

# Advanced **Analysis** of Water, Fire, and Snow

*Land Satellites Data System's (LSDS) Science  
Research and Development (LSRD)*

EROS-based LSRD **transforms Landsat data** into value-added science, offering land managers around the world **in-depth analyses** of water, fire, and snow.

## Dynamic Surface Water Extent (DSWE)

The DSWE Science Product monitors changes in surface water to help land, ecosystem, and water managers make informed decisions.

[Learn more](#)



- 1** **Water use** and management
- 2** **Habitat** and ecosystem assessment
- 3** **River flooding** assessments
- 4** **Shoreline** monitoring

## Burned Area

Detailed data about past fires is a key tool to study fire and predict where future blazes might occur. That's why the Burned Area Science Product maintains its complete, accurate dataset.

[Learn more](#)



- 1** **Monitoring trends** in the severity of fires
- 2** **Forest** management
- 3** **Carbon cycling** research

## Fractional Snow Covered Area

Whether snow settles on mountain peaks, remote wilderness, or your backyard, spaceborne remote sensing—transformed by the Fractional Snow Covered Area Science Product—is the best way to measure it consistently.

[Learn more](#)



- 1** **Snowpack** trends
- 2** **Snowfall patterns** with relation to drought monitoring
- 3** **Fire management** as snow levels can predict dry conditions

### Staff

Christopher Crawford, Michelle Bouchard, Todd Hawbaker, John Jones, Kristi Sayler, David Selkowitz, Saeed Arab, Ray Dittmeier, Calli Jenkerson, Lowell Johnson, Brady Laue, Chase Mueller, Linda Owen, Benjamin Page, Gail Schmidt, the late John Dwyer

### Location

Serving users worldwide