**Federal Highway Administration (FHWA) Vulnerability Assessment & Adaptation Pilot Project Meeting Summary**

***Agenda Topics***

Time Allotted | 2:05pm-3:30pm | Agenda Topic- - FHWA Vulnerability Assessment and Adaptation Options Results of the Critical/Vulnerable Infrastructure Identification Exercise

Actual time: 2:18pm-3:42pm

1. **Project Update**

* Fourth and final engagement of the project. Last september. Under
* 80-85% completion

1. **Reintroduction to the Scope of Works**
   1. Brief recap of the project goals

Climate change vulnerability assessment and adaptation pilot focused on adaptation pilot. Presenting the results to the MPO and in September to the FHWA. Full documentation will be available then. This is just the flavor of the results. The technical memorandum will be available then.

First phase- collecting data. Has been a process extending into all of the phases

15 of the 17 flood basins were incorporating into the study

The last two will be available in June 12, 2014 and we will try our best to include into the final phase of the study. Vulnerability assessment

Second phase- infrastructure vulnerabilility, exposure analysis. December meeting had an exercise with dots to identified these areas (22 total- 6 narrowed down).

Third phase- mitigation strategies. Deep into this phase.

Fourth phase- document findings, recommendations, feedback and comments to prepare it for presentation to the FHWA. Will be distributed this summer 2014 through the MPO.

* 1. Overview of agenda

1. **Incorporating resilience into the 2040 Long Range Transportation Plan** 
   1. How can performance measures help us target limited resources?
      1. **Preserve exisiting systems**
      2. Reduce crashes and vulnerability- Program dollars towards this bucket
         1. Local elected officials
         2. Investing
         3. November adoption of the plan
      3. **Minimize congestion for drivers and shippers**
      4. **Expand alternatives to driving**
      5. **Support growth of Economic activity centers**
2. **Pilot: Preliminary results of vulnerability assessment and adaptation analysis** 
   1. Step I: Develop risk scenario. TBRPC helped immensely with the modelling. Tarpoon Springs event 1981.
   2. Step II: Assess potential disruption impacts

* Baseline/Fully recovered:
* Full Disruption
* Etc.
* Estimate changes in (leisure travel is weighted not as significantly as the other travels).
  + Vehicle miles traveled
  + Vehicle hours of delay
  + Trips (focus on trip losses).
* REMI considers direct, indirect, and induced impacs of transoirtation disruption scenarios, using changes in VMT (not central), delay, and trips. Impacts are measured in terms if weekly work whours, income. And gross regional product. Next steps: estimate range of potential disruption for each scenario (Steven C.- After action report 2004).
  1. Step III: Risk Mitigation Investment Scenarios
     1. Strategy type (Baseline, Tier I (Interstates), and Tier 2 (+Arterials)).
     2. Limit **Exposure**
     3. Mitigate **Sensitivity**
     4. Enhance **Adaptive Capacity** (recovery)
     5. Next steps: estimate disruption mitigation benefits of strategy packages

1. **LRTP: Results of risk mangement investment analysis** 
   1. Illustrative Results (all segments except last; only covering 2).
      1. **Memorial Highway**- GRP: $19.7 MM
      2. **South 20th/22nd**- GRP: $4.6 MM
      3. Selmon Expresway
      4. Gandy Boulevard
      5. Courtney Campbell Causeway
      6. I-75 Alafia River (bridge)
2. **Next Steps**

* Rich Clarendon- More detailed, resiliency (see LRTP Needs Assessment notes).