

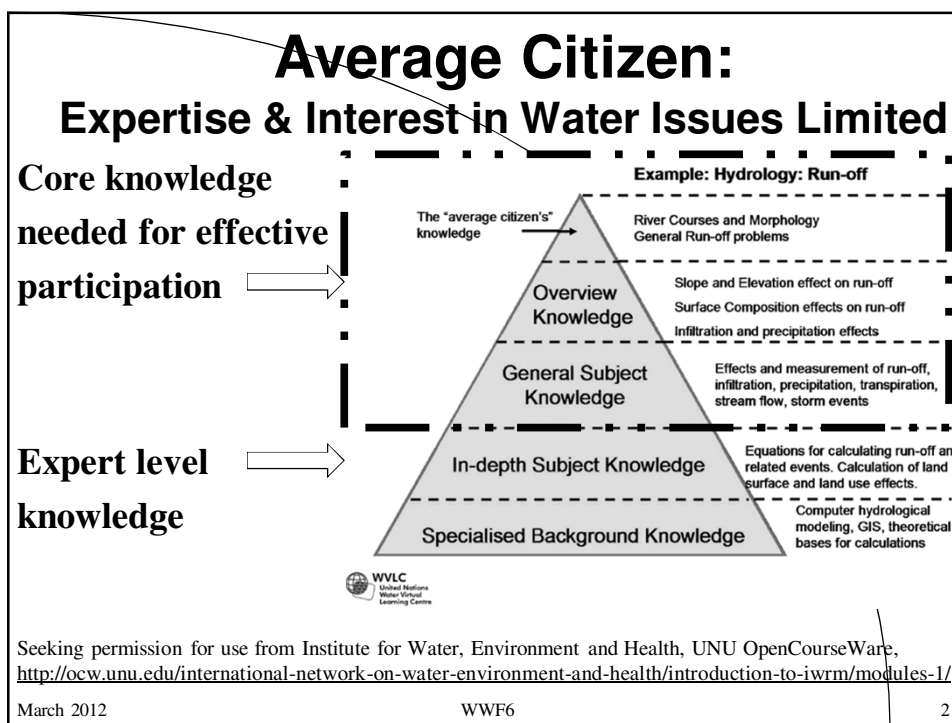


Water Action Network

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Online System Development

Water Action Network

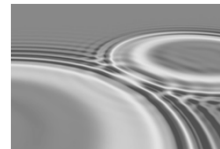
- ✓ **Distill and index action opportunities**
- ✓ **Direct user easily to suite of actions**
- ✓ **Enhance spontaneous participation**
- ✓ **Focus on meaningful contribution
(experiential learning, collaboration)
rather than just to inform**

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3

IWRM Benefits



- ✓ **Distilled topical quick facts**
- ✓ **Build awareness of spatial context**
- ✓ **Direct benefits of user actions**
 - ✓ **Funding for water projects**
 - ✓ **Behavioral change**
- ✓ **Learn from analysis of actions pursued**
- ✓ **Become responsive to public interest
and needs to mobilize technology needed**

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4

Example Topics > Action Options



- **CONSERVATION** – find rebate, reduce type of usage
- **LEGISLATION** – help legislation along, sign petition
- **COMPACTS** – support use rules to avoid penalties
- **GROUND WATER** – recharge, reduce dependency
- **WATER QUALITY** – reduce runoff, remediate
- **DROUGHT** – xeriscape, support mitigation plan
- **DAM SAFETY** – remove pests/plants, breach illegal

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5

Actions just a starting point

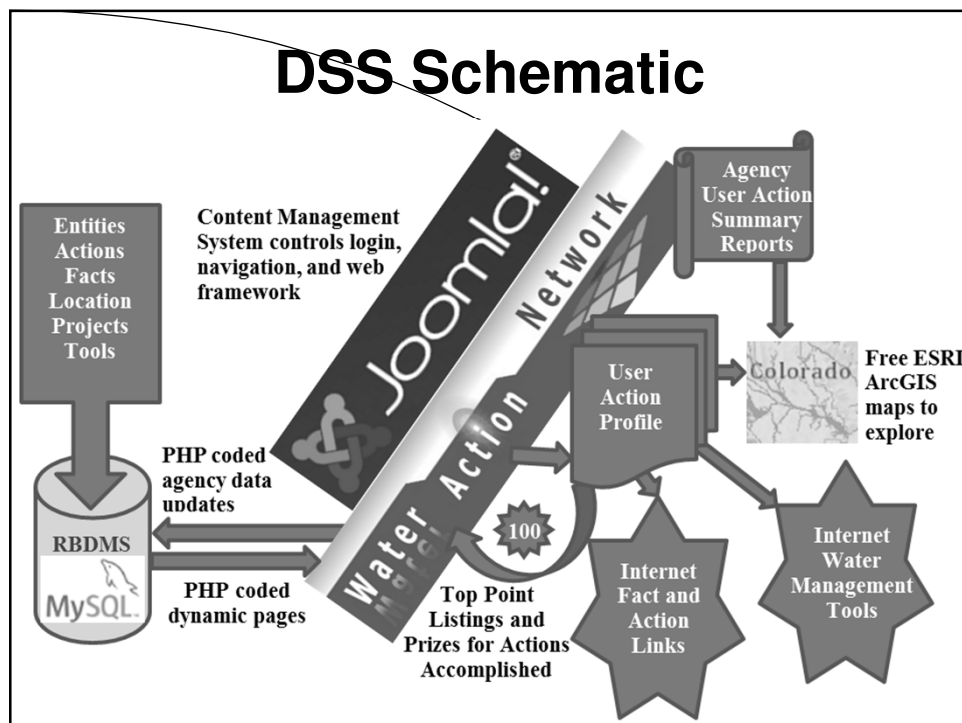
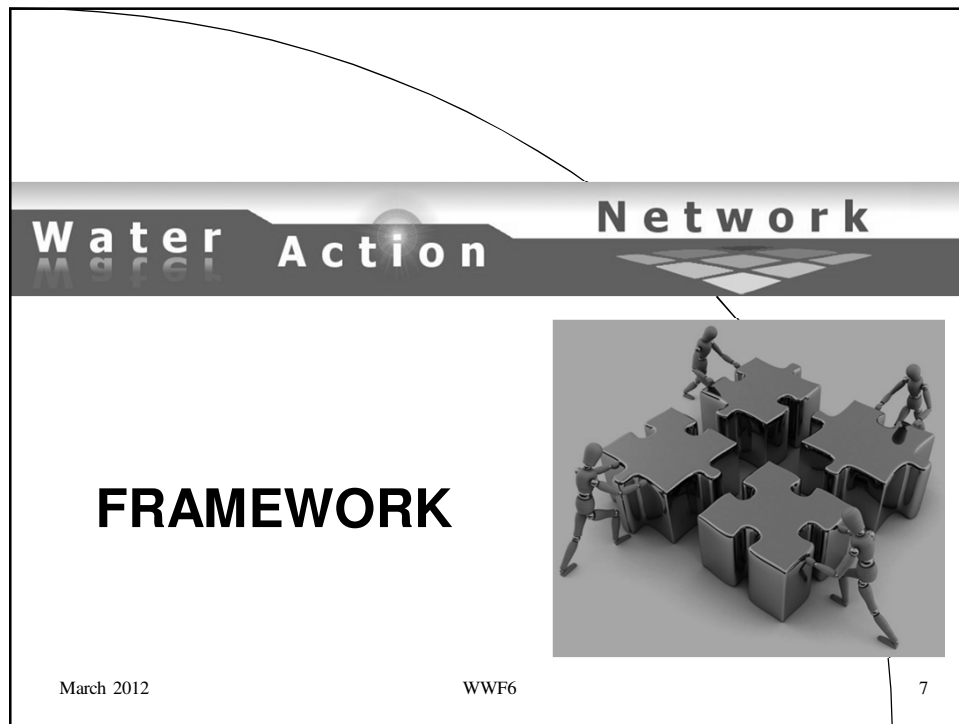
- **Direct resources, facilitators, engineers and their tools as needs and interests determined through analysis of experiential learning and collaborative sentiment**

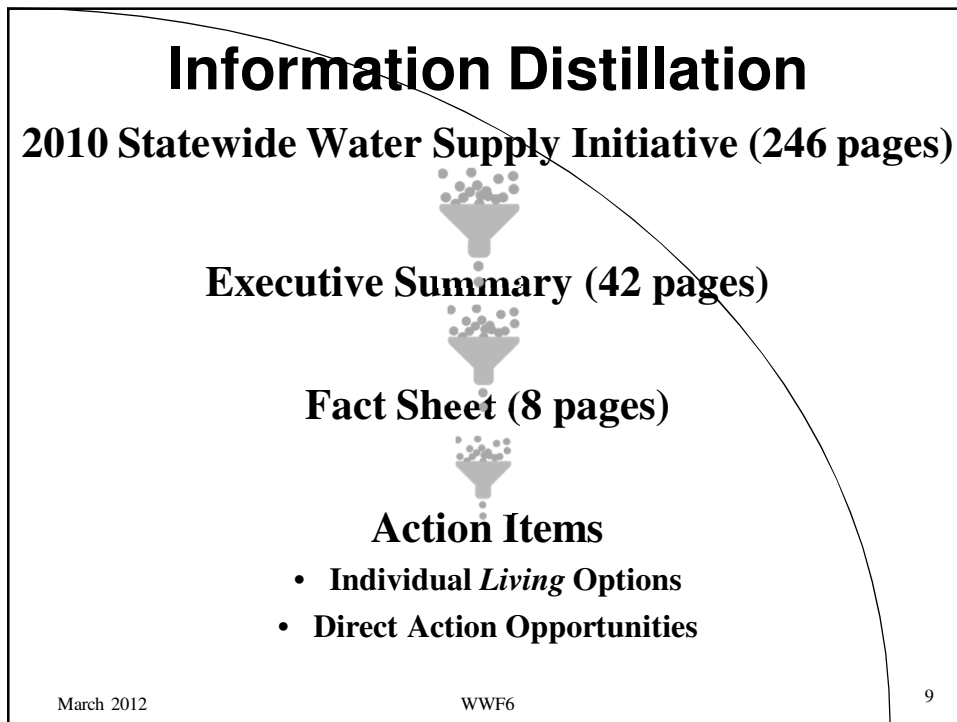


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6





Additional Components

- **Locational, Topical or Group-based Action Search**
- **Action Map / Visualizations of IWRM Progress**
- **Community-built Actions, Facts and Resource Links**
- **Built in analysis tools, quality controls and reporting**
- **Crowdsourcing / Hackathons / Contests / Recognition**
- **Provide understanding of basin level relationships**
- **Build a community narrative / BMPs**
- **Offline facilitation and engineering support**

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WWF6

11

Discover Subject Matter Experts

- **Water Law / Rights**
- **Facilitation / Participation**
- **Conflict Resolution**
- **Conservation**
- **Alternative Ag Transfers**
- **System Efficiency / Losses (M&I, Agriculture)**
- **Modeling / Optimization**
- **Data Collection and Analysis, Monitoring**

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WWF6

12

Provide Engineering/Tech Support

- **University, NGO and government free tools/toolbox**
- **SCADA and data collection systems / funding**
- **Water quantity /quality optimization, Conjunctive Use**
- **GIS and visualization**
- **Collaborative Modeling / SVP /**
- **Multi-purpose reservoir operations management**
- **IWRM – Scarce allocation, Basin scale, Governance**
- **Product options and consulting services, Estimating**

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WWF6

13

Water Action Network

<http://www.wateractionnetwork.org/co/>

**COLORADO STATE
PILOT PROJECT**



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Colorado Water 2012 Celebration


<http://water2012.org/>

- Water Action Network will be released in conjunction with

Colorado Foundation for Water Education

Home Join! Water Education Water Leadership About CFWE Calendar Online Store

Water 2012



Water 2012 engages all Coloradans in a statewide celebration of water: past, present, and future.

The year 2012 is a milestone for Colorado water. It started as a small celebration of the anniversaries of legislation and organizations that built the foundation for the management of today's Colorado water resources. The idea has since grown into a statewide celebration of water, its uses, and its value. The Colorado Foundation for Water Education is spearheading this exciting initiative in collaboration with a multitude of diverse partners across the state.

The goals of Colorado Water 2012 are to:

- Raise awareness about water as a valuable and limited resource
- Increase support for management and protection of Colorado's water and waterways
- Showcase exemplary models of cooperation and collaboration among Colorado water users
- Connect Coloradans to existing and new opportunities to learn about water
- Motivate Coloradans to become proactive participants in Colorado's water future

March 2012 WWF6

15

CO Water Action Network Homepage

Welcome: Guest | Login | Register

Water Action Network

Home Local Action Search Topical Action Search Group Action Search Contact My Actions

Water Action Network, Colorado

Welcome, Colorado Water Manager! Who, me? Yes, YOU!

All Coloradans daily actions affect our shared water future.


Enhance your role, using this site to find new ways to magnify your impact.
Your dashboard will let you keep a running total of your progress...

Location Action Search - enter your City or Zip to view Actions by area groups


Topical Action Search - select a Topic (like conservation) to view Action options

Group Action Search - select a water-related group to find how you can help them


Search by Role (Coming Soon!) - Are you a farmer or teacher?
Find funding and tools to act for water today!




Attend / Assist at a Water 2012 Event!



Checkoff Healthy Rivers on your 2012 CO Tax Form!



Build your Colorado Water Action point profile today!



Visit site at:
<http://www.wateractionnetwork.org>

Local Action Search

Water Action Network

[Home](#) | [Local Action Search](#) | [Topical Action Search](#) | [Group Action Search](#) | [Contact](#) | [My Actions](#)

Find Water Groups By City

Find by Zip: -- Select a City --

Water Entities for Alma

- County
- Park County
- City
- Alma
- Water Provider
- Alma Water
- Water Division
- Division 1 (Greeley) South Platte River Basin
- IBCC/BRTs
- South Platte Basin Roundtable
- Water Court
- Division 1 Water Court
- Water District
- District 23: Upper South Platte
- Watershed Related
- Save The Colorado
- (NRCS) Conservation District
- Teller-park Conservation District

2D 3D Road Aerial Bird's eye Labels

bing

Water Entities for Alma

Basin	SubBasin	HUC Name
South Platte	South Platte Headwater	Middle Fork South Platte River

17

Choose Organization's Actions to Pursue

Aurora Water

The goal of the Water Action Network is to direct users searching for water-related information in about three online selections to immediate opportunities for action.

The system provides a hierarchical, basin-level structure that quickly focuses to a locality and water topic of most immediate interest to the user.

Actions and facts related to a water organization can be easily tracked and updated by users.

Actions

Become Aurora Xeriscape Volunteer	Earn Points
Call 303-739-7351 to schedule whole-house water efficiency Audit	Earn Points
Follow schedule and water only 3 times before 10AM or after 6PM	Earn Points
Get a \$75 toilet rebate	Earn Points
Learn about Prairie Waters Project	Earn Points
Rebate \$1.25/sf drought tolerant landscaping	Earn Points
Schedule free Irrigation Efficiency Audit for upgrade rebate	Earn Points
Start a community garden	Earn Points
Take a free Xeriscape Class	Earn Points
Understand you water use and conservation potential with Aurora's Water Conservation Calculator	Earn Points
Watch an Aurora Water Video	Earn Points

Links

- [Homepage](#)

Facts

MISSION: To enhance and protect the quality of life for Aurora citizens by providing quality water, sewer and storm drain services in a manner that balance social, environmental and economic needs

Fact Sheets: Aurora Water Fact Sheets, Publications, Maps, and Newsletter Links

March 2012 WWF6 18

Action Dashboard – Points to Prizes!

Welcome: Wanco.

Water Action Network

Home Local Action Search Topical Action Search Group Action Search Contact My Actions

My Actions My Profile My Entities

My Actions

Wanco Admin
Member since: Dec - 19 - 11 -- Last visit on: Feb - 04 - 12

Actions you have chosen to pursue will appear in the list below. Choose **Complete**, once you have successfully accomplished an action to earn points towards recognition and rewards.

Points for action: Water only twice a week in 3 short cycles with an hour in between cycles have been added to your profile.

My Actions				
Thornton Water	Conservation: Residential: Outdoor Water Use	<u>Water only twice a week in 3 short cycles with an hour in between cycles</u>	1	Completed
Thornton Water	Conservation: Rebate: Indoor Appliance	<u>Get Conservation Rebates</u>	1	Complete
Thornton Water	Conservation: Membership	<u>Become a Water-Saving Ambassador</u>	1	Complete
			Total Points: 3	
			Total Completed Points: 1	

March 2012 WWF6 19

Search for Actions by Organization

Water Action Network

Home Local Action Search Topical Action Search **Group Action Search** Contact My Actions

Search Water Groups

Filter By Group -- Select a group -- Find By Word

Water Entities by Federal Govt.

US Bureau Of Land Management	US Bureau Of Reclamation	US Dept. of Agriculture
US Environmental Protection Agency	US Federal Emergency Management Agency	US Forest Service
US G...		
USDA		

US Bureau Of Land Management

The goal of the Water Action Network is to direct users searching for water-related information in about three online selections to immediate opportunities for action.

The system provides a hierarchical, basin-level structure that quickly focuses to a locality and water topic of most immediate interest to the user.

Actions and facts related to a water organization can be easily tracked and updated by users.

Actions	Facts
Attend Statewide Resource Advisory Council Meeting Earn Points	MISSION: To sustain the health, diversity, and productivity of America's public lands for the use and enjoyment of present and future generations. It administers more public land □ over 245 million surface acres □ than any other Federal agency in
Learn or Teach about the Environment Earn Points	
Visit Canyons of the Ancients National Monument Earn Points	

Links
■ Homepage

March 2

Search for Actions by Topic

Home
Local Action Search
Topical Action Search
Group Action Search
Contact
My Actions

Mining: Hydraulic Fracturing

Hydraulic fracturing, also known as fracking or hydrofracking, is a method used to enhance extraction of oil and gas from underground seams by injecting high-pressure fluids. It can also be used to enhance water well production.

Typically, oil and gas well depths are several times greater than that of ground water wells in aquifers used for irrigation and water supply, so if a well has been double-cased correctly through upper formations, direct ground water pollution threats should be minimal. However, it is also important that all waste fluids are correctly handled too. Hydrofracking fluids should be recycled or cleaned before disposing of the sand, water, and chemical mixture. Best practices include working towards zero discharge and recycling the fluids to limit the amounts of water needed in the typical operation in water scarce environments. If water is not available at the head, trucking in water or trucking out waste fluids can increase traffic substantially in rural areas. Water may be a by-product from the deep formation produced from oil and gas well development. This water must often be filtered and treated, as well, before use or discharge into surrounding water bodies.

The full spectrum of facts and opinions from Colorado industry supporters and opposition groups has been provided in the links and action opportunities shown here to the extent possible. Please [contact us](#) with additional links, action opportunities, or suggestions. The National Ground Water Association has developed a [position paper](#) that may prove helpful in finding balance. Colorado operators have proactively developed a [Voluntary Baseline Ground Water Quality Sampling Program](#) through the Colorado Ground Water Association. The Colorado Oil and Gas Conservation Commission controls well permitting, while the Colorado Division of Water Resources regulates produced non-hazardous groundwater. The US Environmental Protection Agency regulates potential environmental concerns associated with oil and gas drilling including [air quality](#), [Safe Drinking Water](#), radioactive wastes, wastewater, stormwater, disposal ponds, and ground water quality.

Links

- [Wikipedia Definition](#)
- [Frac Focus](#)
- [Well Schem](#)
- [CO Produced Water Regs](#)
- [History in the](#)

Actions - If Earn Points buttons below are grayed out, Please LOGIN

Find information about an oil or gas well near you	Earn Points
Get info on your operator's voluntary COGA ground water monitoring program	Earn Points
Include existing operations in new EPA air quality rules	Earn Points
Participate in Lowry, Aurora area citizen's group	Earn Points
Query COGCC COGIS Database	Earn Points
Read NGWA recommendations	Earn Points

March 2012 WWF6 21

Build Quickly Online from Existing Info

Water Action Network

Home
Local Action Search
Topical Action Search
Group Action Search
Contact
My Actions

My Actions
My Profile
My Entities

Entity List

Add Entity

Entity Type	Entity Name	Homepage	Facts	Actions
(NRCS) Conservation District	Agate Conservation District	Homepage	Add Facts	Add Actions Update Delete
(NRCS) Conservation District	Baca County Conservation District	Homepage	Add Facts	Add Actions Update Delete
(NRCS) Conservation District	Bent County Conservation District	Homepage	Add Facts	Add Actions Update Delete
(NRCS) Conservation District	Big Thompson Conservation District	Homepage	Add Facts	Add Actions Update Delete
(NRCS) Conservation District	Bookcliff Conservation District	Homepage	Add Facts	Add Actions Update Delete
(NRCS) Conservation District	Boulder Valley Conservation District	Homepage	Add Facts	Add Actions Update Delete

Add Action(s) for: Agate Conservation District

Topic	Action	URL	Points
Wetlands Restoration	NRCS Grant	/nrms/main/national/programs/financial/cig3	Submit
Topic	Action	URL	Points

[Return to previous page](#)

March 2012 WWF6 22

Water Action Network Marketing


- Get link on Water2012 page(s)
- Create social networking sites
- Create videos and interviews of events
- Request inclusion in events
- Provide marketing materials to organizers
- Get volunteers to go door to door + direct
- Set up donated iPads to try out at events
- Provide online video training
- Present to countless community and professional orgs
- Build offline network of IWRM expertise / champions

**Points
and Prizes for
Participation!**

March 2012

WWF 6




23

Water Action Network	
Describe a water issue:	
<div>Your Group</div> <div>Another Institution or Organization</div> <div>An Industry or Private Firm</div>	
Describe 3 ways you all might collaborate:	
Choose 1 thing to do next:	
 Margaret T. Herzog, PE, PMP, Denver, Colorado, USA 1.303.238.0419 water2share@gmail.com	
Thank you for participating!	

Water Action Network

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Project Management Professional (PMP)
PhD in Progress **Colorado State University**
Civil & Environmental Engineering,
Water Resources Planning & Management

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Thank you for reviewing my presentation. Please contact me to get one started today!