**PROJECT OVERVIEW REPORT**

1. Center Identifying Number
   233-RU0744

2. Project Title
   In place Rehabilitation of Pipes Using Polymer Composites

3. Principal Investigator
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5. Project Description
   New Jersey Department of Transportation manages a number of transportation structures that have pipes of various sizes that act as culverts. It is a challenge to repair and rehabilitate pipes with diameters less than 36 inches because of the problems of accessibility. An innovative solution is needed for in-place repairing these pipes.

   It is proposed to evaluate fiber reinforced composites to line the inside of these pipes. The composites can be used to both to improve the flow by filling-up any damages inside the pipe and strengthen them. In addition the inorganic polymer to be used will provide abrasion resistant and durable surface that will improve the flow of water. The viability of the system will be demonstrated by lining inside of two clay pipes of culvert. The demonstration project will be monitored over one cycle of winter. If the success of the system is established, it can be used for similar situations involving pipe culverts throughout state.

6. Dates and Budget
   Start date: 11/17/2008
   End date: 11/17/2010
   Total Dollars: $30,360

7. Keywords
   Composite, rehabilitation, pipe, in-place repair, inorganic, coating, fiber reinforced