

2015

# Harney County Watershed Council

## Strategic Action Plan 2015-2020

The Harney County Watershed Council is a locally organized watershed council based in Burns, Oregon dedicated to improving the ecological health of the subbasins of Harney County and respecting the economic well-being and vitality of this arid region of Oregon.



Harney County Watershed Council

Adopted  
4/21/2015



# Harney County Watershed Council

## Strategic Action Plan 2015 – 2020

### Mission

*Local economic and ecological prosperity depends on watershed health and the availability and quality of ground and surface water.*

*Therefore, the Harney County Watershed Council provides a framework of outreach, coordination and cooperation between private landowners and all interested parties to promote watershed conditions that benefit people and the environment. The Council works to improve watershed health through education, action plans based on scientific assessments and enhancement projects.*

### Harney County Watersheds

Harney County is larger than nine of the states in the United States. The closed basin area of Oregon is larger than the state of Maryland. The 17,300 square miles of land in subregion 1712 [Oregon Closed Basins (Malheur)] is a huge area. The seven subbasins for the development of an action plan (Figure 1) cover 11,395 square miles. While the Action Plan is for only around 10,000 square miles, it is a HUGE area. The seven watershed assessments conducted are on a scale much greater than the OWEB manual was developed for.



Figure 1: Subbasins in the Harney County Watershed Council

Harney County is in the Northern Basin and Range ecoregion of EPA, it includes a small part of the Blue Mountains in the headwaters of the Silvies River. The region is arid and the geology is dominated by volcanic deposits of basaltic lavas and colluvium on volcanic rocks with pluvial lake deposits in arid basins. The arid climate has extreme ranges in daily and seasonal temperatures and precipitation is sporadic and localized.

### **Harney County People: Native People**

Nine thousand years ago the northern Great Basin, which is now desert, was probably a series of very large lakes. The ancestors of the Burns Paiute people lived in caves near their shores. Horses, camels, mammoths, bison, elk and deer roamed the hills. These people used the fibers of the tule plant, willow, Indian hemp, and sagebrush bark to make woven sandals, coiled and twined baskets, and rope. They also made duck decoys, fish nets, and traps for small game with these fibrous plants. A beautiful soft blanket woven from the furs of rabbits and child's sandals made from sagebrush fibers were found preserved for close to 10,000 years in a cool, dry cave. Archeologists also found clothing made from deer, animal and bird hides. Their diet included a wide variety of items, such as fish (including a great deal of salmon), birds, deer, small animals, plants and seeds.

During the next one to 2,000 years, the climate slowly became drier and warmer. The lakes began drying up and food sources were less readily available. By 7,500 years ago, large mammals such as horses, camels and mammoth were extinct. People began seasonal migrations to take advantage of plants and animals in certain areas. Small family groups would travel separately collecting seeds, berries, roots, hunting small animals, deer, mountain sheep, elk and fish.

These smaller groups came together to harvest, socialize and intermarry with other Paiutes, as well as other Indian tribes. Spring offered roots to be gathered on the sunny hillsides and meadows, and fishing for salmon during the salmon runs. During the summer, berries and fruit were collected as food and stored for winter use. By late summer and early fall, seeds were the main resource to be gathered. Families also came together during this time of the year for communal antelope and rabbit drives. Late fall was the time to collect plant material to make items such as sandals, baskets, and clothing during the long winter months. By November, the families had gathered the cached goods they had put away during the months of harvesting. Materials were then gathered from the area (sagebrush in the desert or tules near the lakes) and they built houses near springs in which to live out the winter. The Paiutes lived in this manner for thousands of years.

The Paiute people believe that the Paiutes have lived in this area since before the Cascade Mountains were formed as they have learned from their stories and legends. Recent researchers, on the other hand, believe that about 1,000 years ago an influx of Paiute-speaking people came from the south and migrated throughout the Great Basin. They brought with them not only their language but also certain types of atlatl and spear points, and brownware pottery. Pottery was not found in the Great Basin before this time. However, the people of the Burns Paiute Tribe were basket makers and did not make pottery. According to the researchers, the language spoken here before the arrival of the Paiute is unknown. This, however, contradicts the Paiute stories and legends that are handed down from generation to generation which tell of the Paiute people living in the Great Basin for thousands and thousands of years.

The Burns Paiute Tribe descended from the Wadatika band, named after the wada seeds they collected near the shores of Malheur Lake to use as food. Bands were usually named after an important food

source in their area. The Wadatika's territory included approximately 52,500 square miles between the Cascade Mountain Range in central Oregon and the Payette Valley north of Boise, Idaho, and from southern parts of the Blue Mountains near the headwaters of the Powder River north of John Day, to the desert south of Steens Mountain.<sup>i</sup>

### **Harney County People: Recent History**

The total population of Harney County is around 7,500 people which make for much duplication among groups involved in different conservation efforts. The population has declined in past years but appears to have stabilized with a growing aged population and a declining workforce population. The close community ties are important for effective organizations when they are built from the local customs and knowledge and work within that framework to accomplish objectives that benefit both the landscape and the community. It is also very important to clearly define roles to minimize confusion over the organization's purpose and intentions.

Harney County was created from the southern two-thirds of Grant County on February 25, 1889. The county was named after the lake that lies within its territory, which was named in honor of General William S. Harney, commander of the Department of Oregon of the U.S. Army in 1858-1859. The county's principal city and its administrative seat, Burns, was officially established in 1884 and incorporated upon the county's creation in 1889. It was named for the Scottish poet Robert Burns by an early settler and County Commissioner George McGowan. The original county courthouse was constructed in 1890 and was purchased by citizens of Burns and donated to the county as an inducement to voters during the struggle that took place between Burns and Harney over the designation of the county seat. The current courthouse was constructed in 1942.

Three industries, cattle raising, sheep raising, and timber, have traditionally provided the county's economic base. The railroad, which extended into the area in 1883, served as a catalyst to the cattle industry but later contributed to its decline by bringing farmers and sheep men to the area thus creating increased competition for productive land. Harvesting and breeding of wild horses was lucrative for a period. Tourism based on sports and recreation is on the rise.

Harney County's population is primarily concentrated in a small urbanized sector of Burns-Hines with the remainder mostly in the Harney Basin. The county's population was recorded as 2,559 during the 1890 census and rose steadily until the decade of 1930-40, and then resumed an upward curve until the 1980s. The county experienced a net out migration of nearly fifteen percent in the 1980s primarily due to the closure of the lumber mill in Burns. The 2011 population of 7,375 represented a 0.6% decrease over 2010.

Although Harney County lands were open to homesteading from 1862 to 1934, the Bureau of Land Management manages more than three million acres. Facilitated on the national level by the Carey Act of 1894, arid land in Harney County was donated to the state for irrigation and settlement, but all water development efforts failed. Eventually, land claims under the reclamation legislation were abandoned or nullified. The Malheur National Wildlife Refuge was established in 1908 and expanded in the 1930s and 1940s. The refuge now includes 187,000 acres.

In addition to Malheur and Harney Lakes, other geographic landmarks of the county include the nearly 10,000-ft high Steens Mountain, known for its lava formations. Borax has been mined in the Steens area, and uranium has been found on its south side.<sup>ii</sup>

## **Priorities**

The priorities identified in this document were developed from a review of the subbasin assessments and other natural resource documents available for the Harney basin. The priorities for Harney County Watershed Council (HCWC) were developed through conversation with members of the council and natural resource managers in the basin. The priorities reflect the current issues and considerations but have a view of the long-term management of acute water resources in an arid basin. The management of water in Harney County has been and will continue to be a critical issue in the basin. The unique condition of the closed basin lakes and wetlands along the Pacific Flyway brought people to the Harney basin. The long history of Native American settlements and the attractive landscape for cattle production reflect the unique setting of wet meadows in an arid landscape.

## **Community Engagement**

The HCWC has the opportunity to provide conservation benefits to all the people of the basin and bring additional resources to assist in the cooperative efforts to maintain a strong local economy and maintain healthy arid land and aquatic ecosystems. The HCWC has as its mission to help maintain the economic viability of the ranching community in Harney County. Building a role for community engagement and building community understanding of watershed issues can be an important role for the council.

The most immediate priority for the HCWC is to build the strength of the council organization by completing the Board membership and focusing on Board development. Another immediate priority is to strengthen relationships with other groups and organizations in the County that are leading major initiatives (Sage Grouse conservation, Harney Basin Wetlands Initiative, etc.). The current focus and priority for the Council is to strengthen the information about groundwater resources in Harney County. Making sure this effort is effectively coordinated with the Oregon Water Resources Department should be a top priority for active projects. The HCWC can make a difference in the County by providing a public forum for information sharing about ground water supplies and trends and the opportunities for individual conservation.

## **Ecological Restoration Priorities**

From the Oregon Department of Fish and Wildlife Conservation Strategy, Important conservation habitats in the Northern Basin and Range Ecoregion include:

“sagebrush shrublands (particularly big sagebrush habitats), aspen woodlands, riparian, wetlands, and aquatic habitats. Invasive species and altered fire regimes are the greatest terrestrial conservation issues in this ecoregion. As a result of altered fire regime, encroachment of juniper has displaced grasses and sagebrush, especially in the northern portions of the ecoregion. However, old-growth juniper that is beneficial to wildlife occurs in some areas, especially in rock outcrops where grasses and sagebrush are uncommon and where fire is less of a factor.

Water quality is impacted by high temperatures in the Northern Basin and Range ecoregion and in some areas by bacteria, pollutants, and aquatic weeds. Water is limited in the ecoregion, fully allocated in storage and other uses. Aquatic habitats are affected by altered channel and flow conditions, obstructions, and poor riparian condition. Efforts to assess the quality of aquatic habitats are ongoing and obtaining an understanding of natural temperature and water quality dynamics in the ecoregion is a research priority.”

The habitats of concern in the Harney basin include coldwater streams from the Steens Mountains and Blue mountains, ephemeral streams that drain into the basins and lakes and wetlands that form in the

closed basins. These aquatic habitats support Great Basin Redband Trout, Lahontan Cutthroat Trout, Catlow Tui Chub, Borax Lake Chub, and Malheur Mottled Sculpin that are species of concern. By careful monitoring, Oregon Department of Fish and Wildlife have demonstrated that Great Basin Redband Trout populations that occur in the Silvies River, Silver Creek, Harney –Malheur Lakes, and Donner und Blitzen River Subbasins, are sufficiently abundant to not warrant a listing under the federal Endangered Species Act. Lahontin Cutthroat Trout occur only in Willow and Whitehorse Creeks in the Alvord Lakes Subbasin.

Sage ecosystems are of concern to many land management agencies. The consideration of listing Sage Grouse under the Endangered Species Act has mobilized local actions in Harney County. The response to the potential listing has raised awareness of the conditions affecting sage ecosystems such as exotic species, changed fire regimes, juniper encroachment, etc. The HCWC can have a role in improving the understanding of the relationship between arid land vegetation and water resources. The HCWC has the opportunity to cooperate in expanding information on the role of western juniper on the hydrologic cycle in the Harney basin with their growing role in building understanding of ground water resources.

The long-term priorities will revolve around actions to address stream and riparian systems tributary to Malheur and Harney Lakes, participation in efforts to manage sage steppe ecosystems and provide opportunities to assist private landowners to address environmental issues on private property. Issues associated with water quantity and quality will continue into the future. Providing assistance to landowners to find economically viable means to address issues that they face will continue to be important into the future.

Unique to the Closed Lake Basins of the Oregon Southeast are the terminal lakes and wetlands that have been identified as the Southern Oregon North East California (SONEC) wetlands that are critical for Pacific Flyway bird survival. These wetland systems as typified by Malheur Lake are critical as both feeding areas during long range migration and as breeding area for vast numbers of waterbird and other bird species. The maintenance of wet meadow/pasture systems by flood irrigation that simulates historic floodplain functions and the control of common carp that have reduced the waterbird use of Malheur Lake are important restoration priorities in the Harney basin.

## **Goals and Objectives**

### **Goal 1: Build and Maintain a Vibrant Organization.**

#### **I. Develop and Implement a strategy for recruiting and training new board members.**

**Task1:** Develop a short description of Council Accomplishments.

**Task 2:** Prepare a handout of board member duties and expectations.

**Task 3:** Identify desired skills and expertise needed for the Board.

**Task 4:** Obtain the services of a facilitator to evaluate and identify ways to improve Board effectiveness.

**Task 5:** Provide current Board members with the list of accomplishments and expectations.

**Task 6:** Advertise quarterly in the Times Herald for desired Board positions.

**Task 7:** Ask current Board members to help identify individuals that will complement the current Board.

**Task 8:** Establish a Policy and Procedure Committee that meets annually to review organizational documents.

**Task 9:** Identify and make available Board education opportunities; including conferences, workshops, regular Board meetings, etc.

### **Priority and Schedule**

- Task 1 and 5 has been completed and needs to be scheduled for annual updates.
- Tasks 2, 3, 7, and 8 are important tasks for immediate attention. A subcommittee of the Board should have completed the tasks with the coordinator by the end of the August 2015.
- Task 6 will follow the work of the subcommittee (above).
- Task 9 should be the responsibility of a separate subcommittee of the Board and should develop a yearly schedule of topics and potential speakers for the coordinator to work from for scheduling.
- Task 4 depends on funding and needs to be discussed and agreed on by the Board to identify what is needed and how outside assistance can help the Council.

## **II. Create and update annual work plan and determine the appropriate allocation of staff resources and priorities to accomplish it.**

**Task 1:** Using the priorities identified in this Strategy, develop a two year work plan and review against accomplishments annually.

**Task 2:** At the annual review identify what has been accomplished and what has not been accomplished and determine what prevented the accomplishment. Document the accomplishments and limitations to use in the update of the work plan.

**Task 3:** Annually identify appropriate professional development opportunities for the staff.

### **Priority and Schedule**

- These tasks are a requirement for OWEB funding and need to be scheduled significantly in advance so the Board has time to seriously consider the work program and to schedule and conduct an effective personnel evaluation. The tasks are critical for the Council to meet objectives and to address community needs.

### **III. Use presentations that address issues relevant to Harney County watershed health as a mechanism to raise public awareness and recruit for council involvement.**

**Task 1:** Develop and distribute an Annual Report

**Task 2:** Annually deliver presentations about HCWC as an organization and its accomplishments to the County Court and local groups.

**Task 3:** Partner with others to sponsor up to two public events each year with shared interest (see Attachment A for concepts).

**Task 4:** Make sure council information is available at the event and solicit Board involvement in each event.

#### **Priority and Schedule**

- Tasks 1 and 2 have been completed.
- A subcommittee of the Board should be convened to develop Task 3. The target date for the first public event should be fall of 2015.

### **IV. Build productive Partnerships with other Harney County organizations.**

**Task 1:** Schedule regular meetings with High Desert Partnership, Harney SWCD, NRCS, and BLM to discuss potential partnership opportunities.

**Task 2:** Target at least two partnership projects each year to apply for funding with a partner organization.

#### **Priority and Schedule**

- This should be a part of the annual work plan. The Council should see the scheduled meetings on the coordinator's work plan and be aware of the meetings with interested members of the council participating as available and interested. This means the meetings should be scheduled in advance and the Council is aware of the opportunity to assist.

**Goal 2: Build and communicate understanding of Harney County Groundwater Resources and build a cooperative effort around managing water resources.**

### **V. Develop meaningful information about groundwater sources, distribution, abundance, recharge rates, and utilization.**

**Task 1:** Complete grant requirements for OWEB grants 209-5053, 210-5001, and 211-5030 for outreach, data gathering and data analysis.



**Task 2:** Work with the Oregon Department of Water Resources to identify a groundwater monitoring system that will provide area specific groundwater information usable for management purposes.

**Task 3:** Train volunteers to document well data and report it to a secure database.

Task 4: Develop public information materials from the results that are made available to the community.

**Task 5:** Develop relationships with public agencies that are conducting analyses of Harney basin groundwater, Oregon Water Resources Department, U.S. Geological Survey, Portland State University, Oregon State University, etc.

**Task 6:** Discuss the opportunity to obtain funding to assist in developing a more complete understanding of ground water resources, including vegetation management, geological studies, well log data, water quality data, and other information that will provide a more complete view of ground water resources.

**Task 7:** Provide a forum to disseminate information to the community about groundwater resources.

### **Priority and Schedule**

- This is the highest priority technical activity for the Council. Close attention needs to be paid to the relationship between the Council and Oregon Water Resources Department. The Council should identify a member of the Board or a small subcommittee to assist the coordinator in assuring that progress is being made on the OWEB grants and the progress is of benefit to OWRD.
- Tasks 4, and 7 can be a part of the effort of III above.

**Goal 3: Increase HCWCs visibility within Harney County to enhance awareness, understanding and appreciation of watershed processes, of HCWC and its activities; including the social, economic and ecological benefits of watershed restoration and water conservation.**

### **VI. Each board member will participate in or represent HCWC at least once a year at a stewardship or outreach event.**

**Task 1:** in 2015 develop an organizational presentation for delivery at local events  
(Chair/Coordinator)

**Task 2:** Develop a "Presentation Opportunities List" and tracking system in order to provide Board members an opportunity to engage the community (Chair/Coordinator)

**Task 3:** Deliver HCWC presentation at local community events annually or as appropriate. *(Board/Volunteers)*

**Task 4:** Conduct annual field trips with Partners and community members. *(Board/Staff)*

**Priority and Schedule**

- This group of tasks comes out of the work of item III above and should be part of the considerations of that group.

**VII. HCWC projects and activities will be covered at least four times per year in a county-wide publication or in local news media.**

**Task 1:** Issue press releases when noteworthy actions or events occur *(Coordinator/Board Volunteer)*

**Task 2:** Develop an Annual Report and distribute to stakeholders, partners and other interested parties *(Coordinator)*

**Task 3:** Publish 2 articles in local publications annually *(Coord./Board Volunteer)*

**Priority and Schedule**

- This will be important only as events and accomplishments occur. The tasks should be part of each project taken on by the Council.

**VIII. Implement watershed-related education programs and projects at schools, community events, and other venues.**

**Task 1:** Annually, conduct in-class presentations at local schools and events *(Coord./volunteers)*

**Priority and Schedule**

- This should be a part of the annual work plan.

**Goal 4: Provide Restoration Services to each portion of Harney County to address priorities of local landowners and public natural resource agencies. These Activities are priorities for project development in the future. They should be checked in on at least once a year to reevaluate the need to prioritize the activities. A written review of actions should be expected at the end of each year to base an evaluation of which activities to elevate to a more immediate priority.**

## **IX. Develop Restoration Actions in the Guano-Thousand Virgins Subbasin**

### **IX. Develop Restoration Actions in the Guano and Thousand Virgins Subbasin.**

**Task 1:** Contact the U.S. Fish and Wildlife Service and Roaring Springs Ranch to determine the status of the Catlow Cooperative Conservation Agreement and the cooperative restoration opportunities available.

**Task 2:** Coordinate with BLM on opportunities for public-private lands juniper control and invasive species management

#### **Priority and Schedule**

- Projects should be identified from regularly scheduled meetings with agencies and landowner representatives from the area. Task 2 should be a part of IV above.

## **X. Develop Restoration Actions in the Donner und Blitzen Subbasin.**

**Task 1:** Cooperate with the Malheur National Wildlife Refuge in the implementation of the Harney Basin Wetlands Initiative.

**Task 2:** Collaborate with Oregon Department of Fish and Wildlife to determine the cooperative habitat restoration and conservation needs for Great Basin Redband Trout and the possible need for fish screens outside the Malheur refuge. Look for cooperative conservation projects on McCoy and Riddle Creeks.

**Task 3:** Continue to collaborate with BLM and private landowners on juniper management and aspen regeneration projects.

#### **Priority and Schedule**

- Projects should be identified from regularly scheduled meetings with agencies and landowner representatives from the area. These tasks should be a part of IV above.

## **XI. Develop Restoration Actions in the Alvord Lake Subbasin.**

**Task 1:** Collaborate with BLM on potential public-private projects that could enhance Lahontan cutthroat trout.

**Task 2:** Collaborate with Oregon Department of Fish and Wildlife and BLM to find cooperative approaches to protecting Alvord chub habitat and conserving and restoring aquatic habitats.

**Task 3:** Collaborate with private ranchers and BLM on cooperative juniper management projects.

#### **Priority and Schedule**

- Projects should be identified from regularly scheduled meetings with agencies and landowner representatives from the area. Task 2 should be a part of IV above.

### **XII. Develop Restoration Actions in the Harney Malheur Lakes Subbasin.**

**Task 1:** Continue the focus on groundwater resource information and management.

**Task 2:** Focus efforts on cooperating with Harney Basin Wetlands Initiative.

**Task 3:** Collaborate with Oregon Department of Fish and Wildlife and BLM to find cooperative approaches to conserving and restoring aquatic habitats.

#### **Priority and Schedule**

- Projects should be identified from regularly scheduled meetings with agencies and landowner representatives from the area. Task 2 should be a part of IV above.

### **XIII. Develop Restoration Actions in the Silver Creek Subbasin.**

**Task 1:** Collaborate with Oregon Department of Fish and Wildlife and BLM to find cooperative approaches to conserve and restore aquatic habitats.

#### **Priority and Schedule**

- Projects should be identified from regularly scheduled meetings with agencies and landowner representatives from the area. Task 2 should be a part of IV above.

### **XIV. Develop Restoration Actions in the Silvies River Subbasin.**

**Task 1:** Collaborate with Oregon Department of Fish and Wildlife and BLM to find cooperative approaches to conserving and restoring aquatic habitats.

**Task 2:** Provide opportunities for stream habitat enhancement on private lands.

**Priority and Schedule**

- Projects should be identified from regularly scheduled meetings with agencies and landowner representatives from the area. Task 1 should be a part of IV above.

## Attachment A

### Potential Speakers and Topics

<b>Topic</b>	<b>Speaker</b>	<b>Contact</b>
Groundwater Studies	Marshall Gannett	(503) 251-3233
Harney Basin Waterfowl	Jim Stutzman, IMWJV	(406) 866-3438
Harney Basin Wetlands	Chris Colson, DU	(208) 344-6002
Redband Trout	Shaun Clements	(541) 757-5106
Carp Management	Linda Beck	
Roaring Springs Ranch	Andrew Shields	
Harney Basin Wetlands	John Christie	(503) 725-9953
Regional Geology	Ellen Morris Bishop	
Watershed Councils	Ryan Gordon	(503) 362-1246
Water Quality	Tonya Dombrowski	(541) 278-4615

---

<sup>i</sup> Taken from Burns Paiute Tribe website, downloaded March 14, 2015 (<http://burnspaiute-nsn.gov/>)

<sup>ii</sup> Taken from Secretary of State website, downloaded March 14, 2015  
(<http://arcweb.sos.state.or.us/pages/records/local/county/harney/hist.html>)