

Jackson Soil and Water Conservation District



Strategic Plan 2022-2027

*Stewarding at the Landscape Level
Guiding our Actions with Metrics and Monitoring
Addressing Climate and Wildfire*

JACKSON SOIL AND WATER CONSERVATION DISTRICT

**STRATEGIC PLAN
2022-2027**

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**Guiding our Actions with Metrics and
Monitoring**

Addressing Climate and Wildfire

Board Approved:

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 **Chair of the Board**

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SECTION 1 - INTRODUCTION

This Strategic Plan sets forth important and new high-level strategic directions for the District to guide us into the future. Three particularly significant directions include:

- Focusing on **landscape level stewardship** to drive our actions to making measurable and beneficial improvements in the condition of our natural resources.
- Development of a robust **metrics and monitoring** program to help us set priorities and know how much our actions are making a difference.
- Considering **climate and wildfire** in deciding how we can best conserve our natural resources.

While these directions will steer our future efforts, it is also recognized that an underlying strategy is to make sure the District maintains a fully functioning and well-run organization by taking care of day-to-day business. Accordingly, this plan identifies the day-to-day functionality that must be maintained.

JSWCD MISSION

JSWCD is a non-regulatory public agency that works with willing landowners, land managers, municipalities, partnering agencies, and others to develop conservation plans and projects that conserve, protect, and/or enhance natural resources. JSWCD also promotes education on natural resources conservation. Our mission statement is as follows:

“Jackson Soil and Water Conservation District’s mission is to conserve, protect, and enhance natural resources for the economic, environmental, and quality of life benefits for the residents of Jackson County.”

JSWCD VISION

JSWCD is a leader in helping people conserve, protect, and enhance natural resources while using them responsibly and valuing long-term sustainability. The District approaches natural resource concerns with the positive attitude that they can be turned into opportunities. Technical assistance, financial assistance, and education provided by the District is science-based and rooted in local experience to lead to practical actions. Monitoring of our work and outreach to the community helps us to validate and support our work and communicate its worth. Through JSWCD’s leadership, expertise, fiduciary responsibility, and ability to work effectively with a wide variety of people and organizations, the work of JSWCD makes a difference in the lives of people and the quality of our natural resources.

INFLUENCES, TRENDS, AND FORCES

As part of the strategic planning process, an exercise was conducted to identify the current influences, trends, and forces that are acting to drive the direction of the District. Following are some of the most prominent topics.

Climate Change: The effects are real and far reaching and impact many aspects of natural resources conservation.

Wildfire: The impacts to our natural resources from wildfire are significant and smoke from wildfires is a major problem.

Soil Health: There is increasing recognition of the importance of soil health as a foundation for our ecosystems and agriculture and its role in climate mitigation and adaptation.

Water Supply: There are increasing demands on limited water supplies. Water shortages are more common than in the past.

Agricultural Water Quality: Agricultural operations can have a substantial impact on water quality and soil, and water conservation districts have historically been relied upon to make improvements.

Grants: Natural resources conservation is highly dependent on obtaining grants to fund work. Success at obtaining grants is challenging and time consuming and competition for the funds is often tough.

Tax Base: JSWCD's property tax base provides a strong incentive to be responsive to all taxpayers in the County.

Regional Demographics: Characteristics of the population in Jackson County are shifting with more urbanization and diversity of people and communities.

Agricultural and Land Stewardship Workforce and Economics: The average age of farmers and land stewards is increasing. The challenges in making a living as a farmer are becoming more difficult and few young people can or want to enter this line of work. Stewarding the land is also challenging due to limited resources.

Complexity and Enforcement of Environmental Regulations: The complexity is very high, and it is difficult for anyone to keep current and knowledgeable and to navigate the regulations efficiently. Many regulations are not sufficiently enforced.

STRATEGIC DIRECTIONS

Following are the most significant strategic directions set forth in this plan.

JSWCD shall focus on landscape level stewardship.

Landscape level stewardship is achieved by identifying areas where there is opportunity for achieving substantial benefits to our natural resources and then concentrating work in those areas. The District needs to maintain a balance between landscape level stewardship (to provide the most meaningful benefits) and providing individual customer service (to be responsive to the residents of Jackson County). This balance should be skewed towards landscape level stewardship because this approach can enhance ecological uplift and achieve demonstratable improvements.

JSWCD shall develop metrics and associated monitoring programs that reflect the condition of our natural resources and actively use the information to guide District programs and to inform the public about our work.

Good metrics are essential to making sure that the District is doing the right things and to demonstrate achievements.

JSWCD shall recognize critical overarching issues and use them to prioritize and shape the work that is performed and funded. These issues are as follows:

Climate Change: As our climate changes, there are major effects on the conditions of our natural resources that impact their ability to meet human and ecosystem needs. To address this issue, JSWCD needs to prioritize work that addresses climate change. Such work should provide for *climate mitigation*, i.e., actions that result in less greenhouse gases in the atmosphere. Reduction in greenhouse gasses can occur by reducing the amount that is released to the atmosphere from emission sources and by removing greenhouse gasses from the atmosphere (sequestration). Our work should also provide for *climate adaptation*, i.e. actions that help adapt to new environmental conditions with warmer temperatures and different precipitation patterns.

Wildfire. The frequency, extent, and severity of wildfire is increasing in our region with impacts to natural resources and human structures and lifestyles. Actions are needed to moderate the occurrence of wildfire and to recover from wildfire after it occurs. Smoke from wildfires is widespread and prolonged in most years with health and quality of life impacts.

JSWCD shall prioritize its work and funding on its top categories of natural resources. These categories are as follows:

Top Priority

- Soil Health
- Surface Water Supply
- Agricultural Water Quality

Second Priority

- Urban Water Quality
- Upland Habitat
- Riparian Habitat
- Soil Loss

JSWCD shall make sure that a large part of its work and funding results in on the ground projects.

Real improvements in the conditions of natural resources are dependent on making physical improvements.

JSWCD shall support education as an important component of natural resources conservation.

It is recognized that it can be difficult to quantify the direct benefits of education as it is often unknown how and when this knowledge gets applied. Yet it is important to recognize that knowledge can spread and penetrate the culture of our society over time to make a difference.

JSWCD shall actively communicate about its work.

It is important that Jackson County residents and wider audiences understand the importance of the work of the District so that we can continue to receive support and to promote natural resources conservation. In other words, we need to tell our story.

JSWCD shall retain the skills and abilities to be effective at obtaining grant funds for projects led by the District, projects conducted in association with partners, and projects led by residents.

Grant funds from outside sources are essential in maximizing the amount of work that can be accomplished.

JSWCD shall maintain a grants program to support projects that address our natural resource priorities.

There is a tradeoff in spending district funds on staffing versus grants. The grants program should be continued at a moderate level as it provides a source of funding that residents may not be able to get elsewhere and serves as a good outreach mechanism to the community. Furthermore, the District should make sure that the granting process is streamlined.

JSWCD shall be actively engaged in local, regional, and State issues related to natural resources conservation.

Natural resource conservation is influenced by a wide variety of matters outside of the District's jurisdiction. Examples include legislation, regulation, funding, research and technology development, and regional planning efforts. The District has knowledge and abilities that can

contribute to success in these larger forums, and participation often brings valuable knowledge back to the District.

JSWCD shall foster a culture where everyone from any background can participate and succeed.

Diversity, equity, and inclusion should be supported by our employees and our board and should be demonstrated through our interactions with customers and partners. We believe diverse perspectives fuel innovation, and we must act with respect; listen; and share decision making and resources.

JSWCD shall function as a non-regulatory agency.

The District should avoid actions that are regulatory in nature or cause the perception that the District is a “regulator” to maintain trust and positive working relationships with the community we serve. However, the District should be an advocate for making sure that our laws and regulations related to natural resources conservation are appropriate and followed.

JSWCD shall strive to retain skilled and productive staff by providing competitive compensation, good working conditions, and opportunities to learn and grow.

The best work can be accomplished with competent and dedicated staff in a setting with a positive workplace culture.

ADAPTIVE MANAGEMENT

The District holds that adaptive management needs to be applied as a standard course of business in many of its activities. This involves use of a “plan-do-check-adjust” cycle. Planning involves creating plans to reflect current issues and priorities. Doing the work means carrying out the work through day-to-day activities. Checking the work includes making sure it is executed as planned and achieves the desired results. Adjusting means setting new plans that will lead to better results.

Adaptive management can be widely applied. It is critical in development and application of the Strategic Plan and work plans. It is fundamental to any metrics and monitoring program, and it is a core tenant of budgeting. It can be applied to all types of projects and programs and even to human relationships.

Adaptative management is about learning and using the lessons to making positive changes.

SECTION 2 – GOALS AND ACTIONS

The goals and actions reflect both the needs to execute day to day work and to implement prioritized strategic directions. The goals are presented as high-level statements of what needs to be accomplished. The actions are the next level of refinement in what needs doing. The actions typically remain high-level will need to be developed into specific work assignments and projects.

The goals and actions must be informed by and implemented consistently with the natural resource priorities and strategic directions in this plan. In other words, as the goals and actions are implemented, they must be done with a lens or viewpoint that drives them into alignment.

While the goals and actions are categorized into different subject areas, this should not “silo” the work done by the District. All staff should share in addressing the resource priorities and strategic directions through coordination of their work and the work of others.

EDUCATION

Goal: Educate residents and other decision makers in the County to allow them to be informed stewards of the environment and to make beneficial natural resource stewardship decisions.

E1. Conduct a comprehensive review of the District’s education program to make sure that it is aligned with the priorities in this strategic plan and to take advantage of opportunities to make the program more efficient and effective. Update the program accordingly.

E2. Design, coordinate, and oversee delivery of educational experiences such as workshops, courses, tours, presentations, and other educational events.

E3. Develop education materials such as fact sheets, flyers, brochures, and the Natural Resource Stewardship Handbook for general education and supporting technical assistance.

Discussion

Education is an essential responsibility of the District and should be focused on providing information that supports the responsible care and use of natural resources.

The District should aim to provide education that meets different age group needs, e.g., youth and adults; populations, e.g., urban residents, farmers, and ranchers; and cultural groups, e.g., Latinx community. Staff should be aware of barriers different groups may face in accessing District education and make efforts to address them to increase access to educational opportunities.

It is desirable to provide several regular educational programs for youth and adults each year in addition to other educational opportunities that arise in a given year. Current examples of regular educational programming are the Southern Oregon Regional Envirothon (SORE) and the Earth Track class for the Rogue Valley Association of Realtors.

In developing and providing education the following factors should be considered.

- Population growth, shifts in demographics, and resident turnover, as well as changing conditions in the County create a continual need for education.
- Residents in the County have different realities and needs, which may pose barriers to accessing district educational opportunities, e.g., varying cultural approaches to learning and outdoor activities, or limited English proficiency, money, and time availability.
- Agricultural operations and natural resource management are becoming more complex and technical. This drives the need for more educational opportunities and requires educators to be more skilled and knowledgeable.

TECHNICAL ASSISTANCE

Goal: Provide science-based stewardship plans and implement best management practices to address our natural resource priorities.

T1. Develop and maintain priority areas based on natural resource priorities that lead to landscape level stewardship.

T2. Help landowners and land managers develop stewardship plans and implement stewardship practices that address natural resource concerns with a focus on landscape level stewardship.

T3. Work closely with communities, governments (local, state, and federal), industry, non-governmental organizations, and small businesses to address and monitor natural resource priorities with a focus on landscape level stewardship.

T4. Monitor stewardship projects to determine short- and long-term effectiveness of implemented plans and practices.

T5. Improve project management capabilities. Evaluate the possibilities for using project management software and developing improved project management practices.

Discussion

Providing technical assistance is a core responsibility of the District because it leads directly to improved conditions of our natural resources.

Currently, the District has two priority areas: Little Butte Creek and South Obenchain. Work is also becoming concentrated in the Applegate area, and this could become a more formal priority area. In the future it will likely be appropriate to adjust the number and location of priority areas.

Landscape stewardship should start with identification of priority areas in consultation with District staff, partners, and natural resource experts. The priority areas should be selected based on the following factors:

- Areas with the greatest need for improved condition of natural resource priorities.
- Priorities identified in strategic documents authored and used by partners to guide conservation and restoration actions.
- Ability to implement projects in the area.
- Distribution to different regions of the County.

Important considerations in providing technical assistance are as follows:

- The technical assistance should be effective in addressing our natural resource priorities.
- The work needs to include both urban and rural sectors
- The assistance should be available to individuals, businesses, and organizations.
- The assistance should be based on local conditions and backed by best available science.

Monitoring should be used to assess the effectiveness of implemented projects. Specifically, outcome-based monitoring which shows short and long-term effects, identifying successes and failures, ecological effects, and any possible economic benefits noted by the landowner where appropriate.

FINANCIAL ASSISTANCE

Goal: Obtain and provide financial assistance to incentivize natural resource conservation, monitor project effectiveness and natural resource condition(s), and educate youth and adults to address natural resource priorities.

F1. Help residents and organizations in Jackson County obtain funding to overcome financial barriers with the implementation of stewardship practices and education that address resource priorities.

F2. Conduct a comprehensive review of the District's Conservation and Assistance Program to make sure that it is aligned with the priorities in this strategic plan and to take advantage of opportunities to make the program more efficient and effective. Update the program accordingly.

F3. Implement the District's Conservation Assistance Program to provide funding to residents and organizations in Jackson County to overcome financial barriers with the implementation of stewardship practices and education that address resource priorities.

F4. Partner with other agencies and organizations to ensure that natural resource funding programs are strong in Jackson County and that funds provide maximum benefit to the region.

Discussion

Obtaining and providing financial assistance is a high priority of the District. This strategic plan recognizes that that the District must balance its support for landscape level stewardship and with its support for projects and programs throughout the County, and efforts for financial assistance should be aligned accordingly. Some funding should be directed towards the District's priority areas and some funding should be distributed throughout the County to different demographics, geographies, and types of benefits to natural resources.

One important approach in financial assistance is to obtain grants from other organizations. This can be done by aiding in grant acquisition and having the grants go directly to residents, organizations and partnerships. It can also be done by obtaining grants that are awarded to the District and then used directly by the District to implement projects and programs or passed through to others.

Another important approach is to use District funds to directly support projects and programs, i.e., the Conservation Assistance Program. This approach is important because the District can streamline the grant process to make it efficient for recipients of the grants, the money can be directed to important projects and programs which are not easily funded by other grant programs, and the funds can be distributed throughout the County in ways that make most sense. These funds can also provide important leverage funds from other Sources.

In administering the Conservation Assistance Program, the following considerations should be kept in mind:

- The funding should be largely directed to projects and programs that address natural resource priorities for the District.
- The funds should be made available through open and fair processes.
- When demands for the funds exceed the amount of funds available, the process for awarding funds should be competitive so that the most beneficial projects and programs get implemented.
- The program can provide significant benefits through increased awareness of the District.
- At times it may be necessary to redirect district funds towards disaster response.

It is important to recognize that factors that affect our natural resources are not limited to County boundaries, and it is important to address many types of problems on a regional or watershed basis. Therefore, the District should remain mindful and supportive of funding for larger efforts that can benefit Jackson County.

Other important issues to keep in mind are as follows:

- It is becoming increasingly difficult for agricultural (farming and timber) operations to remain financially solvent due to increased cost of land, equipment, and regulatory compliance. This difficulty is preventing young entrepreneurs from entering the work force leading to an overall aging work force. Thus, financial assistance continues to be more vital to these types of businesses and operations.
- Many granting agencies rely on leveraging funds of others to achieve greater benefits. This makes it particularly important to use partnerships to bring different sources of funding together.

METRICS & MONITORING

Goal: Develop a metrics and monitoring program that evaluates the condition of our priority natural resources and actively uses the information to guide District projects and programs and demonstrates the success of the District's work to funders, partners and the public.

M1: Form a team to lead development of the metrics and monitoring program, prepare a project management plan (to guide the work of the committee) and acquire necessary resources.

M2: Educate team members on metrics and monitoring.

M3: Establish the framework for the program.

M4: Develop and implement a pilot scale metrics and monitoring program.

M5: Evaluate the pilot program and develop further phases of the program.

M6: Use data to inform District priorities and stakeholders.

Discussion

Implementing the metrics and monitoring program is a high priority and is expected to take considerable staff time to develop over a multiyear period. The program should focus on metrics that provide indications of the condition of our priority natural resources and their emerging challenges. These metrics should help to determine which natural resources are most in need of improvement and then guide the District in taking actions. The metrics should also be used to inform the public on the condition of the natural resources and the impact of the work that is conducted and supported by the District. Ultimately, all key programs and projects of the District should have some relevant metrics.

A team will need to be established to lead the program. It will be important to create a project management plan or charter to guide the work of the team, and it may be necessary to acquire additional resources such as consultants.

The team will need to have an education phase to learn about metrics programs and metrics that are being used by other organizations that may be relevant to the District's program.

Development of a framework for the program is essential. The framework should provide the concepts on how the metrics will be organized and presented. For example, this may include identification of priority resources, the desired conditions for the natural resources, and the metrics that provide indications of the actual conditions of the natural resources

The framework for the program should also address the following:

- How the program will be used to guide District actions
- How the data will be collected, analyzed, and reported
- Monitoring protocols
- Roles and responsibilities for implementing the program
- Partnering with other organizations where information on metrics is shared
- An adaptive management approach for the program
- Funding and resources needed to sustain the program

The program should be developed in a phased manner. A few pilot metrics will need to be selected for early implementation to gain experience with the program and to inform changes to the program before full development.

There are many different resource parameters which can be monitored, and careful selection of specific metrics will be required to provide a good representation of the condition of the natural resources. The selection of metrics should account for the following:

- Degree to which the metric has a direct and accurate relationship with the desired condition of the natural resource
- Ability to measure the outcomes of specific projects
- Ability to provide broad perspective of the overall condition of the resources in spatial and temporal scales
- Level of effort and cost to collect and analyze data and the sources of funding
- Special skills and equipment needed collect and analyze data
- Potential for partnering with other organizations and to collect and analyze data.

There are many different types of metrics and variations in terminology in the literature on metrics. It will be useful for the District to understand and develop its own common language on metrics. To illustrate this point, following is a way to categorize different types of metrics that might be associated with bacterial contamination in streams:

- Direct metric: year to year reduction in *E. coli* counts in water samples

- Intermediate metrics: number of manure-holding structures built, or linear feet of riparian livestock fencing installed
- Indirect metrics: number of site visits, phone calls, educational program attendees related to manure/septic system management

All metrics need to have targets that define whether the data is reflecting a good or poor condition. For example, a target for blackberry removal in a riparian corridor might be “less than 10% of the stream banks are dominated by blackberry plants.” Selection of appropriate targets is critical as it will drive subsequent management decisions.

Monitoring should be a central component of the lifecycle of projects and programs. There is no guarantee that projects and programs will achieve intended results. Because of this uncertainty, the District should use an adaptive management approach.

LEGAL AND FISCAL RESPONSIBILITIES

Goal: Maintain compliance with the fiscal and legal responsibilities entrusted to the District.

- L1. Maintain revenue sources in balance with expenses.
- L2. Maintain contracted services that meet the needs of the District.
- L3. Make sure budgets are prepared and regularly reviewed and the financial position of the District remains strong. Maintain financial documentation and conduct required annual audits.
- L4. Conduct an external operational review of the Districts legal and fiscal practices.
- L5. Maintain and update the Oregon Department of Agriculture (ODA) Scope of Work (SOW) and the District’s Biennial Work Plan (BWP).
- L6. Ensure strong ethical conduct is maintained by staff and board

Discussion

Maintaining a healthy financial position is a high priority, and the District must manage its fiscal matters and comply with all legal requirements in a responsible and transparent manner.

Complying with the laws and requirements that affect how the District runs the organization requires a major management effort. To be successful and uphold public expectations, the Board, and staff need to continually be educated in current and changing requirements and devote the time necessary to ensure compliance.

ORGANIZATIONAL CAPACITY

Goal: Ensure that the District is a strong organization based on the capabilities of the staff, Board, and other resources available to complete its mission.

O1. Prepare and maintain a staffing plan that reflects available funding, classifications, salary, and benefits. Maintain a competitive compensation package and a workplace culture that is attractive. Recruit and retain staff who have knowledge skills and abilities to support District needs.

O2. Prepare a Board Engagement Plan that address training, orientation to JSWCD and SWCD organizations, position descriptions for officers and committee members, desirable knowledges of board members, and opportunities to become familiar with staff and District projects. It should also address the needs for Board members to take on various responsibilities. The plan should take into account individual Director passions and strengths.

O3. Expand District capabilities by recruiting and utilizing Associate Directors.

O4. Maintain and/or expand District Board Committees as needed for continued successful District operations.

O5. Prepare a Volunteer and Intern Plan that identifies the types of projects and programs that combine staff needs with volunteer capabilities. It should also address recruitment, time to orient and develop effective helpers, and partnerships with organizations that may aid with the program.

O6. Develop training plans for staff which will provide guidance for attending seminars, conferences, webinars and participating in other types of training. The plans should address technical knowledge, supervision and management, and legal and fiscal matters. Then Implement the training plan.

O7. Develop and maintain geospatial information technologies to monitor, prioritize, and plan District projects and programs.

O8. Develop and implement practices that ensure diversity, equity, and inclusion internally (staff and Board) and externally (projects and programs) to instill a positive culture surrounding the District.

Discussion

It is essential that actions be taken to ensure Board, staff, contractors and volunteers are qualified and dedicated, and that they have the tools and training necessary to work professionally, efficiently and effectively.

OUTREACH

Goal: Build awareness of the District to garner support for District and Partners' projects and programs that advance our natural resource priorities.

OR1. Maintain an online presence with the District's website, email listserv, and social media. Make strategic choices about other opportunities to increase awareness of the district generally.

OR2. Support District staff priority projects, including those done in collaboration with partners, through the development and implementation of outreach campaigns.

OR3. Provide outreach support for other projects and events as needed, e.g. creation of flyers, promotion of events on email list serve and social media.

OR4. Showcase the natural resource conservation outcomes of the District's work by highlighting measured improvements in resource conditions.

Discussion

Outreach plays a critical role in informing County residents and entities about the District as a resource generally, sharing pertinent information, and garnering engagement with specific projects and programs. It is particularly important to maintain an up-to-date and effective website, as well as social media to share information and provide options for individuals to learn about the District's work.

In conducting outreach, the following factors should be considered.

- Preferences in how people want to receive information are varied. Thus, it is important that the District consider the audience(s) and use outreach tools and formats that work for them.
- People are often saturated with information, and it can be difficult to get individuals' attention.

PARTICIPATION IN SETTING LOCAL, REGIONAL, AND STATEWIDE DIRECTION

Goal: Actively participate in selected local, regional, State forums where laws, regulations, and policies may advance our natural resource priorities.

D1. Maintain District position statements and advocacy authorities to establish clear direction for advocacy efforts and advocate for District interests as necessary.

D2. Promote and support a "Basin Team" concept for collaborative efforts. The concept should focus on how to effectively share information allowing for regional program and project development.

D3. Support the Oregon Association of Conservation Districts (OACD) to be an effective voice for all districts. This includes participation in OACD governance, serving on committees, and attending conferences.

D4. Support the Soil and Water Conservation Commission (SWCC) to help move forward District issues and keep current on matters affecting the District.

D5. Work with natural resource agencies, funding organizations, and other organizations in development of their programs and policies that affect the District.

Discussion

Local, regional, and State laws, regulations, policies, and programs affect natural resources conservation and the success of the District. It is in the District's interest to take actions in these arenas to assure beneficial outcomes. At times it may be advantageous to participate in Federal forums.

Participation of Board members and staff should be encouraged both for personal development and for the benefit of the District.

PARTNERSHIPS

Goal: Develop efficient and effective partnerships with other agencies and organizations to address natural resource priorities.

P1. Whenever it is practical, economical, and beneficial the District will seek partnerships for delivery of services (technical assistance, financial assistance, and education.)

P2. Build and maintain relationships with partnering organizations where the priority of the relationship is high (as identified below). Work on relationships with the remaining organizations in the list as time permits and as needed for specific activities. This can be done through participation in committees, organizational boards, volunteering and other means.

P3. Maintain positive and productive working relationships with the partners sharing our building.

Discussion

Building and maintaining strong partnerships that align the directions of the District is a high priority. Partnerships offer opportunities for collaboration on implementation of programs and projects and are beneficial when the partners each bring resources and expertise for more successful projects overall. Granting organizations often look for strong partnerships as key criteria in funding projects.

SECTION 3 - NATURAL RESOURCE PRIORITIES

This section presents natural resource priorities for JSWCD.

A natural resource is a feature of the earth that is fundamentally important for sustaining life. In this section four different resources are considered: soil, water, air, and biological assemblages (ecosystems). To take the analysis of priorities to a more focused level, “resource topic areas” associated with the different resources are defined and evaluated.

Overarching issues have been identified that are particularly important and are interrelated with many of the different resource topic areas. It is intended that these overarching issues be considered and used to focus the development of programs and projects conducted and supported by JSWCD. The overarching issues are as follows:

Climate mitigation. This refers to actions to reduce the extent to which climate change occurs through actions that result in less greenhouse gases in the atmosphere. It is recognized that actions in Jackson County will be a very small part of the global solution. However, given the magnitude and urgency of the climate crisis, it is important that positive actions be taken locally and globally. Reduction in greenhouse gasses can occur by reducing the amount that is released to the atmosphere from emission sources and by removing greenhouse gasses in the atmosphere. This later approach is referred to as sequestration.

Greenhouse gas sequestration in natural and working lands is a major pathway for mitigating climate change. Substantial increases in carbon storage are possible in forests and agricultural lands, and other natural landscapes. In agriculture, key practices include increasing soil organic matter, use of cover crops and minimizing tillage. In forestry, management of stands to increase the average age of trees and amount of standing biomass is a key.

Climate adaptation. As the climate changes, it is necessary to adapt to new conditions with warmer temperatures and different precipitation patterns. These changes create stresses on plants and animals that affect their survival and cause shifts in the composition of habitats. Efforts are needed to promote resiliency so that the plant and animal communities can cope with the changes and still have overall healthy ecosystems. The changes in climate also dramatically affect the amount of water that is available to meet the variety of human needs, so new water management practices are needed.

Wildfire. The frequency, extent, and severity of wildfire is increasing in our region with impacts to natural resources and human structures and lifestyles. Actions are needed to moderate the occurrence of wildfire and to recover from wildfire after it occurs. Smoke from wildfires is widespread and prolonged in most years with health and quality of life impacts.

SOIL

Soil Health

Soil health refers to the quality of soils that make them most useful including their structure, nutrient content, organic content, moisture holding capacity, and biologic diversity. Healthy soils can increase water holding capacity, reduce surface runoff, and sequester greenhouse gasses. Soil health is fundamentally important to agriculture, forestry, and the natural environment.

Additional Considerations – Soil Health		
Overarching Issue Relationship	Climate Mitigation	Strong
	Climate Adaptation	Strong
	Wildfire	Strong
Staff Expertise		Yes
Known Management Practices (see Appendix B)		Yes
Availability of Funds		Yes
Availability of Other Agencies to Address Needs		Limited

Soil Loss

Soil is a fundamental building block of our ecosystems. It forms in geologic time scales and is not easily replaced. Loss of soil is a substantial problem caused by wind and water erosion (e.g. stormwater and poor irrigation practices). Soil loss can also be a significant problem in areas disturbed by wildfire. Furthermore, movement of soil from land to water is also a form of pollution that can cause significant impairment to uses of the water.

Additional Considerations – Soil Loss		
Overarching Issue Relationship	Climate Mitigation	Strong
	Climate Adaptation	Strong
	Wildfire	Strong
Staff Expertise		Yes
Known Management Practices (see Appendix B)		Yes
Availability of Funds		Yes
Availability of Other Agencies to Address Needs		Limited

WATER SUPPLY

Jackson County has experienced shortfalls of water supply and will likely have significant shortfalls in the future. Population and commerce in Jackson County is expected to grow thereby increasing pressure to extend our water supplies even further to meet demands for urban uses, rural uses, and healthy water bodies and terrestrial habitats. Maintaining a balance between the various types of needs is important, i.e. certain needs should not be able to dominate the others. It is also important to promote efficient water use and not to waste water.

Climate change will have significant effects on water supply. As the form of precipitation shifts from less snow to more rain, the ability to capture surface water and make it available at the times and locations it is needed most becomes more challenging. With less precipitation in the form of snow, there is also expected to be less recharge of groundwater supplies. These shifts affect the plant and animal communities and the ability to make water available for all the human demands. The challenges are compounded as hotter temperatures will drive more losses through evapotranspiration.

It is important to note that there is an important nexus between water and energy. For example, it takes much energy to move water from one place to another, and this energy often comes with a cost in terms of greenhouse gas emissions. On the other hand, in another example of this nexus, water also has the potential to generate clean energy in certain situations.

Surface Water Supply

In Jackson County, surface water is used to meet a substantial portion of urban and rural demands. Surface waters are also essential in restoring groundwater through percolation into the earth. Water storage is essential to help make the water available when it is needed and to prevent loss downstream.

Additional Considerations – Surface Water Supply		
Overarching Issue Relationship	Climate Mitigation	Strong
	Climate Adaptation	Strong
	Wildfire	Weak
Staff Expertise		Yes
Known Management Practices (see Appendix B)		Yes
Availability of Funds		Yes
Availability of Other Agencies to Address Needs		Yes

Groundwater Supply

Groundwater is used to meet a substantial portion of urban and rural demands in Jackson County. Wells provide most of the domestic supply to rural residents and are essential for agriculture without surface water rights. In some parts of Jackson County groundwater levels are lowering, indicating overdraft of available supplies. Groundwater is a form of stored water, and storage is essential in meeting year-round seasonal demands. Storage in the ground also keeps the water cool and protected from evaporation losses. Where groundwater emerges as springs it can be critical for keeping streams flowing with cool water.

Additional Considerations – Groundwater Supply		
Overarching Issue Relationship	Climate Mitigation	Strong
	Climate Adaptation	Strong
	Wildfire	Weak
Staff Expertise		Yes
Known Management Practices (see Appendix B)		Yes
Availability of Funds		Yes
Availability of Other Agencies to Address Needs		Limited

WATER QUALITY

Water quality refers to the physical, chemical, and biological characteristics of the water. Water quality is often put in context of the beneficial uses of the water and criteria that determine whether the water is suitable for those uses. Beneficial uses include aquatic life, water contact recreation, fishing, boating, domestic supply, industrial supply, irrigation, livestock watering, wildlife, aesthetics, hydropower, and navigation. Different constituents affect each of the beneficial uses differently. For example, water contact recreation and domestic supply can be affected by excess nutrients which leads to toxic algal blooms. Another example is toxic organic compounds (such as pesticides) that can impair the use of the water for domestic use and aquatic life.

Water quality is affected by the character of the lands and the activities that take place on the lands where the water flows over and through. In Jackson County, water quality is most substantially influence by agricultural (including farmed pasture and range lands), and urban lands.

Water quality is closely related to water supply. When contaminants enter water they are diluted, and the resulting concentrations affect whether the waters can meet the water quality criteria for the various beneficial uses. More water often correlates with better water quality.

Agricultural Water Quality

Water in agricultural operations in the form of surface runoff or percolation into groundwater can contain substantial pollutant loads including sediments, synthetic organic compounds, increased temperature, bacteria, and nutrients. The impacts can occur from lands used for crops as well as those used for livestock. The Inland Rogue Agricultural Water Quality Management Area Plan has specific language regarding what actions may impair water quality and recommends practices to mitigate or prevent said impairments. Soil and Water Conservation Districts receive some state funding to assist landowners in complying with these management plans.

Additional Considerations – Agricultural Water Quality		
Overarching Issue Relationship	Climate Mitigation	Weak
	Climate Adaptation	Strong
	Wildfire	Weak
Staff Expertise		Yes
Known Management Practices (see Appendix B)		Yes
Availability of Funds		Yes
Availability of Other Agencies to Address Needs		Limited

Forestland Water Quality

Water from forestland in the form of surface runoff can have substantial influence on water quality, good or bad. In healthy less disturbed forests, the runoff is often slowed down and kept clean or further cleaned as it moves over or into the forest floor. However, when forest lands are disturbed by events such as logging operations or wildfire the runoff can have substantial negative influences on water quality. Sediment from soil erosion is usually the most significant contaminant. The intensity of fire in forestlands will affect the contamination after fire. Hotter fires lead to more soil erosion afterward.

Additional Considerations – Forestland Water Quality		
Overarching Issue Relationship	Climate Mitigation	Weak
	Climate Adaptation	Strong
	Wildfire	Strong
Staff Expertise		Yes
Known Management Practices (see Appendix B)		Yes

Availability of Funds	Yes
Availability of Other Agencies to Address Needs	Limited

Urban Water Quality

Stormwater runoff in urban settings can contribute significant pollutant loads to our waters from a wide range of the pollutants including pathogens, sediment, nutrients, metals, oils, and synthetic organic compounds.

Urban water quality is primarily the responsibility of municipalities per the requirements in the federal Clean Water Act. Municipalities are required to educate the public on the issues and implement best management practices.

Additional Considerations – Urban Water Quality		
Overarching Issue Relationship	Climate Mitigation	Weak
	Climate Adaptation	Strong
	Wildfire	Weak
Staff Expertise		Yes
Known Management Practices (see Appendix B)		Yes
Availability of Funds		Yes
Availability of Other Agencies to Address Needs		Yes

AIR QUALITY

Note that for purposes of assessing this resource topic area, wildfire and greenhouse gas sequestration are not included. These issues are critically important and are addressed in this strategic plan as overarching issues.

The quality of the air we breathe is important to citizens of Jackson County. Constituents of concern include particulate matter (from smoke, dust, and certain emission sources), toxic compounds and greenhouse gasses (e.g. carbon dioxide and methane).

The Department of Environmental Quality (DEQ) regulates activities that impact air quality such as vehicle exhaust, industrial emissions, and smoke management from prescribed fire, open burning, and wood burning stoves. The primary means to address these air pollutants is regulation of emission sources.

Additional Considerations – Air Quality		
Overarching Issue Relationship	Climate Mitigation	Strong
	Climate Adaptation	Weak
	Wildfire	Weak
Staff Expertise		Limited
Known Management Practices (see Appendix B)		Limited
Availability of Funds		Limited
Availability of Other Agencies to Address Needs		Yes

BIOLOGICAL ASSEMBLAGES (ECOSYSTEMS)

Riparian Habitat

Riparian ecosystems are typically rich in biological diversity and have important functions relative to water quality and soil loss. Healthy functioning riparian ecosystems prevent stream temperatures from rising, stabilize floodplain soils, and provide habitat for wildlife. Jackson County has a Riparian Ordinance in place that requires the replanting of vegetation removed within the riparian area of perennial and intermittent streams. The Oregon Department of Agriculture, through the Agricultural Water Quality Management Area Plan, specifically requires that agricultural management not impede the development and maintenance of riparian vegetation.

Additional Considerations – Riparian Habitat		
Overarching Issue Relationship	Climate Mitigation	Strong
	Climate Adaptation	Strong
	Wildfire	Strong
Staff Expertise		Yes
Known Management Practices (see Appendix B)		Yes
Availability of Funds		Yes
Availability of Other Agencies to Address Needs		Yes

Upland Habitat

Upland habitats include open lands outside of riparian corridors such as conifer forests, oak woodlands, and range land. Much attention has been given to the needs to address conifer forests due to impacts from timber harvest and wildfire. Oak woodlands are also of concern as a declining and important habitat for wildlife. While upland habitats are often less important than riparian habitats in protecting water quality, they can be significant sources of soil loss and are important for wildlife and livestock management.

The threat of wildfire endangers upland habitats. The federal government owns much of the forested lands within the county, limiting how much JSWCD can contribute to preventing destructive wildfires in these areas. However, there are many opportunities for JSWCD to work with private landowners, particularly in oak habitats that are declining due to land development and conversion.

Additional Considerations – Upland Habitat		
Overarching Issue Relationship	Climate Mitigation	Strong
	Climate Adaptation	Strong
	Wildfire	Strong
Staff Expertise		Yes
Known Management Practices (see Appendix B)		Yes
Availability of Funds		Yes
Availability of Other Agencies to Address Needs		Yes

Aquatic Habitat

Due to diverse land use practices throughout the Rogue Valley, aquatic habitats (rivers, streams, lakes, and ponds) have experienced loss and degradation. These habitats provide a multitude of benefits including recreation opportunities, economic benefit, and wildlife conservation.

Federal and State laws regulate activities that potentially impact aquatic habitat. Important state regulatory agencies include the Department of Environmental Quality the Department of State Lands, the Water Resources Department and the Department of Fish and Wildlife. There are also a host of federal agencies. Regulation is a primary means to address aquatic habitats.

Additional Considerations – Aquatic Habitat		
Overarching Issue Relationship	Climate Mitigation	Weak (in inland waters)
	Climate Adaptation	Strong
	Wildfire	Weak
Staff Expertise		No
Known Management Practices (see Appendix B)		Yes

Availability of Funds	Yes
Availability of Other Agencies to Address Needs	Yes

PRIORITY OF NATURAL RESOURCES

The priority of different resource topic areas is determined with the following two dimensions:

Need for Stewardship: This dimension reflects the need to improve the condition of the resources for the benefit of humans and the environment regardless of who does the work or how it gets done. This dimension accounts for:

- Overall importance of the natural resource
- The difference between existing condition and desired future conditions
- The nexus with overarching concerns in this strategic plan.

Demand for JSWCD: This dimension reflects the call for JSWCD to be involved in improving the condition of the resource. This dimension should account for:

- Consistency with the JSWCD mission
- Staff expertise (current and potential)
- Ability to implement (knowledge of what to do, funding, resources, and authorities)
- Extent to which others (e.g. partners or government agencies) are already working on improving the resource and are better equipped to address the issues than JSWCD

Each of the resource categories has been rated for both dimensions as low, medium, or high and placed in the matrix to determine relative priorities. The highest priorities are in the upper left-hand corner. The priorities are also assigned grades of “A” through “E” depending on where they fall in the matrix. Following is a result of the assessment.

		Demand for JSWCD		
		High	Medium	Low
Need for Stewardship	High	<u>A</u> <ul style="list-style-type: none"> • Soil Health • Surface Water Supply • Agricultural Water Quality 	<u>B</u> <ul style="list-style-type: none"> • Urban Water Quality • Riparian Habitat • Upland Habitat 	<u>C</u> <ul style="list-style-type: none"> • Aquatic Habitat
	Med	<u>B</u> <ul style="list-style-type: none"> • Soil Loss 	<u>C</u> <ul style="list-style-type: none"> • Groundwater Supply 	<u>D</u> <ul style="list-style-type: none"> • Air Quality
	Low	<u>C</u>	<u>D</u> <ul style="list-style-type: none"> • Forestland Water Quality 	<u>E</u>

When the above priorities are applied to individual projects or programs that are conducted by JSWCD, it may also be necessary to consider other unique circumstances and drivers. Examples include:

- Whether the work is contained in a Priority Area or Strategic Implementation Area
- Whether the work is to help implement or comply with high priority programs which JSWCD is obligated to support (e.g. Agricultural Water Quality Management Area Plans)
- Whether the work addresses multiple concerns or has value added benefits
- Whether the work is a good vehicle for education and outreach.

APPENDICES

THE STRATEGIC PLAN AND THE WORK PLAN

Together, the Strategic Plan and the Work Plan serve as “road maps” to implement the District’s mission and vision. They help to set and align priorities and communicate internally and externally. The Strategic Plan informs the Work Plan, and both are used to inform the Budget.

The Strategic Plan is the primary tool for setting high level direction by the Board. It is the selection of some specific directions over others that make the plan “strategic.” The plan has a 5-year planning horizon.

The Strategic Plan should be reviewed on a biennial basis and updated as necessary. The scope of the review can vary from year to year. In some years when there is little need for significant shifts in direction, the Board might want to receive suggested changes from the District Manager and have an opportunity to discuss changes at a regular Board meeting and then approve any revisions. In other years, it may be necessary to use more involved planning processes.

The Work Plan guides the District Manager and staff in their daily work. It also communicates back to the Board on how staff intends to proceed at a more detailed level. It should also identify the participating staff and the staff lead(s) and how each staff member will contribute to achieving the goals in the priority area(s). The Biennial Work Plan also incorporates staff’s best estimate of where and how much time will be spent outside of the priority areas to be responsive to general public inquiries. The time allocated for supporting general inquiries will also be used to allow the District to be reactive to catastrophic or unforeseen circumstances.

The Work Plan is prepared by the District Manager and staff and approved by the Board. Currently, the Work Plan is prepared and approved biennially. During the life of a Work Plan, the District Manager and staff should review progress at least quarterly. When minor or moderate changes are needed to the Work Plan, the District Manager is responsible for authorizing changes. Where major changes are needed the District Manager should seek direction from the Board.

Accomplishing the above and adhering to the fundamental aspects of this Strategic Plan allows for the judicious use of taxpayer money for the ecological benefit of all Jackson County residents.

MANAGEMENT PRACTICES FOR RESOURCE TOPIC AREAS

Soil Health

Good management practices typically involve introduction and maintenance of organics, use of perennial plants and cover crops to minimize soil exposure, nutrient management, and minimal physical disturbance of the soils. Prevention of high intensity wildfire is also important in preventing significant damage to soils.

Soil Loss

Good management practices include certain types of forest harvest practices, irrigation methods, pasture management, range management, use of perennial plants and cover crops, maintenance of riparian corridors, stream bank stabilization, contouring of farmed land, and protection of exposed soils.

Surface Water Supply

Good management practices include efficient irrigation practices, efficient urban and domestic use practices, minimizing open channels for transport where seepage and evaporative losses can be significant, and capturing and storing water in wet periods for use in dry periods.

Groundwater Supply

Good management practices include efficient irrigation practices, efficient use practices, and encouraging percolation of rainwater into the ground.

Agricultural Water Quality

Good management practices include irrigation modernization, vegetative buffer and filter strips, heavy use area protection, manure management, nutrient management, off-channel stock water systems, hardened waterway crossings, cover crops, riparian fencing, and good pasture management practices.

Forestland Water Quality

Good management practices include certain types of forest harvest practices, certain types of construction techniques of roads through forests, revegetation of disturbed areas, and managing fuel loads to reduce wildfire intensity.

Urban Water Quality

Good management practices typically involve natural treatment systems such as rain gardens, bioswales, pervious pavers, and riparian buffers. Projects that slow and retain the runoff can also help.

Air Quality

While air quality is largely managed through regulatory mechanisms, JSWCD can make some contribution through projects that reduce the amount of material that is deliberately burned. For example, encouraging chipping and mulching rather than burning waste products can help. JSWCD can also encourage use of technologies which emit fewer constituents of concern.

Riparian Habitat

Good management practices include removal of invasive species, revegetation with native plants, and exclusion of livestock. Actions to prevent unnecessary urban encroachment can also be helpful. There is ubiquitous growth of Himalayan / Armenian blackberry along Jackson County streams which promote extreme wildfire activity and riparian area restoration can address this problem. Blackberries are a particularly large risk in urban areas.

Upland Habitat

Good management practices include habitat restoration, fuels reduction, post-wildfire recovery, rangeland grazing management, invasive species removal, improving roads and infrastructure where erosion threatens streams, and protection and improvements of soils. Actions to prevent unnecessary urban encroachment can also be helpful.

Aquatic Habitat

Good management practices include fish passage barrier removal, in-stream habitat improvement, vernal pool and wetland restoration, and removal of invasive species.