Virgin River Watershed Analysis Information Meeting
Orderville, UT
July 10, 2007

1. **Attendees:** Approximately 23 people attended the informational meeting at Orderville Town Hall. Sign in list of attendees is attached.

2. **Watershed Analysis Overview** (Scott Estergard): This presentation reviewed the study authorization and purpose and gave an overview of components of the study. Major issues being considered in the study include: Floodplain management, land use planning. Invasive species, water availability and river function. Major components of this study include a Needs Analysis, Floodplain Strategy, and Watershed Strategy. Presentation is attached.

   Discussion among the group included: need for smaller plans that can be carried out, water supply is an issue and need either regeneration or additional storage in the upper watershed, instream flow and water rights are issues. Need information describing wetland regulations, asked about Wild and Scenic Rivers and what itmeans, upland uses and public use of the watershed affects everyone. Tools and data for planning were discussed at the Mesquite meeting in May and there was some discussion of information for local planning. NRCS Rapid Watershed Assessments may provide some useful information and a presentation on RWA was provided by NRCS.

3. **NRCS Rapid Watershed Assessments (RWA)-Utah** (Lee Woolsey): NRCS National Strategic Plan focuses on natural systems as key to conserving natural resources and encourages collaborative efforts to maximize results. NRCS will provide services (technical assistance, technology, information, and programs) on a watershed basis. Rapid watershed assessments provide initial estimates of where conservation investments would best address the concerns of landowners, conservation districts, and other community organizations and stakeholders. These assessments help land-owners and local leaders set priorities and determine the best actions to achieve their goals. 8 RWA have been completed in the State of Utah. Discussed the data gathered to perform a RWA including interviews and technical data such as land use, precipitation, ownership, land practices, etc. RWA's can: Provide information to develop business plans and strategies, Assist NRCS & others obtain technical & financial assistance, Provide information to help program managers & decision makers, Provide focus for forming effective partnerships, Lead to more detailed, comprehensive assessments and plans where needed to solve resource issues Seek and promote cooperative efforts to achieve conservation goals, Facilitate the growth of market-based opportunities that encourage business and industry to invest in conservation on private lands, Provide information and assistance to encourage and enable locally led, watershed-scale conservation.

Mr. Woolsey provided two aerial maps of the Long Valley area and discussed availability of online images at Virtual Utah: http://earth.gis.usu.edu/utah/

NRCS also has additional data and information available. Contact information for Mr. Woolsey is

Mr. Lee Woolsey
340 North 600 East
Richfield, UT 84701
Phone: 435-846-6441
Lee.woolsey@ut.usda.gov

4. Study information is being updated on the Los Angeles District website at http://www.spl.usace.army.mil/virginriver.htm. As the study progresses we will continue to provide information to those that signed up on the contact list. If you have additional questions or need more information please contact Scott Estergard, Study Manager, at 602-640-2004 (ext 242) or scott.k.estergard@usace.army.mil.

Scott K. Estergard

Virgin River Watershed Analysis Meeting
Orderville, Utah
July 10, 2007

Name	Address	Phone	Email	Organization
Lee Woolsey	340 No 600 East Richfield, UT. 84701	435-896-6441	Lee.Woolsey@ut.usda.gov	NRCS
Duke Cox	Box 157 Orderville UT 84758	648-3300	coxlivestock@orderville.net	Kane County Commission
Roger J Chamberlain	Box 147 Glendale Ut. 84729	435 648-2324	chamberlain ranch@yahoo.com	Long Valley Sewer Imp Dist
Jarad Brinkerhoff	P.O. Box 118 Glendale, UT 84729	435-648-2749	brinkerhoff10@gmail.com	Glendale Town
Mike Chamberlain	PO Box 219 Glendale Ut 84729	435-648-2141		Glendale Town Glendale Irrigation Chamberlain Ranch
Darrell Foote Warren Foote	P.O. Box 220 Orderville, ut 84758 600 100E Kanab, UT 84741	775-843-7734 435-644-3570		Barrodes Ranch, Inc. " " "
Mel Cox	P.O. Box 32 705 200 E	Orderville Ut 84758	648-2494	Orderville Town Planning & Zoning

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Name	Address	Phone	Email	Organization
Boyd H Hoyt	Box 14 Orderville ut 84758	435 648 2209	Hoytdb@yahoo.com	East Fork Virgin commissioner
Clarence Spencer	Box 178 Glendale ut. 84729	648-2456		East Fork Virgin Comm.
Corey Cram	1560 N 100 E St. George, UT 84770	673-3619	ccram@utah.gov	Wash. Co. Water Cons. Dist.
Merlin Esplin	P.O. Box 48 Orderville, UT 84758	648-2109	mcesplin@yahoo.com	Kane Co Water Cons. Ord. Irr. Co. Long Valley Water Users chairman
Lisa Church	318 N. 100 E Kanab, UT 84741	644-4600	lisa_church@blm.gov	BLM - Kanab Field office
Brad Reeve	Box 277 Panguitch, Utah	84759-0277	brad.reeve@ut.usda.gov	FSA

Virgin River Watershed Analysis Meeting
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Name	Address Phone Email	Organization
Dallas Sorensen	P.O Box 85 Hlendale Ut 84758	Hlendale Irrigation Company.
Vicki Tyler	2460 W. Navy 56 #5 435 586-2429 Cedar City, UT 84720 vicki.tyler@ut.usda.gov	NRCS, RC&D
Lee C Chamberlain	PO Box 111 Glendale Ut, 84729	Trustee — ICChamberlain FL Trust (Lydias Cyn & Dry wash)
Gary Zabriskie	P.O. Box 1550 St. George, Ut 84771-1550 Street Address: 1070 W. 1600 South Bldg. B. St. George Utah	Five County Association of Govts. gzabriskie at fcaog.state.ut.us
BRAD ADAIR	P.O. Box 14, ORDERVILLE, UTAH 84758 435-648-2384 brad_adair@hotmail.com	ORDERVILLE TOWN
+ 2 INDIVIDUALS	THAT DIDN'T SIGN IN	

23 TOTAL

SCOTT ESTERGARD — COE

- SCOTT STODDARD 533 W. 2600 S. #150 BOUNTIFUL, UT 84010 scott.stoddard@usace.army.mil — COE.

US Army Corps of Engineers
Los Angeles District

Virgin River Watershed Analysis

Orderville, UT
July 10, 2007

US Army Corps of Engineers
Los Angeles District

FY 2006 Civil Works Watershed Assessments

2006 Energy and Water Appropriations (PL 109-103) Directs the Secretary to conduct:

"*at full federal expense, comprehensive analyses that examine multi-jurisdictional use and management of water resources on a watershed or regional scale*"

5 Projects Nationwide

Great Lakes Habitat Protection and Restoration
Delaware River Basin, NY, PA, NJ and DE
Comprehensive Water Resource Planning for the 18 Western States
Middle Mississippi River (MMR) Regional Corridor
Virgin River and Tributaries – Utah, Arizona and Nevada

http://www.usace.army.mil/civilworks/cecwp/news/watershed_06.html

US Army Corps of Engineers
Los Angeles District

FY 2006 Civil Works Watershed Assessments

GOALS

Improved Corps support of state, tribal and local jurisdictions and their resource agencies in multi-jurisdictional integrated water resources management efforts

Better appreciation and understanding of the Corps' roles in water resources management among state, tribal and local jurisdictions, and federal and state water agencies to **improve integration and multi-jurisdictional management of water resources**

Greater participation of Corps technical specialists **in non-Federally directed water resources initiatives**, such as comprehensive water planning, when the non-Federal entities desire and request such participation

Established priorities for water resources planning and investment in coordination with states, tribal and local jurisdictions, federal and non-Federal water managers

Collaboration within Federal agencies to **bring programs and resources together to provide integrated solutions**

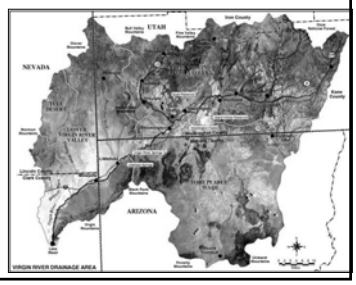
Virgin River Watershed Analysis

Stakeholders Meeting, St George, Utah (August 06)
Technical Committee (interagency)

- Floodplain Management
- Land Use Planning
- Invasive Species
- Endangered Species

Virgin River Watershed Scope

- **Watershed Needs Analysis**
- **Floodplain management strategy**
- **Watershed Strategy**



Virgin River Watershed Scope

Watershed Needs Analysis

- Describe past/ongoing efforts, reports
- Provide contacts
- Define unmet needs

Virgin River Watershed Scope

Floodplain management strategy:

Information Collection
- Lessons Learned 2005
- Data Synthesis/Summary

Mitigation Activities
- Flood hazard/risk description
- Floodplain management/mitigation
- Alternatives

Flood Management Strategy
- Recommended mitigation
- Implementation Plan
- Communication Plan

Virgin River Watershed Scope

Watershed Strategy:
- Coordination/Communication Plan
- Invasive species strategy
- Priorities
- Implementation Plan

Virgin River Watershed Strategy

Management/General
Invasive Species
River Function
Land Use Planning
Water Supply/Quality

Inventory and Use of "Rapid" Watershed Assessments

Lee Woolsey, Resource Conservationist, Richfield, UT

435-896-6441 ext 140

Email: lee.woolsey@ut.usda.gov

The Natl. Strategic Plan watershed approach:

- **Focuses on natural systems is the key to conserving natural resources**
- **Encourages collaborative efforts to maximize results**

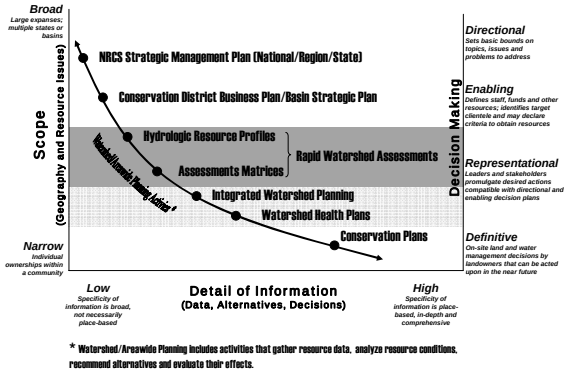
And that NRCS will:

- **Provide services (technical assistance, technology, information, and programs) on W/S basis**
- **Use RWAs to tailor NRCS services**
- **Develop indices to measure resource health and accomplishments on W/S basis**

What are RWA's?

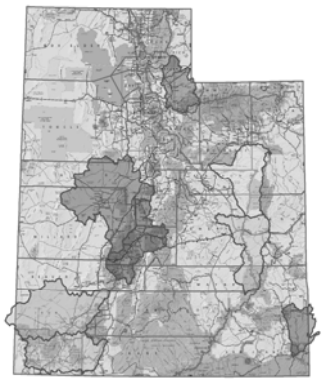
- Rapid watershed assessments provide initial estimates of where conservation investments would best address the concerns of landowners, conservation districts, and other community organizations and stakeholders. These assessments help land-owners and local leaders set priorities and determine the best actions to achieve their goals.

NRCS Planning Continuum*



* Watershed/Areawide Planning includes activities that gather resource data, analyze resource conditions, recommend alternatives and evaluate their effects.

Utah RWA Watersheds



Entire State
54,320,000 acres

8 RWA Watersheds
11,098,448 acres

Upper Virgin River
1,397,443 acres

The First Step is to develop a Watershed Resource Profile

- A descriptive set of data portraying the significant natural resource features of the watershed

Watershed Resource Profile Contents

Introduction:
Summary of the profile including its location, size, ownership, resource concerns and conservation status.

Physical Description:
Provide information on land use, precipitation, soils, stream flows, water rights, and farms.

Social Amenability Towards Conservation
Survey of land owners willingness to adopt conservation and the community's responsiveness to address social needs.

Resource Problems:
Water quality & quantity limitations, endangered species, soil erosion, and SWAPA resource concerns.

Conservation Progress:
PRMS/PRS reported conservation treatments and cumulative conservation application including WRP and CRP.

Primary Data Gathered for Profiles by Querying Local Staff and Partners

- Significant Resource Concerns (SWAPA +H) in Watershed by Landuse
- Cumulative Status of Conservation
- Landowner Attitudes Towards Conservation and Social Capital Available to Address Issues

Watershed Profile Questions

- What are the significant resource issues and concerns facing agriculture in my state?
- Is there data available that is pertinent to these issues?
- Is the available data on a watershed basis? If not is there a way to convert it to a watershed basis?

Kane County
Resource Assessment Survey Project
August 25, 2005
Kane County Soil Conservation District

The Kane County Soil Conservation District received 22 resource assessment surveys from citizen/stakeholders in Kane County

Top Ranking Concerns that should be addressed <u>immediately:</u>

1.	Adequate water supply for desired uses	68%
1.	Presence of Invasive plants including noxious weeds	68%
1.	Loss of open space of Agricultural lands	68%
2.	Wildfire hazard	59%
3.	Soil loss or erosion on land or along stream channels	55%
3.	Ground water quality and quantity	55%
3.	Storm runoff or flooding	55%
3.	Urban/Suburban growth	55%
4.	Adequate food, water and cover available for livestock	45%
5.	Available water is clean enough for desired uses	41%

Top Ranking Concerns that should be addressed in the <u>future:</u>

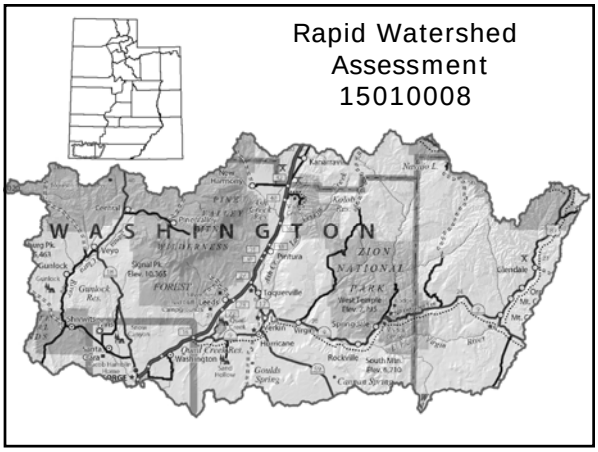
1.	Available water is clean enough for desired uses	55%
2.	Soil contamination due to salts, chemicals or other materials	50%
3.	Plant health, production and adequate quantities	45%
3.	Adequate food, water and cover available for wildlife	45%
4.	Soil loss or erosion on land or along stream channels	41%
4.	Adequate support of historic/prehistoric resources	41%
5.	Adequate energy sources available	36%
5.	Wildfire hazard	36%

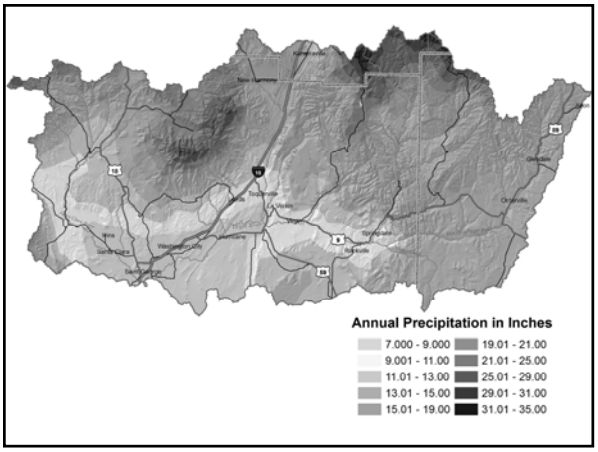
Secondary Data Used in Profiles

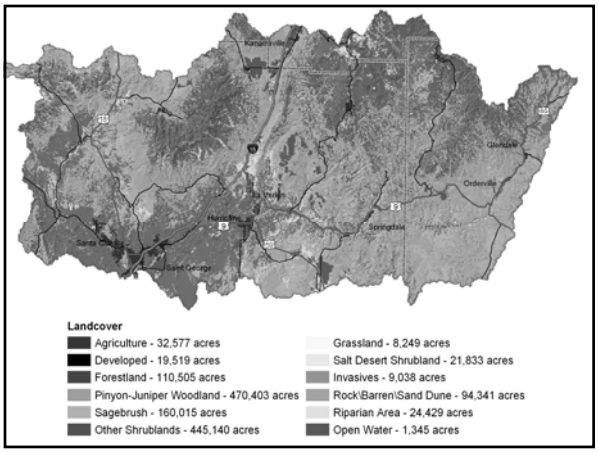
- Southwest regional GAP dataset - landcover (USU)
- Precipitation (NRCS PRISM)
- Common Resource Areas (NRCS)
- Water Rights (Utah Div Water Rights)
- Stream Flow (USGS & Div Water Res)
- CAFOs (Utah Dept. of Agriculture & Food)
- 303d List (Utah Dept. of Environmental Quality-UDEQ)
- Watershed Projects (NRCS, UPCD, UDA)
- Water Related Land Use (Utah Div. Water Resources)
- Surface and Groundwater Protection Areas (UDEQ, EPA)
- Threatened and Endangered Species (USFWS, UDWR, NRCS FOTG)
- Farms Numbers (Census of Agriculture, NASS), HUC data
- Population (Census of Population, US Census Bureau)
- Conservation Progress (NRCS PRMS/PRS)

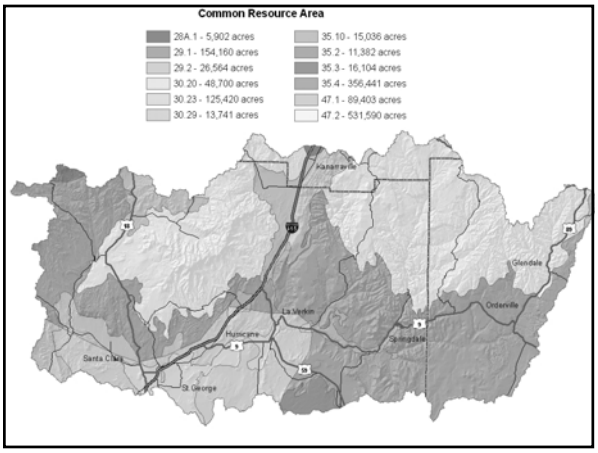
Sources of Secondary Data

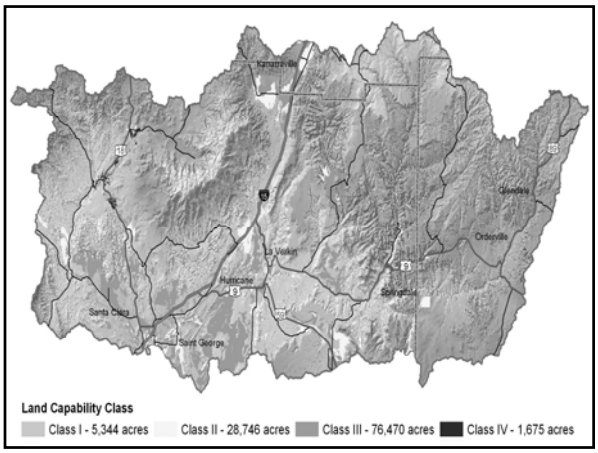
- NRCS Geodata Drives (DEM, orthophotos, climate, admin boundaries, etc.)
- NRCS Geospatial Data Gateway (http://datagateway.nrcs.usda.gov)
- Soils DataMart (http://soildatamart.nrcs.usda.gov/)
- NRCS & FSA Databases – Protracts, PRMS, PRS, CLU, Toolkit
- Climate Data: (http://www.ocs.orst.edu/prism/)
- USGS Land Use (http://edc.usgs.gov/products/landcover.html)
- USGS Water Information (http://water.usgs.gov/)
- BLM GIS Sites (http://www.blm.gov/nstc/gis/GISsites.html)
- Forest Service Plans (http://www.fs.fed.us/r6/gis/data/gisdata/index.htm0
- 2002 Census of Agriculture (http://www.nass.usda.gov/Census_of_Agriculture/index.asp)
- Census of Population (http://factfinder.census.gov/home/saff/main.html?_lang=en)
- Surf Your Watershed (http://www.epa.gov/surf)
- Streamnet (http://www.streamnet.org)
- STORET Environmental Data (http://epa.gov/storet)
- State GIS Centers
  - *Utah Automated Geographic Reference Center (http://agrc.its.state.ut.us/*

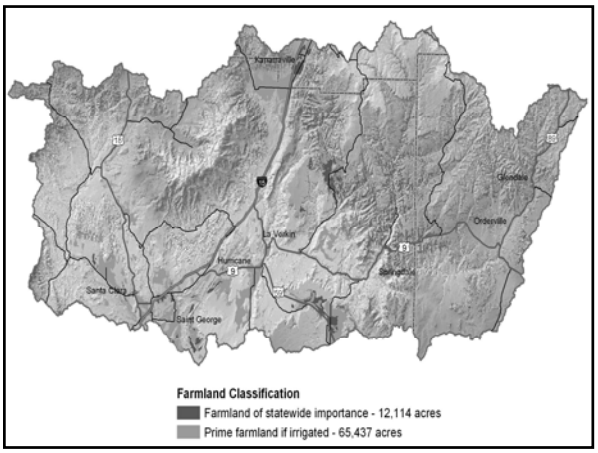


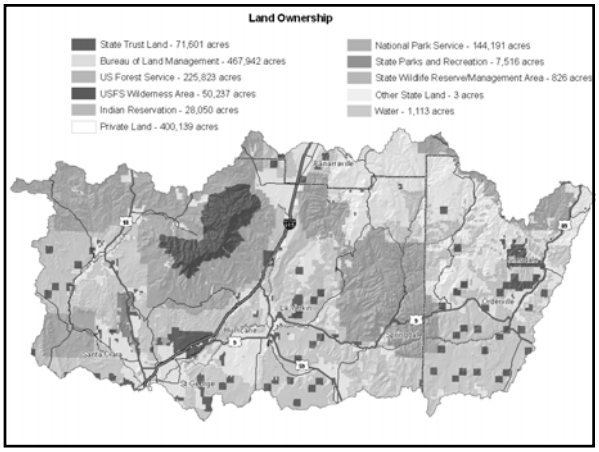


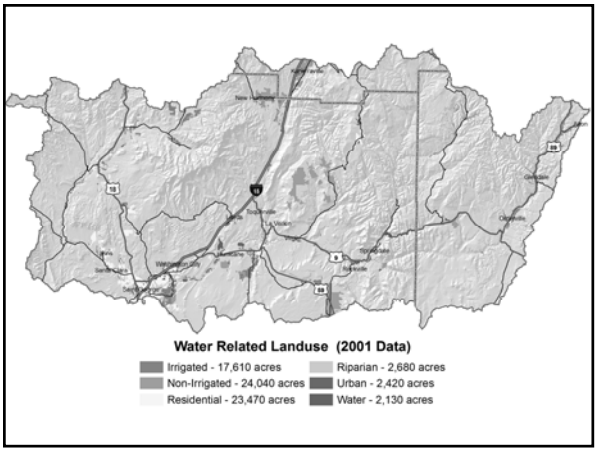





Kanarraville
Glendale
Orderville
La Verkin
Hurricane
Springdale
Santa Clara
Saint George
Land Capability Class
Class I - 5,344 acres
Class II - 28,746 acres
Class III - 76,470 acres
Class IV - 1,675 acres


Kanarraville
Glendale
Orderville
La Verkin
Hurricane
Springdale
Santa Clara
Saint George
Farmland Classification
Farmland of statewide importance - 12,114 acres
Prime farmland if irrigated - 65,437 acres


Land Ownership
State Trust Land - 71,601 acres
Bureau of Land Management - 467,942 acres
US Forest Service - 225,823 acres
USFS Wilderness Area - 50,237 acres
Indian Reservation - 28,050 acres
Private Land - 400,139 acres
National Park Service - 144,191 acres
State Parks and Recreation - 7,516 acres
State Wildlife Reserve/Management Area - 826 acres
Other State Land - 3 acres
Water - 1,113 acres


Water Related Landuse (2001 Data)
Irrigated - 17,610 acres
Non-Irrigated - 24,040 acres
Residential - 23,470 acres
Riparian - 2,680 acres
Urban - 2,420 acres
Water - 2,130 acres

Rapid Watershed Assessments can:

1. **Provide information to develop business plans and strategies**
2. **Assist NRCS & others obtain technical & financial assistance**
3. **Provide information to help program managers & decisionmakers**
4. **Provide focus for forming effective partnerships**
5. **Lead to more detailed, comprehensive assessments and plans where needed to solve resource issues Seek and promote cooperative efforts to achieve conservation goals.**
6. **Facilitate the growth of market-based opportunities that encourage business and industry to invest in conservation on private lands.**
7. **Provide information and assistance to encourage and enable locally led, watershed-scale conservation.**

http://www.nrcs.usda.gov/about/strategicplan/StratPlan_read.pdf

RWA at NRCS Utah State Level

Use RWA's to:

- Respond to National Strategic Plan and possibly to policy in next Farm Bill.
- Encourage collaborative efforts with partners on watershed approach.
- Target areas needing more comprehensive watershed health implementation strategies.
- Provide information that can be used at local level with SWCDs, other partners and landowners.

RWAs not looked at as being an end product.

RWAs at Local Level

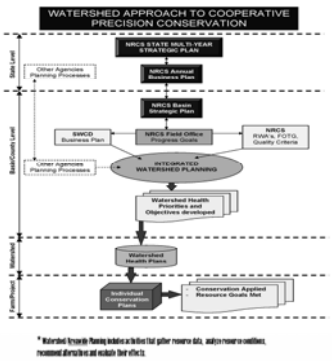
- Use in developing Basin Strategic Plans & SWCDs Business Plans
- Revise rapid RWAs with more local input to increase stakeholder involvement & support.
- Integrate RWA with other watershed scale efforts.
- Assess local community visions for their watersheds
- Prioritize local provision of NRCS services, programs and technical assistance

Rapid Watershed Assessments do not:

- **Address cumulative effects**
- **Consider infrastructure needs**
- **Establish water allocations**
- **Set requirements for meeting water quality standards**
- **Satisfy requirements under NEPA or the Endangered Species Act**
- **Monitor conservation implementation progress**

The next step…

INTEGRATED WATERSHED PLANNING and Watershed Health Plans ***through collaboration***



Any Questions?