to implement daily trip-level reporting with daily electronic
  accounting to the state for both harvesters and dealers in order to ensure
  accurate reporting of commercial glass eel harvest. The state of Maine's swipe
  card system is used by the state as a dealer report. Harvesters in Maine are
  currently reporting monthly via paper report submission. States or jurisdictions
  commercially harvesting less than 750 pounds of glass eels are exempt from this
  requirement.
- Monitoring Requirements: Any state or jurisdiction with a commercial glass eel fishery must implement a fishery-independent life cycle survey covering glass/elver, yellow, and silver eels within at least one river system. If possible and appropriate, the survey should be implemented in the river system where the glass eel survey (as required under Addendum III) is being conducted to take advantage of the long-term glass eel survey data collection. At a minimum the survey must collect the following information: fishery-independent index of abundance, age of entry into the fishery/survey, biomass and mortality of glass and yellow eels, sex composition, age structure, prevalence of *Anguillicoloides crassus* (invasive nematode), and average length and weight of eels in the fishery/survey. Survey proposals will be subject to Technical Committee (TC) review and Board approval. States or jurisdictions commercially harvesting less than 750 pounds of glass eels are exempt from this requirement.
- Glass Eel Harvest Allowance Based on Stock Enhancement Programs: Any state
  or jurisdiction can request an allowance for commercial harvest of glass eels
  based on stock enhancement programs implemented after January 1, 2011,
  subject to TC review and Board approval. Provisions of the stock enhancement
  program include: demonstration that the program has resulted in a measurable
  increase in glass eel passage and/or survival; harvest shall not be restricted to
  the basin of restoration (i.e. harvest may occur at any approved location within
  the state or jurisdiction); and harvest requests shall not exceed 25% of the
  quantified contribution provided by the stock enhancement program. See
  Addendum IV for more detail on specific stock enhancement program examples.

#### Option 1: Status Quo Quota for Maine of 9,688 pounds of glass eel

Maine's glass eel quota for 2019 and beyond would remain at 9,688 pounds. This quota level was specified based on the state's 2014 landings which was below the state's 2014 quota of 11,749 pounds, and has been in place since 2015. The Board chose to specify

the quota at this level starting in the 2015 fishing year due in part to interest in reducing landings from the previous two year period (2012-2013) while balancing concerns over economic hardship and incentivizing poaching if the quota were set at a lower level. To change the quota in future years, a new addendum would be required. Noted in the fishery description section is an overview of Maine's implementation of the swipe card program to improve the accuracy of state landings. As part of the provisions of Addendum IV and the 2015-2017 quota, the state also developed a life cycle fishery-independent survey, aimed at getting more biological data on glass, yellow, and silver eel life stages within one river system. The state was unable to collect data in 2016 but continued developing the survey in 2017; results will be presented to the TC in 2018.

#### Option 2: Maine Quota of 11,749 pounds of glass eel

Maine's glass eel quota for 2019 and beyond would be set at 11,749 pounds. This quota level was specified for 2014 based on input from industry and tribal representatives and was a 35% reduction from 2013 landings. This quota is approximately a 19% increase from the 2015-2017 quota. Through the swipe card program, the state of Maine has made great efforts to curtail poaching of glass eels. The swipe card system coupled with individual fishing quotas ensures that that the sale of an individual's eels is not comingled with poached eels. Maine also tracks dealer to dealer elver transactions, as well as what is exported out of the State by Maine licensed elver exporters. These transactions are compared to shipping invoices to ensure glass eels are not added to a shipment once it leaves Maine's jurisdiction. The Maine Marine Patrol has also been authorized to use as much overtime as needed to enforce all laws and regulations related to the glass eel fishery. A new addendum would be required to adjust the quota in future years to higher level.

#### 3.2 Proposed Options of Glass Eel Aquaculture Plans

Due to the increased desire to bring eels to market, this addendum proposes a new option for allowing states and jurisdictions to pool harvest allocations for use in domestic aquaculture facilities.

#### Option 1: Status Quo

The Aquaculture Plan provisions as specified in Addendum IV would remain in place and pooling of harvest among states and jurisdictions for domestic aquacultures <u>would not be allowed</u>. For more information on the current aquaculture plan provisions please refer to Appendix I. Addendum IV Aquaculture Plan Provisions.

#### Option 2: Pooling of Harvest allowance across states and jurisdictions

Under this option, up to **three contiguously bordered states** and jurisdictions would be allowed to pool their harvest of 200 pounds of glass eels up to a maximum of **600 pounds**. The 200 pound allowable harvest would be harvested from each state within the pooled grouping of states and jurisdictions, unless the states and jurisdictions can make a strong argument to have all eels harvested from a single watershed system. As

the pooling of harvest would be up to a maximum of 600 pounds, less than the 750 pounds that requires a life cycle survey, states and jurisdictions pooling harvest of glass eels for domestic aquaculture purposes would not need to implement a life cycle survey.

Additionally, it would be up to the states and jurisdictions to determine the number of aquaculture facilities per state. If under this option multiple facilities within a state or 'pooled' states are seeking glass eel harvest, it will be up to the states and jurisdictions to determine how the allowable harvest would be allocated among aquaculture facilities. States and jurisdictions would need to define harvest areas in their proposal to the Board.

This option would also seek to maintain all other Addendum IV Aquaculture Plan provisions (see Appendix I for more detail) with the exception of requiring states to objectively show that harvest would only occur from watersheds that minimally contribute to the spawning stock of American eel. If this option is selected, states would no longer need to objectively demonstrate harvest of glass eels for domestic aquaculture purposes are from watersheds that minimally contributes to the spawning stock of American eel. Please note: Under this option, current regulations for many states would not allow them to participate in pooling of glass eel harvest for aquaculture purposes. Most states (with the exception of Maine and South Carolina) currently have regulations and state statutes prohibiting the harvest of glass eels and assessing fines if these regulations and statutes are violated. If this option is selected and states that currently have these restrictions in place are requested to be party to a pooled harvest request and are unable to do so, this could result in greater harvest of glass eels from a single watershed or jurisdiction.

# 3.3 Proposed Options for Yellow Eel Coastwide Cap, Management Trigger, and Stateby-state Allocations

#### **Issue 1: Coastwide Cap**

The Addendum IV Coastwide Cap of 907,671 pounds, was set at the coastwide average landings during the years of 1998 through 2010 (based on landings information in 2014) which was the period covered by the 2012 benchmark stock assessment. Although the 2017 assessment update repeated the 2012 finding that the American eel population is depleted, the American Eel Allocation Working Group noted the following reasons to consider increasing the Coastwide Cap:

- Yellow eel landings have fluctuated over a narrow range during the period of 1998 through 2016, suggesting a Coastwide Cap set at the mean landings level during this period is sustainable.
- Yellow eel landings are difficult to verify in the time frame specified by the
   Addendum IV triggers because most yellow eels are sold as live product. Yellow

eels are held live by harvesters until sold, so yellow eels can be harvested in one year, but not weighed, sold, and reported until the following year. Yellow eels also are often transported out of the state of landing and sold in another state, requiring two states to reconcile the landings information to avoid reporting duplication. These problems may result in the Coastwide Cap appearing to be exceeded based on initial landings reports and states being required to implement quotas unnecessarily per the management triggers before reports are finalized. The verification process of reported yellow eel landings is exemplified by the Addendum IV Coastwide Cap, now that the landings data used to calculate the Addendum IV Coastwide Cap have been updated for Addendum V. As noted below, the Addendum IV Coastwide Cap calculated using the updated Addendum V landings for the same 1998-2010 timeframe is 916,469 pounds, almost 10,000 pounds greater than the Addendum IV Coastwide Cap.

- Addendum IV allocated 88% of the yellow eel landings to the Delaware and Chesapeake Bay states in the event that state-by-state quota allocations were enacted. The yellow eel fishery in these states is conducted solely in estuarine waters. The yellow eel surveys conducted in Delaware and Chesapeake Bay states analyzed in the 2017 American Eel Assessment Update Report, either showed no trend or an increasing trend, suggesting the fishery is not diminishing the yellow eel abundance in this region. In addition, the commercial fishery CPUE as reported in state compliance reports has not declined in this region.
- American eels reach maturity at a younger age and smaller size in estuarine
  water than in fresh water (Clark 2009) and the 19-year time series of landings
  likely represents at least two generations (COSEWIC 2012) of estuarine yellow
  eels that have been exposed to the yellow eel fishery.

**NOTE**: For all Coastwide Cap options below, this Addendum will alter management starting in 2019 and the 2018 landings data will be used to evaluate the selected option below. In turn, depending on the subsequent options selected under Section 3.3 Issue items 2, 3, and 4, the earliest potential state-by-state allocations or other management response would be implemented starting in 2020 (i.e. 2018 landings data available in 2019 would be evaluated in 2019 with management response in 2020).

#### Option 1: Status Quo

Under this option, the current Coastwide Cap of 907,671 pounds would remain in place as well as provisions of the Coastwide Cap as specified in Addendum IV. **Please note**: The Coastwide Cap was specified in Addendum IV based on available data through 2010. That data has been subsequently revised and new coastwide landings averaged from 1998-2010 are 916,473 pounds. If the Board wishes to specify a new Coastwide Cap of 916,473 pounds based on average landings from 1998-2010, they can do so because it is between the highest and lowest cap options offered through this document.

# <u>Option 2: Coastwide Cap set at **943,808 pounds**; the 50<sup>th</sup> percentile or median of 1998-2016 landings</u>

The yellow eel fishery is dependent on foreign market fluctuations, thus effort and landings can vary considerably between years regardless of the yellow eel population. The median (50<sup>th</sup> percentile) of annual landings accounts for these variations by setting the coastwide landings cap at the mid-point in landings, which should reflect the midpoint in effort for the time series a well.

# <u>Option 3: Coastwide Cap set at **951,102 pounds**; the mean or average of 1998-2016</u> landings

The Coastwide Cap will be set at the mean of 1998 through 2016 landings. This option updates the Coastwide Cap to include more recent landings data.

# Option 4: Coastwide Cap set at **836,969** pounds; a 12% decrease from the mean or average of 1998-2016 landings

During the development of Addendum IV, the TC and Stock Assessment Subcommittee (SAS) recommended that harvest be reduced in all life stages due to the depleted status from the benchmark stock assessment. The TC and SAS advised that any harvest reduction less than 12% from the baseline (years 1998-2010), which was the coefficient of variation (CV) of the landings during that time period, is likely not to provide a measureable harvest reduction. The CV calculated from the landings for 1998-2016 is 12%. A 12% reduction from 951,102 pounds (the average landings from 1998-2016) is 836,969 pounds.

#### **Issue 2: Management Trigger**

For all three of the options listed under Issue 2, a management response would be required. The potential management response would be dependent on the selected option under Issue 3: Allocation. If a state-by-state commercial yellow eel quota option is selected, states would be required to implement a management program that would allow the state to constrain landings to the state's quota allocation starting in the subsequent year the management trigger is tripped. As this Addendum outlines management starting in 2019, the earliest year state-by-state quotas would be implemented is 2020 (under either Option 1: Status Quo - Coastwide Cap exceeded by 10% in a given year or Option 2: One-year Trigger).

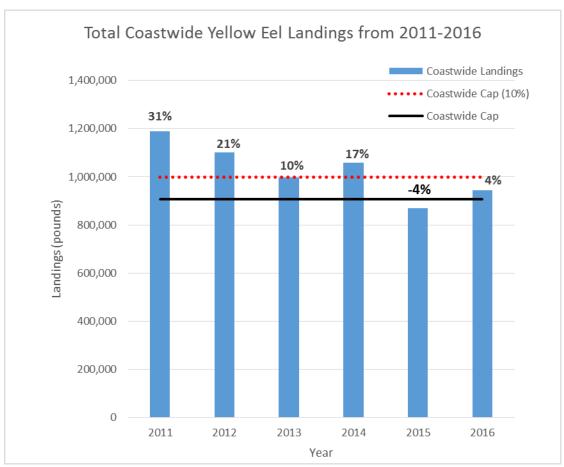
#### Option 1: Status Quo

Under this option the current (two) management triggers as outlined in Addendum IV would remain in place regardless of whether the Coastwide Cap is adjusted in the prior subsection (Issue 1). If either of these management triggers is tripped, a management response would be required. The potential management response would be dependent on the selected option under Issue 3 'Allocation' (below).

#### **Management Triggers**

- 1. The Coastwide Cap is exceeded by more than 10% in a given year (the value of exceedance is dependent on the selected option in Issue 1: Coastwide Cap).
- 2. The Coastwide Cap is exceeded for two consecutive years, regardless of percent over.

Options 2 and 3 below would establish a management trigger that takes into account the inter-annual variability of the coastwide landings and incorporates years after 2010. From 2011 through 2016 coastwide landings have fluctuated from 29% above to 3% below the Coastwide Cap, with five of the six years above the Coastwide Cap (Figure 1). Note: the Coastwide Cap is set at 907,671 pounds; a 10% exceedance of the Coastwide Cap is 998,438 pounds.



**Figure 1.** Coastwide yellow eel landings from 2011-2016 compared to Coastwide Cap and 10% exceedance of the Cap (the Management Trigger). Percentages above each bar indicate percent above (or below) the Coastwide Catch Cap.

Option 2: One year of exceeding the Coastwide Cap by 10% (One-year trigger)
Under this option, the coastwide landings would annually be evaluated against a new one-year management trigger. If the Coastwide Cap is exceeded by 10% (the value of exceedance is dependent on the selected option in Issue 1: Coastwide Cap) in one year, the Board is required to alter the management program as specified below (Issue 3) in order to ensure the objectives of the management program are achieved.

<u>Option 3: Two years of exceeding Coastwide Cap by 10% (Two-year trigger)</u>
Under this option, the coastwide landings would annually be evaluated against a two-year management trigger. If the Coastwide Cap is exceeded by 10% (the value of exceedance is dependent on the selected option in Issue 1: Coastwide Cap) for two consecutive years, the Board is required to alter the management program as specified below (Issue 3) in order to ensure the objectives of the management program are achieved.

#### **Issue 3: Allocation**

If the selected management trigger in the above subsection (Issue 2) is tripped, then states would be required to take action for the subsequent fishing year. The following outlines options for state-by-state allocations as well as options for no state allocation. If a state-by-state allocation option is selected, states must ensure that a quota management program is implemented to address quota overages and allow quota transfers, as specified below. It is recommended that monitoring and reporting requirements be sufficient to prevent repeated overages. Additionally, the following provisions would apply to any state-by-state quota allocation options below:

- State quotas will be evaluated on a calendar-year basis.
- Final landings data from the previous year will be evaluated against a state's
  quota from the same year. Final landings data from the previous year may be
  made available for the current year by the ASMFC Spring Meeting (i.e. May).
- The Board will confirm overages and adjusted quotas (as needed) for the following year no later than the ASMFC Annual Meeting (i.e. October-November) of the current year.
- States will put forward proposals that have been reviewed and approved by the Technical Committee demonstrating the following year's quota will not be exceeded no later than the ASMFC Winter Meeting (i.e. January-February) of the following year.

**Please note:** For the timetable listed directly above, there is 2 year lag in addressing overages. For example, in 2020, state allocations are implemented based on 2018 landings data tripping the Coastwide Cap management trigger in 2019. If a state goes over their allocation in 2020, based on landings information available in 2021, that state's quota is reduced and the state's proposal needs to demonstrate an overage won't happen again in 2022 (2021 is unaccounted for).

## Option 1: Status quo

Addendum IV laid out the following process for specifying the Coastwide Cap and stateby-state allocations. The initial quota was set at the 2010 coastwide landings level (978,004 pounds). 2010 represented the last year of data included in the 2012 benchmark stock assessment. The TC recommended to reduce mortality from this level. From this level a 16% reduction was applied to the 2010 landings levels (821,523 pounds). Then average landings for the states from 2011-2013 were used to developed initial allocations. From this point, a filtering method was applied to adjust allocations: 1) states are allocated a minimum 2,000-pound quota, 2) no state is allocated a quota that is more than 2,000 pounds above its 2010 commercial yellow eel landings, and 3) no state is allocated a quota that is more than a 15% reduction from its 2010 commercial yellow eel landings. After the filtering method was applied, the coastwide quota was 893,909 pounds. The difference between the updated quota and the TC's recommendation was 13,762 pounds. This difference was split equally among the states negatively impacted by the quota relative to 2010 commercial landings (RI, NJ, DE, PRFC, and NC). For states that qualify for the 2,000-pound base quota, any overages would be deducted from the 2,000 pound allocation. As previously noted, due to a rounding error the combined total of state by state allocations is equal to 907,669 pounds, slightly less than the current Coastwide Cap of 907,671 pounds.

**Table 3.** Status Quo State-by-State Allocations for the Commercial Yellow Eel Fishery from Addendum IV. These quotas would ONLY be implemented if the Board-selected management trigger (Issue 2) is tripped.

	Allocation	Quota
Maine	0.43%	3,907
New Hampshire	0.22%	2,000
Massachusetts	0.22%	2,000
Rhode Island	0.51%	4,642
Connecticut	0.22%	2,000
New York	1.677%	15,220
New Jersey	10.45%	94,899
Delaware	6.79%	61,632
Maryland	51.33%	465,968
PRFC	5.76%	52,358
Virginia	8.67%	78,702
North Carolina	11.79%	107,054
South Carolina	0.22%	2,000
Georgia	0.22%	2,000
Florida	1.46%	13,287
Total	100%	907,669

#### Option 2: No state-by-state quota

Under this option, the yellow eel fishery would be managed without state-specific quotas through adaptive management. Should the management trigger be tripped the Board will engage the TC to determine the reduction necessary to return coast-wide landings to the cap in the subsequent fishing year and identify mechanisms that could achieve the desired reduction (e.g., trip limits, season closures, or other effort reductions). The reduction may be scaled among states to ensure equitable management. Each state will develop a plan to achieve assigned reductions and submit it to the TC for review. The following sub-options specify how the states would work to achieve the required reduction.

#### <u>Sub-Option 2A: Equitable reduction</u>

Under this sub-option, all states would work collectively to achieve an equitable reduction in landings from the most recent year's cumulative coastwide landings to the Coastwide Cap if the management trigger is tripped. For example, in 2019, if 2018 landings exceed the Coastwide Cap as specified in the prior section, then the states would collectively develop measures to achieve the needed reduction to limit catch to the Coastwide Cap in the 2020 fishing year.

#### Sub-Option 2B: 1% rule for states to reduce landings

Under this sub-option, only states with landings greater than 1% of the coastwide landings in the year(s) when the management trigger is tripped will be responsible for reducing their landings to achieve the Coastwide Cap in the subsequent year. Those states with landings greater than 1% of the coastwide landings will work collectively to achieve an equitable reduction to the Coastwide Cap. For those states with landings less than 1% of the coastwide landings, if in subsequent years a state's landings exceeds 1% of the coastwide landings after reductions have been applied, that state must reduce their individual state landings in the subsequent year to return to the <1% level.

#### Option 3: Modified Addendum IV Quotas

This is a modification of the Addendum IV allocation formula intended to offer greater flexibility given the variability in landings over time.

This option maintains the basic allocation structure from Addendum IV, but makes some adjustments in order to more evenly distribute the impacts of a quota relative to recent (2012-2016) fishery performance, while maintaining the spirit of Addendum IV allocation. Under this option, states whose new quota would have resulted in reductions from average harvest over the most recent five years still will need to reduce, but these reductions are mitigated.

Quota was redistributed among the states from two sources:

1) A cap on allocations so that a state's assigned quota cannot exceed their 2012-2016 average harvest by more than 25%.

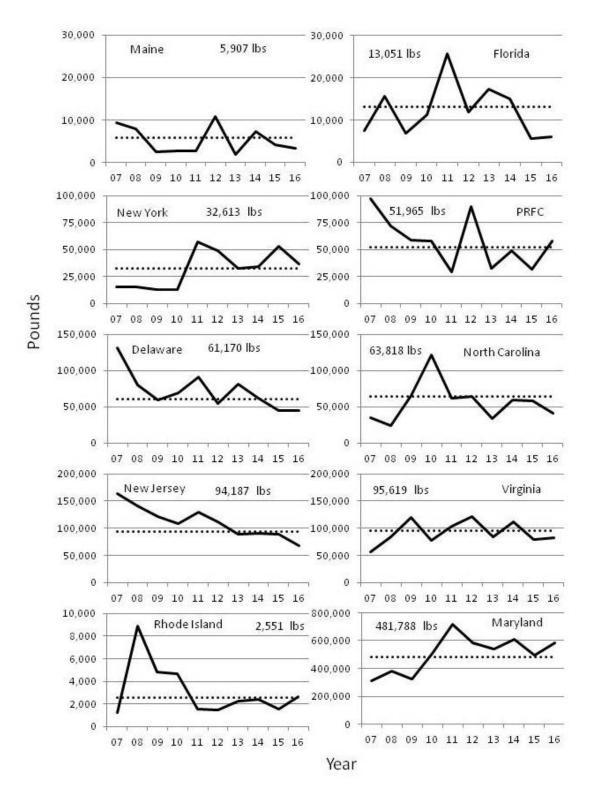
2) The 2,000 pound minimum quota assigned to New Hampshire, Massachusetts, Connecticut, South Carolina, and Georgia was initially removed and redistributed to the remaining states.

The quota resulting from the removal of the 2,000 pound minimum and from capping states with more than a 25% increase was used two ways: 1) to set Maine's quota close to their 2012-2016 average harvest of 5,952 pounds (quota of 5,907 pounds) and therefore mitigate Maine's reduction if a quota is implemented and 2) the remainder (52,918 pounds) was divided evenly among and added to the Addendum IV quotas of New York, Maryland and Virginia - the only three states who would face a reduction from 2012-2016 average harvest levels under Addendum IV.

Finally, based on harvest history, 0.75% of the Coastwide Cap (6,808 pounds under the current cap) was set aside and divided evenly among those 5 states given the minimum 2,000 pound allocation under Addendum IV (6,808/5 = 1,362 pounds). The allocation of 1,362 pound was rounded down to 1,000 pounds for each of the states. The excess from this rounding (1,807.5 pounds) was added back to Maryland's proposed quota to further mitigate their impacts (Table 4 and Figure 2). Appendix II further describes this quota redistribution proposal.

Table 4. State Allocations under Option 3 compared to Addendum IV

State	Addendum IV Percentage	Option 3 Percentage	Addendum IV Quota	Option 3 Quota
	Allocation	Allocation		
ME	0.43%	0.65%	3,907	5,907
NH	0.22%	0.11%	2,000	1,362
MA	0.22%	0.11%	2,000	1,362
RI	0.51%	0.28%	4,642	2,551
СТ	0.22%	0.11%	2,000	1,362
NY	1.68%	3.59%	15,220	32,613
NJ	10.46%	10.38%	94,899	94,187
DE	6.79%	6.74%	61,632	61,170
MD	51.34%	53.08%	465,968	479,978
PRFC	5.77%	5.73%	52,358	51,965
VA	8.67%	10.53%	78,702	95,619
NC	11.79%	7.03%	107,054	63,818
SC	0.22%	0.11%	2,000	1,362
GA	0.22%	0.11%	2,000	1,362
FL	1.46%	1.44%	13,287	13,051
Total	100%	100%	907,669	907,669



**Figure 2.** Option 3 State Quotas relative to landings. This shows proposed quotas (dotted line) compared to each state's landings over the past 10 years. States not shown are assigned a base quota of 1,362 pounds. The proposed quota assumes a status quo coastwide quota of 907,699 pounds.

**Note**: For Options 3, 4, and 5, the following items on accountability will be carried over from Addendum IV:

Accountability: States will be held accountable for their annual quota. If a state
or jurisdiction has an overage in a given fishing year, then the state or
jurisdiction is required to reduce their following year's quota by the same
amount the quota was exceeded, pound for pound. For states that qualify for the
automatic 2,000 pound quota, any overages would be deducted from the 2,000
pound allocation.\*

Under both the landings cap and quota systems, all New York American eel landings (i.e. from both the yellow and silver eel fisheries) are included, until otherwise shown to preclude it.

Additionally, for the following example tables for Options 4 and 5, a breakdown of the previous allocation under Addendum IV state-by-state quotas is compared against the new state allocations of the same Coastwide Cap.

\*Note: if allocation option 3, 4, or 5 is chosen then overages by the states of New Hampshire, South Carolina, and Georgia will be treated on a case-by-case basis since, under these options, these states have quotas significantly lower than 2,000 pounds.

#### Option 4: Simple Time Series Average of Yellow Eel Landings

Under this option states will be allocated a quota based on their state's average state yellow eel landings data for a specific timeframe. In the example allocations listed below, the coastwide landings quota is set at 907,669 pounds (the Addendum IV coastwide quota) to help compare current state-by-state quotas under Addendum IV to the proposed quotas in Options 4 A and B (Tables 5 and 6). Data used to develop average landings for each time series can be found in Table 2. **Note**: The state-by-state allocations below would differ if either Option 2 or 3 are selected. Additionally, please note that due to low landings and data confidentiality, New Hampshire, South Carolina, and Georgia's average landings for the two time periods are not specified below.

**Table 5.** Sub-option 4A: Average landings over most recent 10-year time series (2007-2016)

State	Average Landings	Addendum IV	New	Addendum IV	New Quota under
State	2007-2016	Percentage Allocation	Percentage	Quota	Option 4A
ME	5,545	0.43%	0.57%	3,907	5,217
NH		0.22%	0.01%	2,000	61
MA	1,888	0.22%	0.20%	2,000	1,776
RI	3,112	0.51%	0.32%	4,642	2,928
СТ	1,652	0.22%	0.17%	2,000	1,555
NY	29,437	1.68%	3.05%	15,220	27,696
NJ	110,331	10.46%	11.44%	94,899	103,808
DE	72,975	6.79%	7.56%	61,632	68,661
MD	517,548	51.34%	53.65%	465,968	486,947
PRFC	57,608	5.77%	5.97%	52,358	54,201
VA	95,357	8.67%	9.88%	78,702	89,719
NC	56,786	11.79%	5.89%	107,054	53,429
SC		0.22%	0.00%	2,000	3
GA		0.22%	0.05%	2,000	436
FL	11,938	1.46%	1.24%	13,287	11,232
Total	964,709	100.00%	100%	907,669	907,669

Table 6. Sub-option 4B: Average landings over most recent 5-year time series (2012-2016)

State	Average Landings	Addendum IV	New	Addendum IV	New Quota under
State	2012-2016	Percentage Allocation	Percentage	Quota	Option 4B
ME	5,952	0.43%	0.60%	3,907	5,438
NH		0.22%	0.01%	2,000	50
MA	2,165	0.22%	0.22%	2,000	1,978
RI	2,054	0.51%	0.21%	4,642	1,877
СТ	1,776	0.22%	0.18%	2,000	1,623
NY	40,631	1.68%	4.09%	15,220	37,122
NJ	90,305	10.46%	9.09%	94,899	82,506
DE	57,790	6.79%	5.82%	61,632	52,799
MD	574,968	51.34%	57.87%	465,968	525,313
PRFC	52,286	5.77%	5.26%	52,358	47,771
VA	102,914	8.67%	10.36%	78,702	94,027
NC	51,309	11.79%	5.16%	107,054	46,878
SC		0.22%	0.00%	2,000	1
GA		0.22%	0.07%	2,000	665
FL	10,532	1.46%	1.06%	13,287	9,623
Total	993,466	100.00%	100%	907,669	907,669

Option 5: Allocation Based on Weighted Time Series Average of Yellow Eel Landings Under this option, states will be allocated a quota based on the weighted average of their state yellow eel landings data for a specific timeframe. For example, Tables 7 and 8 below compare current state-by-state quotas under Addendum IV to the proposed quotas in Options 5A and B with the coastwide landings quota set at 907,669 pounds (the Addendum IV coastwide quota). Data used to develop weighted average landings for each time series can be found in Table 2. **Note**: The state-by-state allocations in the tables below will differ if either Option 2 or 3 under Issue Item 1 (Coastwide Cap) are selected. Also included for the following sub-options is an example equation demonstrating how the allocation was derived (Appendix III).

**Table 7.** Sub-option 5A: Weighted average: 50 % of the time series (1998-2016) and 50% of the most recent 10 years (2007-2016)

State	Addendum IV Percentage Allocation	New Percentage Allocation under Option 5A	Addendum IV Quota	New Quota under Option 5A
ME	0.43%	0.74%	3,907	6,759
NH	0.22%	0.01%	2,000	79
MA	0.22%	0.24%	2,000	2,209
RI	0.51%	0.54%	4,642	4,899
СТ	0.22%	0.22%	2,000	2,017
NY	1.68%	2.71%	15,220	24,570
NJ	10.46%	11.21%	94,899	101,743
DE	6.79%	8.92%	61,632	80,920
MD	51.34%	48.67%	465,968	441,788
PRFC	5.77%	8.30%	52,358	75,319
VA	8.67%	10.31%	78,702	93,624
NC	11.79%	6.91%	107,054	62,731
sc	0.22%	0.00%	2,000	2
GA	0.22%	0.04%	2,000	376
FL	1.46%	1.17%	13,287	10,632
Coastwide	100%	100%	907,669	907,669

**Table 8.** Sub-option 5B: Weighted average: 50 % of the time series (1998-2016) and 50% of the most recent 5 years (2012-2016)

State	Addendum IV Percentage Allocation	New Percentage Allocation under Option 5B	Addendum IV Quota	New Quota under Option 5B
ME	0.43%	0.75%	3,907	6,849
NH	0.22%	0.01%	2,000	73
MA	0.22%	0.25%	2,000	2,305
RI	0.51%	0.48%	4,642	4,333
СТ	0.22%	0.23%	2,000	2,045
NY	1.68%	3.24%	15,220	29,432
NJ	10.46%	10.01%	94,899	90,891
DE	6.79%	8.00%	61,632	72,636
MD	51.34%	50.91%	465,968	462,057
PRFC	5.77%	7.90%	52,358	71,721
VA	8.67%	10.55%	78,702	95,767
NC	11.79%	6.53%	107,054	59,247
SC	0.22%	0.00%	2,000	1
GA	0.22%	0.05%	2,000	493
FL	1.46%	1.08%	13,287	9,819
Coastwide	100%	100%	907,669	907,669

#### **Issue 4: Quota Transfers**

As noted in earlier sections, the Allocation Working Group highlighted concerns regarding the timing of when landings information becomes available and finalized, specifically in evaluating fishery performance. Addendum IV outlined the following provisions for transfer of quota under state-by-state allocations:

• Any state or jurisdiction may request approval from the Board Chair or Commission Chair to transfer all or part of its annual quota to one or more states, including states that receive the automatic 2,000 pound quota. Requests for transfers must be made by individual or joint letters signed by the principal state official with marine fishery management authority for each state involved. The Chair will notify the requesting states within ten working days of the disposition of the request. In evaluating the request, the Chair will consider: if the transfer would preclude the overall annual quota from being achieved, if the transfer addresses an unforeseen variation or contingency in the fishery, and if the transfer is consistent with the objectives of the FMP. Transfer

requests for the current fishing year must be submitted by December 31 of that fishing year.

• The transfer of quota would be valid for only the calendar year in which the request is made. These transfers do not permanently affect the state-specific shares of the quota, i.e., the state specific shares remain fixed. Once quota has been transferred to a state, the state receiving quota becomes responsible for any overages of transferred quota.

Many states are concerned that the implementation of state quotas will lead to fishery inefficiencies both at the state and coastwide level. For example, late fall is often a peak yellow eel harvest period. If a state with unused quota was hesitant to transfer quota to a state that had filled its quota because it was unsure whether it could spare the unused quota, the quota in the potential donor state could go unused while the harvesters in the potential recipient state would be denied extra income. This inefficient use of the fishery and capricious reduction in fishery revenue is in direct contradiction of the ISFMP Charter. To avoid this potential problem, if a state-by-state allocation option is selected under Issue 3, the Allocation Working Group has put forward the following options:

<u>Option 1: Status Quo (Transfers allowed no later than December 31)</u>
Under this option, quota transfer requests must be submitted by December 31 of that fishing year.

Option 2: Extend transfer provisions to February 15 of the following fishing season. Under this option, quota transfers may occur at any time during the fishing season but no later than February 15 of the following year. All transfers require a donor state (state giving quota) and a receiving state (state accepting additional quota). There is no limit on the amount of quota that can be transferred by this mechanism, and the terms and conditions of the transfer are to be identified solely by the parties involved in the transfer. This strategy will allow both the donor and recipient state to have additional time to reconcile their landings data.

#### 3.4 Timeframe for Addendum Provisions

There is not a sunset for this Addendum. If a new or different management program is desired than what is specified in the prior sections, a new addendum is required. If state-by-state allocations are implemented based on a selected management trigger and Coastwide Cap specified above, state-by-state allocations will be revisited within 3 years (reviewed in 2021). During the revisiting process, the Board may reconsider if state-by-state quotas are needed for the 2022 fishing season if the implemented state-by-state quotas have not been exceeded for 2 years.

Specific to the Maine glass eel quota, the selected quota in the section above will be specified for three years moving forward (starting in the 2019; from 2019-2021), and can be revisited before year four (2022). If the Board decides to maintain Maine's glass

eel quota at its specified level in the section above, the quota can be extended for an additional three years (2022-2024) without requiring a new addendum. If there is a desire to increase Maine's glass eel quota from the specified level in the section above, a new Addendum will be required.

# 4.0 Compliance

If the existing American Eel FMP is revised by approval of this draft addendum, the American Eel Management Board will designate dates by which states will be required to implement the addendum starting with the 2019 fishing season. A final implementation schedule will be identified based on the management tools chosen.

#### References

- Atlantic States Marine Fisheries Commission (ASMFC). 2000. Interstate Fishery Management Plan for American Eel (*Anguilla rostrata*). Washington D.C. NOAA Oceanic and Atmospheric Administration Award No. NA97 FGO 0034 and NA07 FGO 024.
- Atlantic States Marine Fisheries Commission (ASMFC). 2012. American Eel Benchmark Stock Assessment. Arlington, VA.
- Atlantic States Marine Fisheries Commission (ASMFC). 2014. Addendum IV to the Interstate Management Plan for American Eel. Arlington, VA.
- Atlantic States Marine Fisheries Commission (ASMFC). 2017. American Eel Stock Assessment Update. Arlington, VA.
- Blake, L. M. 1982. Commercial fishing for eel in New York State. In K. H. Loftus (ed).

  Proceedings of the 1980 North American eel conference. Ont. Fish. Tech. Rep.
  Ser. No. 4. 97pp
- Clark, J. 2009. The American Eel Fishery in Delaware. Pages 229-240 *in* J. M. Casselman and D. K. Cairns, editors. Eels at the edge: science, status and conservation concerns. American Fisheries Society Symposium 58, Bethesda, Maryland.
- COSEWIC. 2012. COSEWIC assessment and status report on the American Eel Anguilla rostrata in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xii + 109 pp. (www.registrelep-sararegistry.gc.ca/default\_e.cfm).
- Helfman, G.S., D.L. Stoneburner, E.L. Bozeman, P.A. Christian, and R. Whalen. 1983.

  Ultrasonic telemetry of American eel movements in a tidal creek. Transactions of the American Fisheries Society 112:105–110.

## Appendix I. Addendum IV (2014) Aquaculture Plan Provisions

States and jurisdictions may develop a Plan for aquaculture purposes. Under an approved Aquaculture Plan, states and jurisdictions may harvest a maximum of 200 pounds of glass eel annually from within their waters for use in domestic aquaculture facilities provided the state can objectively show the harvest will occur from a watershed that minimally contributes to the spawning stock of American eel. The request shall include: pounds requested; location, method, and dates of harvest; duration of requested harvest; prior approval of any applicable permits; description of the facility, including the capacity of the facility the glass eels will be held, and husbandry methods; description of the markets the eels will be distributed to; monitoring program to ensure harvest is not exceeded; and adequate enforcement capabilities penalties for violations. Approval of a request does not guarantee approval of a request in future years. Eels harvested under an approved Aquaculture Plan may not be sold until they reach the legal size in the jurisdiction of operations, unless otherwise specified.

All Plans are subject to TC and LEC review and Board approval. The Fishing Mortality Based Plan must be submitted by June 1st of the preceding fishing year in order to provide enough time for review for the upcoming fishing season. Transfer and Aquaculture Plans must be submitted by June 1st of the preceding fishing year and approval will be determined by the Board by September 1st. Plans will initially be valid for only one year. After the first year of implementation the TC will evaluate the program and provide recommendations to the Board on the overall impact of and adherence to the plan. If the proposed regulatory changes, habitat improvements, or harvest impact cannot be assessed one year post-implementation, then a secondary review must occur within three to five years post-implementation if the action is still ongoing. If states use habitat improvements and changes to that habitat occurs in subsequent years, the Commission must be notified through the annual compliance report and a review of the Plan may be initiated. Any requests that include a stocking provision would have to ensure stocked eels were certified disease free according to standards developed by the TC and approved by the Board.

## Appendix II. Modified Addendum IV Quotas (Option 3) Explained

Option 3: Modified Addendum IV Quotas under Section 3.3 Issue 3: Allocation (page 21) <a href="Background:">Background:</a> The intent of this option is to redistribute quotas assigned in Addendum IV in order to mitigate reductions for some states from the most recent 5 year (2012-2016) landings, while not substantially changing the allocation outcome for any state. States with gray cells have landed less than 1% of the coastwide landings each year since 2007. Table 1 shows the impact of Addendum IV quotas relative to 2012-2016 average landings. Four states would be required to reduce their average landings by more than 15% if the allocation remains the same.

Table 1.

State	Addendum IV Quota (pounds)	Average Landings 2012-2016	Percent change from average landings (2012-2016) to Addendum IV quota
ME	3,907	5,952	- 34 %
NH	2,000		
MA	2,000		
RI	4,642	2,054	+ 126 %
СТ	2,000		
NY	15,220	40,631	- 63 %
NJ	94,899	90,305	+ 5%
DE	61,632	57,790	+ 7 %
MD	465,968	574,968	- 19 %
PRFC	52,358	52,286	+ 0.14 %
VA	78,702	102,914	- 24 %
NC	107,054	51,309	+ 109 %
sc	2,000		
GA	2,000		
FL	13,287	10,532	+ 26 %
Coastwide	907,669	993,466	

#### Step 1. 25% rule and reconsideration of minimum base allocation

Quota for redistribution is taken from 2 sources: 1) any state whose quota under Addendum IV results in more than 25% percent increase over the most recent 5 year average landings (2012-2016) has their quota capped at a 25% increase (Rhode Island, North Carolina and Florida), and 2) the 2,000 pound base allocation from the low landings states of New Hampshire, Massachusetts, Connecticut, South Carolina, and Georgia. This generates 54,963 pounds for redistribution.

Table 2.

ubic 2.				
State	Addendum IV Quota in pounds	Proposed quota with 25% cap in place.	% change from average landings to proposed quota.	Quota made available for redistribution (pounds)
NH	2,000			2,000
MA	2,000			2,000
RI	4,642	2,570	+ 25%	2,072
СТ	2,000			2,000
NC	107,054	64,300	+ 25%	42,754
sc	2,000			2,000
GA	2,000			2,000
FL	13,287	13,150	+ 25%	137
Coastwide				54,963

#### Step 2. Redistribution, Part 1

Quotas assigned under Addendum IV resulted in four states with greater than 1% of the coastwide landings having to take reductions from their most recent 5 year (2012-2016) average: Maine (-34%), New York (-63%), Maryland (-19%), and Virginia (-24%). Therefore, the first step in redistribution was to mitigate these reductions. To do so, the quota for Maine was set close to their 2012-2016 average harvest of 5,952 pounds (quota of 5,907 pounds). The remaining 52,918 pounds is split equally among New York, Maryland and Virginia. As shown in Table 3, Maine, New York, Maryland and Virginia now have higher quotas and mitigated reductions compared to Addendum IV. Rhode Island, North Carolina and Florida have proposed quotas that are higher than their average harvest 2012-2016, but the increase is capped at 25%. New Jersey, Delaware, and PRFC have no changes over their Addendum IV quotas. Quota has not yet been assigned to the low harvest states (gray cells).

Table 3.

abic 5.			
State	Addendum IV Quota (pounds)	Initial quota (pounds) with no base quota for states with low landings	Percent change from average landings (2012-2016)
ME	3,907	5,907	-1%
NH	2,000		
MA	2,000		
RI	4,642	2,570	+ 25 %
СТ	2,000		
NY	15,220	32,859	- 19 %
NJ	94,899	94,899	+ 5 %
DE	61,632	61,632	+ 7 %
MD	465,968	483,607	- 16 %
PRFC	52,358	52,358	0
VA	78,702	96,341	- 6 %
NC	107,054	64,300	+ 25 %
sc	2,000		
GA	2,000		
FL	13,287	13,150	+ 25 %
Coastwide	907,669	907,669	

#### Step 3. Redistribution, Part 2

To provide some base quota for the low landings states of New Hampshire, Massachusetts, Connecticut, South Carolina and Georgia, 0.75% of the coast wide quota was set aside for these landings states, and the quotas for the states of Maine, Rhode Island, New York, New Jersey, Delaware, Maryland, Potomac River Fisheries Commission, Virginia, North Carolina, and Florida shown in Table 3 were scaled down by this amount to create the set aside of 6,808 pounds. This set aside was divided equally among the 5 low landings states generating a rounded base quota of 1,362 pounds. While the states of Maine, New York, Maryland, Potomac River Fisheries Commission, and Virginia would still face reduction from their recent landings levels if state allocations are implemented under Option 3; the proposed option would mitigate those

reductions. Option 3 state quotas under the status quo Coastwide Cap are shown in Table 4.

Table 4.

State	Addendum IV Percentage Allocation	Option 3 Percentage Allocation	Addendum IV Quota (pounds)	Option 3 quota (pounds)	% change average landings (2012-2016) to Option 3 quota
ME	0.43%	0.65%	3,907	5,907	- 1%
NH	0.22%	0.11%	2,000	1,362	
MA	0.22%	0.11%	2,000	1,362	
RI	0.51%	0.28%	4,642	2,551	+ 24 %
СТ	0.22%	0.11%	2,000	1,362	
NY	1.68%	3.59%	15,220	32,613	- 20 %
NJ	10.46%	10.38%	94,899	94,187	+ 4 %
DE	6.79%	6.74%	61,632	61,170	+ 6 %
MD	51.34%	53.08%	465,968	479,980	- 17 %
PRFC	5.77%	5.73%	52,358	51,965	- 0.6 %
VA	8.67%	10.53%	78,702	95,619	- 7 %
NC	11.79%	7.03%	107,054	63,818	+ 24 %
sc	0.22%	0.11%	2,000	1,362	
GA	0.22%	0.11%	2,000	1,362	
FL	1.46%	1.44%	13,287	13,051	+ 24 %
Coastwide	100.00%	100.00%	907,669	907,669	

#### **Appendix III. Calculations for Option #5 Sub-Options**

Option 5: Allocation Based on Weighted Time Series Average of Yellow Eel Landings Section 3.3 Issue 3: Allocation (page 26)

The following calculations are done using North Carolina landings data from Table 2 as an example for Option 5 A: Weighted average: 50 % of the time series (1998-2016) and 50% of the most recent 10 years (2007-2016). Note that the same process is applied to Option 5B with a 5-year time series (2012-2016).

#### Step 1. Weighting Time Series Average Landings

A state's weighted time series average landings is calculated by multiplying the specified time series averages by the weighting percentages (50% or 0.5) and the two time series' average landings are then summed together through the following equation:

0.5 X 19 year Time Series Average (1998-2016) + 0.5 X 10 year Time Series Average (2007-2016) = Weighting Time Series Average Landings

0.5 X NC 19 year Time Series Average (**75,621 pounds**) + 0.5 X NC 10 year Time Series Average (**56,786 pounds**) = North Carolina Weighted Time Series Average Landings is **66,203 pounds** 

#### Step 2. Solving for New Allocation Percentage

The state's new weighted time series average landings is then divided by the weighted total coastwide average landings to derive a state's new allocation percentage through the following equation:

State Weighted Time Series Average Landings / Coastwide Weighted Time Series Average Landings = Allocation Percentage

North Carolina Weighted Average (66,203 pounds)/ Coastwide Weighted Average (957,905 pounds) = North Carolina's Allocation Percentage is 6.911%

#### Step 3. Solving for New State Allocation in Pounds

The state's new allocation percentage is then multiplied by the coastwide quota of 907,669 pounds (Addendum IV total coastwide quota) to derive the state's allocation in pounds through the following equation:

State Allocation Percentage X Addendum IV Total Coastwide Quota = New State Allocation

NC Allocation Percentage (**6.911**%) X Total Coastwide Quota (**907,669 pounds**) = North Carolina's new allocation for Option 5A under a coastwide quota of 907, 669 pounds is **62,731 pounds** 

#### Appendix IV. State Yellow Eel Quotas under each Coastwide Cap Option

The following tables provide information for each combination of possible yellow eel state allocations under different Coastwide Cap levels. The proposed state allocations are presented in both percentage and quota in pounds for the different combinations in comparison to state allocations under Addendum IV (set at a Coastwide Cap of 907, 669 pounds for state allocations). Options can be found for both Coastwide Cap options in Section 3.3 Issue 1: Coastwide Cap, pages 13-15, and for state allocations in Section 3.3 Issue 3: Allocation, pages 17-26. As previously noted, the current Coastwide Cap of 907,671 pounds is slightly above Addendum IV's specified state-by-state allocations at 907,669 pounds, due to a rounding error. The tables below specify the Coastwide Cap under state-by-state allocations at 907,669 pounds. Additionally, there are no state quotas under Option 2 for Issue 3, so no combinations for that option are offered below.

NOTE: When providing public comment on preferred state allocation option under Issue 3: Allocation, please also specify preferred option under Issue 1: Coastwide Cap.

Table 1. Comparison of State Quota Options as a Percentage Allocation

		Percentage Allocation						
State	Option	Addendum IV (Status Quo)	Option 3	Option 4A	Option 4B	Option 5A	Option 5B	
ME		0.43%	0.65%	0.57%	0.60%	0.74%	0.75%	
NH		0.22%	0.15%	0.01%	0.01%	0.01%	0.01%	
MA		0.22%	0.15%	0.20%	0.22%	0.24%	0.25%	
RI		0.51%	0.28%	0.32%	0.21%	0.54%	0.48%	
СТ		0.22%	0.15%	0.17%	0.18%	0.22%	0.23%	
NY		1.68%	3.59%	3.05%	4.09%	2.71%	3.24%	
NJ		10.46%	10.38%	11.44%	9.09%	11.21%	10.01%	
DE		6.79%	6.74%	7.56%	5.82%	8.92%	8.00%	
MD		51.34%	52.88%	53.65%	57.87%	48.67%	50.91%	
PRFC		5.77%	5.73%	5.97%	5.26%	8.30%	7.90%	
VA		8.67%	10.53%	9.88%	10.36%	10.31%	10.55%	
NC		11.79%	7.03%	5.89%	5.16%	6.91%	6.53%	
SC		0.22%	0.15%	0.00%	0.00%	0.00%	0.00%	
GA		0.22%	0.15%	0.05%	0.07%	0.04%	0.05%	
FL		1.46%	1.44%	1.24%	1.06%	1.17%	1.08%	
Total		100%	100%	100%	100%	100%	100%	

Table 2. Comparison of State Quota Options (in pounds) under Coastwide Cap of 907,669 pounds

907,009	pounas							
		Allocation in weight under Coastwide Cap of 907,669 pound						
State	Option	Addendum IV (Status Quo)	Option 3	Option 4A	Option 4B	Option 5A	Option 5B	
ME		3,907	5,907	5,217	5,438	6,759	6,849	
NH		2,000	1,362	61	50	79	73	
MA		2,000	1,362	1,776	1,978	2,209	2,305	
RI		4,642	2,551	2,928	1,877	4,899	4,333	
СТ		2,000	1,362	1,555	1,623	2,017	2,045	
NY		15,220	32,613	27,696	37,122	24,570	29,432	
NJ		94,899	94,187	103,808	82,506	101,743	90,891	
DE		61,632	61,170	68,661	52,799	80,920	72,636	
MD		465,968	479,978	486,947	525,313	441,788	462,057	
PRFC		52,358	51,965	54,201	47,771	75,319	71,721	
VA		78,702	95,619	89,719	94,027	93,624	95,767	
NC		107,054	63,818	53,429	46,878	62,731	59,247	
SC		2,000	1,362	3	1	2	1	
GA		2,000	1,362	436	665	376	493	
FL		13,287	13,051	11,232	9,623	10,632	9,819	
Total		907,669	907,669	907,669	907,669	907,669	907,669	

**Table 3. State Allocation (Option 1)** 

For this option under different Coastwide Caps, the state allocation percentages do not change, only the poundage based on the Coastwide Cap. The idea here is that the slice of the pie (state allocation percentage) does not change, only how much bigger or

smaller the pie is (Coastwide Cap).

smaller the pie is (Coastwide Cap).									
	Addendum IV	Addendum IV Quota	State Quota under different Coastwide Cap Options (in pounds)						
State	Percentage	(Coastwide Cap	Option 2:	Option 3:	Option 4:				
	Allocation	of 907,669)	Coastwide Cap	Coastwide Cap	Coastwide Cap				
	Allocation	01 307,0037	of 943,808	of 951,102	of 836,969				
ME	0.43%	3,907	4,063	4,094	3,603				
NH	0.22%	2,000	2,080	2,096	1,844				
MA	0.22%	2,000	2,080	2,096	1,844				
RI	0.51%	4,642	4,827	4,864	4,280				
CT	0.22%	2,000	2,080	2,096	1,844				
NY	1.68%	15,220	15,826	15,948	14,034				
NJ	10.46%	94,899	98,677	99,440	87,507				
DE	6.79%	61,632	64,086	64,581	56,831				
MD	51.34%	465,968	484,521	488,265	429,673				
PRFC	5.77%	52,358	54,443	54,863	48,280				
VA	8.67%	78,702	81,836	82,468	72,572				
NC	11.79%	107,054	111,316	112,177	98,715				
SC	0.22%	2,000	2,080	2,096	1,844				
GA	0.22%	2,000	2,080	2,096	1,844				
FL	1.46%	13,287	13,816	13,923	12,252				
Total	100.00%	907,669	943,808	951,102	836,969				

Table 4. Modified Addendum IV Quotas (Option 3)

			 actas (Option				
	Addendum IV Proposed Percentage Percentage	Addendum IV Quota (under	State Quota un	der different Co	astwide Cap Opti	ons (in pounds)	
State	Allocation	Allocation	Status Quo	Option 1:	Option 2:	Option 3:	Option 4:
	(Status Quo)	(Option 3)	State	Coastwide Cap	Coastwide Cap	Coastwide Cap	Coastwide Cap
	(Status Quo)	(Option 3)	Allocations)	of 907,669	of 943,808	of 951,102	of 836,969
ME	0.43%	0.65%	3,907	5,907	6,143	6,190	5,447
NH	0.22%	0.15%	2,000	1,362	1,416	1,427	1,256
MA	0.22%	0.15%	2,000	1,362	1,416	1,427	1,256
RI	0.51%	0.28%	4,642	2,551	2,652	2,673	2,352
СТ	0.22%	0.15%	2,000	1,362	1,416	1,427	1,256
NY	1.68%	3.59%	15,220	32,613	33,911	34,173	30,073
NJ	10.46%	10.38%	94,899	94,187	97,937	98,694	86,851
DE	6.79%	6.74%	61,632	61,170	63,605	64,097	56,405
MD	51.34%	52.88%	465,968	479,978	499,088	502,945	442,592
PRFC	5.77%	5.73%	52,358	51,965	54,034	54,452	47,918
VA	8.67%	10.53%	78,702	95,619	99,426	100,194	88,171
NC	11.79%	7.03%	107,054	63,818	66,359	66,872	58,847
SC	0.22%	0.15%	2,000	1,362	1,416	1,427	1,256
GA	0.22%	0.15%	2,000	1,362	1,416	1,427	1,256
FL	1.46%	1.44%	13,287	13,051	13,571	13,676	12,035
Total	100.00%	100.00%	907,669	907,669	943,808	951,102	836,969

Table 5. Average landings over most recent 10-year time series (2007-2016) (Option 4A)

	Addendum IV	Proposed Percentage		Addendum	State Quota under different Coastwide Cap Options (in pounds)				
State	Percentage	Allocation		IV Quota			Option 3:	Option 4:	
	Allocation	(Option 4A)		(Status Quo)	Coastwide Cap	Coastwide Cap	Coastwide Cap	Coastwide Cap	
	(Status Quo)	(Option 4A)			of 907,669	of 943,808	of 951,102	of 836,969	
ME	0.43%	0.57%		3,907	5,217	5,425	5,467	4,811	
NH	0.22%	0.01%		2,000	61	64	64	56	
MA	0.22%	0.20%		2,000	1,776	1,847	1,861	1,638	
RI	0.51%	0.32%		4,642	2,928	3,044	3,068	2,700	
СТ	0.22%	0.17%		2,000	1,555	1,617	1,629	1,434	
NY	1.68%	3.05%		15,220	27,696	28,799	29,022	25,539	
NJ	10.46%	11.44%		94,899	103,808	107,941	108,775	95,722	
DE	6.79%	7.56%		61,632	68,661	71,394	71,946	63,312	
MD	51.34%	53.65%		465,968	486,947	506,335	510,248	449,018	
PRFC	5.77%	5.97%		52,358	54,201	56,359	56,795	49,980	
VA	8.67%	9.88%		78,702	89,719	93,291	94,012	82,731	
NC	11.79%	5.89%		107,054	53,429	55,556	55,985	49,267	
SC	0.22%	0.00%		2,000	3	3	3	3	
GA	0.22%	0.05%		2,000	436	453	457	402	
FL	1.46%	1.24%		13,287	11,232	11,679	11,769	10,357	
Total	100.00%	100.00%		907,669	907,669	943,808	951,102	836,969	

Table 6. Average landings over most recent 5-year time series (2012-2016) (Option 4B)

	01 7 11 01 U.BC 11	gs	••••	, , , , , , , , , , , , , , , , , , ,	car time serie	55 (-55-5)	/ (Option 15)				
	Addendum IV	Proposed Percentage		•	•		Addendum IV		der different Co	astwide Cap Opt	ions (in pounds)
State	Percentage	Allocation		Quota (Status	Option 1:	Option 2:	Option 3:	Option 4:			
	Allocation	(Option 4B)		Quo)	Coastwide Cap	Coastwide Cap	Coastwide Cap	Coastwide Cap			
	(Status Quo)	(Option 45)			of 907,669	of 943,808	of 951,102	of 836,969			
ME	0.43%	0.60%		3,907	5,438	5,654	5,698	5,014			
NH	0.22%	0.01%		2,000	50	52	52	46			
MA	0.22%	0.22%		2,000	1,978	2,057	2,072	1,824			
RI	0.51%	0.21%		4,642	1,877	1,951	1,966	1,730			
СТ	0.22%	0.18%		2,000	1,623	1,687	1,700	1,496			
NY	1.68%	4.09%		15,220	37,122	38,600	38,899	34,231			
NJ	10.46%	9.09%		94,899	82,506	85,791	86,454	76,080			
DE	6.79%	5.82%		61,632	52,799	54,901	55,325	48,686			
MD	51.34%	57.87%		465,968	525,313	546,228	550,450	484,395			
PRFC	5.77%	5.26%		52,358	47,771	49,673	50,057	44,050			
VA	8.67%	10.36%		78,702	94,027	97,770	98,526	86,703			
NC	11.79%	5.16%		107,054	46,878	48,745	49,121	43,227			
SC	0.22%	0.00%		2,000	1	1	1	1			
GA	0.22%	0.07%		2,000	665	691	697	613			
FL	1.46%	1.06%		13,287	9,623	10,006	10,083	8,873			
Total	100.00%	100.00%		907,669	907,669	943,808	951,102	836,969			

Table 7. Weighted average 50% of the time series (1998-2016) and 50% of the most recent 10 years (2007-2016) (Option 5A)

Addendum Proposed Addendum State Quota under different Coastwide Cap Options (in pounds) IV Percentage IV Quota State Percentage Option 1: Option 2: Option 3: Option 4: Allocation (Status Allocation Coastwide Cap Coastwide Cap Coastwide Cap Coastwide Cap (Option 5A) Quo) (Status Quo) of 907,669 of 943,808 of 951,102 of 836,969 0.43% 0.74% ME 3,907 6,759 7,028 7,082 6,233 NΗ 0.22% 0.01% 2,000 79 82 72 82 MA 0.22% 0.24% 2,000 2,209 2,297 2,315 2,037 RΙ 4,518 0.51% 0.54% 4,642 4,899 5,094 5,134 CT 0.22% 0.22% 2,000 2,017 2,097 2,113 1,860 NY 1.68% 2.71% 15,220 24,570 25,548 25,746 22,656 NJ 10.46% 11.21% 94,899 101,743 105,794 106,612 93,818 DE 6.79% 8.92% 61,632 80,920 84,142 84,793 74,617 MD 51.34% 48.67% 441,788 459,378 462,928 407,377 465,968 PRFC 5.77% 8.30% 52,358 75,319 78,318 78,923 69,452 VA 8.67% 10.31% 78,702 93,624 97,352 98,104 86,332 NC 11.79% 6.91% 57,845 107,054 62,731 65,229 65,733 SC 0.22% 0.00% 2,000 2 3 346 0.22% 0.04% 2,000 376 391 394 GΑ 9,804 FL 1.46% 1.17% 13,287 10,632 11,055 11,141 Total 100.00% 100.00% 907,669 907,669 943,808 951,102 836,969

Table 6. Weighted average 50% of the time series (1998-2016) and 50% of the most recent 5 years (2012-2016) (Option 5B)

<u>, , , , , , , , , , , , , , , , , , , </u>	/	(Option 00)					
	Addendum IV	Proposed Percentage	Addendum	State Quota under different Coastwide Cap Options (in pounds)			
State	Percentage	Allocation	IV Quota	Option 1:	Option 2:	Option 3:	Option 4:
	Allocation	(Option 5B)	(Status Quo)	Coastwide Cap	Coastwide Cap	Coastwide Cap	Coastwide Cap
	(Status Quo)	(Option 3b)		of 907,669	of 943,808	of 951,102	of 836,969
ME	0.43%	0.75%	3,907	6,849	7,122	7,177	6,316
NH	0.22%	0.01%	2,000	73	75	76	67
MA	0.22%	0.25%	2,000	2,305	2,397	2,416	2,126
RI	0.51%	0.48%	4,642	4,333	4,506	4,540	3,995
CT	0.22%	0.23%	2,000	2,045	2,126	2,142	1,885
NY	1.68%	3.24%	15,220	29,432	30,604	30,840	27,139
NJ	10.46%	10.01%	94,899	90,891	94,510	95,240	83,811
DE	6.79%	8.00%	61,632	72,636	75,528	76,111	66,978
MD	51.34%	50.91%	465,968	462,057	480,454	484,167	426,066
PRFC	5.77%	7.90%	52,358	71,721	74,577	75,153	66,135
VA	8.67%	10.55%	78,702	95,767	99,580	100,350	88,308
NC	11.79%	6.53%	107,054	59,247	61,606	62,082	54,632
SC	0.22%	0.00%	2,000	1	1	1	1
GA	0.22%	0.05%	2,000	493	513	517	455
FL	1.46%	1.08%	13,287	9,819	10,210	10,289	9,054
Total	100.00%	100.00%	907,669	907,669	943,808	951,102	836,969

# State of Maine Aquaculture Plan for American Eel Pursuant to Addendum IV to the ASMFC Interstate Fishery Management Plan



Maine Department of Marine Resources 32 Blossom Lane Augusta, ME 04330

MAY 2018



Photo By American Unagi, LLC

## **Table of Contents**

Background	3
Pound Requested	3
Location of Harvest	4
Rates of Harvest	5
Methods of Harvest	5
Minimal Contribution	<i>6</i>
Monitoring Program	7
Penalties for Violation	8
Prior Approval of Permits	9
Description of Market (s)	9
Description of facilities (design, capabilities, and technical facts)	10
References	12
Maine Revised Statutes Title 12: Conservation	

#### **Background**

Maine DMR supports the development of domestic aquaculture in Maine. With Maine's existing fishery management measures and eel management infrastructure the state is in a good place to implement a domestic aquaculture quota into its current management plan. Connecting Maine's fishery to a domestic aquaculture provides year-round jobs directly in eel grow-out, supports indirect jobs throughout the local seafood and marine-related industries, and produces an eel product grown under the high standards of US aquaculture production.

The Maine Department of Marine Resources (MDMR)solicited interested parties to participate in this quota request and has selected to work with American Unagi for 2019. Over the course of the last four years, American Unagi has utilized recirculating aquaculture system (RAS) technology, specifically using designs developed and successfully utilized for eels in Europe. This has allowed the company to grow high-value American eels in a controlled environment, certify sustainability and source, and provide a level of product supply to growing customer segments that prefer locally grown/sourced and fully traceable seafood products. Given the success of the last four years of pilot production, American Unagi is scaling production to 120 MT and is requesting a domestic aquaculture quota for the commercial facility.

In October 2014, the ASMFC adopted Addendum IV to the Interstate Fishery Management Plan for American Eel. Addendum IV implemented a provision allowing states and jurisdictions to submit an Aquaculture Plan to allow for the limited harvest of American eel glass eels (hereinafter "glass eels") for use in domestic aquaculture facilities. Specifically, Addendum IV states: "Under an approved Aquaculture Plan, states and jurisdictions may harvest a maximum of 200 pounds of glass eel annually from within their waters for use in domestic aquaculture facilities provided the state can objectively show the harvest will occur from a watershed that minimally contributes to the spawning stock of American eel. The request shall include: pounds requested; location, method, and dates of harvest; duration of requested harvest; prior approval of any applicable permits; description of the facility, including the capacity of the facility the glass eels will be held, and husbandry methods; description of the markets the eels will be distributed to; monitoring program to ensure harvest is not exceeded; and adequate enforcement capabilities and penalties for violations." Pursuant to Addendum IV to the Interstate Fishery Management Plan for American Eel, the MDMR is submitting the following Aquaculture Plan for approval. While only one aquaculture operation, American Unagi, has requested to be included in the Aquaculture Plan for consideration, future plans may consider additional operations.

#### **Pound Requested**

American Unagi is requesting 200 pounds for the 2019 fishing year.

#### **Location of Harvest**

Maine's current fishery operates across the state (Figure 1). Under current regulations, harvesters are required to report fishing locations when their catch is sold to dealers. In 2016, approximately 9400 pounds were harvested from multiple locations in 10 counties (Table 1).

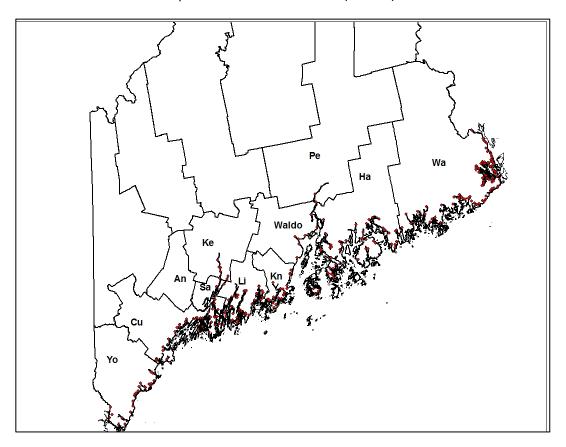


Figure 1 Location of Glass Eel Harvest (red circles) in Maine in 1996. Countries are York (Yo), Cumberland (Cu), Androscoggin (An), Sagandahoc (Sa), Kennebec (Ke), Lincoln (Li), Knox (Kn), Waldo, Penobscot (Pe), Hancock (Ha), and Washington (Wa).

County	Pounds of glass eels
Cumberland	2010.27
Hancock	2603.07
Kennebec	18.24
Knox	974.6
Lincoln	1484.39
Penobscot	547.46
Sagadahoc	49.91
Waldo	541.12
Washington	942.6
York	227.95
Total	9399.61

Table 1 Commercial Harvest of Glass in Maine by Country for 2016

Some of the commonly fished rivers include:

Lincoln County: Medomak River (Waldoboro, Muscungus, Friendship)

Pemaguid River (New Harbor)

Sheepscot River (Sheepscot, Alna)

Hancock County: Penobscot River (Brewer)

Orland River (Orland)

Union River (Ellsworth)

Waldo County: Penobscot River (Bangor)

Washington County: Tunk Stream (Stuben)

Narraguagus River (Cherryfield)

Machias River & East Machias River (Machias)

American Unagi is planning to source the glass eels from several regions in Maine's watersheds to limit the impacts to individual river systems and be consistent with the statewide approach of the exiting fishery. In addition to data for regulatory measures, having full traceability and accountability of the facility's eels is important to the company's end market so the fishermen, volume, and harvest location will be identified for all eels entering the facility.

#### **Rates of Harvest**

Aquaculture harvest will be limited to the current glass eel fishing season per State of Maine. By law, the elver season occurs between March 22 and June 7 (Appendix A; 12 M.R.S.A. §6575).

#### **Methods of Harvest**

A licensed harvester will be required to fish for all eels used for domestic aquaculture. License are issued by the Department of Marine Resources (Appendix A; 12 M.R.S.A. §6505-A, and §6302-A). For the aquaculture quota, one or more individuals will be issued a specialty aquaculture fishing allowance by MDMR Commissioner that permits the harvester to harvest glass eels for aquaculture purposes beyond the limits of their personal harvest quotas.

Glass eels shall be harvested only by dip net or elver fyke net, with size and construction being in compliance with current Maine law (Appendix A; 12 M.R.S.A. §6001). A license issued under this section must identify the number and types of nets that the license holder may use (Appendix A; 12 M.R.S.A. §6505-A). Elver fyke nets must display a tag issued by the Department when they are submerged (Appendix A; 12 M.R.S.A. §6505-B)

Additional harvest measures include a prohibition on fishing in the middle third of any waterway, within 150 feet of a fishway or a dam with a fishway, and specific area closures where fishing for elvers is prohibited (Appendix A; 12 M.R.S.A. §6575-B; §6575-C; §6575-F; §6575-G).

Finally, no person may fish for, take, possess or transport pigmented eels. All catches shall be screened and graded immediately upon harvest, whereas all eels failing to pass through 1/8" bar mesh net, as well as all bycatch will be returned to the water.

#### **Minimal Contribution**

Addendum IV allows states and jurisdictions to harvest a maximum of 200 pounds of glass eel annually from within their waters for use in domestic aquaculture facilities provided the state can objectively show the harvest will occur from a watershed that minimally contributes to the spawning stock of American eel. Given Maine's existing commercial fishery, the aquaculture quota will be minimal with respect to the existing quota and will also be taken from multiple drainages.

This is also a difficult to support objectively as the annual spawning stock of American eels has never been quantified, precluding a numeric estimate of the impact of removing 200 pounds of glass eels for domestic aquaculture on the spawning stock. Given this lack of quantitative data we consider this harvest in Maine will have a minimal impact on the spawning stock of American eel because 1) the species is panmictic, 2) the species is widely distributed, and 3) the natural mortality of glass eels during recruitment into freshwater is very high.

Microsatellite DNA analysis of glass eels sampled from Nova Scotia (Canada) to Florida (United States) found no evidence for significant spatial or temporal genetic differentiation (Cote et al 2012), thus confirming the hypothesis that American eels are panmictic – the species is considered a single spawning stock and mating occurs randomly.

The range of the American eel includes eastern Canada, the East Coast and Gulf Coast of the United States, the Mississippi River, the east coast of Central American, the northern coast of Venezuela, and the Caribbean Islands. Within the Atlantic seaboard portion of the range, the major subwatersheds include approximately 230,549 square miles (Table 2) of habitat. This vast area must produces an enormous number of silver eels. For example, Oliveira and McCleave (2000) electrofished four rivers in Maine (Sheepscot, Medomak, Pleasant, East Machias) and calculated the mean density of yellow eels in each system. The riverine portion of the Sheepscot River alone (area from a GIS) would have been inhabited by 124,718 yellow eels (10.8 eels/100m2 x 11,548 units of 100m2).

The best available information indicates that natural mortality of glass eels is high. Jessop (2000) estimated a finite mortality rate during recruitment into a coastal river (May-October) of 0.9943-0.9948 (from trap counts) and 0.9958-0.9981 (from mark-recapture). Assuming a finite mortality rate of 0.99, 198 of the 200 pounds would have died of natural causes before reaching maturity.

Table 2 Area of Eastern Seaboard subwatershed<sup>11</sup>

Subwatershed	Area (miles²)	Percent of Total
Chedabucto Bay	2,148	0.9
Gulf of Maine	69,115	30.0
Long Island Sound	16,246	7.0
Lower New York Bay	14,000	6.1
Delaware Bay	14,119	6.1
Chesapeake Bay	64,299	6.127.9
Albermarle Sound	14,380	6.2
Winyah Bay	7,221	3.1
Santee River	4,531	2.0
Savannah River	9,850	4.3
St. Johns River	8,840	3.8
Biscayne Bay	2,800	1.2
Kissimee River	3,000	1.3
TOTAL	230, 549	100

#### **Monitoring Program**

The Maine glass eel fishery has been managed under a Total Allowable Catch (TAC) established by the Atlantic States Marine Fisheries Commission (ASMFC) since 2014. In 2014, the TAC was 11,749 lbs, which was determined by calculating a 35% reduction from the 2013 Maine landings of elvers. The TAC was subsequently dropped to 9,688 lbs for the 2015-2018 seasons. This TAC was based on the actual Maine landings achieved during the 2014 season. Landings have typically approached the TAC, except for the 2015 season, when poor weather prevented fishermen from filling their quotas. By law, 21.9% of the annual TAC is allocated to the four federally recognized Indian Tribes in the state.

Concurrent with the implementation of the TAC, Maine implemented an individual quota system for state license holders, calculated based on harvester reported landings during the 2011, 2012, and 2013 seasons. The individual quota system is monitored through the use of a "swipe" card.

The swipe card system was created in 2013 to enable Maine to monitor the elver quota. The system was designed to allow dealers to enter data daily and allow MEDMR staff to quickly analyze that data within 24 hours of receipt. Additionally, the swipe card system was developed as the mechanism to monitor the individual fishing quota of harvesters.

<sup>&</sup>lt;sup>1</sup> https://en.wikipedia.org/wiki/Atlantic seaboard watershed

Swipe cards are issued annually to each elver license by a Marine Patrol Officer. At that time, the license holder signs an acknowledgement form that indicates their understanding of their individual quota and the penalties associated with exceeding their quota. Harvester sales are checked daily against their quota, and when the harvester's quota is reached or exceeded, the swipe card is deactivated by MEDMR Landings Program staff.

Each elver dealer has a swipe card reader for the permanent facility, as well as all vehicles used to transport elvers. Dealers are required to submit swipe card transaction reports (including negative reports) by 2 p.m. for each day of the elver season (March 22<sup>nd</sup> to June 7<sup>th</sup>). If dealers are delinquent with two days' worth of reports the swipe card system will not allow dealers to purchase elvers from harvesters until they submit all outstanding reports or create a negative report for the missing days. A dealer to dealer program was added in 2015. The dealer to dealer program required a card swipe each time dealers moved elvers to another location or dealer. The dealer to dealer program uses the same hardware and software as the harvester to dealer system, and is also subject to daily reporting including negative reports.

For the aquaculture quota, MDMR will issue separate cards to the assigned harvesters for a total allocation of 200 pounds. When the facility is assigned its quota it will designate the licensed harvesters that will be collecting the 200lbs. The aquaculture facility will be required to hold an elver dealer permit and license its buying station, transport vehicles, and facility. The permitted aquaculture facility will be the only dealer allowed to swipe aquaculture quota cards in addition to regular individual harvester cards. The data collection on these transitions from harvester to facility will include the harvester's name, harvest site, harvest method, date, and pounds. When the 200 pound quota is achieved, cards will be deactivated.

Due to the nature of the production, the facility will also be able to provide a status report to MDMR on glass eel survival when eels are moved from glass eel intake system into production facility at approximately four months from arrival (see facility description for more details).

#### **Penalties for Violation**

Toward the end of the 2018 elver fishing season, an investigation by Maine Marine Patrol determined that some elver dealers were buying elvers for cash at a reduced price, without using the swipe card system. In response, the Commissioner used his emergency rule-making authority to immediately close the fishery for the remainder of the season. Prior to the start of the 2019 elver season, MDMR will pursue any statutory or regulatory changes that are determined necessary to reduce the risk of such practices continuing to occur.

Since 2012, Maine has made numerous law changes to close any remaining loopholes and create the proper penalties for elver violations. The majority of elver violations were criminalized in 2014, changing from a civil violation, to a Class D crime with a \$2000 fine. At the same time, mandatory license

revocations were imposed for the second violation of several elver offenses, including untagged gear, fishing out of season, or exceeding the individual fishing quota. In addition to the \$2000 fine, individuals who exceed their quota are subject to a "pecuniary gain" fine, where they must pay back to the State the value of any elvers that were taken in excess of their quota. The Department is authorized to deny the renewal of the license of an individual who has failed to pay their pecuniary gain fine in its entirety prior to the following elver season.

Harvester, dealers, and aquaculture facilities may have random inspection of the facility and places of harvest conducted to ensure all rules and regulations under conditions of permit(s) are being adhered to. An aquaculture facility permit would hold to these same penalties and loss of license for violations.

Regardless of specific penalties that may be provided in law, the Commissioner also has the authority to suspend any licenses or certificates issued by the Department if a person is convicted or adjudicated in court of violating any marine resources law or regulation. In addition, the Commissioner may pursue license suspension without criminal conviction or civil adjudication through an administrative process.

#### **Prior Approval of Permits**

American Unagi was first approved to hold and grow eels by MDMR in 2014. During the course of operating the pilot facility, American Unagi has worked closely with the State regulators on permitting for its operations. The company holds the necessary permits to buy, culture, and sell American eels.

For purchasing elvers from licensed Maine harvesters, American Unagi holds a MDMR Elver dealer license that is renewed annually. Under this permit, the company has permitted a buying station, transport vehicle, and facility. For sale of grown product, the company holds a MDMR Wholesale Dealer Permit that is renewed annually. Prior to November 1<sup>st</sup>, all eel aquaculture was permitted under MDRM, but as of November 1, 2017, the state of Maine has shifted the responsibilities for permitting land-based aquaculture facilities from the Department of Marine Resources to the Department of Agriculture, Conservation, & Forestry (DACF). The DACF is underway developing interim guidance for licensing and American Unagi is currently working with the State closely during this transition. American Unagi anticipates having the new permitting finalized before the approval of the aquaculture quota.

# **Description of Market (s)**

American Unagi has already been supplying domestic outlets for the eel produced in its pilot facility. The company is planning to expands its sale of live and further develop processed products for domestic consumption. For propriety reasons, specific details are not being provided.

#### Description of facilities (design, capabilities, and technical facts)

The company is building a 120MT commercial scale land-based recirculating aquaculture plant in midcoast Maine. Following the formula for success of eels and RAS, American Unagi engaged a worldwide leader in RAS design in eels to assist in assessing the feasibility of its commercial plant, develop a schematic design, provide detailed operations and equipment costs to develop the plant.

The farm consists two separate systems: a glass eel system and a grow-out system. When glass eels are brought in they will go into the glass eel system which also serves as quarantine area. This recirculated system includes 9 round tanks of 2.25 meter diameter and 100 cm deep. Every 12 minutes the water is filtered and then recycled. The outlet of the fish tank is equipped with a brushing machine, basically a cylindrical screen that is constantly brushed to prevent clogging. The brushing machine is fed with water from the bottom center of the tank, pulling up dead and dying fish and feces. Glass eels are held in this system for 1-4 months as they are acclimated to commercial aquaculture diet. Once the glass eel reach a weight of 3-5 gram they are size graded and moved into the grow-out system. This system has a two series of tanks split into "nursery" and "grow-out". The first series of nursery tanks hold the eels from 3-5 grams until around 20 grams. The eels are then moved to the largest series of tanks within the same systems, where they are grown to market size.

Each system has its own filtration equipment. The waste water leaving the tanks is first sieved with a drumfilter; a rotating sieve that is equipped with a sieve cloth with 36-40 micron openings. Once the screen gets clogged with solids it automatically starts a rinsing cycle, spraying the waste into a gutter that is collected and processed. From the drumfilter the water is pumped into a biofilter for the stripping of carbon dioxide and for conversion of ammonia (NH3) into the relatively harmless nitrate (NO3). The biofilter is a moving bed biological reactors (MBBR's). These are energy efficient, compact, and are more efficient in maintain heat than other biofilters. From the biofilter the water flows by gravity through a MHO oxygen reactor to add pure oxygen and then by gravity back to the fish tanks.

A monitoring /control system is used for guarding pH, temperature and oxygen. All fish tanks are equipped with water level sensors. Together with some pressure sensors these are connected to an alarm system that dials out to cell phones. Additionally, our facility is equipped with video surveillance for both security and monitoring purposes.

During the course of the aquaculture process there is some expected mortalities and the losses are anticipated in the production planning. In American Unagi's experience, the largest period of mortality occurs during weaning process after glass eels first arrive. While the company has seen as little as 1% loss, it anticipates as high as 10% loss into its production planning to accommodate for this expected mortality. Therefore to produce, 120 MT annually the company will stock up to 360 lbs of glass eels, with 200 lbs of this being secured under the domestic aquaculture permit and the remaining 160 thru the standard quota system. Each year when the glass eels are stocked into facility the first one to four months they are kept

separate from previous year classes. During the this intake period the company tracks growth, survival, and numbers for the years glass eels that would be available to MDMR for review and tracking.

During the production process the eels are size graded every 6-8 weeks. Given eel is a non-domesticated species there is a very big variance between the performance of different individuals. A fast grower may reach market weight in just 6 months but other fish may still weigh a few grams after one year. As a result of the growth variation the farm population in the grow-out tanks will comprise of 2-3 year classes of eel. As part of operating a successful aquaculture facility, meticulous records of growth, survival, and biomass are a necessary part of the business so during the course of the grow-out the farm maintains records of current eels onsite. In addition to supporting the successful operation of the business, these records are also used to support that best management practices are being followed.

#### References

Cote, Caroline L., P-A. Gagnaire, V. Bourret, G. Verreault, M. Castonguay, and L. Bernatchez. 2012. Population genetics of the American eel (Anguilla rostrata): FST = 0 and North Atlantic Oscillation effects on demographic fluctuations of a panmictic specie. Molecular Biology 2012.

Jessop, B.M. 2000. Estiamtes of population size and instream mortality rate of American eel elvers in a Nova Scotia River. Transactions of the American Fishereis Sciiety 29: 514-526.

Oliveira, K. and J.D. McCleave. 2000. Variation in population and life history traits of the American eel, Anguilla rostrate, in four rivers in Maine. Environmental Biology of Fishes 59: 141-151.

#### **Maine Revised Statutes Title 12: Conservation**

#### §6001. DEFINITIONS

**13-F. Elver.** "Elver" means a member of the species Anguilla rostrata in that stage of its life cycle when it is less than 6 inches in length.

```
[ 1995, c. 536, Pt. A, §1 (NEW) .]
```

**13-G**. **Elver fyke net.** "Elver fyke net" means a fyke net that is 30 feet or less in length from cod end to either wing tip, is fitted with netting that measures 1/8-inch bar mesh or less, contains a 1/2-inch or less bar mesh excluder panel that covers the entrance of the net, and consists of not more than one funnel end, one cod end and 2 wings.

```
[ 1997, c. 575, §1 (AMD) .]
```

**13-H. Elver dip net.** "Elver dip net" means a dip net with a hoop of not more than 30 inches in diameter and fitted with netting that measures 1/8 inch bar mesh or less.

```
[ 1999, c. 7, §1 (AMD) .]
```

**40-A**. **Sheldon eel trap.** "Sheldon eel trap" means a box trap with a netted wing 10 feet or less in length used to intercept and direct elvers into the trap.

# §6302-A. TAKING OF MARINE ORGANISMS BY FEDERALLY RECOGNIZED INDIAN TRIBES

- 1. Tribal exemption; commercial harvesting licenses. A member of the Passamaquoddy Tribe, Penobscot Nation, Aroostook Band of Micmacs or Houlton Band of Maliseet Indians who is a resident of the State is not required to hold a state license or permit issued under section 6421, 6501, 6502-A, 6505-A, 6505-C, 6535, 6601, 6602, 6701, 6702, 6703, 6731, 6745, 6746, 6748, 6748-A, 6748-D, 6751, 6803, 6804 or 6808 to conduct activities authorized under the state license or permit if that member holds a valid license issued by the tribe, nation or band or the agent of the band to conduct the activities authorized under the state license or permit. A member of the Passamaquoddy Tribe, Penobscot Nation, Aroostook Band of Micmacs or Houlton Band of Maliseet Indians issued a tribal license pursuant to this subsection to conduct activities is subject to all laws and rules applicable to a person who holds a state license or permit to conduct those activities and to all the provisions of chapter 625, except that the member of the tribe, nation or band:
  - A. May utilize lobster traps tagged with trap tags issued by the tribe, nation or band or the agent of the band in a manner consistent with trap tags issued pursuant to section 6431-B. A member of the tribe, nation or band is not required to pay trap tag fees under section 6431-B if the tribe, nation or band or the agent of the band issues that member trap tags; [2011, c. 598, §17 (AMD).]
  - B. May utilize elver fishing gear tagged with elver gear tags issued by the tribe, nation or band or the agent of the band in a manner consistent with tags issued pursuant to section 6505-B. A member of the tribe, nation or band is not required to pay elver fishing gear fees under section 6505-B if the tribe, nation or band or the agent of the band issues that member elver fishing gear tags; and [2011, c. 598, §17 (AMD).]
  - C. Is not required to hold a state shellfish license issued under section 6601 to obtain a municipal shellfish license pursuant to section 6671. [1997, c. 708, §1 (NEW); 1997, c. 708, §3 (AFF).]

```
[ 2013, c. 254, §1 (AMD) .]
```

- **2**. **Tribal exemption; sustenance or ceremonial tribal use.** Notwithstanding any other provision of law, a member of the Passamaquoddy Tribe, Penobscot Nation, Aroostook Band of Micmacs or Houlton Band of Maliseet Indians who is a resident of the State may at any time take, possess, transport and distribute:
  - A. Any marine organism, except lobster, for sustenance use if the tribal member holds a valid sustenance fishing license issued by the tribe, nation or band or the agent of the band. A sustenance fishing license holder who fishes for sea urchins may not harvest sea urchins out of season; [2011, c. 598, §17 (AMD).]
  - B. Lobsters for sustenance use, if the tribal member holds a valid sustenance lobster license issued by the tribe, nation or band or the agent of the band. The sustenance lobster license holder's traps must be tagged with sustenance use trap tags issued by the tribe, nation or band or the agent of the band in a manner consistent with trap tags issued pursuant to section 6431-B; however, a sustenance lobster license holder may not harvest lobsters for sustenance use with more than 25 traps; and [2011, c. 598, §17 (AMD).]
  - C. Any marine organism for noncommercial use in a tribal ceremony within the State, if the member holds a valid ceremonial tribal permit issued to the tribal member by the Joint Tribal Council of the Passamaquoddy Tribe or the governor and council at either Passamaquoddy reservation, by the Penobscot Reservation Tribal Council, by the Aroostook Band of Micmacs Tribal Council or its agent or by the Houlton Band of Maliseet Indians Tribal Council or its agent. [2013, c. 254, §2 (AMD).]

For purposes of this subsection, "sustenance use" means all noncommercial consumption or noncommercial use by any person within Passamaquoddy Indian territory, as defined in Title 30, section 6205, subsection 1, Penobscot Indian territory, as defined in Title 30, section 6205, subsection 2, Aroostook Band Trust Land, as defined in Title 30, section 7202, subsection 2, or Houlton Band Trust Land, as defined in Title 30, section 6203, subsection 2-A, or at any location within the State by a tribal member, by a tribal member's immediate family or within a tribal member's household. The term "sustenance use" does not include the sale of marine organisms.

A member of the Passamaquoddy Tribe, Penobscot Nation, Aroostook Band of Micmacs or Houlton Band of Maliseet Indians who takes a marine organism under a license or permit issued pursuant to this subsection must comply with all laws and rules applicable to a person who holds a state license or permit that authorizes the taking of that organism, except that a state law or rule that sets a season for the harvesting of a marine organism does not apply to a member of the Passamaquoddy Tribe, Penobscot Nation, Aroostook Band of Micmacs or Houlton Band of Maliseet Indians who takes a marine organism for sustenance use or for noncommercial use in a tribal ceremony. A member of the Passamaquoddy Tribe, Penobscot Nation, Aroostook Band of Micmacs or Houlton Band of Maliseet Indians issued a license or permit under this subsection is exempt from paying elver gear fees under section 6505-B or trap tag fees under section 6431-B and is not required to hold a state shellfish license issued under section 6601 to obtain a municipal shellfish license pursuant to section 6671. A member of the Passamaquoddy Tribe, Penobscot Nation, Aroostook Band of Micmacs or Houlton Band of Maliseet Indians who fishes for or takes lobster under a license or permit issued pursuant to this subsection must comply with the closed periods under section 6440.

[ 2013, c. 254, §2 (AMD) .]

#### 3. Lobster, sea urchin, scallop and elver licenses; limitations. Pursuant to subsection 1:

- A. The Passamaquoddy Tribe and Penobscot Nation may each issue to members of its tribe or nation, as the case may be, up to 24 commercial lobster and crab fishing licenses in any calendar year, including all licenses equivalent to Class I, Class II or Class III licenses and student licenses, but not including apprentice licenses. Licenses issued under this paragraph are subject to the eligibility requirements of section 6421, subsection 5; [2011, c. 598, §17 (AMD).]
- A-1. The Aroostook Band of Micmacs or its agent may issue to members of the band up to 10 commercial lobster and crab fishing licenses in any calendar year, including all licenses equivalent to Class I, Class II or Class III licenses and student licenses, but not including apprentice licenses. Licenses issued under this paragraph are subject to the eligibility requirements of section 6421, subsection 5; [2011, c. 598, §17 (NEW).]
- A-2. The Houlton Band of Maliseet Indians or its agent may issue to members of the band up to 10 commercial lobster and crab fishing licenses in any calendar year, including all licenses equivalent to Class I, Class II or Class III licenses and student licenses, but not including apprentice licenses. Licenses issued under this

- paragraph are subject to the eligibility requirements of section 6421, subsection 5; [2013, c. 254, §3 (NEW).]
- B. The Passamaquoddy Tribe may not issue to members of the tribe more than 24 commercial licenses for the taking of sea urchins in any calendar year. Sea urchin licenses must be issued by zone in accordance with section 6749-P; [2011, c. 598, §17 (AMD).]
- C. The commissioner shall adopt rules authorizing the Penobscot Nation to issue to members of the nation commercial sea urchin licenses if the commissioner determines that sea urchin resources are sufficient to permit the issuance of new licenses. The commissioner may not authorize the Penobscot Nation to issue more than 24 commercial sea urchin licenses to members of the nation in any calendar year; [2011, c. 598, §17 (AMD).]
- C-1. The commissioner shall adopt rules authorizing the Aroostook Band of Micmacs or its agent to issue to members of the band commercial sea urchin licenses if the commissioner determines that sea urchin resources are sufficient to permit the issuance of new licenses. The commissioner may not authorize the Aroostook Band of Micmacs or its agent to issue more than 24 commercial sea urchin licenses to members of the band in any calendar year; [2011, c. 598, §17 (NEW).]
- C-2. The commissioner shall adopt rules authorizing the Houlton Band of Maliseet Indians or its agent to issue to members of the band commercial sea urchin licenses if the commissioner determines that sea urchin resources are sufficient to permit the issuance of new licenses. The commissioner may not authorize the Houlton Band of Maliseet Indians or its agent to issue more than 24 commercial sea urchin licenses to members of the band in any calendar year; [2013, c. 254, §3 (NEW).]
- D. The Penobscot Nation may not issue to members of the nation more than 20 commercial licenses for the taking of scallops in any calendar year, except that the commissioner shall by rule allow the Penobscot Nation to issue additional commercial licenses to members of the nation for the taking of scallops if the commissioner determines that scallop resources are sufficient to permit the issuance of new licenses; [2011, c. 598, §17 (AMD).]
- D-1. The Aroostook Band of Micmacs or its agent may not issue to members of the band more than 10 commercial licenses for the taking of scallops in any calendar year, except that the commissioner shall by rule allow the Aroostook Band of Micmacs or its agent to issue additional commercial licenses to members of the band for the taking of scallops if the commissioner determines that scallop resources are sufficient to permit the issuance of new licenses; [2011, c. 598, §17 (NEW).]
- D-2. The Passamaquoddy Tribe may not issue to members of the tribe more than 20 commercial licenses for the taking of scallops in any calendar year, except that the commissioner shall by rule allow the Passamaquoddy Tribe to issue additional commercial licenses to members of the tribe for the taking of scallops if the commissioner determines that scallop resources are sufficient to permit the issuance of new licenses; [2013, c. 8, §1 (NEW).]
- D-3. The Houlton Band of Maliseet Indians or its agent may not issue to members of the band more than 10 commercial licenses for the taking of scallops in any calendar year, except that the commissioner shall by rule allow the Houlton Band of Maliseet Indians or its agent to issue additional commercial licenses to members of the band for the taking of scallops if the commissioner determines that scallop resources are sufficient to permit the issuance of new licenses; [2013, c. 254, §3 (NEW).]
- E. The Penobscot Nation may not issue to members of the nation commercial licenses for the taking of elvers in any calendar year that exceed the following limits:
  - (1) Eight licenses that allow the taking of elvers with 2 pieces of gear; and
  - (2) Forty licenses that allow the taking of elvers with one piece of gear.

The commissioner shall by rule allow the Penobscot Nation to issue additional commercial licenses to members of the nation for the taking of elvers if the commissioner and the Penobscot Nation determine that elver resources are sufficient to permit the issuance of new licenses; [2015, c. 391, §3 (AMD).]

E-1. The Passamaquoddy Tribe may issue to members of the tribe commercial licenses for the taking of elvers with one piece of gear; [2015, c. 391, §4 (AMD).]

- F. The Aroostook Band of Micmacs or its agent may not issue to members of the band more than 8 commercial licenses for the taking of elvers in any calendar year, except that the commissioner shall by rule allow the Aroostook Band of Micmacs or its agent to issue additional commercial licenses for the taking of elvers to members of the band if the commissioner determines that elver resources are sufficient to permit the issuance of new licenses; and [2013, c. 8, §1 (AMD).]
- G. The Houlton Band of Maliseet Indians or its agent may not issue to members of the band more than 16 commercial licenses for the taking of elvers in any calendar year except that the commissioner shall by rule allow the Houlton Band of Maliseet Indians or its agent to issue additional commercial licenses for the taking of elvers to members of the band if the commissioner determines that elver resources are sufficient to permit the issuance of new licenses. [2015, c. 391, §5 (RPR).]

The Passamaquoddy Tribe, Penobscot Nation, Aroostook Band of Micmacs, Houlton Band of Maliseet Indians and Department of Marine Resources shall report on the status of the sea urchin, scallop and elver fisheries to the joint standing committee of the Legislature having jurisdiction over marine resources matters by January 15th of each even-numbered year.

Rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A

# §6302-B. ELVER QUOTA FOR FEDERALLY RECOGNIZED INDIAN TRIBES IN THE STATE

If the commissioner adopts an elver individual fishing quota system pursuant to section 6505-A, subsection 3-A, this section governs the allocation of the elver quota to federally recognized Indian tribes in the State. [2013, c. 485, §3 (NEW).]

- 1. Annual allocation. In accordance with section 6505-A, the commissioner shall annually allocate 21.9% of the overall annual quota of elver fishery annual landings to the federally recognized Indian tribes in the State. If the Passamaquoddy Tribe, the Penobscot Nation, the Aroostook Band of Micmacs and the Houlton Band of Maliseet Indians reach an agreement regarding the division of this 21.9% portion of the overall annual quota among them and communicate in writing that agreement to the commissioner prior to March 1st of the year in which the quota is allocated, the commissioner shall allocate that portion of the quota in accordance with that agreement. If no agreement is reached, the commissioner shall allocate that portion of the quota in accordance with the following:
  - A. To the Passamaquoddy Tribe, 14% of the overall annual quota; [2013, c. 485, §3 (NEW).]
  - B. To the Penobscot Nation, 6.4% of the overall annual quota; [2013, c. 485, §3 (NEW).]
  - C. To the Houlton Band of Maliseet Indians, 1.1% of the overall annual quota; and [2013, c. 485, §3 (NEW).]
  - D. To the Aroostook Band of Micmacs, 0.4% of the overall annual quota. [2013, c. 485, §3 (NEW).]

In making any allocations under this subsection, the commissioner shall reserve a portion no greater than 10% of each allocation in order to ensure that the quota is not exceeded.

```
[ 2013, c. 485, §3 (NEW) .]
```

- **2**. **Individual allocations.** The following provisions govern the allocation of the quotas established under subsection 1 to members of each of the federally recognized Indian tribes.
  - A. The commissioner may enter into an agreement with a federally recognized Indian tribe in the State that does not provide for individual allocations of the quota established under subsection 1 to members of that tribe, nation or band. If the commissioner enters into an agreement pursuant to this paragraph, the following provisions apply.
    - (1) An elver transaction card under section 6305 must be issued to each person to whom the tribe, nation or band issues a license under section 6302-A, subsection 3.

- (2) The holder of a license issued under section 6302-A, subsection 3 must meet the reporting requirements established by rule pursuant to section 6173.
- (3) The quota established under subsection 1 applies to all elvers taken under licenses issued by the tribe, nation or band under section 6302-A, subsection 3.
- (4) When the quota established under subsection 1 is reached, the department shall notify the tribe, nation or band. When the quota established under subsection 1 is reached, the holder of a license issued by the tribe, nation or band under section 6302-A, subsection 3 may not thereafter take, possess or sell elvers. Taking, possessing or selling elvers after the quota established under subsection 1 is reached is deemed a violation by the license holder of the prohibition on fishing in excess of the person's individual quota in section 6505-A, subsection 3-A. [2015, c. 391, §6 (NEW).]
- B. This paragraph governs the allocation of the quotas established in subsection 1 to members of a federally recognized Indian tribe in the State when the commissioner has not entered into an agreement with members of the tribe, nation or band under paragraph A that applies to members of that tribe, nation or band.
  - (1) If there is no agreement under paragraph A between the commissioner and the Passamaquoddy Tribe, the Passamaquoddy Tribe shall allocate to each person to whom it issues a license under section 6302-A, subsection 3, paragraph E-1 a specific amount of the quota allocated to the Passamaquoddy Tribe under subsection 1, paragraph A and shall provide documentation to the department of that allocation for each individual license holder. The Passamaquoddy Tribe shall allocate all of the quota that it has been allocated and may not alter any individual allocations once documentation has been provided to the department.
  - (2) If there is no agreement under paragraph A between the commissioner and the Penobscot Nation, the Penobscot Nation shall allocate to each person to whom it issues a license under section 6302-A, subsection 3, paragraph E a specific amount of the quota allocated to the Penobscot Nation under subsection 1, paragraph B and shall provide documentation to the department of that allocation for each individual license holder. The Penobscot Nation shall allocate all of the quota that it has been allocated and may not alter any individual allocations once documentation has been provided to the department.
  - (3) If there is no agreement under paragraph A between the commissioner and the Houlton Band of Maliseet Indians, the Houlton Band of Maliseet Indians shall allocate to each person to whom it issues a license under section 6302-A, subsection 3, paragraph G a specific amount of the quota allocated to the Houlton Band of Maliseet Indians under subsection 1, paragraph C and shall provide documentation to the department of that allocation for each individual license holder. The Houlton Band of Maliseet Indians shall allocate all of the quota that it has been allocated and may not alter any individual allocations once documentation has been provided to the department.
  - (4) If there is no agreement under paragraph A between the commissioner and the Aroostook Band of Micmacs, the Aroostook Band of Micmacs shall allocate to each person to whom it issues a license under section 6302-A, subsection 3, paragraph F a specific amount of the quota allocated to the Aroostook Band of Micmacs under subsection 1, paragraph D and shall provide documentation to the department of that allocation for each individual license holder. The Aroostook Band of Micmacs shall allocate all of the quota that it has been allocated and may not alter any individual allocations once documentation has been provided to the department. [2015, c. 391, §6 (NEW).]

The department shall issue an elver transaction card under section 6305 to a person licensed by the Passamaquoddy Tribe under section 6302-A, subsection 3, paragraph E-1, the Penobscot Nation under section 6302-A, subsection 3, paragraph E, the Houlton Band of Maliseet Indians under section 6302-A, subsection 3, paragraph G or the Aroostook Band of Micmacs under section 6302-A, subsection 3, paragraph F only upon receipt of adequate documentation specifying the individual quota allocated to that person by the tribe, nation or band under this subsection.

```
[ 2015, c. 391, §6 (RPR) .]
```

**3**. **Overage.** If the total weight of elvers sold by persons licensed by the Passamaquoddy Tribe, Penobscot Nation, Aroostook Band of Micmacs or Houlton Band of Maliseet Indians exceeds the quota allocated under subsection 1 to that tribe, nation or band, the commissioner shall deduct the amount of the overage from any future

allocation to that tribe, nation or band. If the overage exceeds the overall annual quota allocated to that tribe, nation or band for the following year, the overage must be deducted from the overall annual quota allocations to that tribe, nation or band in subsequent years until the entire overage has been accounted for.

```
[ 2013, c. 485, §3 (NEW) .]
```

**4. Emergency prohibition.** The commissioner may adopt emergency rules to prohibit the Passamaquoddy Tribe, the Penobscot Nation, the Aroostook Band of Micmacs or the Houlton Band of Maliseet Indians from fishing for elvers under a license issued under this Title if the commissioner finds that the tribe, nation or band has authorized fishing for elvers in a way that the commissioner determines will cause the tribe, nation or band to exceed the annual allocation set forth in subsection 1.

```
[ 2015, c. 391, §7 (NEW) .]

SECTION HISTORY
2013, c. 485, §3 (NEW). 2015, c. 391, §§6, 7 (AMD).
```

#### §6505-A. ELVER FISHING LICENSE

(CONTAINS TEXT WITH VARYING EFFECTIVE DATES)

- 1. License required. Except as provided in section 6302-A and section 6302-B, a person may not engage in the activities authorized under subsection 1-A unless the person is issued one of the following elver fishing licenses under this section:
  - A. A resident elver fishing license for one device; [2003, c. 452, Pt. F, §11 (NEW); 2003, c. 452, Pt. X, §2 (AFF).]
  - B. A resident elver fishing license for 2 devices; [2003, c. 452, Pt. F, \$11 (NEW); 2003, c. 452, Pt. X, \$2 (AFF).]
  - C. A nonresident elver fishing license for one device; [2013, c. 468, §23 (AMD).]
  - D. A nonresident elver fishing license for 2 devices; [2013, c. 468, §23 (AMD).]
  - E. A resident elver fishing license with crew for one device; [2013, c. 468, §23 (NEW).]
  - F. A resident elver fishing license with crew for 2 devices; [2013, c. 468, §23 (NEW).]
  - G. A nonresident elver fishing license with crew for one device; or [2013, c. 468, §23 (NEW).]
  - H. A nonresident elver fishing license with crew for 2 devices. [2013, c. 468, §23 (NEW).]

The department may not issue a license under paragraph E, F, G or H until January 1, 2015.

```
[ 2013, c. 485, §5 (AMD) .]
```

**1-A. Licensed activity.** The holder of an elver fishing license or elver fishing license with crew may fish for, take or possess elvers. The holder of an elver fishing license or elver fishing license with crew may transport and sell within state limits elvers that the license holder has taken. The holder of an elver fishing license with crew is liable for the licensed activities under this subsection of an unlicensed crew member assisting that license holder pursuant to subsection 1-B. Only the license holder to whom a tag is issued may empty an elver fyke net.

```
[ 2013, c. 468, §24 (NEW) .]
```

**1-B. License limitations.** An elver fishing license with crew authorizes the license holder to engage in the licensed activities under subsection 1-A. The holder of an elver fishing license with crew may engage one unlicensed crew member to assist the license holder only in certain activities as authorized by rule, and the unlicensed crew member may assist only under the direct supervision of the license holder.

```
[ 2013, c. 468, §24 (NEW) .]
```

1-C. Elver transaction card issued. The department may issue an elver transaction card to each license holder under this section and to each license holder under section 6302-A, subsection 3, paragraphs E, E-1, F and G in accordance with section 6302-B. The department may charge each license holder an annual fee for the elver transaction card that may not exceed \$35. Fees collected under this subsection must be deposited in the Eel and Elver Management Fund under section 6505-D. The license holder shall use the elver transaction card to meet electronic reporting requirements established by rule pursuant to section 6173. The elver transaction card must include the license holder's name and license number.

```
[ 2017, c. 250, §2 (AMD) .]
```

**1-D. Use of elver transaction card required.** The holder of an elver fishing license issued under this section or section 6302-A, subsection 3, paragraph E, E-1, F or G may not sell or transfer elvers the license holder has taken to an elver dealer licensed under section 6864 unless the holder of the elver fishing license presents to the elver dealer the elver transaction card issued to that person under subsection 1-C.

```
[ 2013, c. 468, §24 (NEW) .]
```

**1-E**. **Elver transaction card limited.** A person may not possess an elver transaction card unless that person holds a license issued under this section or section 6302-A, subsection 3, paragraph E, E-1, F or G and the elver transaction card was issued to that person pursuant to subsection 1-C.

```
[ 2013, c. 468, §24 (NEW) .]
```

**1-F. Licenses issued.** The commissioner may issue up to 425 elver fishing licenses each year under this section.

```
[ 2017, c. 250, §3 (NEW) .]
```

2. Eligibility. An elver fishing license may be issued only to an individual who:

```
A. [1999, c. 534, §1 (RP).]
```

C. Possessed an elver fishing license in the previous calendar year; [2011, c. 549, §3 (AMD).]

```
D. [2005, c. 533, §1 (RP).]
```

E. Did not possess an elver fishing license in the previous calendar year because the commissioner had suspended the person's license privileges for a length of time that included the previous calendar year; or [2011, c. 549, §3 (AMD).]

F. Becomes eligible to obtain an elver fishing license pursuant to the elver lottery under subsection 2-C. [2017, c. 250, §4 (AMD).]

```
[ 2017, c. 250, §4 (AMD) .]
```

2-A. Elver license lottery.

```
[ 2005, c. 533, §2 (RP) .]
```

2-B. Elver lotteries.

```
[ 2017, c. 250, §5 (RP) .]
```

**2-C. Elver license lottery.** The commissioner shall establish an elver fishing license lottery under which a person may become eligible for that license under subsection 2, paragraph F. An applicant to the lottery must submit a lottery application together with a \$35 nonrefundable application fee no later than January 15th of the same calendar year as the lottery. An applicant may not submit more than 5 elver fishing license lottery applications per lottery year. In any year in which a lottery is held, the lottery must be held on or before February 15th.

The commissioner may adopt rules to implement the elver fishing license lottery, including provisions for the method and administration of the lottery. Rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.

Twenty-five dollars of the application fee collected under this subsection must be deposited in the Eel and Elver Management Fund established in section 6505-D and used to fund a life-cycle study of the elver fishery. Ten dollars of the application fee may be used by the department to fund the costs of administering the elver fishing license lottery.

```
[ 2017, c. 250, §6 (NEW) .]

3. Limits on issuance.
```

[ 2013, c. 8, §3 (RP) .]

**3-A. Elver fishing quotas.** The commissioner may adopt rules to establish, implement and administer an elver individual fishing quota system in order to ensure that the elver fishery annual landings do not exceed the overall annual quota established by the Atlantic States Marine Fisheries Commission. Except as provided in section 6575-L, a person issued a license under this section or section 6302-A, subsection 3, paragraph E, E-1, F or G may not take, possess or sell elvers in excess of the weight quota allocated to that person under the quota system. The rules must:

```
A. Establish an overall annual quota for the State; [2013, c. 485, §7 (NEW).]
```

- B. Establish the amount of the overall annual quota under paragraph A that is allocated to persons licensed under this section and specify a formula to establish individual quotas for persons licensed under this section. The formula may take into account the amount of elvers a person licensed under this section lawfully harvested in previous seasons based on final harvesting reports. The rules must specify the date by which harvester reports are considered final for the purpose of determining individual quotas; and [2013, c. 485, §7 (NEW).]
- C. Provide, in accordance with section 6302-B, that 21.9% of the overall annual quota under paragraph A is allocated to the federally recognized Indian tribes in the State and establish the amount of that portion of the overall annual quota allocated to the Passamaquoddy Tribe, the Penobscot Nation, the Houlton Band of Maliseet Indians and the Aroostook Band of Micmacs. [2013, c. 485, §7 (NEW).]

If persons issued licenses under this section collectively exceed the overall annual quota allocated to those persons pursuant to paragraph B, the number of pounds by which the license holders exceeded that overall annual quota must be deducted from the following year's overall annual quota allocated to persons licensed under this section. If the overage exceeds the overall annual quota allocated to persons licensed under this section for the following year, the overage must be deducted from the overall annual quota allocated to persons licensed under this section in subsequent years until the entire overage has been accounted for.

The commissioner may adopt or amend rules on an emergency basis if immediate action is necessary to establish and implement the elver individual fishing quota in advance of the beginning of the elver fishing season.

Rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.

```
4. (TEXT EFFECTIVE UNTIL 1/1/18) Fees. Fees for elver fishing licenses are:

A. For a person who is a resident, $205; [2017, c. 250, §7 (AMD).]

B. For a person who is a nonresident, $542; [2017, c. 250, §7 (AMD).]

C. For a person who is a resident with crew, $405; and [2017, c. 250, §7 (AMD).]

D. For a person who is a nonresident with crew, $1,426. [2017, c. 250, §7 (AMD).]
```

One hundred and fifty dollars of each license fee collected under paragraphs A and B and \$300 of each license fee collected under paragraphs C and D accrue to the Eel and Elver Management Fund established in section 6505-D.

```
[ 2017, c. 250, §7 (AMD) .]
```

4. (TEXT REPEALED 1/1/18) Fees.

```
[ 2017, c. 284, Pt. EEEEE, §31 (AFF); 2017, c. 284, Pt. EEEEE, §7 (RP) .]
```

- 4-A. (TEXT EFFECTIVE 1/1/18) License fee. Fees for elver fishing licenses are:
- A. For a resident elver fishing license for one device, \$55; [2017, c. 284, Pt. EEEEE, §8 (NEW); 2017, c. 284, Pt. EEEEE, §31 (AFF).]
- B. For a resident elver fishing license for 2 devices, \$63; [2017, c. 284, Pt. EEEEE, §8 (NEW); 2017, c. 284, Pt. EEEEE, §31 (AFF).]
- C. For a nonresident elver fishing license for one device, \$392; [2017, c. 284, Pt. EEEEE, §8 (NEW); 2017, c. 284, Pt. EEEEE, §31 (AFF).]
- D. For a nonresident elver fishing license for 2 devices, \$400; [2017, c. 284, Pt. EEEEE, §8 (NEW); 2017, c. 284, Pt. EEEEE, §31 (AFF).]
- E. For a resident elver fishing license with crew for one device, \$105; [2017, c. 284, Pt. EEEEE, \$8 (NEW); 2017, c. 284, Pt. EEEEE, \$31 (AFF).]
- F. For a resident elver fishing license with crew for 2 devices, \$113; [2017, c. 284, Pt. EEEEE, §8 (NEW); 2017, c. 284, Pt. EEEEE, §31 (AFF).]
- G. For a nonresident elver fishing license with crew for one device, \$1,126; and [2017, c. 284, Pt. EEEEE, §8 (NEW); 2017, c. 284, Pt. EEEEE, §31 (AFF).]
- H. For a nonresident elver fishing license with crew for 2 devices, \$1,134. [2017, c. 284, Pt. EEEEE, §8 (NEW); 2017, c. 284, Pt. EEEEE, §31 (AFF).]
- [ 2017, c. 284, Pt. EEEEE, §8 (NEW); 2017, c. 284, Pt. EEEEE, §31 (AFF) .]
- **4-B**. (TEXT EFFECTIVE 1/1/18) **License surcharge.** In addition to the license fee established in subsection 4-A, the commissioner shall assess a surcharge on each license issued under this section as follows:
  - A. For an elver fishing license issued under subsection 4-A, paragraphs A to D, \$150; and [2017, c. 284, Pt. EEEEE, §8 (NEW); 2017, c. 284, Pt. EEEEE, §31 (AFF).]
  - B. For an elver fishing license issued under subsection 4-A, paragraphs E to H, \$300. [2017, c. 284, Pt. EEEEE, §8 (NEW); 2017, c. 284, Pt. EEEEE, §31 (AFF).]

The surcharge fees collected under this subsection must be deposited in the Eel and Elver Management Fund established under section 6505-D.

```
[ 2017, c. 284, Pt. EEEEE, §8 (NEW); 2017, c. 284, Pt. EEEEE, §31 (AFF) .]
```

**5**. **Gear.** A person issued a license under this section may utilize one elver fyke net, one Sheldon eel trap or one dip net to fish for or take elvers without paying the fee required for a first net or trap pursuant to section 6505-B. A license issued under this section must identify the number and types of nets that the license holder may use pursuant to this section , section 6505-B and section 6575-B.

```
[ 2015, c. 391, §8 (AMD) .]
```

**5-A. Possession of elvers.** The holder of an elver fishing license may possess elvers only during the open season established in section 6575 and for up to 6 hours beyond the end of the open season.

```
[ 2013, c. 301, §10 (NEW) .]
```

**6. Minimum age.** A person who is under 15 years of age may not fish for or take elvers.

```
[ 2001, c. 421, Pt. B, §28 (AMD); 2001, c. 421, Pt. C, §1 (AFF) .]
```

7. Nonresident licenses; reciprocity with other states. A nonresident is eligible to purchase an elver fishing license only if the nonresident documents to the commissioner that the nonresident's state of residence allows Maine residents to purchase an elver license and fish for elvers in that state.

```
[ 1999, c. 7, §5 (NEW) .]
8. Violation.
```

[ 2013, c. 49, §8 (RP) .]

**8-A. Violation.** A person who violates this section commits a Class D crime for which a fine of \$2,000 must be imposed, none of which may be suspended. Violation of this section is a strict liability crime as defined in Title 17-A, section 34, subsection 4-A.

```
[ 2013, c. 49, §9 (NEW) .]

SECTION HISTORY

1995, c. 536, §A8 (NEW). 1997, c. 297, §$1,2 (AMD). 1999, c. 7, §$2-5

(AMD). 1999, c. 534, §$1-3 (AMD). 2001, c. 421, §$B27-29 (AMD). 2001, c. 421, §C1 (AFF). 2003, c. 20, §WW7 (AMD). 2003, c. 452, §F11 (AMD). 2003, c. 452, §X2 (AFF). 2005, c. 533, §$1,2 (AMD). 2007, c. 615, §15 (AMD). 2009, c. 213, Pt. G, §6 (AMD). 2011, c. 549, §$3-5 (AMD). 2013, c. 8, §$2, 3 (AMD). 2013, c. 49, §$8, 9 (AMD). 2013, c. 301, §$9, 10 (AMD). 2013, c. 468, §$23-25 (AMD). 2013, c. 485, §$5-7 (AMD). 2015, c. 131, §1 (AMD). 2015, c. 391, §8 (AMD). 2017, c. 250, §$2-7 (AMD). 2017, c. 284, Pt. EEEEE, §$7, 8 (AMD). 2017, c. 284, Pt. EEEEE,
```

#### §6505-B. ELVER GEAR FEES

- 1. Elver fyke net and Sheldon eel trap fee. A person may not submerge an elver fyke net or a Sheldon eel trap in the waters of the State to fish for or take elvers unless the net or trap owner pays annually the following fees:
  - A. Fifty dollars per net or trap for the use of an elver fyke net or Sheldon eel trap, except that the fee under this paragraph does not apply to an elver fyke net or Sheldon eel trap a person utilizes pursuant to section 6505-A, subsection 5. [2017, c. 284, Pt. EEEEE, §9 (AMD).]

```
B. [1999, c. 7, §6 (RP).]
C. [1999, c. 7, §6 (RP).]
[ 2017, c. 284, Pt. EEEEE, §9 (AMD).]
```

2. Tags for elver fyke net and Sheldon eel trap. A person may not submerge an elver fyke net or Sheldon eel trap in the coastal waters of the State to fish for or take elvers unless a tag issued by the department is affixed to the shoreside wing of the net or trap and is clearly visible. The department may issue a replacement tag when an owner issued a tag documents that a net or trap has been damaged or lost.

```
[ 2001, c. 421, Pt. B, §30 (AMD); 2001, c. 421, Pt. C, §1 (AFF) .]
```

**3**. **Dip net fee.** A person may not utilize a dip net to fish for or take elvers without paying a fee of \$50 per dip net annually.

This subsection does not apply to a dip net a person utilizes pursuant to section 6505-A, subsection 5.

```
[ 2017, c. 284, Pt. EEEEE, §10 (AMD) .]
```

**4. Payment with license.** The fees required under subsections 1 and 3 must be paid upon application for an elver fishing license under section 6505-A.

```
[ 1995, c. 536, Pt. A, §8 (NEW) .]
```

**5**. **Disposition of fees.** Fees collected under this section accrue to the Eel and Elver Management Fund established in section 6505-D.

```
A. [2017, c. 284, Pt. EEEEE, §11 (RP).]
B. [2017, c. 284, Pt. EEEEE, §11 (RP).]
[ 2017, c. 284, Pt. EEEEE, §11 (AMD).]
```

**6. Violation.** A person who violates this section commits a Class D crime for which a fine of \$2,000 must be imposed, none of which may be suspended. Violation of this section is a strict liability crime as defined in Title 17-A, section 34, subsection 4-A.

```
[ 2013, c. 49, §10 (AMD) .]

SECTION HISTORY

1995, c. 536, §A8 (NEW). 1997, c. 297, §§3-5 (AMD). 1997, c. 575, §2 (AMD).

1999, c. 7, §6 (AMD). 2001, c. 421, §B30 (AMD). 2001, c. 421, §C1 (AFF).

2009, c. 213, Pt. G, §§7-9 (AMD). 2011, c. 549, §6 (AMD). 2013, c. 49, §10 (AMD). 2017, c. 284, Pt. EEEEE, §§9-11 (AMD).
```

#### §6505-D. EEL AND ELVER MANAGEMENT FUND

1. Fund established. The Eel and Elver Management Fund, referred to in this section as the "fund," is established as a dedicated, nonlapsing fund.

```
[ 1995, c. 536, Pt. A, §8 (NEW) .]
```

2. Permissible uses. The commissioner may use the fund to research and manage the State's eel and elver resources, to enforce the laws related to eels and elvers and to cover the costs associated with determining eligibility for elver fishing licenses.

```
[ 2011, c. 266, Pt. A, §17 (AMD) .]
```

3. Plan required.

```
[ 2011, c. 266, Pt. A, §18 (RP) .]

SECTION HISTORY

1995, c. 536, §A8 (NEW). 1999, c. 309, §2 (AMD). 2011, c. 266, Pt. A, §§17, 18 (AMD).
```

#### Article 5: ELVER AND EEL LIMITATIONS

#### §6575. OPEN SEASON; ELVER HARVESTING

**1. Open season.** It is unlawful for a person to fish for or take elvers within the waters of the State except during the open season from noon on March 22nd to noon on June 7th.

```
[ 2015, c. 391, §9 (AMD) .]
```

**1-A. Federally recognized Indian tribes; violation.** It is unlawful for a person to fish for or take elvers in violation of rules adopted by the commissioner under section 6302-B, subsection 4.

```
[ 2015, c. 391, §10 (NEW) .]
```

2. Setting nets and traps. It is unlawful for a person to immerse or leave immersed an elver fyke net or a Sheldon eel trap in any river, stream or brook of the waters of the State at any time other than the open season for elver fishing.

```
[ 1999, c. 7, §7 (AMD) .]
```

**3. Locating nets.** It is unlawful for a person to designate or claim by any means a location in which to set an elver fyke net or a Sheldon eel trap at any time other than the open season for elver fishing.

```
[ 1999, c. 7, §7 (AMD) .]
```

4. Nets of certain sizes.

```
[ 1999, c. 7, §7 (RP) .]
```

**5**. **Violation.** A person who violates this section commits a Class D crime for which a fine of \$2,000 must be imposed, none of which may be suspended. Violation of this section is a strict liability crime as defined in Title 17-A, section 34, subsection 4-A.

```
[ 2013, c. 49, §11 (NEW) .]

SECTION HISTORY

1995, c. 536, §A9 (NEW). 1995, c. 536, §A13 (AFF). 1997, c. 91, §4 (AMD).

1999, c. 7, §7 (AMD). 2013, c. 49, §11 (AMD). 2015, c. 391, §§9, 10 (AMD).
```

#### §6575-A. CLOSED PERIOD; ELVER HARVESTING

#### (REPEALED)

```
SECTION HISTORY
1995, c. 536, §A9 (NEW). 1995, c. 536, §A13 (AFF). 1997, c. 575, §3 (AMD).
1999, c. 7, §8 (AMD). 2011, c. 549, §7 (AMD). 2013, c. 49, §12 (RPR).
2013, c. 468, §26 (AMD). 2015, c. 391, §11 (RP).
```

#### §6575-B. METHOD OF ELVER FISHING; LIMITS ON GEAR

1. Gear. It is unlawful for a person to fish for or take elvers by any method other than by dip net, elver fyke net or Sheldon eel trap.

```
[ 1995, c. 536, Pt. A, §9 (NEW) .]
```

2. Number of elver fyke nets and Sheldon eel traps.

```
[ 1999, c. 7, §9 (RP) .]
```

2-A. Number of nets and Sheldon eel traps.

```
[ 1999, c. 534, §4 (RP) .]
```

**2-B. Type and amount of gear.** It is unlawful for a person to immerse elver fishing gear other than the types and amounts listed on the person's license pursuant to section 6505-A, subsection 5. A person may not immerse an amount of elver fishing gear that exceeds the amount of elver fishing gear listed on the person's license for the previous elver fishing season. A person may elect which types of gear are listed on the person's license prior to the

issuance of the license for that elver fishing season. The commissioner may adopt rules to implement this subsection. Rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.

```
A. [2015, c. 391, §12 (RP).]
B. [2005, c. 533, §3 (RP).]
C. [2005, c. 533, §3 (RP).]
[ 2015, c. 391, §12 (AMD) .]
```

**3**. **Rebuttable presumption.** It is a rebuttable presumption that an elver fyke net, Sheldon eel trap or elver dip net immersed in any waters of the State at any time of the year is immersed for the purpose of fishing for or taking elvers.

```
[ 1999, c. 7, §11 (AMD) .]
```

**4. Prohibition on fishing from boats.** It is unlawful for a person to set or tend an elver fyke net or a Sheldon eel trap from a boat or to fish for or take elvers from a boat. A person may transport an elver fyke net, a Sheldon eel trap or a dip net by boat.

```
[ 1995, c. 536, Pt. A, §9 (NEW) .]
```

**5**. **Use of dip nets.** It is unlawful for a person to use a dip net to fish for or take elvers while standing in the coastal waters of the State.

```
[ 1997, c. 575, §4 (AMD) .]
```

**6. Prohibition on fishing from artificial platforms.** A person may not build or use an artificial platform to fish for elvers. This subsection does not prohibit fishing for elvers from piers or floats established for purposes other than elver fishing.

```
[ 1999, c. 7, §12 (NEW) .]
```

7. **Bycatch release.** A person immediately shall return alive into the waters of the State any species other than elver that is caught in an elver fyke net.

```
[ 1999, c. 7, §12 (NEW) .]
```

8. St. Croix River; use of fyke nets prohibited.

```
[ 2015, c. 391, §13 (RP) .]

SECTION HISTORY

1995, c. 536, §A9 (NEW). 1997, c. 91, §5 (AMD). 1997, c. 575, §4 (AMD).

1999, c. 7, §§9-12 (AMD). 1999, c. 534, §§4,5 (AMD). 2005, c. 533, §3 (AMD). 2013, c. 468, §27 (AMD). 2015, c. 391, §§12, 13 (AMD).
```

#### §6575-C. CLOSED AREAS; ELVER FISHING

1. Dams with fishways.

```
[ 2013, c. 49, §13 (RP) .]
```

**2. River herring traps.** A person may not fish for or take elvers within 50 feet of a licensed river herring trap.

```
[ 2011, c. 598, §25 (AMD) .]
```

- **3. Portion of rivers, streams and brooks.** A person may not:
- A. Fish for or take elvers at any time within the middle 1/3 of a river, stream, brook or other watercourse, as measured at mean high tide, within the coastal waters of the State; or [2003, c. 452, Pt. F, §14 (NEW); 2003, c. 452, Pt. X, §2 (AFF).]
- B. Obstruct the middle 1/3 of any river, stream, brook or other watercourse, as measured at mean low tide, within the coastal waters of the State. [2003, c. 452, Pt. F, §14 (NEW); 2003, c. 452, Pt. X, §2 (AFF).]

```
[ 2003, c. 452, Pt. F, §14 (RPR); 2003, c. 452, Pt. X, §2 (AFF) .]
```

**4. Dip nets near elver fyke nets.** A person may not fish for or take elvers with a dip net in the mouth of an elver fyke net. For the purposes of this subsection, "mouth of an elver fyke net" means that area within an elver fyke net that is net-side of a straight line that runs from one meshed wing tip of the net to the other meshed wing tip.

```
[ 2003, c. 452, Pt. F, §15 (AMD); 2003, c. 452, Pt. X, §2 (AFF) .]
```

**5. Fyke net placement.** A person may not place or set an elver fyke net or take elvers from an elver fyke net when any portion of the net, including any anchoring device, is located within an imaginary line between the wing ends of another elver fyke net. Cod end anchoring devices may not exceed 10 feet in length and wing end anchoring devices may not interfere with or create a hazard to navigation within the middle 1/3 of a navigable watercourse. A marine patrol officer may open the cod end of a net that is located in violation of this subsection.

```
[ 1999, c. 7, §13 (NEW) .]
```

**6. Obstructing elver fyke nets.** A person may not set an elver fyke net or place an obstruction near an elver fyke net in a manner that interferes with the operation of an elver fyke net.

```
[ 1999, c. 7, §13 (NEW) .]
```

**7. Rulemaking; gear placement.** If necessary to conserve the elver resource, the commissioner may adopt rules pursuant to section 6171 relating to placement of elver fishing gear based on the configuration of specific rivers, streams, brooks or other watercourses. Rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter II-A.

```
[ 1999, c. 7, §13 (NEW) .]

SECTION HISTORY
1995, c. 536, §A9 (NEW). 1997, c. 91, §6 (AMD). 1997, c. 575, §5 (AMD).
1999, c. 7, §13 (AMD). 2003, c. 452, §§F13-15 (AMD). 2003, c. 452, §X2 (AFF). 2011, c. 598, §25 (AMD). 2013, c. 49, §13 (AMD).
```

#### §6575-D. MOLESTING ELVER FISHING GEAR

1. **Prohibition.** Except as provided in subsection 1-A, a person other than a marine patrol officer or the license holder issued a tag for an elver fyke net may not utilize, transfer, alter, possess or in any manner handle the net unless that person has been issued a license to fish for elvers with an elver fyke net under section 6302-A, subsection 3, paragraph E, E-1, F or G or section 6505-A or a license to fish for elvers with crew with an elver fyke net under section 6505-A and the license holder issued the tag for the elver fyke net is present and assisting in setting, tending or removing the net.

```
A. [1999, c. 7, §14 (RP).]
B. [2013, c. 468, §28 (RP).]
```

```
[ 2013, c. 468, §28 (AMD) .]
```

1-A. Restriction on emptying net or trap; exception. A person other than the license holder identified on the tag for an elver fyke net or a Sheldon eel trap may not empty that net or trap unless that person has been issued an elver fishing license for the same gear type and has been issued written permission by a marine patrol officer to tend that net or trap. A marine patrol officer may issue a person written permission for the person to tend the license holder's net or trap only for the purpose of releasing captured elvers into the waters of the State if the license holder is temporarily unable to tend that net or trap because of a disability or personal or family medical condition. If the license holder is unable to tend that net or trap for more than 2 consecutive weeks, the net or trap must be removed from the water.

```
[ 2013, c. 468, §28 (NEW) .]
```

**2**. **Violation.** A person who violates this section commits a Class D crime for which a fine of \$2,000 must be imposed, none of which may be suspended. Violation of this section is a strict liability crime as defined in Title 17-A, section 34, subsection 4-A.

```
[ 2013, c. 49, §14 (AMD) .]

SECTION HISTORY
1995, c. 536, §A9 (NEW). 1999, c. 7, §14 (AMD). 2001, c. 421, §B34 (AMD).
2001, c. 421, §C1 (AFF). 2011, c. 549, §8 (AMD). 2013, c. 49, §14 (AMD).
2013, c. 468, §28 (AMD).
```

#### §6575-F. WEST SIDE OF ORLAND RIVER CLOSED TO ELVER FISHING

A person may not fish for or take elvers within the portion of the Orland River between the west bank and the center of the river from the southernmost point of land on Fish Point to the dam in Orland. [1999, c. 18, §1 (NEW).]

```
SECTION HISTORY 1999, c. 18, §1 (NEW).
```

#### §6575-G. DAMS WITH FISHWAYS; ELVER FISHING

1. Dams with fishways. A person may not fish for or take elvers within 150 feet of any part of a dam with a fishway or within 150 feet of a fishway.

```
[ 2013, c. 49, §15 (NEW) .]
```

**2**. **Violation.** A person who violates this section commits a Class D crime for which a fine of \$2,000 must be imposed, none of which may be suspended. Violation of this section is a strict liability crime as defined in Title 17-A, section 34, subsection 4-A.

```
[ 2013, c. 49, §15 (NEW) .]
SECTION HISTORY
2013, c. 49, §15 (NEW).
```

#### §6575-H. SALE AND PURCHASE OF ELVERS

1. Sale of elvers. A person may not sell elvers except as follows.

- A. A person may not sell elvers except to a person who holds a valid elver dealer's license under section 6864 or a person who, pursuant to section 6864, subsection 9, is an authorized representative of a person holding a license issued under section 6864. [2013, c. 301, §12 (NEW).]
- B. A person may not accept payment for elvers in any form other than a check or cashier's check that identifies both the buyer, by whom the landings will be reported, and the seller, each of whom must be a person holding a license issued under section 6864, a person who, pursuant to section 6864, subsection 9, is an authorized representative of a person holding a license issued under section 6864 or a person holding a license issued under section 6302-A, subsection 3, paragraph E, E-1, F or G or section 6505-A. [2013, c. 468, §29 (AMD).]

```
[ 2013, c. 468, §29 (AMD) .]
```

**1-A. Purchase of elvers.** A person who holds a valid elver dealer's license under section 6864 or a person who, pursuant to section 6864, subsection 9, is an authorized representative of a person holding a license issued under section 6864 shall post at the point of sale the price that that buyer will pay.

```
[ 2013, c. 485, §8 (NEW) .]
```

**2. Violation.** A person who violates this section commits a Class D crime for which a fine of \$2,000 must be imposed, none of which may be suspended. Violation of this section is a strict liability crime as defined in Title 17-A, section 34, subsection 4-A.

```
[ 2013, c. 49, §15 (NEW) .]

SECTION HISTORY
2013, c. 49, §15 (NEW). 2013, c. 301, §12 (AMD). 2013, c. 468, §29 (AMD).
2013, c. 485, §8 (AMD).
```

#### §6575-I. ASSISTING IN ILLEGAL HARVEST OF ELVERS

```
(REPEALED)
```

```
SECTION HISTORY 2013, c. 301, §13 (NEW). 2013, c. 468, §30 (RP).
```

#### §6575-J. SEIZURE OF ILLEGALLY HARVESTED ELVERS

In addition to any other penalty imposed, elvers that are purchased or possessed that were taken in violation of any law or rule pertaining to elvers are subject to seizure by any officer authorized to enforce this Part. The entire bulk pile containing illegally harvested elvers may be seized. For the purposes of this section, "bulk pile" means all elvers in the possession of a holder of an elver fishing license, an elver dealer's license or an elver exporter's license who fished for, took, possesses or bought elvers in violation of any law or rule regulating elvers under this Part. [2017, c. 250, §8 (AMD).]

```
SECTION HISTORY 2013, c. 301, §13 (NEW). 2017, c. 250, §8 (AMD).
```

#### §6575-K. ELVER INDIVIDUAL FISHING QUOTA

1. Prohibition on possession or sale of elvers in excess of elver individual fishing quota. A person may not possess or sell a weight of elvers that exceeds the elver individual fishing quota that person has been allocated for the fishing season pursuant to section 6505-A, subsection 3-A, plus any additional quota the person may be authorized to take under section 6575-L.

```
[ 2015, c. 131, §2 (AMD) .]
```

2. Prohibition on fishing after elver individual fishing quota has been reached. Except as provided in section 6575-L, this section applies to fishing after a person's elver individual fishing quota has been reached. A person who has sold a weight of elvers that meets or exceeds that person's elver individual fishing quota may not fish for or possess elvers for the remainder of the season, except that such a person who has been issued a license to fish for elvers may in accordance with section 6575-D assist another person who has been issued a license to fish for elvers who has not met or exceeded that person's elver individual fishing quota as provided in section 6505-A, subsection 3-A. All gear tagged by a license holder who has met or exceeded that person's elver individual fishing quota must be removed. A marine patrol officer may seize the elver transaction card of a license holder who has met or exceeded that person's elver individual fishing quota.

```
[ 2015, c. 131, §2 (AMD) .]
```

**3. Violation.** An individual who in fact violates this section commits a crime in accordance with section 6204 for which a fine of \$2,000 must be imposed, none of which may be suspended.

```
[ 2013, c. 485, §9 (NEW) .]

SECTION HISTORY
2013, c. 485, §9 (NEW). 2015, c. 131, §2 (AMD).
```

#### §6575-L. TEMPORARY MEDICAL TRANSFER

The commissioner may authorize a temporary medical transfer of the elver individual fishing quota allocated to a person under section 6505-A in accordance with this section. The holder of an elver fishing license who requests a temporary medical transfer under this section must maintain a valid elver fishing license during the duration of the temporary medical transfer. [2015, c. 131, §3 (NEW).]

- 1. Temporary medical transfer requested prior to March 1st. Notwithstanding section 6505-A, subsection 3-A, the commissioner may authorize a temporary medical transfer that permits the holder of an elver fishing license issued under section 6505-A to transfer the entire annual quota allocated to that person to another person holding an elver fishing license issued under section 6505-A if the following criteria are met:
  - A. The transferor reported elver landings in the prior fishing year; [2015, c. 131, §3 (NEW).]
  - B. The transferor is unable to fish the quota allocated to the transferor because the transferor has experienced a substantial illness or medical condition. The transferor shall provide the commissioner with documentation from a physician describing the substantial illness or medical condition; and [2015, c. 131, §3 (NEW).]
  - C. The transferor requests a temporary medical transfer in writing before March 1st of the fishing year for which it is being requested, except that the commissioner may adopt rules that provide a method for authorizing a temporary medical transfer requested after March 1st to address emergency medical conditions. [2015, c. 131, §3 (NEW).]

Rules adopted pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.

```
[ 2015, c. 1, §5 (COR) .]

SECTION HISTORY

RR 2015, c. 1, §5 (COR). 2015, c. 131, §3 (NEW).
```