

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Literature Review and Development of Study Plan to Assess the Effects of Coalbed Natural Gas Activities on Fish Assemblages
Type of Project: Technical Assistance
Funding Agency: U.S. Department of the Interior, Bureau of Land Management
Effective Dates: 10/01/04-12/31/05
Funding Amount: \$30,000
Investigators and Agency Representative: Principal investigator: Alexander V. Zale, Montana Cooperative Fishery Research Unit, Montana State University, Department of Ecology, Bozeman, MT 59717 (406) 994-2380, zale@montana.edu ; Co-principal investigator: Robert G. Bramblett, Montana State University, Department of Ecology, Bozeman, MT 59717, (406) 994-4433, bbram@montana.edu Graduate student: Windy N. Davis, Montana State University, Department of Ecology, Bozeman, MT 59717 (406) 994-6643, wdavis@montana.edu Agency contact: USDOI BLM Project Coordinator: Joseph Platz, BLM, Miles City Field Office, 111 Garyowen Road; Miles City, MT 59301, (406) 233-2867, Joseph.Platz@blm.gov
Project Abstract: The recent development of coalbed natural gas (CBNG) resources has created a need for scientifically sound information by agency, tribal, and industry resource managers in Montana and Wyoming regarding its potential effects on the fish assemblages in nearby streams. Because CBNG development involves production and disposal of coal bed ground water (often containing high concentrations of dissolved ions, with elevated sodium adsorption ratios and electrical conductivity), as well as surface environment modifications, potential exists for substantial effects on aquatic environments and fauna. Little research has been conducted on the effects of CBNG development on fish assemblages. Montana State University agrees to : <ol style="list-style-type: none">1. Conduct a comprehensive literature review on the effects of CBNG development and discharge of coalbed ground water on fish community assemblages. This would include assembling and summarizing all published and unpublished research.2. Develop a study plan and proposal to conduct a multiyear research project on the effects of CBNG development on fish assemblages in streams in Montana and Wyoming.3. Purchase necessary supplies for the research project.
Outcomes with completion dates (reports, publications, workshops, videos, etc.): Deliverables: <ol style="list-style-type: none">1. A comprehensive literature review on the effects of CBNG development and discharge of CBNG ground water on fish assemblages. This would include assembling and summarizing all available published and unpublished research in a reportable format.2. A study plan and proposal to conduct a multiyear research project on the effects of CBNG on fish assemblages in streams in Montana and Wyoming.3. A list of the supplies purchased for the research project. Three copies of a draft report, including the literature review, study plan and proposal, and list of supplies purchased will be submitted to the BLM no later than December 31, 2005. The final report will be submitted by February 1, 2006.
Keywords: Coalbed natural gas, fish assemblages, literature review, development of study plan
<u>For Administrative use only:</u> <i>Date Annual Report Received:</i> <i>Date Final Report Received:</i> <i>Publications, etc. on file:</i>

