## Discussões e Troca de Experiências sobre Sistemas de Transposição de Água

## AGENDA

October 23 (Monday)		
10h - ANA: PISF Operation & Regulation Challenges Superintendence presentations on challenges related to PISF SFI, SRE, SPR, SOE	<ul> <li>Current challenges related to PISF institutional framework, operational planning, monitoring, control and enforcement</li> </ul>	
14h - USGS/USBR: Water Transfer Projects in USA & CVP Presentation on overview, background, institutional roles & current challenges PISF Technical Visit (description & general impression)	<ul> <li>Overview of water transfer systems in US, institutions involved, current challenges, strategies and procedures related to operational planning, monitoring and control</li> </ul>	
October 24, (Tuesday)		
<ul> <li>9h - USGS/USBR - Operation</li> <li>Operational planning &amp; pump scheduling: guidelines for operations at annual, monthly and daily scales</li> <li>Definition of water demands</li> <li>Hydrologic predictions</li> <li>Operational procedures during droughts</li> <li>Operational procedures during emergencies</li> <li>Operational planning documents</li> </ul>	<ul> <li>How the system operation is planned and what is the preparation period? What hydrological scenarios are used? How water demands are defined? How different institutions participate in the operational planning?</li> <li>How operation plans are revised throughout the year? Does that affect existing plan and actual operation?</li> </ul>	
	<ul> <li>How adverse situations such as droughts affect operational plans and actual operation?</li> <li>What is historical record of emergency situations (such as channel breaches and disruption of pump stations) and their impacts on operation? How those situations are handled?</li> </ul>	
<ul> <li>14h - USGS/USBR - Monitoring &amp; Control</li> <li>Operational monitoring &amp; control: water levels &amp; flows within the system, location and sample frequency</li> <li>Control of water users: water withdrawals monitoring, equipment, automation</li> <li>Irregular water users: how to control and existing penalties</li> <li>Admission of new water users</li> </ul>	<ul> <li>How is the system monitored (water levels, volumes and withdrawals)? With which frequency variables are measured and monitoring devices and sensors are checked/calibrated? What is the acceptable range of errors in flow/volume measurements?</li> <li>Operational reports are generated automatically? Who has access to such reports?</li> <li>Which institutions or water users participate in the supervision of the system operation (what if the water use do not get the water requested)?</li> <li>How are illegal water uses controlled? What kind of penalties/fees apply to unauthorized water use or action? How to deal with such illegal actions that might affect operation?</li> </ul>	





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October 25 (Wednesday)	•
<ul> <li>9h - USGS/USBR – System performance &amp; maintenance</li> <li>Indicators of system performance</li> <li>Estimates of water losses in channels and rivers</li> <li>Channel/groundwater interaction</li> <li>Estimates of pump efficiencies</li> <li>System maintenance: procedures and guidelines to guide maintenance procedures</li> <li>Requirements for initiating commercial operation</li> </ul>	<ul> <li>How much water is lost through the system? How water losses are measured and controlled? With which frequency such water losses are assessed?</li> <li>What are the actual pump efficiencies? How pump efficiencies are measured and assessed? How pump efficiencies affect system performance and how to keep then at good standards?</li> <li>How the system's performance is assessed? Which performance indicators are used?</li> </ul>
<ul> <li>14h - USGS/USBR - Water charges &amp; system financing</li> <li>Water use contracts</li> <li>Water use payment: water charges applied to different water users &amp; water charges during droughts</li> <li>Water charge structure (which elements are considered in it calculus)</li> <li>Energy needs &amp; demand forecasting</li> <li>Mechanisms &amp; procedures for setting water charges</li> <li>Operational &amp; maintenance costs &amp; system sustainability</li> </ul>	<ul> <li>How water charges are calculated? Do water charges change according to water use characteristics? Do water charges change during dry seasons or drought situations?</li> <li>How water and energy demands are forecasted? How to manage energy costs and its impacts in water charges?</li> <li>How water charges are billed and paid (over planned deliveries or measured deliveries)? What kind of insurance exists to cover delinquent users or insufficient income?</li> </ul>
October 26 (Thursday)	
USGS/USBR: internal preparation & discussion	
October 27(Friday)	
<ul> <li>9h - Meeting with Directors</li> <li>USGS/BoR presentation on discussion findings &amp; recomendations</li> </ul>	<ul> <li>What are your major impressions about PISF and its challenges, and what key recommendations you might have to improve its performance and sustainability in the future.</li> </ul>



