NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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Memorandum

To: ASMFC American Eel Management Board

From: James Gilmore

Subject: American Eel Commercial Yellow Eel Allocation

Date: July 21, 2016

Background: At the 2016 ASMFC Spring Board meeting, a motion was made to reconsider the coastal cap and state-by-state yellow eel allocations of Addendum IV, to help address the issue of New York's more accurate recent landings data. A subsequent motion passed to postpone the cap/allocations discussion until the August meeting. The Board felt that the simplest thing to do might be to try to increase the coast-wide cap by the amount New York would need, to reflect its more recent data. The Board requested further information from New York, regarding:

- 1. Good documentation to show why NY felt its recent years landings were a result of more accurate data collection, and not just increased landings.
- 2. And documentation to show the amount of increased quota NY would need to have a potentially viable fishery.

A. Improved Landings Data:

Prior to 2011, NY used data queried from the NOAA/NMFS Commercial Fisheries Statistics Database to report eel landings to the ASMFC via yearly state compliance reports. It was later called to our attention that the NOAA/NMFS data did not include confidential landings, or (after 2007), data from fishermen and dealers who had state, but not federal, licenses or permits. The NOAA database also did not include landings from inland waters (Hudson and Delaware Rivers), and it did not always include landings that were sold by fishermen for cash or bait. NY then made a concerted effort to get more accurate data by getting access to ACCSP Data Warehouse Confidential Discoverer Reports, as well as data from our inland fisheries. In addition, improvements were made to NY's commercial trip reporting systems, as outlined below.



Table 1. NMFS vs. NY Reported American Eel Landings, 1998 - 2014.

Year	Species	NY Pounds (NMFS)	NY Pounds (NY)
1998	EEL, AMERICAN	382	16,896
1999	EEL, AMERICAN	44	7,945
2000	EEL, AMERICAN	1,108	5,852
2001	EEL, AMERICAN	15	19,187
2002	EEL, AMERICAN	161	26,824
2003	EEL, AMERICAN	393	3,881
2004	EEL, AMERICAN	2,994	5,386
2005	EEL, AMERICAN	8,964	25,515
2006	EEL, AMERICAN	3,927	7,673
2007	EEL, AMERICAN	4,480	15,077
2008	EEL, AMERICAN	2,287	15,159
2009	EEL, AMERICAN	5,687	13,115
2010	EEL, AMERICAN	7,808	13,220
2011	EEL, AMERICAN	35,557	56,963
2012	EEL, AMERICAN	32,451	48,637
2013	EEL, AMERICAN	34,697	32,573
2014	EEL, AMERICAN	26,877	34,142
GRAND TOTALS:	-	167,832	348,045

NY landings are derived from a combination of Dealer Reports and Harvester Trip Reports (VTRs).

<u>Timeline of Improvements to New York's Vessel Trip Reporting Systems</u>

1. Prior to 2008: All marine/coastal vessel trip reports (VTRs) were sent to NOAA and entered into databases (via contract to Cornell Cooperative Extension (CCE)). Many eel fishermen sell their product as bait and mistakenly assume they are not commercial fishermen, and do not have to file reports. Landings sold by fishermen for cash or bait are also not part of the federal dealer report database.

NY Delaware River weir licenses are issued by Albany Special Licenses Unit, and, although fishermen are required to file yearly landings logbook reports to the DEC, several do not do so. Additionally, Albany retains logbooks for two years, then destroys all records.

- 2. 2008: NOAA no longer accepts VTRs from fishermen who have NY licenses/permits, but lack federal permits. NY develops a NY VTR form, and data is entered into ACCSP databases (via CCE contracts). Contract ends in August 2008.
- 3. 2009 2011: NY DEC is unable to procure contracts for data entry due to fiscal limitations brought on by the National recession. DEC staff date stamp and file VTR reports, and only enter data from quota-managed species into databases. Therefore, other VTRs go largely unprocessed.

In 2011, regulatory changes were made to 6NYCRR, in order to clarify fishermen's and dealers reporting requirements. Dealers are now required to enter information electronically into the SAFIS eDr database.

- 4. 2012: DEC develops an upgraded searchable database, NYFISH.
- **5. 2013:** NY develops enhanced reporting compliance protocols, including those for Hudson and Delaware River eel fisheries.
- **6. 2014:** NY DEC creates its own Fisheries Data Management Unit, with funding from ACCSP grants.

NYS DEC limits Delaware River eel weir licenses to nine individuals.

7. 2015: Delaware River weir licenses are now issued by the Bureau of Marine Resources (now Division of Marine Resources), and reports must be sent to the Bureau.

All backlogged VTRs have now been entered into the database, except 2009. VTRS were entered into the database in reverse chronological order (i.e. newest data entered first). 2010 VTRs are currently undergoing QA/QC. VTRs from 2009 are expected to be entered by the end of 2016.

Regardless of the reasons (better reporting, increased compliance, an actual increase in harvest, or a combination of the above), NY's commercial eel harvest has increased significantly since 2010, the terminal year of the last stock assessment, as indicated by both NOAA and NY data.

B. Increase Coast Wide Harvest Cap:

Table 2. Commercial yellow eel landings by state from 1998 through 2015. Source: Table 2 from Addendum IV, plus preliminary 2014 and 2015 state data. Note that all data need to be confirmed as final by the states/jurisdictions.

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Y ear	ME	NH	MA	RI	СТ	NY ¹	NJ	DE	MD	PRFC	VA	NC	sc	GA	FL	Total
1998	20,671	459	5,606	967	5,606	16,896	94,327	131,478	301,833	209,008	123,819	91,084		*	13,819	1,015,64
1999	36,087	245	10,281	140	10,281	7,945	90,252	128,978	305,812	163,351	183,255	99,939	*		17,533	1,054,12
2000	14,349	310	5,158	25	5,158	5,852	45,393	119,180	259,552	208,549	114,972	127,099	*		6,054	911,824
2001	9,007	185	3,867	329	1,724	19,187	57,700	120,634	271,178	213,440	96,998	107,070	*	*	14,218	915,585
2002	11,616	67	3,842	234	3,710	26,824	64,600	90,353	208,659	128,595	75,549	59,940	*	*	7,587	681,609
2003	15,312	36	4,047	246	1,868	3,881	100,701	155,515	346,412	123,450	121,043	172,065		*	8,486	1,053,11
2004	29,651	65	5,328	971	1,374	5,386	120,607	141,725	273,142	116,163	123,314	128,875			7,330	953,931
2005	17,189	120	3,073	0	341	25,515	148,127	110,456	378,659	103,628	66,701	49,278			3,913	907,000
2006	17,259	93	3,676	1,034	3,443	7,673	158,917	120,462	362,966	83,622	82,738	33,581			1,248	876,712
2007	9,309	70	2,853	1,230	885	15,077	164,331	131,109	309,215	97,361	56,463	34,486			7,379	829,767
2008	7,992	25	6,046	8,866	6,012	15,159	140,418	80,003	381,993	71,655	84,789	24,658	*		15,624	843,762
2009	2,525	83	1,217	4,855	630	13,115	121,471	59,619	324,773	58,863	119,187	65,481			6,824	778,643
2010	2,624	80	277	4,642	164	13,220	107,803	68,666	511,201	57,755	78,076	122,104	*	*	11,287	978,004
2011	2,700	129	368	1,521	20	56,963	129,065	90,631	715,162	29,010	103,856	61,960			25,601	1,216,98
2012	10,785	167	532	1,484	3,560	48,637	111,810	54,304	583,057	90,037	122,058	64,110		*	11,845	1,104,42
2013	1,826	106	2,499	2,244	2,638	32,573	89,300	80,811	539,775	32,290	84,385	33,980		*	17,246	919,953
2014	7,368	0	3,903	2,378	4,386	34,142	102,960	62,388	610,585	49,293	108,494	58,886	*	*	15,057	1,059,97
2015	4,130	0	2,502	1,538	3,052	53,389	88,828	44,708	470,532	31,588	78,869	57,791	*	*	5,632	842,683

¹ NY includes DE River Weir. Add. IV requires all NY eel landings be included in the quota and catch cap.

Appendix A of ASMFC Addendum IV to the Interstate Fishery Management Plan for American Eel outlines the steps made for the determination of the coastwide quota and state-by-state allocations for yellow eels.

- 1. The quota was initially set at the 2010 harvest level (978,004 lbs.), the terminal year of the benchmark stock assessment.
- 2. A 16% reduction was then applied, bringing the quota down to 821,523 lbs.
- 3. The average 2011 2013 percent landings for the States and Jurisdictions was calculated next. At this step, New York would have been given 4.26% of the 821,523 lb. quota (34,997 lbs.).
- 4. A complex filtering mechanism was next applied, in an attempt to increase equity in quota distribution:
 - All States or Jurisdictions were given a minimum quota of 2,000 lbs., in order to decrease their administrative burdens.
 - No State or Jurisdiction would be allocated a quota that was more than 2,000 lbs. above its 2010 commercial harvest.

^{*}confidential landings

- No State or Jurisdiction would be allocated a quota more than 15% below its 2010 commercial harvest.
- 5 After this filtering method was applied, the coastwide quota would have been 893,909 lbs. At this step, NY would have received a quota of 15,220 lbs. (A 56.5% reduction of what was calculated in Step 3).
- At its October 2014 meeting, the TC recommended the quota be set to the 1998 2010 average coastal harvest (907,669 lbs.). The difference between 907,669 lbs. and 893,909 lbs. (13,760 lbs.) was then split evenly among the States and Jurisdictions (RI, NJ, DE, PRFC, NC) that would have received a reduction from their 2010 harvests (except for MD, and not to exceed each State's 2010 landings), for a resultant quota of 907,669 lbs. NY's final quota remained at 15,220 lbs.

Results are summarized in the Table below:

Table 1 from Addendum IV Appendix A: Quota and Allocation Calculation Process.

	2010 Landings	2011-2013 Harvest Average	Initial Allocation Based on Harvest Average	Initial Quota	After Filtering Method is Applied	Final Quota
Maine	2,624	5,104	0.48%	3,943	3,907	3,907
New Hampshire	80	134	0.01%	82	2,000	2,000
Massachusetts	277	450	0.04%	329	2,000	2,000
Rhode Island	4,642	1,750	0.16%	1,314	3,946	4,642
Connecticut	164	2,073	0.19%	1,561	2,000	2,000
New York	13,220	46,058	4.26%	34,997	15,220	15,220
New Jersey	107,803	110,058	10.19%	83,713	91,633	94,899
Delaware	68,666	75,249	6.97%	57,260	58,366	61,632
Maryland	511,201	612,665	56.72%	465,968	465,968	465,968
PRFC	57,755	50,446	4.67%	38,365	49,092	52,358
Virginia	78,076	103,433	9.58%	78,702	78,702	78,702
North Carolina	122,104	53,350	4.94%	40,583	103,788	107,054
South Carolina	2			0	2,000	2,000
Georgia	103	1,162	0.11%	904	2,000	2,000
Florida	11,287	18,231	1.68%	13,802	13,287	13,287
Total	978,004	1,080,160	100%	821,523	893,909	907,669

NY's 2011 - 2015 harvests ranged from a low of 32,573 lbs. to a high of 56,963 lbs. Average harvests for 2013 - 2015 were 40,035 lbs. Average harvests for 2011 - 2015 were 45,141 lbs. If NY's quota were increased by 24,815 lbs., it would achieve its 2013 - 15 average harvest. If the quota were increased by 29,921 lbs., it would achieve its 2011 - 15 average harvest.

Table 3. NY Quota Example 2011 – 2015

Year	NY Harvest
2011	56,963
2012	48,637
2013	32,573
2014	34,142
2015	53,389

	Total NY Quota	Current Quota	Additional Quota Needed	Total Coastwide Quota
2011 - 13 Average	46,058	15,220	30,838	938,507
2013 - 15 Average	40,035	15,220	24,815	932,484
2011 - 15 Average	45,141	15,220	29,921	937,590

The "no more than 2,000 lbs. above 2010 harvest "filtering mechanism gave NY a final quota that was only 34% of the amount of eels NY has been harvesting annually for the past five years. Increasing the catch cap to one of the above amounts, without changing the other States or Jurisdictions quotas, would give NY the amount of quota it needs to sustain a viable fishery. This would require a new addendum to change Addendum IV.

C. Quota Transfer Example – Using 2014 Harvest Numbers

It has been suggested that NY can always obtain quota through transfers, so a permanent increase to their annual quota is unnecessary. Below is an example of State's quota surpluses and deficits, based on 2014 harvest data, the year before the coast-wide harvest cap would have gone into effect. There was a coast-wide overharvest of 211,668 lbs., but only 59,365 lbs. would have been available for transfers. As an example, MD would have had to have a transfer of 144,617 pounds of quota from other states, with only 59,365 lbs. available. NY would have had to have a transfer of 18,922 lbs. of quota, and, if it was unable to do so, the fishery would have been shut down the following year.

Table 4.
Scenario - If States had to Enact Yellow Eel State by State Quota, Based on 2014 Harvest

State	Quota	Harvest	Difference	Available Surplus	Deficit	Total Deficit
ME	3,907	7,368	-3,461		-3,461	
NH	2,000	0	2,000	2,000		
MA	2,000	3,903	-1,903		-1,903	
RI	4,642	2,378	2,264	2,264		
СТ	2,000	4,386	-2,386		-2,386	
NY	15,220	34,142	-18,922		-18,922	
NJ	94,899	102,960	-8,061		-8,061	
DE	61,632	62,388	-756		-756	
MD	465,968	610,585	-144,617		-144,617	
PRFC	52,358	49,293	3,065	3,065		
VA	78,702	108,494	-29,792		-29,792	
NC	107,054	58,886	48,168	48,168		
SC	2,000	66*	1,934	1,934		
GA	2,000	66*	1,934	1,934		
FL	13,287	15,057	-1,770		-1,770	
Total	907,669	1,059,972	-152,303	59,365	-211,668	-152,303

^{*} SC and GA harvest numbers are confidential; therefore, SC and GA numbers are examples only.

All numbers need to be confirmed by States/Jurisdictions.

D. Quota Re-allocation Example:

It is an ASMFC operating principle that we use the most accurate data for management of our fisheries. Member states are currently not operating under a quota for yellow phase American eels. But once management triggers are tripped, a State by State quota system will be put into effect in perpetuity. No mechanism was included in Addendum IV to revisit allocation over a set period of time or when new data become available. This issue also exists with management of several other ASMFC quota managed fisheries (e.g., menhaden, summer flounder, bluefish). Provisions exist currently to re-evaluate allocations through the addendum process but this is voluntary and tends not to occur if the disadvantaged states are in the minority.

Suggested Options from the Spring 2016 ASSMFC Board Meeting Memo For Reallocation of Quota:

1) Reconsidering Current Commercial Yellow Eel Quota:

See Table 5 for examples of state-by-state allocation for options A - C.

Option A: Status quo from Addendum IV. A combination of landings from 2010; the State's average harvests from 2011 - 2013; and a set of rules that prohibited any state

be allocated a quota that was more than 2,000 pounds above its 2010 commercial yellow eel harvest.

Option B: Allocation based on the most recent three years of data (i.e., 2013 - 2015).

Option C: Allocation based on the most recent five years of data (i.e., 2011 - 2015).

Option D: Allocation based on the most recent five years as a partial percentage and some historical landings timeframe as a partial percentage. An example is not included in Table 5, because the exact percentages of recent vs historical landings, as well as the years used to determine the historical timeframes would need to be determined by the Board.

Table 5. State-by-state allocation examples showing quotas for options A - C. Note landings data used to create Table 5 as for example only and need to be confirmed by the states/jurisdictions as final.

Chaha	A: Addendum IV	B: Recent 3 Yrs.	C: Recent 5 Yrs.
State	Status Quo	(2013 - 2015)	(2011 - 2015)
ME	3,907	4,285	4,731
NH	2,000	34	71
MA	2,000	2,863	1,730
RI	4,642	1,981	1,617
СТ	2,000	3,240	2,410
NY	15,220	38,624	39,827
NJ	94,899	90,394	92,103
DE	61,632	60,428	58,732
MD	465,968	521,255	515,093
PRFC	52,358	36,394	40,976
VA	78,702	87,390	87,815
NC	107,054	48,449	48,830
SC	2,000	*	*
GA	2,000	*	*
FL	13,287	12,199	13,301
Total	907,669	907,669	907,669

(2) Consideration of a revisiting timeframe for allocation moving forward

Option A: Status quo, no revisiting timeframe specified.

Option B: Revisit allocation every three years.

Option C: Revisit allocation every five years.