8.2

Environmental Mitigation Plan

attentive energy

Section 8.2 Table of Acronyms

Acronym	Definition
ACP	Agency Communications Plan
[redacted]	[redacted]
AE1	Attentive Energy One
AE2	Attentive Energy Two
BACI	Before-After-Control-Impact
BMP	Best Management Practices
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulation
CMECS	Coastal and Marine Ecological Classification Standard.
COP	Construction and Operations Plan
dB	Decibel
DMA	Development Management Agreement
DNA	Deoxyribonucleic Acid
[redacted]	[redacted]
EFH	Essential Fish Habitat
EMP	Environmental Mitigation Plan
ESA	Endangered Species Act
E-TWG	Environmental Technical Working Group
FCP	Fisheries Communication Plan
FLO	Fisheries Liaison Officer
FMP	Fisheries Mitigation Plan
F-TWG	Fisheries Technical Working Group
GPS	Global positioning system
HRG	High Resolution Geophysical
HVAC	Heating, Ventillation and Air Conditioning
HVDC	High-Voltage Direct Current
[redacted]	[redacted]
MW	Megawatts
NARW	North Atlantic Right Whale
NATCP	Native American Tribes Communications Plan
NEAMAP	NorthEast Area Monitoring and Assessment Program
NFWF	National Fish and Wildlife Foundation
NGO	Non-Governmental Organizations

Acronym	Definition
NJDEP	New Jersey Department of Environmental Protection
NMFS	National Marine Fisheries Service
NOWRDC	National Offshore Wind Research & Development Consortium
[redacted]	[redacted]
NYSCEC	New York State Council for Exceptional Children
NYSDEC	New York State Department of Environmental Conservation
NYSDOS	New York Department of State
NYSDOT	New York State Department of Transportation
NYSDPS	New York State Department of Public Service
NYSERDA	New York State Energy Research and Development Authority
NYSOGS	New York State Office of General Services
OCS	Outer Continental Shelf
[redacted]	[redacted]
[redacted]	[redacted]
PEIS	Programmatic Environmental Impact Statement
Project WOW	Project Wildlife and Offshore Wind
PSO	Protected Species Observer
PV	Plan View
RMI	Resource Monitoring Initiative
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
SAV	Submerged Aquatic Vegetation
SMA	Seasonal Management Area
SMS	Stormwater Management System
SPI	Sediment Profile Imaging
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
VHF	Very High Frequency
VIMS	Virginia Institute of Marine Science
[redacted]	[redacted]
WEDG	Waterfront Edge Design Guidelines
WTG	Wind Turbine Generator

Section 8.2 Table of Contents

8. Responsible Development

AE1 – A Historic Victory for Environmental Justice

8.2 Environmental Mitigation Plan

Attentive Energy is designing the Project with a goal [redacted]. As such, Attentive Energy is committed to following the mitigation hierarchy, whereby environmental impacts are first identified and avoided where possible. When impacts are unavoidable, they are minimized and/or mitigated as appropriate.

This EMP describes Attentive Energy's approach to implementing the mitigation hierarchy. This EMP also describes Attentive Energy's environmental monitoring and research framework for birds, bats, marine mammals, sea turtles, and their habitat. The Sponsors have extensive experience in the offshore sector and a long history of designing and implementing successful environmental mitigation and monitoring plans.

[redacted]

8.2.1 Environmental Mitigation Plan Summary

In order to achieve the dual goals of the EMP and FMP [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

To meet the targets of [redacted] Attentive Energy will follow the mitigation hierarchy. That is, Attentive Energy will first avoid and minimize impacts to biological resources. Where impacts cannot be avoided or minimized, Attentive Energy will implement mitigation practices using this EMP as a guide. [redacted]

Attentive Energy considers the EMP to be a living document that will incorporate new, relevant information and regulatory considerations, to avoid, minimize, monitor, and mitigate impacts over the life of the Project. Knowledge gained through the survey, construction, operations, and decommissioning phases of the Project, as well as through lessons learned, research and monitoring efforts conducted by this and other offshore wind projects, will be incorporated into the EMP, as appropriate.

8.2.2 Communications and Collaboration

8.2.2.1 Commitment to Stakeholder and Research Collaboration

Attentive Energy is committed to collaborating with other offshore wind developers and organizations to address stakeholder concerns more effectively, consistently, and over a larger geographic area. Attentive Energy has been actively collaborating with other developers by hosting joint port hours for commercial and recreational fisheries outreach. [redacted]

8.2.2.2 Transparent Approach

The Project will prioritize transparency in development and permitting by sharing updates, plans, data, and other relevant information to ensure stakeholders are aware and engaged. This transparency is imperative to advancing NYSERDA's commitment to meaningful stakeholder engagement, as discussed in

its Guiding Principles for Offshore Wind: Stakeholder Engagement (NYSERDA 2021). Such transparency furthers efforts toward collaboration, equity, inclusiveness, accessibility, accountability, flexibility, diversity, and proactivity in Attentive Energy's stakeholder engagement activities.

Attentive Energy recognizes the importance of data transparency and accessibility for all relevant stakeholders in supporting offshore wind development. [redacted]

8.2.2.3 Early Engagement

[redacted]

8.2.2.4 Ongoing Engagement and Communication Plan

As an offshore wind leaseholder, BOEM requires Attentive Energy to develop an Agency Communications Plan, Native American Tribes Communications Plan, and a Fisheries Communication Plan. Each of these plans outline Attentive Energy's commitment and approach to providing early and transparent two-way communication with stakeholders to support effective collaboration throughout all phases of the Project.

- [redacted]
- [redacted]
- [redacted]

[redacted]

[redacted]

8.2.3 Environmental Monitoring and Research Pre-, During-, and Post-Construction

Attentive Energy acknowledges the importance of thoughtfully planned, designed, and implemented monitoring and research pre-, during- and post-construction to understand the effects of offshore wind development on the environment. Attentive Energy's Environmental Monitoring and Ecosystem Research Program will:

[redacted]

8.2.3.1 Identify Baseline Conditions of Project Area

[redacted]

8.2.3.2 Quantify and Assess Project-Related Impacts to Sensitive Resources

[redacted]

8.2.3.3 Monitor, Minimize, and Mitigate Project-Related Impacts

Attentive Energy is committed to avoiding Project-related impacts to sensitive resources through monitoring, minimizing, and mitigation tools the extent practical. [redacted]

[redacted]

8.2.4 Supporting Other Environmental Research

[redacted]

[redacted]

[redacted]

and guidelines recommended by NYSERDA, (including NYSERDA's Offshore Wind Master Plan), NMFS, and BOEM. Attentive Energy aims to follow NYSDEC's and NYSERDA's baseline data collection efforts and current research partners to ensure data transferability. In addition, [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

8.2.4.1 Marine Mammal Research Fund / NARW Conservation

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

8.2.4.2 Nearshore / Coastal Restoration

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted] Attentive Energy was involved in the development of the Science Plan and has been actively supporting several of their chapter organizations and will continue to be engaged.

Through this initiative, Attentive Energy seeks to:

- [redacted]
- [redacted]

[redacted]

- [redacted]
- [redacted].

8.2.5 Marine Mammals and Sea Turtles

8.2.5.1 Baseline Characterization

Marine Mammals: Fifty species of marine mammals inhabit the U.S. waters of the northwest Atlantic Ocean (BOEM 2021). Of these species, 31 taxa may occur in the New York Bight and all are protected under the Marine Mammal Protection Act. Five are listed under the Federal ESA including the blue whale, fin whale, sei whale, sperm whale, and the NARW.

Generally, habitat use by marine mammals in the New York Bight is concentrated near the continental shelf break and Hudson Canyon (NYSERDA 2017a), seaward of the Lease Area. [redacted]

[redacted]

Sea Turtles: Five species of sea turtle have been documented in the U.S. waters of the northwest Atlantic Ocean: green, hawksbill, Kemp's ridley, leatherback, and loggerhead. Hawksbill sea turtles are rare in this region and are not expected to occur in the New York Bight (BOEM 2021a). Existing information suggests the other four species are likely to occur in the area, and all these species are listed under the ESA.

Generally, habitat use by sea turtles in the New York Bight is concentrated offshore of the southern portion of New Jersey, including waters of the Lease Area. [redacted]

[redacted]

8.2.5.2 Proposed Measures to Minimize Potential Sound-Related Impacts

Baseline and Post-Construction Survey Techniques

[redacted]

Detection Methods and Exclusion Zone for Site Assessment and Construction

[redacted]

Construction and Survey Temporal Constraints

[redacted]

Reduction of Noise-Related Impacts

[redacted]

[redacted]

[redacted]

[redacted]

8.2.5.3 Proposed Measures to Minimize Potential Vessel-Related Impacts

[redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

[redacted]

[redacted]

[redacted]

8.2.6 Birds and Bats

8.2.6.1 Baseline Characterization

Birds: The New York Bight falls within the Atlantic Flyway, a major migratory front for all taxonomic groups of eastern North American birds during spring and fall. Most migration activity is concentrated along the coast, but migrating birds, including terrestrial songbirds, may occur far offshore by taking direct over-water flights between the eastern U.S. and their Caribbean and Neotropical wintering grounds. Migrating songbirds tend to fly at altitudes well above the rotor swept zone of a typical WTG. Raptors are most abundant during fall migration and most concentrated along the coastline. Eagles, ospreys, and other raptors typically remain close to shore or overland, with the exception of falcons, which can occur far offshore with more regularity. The New York Bight also supports summertime breeding populations of coastal and marine birds, some of which nest on the coast and forage at sea (e.g., gulls and terns). Other summertime birds, such as shearwaters and storm-petrels, breed in the Southern Hemisphere and then migrate to the New York Bight for the Northern Hemisphere's summer. In the fall, these and other species that occur in the New York Bight during summer migrate southward and are replaced by more northern-breeding species that move south from Canada to overwinter along the mid-Atlantic coast.

A widely cited analysis of the sensitivity of birds to offshore wind development on the Atlantic OCS found gulls, jaegers, and the northern gannet to have the greatest vulnerability to collision mortality (Willmott et al. 2013). These data are largely consistent with similar studies in Europe. The risk of these species to collisions with offshore WTGs is mainly due to their high abundance on the OCS relative to other birds, their low rates of WTG avoidance, and their long passage times through Rotor Swept Zones. However, the percentage of these species' populations that occur in the lease areas on the Atlantic OCS is low and greatly limits the potential for population-level impacts.

[redacted]

Bats: Nine species of bats occur in New York and can be classified into two groups: cave-hibernating bats and migratory tree bats. Cave-hibernating bats, which include the Indiana bat and Northern long-eared bat, are rarely observed far offshore. Migratory tree bats, by comparison, occur offshore more commonly, but in low abundance. They include the Eastern red bat, hoary bat, and silver-haired bat, none of which are Federally or New York State-listed. Occurrences of these species far offshore are almost entirely limited to fall migration when they fly from the Northeast and Mid-Atlantic region to the southeast for winter and even then, their occurrence offshore is minimal relative to their population sizes and densities on land. The Eastern red bat accounts for the majority of offshore bat activity during fall. [redacted]

8.2.6.2 Pre- and Post-Construction Data Collection

[redacted]

8.2.6.3 Proposed Measures to Minimize Potential Impacts

[redacted]

[redacted]

8.2.7 Fish, Invertebrates, and Their Habitats

8.2.7.1 Baseline Characterization

Attentive Energy will avoid to the extent possible locating facilities near sensitive habitats, including corals, hard bottom, and seagrass habitats, while minimizing scour and sediment suspension.

No sanctuaries, national marine sanctuaries, or national estuarine research reserves occur within the Project Area.

[redacted]

8.2.7.2 Fish and Invertebrate Species of Concern

[redacted]

Fish species in the New York Bight can be categorized as “demersal” fishes that inhabit near-bottom waters or “pelagic” fishes that inhabit the water column. Demersal fish may be further categorized by whether they generally associate with non-complex (i.e., soft-bottom habitat) or complex benthic habitat (i.e., hard-bottom, structured habitat). [redacted].

[redacted]

[redacted]

8.2.7.3 Pre- and Post-Construction Impact Identification

[redacted]

8.2.7.4 Measures to Minimize Potential Impacts

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

8.2.7.5 Additional research and Risk Reduction Measures

[redacted]

8.2.8 Considerations for Subsea and Overland Cables

8.2.8.1 Subsea Cables

[redacted]

[redacted]

[redacted]

8.2.8.2 Overland Cables

[redacted]

8.2.9 Additional Considerations

[redacted]

8.2.10 Project Decommissioning

[redacted]

8.2.11 References

[redacted]

[redacted]

- [redacted]

- [redacted]

www.attentiveenergy.com

LIST OF ATTACHMENTS

SECTION 8.2 Environmental Mitigation Plan

Attachment 8.2-A: [redacted]

Environmental Mitigation Plan

for

Attentive Energy One

Version [1.0]

Prepared pursuant to [contract number, date (TBD)]

with

New York State Energy Research and Development Authority

Albany, NY

Prepared by

Attentive Energy LLC

250 West 34th Street, 3rd Fl Suite 303

New York, NY 10019

September 2024

Record of Revision

Revision Date	Description of changes	Revision on pages
September 2024	Original version prepared in response to ORECRFP24-1	N/A

Project Information and Contacts

Links to project information:

Project Website: www.attentiveenergy.com
Twitter: @ThisIsAttentive
LinkedIn: Attentive Energy

Table of Contents

List of Tables

1. Environmental Mitigation Plan Summary

1.1 Overall philosophy and principles

- Attentive Energy seeks to [redacted] through meaningful, transparent, and proactive stakeholder engagement throughout all phases of the Project's lifecycle. These engagement efforts include:
    - Engaging all relevant stakeholders, especially those from underserved, disadvantaged, and overburdened communities who have traditionally been left out of the conversation. With these insights, Attentive Energy will consider and incorporate a variety of interests, points of view, and expertise to successfully deliver the Project;
    - Engaging stakeholders frequently and proactively to build trusted relationships, to acknowledge the knowns and unknowns, to identify multiple pathways to the desired outcomes, and to adapt approaches to address emerging issues;
    - Meeting stakeholders where they are, maintaining a cooperative two-way dialogue, and identifying shared interests across all parties to develop actionable goals. This includes tracking and reporting commitments and progress, as well continuously evaluating and refining Attentive Energy's engagement strategy;
    - Being "attentive" to stakeholders, agency staff, and teaming partners to listen and learn about each party's needs.
    - [redacted] To meet these targets Attentive Energy will follow the mitigation hierarchy. That is, Attentive Energy will first avoid and minimize impacts to biological resources. Where impacts cannot be avoided or minimized, Attentive Energy will implement mitigation practices using this Environmental Mitigation Plan ("EMP") as a guide. Attentive Energy understands these are ambitious targets and sufficient financial resources are needed to make them a reality, and is committing to a fund of regional wildlife, fisheries, benthic habitat, and coastal habitat monitoring, research, and conservation efforts, described collectively as the Fisheries and Environmental Monitoring and Research Program.
        - [redacted]
- Attentive Energy will strive to avoid or mitigate adverse impacts to natural resources in the Project area, while optimizing Project-related activities in a way that ensures safety and maximizes the benefits of offshore wind. Attentive Energy will do so by:
    - [redacted]

[redacted]

1.2 Overall approach to incorporating data and stakeholder feedback

[redacted]

1.3 Existing guidance and best practices that will be followed

[redacted]

- [redacted]
- [redacted]
- [redacted]
    - The application of lessons learned from the US as the offshore wind industry develops, and lessons learned from wind farm decommissioning activities in Europe.

2. Communications and Collaboration Approach

2.1. Overview and communication plan objectives

- Attentive Energy will seek methods and processes to allow for a two-way flow of information between key stakeholders and developers, specifically highlighting how Attentive Energy uses this feedback to inform their decision making.
- Attentive Energy will provide updates to environmental stakeholders in an appropriate manner that can be easily accessed and widely distributed.
- Additionally:
    - Attentive Energy is committed to meaningful, transparent, and proactive stakeholder engagement to ensure environmentally, economically, and socially responsible offshore wind development;
    - Attentive Energy will employ a transparency-based approach to Project development and permitting by sharing Project updates, plans, timing of geological and geophysical surveys, design features (e.g., turbine spacing, turbine orientation, export cable routes), data, and other relevant information throughout all stages of the Project to allow for stakeholder input;
    - Attentive Energy will communicate frequently and proactively throughout the life of the Project (i.e., from pre-construction to decommissioning);
    - [redacted]
    - Attentive Energy will understand stakeholder concerns and interests;
    - Attentive Energy will identify and develop actionable objectives where practical;
    - Attentive Energy will strive to understand the communities' needs and diverse perspectives, as well as maintain a responsive dialogue with all stakeholder groups.

2.2. Project environmental staff, responsibilities, and contact information

[redacted]

[redacted]

2.3. Identification of stakeholders

[redacted]

2.4. Participation in stakeholder and technical working groups

2.4.1. Communication with E-TWG

[redacted]

- The developer shall work with NYSERDA to plan and host Project-specific EMP consultations.

[redacted]

[redacted]

2.4.2. Communication with other New York State agencies

[redacted]

[redacted]

2.4.3. Communication with other stakeholder and working groups

[redacted]

- [redacted]
- [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
    - [redacted]
    - [redacted]
    - [redacted]
    - [redacted]
    - [redacted]
    - [redacted]
    - [redacted]
    - [redacted]
  - Attentive Energy will continue to engage with the general public through open houses, public meetings, and website updates;

2.4.4. Communication and collaboration with other developers

[redacted]

- [redacted]
  - [redacted]

3. Supporting Other Research

3.1. Support of collaborative research

[redacted]

3.2. Handing/processing requests

[redacted]

3.3. Data availability

[redacted]

3.4. Proposed restrictions

[redacted]

3.5. Financial commitment for third party research

[redacted]

3.6. Proposed or existing commitments/collaborations

[redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]

4. Proposed Mitigation of Impacts to Marine Mammals and Sea Turtles

4.1. Baseline characterization

4.1.1. Available information

[redacted]

4.1.2. Data being collected

[redacted]

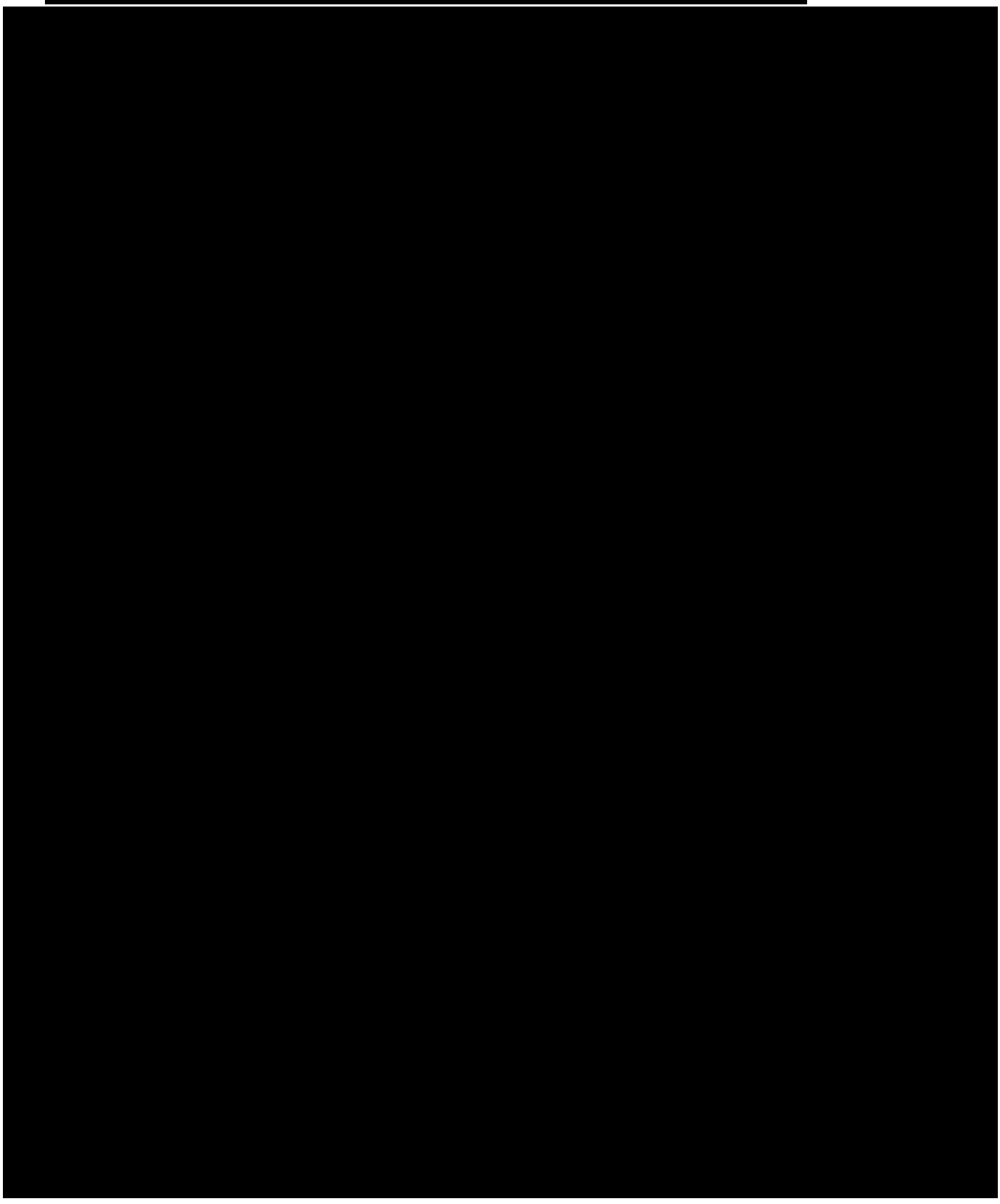
[redacted]

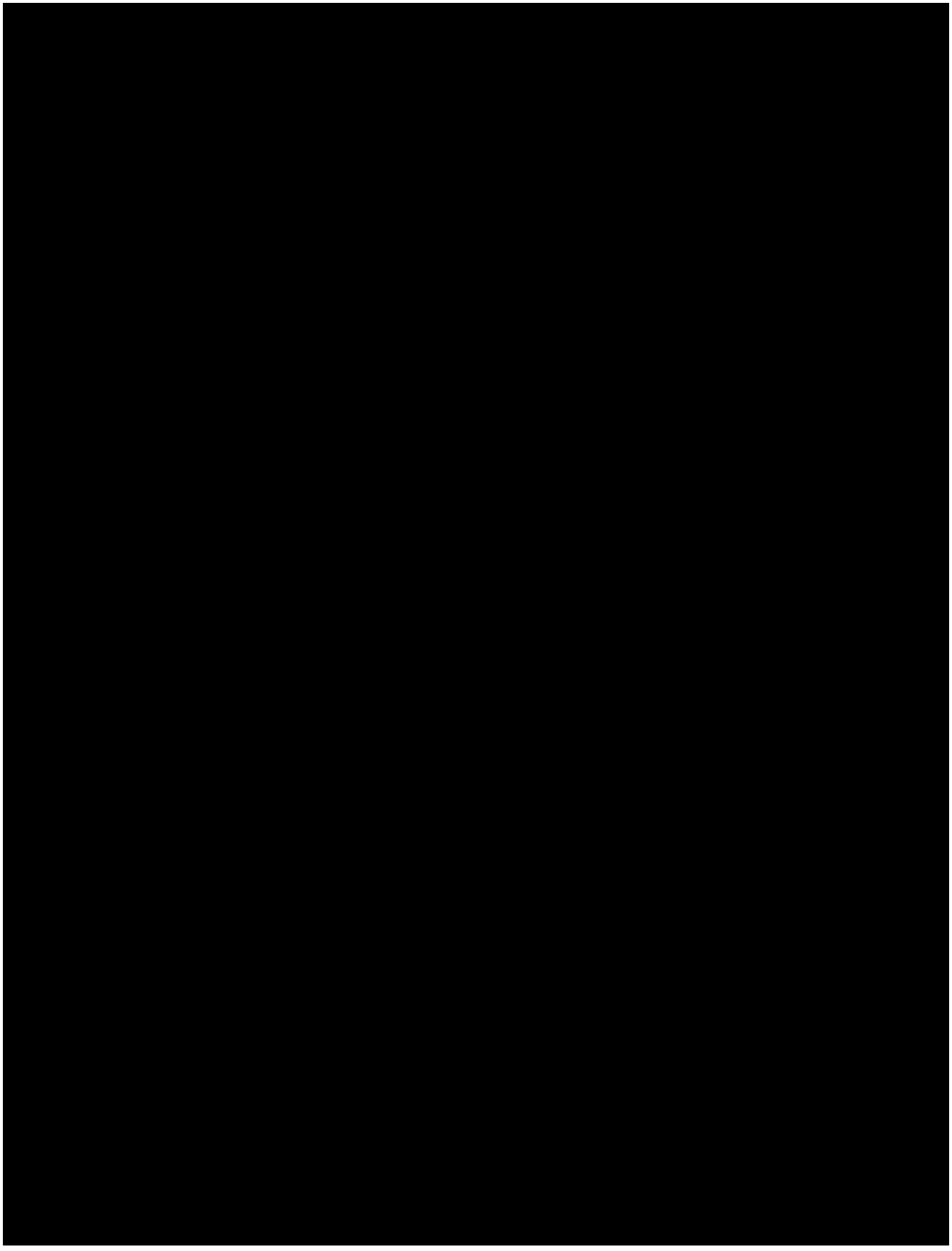
4.2. Species at risk

- Fifty (50) species of marine mammals are known to occur in U.S. waters of the northwest Atlantic Ocean (BOEM 2021). Of these species, 31 taxa may occur in the New York Bight.
- All of these marine mammal species are protected under the Marine Mammal Protection Act; five species are listed under the Federal Endangered Species Act ("ESA"):
    - Blue whale (Balaenoptera musculus)
    - Fin whale (Balaenoptera physalus)
    - Sei whale (Balaenoptera borealis)
    - Sperm whale (Physeter macrocephalus)
    - North Atlantic right whale ("NARW") (Eubalaena glacialis).

[redacted]

4.3. Potential impacts and mitigation measures by phase





[redacted]

4.4. Monitor for potential impacts during each phase

- [redacted]
- [redacted]
- [redacted]

[redacted]

4.4.1. Assess and quantify changes

[redacted]

[redacted]

4.4.2. Address data gaps

[redacted]

4.5. Strategies for developing alternate protocols

[redacted]

5. Proposed Mitigation of Impacts to Birds and Bats

5.1. Baseline characterization

5.1.1. Available information

[redacted]

5.1.2. Data collected

[redacted]

[redacted]

5.2. Species at risk

[redacted]

5.3. Potential impacts/risks and mitigation measures by project stage

[redacted]

[redacted]

5.4. Monitor for impacts during each phase

- [redacted]

5.4.1. Pre/Post monitoring to assess and quantify changes

[redacted]

5.4.2. Address data gaps

[redacted]

5.5. Strategies for developing alternate protocols

[redacted]

6. Proposed Mitigation of Impacts to Fish, Invertebrates and their Habitats

6.1. Baseline characterization

6.1.1. Available information

[redacted]

6.1.2. Data being collected

[redacted]

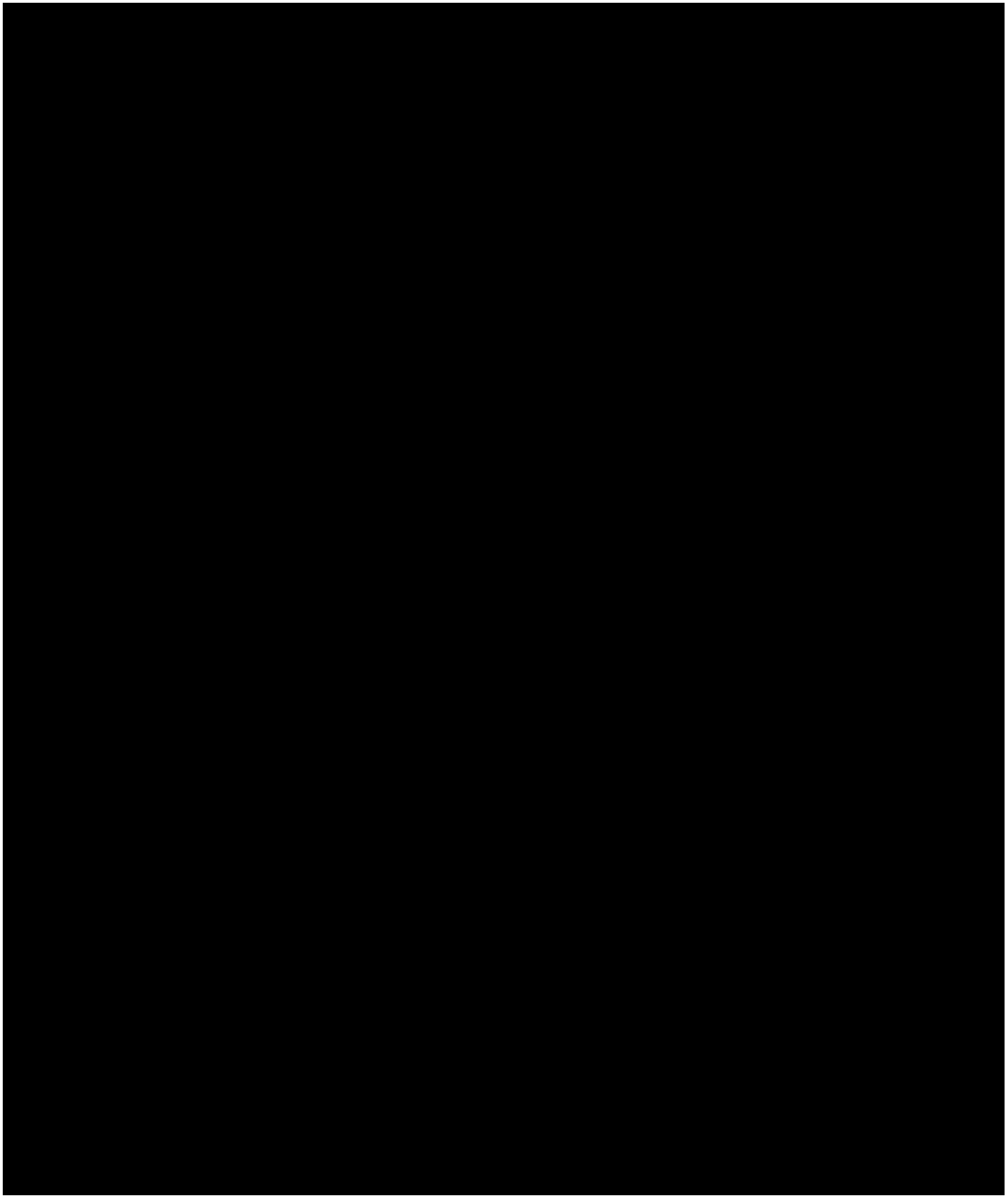
6.2. Species at risk

[redacted]

[redacted]

6.3. Potential impacts/risks and mitigation measures by project stage

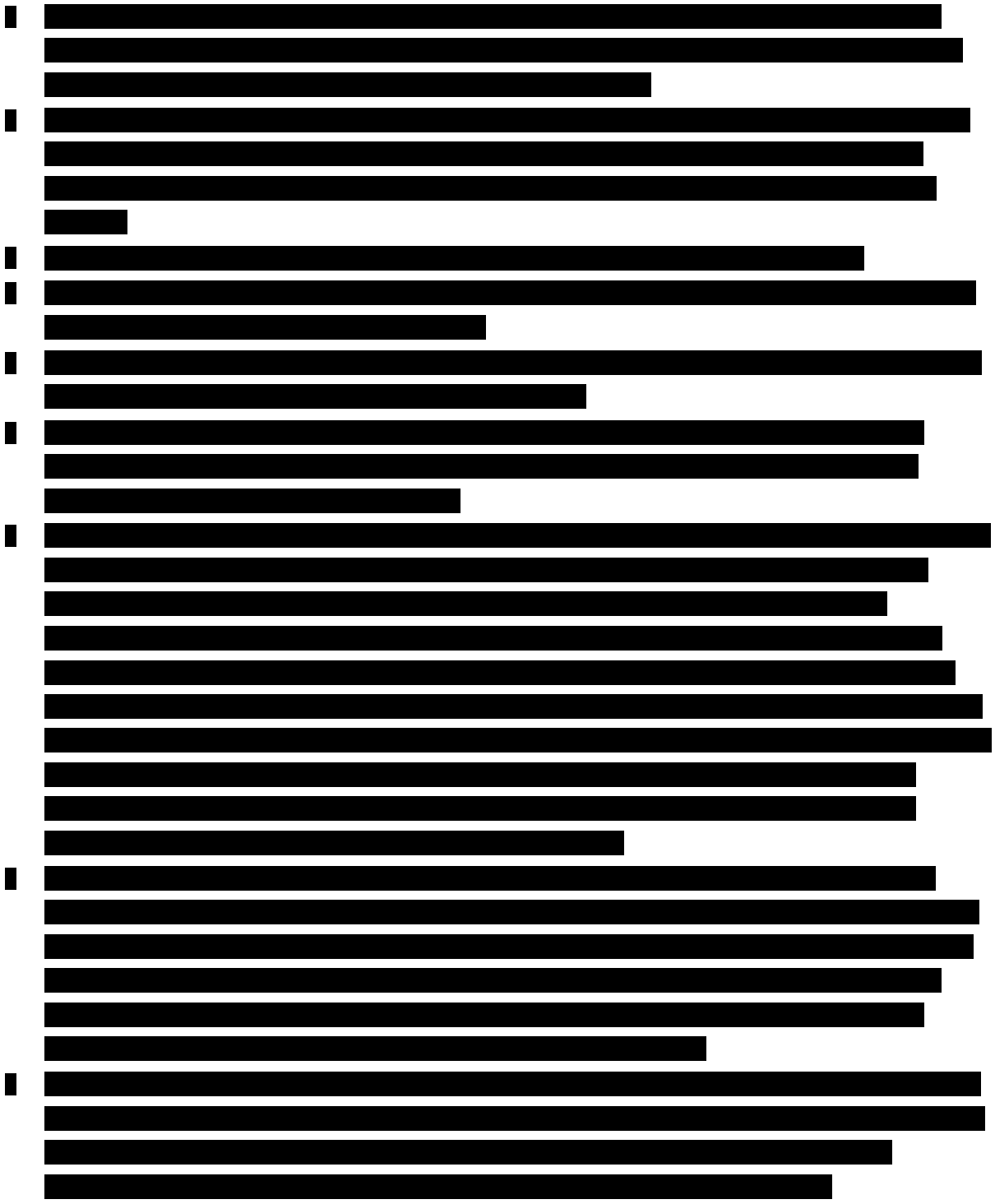
[redacted]



6.4. Monitor for impacts during each phase

- Attentive Energy will seek to collaborate with other regulatory agencies and stakeholder groups to identify research needs and opportunities.

6.4.1. Pre/Post monitoring to assess and quantify changes



6.4.2. Addressing data gaps

[redacted]

6.5. Strategies for developing alternate protocols

[redacted]

7. Considerations for Subsea and Overland Cables

7.1. Mitigation strategies for subsea and overland cables

- Attentive Energy's mitigation strategies for subsea cables are outlined in Sections 4.3, 5.3, and 6.3 of this document.

[redacted]

8. Additional Considerations

8.1. Additional mitigation strategies and EMP refinement

- The developer will support collaborative research on potential mitigation strategies and best management practices, with other developers, agencies and stakeholders.

[redacted]

8.2. Process for updating the EMP

- The developer will continuously evaluate and evolve this EMP so that all the components of the EMP are complete and sufficient.

[redacted]

9. Project Decommissioning

9.1 Potential impacts on marine wildlife, birds, bats, and fisheries

[redacted]

9.2 Approach for decommissioning plan and coordination with stakeholders

- The developer shall decommission the Project in accordance with all necessary laws and regulations and generate a detailed Project-specific decommissioning plan.
- The developer shall seek input on the detailed Project-specific decommissioning plan from regulatory agencies, fisheries and marine stakeholders, and local communities.
- The developer shall use “lessons learned” from the construction and operations activities and apply them when appropriate to the decommissioning plan.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]