



FARMERS IRRIGATION DISTRICT

Serving the Northern Hood River Valley since 1874

1985 Country Club Road, Hood River, OR 97031; phone 541-386-3115 fax 541-386-9103 www.fidhr.org

SUSTAINABILITY VISION DOCUMENT SPRING 2009 (V. 13.1)

We have lived by the assumption that what was good for us would be good for the world. We have been wrong. We must change our lives, so that it will be possible to live by the contrary assumption that what is good for the world will be good for us. And that requires that we make the effort to know the world and to learn what is good for it. We must learn to cooperate in its processes, and to yield to its limits. But even more important, we must learn to acknowledge that the creation is full of mystery; we will never clearly understand it. We must abandon arrogance and stand in awe. We must recover the sense of the majesty of the creation, and the ability to be worshipful in its presence. For it is only on the condition of humility and reverence before the world that our species will be able to remain in it.

(From Wendell Berry in Recollected Essays)

INTRODUCTION

Natural resource system limitations demand that we balance our need for domestic, industrial, hydroelectric, and agricultural water use with the very real biological necessity of maintaining adequate stream flows for fish and wildlife habitat. The Farmers Irrigation District strives to play a direct and supportive role in achieving sustainable practices of water use for the common good, and this document guides our practices.¹

In response to concern regarding matters of economy, ecology, and social equity in the Hood River Basin, we strive to act as natural resource stewards. District programs are thus dedicated to watershed restoration, in-stream flow enhancement, and on-farm irrigation efficiency. District projects are funded through various means, including water user assessments, low impact hydroelectric power sales, watershed and water conservation grants, low interest loans, and royalty revenue (from the sale of various innovative fish screen technologies).

PROJECT HISTORY

The foundation for the District's sustainable practices was established in about 1980 when the Farmers Irrigation District embarked on a small-scale hydroelectric program to create revenue for water conservation projects. Since the beginning of this process, the District and its basin partners have:

¹ For detailed background regarding the District's water conservation program, see the original Farmers Irrigation District Water Conservation and Management Plan, adopted by the District and the Oregon Water Resources Department in 1995.

- # Reduced 34 unscreened water diversions to 7 fully screened diversions
- # Returned 2535 supplemental water right acres to in-stream flow and reduced frost, temperature control, and spray water requirements by 90 percent
- # Provided agricultural producers with reliable, pressurized water delivery in correct volumes and provided soil moisture sensors to allow using less water more often
- # Installed pressurized pipe in 95 percent of the District, greatly enhancing irrigation efficiency, eliminating end-loss, and reducing canal failures and associated habitat destruction
- # Eliminated 1250 individual pumps and reduced power consumption by 1.3 million kilowatt hours per irrigation season
- # Increased renewable hydroelectric power production by 750,000 kilowatt hours per irrigation season
- # Converted 80 percent of the residential water users to micro-sprinkler technology via the micro-sprinkler exchange program with meters or gauges reducing water use by as much as 300 percent
- # Planted 7100 trees in riparian zones and placed 80,000 board feet of large woody debris at 12 sites on Green Point Creek to restore habitat, regain flood plains, increase complexity, enhance sinuosity, and increase in-stream flow
- # Adopted and met minimum flow standards for Green Point Creek
- # Adopted minimum flow standards for the Hood River during low flow periods of the year
- # Established a comprehensive stream flow and system efficiency data collection and reporting program, including 15 remote telemetry sites, which increased hydroelectric revenue by 150 percent, freeing more money for water conservation projects
- # Reduced operation and maintenance costs, fuel consumption, and wear on equipment and people
- # Reduced debt service and established a system reserve fund account
- # Mapped all district water rights in an interactive computer data base and established an on-going program to annually correct and adjust water rights to reflect beneficial use.
- # Purchased a fish screw trap for Green Point Creek to be operated by local fish agencies to collect fish count and species data for monitoring and enhancement programs
- # Reduced the potential for canal failures, each one of which costs the aquatic ecosystem an estimated \$470,000 in injury (in 2009 US dollars)
- # Constructed Farmers Canal Davenport Fish Screen and replaced old Farmers Canal flume with large diameter pipe

The above list of accomplishments is the result of an entire basin working together, and the District maintains a Watershed Enhancement Fund dedicated to the continuation of these projects dedicated to ecosystem health. Based on the results of its early work in the realm of sustainable practices, the District has developed a Mission statement to guide its future work.

MISSION

Farmers Irrigation District strives to promote ecologically, socially, and economically sustainable agriculture by providing energy and irrigation service for the common good.

SUSTAINABILITY POLICY (adapted from the original thinking of Ontario Power, Canada, 2002, and used with permission)

The Farmers Irrigation District shall guide its practices according to the following tenets:

- # Sustainable on-farm practices
- # Energy and resource use efficiency and balance
- # Community relations
- # Ecosystem protection

The Farmers Irrigation District shall adhere to the following core practices:

- # Meet or exceed all legislative and agency environmental requirements

- ✚ Integrate ecological, social, and economical factors into all planning, decision-making, and business practices
- ✚ Use group process to reflect upon and reform these core practices
- ✚ Further develop renewable and sustainable energy and water-use practices
- ✚ Educate, encourage, and empower employees and community to conduct activities in a sustainable manner
- ✚ Communicate through local, national, and international media the progress made toward achieving these sustainable practices

OPPORTUNITIES

The Farmers Irrigation District shall develop and implement sustainable practices through the following generally described opportunities:

- ✚ Complete piping of all District canals with pressurized pipe systems
- ✚ Appreciably increase summer in-stream flow in the Hood River
- ✚ Continue to develop and enhance the following practices:
 - ❖ Irrigate by actual crop need
 - ❖ Install solid-set, micro-head systems and moisture sensors
 - ❖ Develop water cycle awareness among water users
 - ❖ Maintain on-going, active cooperation with other irrigation districts
 - ❖ Continue to enhance renewable energy production
 - ❖ Encourage social equity through District Policy and employment
 - ❖ Continue participation in the Hood River Watershed Group to ensure that our work is in concert with community and agency efforts
 - ❖ Refine and maintain cooperative irrigation service to residential areas within the Urban Growth Area (UGA), whether annexed by the City of Hood River or not, based upon an equitable Farmers Irrigation District / City of Hood River Memorandum of Agreement
 - ❖ Develop and implement a mutually beneficial irrigation reservoir rehabilitation program to ensure continued safe operation and enhanced recreational opportunities
 - ❖ Support watershed restoration on Indian Creek to enhance community understanding of watershed dynamics and eliminate substantial sources of pollutants to the Hood River
 - ❖ Continue Green Point Creek watershed enhancement work to further restore its already good water quality, fish populations, and overall ecosystem health
 - ❖ Further cultivate a niche market for Hood River agriculture wherein desirable produce specially suited to Hood River soils and climate are cultivated in a sustainable and locally available manner
 - ❖ Realize enhanced District power sales revenue through continued refinement of the District's renewable, low-impact, energy production facilities
 - ❖ Retire all major debt by 2030 and continue to enhance the District's cash reserves

TASKS AND TIMELINES

The opportunities listed above lead to the following specific tasks and timelines:

- ✚ Complete Lower District, Markham, Country Club, Methodist Road Pump Station Ditch Replacement, and DeBorde - Hood River Parks and Recreation pressurization projects (Summer 2008 through Spring 2010)
- ✚ Complete Lowline Canal pipe project (2011 or earlier as funds are available)
- ✚ Complete Farmers Canal pipe system (2014 or earlier as funds are available)
- ✚ Install on-farm soil moisture sensors and poly-tube micro-sprinkler systems (2015)
- ✚ Enhance all existing fish screens to Farmers Screen technology (2015)
- ✚ Complete Reservoir Enhancement Program (2015)
- ✚ Eliminate North Pine, South Green Point, Cabin, and Phelps creeks diversions (2015)
- ✚ Complete North Green Point Creek pipe enhancement project

- ✚ Further enhance and integrate metering and remote telemetry systems
- ✚ Continue intensive water rights management, GIS development, flow control and data acquisition, and minimum flow maintenance programs
- ✚ Continue Water Use Education Program

PROJECT FUNDING

Funding for District projects may be obtained from many different sources including:

- ✚ PacifiCorp power sales contract
- ✚ ODOE Business Energy Tax Credit
- ✚ ETO incentives program
- ✚ ODEQ State Revolving Fund
- ✚ SDAO Flex-Lease Program
- ✚ FCA
- ✚ FRIMA and ODFW screen program
- ✚ OWEB
- ✚ NRCS grants
- ✚ Bureau of Reclamation Water 2025
- ✚ District water user annual fees
- ✚ Confederated Tribes of Warm Springs
- ✚ BPA
- ✚ FEMA
- ✚ National Fish and Wildlife Foundation
- ✚ Oregon Department of Agriculture
- ✚ Oregon Water Resources Department

MONITORING, EVALUATION, AND PLAN RENEWAL

The Farmers Irrigation District will use the following metrics to assess the efficacy of this vision document and planning process:

- ✚ Contribute an additional 10 cfs to summertime Hood River in-stream flow by 2011, resulting in a total return flow of 25 cfs since project inception in 1980
- ✚ Increase Green Point Creek average summer in-stream flow (June to August) to 20 cubic feet per second by 2015
- ✚ Build District reserves to 2 million dollars by 2020
- ✚ Eliminate all District debt by 2030
- ✚ Increase net hydropower production to an average 27,000 megawatt hours per year by 2020

This plan is periodically updated by District staff and reviewed and adopted by the District Board of Directors approximately every two years. We welcome your comments.