Appendix D. Assessment Rubric for Study Design

Note: This is an excerpt from "Guidance for Pre- and Post-Construction Monitoring to Detect Changes in Marine Bird Distributions and Habitat Use Related to Offshore Wind Development". The full guidance document is available at www.nyetwg.com/avian-displacement-guidance



Developed by the <u>Avian Displacement Guidance Committee</u> of the <u>Environmental Technical Working</u> <u>Group</u>, with support from the Biodiversity Research Institute

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Photo credit: Nicholas Doherty

Appendix D. Assessment Rubric for Study Plans

There are many factors that may be used to assess a proposed study plan. The following example rubric (not comprehensive) can be used for the assessment of proposed study plans for conducting OSW project-level research and monitoring related to displacement, attraction, and avoidance of marine birds from OSW development. Assessments should be conducted by subject matter experts with careful consideration of study objectives, study design, and data sharing and coordination.

Evaluation Criteria	0	1	2	3	4	N/A
STUDY OBJECTIVES						
Clearly identified and discusses research focus/purpose						
Succinct, clear, relevant research questions identified						
Hypotheses are testable and clearly grounded in previous						
research/theoretically relevant literature						
Focal taxa clearly identified and justified based on exposure, sensitivity,						
uncertainty, and other key factors						
STUDY DESIGN						
Choice of general methods adequate to answer research questions						
based on key considerations (e.g., focal taxa considerations, biases,						
logistics)						
Choice of specific study method supported and justified based on						
strengths and limitations						
Sample sizes clearly defined and justified based on power analyses						
Power analysis includes selection of effect sizes and associated						
uncertainty based on existing information						
Consideration was given to the selection of power (i.e., Type II error)						
and Type 1 error rates and relevance for decision making						
Spatial and temporal scale of study defined based on scale of the						
question and predicted response based on best available knowledge.						
Includes consideration of potential sources of variation, including						
environmental covariate data and other factors that may affect the						
detection of effects, level of response, and/or interpretation of results						
Includes data collection before and after wind facility construction						
Data collection methods follow best practices, existing guidelines, and						
established protocols, or detail plans for developing project-specific						
protocols with expert input						
Methodological biases are minimized and/or addressed						
Process for quality assurance and quality control clearly delineated and						
adequate						
Clearly defined analysis plan including appropriate modeling framework						
and statistical tests, considerations of biases, autocorrelation, sources						
of variation, model complexity and performance						
DATA SHARING AND COORDINATION						
Process and timeline for publicly sharing study results delineated						
Plans for publication of results in peer-reviewed scientific literature						
Plans for making raw data publicly available within a maximum of two						
years						
Plans to contribute derived analytical products to data portals						
Communication and coordination with other developers and						
stakeholders outlined in plan						