

2021 NASA Applied Sciences Program, WWAO & Water Resources Team Meetings

October 5-8, 2021

Virtual Meeting

Zoom Meeting Link: <https://csumb.zoom.us/j/81802791318>

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Webinar ID: 818 0279 1318

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Tuesday, October 5, 2021
WWAO Annual Team Meeting

Time (PDT)	Title	Speakers	Affiliation
8:10 AM	Presenters Join for A/V Check		
8:30 AM	Welcome and Updates from the NASA Western Water Applications Office (WWAO)	Indrani Graczyk	NASA WWAO
8:50 AM	WWAO Needs Assessments for the Rio Grande and Missouri Basins	Catalina Oaida	NASA WWAO
9:00 AM	WWAO Impact Assessment Process and Highlights	Amber McCullum	NASA WWAO
9:10 AM	WWAO Mission Engagement	Stephanie Schollaert Uz	NASA GSFC
9:20 AM	WWAO Water Portal	Amber Jenkins	NASA WWAO
9:35 AM	WWAO Stakeholder Engagement Strategy	Catalina Oaida, Mark Davidson, Forrest Melton, Stephanie Granger	NASA WWAO
9:50 AM	Research to Operations Updates	Amber McCullum, Forrest Melton	NASA WWAO
10:00 AM	BREAK		
	WWAO Project Updates		
10:15 AM	New Mexico Evapotranspiration	Gregory Halverson	NASA JPL
10:30 AM	Drought Monitoring Across the Navajo Nation	Amber McCullum	NASA ARC
10:45 AM	Irrigation Management with SIMS and CropManage	Alberto Guzman	NASA ARC
11:00 AM	Higher Resolution Soil Moisture for USDA	Rajat Bindlish	NASA GSFC
11:15 AM	Remote Sensing of ET in the Upper Colorado River Basin	Chris Hain	NASA MSFC
11:30 AM	Western LDAS and Drought Monitoring in Colorado	Jessica Erlingis	NASA GSFC
11:45 AM	Using NASA's Airborne Snow Observatory Snow Water Equivalent Products to Improve Runoff Forecasting	Kat Bormann	ASO, Inc.
12:00 PM	BREAK		
	Columbia River Basin: New Project Overviews		
12:30 PM	Towards Consistent, Accepted, and Readily Available Watershed Scale Summaries of Evapotranspiration and Irrigated Lands Data for Improved Water Management in the Columbia River Basin	Jordan Beamer, Justin Huntington	Oregon WRD, Desert Research Inst.
12:38 PM	Long-term mapping and trend analysis of double-cropping extent in the Columbia River Basin with Landsat and Google Earth Engine	Michael Brady	Washington State University
12:46 PM	Accuracy Assessment of Satellite-based ET mapping for improved water and nutrient management in the Magic Valley	Erin Brooks	Univ. of Idaho
12:54 PM	Improving predictions of water yield and sediment loads in the Columbia River Basin through the incorporation of Landsat-derived vegetation parameters into an existing -based hydrology and erosion model (WEPPcloud)	Mariana Dobre	Univ. of Idaho
1:02 PM	Operational application of NASA satellite-based snow remote sensing for day-to-day USDA Natural Resources Conservation Service (NRCS) snow monitoring and river prediction in the Columbia Basin	Sean Fleming	USDA NRCS
1:10 PM	Analytic Nexus for Assessment of Remote Riverine Environments from Space (ANARRES)	Seth White, Laura Burns	Columbia River Inter-Tribal Fish Commission
1:18 PM	WWAO Community Discussion and Input to the WWAO Program (Moderator: Indani Graczyk)	All	
1:55 PM	Concluding Remarks and Adjourn	Indrani Graczyk	NASA WWAO
2:00 PM	Adjourn		

Wednesday, October 6, 2021
Water Resources Team Meeting: Day 1

Time (PDT)	Title	Speakers	Affiliation
8:30 AM	Presenters Join for A/V Check		
9:00 AM	Welcome and Updates from the NASA Applied Sciences Program	Lawrence Friedl	NASA HQ
9:15 AM	Program Manager's Welcome	Brad Doorn	NASA HQ
	SWE and Water Supply (Moderator: Christine Lee)		
9:20 AM	Analysis of Agricultural Water Supply-Demand Imbalance During the Unprecedented California Drought Using NASA Satellite Data	Noah Molotch	Univ. of Colorado, Boulder
9:30 AM	Developing an Operational Framework for Incorporating Remote Sensing and Snow Energy Balance Modeling into Runoff Forecasting in Snow-dominated Watersheds in the Colorado River Basin	McKenzie Skiles	Univ. of Utah
9:40 AM	Averting Drought Shortages in the Colorado River: Transitioning Long-Range, Data-Infused Scenario Modeling to Operations of the Central Arizona Project	Enrique Vivoni	Arizona State Univ.
9:50 AM	Questions and Discussion		
	Hydrologic Forecasting I (Moderator: John Bolten)		
10:00 AM	Integrating NASA Earth Systems Data into Decision-Making Tools of Member Utilities of the Florida Water and Climate Alliance	Christopher Martinez	Univ. of Florida
10:10 AM	Integrating NASA Satellite Soil Moisture and Precipitation Products to Augment Operational Hydrologic Prediction Capabilities of River Authorities in the State of Texas	Yu Zhang	Univ. of Texas, Arlington
10:20 AM	Questions and Discussion		
10:30 AM	Break		
10:45 AM	Special Presentation: Forecast informed reservoir operations (FIRO) – Enhancing Existing Infrastructure Performance	Jerry L. Cotter	USACE, Fort Worth District
11:05 AM	Surface Water (Moderator: Forrest Melton)		
11:05 AM	Enhancing National Security Decision-making Processes for Regions Vulnerable to the Impacts of Flash Droughts through Greater Use of NASA Resources	Eric Hunt	Atmospheric and Environmental Research (AER)
11:15 AM	Enhancing Water Resource Management in Alaska: Integration of Remotely Sensed Streamflow Data into Resource Management Agency Operations	Rob Dudley	USGS
11:25 AM	The Global Reservoir and Lake Monitor (G-REALM):	Charon Birkett	NASA GSFC
11:35 AM	Live Demo: Global Water Monitor web site	Charon Birkett	NASA GSFC
11:40 AM	Questions and Discussion		
11:50 AM	Wrap Up and Adjourn Open Session	Brad Doorn	NASA HQ
12:00 PM	Lunch Break		
12:30 PM	PI Closed Session Kickoff	Brad Doorn	NASA HQ
12:35 PM	Applied Sciences Strategy	Emily Sylak-Glassman	NASA HQ
12:45 PM	PI Handbook and Resources for Pis	Derrick Lampkin	NASA HQ
1:00 PM	Program Feedback	Brad Doorn	NASA HQ
1:20 PM	Responsibilities for the next year - reporting, deadlines, closing out projects	Forrest Melton	NASA Ames
1:30 PM	Adjourn	Brad Doorn	NASA HQ

Thursday October 7, 2021 Water Resources Team Meeting: Day 2			
Time (PDT)	Title	Speakers	
8:30 AM	Presenters Join for A/V Check		
9:00 AM	Welcome from the Water Resources Team	Brad Doorn	NASA HQ
9:15 AM	Developing a Dynamic SPARROW Water Quality Decision Support System	Matthew Miller	USGS
	GEOGLOWS (Moderator: John Bolten)		
9:25 AM	Monitoring Surface Water Storage Changes over the Lower Mekong with Multiple Satellite Techniques towards Sustainable Water Management	Hyongki Lee	Univ. of Houston
9:35 AM	Optimizing the Indus Basin Irrigation System and Reservoir Operations using Remotely Sensed Snow Surface Properties in the ParBal model	Karl Rittger	Univ. of Colorado
9:45 AM	Evaluation of Risk and Capacity Development for Two Indian River Basins	Venkat Lakshmi	Univ. of Virginia
9:55 AM	An AmeriGEOSS Cloud-based Platform for Rapid Deployment of GEOGLOWS Water and Food Security Nexus Decision Support Applications	Daniel Ames	Brigham Young Univ.
10:05 AM	Questions and Discussion		
10:15 AM	Special presentation: SERVIR	Ashutosh Limaye	NASA MSFC
10:30 AM	Discussion: International and Global engagement	John Bolten	NASA GSFC
10:45 AM	Break		
11:00 AM	Special Presentation: EIS	Christa Peters-Lidard and Sujay Kumar	NASA GSFC
	Water Quality (Moderator: Christine Lee)		
11:20 AM	CyAN	Blake Schaeffer	EPA
11:30 AM	Live Demo: CyAN App and new website	Blake Schaeffer	EPA
11:35 AM	Precipitation, water management, and algae blooms in South Florida estuaries	Chuanmin Hu	Univ. of South Florida
11:45 AM	Assessing the need for fire-related decision-support tools for water management in the Pacific Northwest, USA	Julie Padowski	Washington State Univ.
11:55 AM	Maximizing Utility of Remote Sensing Data for Water Quality Monitoring	Christine Lee	NASA JPL
12:05 PM	Live Demo: Contributions to BayDeltaLive.com	Christine Lee	NASA JPL
12:15 PM	Questions and Discussion		
12:20 PM	Prizes and Challenges	Shobhana Gupta	NASA HQ
12:35 PM	Engaging with Media	Aries Keck	NASA HQ
12:50 PM	Wrap Up and Adjourn	Brad Doorn	NASA HQ

Friday, Oct 8, 2021 Water Resources Team Meeting: Day 3			
Time (PDT)	Title	Speakers	
8:30 AM	Presenters Join for A/V Check		
9:00 AM	Welcome Kickoff	Inbal Becker-Reshef	NASA Harvest
	Groundwater, ET and Agriculture I (Moderator: Forrest Melton)		
9:15 AM	California's Groundwater Future: Relating long-term subsidence and consumption in the Central Valley	JT Reager	NASA JPL
9:25 AM	Integration of InSAR with Airborne Geophysical Data for the Development of Groundwater Models	Rosemary Knight	Stanford Univ.
9:35 AM	High-Resolution Soil Moisture Monitoring for Improved Vineyard Water Resource Management	Wade Crow	USDA ARS
9:45 AM	Operational Remote Sensing of Agricultural Water Use in Cooperation with Western State Water Resources Agencies for Improved Water Management	Justin Huntington	DRI
9:55 AM	Live Demo: Open ET	Justin Huntington	DRI
10:00 AM	Questions and Discussions		
10:10 AM	Upcoming Missions	Christine Lee	NASA JPL
10:30 AM	Break		
10:45 AM	Special Presentation: Climate Smart Agriculture	Mike Buser	USDA ARS
11:05 AM	Groundwater, ET and Agriculture II (Moderator: John Bolten)		
11:05 AM	Development of a Global Evaporative Stress Index Based on Thermal and Microwave LST towards Improved Monitoring of Agricultural Drought	Chris Hain	NASA MSFC
11:15 AM	Operational Production Of Long-Term Enhanced Soil Moisture Information For USDA-FAS Using Hydrologic Modeling And Remote Sensing	Nazmus Sazib	NASA GSFC
11:25 AM	Monitoring Vineyard Water Use and Vine Water Status with Land Surface Temperature for Improved and Sustainable Water Management from Field to Regional Scales	William Kustas	USDA ARS
11:35 AM	Questions and Discussions		
11:45 AM	Closing Remarks	Brad Doorn	NASA HQ
12:00 PM	Adjourn		