

What is a Healthy Stream After All?

Both national and local headlines are filled with phrases such as, "protect our natural resources", "love your mother", "conserve energy" and "save our canyons". These are catchy phrases that motivate a certain worldview, but what do we really mean by environment, resources or pollution? For anyone who's attempted to characterize and monitor the natural world, the answer to these questions is more complicated than our college textbooks led us to believe. Remember biology class when the teacher

handed out a pristine diagram of a dissected frog? Remember what the frog really looked like once your lab partner fainted and you bravely yielded the scalpel? We in the natural resources community are often faced with similar dilemmas. We need to determine if our environment is polluted, if our streams are functioning properly, but there are no formulas to follow, no neat diagrams.

Earth is dynamic, complicated, beautiful. As a result, the best approach to characterization is often the simplest - document what you see and monitor change over time. With persistence, we will acquire a better understanding of how our watershed is functioning and collectively identify opportunities for enhancement. In the vein of characterization, and in support of the County's Water Quality Stewardship Plan (WaQSP), the Flood Control & Water Quality Division has worked with local experts and consultants over the past few years to establish an assessment protocol we refer to as the Stream Function Index (SFI). The SFI is a rapid assessment monitoring tool that scores a stream based on water quality, habitat, flood conveyance, and social/recreational facilities. To develop protocols for the SFI, Salt Lake County sought input from numerous local experts and natural resource agencies. Through research and discussions, we quickly realized that the majority of established stream monitoring protocols were developed for natural settings. Applying those methods to an urbanized environment would result in skewed numbers to say the least. Therefore, we worked together to develop a method that would be meaningful in the diverse areas of Salt Lake County. Once the method was established, several County

staff hit the "water" and walked/canoed the streams and river in the County to collect data and characterize our streams. Over 20 streams, one major river, and many mosquito bites later, they are ready to give each of our streams a score.

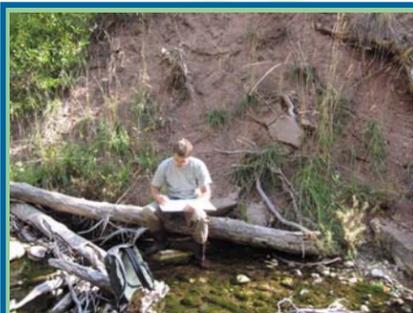
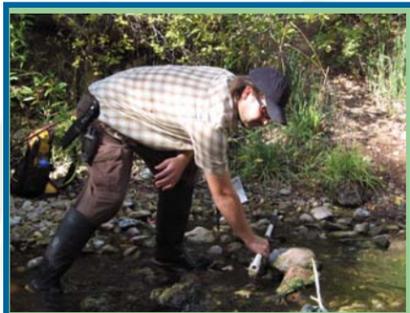
A final SFI Report will be published in early fall (2008); however, there are some preliminary numbers available. For example, of the 226 stream miles that have been assessed, 108 miles (47%) were identified as having unstable bank conditions. This means that about half of our streams are in a condition of flux where the morphology of the stream wants to shift, but development, crossings and other conditions make that natural shift unlikely. With this information, the County and municipalities have a better handle on what sections of creek may be improved through stream restoration projects.

Stream restoration projects typically focus on stabilization, re-vegetation, and habitat enhancement. To date, most of the stream restoration work in the County has centered on the Jordan River, but with

this new dataset, we're hopeful that through collaboration with local communities and cities, other areas will be enhanced. In working together, this countywide assessment will assist all agencies in applying for and receiving grant monies.

Similar to the WaQSP, the SFI will be updated every 6 years. The data will be compiled into a comprehensive report and the information will be shared with management and regulatory agencies as well as the public at large. This information will also be posted on our website (www.waterresources.slco.org).

As we transition from a planning to an implementation focus, it's crucial that we know how our streams are functioning. The SFI provides key pieces of information to inform management decisions and monitor watershed improvements. With focused efforts, we hope to see improvements in the SFI scores with each update of the WaQSP. Even though it's tricky, the more we observe, the more we can differentiate between the liver and gallbladder of our metaphorical frog.



the Watershed Watch

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Blueprint Jordan River

Project Update

Many people who spend time along the Jordan River Parkway, or canoe through scenic sections of the River, may ask themselves, "Who manages this River? Is there an overarching authority that determines how the River is developed?". Seemingly straightforward questions, but the answers are anything but straightforward.

As the Jordan River flows from Utah Lake to the Great Salt Lake, it passes through 15 municipalities and 3 counties. Additionally, the bed of the River is considered sovereign land and is managed by the State Division of Forestry, Fire and State Lands as a navigable water. Land use along the River is governed by local municipalities, and hydrologic connections to the River are overseen by local flood control authorities. So, the answer to our simple question is that the Jordan River is a multi-jurisdictional resource that requires cooperation between numerous entities.

With the complex jurisdiction in mind, and in order to establish a comprehensive plan for the Jordan River, Envision Utah, along with Salt Lake County and the municipalities along the Jordan River, have been engaged in a master planning process for the Jordan River for the last eighteen months. This project is named "Blueprint Jordan River".



Upper Jordan River

Background

The "Blueprint" is a visionary planning effort that explores future uses and conditions along the Jordan River. The primary goal of the project is to raise awareness of the River as a regional amenity and natural resource. Additionally, the "Blueprint" seeks to build a constituency for the River by encouraging public buy-in to raise the level of investment in, and stewardship of, the River. It is the hope of many involved in this process that one day the River will maintain a healthy, thriving ecosystem, that supports recreational uses such as: wildlife viewing, cycling, and non-motor boating. Natural resource and social capital improvements may provide the backbone for sustainable economic development in our Region for years-to-come.

Public Involvement Summary

In May and June of 2008, a series of public workshops, on-line surveys, and focus group meetings were held/conducted to gather public input on the future of the Jordan River. Over 1,200 people responded to the survey; 8% of which were from the Hispanic/Latino community (a targeted effort was made to include this important constituency). In addition to the survey results, those who attended the workshops produced almost 40 maps with numerous comments and recommendations on areas to conserve and to develop. These maps also identified preferred locations for new recreational facilities and identified opportunities to improve transportation amenities.

(Continued on page 4)

Salt Lake County Public Works
Flood Control & Water Quality Division
Water Resources
Planning & Restoration Program
2001 South State Street, Suite N3100
Salt Lake City, Utah 84190

Digital copies available online at
www.waterresources.slco.org
We welcome submissions!

JOIN THE CONVERSATION

Salt Lake County will host the second annual Salt Lake Countywide Watershed Symposium, October 28 and 29 at the Salt Lake Community College Larry H. Miller Campus (9750 South 300 West).



What? FREE, two-day event. Multi-faceted review of the current state of our watershed. Featuring panel discussions, presentations, field trips, informational tables by numerous non-profit and government agencies, a keynote address by Mayor Peter Corroon.

Who? Designed to bring together the general public, local water quality/watershed experts, environmental activists, teachers, students, and those working in watershed professions.

Register? Participants must register before **October 20, 2008**.

Contact: Marian Hubbard
801.468.2714 or
Mhubbard@slco.org



JRWC Mission:

The Jordan River Watershed Council is dedicated to the ecological and economic sustainability of the Salt Lake Countywide Watershed through the promotion of stakeholder involvement.

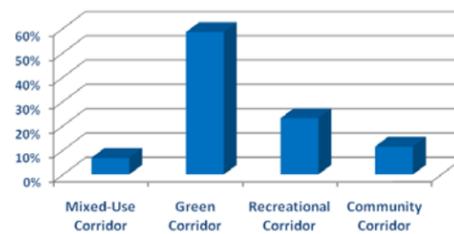
Blueprint Jordan River-Continued

Jordan River Utilization for Long-Term Economic Development



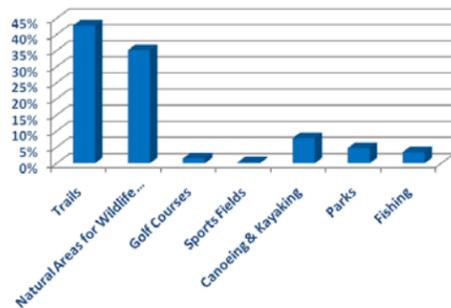
Participants shared the perspective that the River can be best used in the long-term as natural open space.

Vision Scenarios for the Jordan River



Respondents overwhelmingly stated a preference for a "green/natural" corridor.

Important Recreational Activities



Note strong desire to maintain the Jordan River corridor as a natural area for trails and wildlife viewing.

Survey Results

Generally, the largest demographic that participated in the Blueprint study were 30-44 yr-old and lived further than two miles from the River. Interestingly, age and geography correlated to some fluctuations in the responses, but overall, the respondents had similar priorities across demographic categories. In other words, the survey results indicated a strong and shared public perspective on the River's future. Most significantly, when asked about their vision for the River, respondents overwhelmingly stated a preference for a "green/natural" corridor.



Next Steps

This summer, a team of volunteer professionals have been working with Envision Utah staff to translate the public input from the survey and maps into a Vision report with goals and recommendations for implementation (including a series of guiding maps). Draft recommendations and maps will be presented to the public during a series of Open Houses on September 10th (6:00 - 7:30PM) at the Utah Cultural Celebration Center in West Valley City and September 11th (6:00 - 7:30PM) at the Gale Center in South Jordan and the Lehi Legacy Center (6:00 - 7:30PM). After the next round of public input, the "Blueprint" will be revised and taken to each City Council for comment and finally for approval by the Salt Lake County Council in December.

More information is available on-line at:

www.blueprint.slco.org

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Acquisition of Rose Canyon Ranch

By Lorna Vogt: Salt Lake County Open Space Coordinator



Just about one year ago today, the Salt Lake County Council was considering spending \$8.7 million to purchase nearly 1,700 acres of open space near Herriman. In October, the Council voted unanimously to make the purchase, and in December 2007, the County closed the deal, and county residents became the proud owners of a spectacular new mountain preserve ideal for recreation and escape from city life, the Rose Canyon Ranch. The ranch purchase was the culmination of years of effort and planning to bring parcels of land in the southwest quadrant into public ownership. As early as 1984, the County was working to move military land into what is now Bureau of Land Management land. Then in 1986, the county purchased the 800-acre Yellow

Fork Park. In early 2007, the BLM approached the county with a proposal to link its land with Yellow Fork to create a much larger recreational area with trails for horse riders, hikers, and bikers and picnic areas for family use. When Rose Canyon Ranch came on the market, the County realized it had an unprecedented and unique opportunity to consolidate close to 4,000 acres of land for county residents. Thanks to County voters, the purchase was made using funds from the \$48 million 2006 Open and Green Space Bond. Rose Canyon Ranch and the surrounding properties extend

from 5,000 feet in the foothills just west of Herriman to 7,200 feet near the highest peaks of the Oquirrh Mountains. The area has fresh water springs, abundant wildlife—deer, cougar, wild turkeys, and 750 elk—and healthy forest habitat. The views from the ranch are spectacular: Utah Lake, Mt. Timpanogas, and the farm land of western Utah



View of Rose Canyon Ranch

County; the whole of the Wasatch Mountain Range; the Oquirrh Mountains; and almost the entire length of Salt Lake County. This land may be the only publicly held and accessible land on the western side of the Oquirrh Mountains. Now that the land is secured, the County is setting out to develop a long-term land management plan that will protect the land's beauty, health, and resources. In September, the County's Parks and Recreation Division will kick off a year-long planning process that will include stakeholders from the State, County, cities, user groups, educational institutions, and residents. The goal is to bring the best minds together to craft a careful, comprehensive plan for the entire 4,000 area. The BLM will be the county's primary partner contributing resources and expertise to the project; the BLM and County have entered into an agreement to cooperatively manage the area. The Rose Canyon Ranch purchase epitomizes the goals of the county's Open Space Program: to secure for county residents the highest quality open spaces that are necessary for our quality of life. Residents will be able to take an evening walk, have a family picnic, explore new territory, and discover nature in this wonderful preserve. The purchase of the Rose Canyon Ranch was possible only because the residents of the County and its leaders recognize that preserving open spaces now is critically important for this and future generations.



WATER QUALITY STEWARDSHIP PLAN

After three years, over 125 stakeholder meetings, 200 individual comments, and numerous unofficial discussions, a final Salt Lake Countywide Water Quality Stewardship Plan (WaQSP) was published in August of 2008. For those involved in the development of the WaQSP, those are happy words! With the assistance of many individuals and agencies, we now have a comprehensive stewardship plan that will provide the basis for water quality improvement and preservation efforts for the next six years and beyond.

As part of an effort to establish stakeholder buy-in

WATER QUALITY STEWARDSHIP PLAN (WAQSP) RECEIVES BROAD SUPPORT

and support for the WaQSP, members of the Salt Lake County Flood Control & Water Quality Division met with city mayors and their key staff over the past few months to discuss priority recommendations. These recommendations range from riparian restoration/enhancement projects, to increased stream flow measurements and the establishment of riparian protection ordinances.

Many cities responded with enthusiasm and support for WaQSP recommendations. In fact, through these meetings it became apparent that several cities have established significant protection measures and are forging innovative paths towards water quality stewardship in the County. For example, Riverton City has a Sensitive Area Overlay Zone ordinance that protects both wetlands and riparian corridors. Similarly, Salt Lake City recently passed a Riparian

Overlay Zone ordinance, which supports appropriate development in riparian corridors. The City of Taylorsville is developing a warm water fishing pond that will use Jordan River water, and West Valley City has a 75-foot easement requirement along the Jordan River within its boundary. This is to name a few. Many other cities have adopted and

encouraged additional practices that are targeted toward the preservation and enhancement of waterways and watershed function.

With robust local support, implementation of WaQSP recommendations will be both efficacious and influential. We're excited about the momentum that surrounds collaborative water quality stewardship in the County and look forward to partnering with local leaders on efforts to further improve and protect our watershed!

The Salt Lake County Council of Governments (COG), comprised of local mayors and council members, passed a Resolution of Support for the WaQSP on August 7, 2008. This support is vital to the success of WaQSP as many recommendations can only be implemented

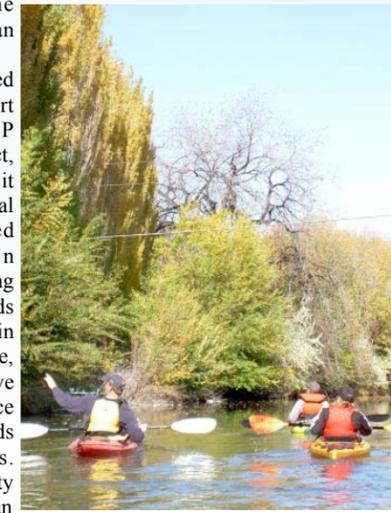
through collaboration with local municipalities. It is anticipated that the County Council will adopt the final WaQSP in September of this year. Once the plan has been adopted, it will be sent to the State for certification and the Environmental Protection Agency for concurrence.

Thanks to everyone who participated in the WaQSP development! It is only through collaboration that we will be able to improve water quality and protect our natural resources for generations to come.

To learn more about the WaQSP, visit www.waterresources.slco.org.

Copies of the WaQSP are also available at all Salt Lake County libraries and the Main Salt Lake City library. To receive a CD copy of the Plan or to learn more about the WaQSP, please contact:

Natalie Rees (801.468.3656 or nrees@slco.org).



Kayakers in Jordan River

"LEED" Environmental Stewards-Right Next Door!!

We all live and use buildings as part of our everyday life. However, we may not always consider environmental cost associated with these great structures. Buildings fundamentally impact people's lives and the health of the planet, but to what point? In the United States, buildings use one-third of our total energy, two-thirds of our electricity, one-eighth of our water, and diminish valuable open space and natural resources. How can we reduce energy and water usage while fostering a robust economy and conserving our precious natural resources? When you hear about development, you may have heard the term "LEED" thrown around, but what is LEED and what does it mean for us locally?

Leadership in Energy and Environmental Design (LEED) is a Green Building Rating System. LEED is a third-party certification program and the nationally accepted benchmark for the design, construction and operation of high performance green buildings. The LEED rating system encourages global adoption of sustainable green building

and development practices. It also gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' environmental impact.

LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: (1) sustainable site development, (2) water savings, (3) energy efficiency, (4) materials selection, and (5) indoor environmental quality.

So, what makes a building LEED certified? Each type, or version, of a LEED building, such as a school or a home, has a different scoring system based on set requirements. These buildings can obtain points in the five key areas. For example, the New Construction Rating System is designed to guide and distinguish high-performance commercial and institutional projects, such as office buildings, high-rise residential buildings, government buildings, and recreational facilities. Under LEED Version 2.2, there are 69 possible points new construction buildings can earn to qualify for four levels of certification:

- **Certified** - 26-32 points
- **Silver** - 33-38 points
- **Gold** - 39-51 points
- **Platinum**-52-69 points

As you look around the Salt Lake Valley, you may wonder if there are any LEED Certified buildings among us. Good news, we do have quite a few here in the County and the numbers keep growing. The environmental and economic benefits of these buildings are felt by anyone who comes into contact with a project including the community as a whole. Salt Lake County promotes incorporating Leadership in Energy and Environmental Design criteria in the recently finalized Water Quality Stewardship Plan (WaQSP). What's more, the new County Public Works Administration Building is striving for a **Gold LEED Rating**.

Even more good news is the pilot program of LEED Neighborhood Development (LEED ND). LEED ND uses the framework of other LEED rating systems, but also encourages smart growth, and promotes location and design that reduces driving. This program has

many additional benefits, such as a reduction of urban sprawl thus reducing stormwater runoff and destruction of wetlands. We have an example of this right here in Salt Lake County. Kennecott Lands Daybreak development, located off of Bangert Highway at approximately 11400 South. Daybreak has three buildings built to LEED standards. One of which achieved a Silver Rating.

Since the launch of LEED in 1998, it has grown to encompass more than 14,000 projects in 50 U.S. States and 30 countries. Although there may be additional building costs associated with LEED, the costs pay for themselves with reduced maintenance costs in the future. Green design not only makes a positive impact on our watershed and environment, but public health as well. It has many economic benefits such as enhancing building marketability, all the while creating a sustainable community. **For more information on LEED, visit the U.S. Green Building Council (USGBC) website at: www.usgbc.org.**



SLC Intermodal Passenger Hub-Certified



Daybreak Elementary & Community Center-Silver



OSHA Building-Silver



Salt Palace Expansion Phase III -Gold

Fertilize in the Fall?? Now's the Time!

Don't leave lawn care until spring!

Fall is the best time of year to fertilize your lawn and control weeds. **Fall fertilization is best** because the lawn has passed through the stressful summer months and needs food to rebuild itself. During the fall season there is less competition for nutrients from weeds and also the nutrients take advantage of the cool weather growth period to restore the lawn to full health and prepare it for the next summer. Fertilizing your lawn in the spring only contributes to increased blade growth, which then means more mowing, more lawn clippings,

and air pollution from gasoline powered lawn mowers.

However, this is not the only reason to fertilize in the fall. In the Salt Lake Valley, storm drains flow directly to our local creeks and river with **NO treatment**. Excess fertilizers are washed off the land into streams by stormwater, polluting our neighborhood streams. The pesticides, dirt, and lawn clippings that we hose or sweep into the gutter ends up clogging fish spawning areas and covering the stream channel floor. Also, the extra load of nutrients from fertilizer may cause large blooms of algae population in our local watershed. The result is less

oxygen, less food, less fish.

Fortunately, we can have a beautiful yard and a healthy watershed. By following landscaping and appropriate garden maintenance practices, you can keep the stormdrains clean and excess fertilizer, pesticides, dirt, etc. out of the watershed. By being a water quality steward, not only will you be rewarded with a beautiful landscape, but healthier watershed as well.



WE ALL LIVE DOWNSTREAM

www.stormwatercoalition.org



Buffalograss (Buchloe dactyloides)
A great, drought-tolerant alternative to bluegrass!

Fall Landscaping Tips

Use biodegradable pesticides/herbicides.

Never use the gutter or storm drain system for disposal of household or garden waste.

Store pesticides, fertilizers and other chemicals indoors or in a shed or storage cabinet.

Clean leaves, sediment and trash out of gutter and dispose of in garden or trash.

Control erosion on your property by planting groundcover and stabilizing erosion prone areas.

Collect lawn and garden clippings, pruning waste and tree trimmings. Chip if necessary and compost.

Mow with sharp blades set at 2 1/2 to 3 inches and leave clippings on the lawn.

Sweep and collect dirt from driveways or walks and dispose of in garden.

Apply lawn and garden chemicals sparingly and according to instructions. Rinse containers and use rinse water as product. Dispose of rinsed containers in the trash.