BIOLOGICAL **SERVICES**

WETLAND AND STREAM ASSESSMENT AND DELINEATION

KU Resources conducts wetland assessments and delineations for any size projects. The purpose of these determinations is to identify the presence of wetlands, and to delineate the lateral extent of such wetlands. Our personnel are certified in the application of the 1987 Corps of Engineers Wetland Delineation Manual and subsequent addendums. If wetlands are identified, these areas are delineated with sequentially numbered pin and/or ribbon flagging to provide points to survey the boundaries. The findings will be summarized in a report.

In addition, KU Resources conducts stream assessments and delineations. Our personnel will track any streams from the onsite source area to the onsite termination area. During the performance of this work, our personnel will place sequentially numbered pin and/or ribbon flagging to identify the approximate center and length of any streams on the subject property. KU Resources will then provide a report that summarizes our findings.

ECOLOGICAL STUDIES AND AGENCY COORDINATION

KU Resources performs the following ecological studies: macro-invertebrate surveys in bodies of water, flora/fauna evaluations, and PNDI Environmental Reviews. Our personnel also can provide agency coordination, if needed.

WETLAND AND STREAM RESTORATION AND MITIGATION

KU Resources conducts wetland and stream restoration and mitigation plans, including agency coordination. This process usually starts with a wetland or stream survey. The impacted area is confirmed through field investigation and a review of the proposed project activity areas.

Regarding wetland/stream mitigation, our personnel will evaluate conditions onsite and nearby (offsite) to determine if these areas are viable options for the proposed mitigated areas. The Mitigation Plan typically includes a site location map, plans, and a narrative of the mitigation activities. The Monitoring Plan will establish a scheduled monitoring program and plan to maintain the proposed constructed wetland/stream habitats. In addition, KU Resources conducts improvements of existing streams.

WATER OBSTRUCTION AND ENCROACHMENT PERMITS

KU Resources assists clients through the process of permit applications, specifically water obstruction and encroachment permits. If a client is seeking a Water Obstruction and Encroachment Permit, an Environmental Assessment Form must be approved by the PADEP as part of the permit review process. Our personnel have the knowledge and training to complete and submit this form to the PADEP. In addition, our personnel are knowledgeable in conducting all three of the Level 2 Rapid Assessments and submitting the results to the PADEP.