Project title: Uncompahgre Watershed Project

Description of ecosystem/ watershed or industry sector targeted by project:
The USGS Cataloging Unit: 14020006 - Uncompahgre Watershed, is the primary target for the Uncompahgre Watershed Project.

Although the Uncompahgre Watershed is more or less defined by the approximately 100 mile long drainage basin for the Uncompahgre River, it is possible to study this watershed in two parts: an upper watershed and a lower watershed. While the upper watershed ecosystem is comprised of alpine mountains, spruce and fir forests, and narrow valleys, the lower watershed ecosystem is for the most part, mesas, pinion and juniper fauna and wide valley floors. Although the Bureau of Reclamation's dam at Ridgway Reservoir may serve as a delineating feature, it does little to interfere with the gradual transition between these two ecosystems. A map might reveal that the Uncompahgre Watershed traverses 7 county boundaries, hosts 5 municipalities, comprises multiple state and federal governmental jurisdictions and includes both small and large tracts of private land. What one won't see is the diversity of individuals and organizations, which express from time to time a great deal of interest in the area. These interests include preservation, resource extraction and private property rights.

Environmental problem description
Like many rivers, the Uncompahgre has been, and remains, a host to many users. A rich mining history in the upper watershed has possibly contributed to the historical natural loading of heavy metals into the waters of the Uncompahgre River. The upper watershed's environmental problems, for the most part, are heavy metals, as witnessed by the Idarado Superfund Cleanup Site and gravel extraction. The lower watershed is plagued by high counts of selenium and fecal coliform. In fact, the Uncompahgre River from U.S. Highway 550 to its confluence with the Gunnison River has been classified as a CWA Section 303(d) Impaired Waters with a high priority for TMDL development. Where these may be the identifiable issues of today, an issue, which has surfaced in the past and is certain to return is the AB Lateral Project. The AB Lateral Project proposes to divert water from the Gunnison River to the Uncompahgre River for the purpose of power generation – an action certain to effect both river ecosystems in one form or another.

The greatest current threat to the long-term health of the Uncompahgre Watershed is the unrelenting rapid population growth. The current EPA data indicates that the area within the Uncompahgre Watershed grew 34.42 percent between 1980 and 1990. This rapid population expansion continues. As the population grows, demand on the watershed resources increase. As demand on watershed resources increase, contentious dialogue often can too.

The community defined by the watershed boundary, much like the rest of the emerging west, has experienced its fair share of divisive issues. Fortunately, the divisions have not always followed a hard ideological line. The distinctions between the good guys and the bad guys change. Politics produces strange bedfellows and the phenomena of collaborative efforts emerge. In the region of the Uncompahgre Watershed collaborative efforts have begun to take hold as mechanisms by which people, as representatives and individuals, can work through differences and advance common interests. Two nationally recognized examples of such collaborative efforts within the watershed are

The Red Mountain Project in the upper watershed and the Public Lands Partnership in the lower.

The Red Mountain Project is a great example of protecting a historical and environmentally significant open space. As a beneficiary of the Land and Water Conservation Funds, this project seeks to acquire several thousand acres of private mine claims in the alpine region of the watershed for preservation.

The Public Land Partnership, (PLP) has started a five-year effort to restore a large part of the Uncompahgre Plateau to its historical ecosystem through logging and controlled burns. The intention of this effort is to improve relations between national forest stakeholders and adjacent ranchers. The desired effect is to reduce development pressure and thus reduce the forest and ranchland fragmentation that so threatens wildlife.

These are just two of many examples within the Uncompahgre Watershed where diverse but interested parties have come together and created a unified plan of common interest. Where cooperation is good, it is unfortunate that none of the participants in these collaborative efforts have the opportunity to understand their specific agenda in the context of the watershed as a whole. Furthermore, much of the data and information that these groups so painstakingly collect cannot be easily shared across the watershed with others. It cannot be shared because there is no standard format for the data, and it cannot be shared because there is no institutional means for distributing the data and information. As a result, many important issues are either ignored or recognized only in the context of isolated areas of study. Among these issues are: Development / Growth, Drinking Water, Fecal Coliform, Flood Plain Planning, Grazing, Mining, Nonpoint Source Pollution, Riparian Restoration, Sediment Loading, Selenium, Storm Water Management, Water Diversion Projects, Wetlands Protection and Wildlife Habitat. All of these issues should be looked at in terms of the watershed as a whole.

Description of project and how it will address the problem

The SouthWest Data Center, Inc. is a 501 (c)(3) nonprofit corporation. From its beginning in 1995, the Data Center has been at the forefront in providing GIS data to the public. Today, utilizing tools such as ArcIMS, the Data Center collects and redistributes data and information to the public via the Internet. Complementary to this purpose, the Data Center has made a committed effort to become actively engaged in the Community Based Stewardship conversation. In so doing we have had the opportunity to provide “behind the scenes” support to other groups. One such example is the Colorado Ecosystem Partnership’s website – another is the mapping for the San Miguel Water Quality Project.

The SouthWest Data Center, Inc. proposes to use the position of Watershed Coordinator for the Uncompahgre Watershed Project as a catalyst to jump-start two complementary efforts. While fulfilling the task of Watershed Coordinator - identifying stakeholders, bringing them together and supporting the creation of a unified vision for the Uncompahgre Watershed - the Data Center will also accumulate relevant data and information and integrate it into an interactive spatial database where it can be dynamically accessed and maintained using the Internet.

The SouthWest Data Center has been steadily promoting a seamless coverage of the entire Colorado Plateau that will include GIS data from as many sources as possible. Our goal is to create a Spatial Database Atlas of the Colorado Plateau. An atlas that not only creates ArcIMS map images and delivers them via the Internet, but also provides hyperlink access to relevant bibliographical information including scientific reports, graphs, charts, pictures, sound effects – what ever can be put into a file. Imagine being able to identify an area within the Uncompahgre Watershed using your mouse, have a map image of that selection delivered to your browser in an acceptable amount of time where you can then hyperlink to appropriate information concerning individual features. The technology is not the challenge here. Time and money is.

Fortunately, through software grants from Microsoft and ESRI, combined with volunteer time from the Data Center, the Colorado Plateau Spatial Database Atlas is already in development. Although developing a spatial database / Internet delivery system for the entire Colorado Plateau is not the objective of this project, developing the Uncompahgre Watershed component would be. Once the Uncompahgre Watershed bugs are worked out, the technology and know-how could be easily transferred to other watershed projects in the Colorado Plateau ecosystem – in fact the whole spatial database atlas could be replicated by other organizations in other river basins such as the Upper Missouri River Basin.

Project Outline:

1.) Watershed Coordinator
- Identify Stakeholders
- Contact Stakeholders and get buy-in
- Organize Summit of Stakeholders
- Publish newsletters
- Conduct evaluation
- Publish report

2.) Visioning Process
- Use contract services to facilitate visioning process

3.) Data / Information Accumulation
- Collect GIS Data from various sources including local, state and federal sources.
- Reproject and update GIS Data into a seamless watershed coverage that will integrate into the Colorado Plateau Spatial Database.
- Collect or locate Bibliographical Information from various sources – both Internet and non-Internet based.

4.) Data / Information Distribution
- Produce Metadata for Watershed coverages.
- Provide FTP site for data / information.
- Print maps for Watershed Coordinator.
- Hyperlink and Internet publish Bibliographical Information into the Colorado Plateau Spatial Database.
- Create Website for Stakeholders and Public use.
    - Design and construct basic website.
    - Build dynamic ArcIMS / Database component of website.
    - Assemble pre-made maps based on various feature themes and projects
    - Construct appropriate entry pages based on feature themes.
    - Setup and maintain WebBoard discussion area for stakeholders and public comment.

5.) Data / Information Maintenance and Transfer
    - Create and provide “connector templates” where project webmasters can connect and maintain their own data / information.
    - Provide training and support for project webmasters.
    - Provide a “Road Map” for duplication in other regions such as the Upper Missouri River Basin.

Expected outcomes, benefits, results and schedule
The expected outcome would be the creation of a unified vision for the Uncompahgre Watershed. The best data and information available would support this unified vision. Components of this unified vision would be:

- The establishment of a forum with which Uncompahgre Watershed issues could be discussed using Community Based Stewardship concepts.
- The incorporation of the existing WRAS, between Montrose and Delta, into a basin wide WRAS.
- The creation of a current and integrated GIS coverage for the Uncompahgre Watershed in its entirety.
- The development of a bibliographical information relevant to the watershed.
- A means for distributing GIS data and bibliographical information to the stakeholders and general public via the Internet.

The expected benefits of this unified vision would be:
- Having the appropriate tools to prioritize watershed restoration and protection projects.
- Realizing useful mechanisms for coordinating and sharing resources for restoration and protection efforts across the watershed.
- A better-informed stakeholder group and general public with access to information used to create public policy.
- A set of baseline data for future projects.

As a direct result of this project, the Watershed Coordinator will be in a stronger position to find and leverage funding from other sources. By identifying and prioritizing watershed needs, the stakeholders can provide direction to these funding efforts. In fact, since many of the stakeholders are funding agencies themselves, they will be in an ideal position to champion watershed projects to their own organizations. In short, increased funding opportunities for restoration and preservation projects will be a direct result of the Uncompahgre Watershed Project.

Institutional results should be easy to measure within a 2-year time frame. What has the group accomplished? What is the level of stakeholder involvement and inclusion? Is the data and information assessable? Is it being utilized? These are just some of the questions that will be asked in periodic surveys of the partners. Open houses will be held in all the communities to educate the public and solicit input. These public meetings will also be used to ascertain whether or not all interested parties are being included in the process.

With regard to the Uncompahgre Watershed component of the Colorado Plateau Spatial Database Atlas the expected outcome is a significant contribution to the Community Based Stewardship toolbox. This contribution includes:

- A model for accumulation of data and information.
- A model for involving communities and gathering their input.
- A model for presenting and hyperlinking data and information.
- A model for distributing data and information via the Internet.

The benefit of developing the Uncompahgre Watershed component is that it provides the means for eventually joining all of the other watershed efforts within the boundaries of the Colorado Plateau into one seamless coverage with a hyperlink feature to relevant information. This should pave the way for multi-watershed, or basin wide collaborative efforts to materialize quickly and efficiently – without the need to duplicate efforts. In short, contributing to the development of the Colorado Plateau Spatial Database Atlas is building for the future.

Stakeholder participation and roles of project partners

The watershed has had a long history of people working together, starting with the San Juan Alliance. Over the years many collaborative efforts have been formed to meet various needs. Today, the National Forest Service is beginning an effort to identify instream flow needs for the streams of the Grand Mesa, Uncompahgre, and Gunnison National Forests (GMUG). This will also be accomplished through a collaborative effort of stakeholders. The manager of this project has expressed an interest in using the Uncompahgre Watershed Stewardship Project to study how their management efforts relate to the activities of adjacent landowners – particularly private landowners. The point is that there is already a healthy level of understanding and sophistication in this area with regard to collaborative efforts. The people, who have been working together in the past on parts of the Uncompahgre Watershed, are expressing a growing interest in looking at the watershed as a whole.

In talking to a few key potential partners in passing, we have received their commitment to not only participate in this project, but to also provide in-kind reports from their own projects - a major commitment of time and resources. The reasoning is that by establishing priorities for the watershed as a whole, funding for specific projects within the watershed will improve due to a better understanding on the part of the funders.

Although the SouthWest Data Center, Inc., as a policy neutral nonprofit organization, would not be considered a stakeholder as such, as a partner it would bring to the project in-kind services and other matching funds which would go well beyond the required 5%.

A preliminary list of potential stakeholder participants might include:

Municipalities: Delta, Montrose, Olathe, Ouray and Ridgway

County Commissioners: Delta, Gunnison, Hinsdale, Montrose, Ouray, San Juan and San Miguel

County Agencies: Delta County Health Department, Delta Soil Conservation District

State Agencies: Colorado Department of Public Health and Environment, Colorado Association of Conservation Districts, Colorado Division of Water Resources, Colorado Division of Wildlife, Colorado River Water

Conservation District, Colorado State Soil Conservation Board, Colorado State Forest Service, Colorado State University Cooperative Extension

Federal Agencies: BLM, National Park Service, Natural Resources Conservation Service, U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, U.S. EPA Region 8, U.S. Fish and Wildlife Service, U.S. Geological Survey (USGS), USDA NRCS, USDA Forest Service, USGS

Others: Commercial farmers, ranchers, and dairymen, Idarado Mine, Private Landowners, Public Lands Partnership, Selenium Task Force Participants, Shavano Soil Conservation District, Recreational Users, Tri-County Water Conservancy District, Trout Unlimited, Uncompahgre Valley Water Users Association, Western Colorado Congress

Budget for entire project with a breakout by task and funding source requested. Budget should include EPA funds and non-EPA funds requested or committed

1.) Watershed Coordinator		**Hrs**	**Total Funding**	**EPA Funds**
Identify Stakeholders		40	1,400.00	$1,000.00
Contact Stakeholders		80	2,800.00	$2,000.00
Organize Summit of Stakeholders		120	4,200.00	$3,000.00
Publish newsletters		240	8,400.00	$6,000.00
Conduct evaluation		80	2,800.00	$2,000.00
Publish report		240	8,400.00	$6,000.00
	Sub-Total	**800**	**28,000.00**	**20,000.00**
2.) Visioning Process				
Outside Services			10,000.00	10,000.00
	Sub-Total		**10,000.00**	**10,000.00**
3.) Data / Information Accumulation				
Collect GIS Data		100	6,000.00	$4,500.00
Reproject GIS Data		60	3,600.00	$2,700.00
Collect Bibliographical Information		100	6,000.00	$4,500.00
	Sub-Total	**260**	**15,600.00**	**11,700.00**
4.) Data / Information Disbursement				
Produce Metadata		60	3,600.00	$2,700.00
Print maps		40	2,400.00	$1,800.00
Hyperlink Bibliographical Information		40	2,400.00	$1,800.00
Create Website				
Design basic website		20	1,200.00	$900.00
ArcIMS / Database component		40	2,400.00	$1,800.00
Assemble pre-made maps		40	2,400.00	$1,800.00
Construct entry pages		20	1,200.00	$900.00
Setup WebBoard Discussion Area		10	600.00	$450.00
	Sub-Total	**260**	**16,200.00**	**12,150.00**
5.) Data / Information Maintenance and Transfer				
Create “connector templates”		40	2,400.00	$1,800.00
Training and support		40	2,400.00	$1,800.00
Provide “Road Map” for duplication		40	2,400.00	$1,800.00
	Sub-Total	**120**	**7,200.00**	**5,400.00**
	Total	**1440**	**77,000.00**	**59,250.00**

An indication whether you are seeking support through a grant, IAG or contractual mechanism

The SouthWest Data Center, Inc. is seeking support in the form of grants for the Uncompahgre Watershed Coordinator position, the collection and distribution of data and the development of the Uncompahgre Watershed component of the Colorado Plateau Spatial Database Atlas.

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