



US Army Corps of Engineers



# Water Management and Reallocation Studies Planning Center of Expertise

2-3 June 2009

Water Supply Workshop  
Tulsa, OK

***Building Strong*®**



US Army Corps of Engineers



Technical Director – Peter Shaw at SWD

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# Today's Objective

Describe the role of the WMRS PCX in planning support to USACE and the Nation for watershed-oriented water resource management and water supply storage.



# Why Planning Centers of Expertise?

- In August 2003, the Director of Civil Works designated **six national Planning Centers of Expertise** to enhance the Corps' planning capability for **inland navigation, deep draft navigation, ecosystem restoration, coastal and storm damage reduction, flood damage reduction, and water supply and reallocation.**
- The Centers are part of **the Corps' national initiative** to improve the quality and effectiveness of water resources planning, referred to as the **Planning Excellence Program.**
- The role of the Planning Centers is to **focus on plan formulation and the complex technical evaluation associated with formulation.** Each Planning Center is led by a team of experts specialized in plan formulation, environmental sciences, economics, and related technical disciplines.



## PCX Management and MSC Support

PCX Executive Director - MSC Chief, Planning & Policy  
(Jo Ann Duman)

PCX Technical Director - MSC Senior Economist (Peter Shaw)

MSC Technical Support

- Regional Planning Board
- MSC Chiefs of Engineering and Operations
- Water Supply Business Line Mgr (Programs)
- Water Control SME (Ron Bell)
- Others – RTS or District Plan Formulators



## Mission Statement (Roles and Responsibilities)

The Centers are key to strengthening planner core competencies by assisting Project Delivery Teams with technical expertise, peer reviews; model certifications; technology transfer; planner training and providing lessons learned and best practices to the larger Planning Community of Practice

### **Roles and Responsibilities**

- Provide consulting services and accomplishment of key analytical components of very costly, highly complex and controversial studies as directed by the PAB
- Provide for ATR, IEPR and model certification
- Provide advice to HQUSACE, the laboratories and other stakeholders
- Assist in establishing R&D priorities
- Be a proponent for training opportunities & program for sharing lessons
- Supplement HQUSACE in policy compliance review on projects where the center has had no prior participation
- Enhance basic planning expertise throughout the Corps by providing shadowing opportunities of individuals with specialized planning expertise.





## PCX Missions

- **Support and promote Corps of Engineers planning technical excellence** — advisory and coordination and management services, including:
  - ✧ Technical water supply and other water management analyses (H&H, economic, financial, environmental)
  - ✧ Report preparation
  - ✧ Consultation and advice (technical and policy)
  - ✧ Agency Technical Review (ATR) and Independent External Peer Review (IEPR)
  - ✧ Water storage agreement preparation and review
  - ✧ Training
  - ✧ Capturing institutional knowledge and lessons learned



## PCX Missions (cont.)

- **Build strategic relationships with stakeholders** in water management planning at every level, to promote collaboration on holistic solutions to water resources needs, including:
  - ✧ Headquarters: RITs, Planning CoP, Business Line Managers, RBCs and Districts
  - ✧ Other PCXs (e.g., Flood Risk Management or Ecosystem Restoration)
  - ✧ Other interested Federal agencies (e.g., USGS, FWS)
  - ✧ State and river basin water management agencies
  - ✧ Other critical stakeholders (e.g., power marketing agencies)





## PCX Missions (cont.)

- **Develop and maintain the capability to develop policy guidance & perform policy review** for water supply, reallocations, and study formulation issues
- **Identify, monitor and maintain water management expertise on policy, agreements, and technical analysis**, by maintaining a Corps-wide knowledge base of policy, guidance, relevant Corps projects, and planning lessons learned
- **Assist Headquarters** in water management related policy studies and development of guidance
- **Assess research and development needs** for future skills and technology
- **Support the Headquarters water supply business line manager**



## Mission – Responsibilities

*The Centers are key to strengthening planner core competencies by assisting Project Delivery Teams with technical expertise; peer reviews; model certifications; technology transfer; planner training; and providing lessons learned and best practices to the larger Planning Community of Practice.*

- **Technical Services**

- Policy and technical guidance to Districts concerning plan formulation and technical analysis for water supply, storage reallocation, watershed management, and multipurpose reservoir cost allocation and cost sharing
- Coordination for related project issues (hydropower, recreation, dam safety, river basin water management and control, etc.)
- Policy guidance on peer review and model certification requirements



## Mission – Responsibilities (cont.)

- **Peer Review**
  - Review and certify project Review Plans for approval by MSC Commander
  - Coordinate ATR team formation and facilitate ATR process (ongoing): Chatfield Reservoir Storage Reallocation; Ohio Riverfront, Cincinnati, OH Recreation
  - Coordinate and facilitate IEPR process (future): Alabama-Coosa-Tallapoosa (ACT) River Basin Water Control Manual Revision; Pine Mountain Lake, AR GRR
- **Coordination with Cost Estimating CX** – No activity to date; continue to assure that this requirement is in Review Plans
- **Research and Development** – No activity to date



## Mission – Responsibilities (cont.)

- **Training**
  - Develop and deliver Water Supply and Watershed Planning training modules for Planning Associates classes (annual)
  - Organize and deliver Water Supply Workshop, Dallas, TX (Oct 2008)
- **Outreach** (Broader Water Resources Community – National and International)
  - Participate in Water Supply Conference, Tulsa, OK (Jun 2009)
  - Participate in Western States Watershed Study (ongoing)
  - Support to Texas, Oklahoma, and Kansas for their State Water Plans (ongoing)



## Mission – Responsibilities (cont.)

- **Planning Model Certification** (options under consideration for FY 2009 implementation and beyond)
  - Certification of existing IWR-MAIN water supply planning model
  - Development and certification of a simple updated-project-cost model for storage reallocations
  - Development and certification of a simple model for annualization of principal and interest for storage repayments
  - Development and certification of a standard model for water storage use accounting



## Mission – Responsibilities (cont.)

- **Policy Development Support**
  - Development of an SWD policy paper recommending changes in the delegated level of approval authority for storage and reallocation agreements (Feb 2008)
  - PCX review comments on draft EC, "Water Supply Storage and Risk Reduction Measures for Dam Safety" (Jul 2008), developed from a draft SWD policy issue paper on water storage reallocation and dam safety classification policy
- **Process Improvement** – Corps-wide coordination with MSC and District leaders of Planning, Engineering, O&M, Landscape Architecture, and Real Estate CoPs, to develop, update, and maintain a spreadsheet database of potential ATR team members — database is on SharePoint for use as a resource by all PCXs
- **Lessons Learned (Sharing)** – Active participation in national-level PCX meetings, workshops, and teleconferences





## Guidance

- Final Information Quality Bulletin for Peer Review, Office of Management and Budget, 16 Dec 04
- EC 1105-2-407, Planning Models Improvement Program: Model Certification, 31 May 05
- EC 1105-2-408, Peer Review of Decision Documents, 31 May 05
- EC 1105-2-410, Review of Decision Documents, 22 Aug 08
- Water Resources Development Act of 2007, Sections 2034 and 2035
- *Draft EC 1165-2-209, Civil Works Review Policy, 6 Jan 09*



# Types of Review

- District Quality Control
- Agency Technical Review
- Independent External Peer Review
- Policy & Legal Compliance Review
- Safety Assurance Review
- Public Review



# Review Plans

Purpose: Describes the scope and execution for all anticipated levels of review

- Part of the PMP
- Structured as a stand alone document
- Must identify the review requirements, process, cost, and schedule and provide the opportunity for public comment
- Coordinated with appropriate PCX
- MSC Commander approved
- Must be posted on home district's public website



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## Review Plan Checklist For Decision Documents

**Date:**  
**Originating District:**  
**Project/Study Title:**  
**PWI #:**  
**District POC:**  
**PCX Reviewer:**

Please fill out this checklist and submit with the draft Review Plan when coordinating with the appropriate PCX. Any evaluation boxes checked 'No' indicate the RP may not comply with ER 1105-2-410 (22 Aug 2008) and should be explained. Additional coordination and issue resolution may be required prior to MSC approval of the Review Plan.

REQUIREMENT	REFERENCE	EVALUATION
<b>1. Is the Review Plan (RP) a stand alone document?</b>	EC 1105-2-410, Para 8a	Yes <input type="checkbox"/> No <input type="checkbox"/>
a. Does it include a cover page identifying it as a RP and listing the project/study title, originating district or office, and date of the plan?		a. Yes <input type="checkbox"/> No <input type="checkbox"/>
b. Does it include a table of contents?		b. Yes <input type="checkbox"/> No <input type="checkbox"/>
c. Is the purpose of the RP clearly stated and EC 1105-2-410 referenced?		c. Yes <input type="checkbox"/> No <input type="checkbox"/>
d. Does it reference the Project Management		d. Yes <input type="checkbox"/> No <input type="checkbox"/>

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## Communications Strategy

**Promote awareness within the Corps family** about what we are doing, why we are doing it, and how the process will work — **develop a two-way dialogue** on integrating our principles into programs and projects early in the planning process — **communicate the Center's resources and capabilities.**

**Activities** (some accomplished, some future):

- Develop newsletter/bulletin – brochure – PCX web site
- Survey clients/partners/stakeholders about ongoing and potential activities and needs for our services – develop mailing list
- Identify meetings, conferences to attend – host annual workshop/seminar
- Representation at Planning CoP conference



## Communications Strategy (cont.)

- **Capture institutional knowledge – Lessons Learned**
  - **Facilitate shared knowledge and experience** among District-level planners, via PCX web site/SharePoint:
    - Discussion board
    - Wiki knowledge base
    - Indexed archive of results of ITR/EPR actions
  - **Maintain and publicize libraries/databases** of mission-related information: pertinent Corps guidance; available training; ongoing/prospective studies (water supply, water reallocation, watershed management); Corps reports; Corps projects with water management/reallocation elements
  - **Share items of interest** via PCX newsletter/bulletin/SharePoint





## Looking to the Future

- Ongoing severe droughts are regional problems of national concern. There are potential opportunities for PCX involvement due to:
  - **Increased interest in Corps water supply planning support**
    - Water demand estimation and water use management practices
    - Reallocation of storage in individual Corps reservoirs
    - Watershed-wide integrated management of water storage in Corps and other reservoirs
  - **Increased interest in integrated and collaborative watershed management**
    - Identification and analysis of watershed management tools upstream and downstream of lakes that impact water supply and water quality (e.g.: land use, vegetation management, sediment management, runoff management)
    - Watershed systems analysis for optimal balancing of operations for multiple project competing purposes (water supply, hydropower, navigation, recreation, ecosystem/fish and wildlife/ endangered species protection)
  - **Need for coordination of related “orphan” business lines** such as lake-related recreation and watershed planning



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