**H2O v2. American River prototype**

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**Scope**

Establishing a network of instrument clusters to measure snow, snowmelt, rainfall, energy balance and soil moisture throughout the river basin. Network will build on existing infrastructure.

Blending ground measurements with satellite snow-covered area data to estimate basin-wide snow water content and more accurately predict runoff.

Generating real-time data that will reduce key uncertainties, make snowmelt runoff forecasts more reliable, and inform water resource management decision making.

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**Value of better information for decision making w/ billion-dollar implications**

Seasonal forecasts are within ±20% half of the time. Physical measurements will help most in years that depart from the long-term mean.

**Other interests:** drought planning, flood forecasting, hydropower, reservoir operations, forest management

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**Products**

- Weekly, distributed snow covered area and snowpack water content estimates
- Weekly snowmelt and runoff forecasts
- Cyberinfrastructure for information management and delivery
- Decision-support tools using the new information

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