Maine Atlantic Salmon Programmatic Consultation for Transportation Projects (MAP) Gulf of Maine Distinct Population Segment of Atlantic salmon, U.S. Fish and Wildlife Service Jurisdiction

SECTION 1: SIGNATURES AND AUTHORIZATIONS

The MaineDOT biologist signature represents acknowledgement that this form was filled out using the best available scientific and commercial information. It also shows acknowledgement that the best preliminary project scope information was used.

MaineDOT Lead Biologist Signature

Date _____

The USFWS biologist signature below acknowledges submission of the PNF is consistent with the MAP.

USFWS Biologist Signature

_____ Date _____

Website for current version of form last revised by User: NP 3/8/23

Final Effect Determination Atlantic Salmon	
Final Effect Determination Atlantic Salmon Critical Habitat	

SECTION 2: GENERAL PROJECT INFORMATION

MaineDOT WIN:		USFWS Project Code:	
Lead Federal Agency:	🗆 FHWA 🛛 Corps	Transportation Agency	🗆 MaineDOT 🛛 MTA
Lead Federal Agency Contact		Email:	
Name:		Phone:	
Load Dialogist Name		Email:	
Lead Biologist Name:		Phone:	
Project Name:			
Project Location			
Town:		Rt #, Name, &/or Bridge #:	
Latitude, Longitude (DD.ddd):			
HUC-10 Watershed Name:		HUC-10 Watershed #:	
Waterbody:		Tier (see Section 2.5 in BA):	

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Gen	eral Activity Category (che	ck all that apply):		
	Stream Crossing Structure Replacement (define each):			
		ment (structure <u><</u> 20 feet)	•	
	Bridge Replacer	ment (structure >20 feet)		
	Bridge Removal (without r	eplacement)		
	Culvert End:			
	Extension			
	🗆 Reset			
	Bridge Scour Countermeas	sure		
	Bridge Maintenance:			
	Grout Bag Instal			
	Concrete Repair			
	Temporary Access Slipline/Invert Line			
	• •			
	Geotechnical Drilling			
	Urgency Project			
Pro	ect Description:			
•				
	posed In-water work windo			
Pro	ect Site Characteristics: Ple	ase note these character	ristics may result in exclusions from Pro	-
	_ /			Likely
ATS	Presence (attach additiona	l info, such as correspond	lence if confirmed by an agency):	Unknown but potentially
	· · · · ·			□ Highly Unlikely
Confirmed by USFWS/DMR/IFW/MaineDOT Data				
	Project area is accessible to ATS, no data available			
Downstream barrier				
□ Eggs □ Alevin □ Parr □ Smolt □ Adult				
	(check only if expected, add			
Spa	wning Habitat Presence:	☐ Yes (If yes, refer to BC ☐ No	D for additional requirements/exclusion	ns) & AMMs 12, 13
	Mapped	Date:	Comments:	
	On-site survey	Date:		

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Hol	ding Pools Presence:	 Yes (If yes, refer to BO for additional requirements/exclusions) & AMMs 12, 13 No 		
	On-site survey	Date: Comments:		
	DMR Coordination	Date:		
Clay	/ Substrate Present:	□ Yes □ No		

	y Coordination with	□ Yes				
USF	WS:	🗆 No				
	Site Visit	Date:	Comment	S:		
	Monthly Meeting	Date:				
	Email Correspondence	Date:				
	the project result in eficial impacts?	□ Yes □ No				
mile repl	nber of modeled upstream l to next barrier if no mode acement or removal:			Comments:		
Oth	er benefits:					
Acti	on Area Extent					
If th prep prop with com	Other federal endangered species in project area: If there is an effect to any of the below species or their designated critical habitat, a separate consultation request will be prepared. This notification form will be attached to that consultation request. If the consultation request will utilize separate programmatic consultations, both reporting forms will be packaged together. Projects that occur outside the known range or are without suitable habitat for a species should be considered "no effect" determinations. This reasoning should be stated in the comment box.					
Can	Canada lynx or its designated critical habitat					
	d Federal Agency Determina Io Effect ndividual Consultation	ition: (Comment:			
Nor	thern Long-Eared Bat					
	d Federal Agency Determina No Effect Cangewide Determination K CHWA Programmatic Consul	ey (IPaC)	Comment:			

□ Individual or Batched Consultation

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Rusty-Patch	Rusty-Patched Bumblebee			
	I Agency Determination:	Comment:		
□ No Effect	t			
🗆 Individua	al Consultation			
Rufa Red Kr	<u>not</u>			
Lead Federa	I Agency Determination:	Comment:		
□ No Effec	t			
🗆 Individua	al Consultation			
Are there a	ny other federally listed species poter	ntially affected by the Project?		
□ No	Comment (List species and attach additional relevant information):			
□ Yes				

SECTION 3: GENERAL ACTIVITY CATEGORY DESIGN REQUIREMENTS

Check larger section heading if activity is proposed; confirm that design requirements for each activity will be met by checking sub boxes. AMMs are summarized to include general topic and applicability.

□ Stream Crossing Structure Replacements

Tier 1

Minimum span 1.2 x BFW with Habitat Connectivity Design*

□ *If Habitat Connectivity Design cannot be used, Hydraulic Design may be eligible for programmatic consultation, but it requires early coordination with and approval by USFWS prior to submittal of Project Notification Form.

Tier 2

□ Minimum span 1.2 x BFW with Habitat Connectivity Design

□ Minimum span 1.0 x BFW with Hydraulic or Habitat Connectivity Design with Mitigation [AMM 59]

Additional Design Requirements for Rearing and Spawning Areas

Rearing Habitat Present

Bridge Replacements (piers and abutments) will not result in a net increase in in-water structure footprint [AMM 46]

Spawning Habitat Present

Bridge Piers and abutments will not be placed in ATS spawning habitat [AMM 46]

B. Bridge Removal (without replacement)	
In-water portions of the bridge will be completely removed or cut flush below the substrate	
Are constructability assumptions in section 2.3.2 and Table 4 of BO applicable	

C. Culvert End Extension (in Tier 1 or 2)	
Extensions will not exceed 8 feet total length (includes both upstream and downstream) [AMM 57] and <u>Mitigation is required</u> [AMM 56]	
Minimal or no stream re-alignment proposed	
 AMM 52: -The width of the relocated channel will match that of the pre-existing width; -Channel depths will match that of the pre-existing stream section; -CSM will be placed along the bottom of the reconstructed stream channel to re-establish stream substrate; and -Riprap placement in the stream will be minimized to that necessary for erosion/scour prevention and embedded and covered with natural substrate material. 	

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D.	Culvert End Resets		
No s	stream re-alignment necessary		
Ε.	E. Bridge Scour Countermeasures		
AM	IM 44: Cable mats used for scour protection will be backfilled with a gravel-like material between the voids. Any larger stones or streambed material excavated for the placement of the mats will then be distributed on top of the countermeasures.		
 AMM 61: -Cable mats will be installed to match the existing channel contours; -A low flow channel will be added to allow adequate water depths (~6 inches) during low flow periods; and -Stream bed material and large rocks (greater than 1 foot in diameter) will be placed randomly back on top of the scour countermeasures 			
AM	IM 58: Mitigation proposed		

□ F. Temporary Access
 □ Temporary causeways will not be located in potential spawning habitat
 □ AMM 31: Causeway fill will not extend across >25% of BFW of stream/river

G. Slipline/Invert Line
Project is located in <u>Tier 2</u> (slip/invert lines in Tier 1 areas not eligible for MAP [See AMM 48])
AMM 47: Project will be designed to improve fish passage. Fish passage measures (potentially) include weirs inside and outside of the crossing structures to ensure that water depths and velocities allow for fish passage at a range of flows.
AMM 60: Mitigation required

H. Will any new roads longer than 0.5 miles in length be created as part of the action?		
Yes [project is not eligible for MAP–See AMM 11 for explanation]	Comment:	
No		

SECTION 4: CONSTRUCTABILITY REQUIREMENTS

(Check larger section heading if activity is proposed; confirm that design requirements for each activity will be met by checking sub boxes). AMMs are summarized to include general topic and applicability. Refer to Appendix A of PBO or PBA for complete language for AMMs.

A. In-water work window					
AMM 1: July 15–September 30					
AMM 2: July 15–April 15 Bridge Replacement >20 feet and spawning areas not present					
AMM 12: May 1-September 30 Bridge Replacement >20 feet and spawning areas present No turbidity, noise, direct effects, during spawning and egg incubation between October 1–April 30					
Other (please describe in comment box below)					
Geotechnical Drilling (no temporary access)					
Pile removal with turbidity curtain					
Special circumstances with no ATS Presence USFWS Early Coordination and approval received prior to submittal of Project Notification Form					

Maine Atlantic Salmon Programmatic Consultation for Transportation Projects (MAP)

 AMM 17: All in-stream work will take place inside of a cofferdam except: pile driving, clean riprap placement for temporary causeways, bridge pier demolition, and geotechnical drilling Additional cofferdam requirements where ATS are present AMM 49: Abutment demolitions with a hoe ram will occur inside of a dewatered cofferdam [or outside of the water]. <i>If Cofferdams and Bypass Systems are required, the following AMMs also apply:</i> AMM 18: Suspended sediment treatment will follow the procedures described in Section 3.4.2 of the PBA "Dirty Water" Treatment System. AMM 19: For activities requiring bypass pumping in streams, stabilization techniques (such as sheets of poly) will be used to protect the stream from sour caused by the high-water velocity coming from the hose(s) at the downstream end. AMM 20: Temporary bypass systems will utilize non-erosive techniques, such as pipe or a plastic-lined channel that will accommodate the predicted peak flow rate during construction. These are reviewed as part of the contractor's SEWPCP. Predicted peak flows are provided to the contractor in the bid documents; these values are derived from the USGS regression (USGS 2015). AMM 22: All cofferdams will be fully removed from the stream immediately following completion of in-water work, minimizing delays due to high stream flows following heavy precipitation, so that fish and aquatic organism passag are not restricted any longer than necessary. If a project is not completion of the work, are and utilizing dirty water treatment systems for turbid water. AMM 23: All cofferdams will be removed using techniques to minimize turbidity releases. This includes allowing for the slow reintroduction of water into the work area and utilizing dirty water treatment systems for turbid water. AMM 23: All cofferdams will be self according to the expected flows during construction. See Section III(F)3 in the MaineDD 2		Gulf of Maine Distinct Population Segment of Atlantic salmon, U.S. Fish and Wildlife Service Jurisdiction						
 AMM 15: In streams with clay substrate, activities that disturb the substrate will be conducted inside of a sealed cofferdam. AMM 17: All in-stream work will take place inside of a cofferdam except: pile driving, clean riprap placement for temporary causeways, bridge pier demolition, and geotechnical drilling Additional cofferdam requirements where ATS are present AMM 49: Abutment demolitions with a hoe ram will occur inside of a dewatered cofferdam [or outside of the water]. f Cofferdams and Bypass Systems are required, the following AMMs also apply: AMM 18: Suspended sediment treatment will follow the procedures described in Section 3.4.2 of the PBA "Dirty Water" Treatment System. AMM 19: For activities requiring bypass pumping in streams, stabilization techniques (such as sheets of poly) will be used to protect the stream from scour caused by the high-water velocity coming from the hose(s) at the downstream end. AMM 20: Temporary bypass systems will utilize non-erosive techniques, such as pipe or a plastic-lined channel that will accommodate the predicted peak flow rate during construction. These are reviewed as part of the contractor's SEWPCP. Predicted peak flow rate during construction. These are reviewed as part of the contractor's SEWPCP. Predicted peak flow rate during to construction, so that fish and aquatic organism passag are not restricted any longer than necessary. If a project is not completed and there will be substantial delays in construction, cofferdams will be talls temporary butom disturbance will be restored to their original contour and character upon completion of the project. AMM 22: All cofferdams will be exert into the work area and utilizing dirty water treatment systems for turbid water. AMM 24: Bypass pumps will be sized according to the expected flows during construction. See Section III(F)3 in the MaineDO BMP Manual (MaineDOT 2008) for guidance on pum		B. Cofferdams and Bypass Systems (See User's Guide for Additional Guidance)						
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 Atlantic salmon juvenile entrainment related to water diversions, the contractor will use a screen on each pump intake large enough so that the approach velocity does not exceed 0.06 meters per second (0.20 feet per second). Square or round screen face openings are not to exceed 2.38 millimeters (3/32 inch) on a diagonal. Criteria for slotted face openings will not exceed 1.75 millimeters (approximately 1/16 inch) in the narrow direction. These screen criteria follow those indicated by the NMFS (2008). Intake hoses will be regularly monitored while pumping to minimize adverse effects to Atlantic salmon. Additional cofferdam requirements where ATS are present AMM 29: -MaineDOT or MTA environmental staff or similarly qualified consultants will capture and remove as many Atlantic salmon and other fish species as possible ("See Appendix G of User's guide). -Cofferdams must be dewatered to less than 2 feet deep to facilitate Fish Evacuation. Differing conditions must 		AMM 24:						
AMM 29: -MaineDOT or MTA environmental staff or similarly qualified consultants will capture and remove as many Atlantic salmon and other fish species as possible ("See Appendix G of User's guide). -Cofferdams must be dewatered to less than 2 feet deep to facilitate Fish Evacuation. Differing conditions must		AMM 30:	Atlantic salmon juvenile entrainment related to water diversions, the contractor will use a screen on each pump intake large enough so that the approach velocity does not exceed 0.06 meters per second (0.20 feet per second). Square or round screen face openings are not to exceed 2.38 millimeters (3/32 inch) on a diagonal. Criteria for slotted face openings will not exceed 1.75 millimeters (approximately 1/16 inch) in the narrow direction. These screen criteria follow those indicated by the NMFS (2008). Intake hoses will be regularly monitored while pumping					
salmon and other fish species as possible ("See Appendix G of User's guide). -Cofferdams must be dewatered to less than 2 feet deep to facilitate Fish Evacuation. Differing conditions must	Add	dditional cofferdam requirements where ATS are present						
discussed with USFWS prior to submittal of the PNF.		AMM 29:						
AMM 55: Cofferdams that span the entire channel will not be used for bridge scour countermeasure projects.		AMM 55:						

	C. Temporary Causeway					
AMM 3: All areas of temporary waterway or wetland fill will be restored to their original contour and chart completion of the project. Temporary fill includes fill that received authorization and fill that mist resource (i.e., from slope failures, accidental broken sandbag cofferdams).						
	AMM 6:	Temporary causeways placed in the riparian area will be constructed in a manner that they do not allow erosion into resources during construction. This will be reviewed and approved as a part of the SEWPCP, including review of location as well as placing a nonerodable material on the surface of the causeway.				
	AMM 31:	Temporary causeways in stream channels will be constructed of non-erodible material, i.e., plain riprap or large riprap (per MaineDOT standard specifications) over geotextile fabric. Temporary causeways will extend to no more than 25% of BFW of the stream or river.				

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	D. Pile Driving				
	AMM 21: Sheet pile driving (if utilized) will be completed using a vibratory hammer.				
Add	dditional requirements for Pile Driving where ATS are present				
	AMM 36: Round pile sizes will be less than 30 inches in diameter. H-pile size will be less than 14 inches.				
	AMM 37: A vibratory hammer will be used as much as possible for all pile driving activities.				
	AMM 38: Pile driving will occur during the day.				
	AMM 39: Hydroacoustic monitoring will be completed for all impact pile driving using the monitoring template developed by the Fisheries Hydroacoustic Working Group and following the methods described in the Technical Guidance (Caltrans 2015).				
	AMM 40: A bubble curtain meeting the design criteria, as defined in the User's Guide, will be employed during all impact pile driving events.				

E. Riprap			
AMM 4: All in-water excavation will be conducted within a cofferdam.			
AMM 42: Permanent riprap placed in a stream below the bankfull elevation (Q1) will be covered by CSM.			
AMM 43: Riprap placed outside of a cofferdam must be cleaned prior to installation.			

F. Grout Bag Installation/Concrete Repair					
 AMM 32: 1. Grout slurry will be applied at a rate of ~ two cubic yards per hour or less 2. Turbidity curtains will be used when practicable (in flows less than one foot per second 3. An anti-washout admixture (AWA) will be mixed with the grout prior to application 4. Grout will be piped into or behind grout bags 					
AMM 33: As per Standard Specification 656.3.6 (e), the contractor will not place uncured concrete directly into a water body. The contractor shall not wash tools, forms, or other items in or adjacent to a water body or wetland.					
AMM 34: Prior to release to a natural resource, any impounded water that has been in contact with concrete placed during construction must have a pH between 6.0 and 8.5, must be within one pH unit of the background pH level of the resource and must have a turbidity level no greater than the receiving resource. This requirement is applicable to concrete that is placed or spilled (including leakage from forms) as well as indirect contact via tools or equipment. Disposal or treatment of water not meeting release criteria shall be addressed in the SEWPCP. Discharging impounded water to the stream must take place in a manner that does not disturb the stream bottom or cause erosion. The Contractor shall be responsible for monitoring pH with a calibrated meter accurate to 0.1 units. A record of pH measurements shall be kept in the Environmental Field Representative's log. Concrete being placed as a seal in a cofferdam for bridge pier construction is considered "impounded water".					

	G. Bridge Removal & Demolition				
	AMM 28 : Any removed piling or other demolition material will be properly disposed of at a location in compliance with applicable regulatory approvals.				
	AMM 35: Demolition and debris removal and disposal will comply with Section 202.03 of the MaineDOT's Standard Specifications. The Contractor will contain all demolition debris, including debris from wearing surface removal, saw cut slurry, dust, etc., and will not allow it to discharge to any resource. The Contractor will dispose of debris in accordance with the Maine Solid Waste Law (Title 38 M.R.S.A., Section 1301 et. seq.). The demolition plan, containment, and disposal of demolition debris will be addressed in the Contractor's SEWPCP.				
	AMM 50: If piles are removed by cutting, they must be cut to one foot below the substrate level.				
	AMM 51: If a pile is pulled from the substrate, the work will be completed using a BMP specifically for minimizing turbidity, such as a turbidity curtain.				
Add	Additional demolition requirements where ATS are present				
	AMM 49: Abutment demolitions with a hoe ram will occur inside of a dewatered cofferdam or outside of the water.				

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H. Underwater Blasting
AMM 41: In-water blasting is not allowed when Atlantic salmon could be present. Underwater Blasting is proposed only when ATS are not present.

		I. Scour Countermeasure Cable Mats				
		AMM 44: Cable mats used for scour protection will be backfilled with a gravel-like material between the voids. Any larger stones or streambed material excavated for the placement of the mats will then be distributed on top of the countermeasures.				
Additional cofferdam requirements where ATS are present						
		AMM 55: Cofferdams that span the entire channel will not be used for bridge scour countermeasure projects				

J. Spawning areas
AMM 13: Spawning habitat may be affected temporarily during construction (outside of October 1-April 30; see AMM 12) and will be restored.

K. Clay Substrates
AMM 15: In streams with clay substrate, activities that disturb the substrate will be conducted inside of a sealed cofferdam.

SECTION 5: GENERIC REQUIREMENTS

These AMMs applied to and are required for every project to be consistent with MAP. Refer to Appendix A of BO for complete language for AMMs.

□ A. Apply all other AMMs appropriate for the action (see Appendix H of the User's Guide)

AMMs: **3-5, 7-18, 25-27, 31 and 45** Comments:

SECTION 6: EFFECTS DETERMINATIONS

Potential Effects to Atlantic salmon:	LAA	NLAA	N/A	Comments
Elevated Turbidity and Transport	If ATS are present: □Cofferdam Installation □Bypass Channel Installation □Pile installation and Removal			
Temporary Migration/Movement Barrier	If ATS are present: ☐ Cofferdam Installation ☐ Bypass channel installation ☐ Pier and abutment demolition			

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Permanent Migration/Movement Barrier	If ATS are present: Invert line/slipline Culvert Extensions		
Fish Handling and Relocation	☐ <u>If ATS are present</u>		
Impingement/ Entrainment		X always	
Water Quality Impact (pollutants)	If ATS are present: ☐ Grout Bag Installation		
Habitat Alteration	If ATS are present: Slipline/Invert line Scour Countermeasures BFW Culverts in Tier 2 Riprap not covered with CSM (inlet/outlet stabilization on Stream Crossing Replacements)		
Underwater Noise	If ATS are present: ☐ Pile Installation with an impact hammer ☐ Abutment/pier demolition a hoe ram		

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		5	
PBF Element [Defined in			
[Defined in Section 5.2 of	LAA	NLAA*	Comments
BO]:			
Spawning and	Rearing		
SR 1			
SR 2, 3			
SR 4, 5, 6, 7	□ Slipline/Invert line		
	□ Scour Countermeasures		
	□ BFW Culverts in Tier 2 □ Culvert end		
	extensions/Resets		
Migratory	,		
M1			
M2			
М3			
M4			
M5			
M6			

*If design criteria, exclusions, and AMMs as laid out in the MAP are followed, all activities covered by MAP will result in NLAA to Critical Habitat except for those noted for elements SR 4, 5, 6, and 7.

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SECTION 7: ADDITIONAL INFORMATION FOR PROJECTS LIKELY TO ADVERSELY AFFECT ATS/CH

Geographic areas of Adverse effects to ATS-See User's Guide for Guidance on developing these areas.			
Data Required to Develop Incidental Take Statement (ITS)			
Stressor	Square Feet	BO Reference/Guidance on Calculation of Area	
Turbidity/sedimentation impacts		Section 5.1.1	
Fish handling/stranding (size of cofferdammed area)		Section 5.1.4	
Underwater noise (injury zone)		Section 5.1.2	
Habitat alteration (direct permanent impacts)		Section 5.1.7	
Permanent movement/migration barriers (upstream Habitat Units)		Section 5.1.8	
Water quality (elevated pH zone)		Section 5.1.6	
Temporary migration/movement barrier	N/A always	Section 5.1.3	
DMR was contacted with request for relevant data; such as survey data, stocking data, parr densities, spawning and rearing habitat suitability, etc.; to assist in developing the ITS			

Add	Additional Submittals			
	Stream Crossing Replacement Habitat Connectivity Design Report (required for all Stream Crossing replacements)			
	In-lieu Fee Calculation Worksheet			
	Photos			
	Email or other correspondence with DMR			
	Other:			

SECTION 8: TAKE CALCULATIONS

Stressor	Take Result
Turbidity/sedimentation impacts	
Fish handling (size of cofferdammed area)	
Stranding	
Habitat alteration (direct permanent impacts)	
Permanent movement/migration barriers (upstream Habitat Units)	
Water quality (elevated pH zone)	
Underwater Noise (injury zone)	
Comments:	

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SECTION 9: SUMMARY OF AMMS

	AMM 1:	July 15–September 30
	AMM 2:	July 15–April 15, Bridge Replacement >20 feet and spawning areas not present
\boxtimes	AMM 3:	All areas of temporary waterway or wetland fill will be restored to their original contour and character upon completion of the project. Temporary fill includes fill that received authorization and fill that mistakenly enters a resource (i.e., from slope failures, accidental broken sandbag cofferdams).
\boxtimes	AMM 4:	All in-water excavation will be conducted within a cofferdam
		All areas of disturbed soil will be mulched and seeded with an approved native or noninvasive herbaceous seed mix following construction and/or planted with native woody vegetation and trees appropriate during the first available planting season. In areas where there is little to no slope and erosion and invasive species establishment is unlikely, the native woody vegetation on the site will be allowed to regenerate naturally.
	AMM 6:	Temporary causeways placed in the riparian area will be constructed in a manner that they do not allow erosion into resources during construction. This will be reviewed and approved as a part of the SEWPCP, including review of location as well as placing a nonerodable material on the surface of the causeway.
\boxtimes	AMM 7:	Vegetation rootstock will only be removed in those areas that are subject to permanent impacts. Replanting will be completed as necessary and feasible, but may not be possible in certain situations, such as permanent impact areas, roadway clear zone, or adjacent to or under bridges.
	AMM 8:	To minimize the spread of noxious weeds into the riparian zone, all off-road equipment and vehicles operating from existing open and maintained roads must be cleaned prior to entering the construction site to remove all soil, seeds, vegetation, or other debris that could contain seeds or reproductive portions of plants. All equipment will be inspected prior to offloading to ensure that they are clean.
\boxtimes	AMM 9:	During construction, any disturbed soils will be temporary stabilized with BMPs, such as straw mulch, plastic sheeting, erosions control mix, or other appropriate BMPs. Disturbed areas with erodible soil can include, but are not limited to, temporary storage piles, access ways, partially constructed slopes, etc.
\boxtimes	AMM 10:	The Proponents will hold a pre-construction meeting for each project with appropriate Environmental Field Representatives, other MaineDOT or MTA staff, and construction crew or contractor(s) to review all procedures and requirements for avoiding and minimizing effects to Atlantic salmon and to emphasize the importance of these measures for protecting Atlantic salmon and its critical habitat. The Corps, the FHWA, and the Service staff will be notified and attend these meetings as practicable.
\boxtimes		The Proponents are not proposing to include any new road facilities in this PBA. A new road facility will be defined as the creation of a new road longer than 0.5 mile in length. The new creation can include new connections and realigned portions of intersections with new inputs. Highway relocations and realignments are not considered a new road facility if drainage patterns are not altered and drainage remains within the same watershed as the previous highway portion.
\boxtimes	AMM 12:	The Proponents will not affect (turbidity above background, acoustic, direct effects) spawning areas during spawning and egg incubation periods (October 1 to April 30).
\boxtimes	AMM 13:	The Proponents will not temporarily affect spawning habitat without restoration.
		No heavy construction equipment will travel into or through any flowing streams with erodible substrate (e.g., sand, silt, and clay). Travel of heavy construction equipment into or through flowing streams and on stream substrate will only occur when the stream substrate is non-erodible (e.g., ledge, cobble) and the contractor has received approval from the MaineDOT or the MTA environmental field office staff.
\boxtimes	AMM 15:	No activities that disturb the substrate will be conducted in streams with clay substrates that include in-water work outside of a sealed cofferdam. This is due to the unpredictable nature of undesirable effects.
\boxtimes		The Proponents will require any work being completed under this programmatic consultation to submit a SEWPCP for review and approval of the MaineDOT or the MTA staff prior to the start of work. The plan includes the review of the implementation of any AMMs proposed.
	AMM 17:	The installation of cofferdam systems encloses a work area and reduces sediment pollution generated from construction work. All in stream work will take place inside of a cofferdam except for the following sub activities: pile driving, clean riprap placement for temporary causeways, bridge pier demolition, and geotechnical drilling. In-water work in streams with a clay substrate will not occur outside of a sealed cofferdam.

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\boxtimes	AMM 18: Suspended sediment treatment will follow the procedures described in Section 3.4.2 of the PBA "Dirty Water" Treatment System.
	AMM 19: For activities requiring bypass pumping in streams, stabilization techniques (such as sheets of poly) will be used to protect the stream from scour caused by the high water velocity coming from the hose(s) at the downstream end.
	AMM 20: Temporary bypass systems will utilize non-erosive techniques, such as pipe or a plastic-lined channel that will accommodate the predicted peak flow rate during construction. These are reviewed as part of the contractor's SEWPCP. Predicted peak flows are provided to the contractor in the bid documents; these values are derived from the USGS regression (USGS 2015).
	AMM 21: Sheet pile driving (if utilized) will be completed using a vibratory hammer.
	AMM 22: All cofferdams will be fully removed from the stream immediately following completion of in-water work, minimizin delays due to high stream flows following heavy precipitation, so that fish and aquatic organism passage are not restricted any longer than necessary. If a project is not completed and there will be substantial delays in construction, cofferdams will be at least partially removed to allow passage of Atlantic salmon until construction resumes. All areas of temporary bottom disturbance will be restored to their original contour and character upon completion of the project.
	AMM 23: All cofferdams will be removed using techniques to minimize turbidity releases. This includes allowing for the slow reintroduction of water into the work area and utilizing dirty water treatment systems for turbid water.
	 AMM 24: Bypass pumps will be sized according to the expected flows during construction. See Section III(F)3 in the MaineDOT BMP Manual (MaineDOT 2008) for guidance on pump capacity.
\boxtimes	AMM 25: No equipment, materials, or machinery will be stored, cleaned, fueled, or repaired within any wetland or watercourse. All vehicle and equipment refueling activities will occur more than 100 feet from any water course and if not, all refueling areas will require fuel spill containment structures as per the SPCC Plan. Other construction equipment maintenance will be done at a location consistent with SPCC Plan and in a manner that avoids hazardous materials getting into the stream.
\boxtimes	AMM 26: All pumps and generators will have appropriate spill containment structures and/or spill remediation materials available, such as absorbent pads.
\boxtimes	AMM 27: All equipment used for in-stream work will be cleaned of external oil, grease, dirt, and mud such that turbid water does not drain to any wetland or watercourse. Any leaks or accumulations of these materials will be corrected before entering streams or areas that drain directly to streams or wetlands. All releases into surface waters or wetlands will be reported immediately to the appropriate regulatory body.
	AMM 28: Any removed piling or other demolition material will be properly disposed of at a location in compliance with applicable regulatory approvals.
	AMM 29: To minimize fish stranding inside the cofferdam when dewatering, the MaineDOT or MTA environmental staff or similarly qualified consultants will capture and remove as many Atlantic salmon and other fish species as possible. The MaineDOT or MTA environmental staff or similarly qualified consultants will inspect the cofferdams after placement for presence of adult Atlantic salmon. If adult Atlantic salmon are observed during active construction, al activities will cease and the MaineDOT or MTA environmental staff or similarly qualified consultants will immediatel contact the Service's Maine Fish and Wildlife Complex 207/469- 7300. The MaineDOT or the MTA environmental staff or similarly qualified consultants will complete a fish evacuation where water depths allow following the plan found in Appendix A of the BA. As stated in Appendix A, nets will be used to "herd" fish out of the work area to the extent practicable prior to electrofishing and cofferdam installation. This kind of fish exclusion measure can occur prior to cofferdam construction when water depths are less than <2 feet. Appropriate fish evacuation techniques in cofferdams are required for bridge pier construction. Water depths and access make these evacuations a unique situation. In these cases, the Proponents will provide project-specific fish evacuation plans to the Service prior to programmatic approval.
	AMM 30: All intake pumps within fish bearing streams will have a fish screen installed, operated, and maintained. To prevent Atlantic salmon juvenile entrainment related to water diversions, the contractor will use a screen on each pump intake large enough so that the approach velocity does not exceed 6.10 meters per second (0.20 feet per second). Square or round screen face openings are not to exceed 2.38 millimeters (3/32 inch) on a diagonal. Criteria for slotted face openings will not exceed 1.75 millimeters (approximately 1/16 inch) in the narrow direction. These screen criteria follow those indicated by the NMFS (2008). Intake hoses will be regularly monitored while pumping to minimize adverse effects to Atlantic salmon.

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\boxtimes	AMM 31: Temporary causeways in stream channels will be constructed of non-erodible material, i.e., plain riprap or large riprap (per MaineDOT standard specifications) over geotextile fabric and will extend only to within 25 percent of the BFW of the stream or river.
	 AMM 32: The Proponents will employ the following procedure when completing grout bag repairs. 1. Apply the grout slurry at a rate of two cubic yards per hour to reduce the likelihood of elevated pH values downstream. 2. Turbidity curtains will be used when practicable (in flows less than one foot per second) to separate high pH water from the rest of the river.
	 An anti-washout admixture (AWA) will be mixed with the grout prior to application. Grout will be piped into or behind grout bags.
	AMM 33: As per Standard Specification 656.3.6 (e), the contractor will not place uncured concrete directly into a water body. The contractor shall not wash tools, forms, or other items in or adjacent to a water body or wetland.
	AMM 34: Prior to release to a natural resource, any impounded water that has been in contact with concrete placed during construction must have a pH between 6.0 and 8.5, must be within one pH unit of the background pH level of the resource and must have a turbidity level no greater than the receiving resource. This requirement is applicable to concrete that is placed or spilled (including leakage from forms) as well as indirect contact via tools or equipment. Disposal or treatment of water not meeting release criteria shall be addressed in the SEWPCP. Discharging impounded water to the stream must take place in a manner that does not disturb the stream bottom or cause erosion. The Contractor shall be responsible for monitoring pH with a calibrated meter accurate to 0.1 units. A record of pH measurements shall be kept in the Environmental Field Representative's log. Concrete being placed as
	a seal in a cofferdam for bridge pier construction is considered "impounded water'.
	AMM 35: Demolition and debris removal and disposal will comply with Section 202.03 of the MaineDOT's Standard Specifications. The Contractor will contain all demolition debris, including debris from wearing surface removal, saw cut slurry, dust, etc., and will not allow it to discharge to any resource. The Contractor will dispose of debris in accordance with the Maine Solid Waste Law (Title 38 M.R.S.A., Section 1301 et. seq.). The demolition plan, containment, and disposal of demolition debris will be addressed in the Contractor's SEWPCP.
	AMM 36: Round pile size is limited to less than 30 inches in diameter. H-pile size is limited to less than 14 inches.
	AMM 37: A vibratory hammer will be used as much as possible for all pile driving activities.
	AMM 38: Pile driving will occur during the day when fish are less active and Atlantic salmon migrations are minimized.
	AMM 39: Hydroacoustic monitoring will be completed for all impact pile driving using the monitoring template developed by the Fisheries Hydroacoustic Working Group and following the methods described in the Technical Guidance (Caltrans 2015).
	AMM 40: A bubble curtain meeting the design criteria, as defined in the User's Guide, will be employed during all impact pile driving events. The bubble curtain design will mimic specifications for devices tested and employed for previous pile driving events.
	AMM 41: In-water blasting is not allowed when Atlantic salmon could be present.
	AMM 42: Permanent riprap placed in a stream below the bankfull elevation will be covered by CSM.
	AMM 43: Any riprap that is placed in a stream that is not within a cofferdam will be cleaned prior to placement.
	AMM 44: Cable mats used for scour protection will be backfilled with a gravel-like material between the voids. Any larger stones or streambed material excavated for the placement of the mats will then be distributed on top of the countermeasures.
\boxtimes	AMM 45: The Proponents will not adversely affect Atlantic salmon adults sheltering in holding pools.
	AMM 46: In Atlantic salmon rearing habitat, bridge replacements with piers and abutments will not result in a net increase of structure footprint. Piers and abutments will not be placed in Atlantic salmon spawning habitat.
	AMM 47: All invert line and slipline projects will have fish passage measures included in the design. Fish passage measures include weirs inside and outside of the crossing structures to ensure that water depths and velocities allow for fish passage at a range of flows.
	AMM 48: Invert line and slipline rehabilitation activities will not occur in Tier 1 priority areas.
	AMM 49: Abutment demolitions with a hoe ram will occur inside of a dewatered cofferdam or outside of the water.

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AMM 51: If a pile is pulled from the substrate, the work will be completed using a BMP specifically for minimizing turbidity, such as a turbidity curtain.
 AMM 52: To minimize potential effects to fish passage with a culvert extension and stream realignment, design will ensure that: 1. The width of the relocated channel will match that of the pre-existing width;
2. Channel depths will match that of the pre-existing stream section;
3. CSM will be placed along the bottom of the reconstructed stream channel to re-establish stream substrate; and
 Riprap placement in the stream will be minimized to that necessary for erosion/scour prevention and embedded and covered with natural substrate material.
AMM 53 and 54 do not exist
AMM 55: Cofferdams that span the entire channel will not be used for bridge scour countermeasure projects.
AMM 56: Compensatory mitigation, through the ILF program or another mitigation approach that is part of the program, will be provided for all culvert end extensions occurring in Tier 1 and Tier 2 areas.
AMM 57: The Proponents are limiting culvert extensions under this programmatic to a total of eight feet.
AMM 58: Compensatory mitigation, through the ILF program or another mitigation approach that is part of the program, will be provided for all bridge scour countermeasures occurring in Tier 1 and Tier 2 areas.
AMM 59: Compensatory mitigation, through the ILF program or another mitigation approach that is part of the program, will be provided for all stream crossing replacements in Tier 2 areas that are greater than 1.0 times the BFW but less than 1.2 times the BFW.
AMM 60: Compensatory mitigation, through the ILF program or another mitigation approach that is part of the program, will be provided for all invert line and slipline projects in Tier 2 areas.
AMM 61: Bridge scour countermeasures will incorporate the following measures into project design:
1. Cable mats will be installed to match the existing channel contours;
A low flow channel will be added to allow adequate water depths (approximately 6 inches) during low flow periods; and
3. Stream bed material and large rocks (greater than one foot in diameter) will be placed randomly back on top of
the scour countermeasures.