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DEVELOPING THE “INTEGRATED TRANSPORTATION AND ECOLOGICAL ENHANCEMENTS FOR MONTANA” (ITEEM) PROCESS: APPLYING THE ECO-LOGICAL APPROACH

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Abstract

Construction and maintenance of transportation systems can result in direct, indirect, cumulative, and secondary effects on ecosystems and can adversely affect the long-term viability of fish and wildlife populations (National Academy of Sciences 2005; Forman et al. 2002). Typically, mitigating adverse impacts associated with highway systems occurs on a project-by-project basis and commonly attempts to restore the same affected resource near the site where the impact occurs, regardless of regional ecological conservation priorities. This piecemeal approach may fulfill regulatory requirements but greater mitigation value may be achieved for a similar investment by evaluating and prioritizing off-site mitigation opportunities important to sustaining ecosystem processes associated with water quality, sustainable resource management practices, wildlife habitat and connectivity, and other environmental assets that contribute to a high quality of life. Further, project-by-project environmental permitting practices frequently involve repetitious procedures that sometimes unpredictably delay project delivery. Agencies want more effective mitigation approaches, while streamlining planning and permitting processes for transportation programs.

A federal multi-agency team recently developed a guide to encourage agencies to consider alternative approaches for more effective ecological mitigation and efficient transportation program delivery. The guide, entitled, “Eco-Logical: An Ecosystem Approach to Developing Infrastructure Projects” (Brown 2006; referred to as “Eco-Logical”), provides a framework and examples for agencies to collaboratively and strategically plan infrastructure projects and related mitigation to conserve and connect important habitats while increasing the predictability and transparency of infrastructure planning processes. The ecosystem approach outlined in Eco-Logical encourages expedited regulatory approvals for infrastructure projects – in compliance with applicable laws – while maintaining high standards for safety, environmental health, and effective public involvement.

Following guidance outlined in Eco-Logical, an interagency working group in Montana created the “Integrated Transportation and Ecosystem Enhancements for Montana” (ITEEM) process. As the first known effort to adaptively apply the Eco-Logical guidelines, the cooperating agencies encountered and overcame challenging issues, acquiring perspectives that may be helpful to other collaborative endeavors working to establish an Eco-Logical approach for other regions.

This report summarizes events that led to piloting the suggestions in Eco-Logical. The Eco-Logical document is briefly reviewed, followed by an account of the efforts to develop the ITEEM process using the Eco-Logical guidance, including a description of challenges encountered during the development of the process. The final ITEEM process is also described. The intent of this report is to summarize the outcomes, accomplishments and recommendations of this project for the sponsors and team members. The report also seeks to help other interagency collaborative efforts seeking alternative approaches to increase efficiency of transportation project delivery while mitigating adverse impacts where the conservation efforts are most needed.

To view or download a copy of the full report, please visit: http://www.mdt.mt.gov/research/docs/research_proj/integrated_transportation.pdf