CATEGORY: Post Construction Monitoring

Element	Level of repetition among guidance (high, med, low)	Pros	Cons
Duration: 1-2 years, depending on the bird populations found in the pre-construction surveys for low to medium risk projects 2-3 years for projects with an elevated to high level of risk The duration of operations monitoring should be sufficient to determine whether pre-permitting estimates of impacts to birds or bats were reasonably accurate and to determine whether turbines are causing unanticipated fatalities that require impact avoidance or mitigation actions. Can be extended by TAC, depending on fatalities that are unexpectedly higher than was predicted.	High	Establish baseline for project and area/state. Assess accuracy of preconstruction estimates and other siting requirements	After baseline information has been collected for several projects over number of years, may not be necessary for every project in area/state where environmental conditions are same.
Carcass monitoring	High	May assist in validation of preconstruction risk assessment	Has to be validated otherwise data not useful
Changes in bird use and behavior	High	Assist in determining displacement/fragmentation affects	Should be specifically designed to compare with preconstruction studies, at intervals (1, 3, 5 years) different than preconstruction

Extent of post-construction monitoring may increase if unexpected high mortality or other adverse consequences are encountered.	High	Flexible to allow for unanticipated impacts	
Post-construction monitoring requirements vary depending on level of risk assigned to the project.	High	Avoids unnecessary studies unless data indicates need	May not valid if preconstruction surveys are not designed to compare with post construction
Study design is required to enable statistical comparisons between Before, After, and Control impacts.	High	Allows for comparison of data across projects, states, etc.	
The primary objectives for post-construction monitoring are to determine: 1. Whether estimated fatality rates from the pre-permitting assessment were reasonably accurate 2. Whether the avoidance, minimization, and mitigation measures implemented for the project were adequate or whether additional corrective action or compensatory mitigation is warranted 3. Whether overall bird and bat fatality rates are low, moderate, or high relative to other projects	Med		
Cultural, archeological and paleontological resources	low	Usually covered under state/federal law	May not be covered on private lands, or if private funds used; may have unintended consequence if not addressed

Develop a TAC or TAG or some form of peer review group to oversee post-construction monitoring and reports.	High	Quality control, depending on composition and availability of TAC/TAG members	Composition and who decides composition could be problematic; going through TAC/TAC could bog process down
Regular reporting requirements	High	Necessary to observe if trends are developing/present	Companies may balk at sharing information in forum where other companies or project opponents have access to reports/data
Pre-construction analysis of potential effects of listed species indicates whether a post construction mortality study will be conducted.	low	Covered under ESA?	ESA may not have ability to require necessary duration of years needed
No requirement	low	Allows focus on other areas where information is lacking (Acceptable only if data available on other sites where same environmental conditions exist)	Lack/absence of data; should require data initially even in low habitat value areas to establish baseline knowledge