

INSIGHT:

Integrated Network of Scientific Information and GeoHydrologic Tools

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INSIGHT



Integrated
Network of
Scientific
Information and
Geo**H**ydrologic
Tools

What is INSIGHT?

- Interactive, web-based maps.
- Evaluations of basins and their status as fully or overappropriated.
- Educational tool for water managers and the public.
- One-stop shop for water related data.
- Tools to help evaluate water management options.

Prototype

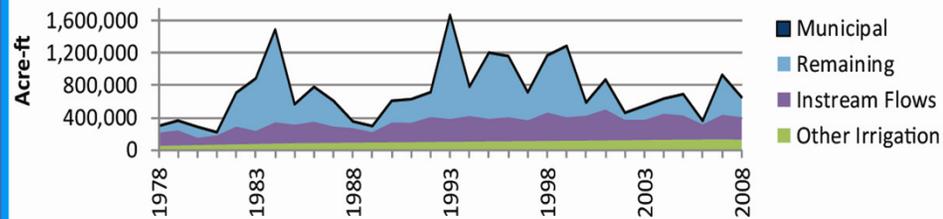
Integrated Network of Scientific Information and GeoHydrologic Tools



WATER-DATA

- DAMS
- DIGITAL ELEVATION MODELS
- HYDROLOGIC UNITS
- LAND USE
- WETLANDS INVENTORY
- POLITICAL BOUNDARIES
- REGISTERED WELLS
- SOILS DATA
- TIGER FILES
- NHD DATASET

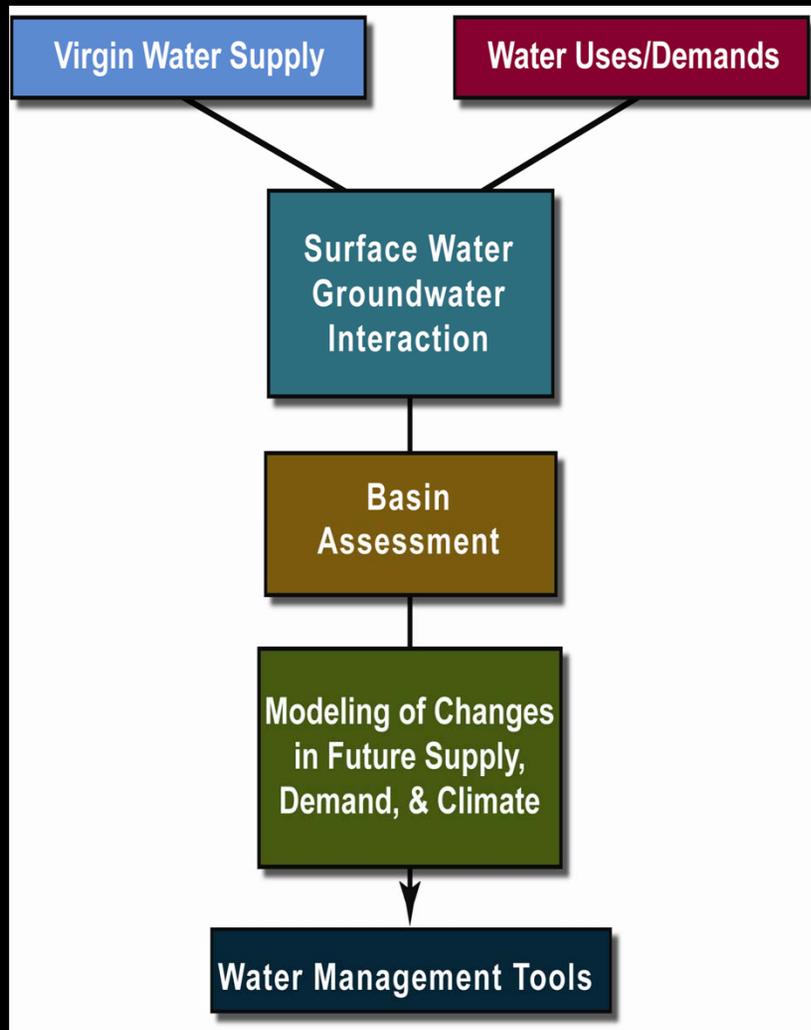
Water Uses and Remaining Water Supply (Elkhorn Basin, Irrigation Season)



Why INSIGHT?

- Basin assessments
- Source of scientific information
- Comprehensive record keeping
- Information to support management options
- Public education

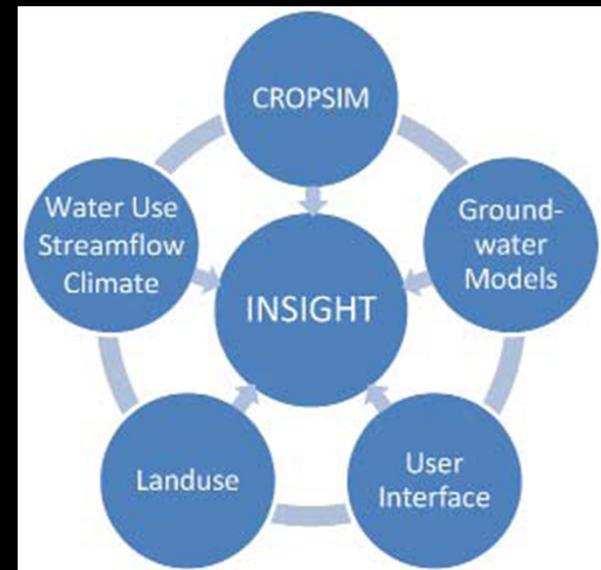
What types of information?



- Water Supplies
 - Virgin water supplies
 - GW depletions
 - SW depletions
 - Streamflow
- Water Uses/Demands
 - Meter data
 - Diversion records
 - Climate data
 - CROPSIM outputs
 - Water administration data
 - Land use data
 - And more...

How will information be integrated?

- CROPSIM - Integration of land use/water use
- Streamflow data
- Groundwater depletion data
- Surface water depletion data
- Web Interface



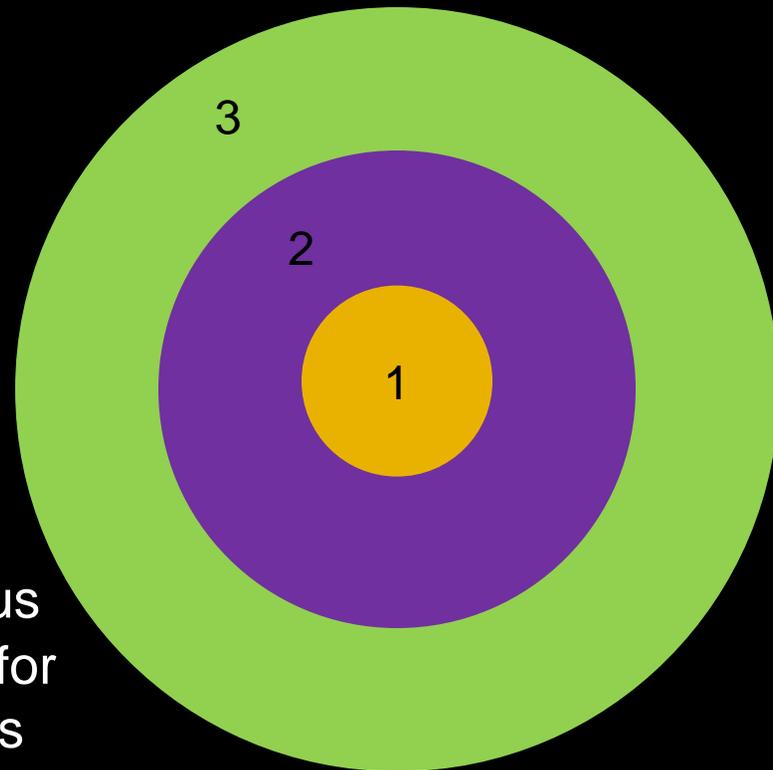
What tools are planned for development?

- Groundwater models
 - Lower Niobrara River
 - Loup River
 - Elkhorn River
 - Blue River Basins
- Assessments of data and model potential
 - Lower Platte Basin (includes lower portion of Elkhorn River)
 - Missouri Tributary Basins
- External peer review of models

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(NRD Participation in Hydrologic Tools)

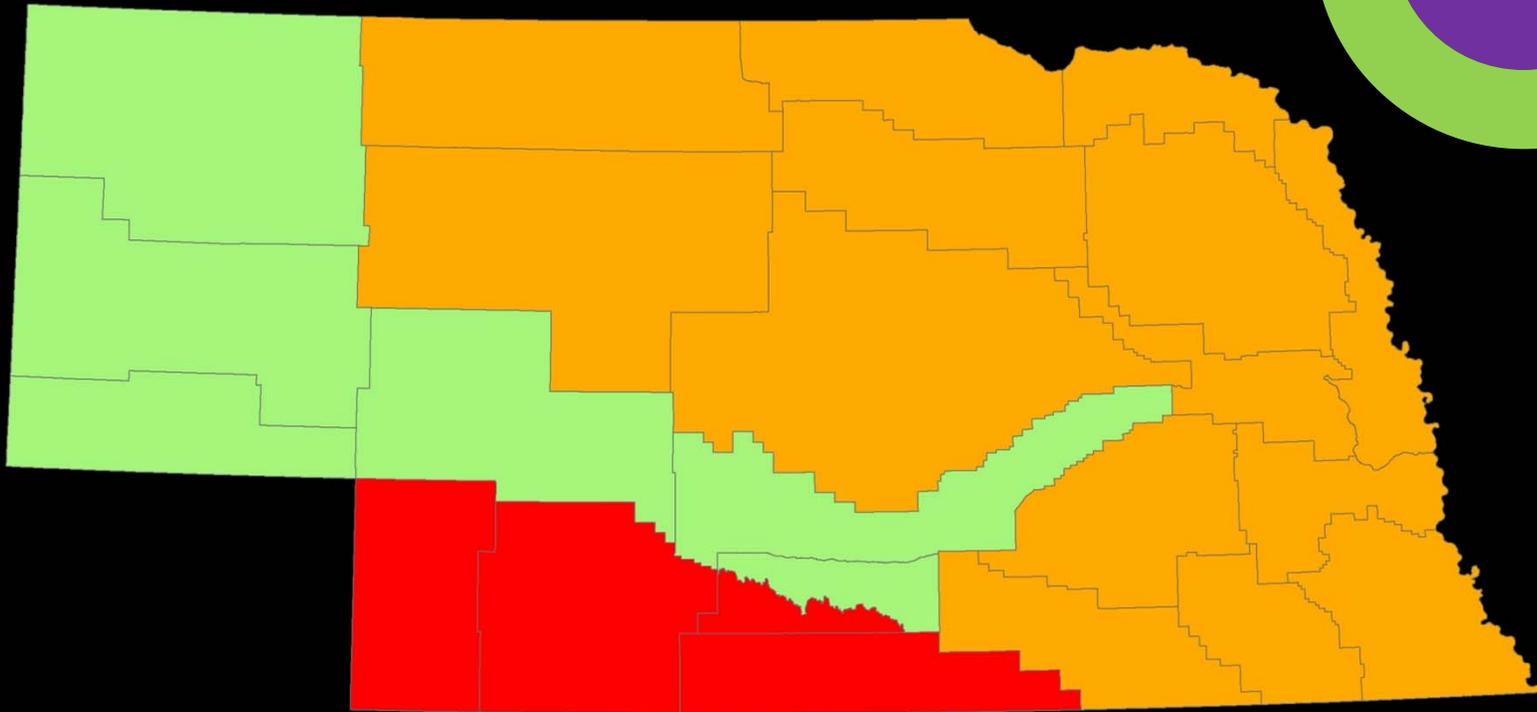
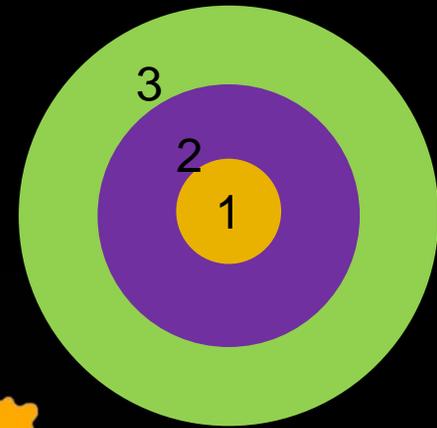
- 1 – Updates on projects will be provided through the website and mailings
- 2 – Participation in technical workshops as tool development progresses
- 3 – A fully collaborative and consensus based approach to develop tools for integrated management objectives (for areas participating in IMPs)



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(NRD Participation in Hydrologic Tools)

Red color denotes NRDs for which RRCA Compact model will be utilized



Schedule

- Consultant selection (Jan. 2012)
- Statewide CROPSIM (July 2012)
- GW Model completions for : Niobrara, Loup – Elkhorn, Blue Basins (Sept. 2012)
- Assessments for Lower Platte and Missouri Tributaries (Nov. 2012)
- Initial testing of INSIGHT (March 2013)
- Final completion of INSIGHT (July 2013)



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