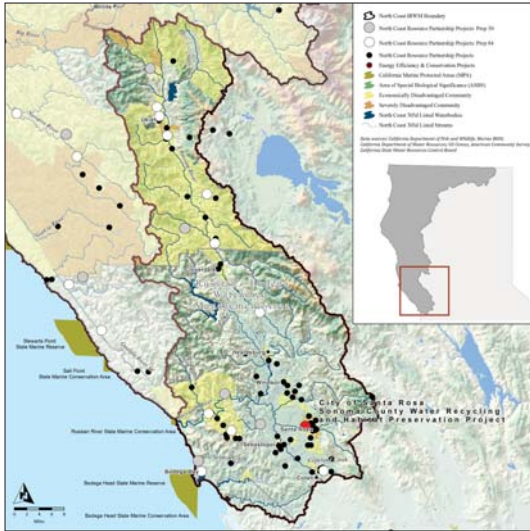


Sonoma County Water Recycling and Habitat Preservation Project Phase 2A

CITY OF SANTA ROSA UTILITIES DEPARTMENT



STATEMENT OF THE PROBLEM

The Russian River is habitat for three federally listed salmonids and insufficient summer flows limit habitat suitability. Summer months are hot and dry and landscape irrigation increases. Increased use of irrigation water was identified as a factor in reduced flows.

PROJECT GOALS

Short-term Goals:

- Replace potable Russian River water with recycled water at existing irrigation sites

Long-term Goal:

- Reduce amount of water diverted from the Russian River to improve salmonid habitat
- Diversify water supply sources to ensure water supply reliability
- Test the implementation plan for an extensive urban reuse project

THE SOLUTION

The project involved the construction of pipelines, pump stations and filtration for delivery of tertiary treated recycled water to urban sites relying on potable water from the Russian River. This project contributed to reducing summertime diversions from the Russian River by replacing existing potable water in Santa Rosa with recycled water for landscape irrigation use which mainly occurs during the summer months.

PROJECT IMPLEMENTATION AND ACCOMPLISHMENTS

Construction of the initial mainline alignment and the subsequent mainline expansion alignment included installing recycled water transmission and distribution line and various gate valves, recycled water services and meter boxes, blow offs, air and vacuum relief valves, and sampling stations.

For initial and expansion customer retrofits, construction included ensuring there was separation between irrigation and domestic systems, labeling irrigation equipment, installing advisory signs, converting existing hose bibbs to quick couplers, severing the irrigation system from the potable supply, removing potable water meters and installing new recycled water meters.

COMPLETION DATE

March 2013

PROJECT BUDGET

IRWM funds: \$4,004,603

Leveraged funds: \$9,563,415

Total cost: \$13,568,018

BENEFITS

Economic

- Instream flow is estimated to have a value of \$80 per acre foot per year (Brown 2007); therefore, this project provides an estimated benefit of \$3,280 per year

Water Quality

- Reduction of recycled water discharge into the Russian River during winter months

Water Supply

- Increased water supply reliability through diversification of the City of Santa Rosa's water supply

Habitat and Ecosystem function

- Increase of 41 acre ft of water instream during critical summer months in the Russian River

Cultural and Social

- Education
 - » Public outreach included educational materials distributed to approximately 52,000 customers, raising awareness of the benefits of recycled water use
 - » Creation of a dedicated recycled water website — www.srcity.org/recycledwater — containing recycled water outreach materials and the City's User's Guide

NEXT STEPS & RECOMMENDATIONS

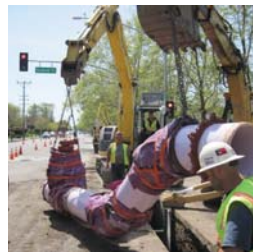
The City will continue to operate and maintain the recycled water system, provide Recycled Water Site Supervisor Training and customer site inspections to ensure recycled water is used per recycled water rules and regulations, and explore funding opportunities for Phase 1 West of the Santa Rosa Urban Reuse Project.

CONTACT

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REFERENCES

Brown, T.C. 2007. The Marginal Economic Value of Streamflow from National Forests: Evidence from Western Water Markets. In: M. Furniss, C. Clifton, and K. Ronnenberg, eds. Advancing the Fundamental Sciences: Proceedings of the Forest Service National Earth Sciences Conference, San Diego, CA, 18-22 October 2004. Gen. Tech. Rep. PNW-GTR-689. Portland, OR: U.S. Forest Service, Pacific Northwest Research Station. P. 458-466.



NORTH COAST RESOURCE PARTNERSHIP