

Technical Committee on Hydrology and Hydraulics

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Chair of TCHH

Technical Committee on Hydrology and Hydraulics (TCHH)

- Member Stats
 - Total number of members – 17 (23 July 2008)
 - **Hydraulics consists of many specialties.** Need sufficient members to adequately represent diverse perspectives and areas of expertise.
 - Hydrology
 - Roadway Hydraulics
 - Bridge Hydraulics
 - Environmental
 - Water Quality
 - River Stability
 - Climate Change Impacts
 - Coastal Hydraulics
 - Pipe Materials
 - Infrastructure Management

Recent TCHH Meetings

August 2010 TCHH Meeting
+ 2 remote members attending



November 2011
TCHH Meeting
+ 5 remote members
attending



TCHH Publications

- 2007 Drainage Guidelines
 - First Published 1970
- 2005 Model Drainage Manual
 - First Published 1987
- **2012-2013 Drainage Manual – in progress**
 - Replaced Model Drainage Manual
 - Two Volumes, Policy and Procedures
 - 3 new chapters: Wetlands, Stream Stability and Software.
 - TCHH members worked on reformatting chapters and updating content.

TCHH Publications

- 2013 AASHTO Drainage Manual (continued)
 - Pooled Fund 1186 provided initial funding for a consultant (Ray Jorgenson Associates, Inc.), 12 states participated. (2009-2011)
 - 20-07 (286) Finalization of a new AASHTO Drainage Manual. Contract expires July 30, 2012.
 - Volume 1, Policy - TCHH balloted and unanimously approved for publication.
 - Volume 2, Procedures – Camera Ready copies nearly completed expect to ballot TCHH within a month.
 - **SCOD** will be balloted soon, Volume 1 and Volume 2 may be balloted separately.
- What's next?

TCHH Research

- TCHH promotes Hydrology & Hydraulics research, prioritizes, makes recommendations and TCHH members volunteer for project panels.
- FY2013 NCHRP Hydraulics related research:
 - 20-07 “Hydrology for Water Quality Analysis and Design” was just funded.
 - 04-39 “Field Performance of Corrugated Pipe Manufactured with Recycled Polyethylene Content”
 - 24-39 “Evaluation and Assessment of Environmentally Sensitive Stream Bank Protection Measures”
 - 24-40 “Design Hydrology for Stream Restoration and Channel Stability at Stream Crossings”
- FY2012 had 7 projects on scour, culvert inspection, water quality and volume controls.

TCHH Research

- 10 Active Pooled Fund Projects related to hydrology, hydraulics and water quality:
 - Fish Passage in Large Culverts with Low Flows
 - Precipitation Frequency Project for the Southeastern Region, Michigan and Wisconsin, Midwestern Region, Northeastern Region
 - In-situ Scour Testing Device
 - Bridge Pier Scour Research
 - HY-8 Culvert Analysis Program
 - SMS – (Surface Modeling Solution) and WMS – (Watershed Modeling System)

TCHH Opportunities

- Support Hydrology and Hydraulic Engineering in Transportation with Manuals, Research and being advocates on emerging issues and national policy.
- TCHH Meetings:
 - Cooperation and networking between Hydraulic Engineers in state DOTs.
 - FHWA & NCHRP & AASHTO Liaison (SCOPE, SCOB and SCOD) provide updates.
 - Forum to provide feedback
 - Joint meetings with TRB AFB60 every other year.
 - Sharing technical expertise and experiences

TCHH Opportunities

- Publish “Hydrolink” newsletter twice a year (contact me to get on the emailing list)
- Support National Hydraulics Engineering Conference.
 - Participate on Planning Committee
 - Coordinate with TCHH meeting every other year

TCHH Challenges

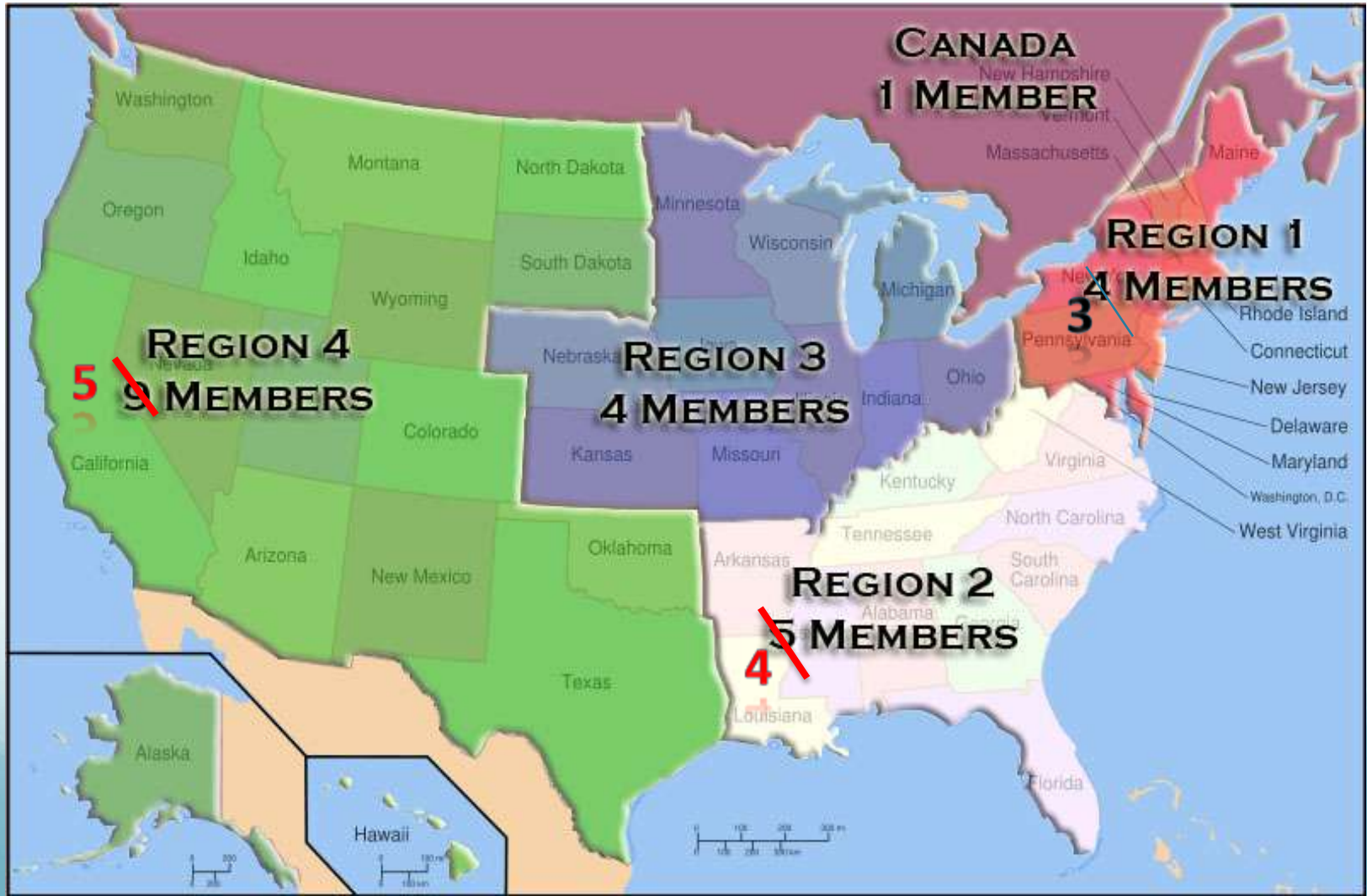
- Cross Functional Coordination
 - Overlap with roads, bridges, environmental, materials, construction, maintenance, climate change and others.
- Environmental Regulations
 - MS-4
 - NPDES
 - TMDL
 - Impaired Waters
 - Watershed District Requirements
 - Effluent Limits
 - Volume Control
- Climate Change and Impacts on Drainage Systems

TCHH Challenges

- Membership Challenges
 - Member state travel restrictions reduce meeting attendance. – fewer meetings & remote access.
 - Reduction in number and duration of meetings does impact productivity.
 - Down sizing TCHH membership reduces number of people available to do the work and reduces continuity.
- TCHH is one of the few Technical Committees that produce products independently.
 - We need sufficient members to get our work done.

TCHH Membership

(from 23 members in 2008 to
17 members in 2012)



TCHH Challenges

- Have turned down state requests to join TCHH.
- SCOD Operation Guidelines: “Technical committee size is governed by the committee’s workload, but the preferred committee size consists of four members per region.”
- Membership Proposal
 - Increase length of in person meeting to 4-5 days on years where only one meeting is scheduled.
 - Request SCOD approval to add TCHH members.
 - Up to 22 members with a minimum of 4 from each region.

The Technical Committee on
Hydrology and Hydraulics
thanks SCOD Members for your support.

