

How the Forthcoming Species Mitigation Rule May Influence Private Investment in Species Biodiversity

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Species conservation banks are a market-based conservation mechanism that aims to protect (prevent further degradation), conserve (maintain ecological processes), and/or restore (replace ecological processes) natural habitats and ecosystems that species depend upon. They work by allowing project proponents and/or developers to buy “credits” from a bank to offset impacts that their project may cause to a given species. The generation of credits for the bank represents the improvement in ecological condition or value to a species after a site has been restored and protected from further degradation. For example, if a developer wants to build on land that has endangered species or habitats, to compensate or offset the potential impacts to those species, the developer can buy credits from a conservation bank. This mitigating purchase is the conceptual foundation upon which the ecological restoration industry purchases property or easements, develops banks, improves ecological conditions, and offers credits for sale, but these investments often happen long before ecological perturbations from commercial industrial projects occur. Conservation banks offer incentives to conserve and enhance biodiversity while simultaneously creating opportunities for public-private partnerships that offer collaborative solutions among stakeholders. However, despite these benefits, conservation banks have historically faced challenges with scaling across the United States because of the lack of comprehensive and integrated national policies, guidance, and/or directives on species mitigation as well as inconsistent demand.

The ecological restoration industry has expanded in recent decades and now supports over \$25 billion in annual economic output and 225,000 jobs in the United States alone. Todd BenDor et al., *Estimating the Size and Impact of the Ecological Restoration Economy*, PLOS One (June 17, 2015). A major driver within the industry has been the Clean Water Act (CWA) section 404, 33 U.S.C. § 1344, wetland and stream

mitigation banking program, which alone supports several billions in annual sales and thousands of jobs. Beyond the economic impact, the industry restores and conserves hundreds of thousands of acres and linear feet of wetland and stream habitat that offer a myriad of public environmental benefits, all financed through up-front investments of private capital that are made in advance of permitted impacts to protect resources. Several specific but replicable factors of the CWA program support the conditions needed for this robust environmental market: (i) a public goal for environmental restoration, i.e., “no net loss of wetlands”; (ii) a permitting framework under which a project proponent can acquire “credits” to offset the impacts of the project; and (iii) a federal regulation, the 2008 Mitigation Rule (33 C.F.R. § 332, the 2008 Rule) that establishes a set of standard requirements and outlines a process and mechanism for consistent application of those requirements.

While a few companies have successfully worked with U.S. Fish and Wildlife Service (FWS) offices on a conservation banking offset approach for species protected under the federal Endangered Species Act (ESA), 16 U.S.C. §§ 1531–44, that builds on the CWA mitigation model, species banks have not proliferated. Species banking is not currently integral to mitigation requirements under ESA sections 7 and 10, but this may be changing following recent FWS public notices that included affirmation that compensatory mitigation is an “offsetting measure” and may be appropriate as reasonable and prudent measures to offset the incidental take of protected species. U.S. Fish & Wildlife Serv., *Endangered and Threatened Wildlife and Plants; Revision of Regulations for Interagency Cooperation*, 88 Fed. Reg. 40,753 (June 22, 2023) (to be codified at 50 C.F.R. § 402). Conservation banking would likely assume a higher priority for projects if promoted by a comprehensive regulation, similar to the 2008 Rule. Such a regulation could promote advanced offset investment by the ecological banking industry

at scale, which could create a supply of readily available “credits” and potentially facilitate faster permitting. A conservation banking approach would benefit species and promote the ESA’s objectives because enhanced private investment and private sector expertise leveraged in advance of impacts could capitalize on economies of scale and expand species conservation options, resulting in larger, landscape-scale mitigation. In turn, a prioritized banking approach would likely reduce temporal loss of habitat and more efficiently trigger improvements to habitat quality and connectivity, which ultimately provides the opportunity to maintain biodiversity on a landscape scale.

Recognizing these benefits, the FWS previously tried to tackle principles for species mitigation mechanisms and markets in its 2016 policies, but it rescinded those policies in 2018. In May 2023, the FWS reissued those policies with the benefit of additional feedback and captured the need for standards for implementing mitigation mechanisms. U.S. Fish & Wildlife Serv., *Endangered Species Act Compensatory Mitigation Policy*, May 15, 2023. Following direction from Congress in the National Defense Authorization Act of 2021 (William M. (Mac) Thornberry National Defense Authorization Act, H.R. 6395, 116th Cong. § 116 (2021)), the FWS is currently pursuing a formal rulemaking on species mitigation mechanisms (the Species Mitigation Rule or Rule) that is expected to mirror key elements of the 2008 Rule. U.S. Fish & Wildlife Serv., *Compensatory Mitigation Mechanisms Proposed Rule*, July 27, 2022. The ecological banking industry is encouraged by what this rulemaking could mean for environmental market investments, better species recovery outcomes, and faster permitting for project proponents. Herein, we offer recommendations on certain key or foundational concepts to improve the proposed Species Mitigation Rule and its framework and requirements, as currently drafted. Our recommendations are based on lessons learned from the CWA mitigation market as well as expertise and knowledge of imperiled species conservation and the ecosystems upon which they depend. What follows is a discussion of those key concepts.

Equivalency and Tools to Implement

Equivalency is an essential principle for investment in an environmental market. Investment is hampered by inconsistent application of regulatory requirements and standards across mitigation mechanisms. Investors seek marketplace fairness, where all restoration sponsors and projects are treated with equal application of law and policy for predictable outcomes. Equivalency helps to create clarity and consistency for mitigation providers and thus incentivizes investment in high-quality mitigation by alleviating potential competitive disadvantages.

Under current practice, FWS field and regional offices approve mitigation measures for individual projects through various ESA compliance decision documents, such as Biological Opinions, Habitat Conservation Plans and their associated Incidental Take Permits (ITPs), Candidate Species Conservation Agreements with Assurances (CCAA), and rules for threatened species promulgated under section 4 of ESA (4(d) rules). As a result, there are no clearly defined and equitably applied mitigation standards for many species. As such,

different agencies and their offices may independently identify and/or require different species mitigation within project permitting decision documents, even for the same species in the same ecosystem. This approach can preclude effective and durable mitigation offsets needed to benefit target species while distorting mitigation incentives and effectiveness. In general, the application of equitable standards can require more assurances, planning, monitoring, and maintenance to meet performance requirements, thus necessitating the need for greater early-stage financial investments by project proponents.

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As an unintended consequence of the current system as well as the preference for project proponents (including government-funded projects) to implement the fastest and lowest-cost offsets available, mitigation efforts often prevail that have the greatest ecological risk. Under the current approach where mitigation is done concurrent with or after the permitted impact, the applicant can often move forward with the permitted project before the ecological outcomes are realized, which leaves some risk of failure on the public agency approving the applicant’s project. Contrast this with a conservation bank approach, under which the bank sponsor assumes all the performance risk and must meet ecological success criteria before the bulk of their credits are available for sale and application to permits. This disparity in risk typically results in a higher cost for bank credits versus other non-advance solutions. Applicants’ preference for the lower-cost option can lead to lower-standard programs dominating a given market, potentially slowing progress towards species conservation, even recovery, while discouraging private investment in ecosystem restoration. To avoid these inequalities, the Species Mitigation Rule could benefit species and biodiversity by (1) establishing species-specific standards with range-wide habitat needs and (2) requiring a binding instrument applicable to conservation mitigation mechanisms.

An important first step toward providing equivalency for mitigation requirements is a species standard tool. A species-specific standard could identify high-priority geographic regions for siting permissible mitigation that target imperiled species. We recommend that the species standards include such provisions as Rangewide Service Area prescriptions; credit release schedules based on the habitat type; impact and offset determination methods; site selection and prioritization

requirements; essential habitat management strategies; financial assurance requirements (including calculation and documentation specifics); site protection requirements; monitoring and reporting requirements; and objective, measurable ecological performance standards directly associated with habitat and biological metrics. With these types of provisions in mind, the requirement for species standards could be articulated in the rule but implemented in agency guidance that would inform the decision process for ESA compliance requirements such as section 7 consultations, section 10 ITPs, CCAAs, species listing decisions, and/or five-year species status review.

Overall, implementing species mitigation actions would also benefit within the confines of a binding “instrument” tool. As such, conservation banks should be managed under a mitigation “instrument” that ensures equivalent and transparent standards for all mitigation actions. If properly drafted, the instrument agreement should detail regulatory obligations promoting consistent oversight by the FWS. Mitigation banks and programs have long life cycles, often extending well beyond the careers of agency and bank sponsor personnel. Careful attention must be paid to the content and clauses of instruments because they form the basis for evaluating project compliance and long-term ecological success. If instrument standards were consistent across all forms of mitigation requirements, then private conservation investment ahead of impacts would be more likely to occur. If instrument requirements are not consistent, investment will likely be chilled by concerns that lower-standard, lower-cost offsets will become the preference for compliance. Such a scenario disadvantages advance mitigation sponsors and, more importantly, hinders species recovery and conservation of biodiversity.

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Ideally, to avoid ineffective or risky mitigation strategies, the Species Mitigation Rule must require that all binding instruments, regardless of the form of mitigation compliance requirement, include the following elements: conservation objectives, site selection, site protection instrument, baseline information, offset work plan, credit evaluation (including methodology to calculate debits and credits), credit management and accounting processes, interim management plan, performance standards, monitoring requirements, long-term management plan, adaptive management plan, financial assurances, and service area. The Rule should also establish a review

process and accountable approval timeline for bank instruments. Years of experience have shown that while unforeseen delays often happen in the bank establishment process, the agencies and sponsors need to have clear, up-front expectations regarding an implementation schedule. We recommend establishing specific timelines for conservation bank establishment that track with those of the 2008 Rule, which, while not perfect, established reasonable expectations for all parties and provided standards against which progress can be measured. Additionally, joint wetland/conservation banks are becoming more common, and a single standard for timely review will facilitate generation of the maximum amount of credits.

While we’ve discussed the benefits of these two equivalency tools for the conservation banking industry, species, and the FWS, there are also great benefits for project proponents. Any policies that incentivize investment in advance mitigation offsets produce more readily available offset options for applicants, who can then benefit from FWS expediting review of their permit. And, if there is an instrument outlining the requirements in advance, obviating the need for intense negotiations for each individual project, the applicant benefits from increased assurances and predictability.

Durability Standard

Any species mitigation mechanism, including conservation banks, must be durable and outlast the life of the impact on the species. In most cases durability means perpetuity, but in limited cases it may be shorter, so long as the mechanisms are backed by sufficient legal and financial assurances. Durability typically necessitates requirements for mitigation measures to have (1) perpetual site protection that prohibits incompatible uses for the species (e.g., conservation easement); (2) long-term management plans for perpetual site stewardship; and (3) full funding of a long-term management endowment or equivalent mechanism sufficient to cover management, repair, and monitoring expenses in perpetuity.

To ensure that the durability principle is equivalently enforced, the FWS should require site protection, long-term management planning, and endowment for all mitigation mechanisms, memorializing these requirements in a corresponding instrument that governs their implementation and FWS oversight of the mitigation mechanism. In addition, to further incentivize adherence to the durability standard, the FWS may consider conditioning the liability transfer from applicant to mitigation sponsor on meeting these durability requirements. Liability should not transfer from the applicant for temporary offsets that fail to offset project impacts on species for the entirety of those impacts’ duration.

Intrinsic to these durability requirements is that mitigation is habitat-based, meaning that permissible mitigation mechanisms provide a direct, quantifiable conservation benefit for the species on specified areas of the species’ land or water habitat type. Durability as a mitigation qualification could exclude some actions currently accepted as mitigation and raise the bar on other practices. Unless allowed in a species-specific standard (described above), the USFWS should generally not allow measures that are not habitat-based, or at least not as the only

mitigation measure within a mitigation package. For example, research on a species should not be able to substitute for on-the-ground habitat preservation or improvement. Instead, research should only be a component of mitigation if pursued in conjunction with habitat-based mitigation measures and in other special, limited circumstances (e.g., white-nose syndrome in bats) acknowledged in a species-specific standard or other FWS conservation planning document. FWS also reflected this position in its 2023 FWS Mitigation Policy at 501 FW 2, Appendix 1, stating, “in rare circumstances, research . . . that is directly linked to reducing threats, or that provides a quantifiable benefit to the species, may be included as part of a mitigation package.”

Some types of site protection instruments have inherent limitations that do not sufficiently meet the durability standard of perpetual site protection. Lease agreements, conservation management agreements, and other variations of public lands agreements by definition do not qualify as permanent and thus present challenges for siting species mitigation projects on public lands. Mitigation on public lands should be permissible in limited instances for species-based reasons: (1) when used to offset an impact on public lands and the durability and additionality principles are sufficiently met and (2) when specific identified tracts of public land offer a scientifically verified unique habitat value to the subject species (e.g., a certain flyway habitat for migratory birds or a species’ last remaining population is located on public lands). Even in these circumstances, durability concerns should prevail as a deciding factor; while a tract of public land may offer a species’ unique habitat, that value is diminished if the land cannot be adequately protected in perpetuity to satisfy the durability principle.

Additionality Standard

Another important mitigation tenet is that it must add a quantifiable conservation benefit (i.e., ecological lift) beyond that of the targeted species’ baseline, which is referred to as additionality. The forthcoming Species Mitigation Rule should reward and incentivize mitigation in locations that offer imperiled species the greatest conservation benefit. An additionality test assesses whether mitigation provides a measurable benefit that would not have been generated *but for* the ecological outcomes that result from the conservation/restoration project. There are nuisances associated with additionality, such as the difference between preservation and restoration. The FWS should establish a baseline in conservation planning documents for protected species (such as the species-specific standard) against which additionality analyses can be made. It is also important to note that additionality is typically met when mitigation requirements include: (1) the placement of specific protections on lands with conservation value such as an easement prohibiting incompatible uses with the imperiled species’ use, (2) a management plan with established stewardship obligations, and (3) a non-wasting endowment.

If public documentation (such as the species’ listing decision or species-specific standard) identifies habitat loss as a major threat, the FWS should incentivize mitigation located on high-conservation-value lands that are threatened with

development risk over mitigation proposed on land with a low development threat. A development threat analysis is an especially relevant analysis for projects that are largely preservation in their approach. This concept could be implemented through a policy preference for mitigation sited in the highest and best ecological location for the species, e.g., a policy preference for mitigation in an imperiled species’ last stronghold of habitat within a rapidly developing region versus a mitigation option in a more rural region not subject to development pressures.

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Conservation bankers are uniquely positioned and experienced to provide a set of services using private resources, both land and investment, and often deliver the greatest benefit to species using this suite of private-sector-based services. As famously stated, land—they aren’t making any more of it. Thus, when faced with a diminishing private land base available for conservation purposes, the value of private lands for species’ conservation increases once that private land is dedicated under a conservation easement. The same potential value for species is present on certain public lands specifically designated to generate revenue like State Trust Lands, Bureau of Land Management, or the U.S. Forest Service System.

Advance Mitigation Hierarchy

One of the recurring concepts associated with improving the Rule includes the recognition that offset credits created in advance of particular projects eliminate temporal loss, reduce risk of project failure, increase certainty that ecological performance standards will be met, and allow maximum planning time and compliance flexibility for bank sponsors. For these reasons, when habitat is the limiting factor for an imperiled species, the USFWS should give explicit preference to conservation strategies that are implemented in advance of actions that adversely impact the species or its critical habitat. An explicit advance mitigation preference, which could be incorporated into the species-specific offset standard and other planning documents, will provide many protected and candidate species with the highest conservation value and best chance of recovery by providing financial incentives for species conservation ahead of impacts.

Incorporation of these concepts in the Rule will unlock incentives for substantial private investment in market-based approaches to efficiently deliver proven conservation outcomes and accelerate public-private partnerships under the ESA.

Rather than defining the advance hierarchy by mechanism, as is done in the 2008 Rule, the FWS should base the preference for implementing mitigation on the most advanced mitigation mechanisms available. For example, key development stages, such as the ones defined below, would inform evaluation of a mitigation project's "advanced" stage or status.

- Stage 1 (Approval): Bank instrument and/or parcel (under a programmatic agreement) has been approved. Land control has been confirmed.
- Stage 2 (Project Establishment): Some administrative milestones have been met. Conservation easement (or requisite site protection instrument) has been executed and recorded and is in full effect, and financial assurances have been fully funded for the interim and long-term management period. Credits become available at this stage for banks.
- Stage 3 (Interim Management): Some ecological milestones may have been achieved. Year 1 work has been completed (e.g., invasive plants removed, required infrastructure installed, impacting infrastructure removed, earthwork completed) and as-built certification has been approved. All monitoring obligations are being met. If under a restoration offset plan, project receives additional tranche(s) of credits.

- Stage 4 (Long-Term Management): All outstanding administrative and ecological milestones have been met. Ongoing monitoring and maintenance demonstrate that ecological performance standards are continuing to be met. Long-term management account is fully funded. Project receives the final tranche of credits.

The FWS and project proponents must be afforded flexibility when advance conservation is not possible or practicable from a project timing standpoint. Mitigation preference decisions should work in a stepwise manner: (1) first, project proponents should be directed to the most advanced (e.g., in Stage 4 versus Stage 2) mitigation option; (2) if no credits of the preferred type are available, then proponents should be directed to the most advanced credits of other mitigation options (higher ratios may apply); and (3) if no advance offsets of any mitigation option are readily available, the FWS should consider the next best available alternative for the species, including in-lieu fee programs and PRM or the early release of credits from low-risk bank projects. Implementation of the advance preference would also be informed alongside the species' particular habitat needs and priorities identified in FWS-issued conservation planning documents like the species-specific offset standard or recovery plans.

Realizing the Full Potential of the Rule

The Species Mitigation Rule that the FWS has proposed demonstrates a positive change in policy that should lead to the enhanced conservation of biodiversity. However, incorporating and articulating the concepts of equivalency, durability, and additionality and an advance mitigation hierarchy are necessary to provide incentives for project proponents, conservation bankers, resource agencies, and other stakeholders to realize the full potential of the Rule's conservation benefits. Most exciting, incorporation of these concepts in the Rule will unlock incentives for substantial private investment in market-based approaches to efficiently deliver proven conservation outcomes and accelerate public-private partnerships under the ESA. 🌿

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