

1 Supplementary Data

In our assessment of 7(a)(1) plans we came across a few agency documents that we considered for our analysis, but ultimately determined that they did not meet our threshold for inclusion. Here we highlight these potential 7(a)(1) plans and explain our reasons for exclusion. We note that these four examples underwent a conservation review by USFWS and were deemed sufficient 7(a)(1) plans (FEMA 2021; USFWS 1997; BLM 2012; USFWS & FHWA 2016). Our assessments differ from those evaluations, and this highlights the variability of 7(a)(1) plans and the inconsistencies of approval parameters from agency to agency.

The Federal Emergency Management Agency (FEMA) has developed two nominal 7(a)(1) programs. First, FEMA's 1997 administration of the National Flood Insurance Program (NFIP) in Monroe County, Florida, established a multispecies programmatic consultation with USFWS. In the corresponding biological opinion, the Service recommended FEMA modify the Community Rating System associated with NFIP to benefit communities that have "implemented community-wide, multispecies conservation planning pursuant to section 10(a)(1)(B) of the Act" and should "implement this conservation recommendation by providing maximum credit for completion of a comprehensive county-wide Habitat Conservation Plan (HCP)" (USFWS 1997). During a lawsuit over this programmatic biological opinion for, FEMA proffered this recommendation as fulfilling their obligation under section 7(a)(1). The court rejected that argument on the grounds that the HCP had never been established (Fla. Key Deer v. Paulison 2008). For this reason, as well as because even if the program had been implemented, HCPs are only required to minimize and mitigate impacts - rather than recover species - and would still not meet the 7(a)(1) affirmative recovery requirement, we did not include this in our analysis. In 2021, FEMA established a new 7(a)(1) plan under NFIP. The plan is programmatic, proactive and a clearly marked 7(a)(1) plan, however, we did not include the plan in our analysis due to the extremely early stage of the development and the lack of information on which species are covered under the plan and what recovery goals would subsequently be included. We look forward to reviewing this plan as it progresses.

The multi-species programmatic consultations of the Bureau of Land Management's (BLM) Solar Energy Program and the Federal Highway Administration's (FHWA) Indiana Bat and Northern Long-Eared Bat consultation followed a similar structure. Both documents are section 7(a)(2) consultations that state within their document's specific conservation measures outlining avoidance, minimization, and mitigation measures that are crucial to reducing the impact of actions on listed species. However, under our evaluation they do not meet the 7(a)(1) recovery requirement and therefore were not included in our analysis (BLM 2012, USFWS 2018).

Supplementary Table 1. 7(a)(1) plans excluded in the analysis

| Plan Title | Federal Agency | Clearly Marked 7(a)(1) | Programmatic | Proactive | Recovery Goals | Monitoring | Mitigation | Reason for Exclusion |
|--|--------------------|------------------------|--------------|-----------|----------------|------------|------------|--|
| Programmatic Biological Opinion for Bureau of Land Management Solar Energy Program (2012) | BLM | No | Yes | Partially | None | Discussed | Discussed | 1.) We could not identify measures that would recover any of the identified species 2.) Actions are to avoid, minimize and mitigate impacts, which will not result in net benefit |
| Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana Bat and Northern Long-Eared Bat (2018) | FHWA FRA FTA | No | Yes | Yes | None | Discussed | Detailed | 1.) We could not identify measures that would recovery identified species 2.) Measures are minimization & mitigation guidance, which are unlikely to result in net benefit |
| NFIP ESA Section 7(a)(1) Conservation Action Program (2021) | FEMA | Yes | Yes | Yes | None | None | None | 1.) No identified species, therefore we could not determine the recovery goals and if the program could result in net benefit |
| BO FEMA's Administration of the NFIP Program Monroe County FL (1997/2003) | FEMA | Yes | Yes | No | None | None | None | 1.) We could not identify measures that would recover any of the identified species 2.) Courts found the 7(a)(1) inadequate to fulfill 7(a)(1) goals |

References

BLM. (2012). Approved Resource Management Plan Amendments/Record of Decision for Solar Energy Development in Six Southwestern States.

Deer v. Paulison, 522 F.3d 1133 (11th Cir. 2008).

FEMA. (2021). NFIP ESA Section 7(a)(1) Conservation Action Program.

USFWS & FHWA. (2016). Statement of Work Interagency Agreement Between the Federal Highways Administration and the U.S. Fish and Wildlife Service Regions 3,4 and 5.

USFWS. (2018). Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana Bat and Northern Long-Eared Bat.

USFWS. (1997). Biological Opinion on FEMA's Administration of the National Flood Insurance Program in Monroe County, Florida. U.S. Fish and Wildlife Service Atlanta, Georgia.

