

Quarterly Report (January - March 2008)

TPF-5(164) "Fish Passage in Large Culverts with Low Flows"

In January 2008 we received 105,000\$ (30K AL, 30K VT, 15K MI and 30K FHWA) for the TPF-5(164) study. We started the project in February 2008.

The first step was to design and build an experimental testing apparatus where all the tests will be conducted. The testing apparatus will be completed middle of July 2008. The testing apparatus consists of a head box, culvert and tail box system. The flow depths and flow velocities are controlled using the interaction of a pump, flap gate and a flow meter. As proposed we will only model the symmetrical half of the culverts allowing larger scale models (1:2 or 1:3). The velocity flow fields will be recorded using ADV (Acoustic Doppler Velocimetry) and PIV (Particle Image Velocimetry). The hydraulic grade line in the culvert will be recorded using 14 data points. Ultra sonic sensors will measure the hydraulic grade line. In the period from 1-1-08 to 3-31-08 we received 105,000\$ and spent \$ 37,454.66.

For the TPF-5(175) study "Updating U.S. Precipitation Frequency Estimates for the Southeastern Region" there was no activity in the reporting period form January to March 2008.