USACE Climate Change Adaptation

NATO Advanced Research Workshop
Hella, Iceland

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• Goal: Practical, nationally consistent, and cost-effective measures to reduce potential vulnerabilities resulting from global changes

• Approach:
  – Collaborative, include science agencies in developing policies and guidance for best available science
  – Parallel rather than sequential
  – Phased to allow for refinement
Coastal

- Institute nationwide datum and perform comprehensive evaluation of project datums (2007-2009)
- Update existing sea-level change guidance (2009)
- Update coastal vulnerabilities index (now)
- Develop guidance on sea-level change impacts, response, and adaptation (now)

Hydrology

- Defining user needs:
  - USGS Circular 1331 Climate change and water resources management—A federal perspective (Feb 2009)
  - Decadal to multi-decadal decisions: Addressing Climate Change in Long-Term Water Resources Planning and Management: User Needs for Improving Tools and Information (June 2010)
  - Sub-hourly to decadal decisions: Use of Weather and Climate Forecasts in Near Term Federal Water Resources Management: Current Capabilities, Required Capabilities, and Gaps (In progress, expected fall 2010)
Hydrology

• Addressing user needs:
  – Science agency responses (2010-2011)
  – Nonstationarity workshop: *Nonstationarity, Hydrologic Frequency Analysis, and Water Management* (Jan 2010)
    • Proceedings (summer 2010)
    • Special issue JAWRA (16 papers)
    • Provide basis for consistent policies
  – Aug 2010 workshop: *Assessing a Portfolio of Approaches for Producing Climate Change Information to Support Adaptation Decisions*