**Presentations from the 2018 NASA Applied Sciences Program Water Resources Team Meeting**

June 26-28, 2018

Sustainability Energy and Environment Complex, University of Colorado Boulder

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| **Tuesday, June 26, 2018** |   |   |
| **Time** | **Title** | **Speakers** | **Affiliation** |
| 2:00 PM | Registration |   |   |
| 2:15 PM | Welcome and Overview of NASA ASP Water Resources Program and the Wetern Water Applications Office (WWAO) | Brad Doorn / Indrani Graczyk | NASA HQ / JPL |
| 2:35 PM | [Project Update: The Western Land Data Assimilation System](https://appliedsciences.nasa.gov/system/files/sites/default/files/Rodell%20-%20WWAO%20The%20Western%20Land%20Data%20Assimilation%20System.pdf) | Matthew Rodell | NASA GSFC |
| 2:45 PM | Project Update: Fallowed Area Mapping | Forrest Melton | NASA ARC |
| 2:55 PM | Project Update / New Activities: ASO and iSnobal | Tom Painter | NASA JPL |
| 3:05 PM | New Project Overview: New Mexico Evapotranspiration | Gregory Halverson / Josh Fisher | NASA JPL |
| 3:15 PM | [New Project Overview: Navajo Drought Monitoring](https://appliedsciences.nasa.gov/system/files/sites/default/files/McCullum%20-%20WWAO%20Navajo%20Drought%20Monitoring.pdf) | Amber McCullum | NASA ARC |
| 3:25 PM | New Project Overview: Irrigation Management with SIMS and CropManage | Alberto Guzman | NASA ARC |
| 3:35 PM | New Project Overview: Higher Resolution Soil Moisture for USDA | Rajat Bindlish | NASA GSFC |
| 3:45 PM | BREAK |   |   |
| 4:00 PM | Debrief from the Needs Assessment Workshop for the CO River Basin  | Stephanie Granger | NASA JPL |
| 4:50 PM | ADJOURN |   |   |
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| **Wednesday, June 27, 2018** |   |   |
| **Time** | **Title** | **Speakers** | **Affiliation** |
| 8:30 AM | Registration  |   |   |
| 9:00 AM | Welcome from the University of Colorado Boulder | Noah Molotch, Terri Fiez | Univ. of Colorado Boulder |
| 9:15 AM | Welcome and Overview from the NASA Applied Sciences Program | Brad Doorn, Lawrence Friedl  | NASA HQ |
| 9:30 AM | Water Resource Applications with the Airborne Snow Observatory, MODIS, VIIRS, and iSnobal  | Tom Painter | NASA JPL |
| 9:40 AM | [Red River of the North Snowmelt Flood Forecasting](https://appliedsciences.nasa.gov/system/files/sites/default/files/Jacobs%20-%20Red%20River%20of%20the%20North%20Snowmelt%20Flood%20Forecasting.pdf) | Jennifer Jacobs | UNH |
| 9:50 AM | [Assessing Snow Water Resources in Mountain Ranges with Few Surface Measurements](https://appliedsciences.nasa.gov/system/files/sites/default/files/Dozier%20-%20Assessing%20Snow%20Water%20Resources%20in%20Mountain%20Ranges%20with%20Few%20Surface%20Measurements.pdf) | Jeff Dozier | UCSB |
| 10:00 AM | [Advancing Water Supply Forecasts in the Colorado River Basin for Improved Decision Making](https://appliedsciences.nasa.gov/system/files/sites/default/files/Day%20-%20Advancing%20Water%20Supply%20Forecasts%20in%20the%20Colorado%20River%20Basin%20for%20Improved%20Decision%20Making.pdf) | Jay Day | RTI International |
| 10:10 AM | [Analysis of Agricultural Water Supply-Demand Imbalance During the Unprecedented California Drought Using NASA Satellite Data](https://appliedsciences.nasa.gov/system/files/sites/default/files/Molotch%20-%20Analysis%20of%20Ag%20Water%20Supply%20Demand%20Imbalance%20During%20the%20Unprecedented%20California%20Drought%20Using%20NASA%20Satellite%20Data.pdf) | Noah Molotch | Univ. of CO, Boulder |
| 10:20 AM | [A Hybrid Statistical-Dynamical Drought Prediction Framework: Application to the Southwestern United States](https://appliedsciences.nasa.gov/system/files/sites/default/files/Aghakouchak%20-%20A%20Hybrid%20Statistical%20-Dynamical%20Drought%20Prediction%20Framework.pdf) | Amir Aghakouchak | UCI |
| 10:30 AM | Integrating GRACE and GRACE Follow-On Data into Flood and Drought Forecasts for the Continental U.S. | Matthew Rodell | NASA GSFC |
| 10:40 AM | BREAK |   |   |
| 10:55 AM | VALUABLES and Water Resources Projects  | Yusuke Kuwayama | RFF |
| 11:05 AM | Impact Assessment Panel: Jennifer Jacobs, Matthew Rodell, Jay Day | Yusuke Kuwayama | NASA HQ |
| 11:45 AM | Impact Assessment Discussion | Brad Doorn | NASA HQ |
| 12:00 PM | LUNCH / Poster Session |   |   |
| 1:00 PM | [Operational Remote Sensing of Agricultural Water Use in Cooperation with Western State Water Resources Agencies for Improved Water Management](https://appliedsciences.nasa.gov/system/files/sites/default/files/Huntington%20-%20Operational%20Remote%20Sensing%20of%20Agricultural%20Water%20Use%20in%20Cooperation%20with%20Western%20State%20Water%20Resources%20Agencies%20for%20Improved%20Water%20Management.pdf) | Justin Huntington  | DRI |
| 1:10 PM | [Monitoring Vineyard Water Use and Vine Water Status with Land Surface Temperature for Improved and Sustainable Water Management from Field to Regional Scales](https://appliedsciences.nasa.gov/system/files/sites/default/files/Kustas%20-%20Monitoring%20Vineyard%20Water%20Use%20and%20Vine%20Water%20Status%20with%20Land%20Surface%20Temperature.pdf) | William Kustas | USDA ARS |
| 1:20 PM | Improved Drought Monitoring with QuickDRI | Tsegaye Tadesse / Brian Wardlow | UNL |
| 1:30 PM | Panel: Decadal Survey and Applied Sciences -- Highlights and Opportunities  | Waleed Abdalati, Jeff Dozier, Venkat Lakshmi, John Bolten, Lawrence Friedl | CU Boulder, UCSB, USC, NASA GSFC, NASA HQ |
| 2:30 PM | BREAK |   |   |
| 2:50 PM | Decision Support System to Enhance Source Water Quality Monitoring and Modeling using Remote Sensing Data | Josh Weiss | Hazen and Sawyer |
| 3:00 PM | [Cyanobacteria Assessment Network](https://appliedsciences.nasa.gov/system/files/sites/default/files/Schaeffer%20-%20Cyanobacteria%20Assessment%20Network.pdf)  | Blake Schaeffer | EPA |
| 3:10 PM | Maximizing Utility of Remote Sensing Data for Water Quality Monitoring and Resources Management in California's Water Systems | Christine Lee | NASA JPL |
| 3:20 PM | [Developing a Dynamic SPARROW Water Quality Decision Support System](https://appliedsciences.nasa.gov/system/files/sites/default/files/Smith%20-%20Developing%20a%20Dynamic%20SPARROW%20Water%20Quality%20Decision%20Support%20System.pdf) | Richard Smith | USGS |
| 3:30 PM | Water Resources Poster Session |   |   |
| 5:15 PM | CLOSE / ANNOUNCEMENTS | Brad Doorn | NASA HQ |
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| **Thursday, June 28, 2018** |   |   |
| **Time** | **Title** | **Speakers** |  |
| 8:30 AM | Registration  |   |   |
| 9:00 AM | Western Water Applications Office Update  | Indrani Graczyk | WWAO |
| 9:15 AM | [Global Food Security Initiative Update](https://appliedsciences.nasa.gov/system/files/sites/default/files/Schollaert-Uz%20-%20Global%20Food%20Security%20Initiative%20Update.pdf) | Stephanie Schollaert Uz | NASA GSFC |
| 9:30 AM | Water Resources Partners Panel: S2S | Christine Lee | NASA JPL |
| 10:15 AM | BREAK |   |   |
| 10:30 AM | Capacity Building Program Update | Kel Market | NASA MSFC |
| 10:45 AM | GEOGLOWS Update | Brad Doorn | NOAA |
| 11:00 AM | WR Team Discussion: Project Transition / Shared Cloud Platform for ASP | Forrest Melton | NASA ARC |
| 11:30 AM | WR Team Discussion: Communications and Outreach  | Pamela Bond | Chief |
| 12:00 PM | LUNCH / Poster Session |   |   |
| 1:00 PM | ERS, ARLs, ASP Water Resources Website, Project One-Pagers | Sarah Brennan, Forrest Melton  | NASA HQ / NASA ARC |
| 1:15 PM | Enhancing the USDA Global Crop Production Decision Support System with NASA Soil Moisture Active Passive (SMAP) Satellite Observations | John Bolten | NASA GSFC |
| 1:25 PM | [Forecasts for Africa and the Middle East (FAME)](https://appliedsciences.nasa.gov/system/files/sites/default/files/Peters-Lidard%20-%20Seasonal-Scale%20Drought%20Forecasting%20in%20Africa%20and%20the%20Middle%20East.pdf) | Christa Peters-Lidard | NASA GSFC |
| 1:35 PM | [Optimizing Reservoir Operations for Hydropower Production in Africa through the Use of Remote Sensing Data and Seasonal Climate Forecasts](https://appliedsciences.nasa.gov/system/files/sites/default/files/Gebremichael%20Hopson%20-%20Optimizing%20Reservoir%20Operations%20for%20Hydropower%20Production%20in%20Africa%20through%20the%20Use%20of%20Remote%20Sensing%20Data%20and%20SEasonal%20Climate%20Forecasts.pdf) | Mekonnen Gebremichael | UCLA |
| 1:45 PM | [Towards Operational Water Resources Management in South Asia Exploiting Satellite Geodetic and Remote Sensing Technologies](https://appliedsciences.nasa.gov/system/files/sites/default/files/Hossain%20-%20Towards%20Operational%20Water%20REsources%20Management%20in%20South%20Asia%20Exploiting%20Satellite%20Geodetic%20and%20Remote%20Sensing%20Technologies.pdf) | Faisal Hossain | UW |
| 1:55 PM | NASA Earth Observations for the Food Security and Agriculture Consortium | Alyssa Whitcraft / Brian Barker  | UMD |
| 2:05 PM | Eco-hydrological Modeling Using Field-based and Earth Observations to Assess Water Use Efficiency and Support Agricultural Water Resources Management | Jean Claude Roger | UMD |
| 2:15 PM | [Development of a Global Evaporative Stress Index Based on Thermal and Microwave LST towards Improved Monitoring of Agricultural Drought](https://appliedsciences.nasa.gov/system/files/sites/default/files/Hain%20-%20Development%20of%20a%20Global%20Evaporative%20Stress%20Index%20Based%20on%20Thermal%20and%20Microwave%20LST%20Towards%20Improved%20Monitoring%20of%20Agricultural%20Drought.pdf) | Chris Hain | NASA MSFC |
| 2:25 PM | [The Global Reservoir and Lake Monitor (G-REALM): Sustained Water Level Monitoring for Agriculture, Regional Security, and Inland Fisheries](https://appliedsciences.nasa.gov/system/files/sites/default/files/Birkett%20-%20The%20Global%20Reservoir%20and%20Lake%20Monitor.pdf) | Charon Birkett | UMD |
| 2:35 PM | BREAK |   |   |
| 3:05 PM | An AmeriGEOSS Cloud-based Platform for Rapid Deployment of GEOGLOWS Water and Food Security Nexus Decision Support Applications | Daniel Ames | BYU |
| 3:15 PM | Evaluation of Risk and Capacity Development for Two Indian River Basins | Venkat Lakshmi | Univ. of South Carolina |
| 3:25 PM | Monitoring Surface Water Storage Changes over the Lower Mekong with Multiple Satellite Techniques towards Sustainable Water Management | Chi-Hung Chang / Hyongki Lee  | Univ. of Houston |
| 3:35 PM | Optimizing the Indus Basin Irrigation System and Reservoir Operations using Remotely Sensed Snow Surface Properties in the ParBal model | Karl Rittger | Univ. of Colorado |
| 3:45 PM | Workshop Wrap-Up and Closing Remarks | Brad Doorn | NASA HQ |
| 3:55 PM | Update ERS, Website Content, ARLs, Project 1-pagers (PM + Associates Available) | All |   |
| 5:00 PM | ADJOURN |   |   |