

Recycled Water Opportunities:

Napa Sanitation District's

**Strategic Plan for
Recycled Water Use**

Presented to Napa County Board of Supervisors

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Download the full Strategic Plan at our website:
www.NapaSanitationDistrict.com

Project Purpose

Preparation of a Strategic Plan to
determine a recycled water
planning approach for the District
through the year 2020.

Benefits of Water Recycling

- Augment water supplies in water-short areas
- Prevent overdraft of groundwater resources, with resulting environmental benefits
- Ensure that the highest quality water is reserved for potable uses
- Increase the District's ability to comply with its summer river discharge prohibition

2020 Projections

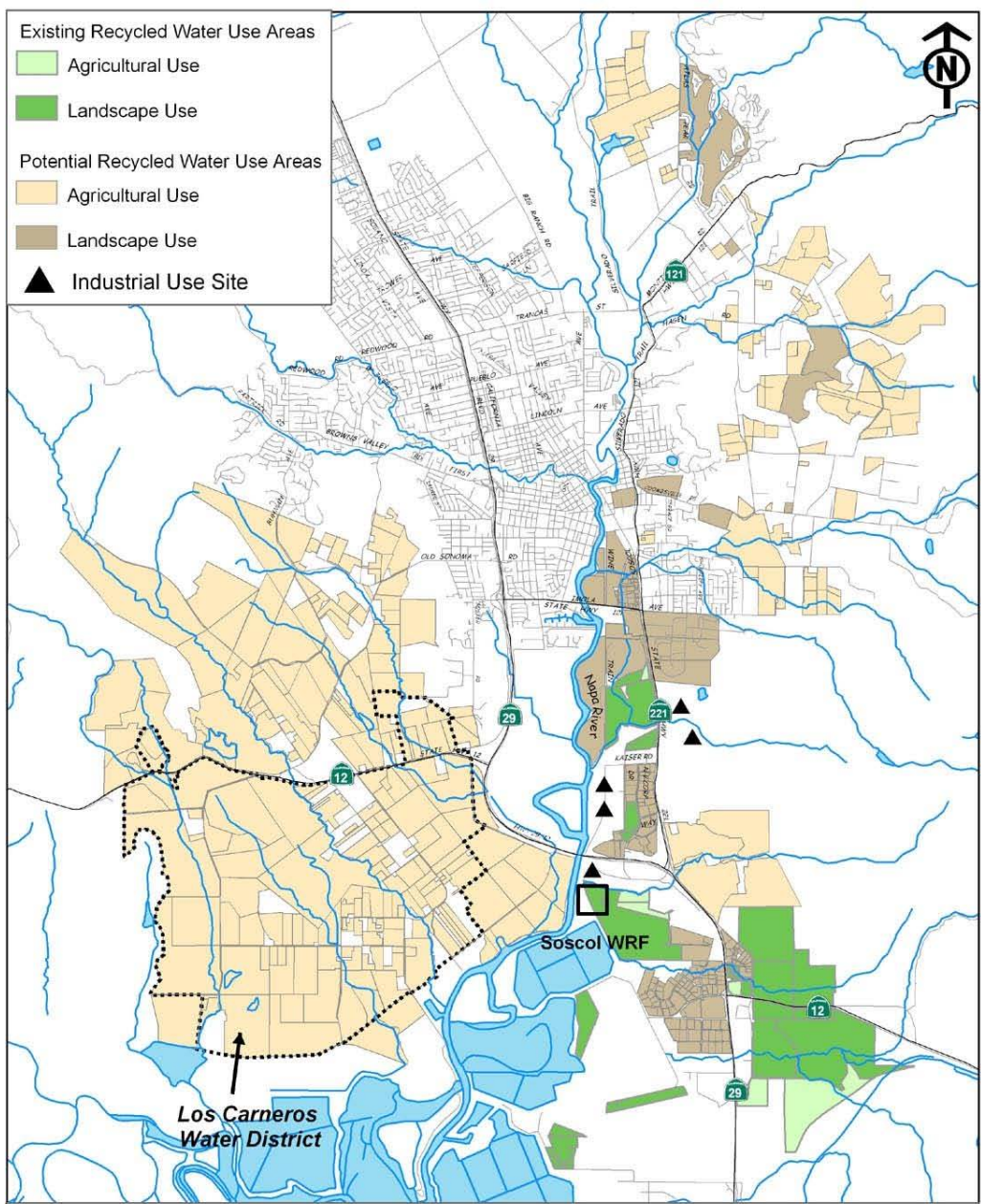
Plant Influent: 10,800 AF

Irrigation Demand: 7,400 AF

Recycled Water Supply:

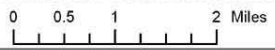
with Existing Storage 4,500 AF

with New Storage: 9,800 AF



Existing and Potential Recycled Water Use Areas

Data Source: Napa County Parcel Database, 2003



Recycled Water Values

1. Cost to District Ratepayers
2. Augment Water Supply
3. Reduce River Discharge

Also

- Acceptance by Outside Stakeholders
- Helps Environment
- Rapid Implementation
- Simplicity of Operation

Recycled Water Distribution Strategies

Types of Strategies Considered:

- Recycle Everything (#1)
- Reliably Meet River Discharge Prohibition (#2)
- Recycle Water in Specific Areas (#5, #6)
- Maximize Use of Existing Storage (#3, #4, #7)

Recycled Water Distribution Strategies

Types of Strategies Considered:

- **Reliably Meet River Discharge Prohibition (#2)**
- Recycle Everything (#1)
- Recycle Water in Specific Areas (#5, #6)
- Maximize Use of Existing Storage (#3, #4, #7)

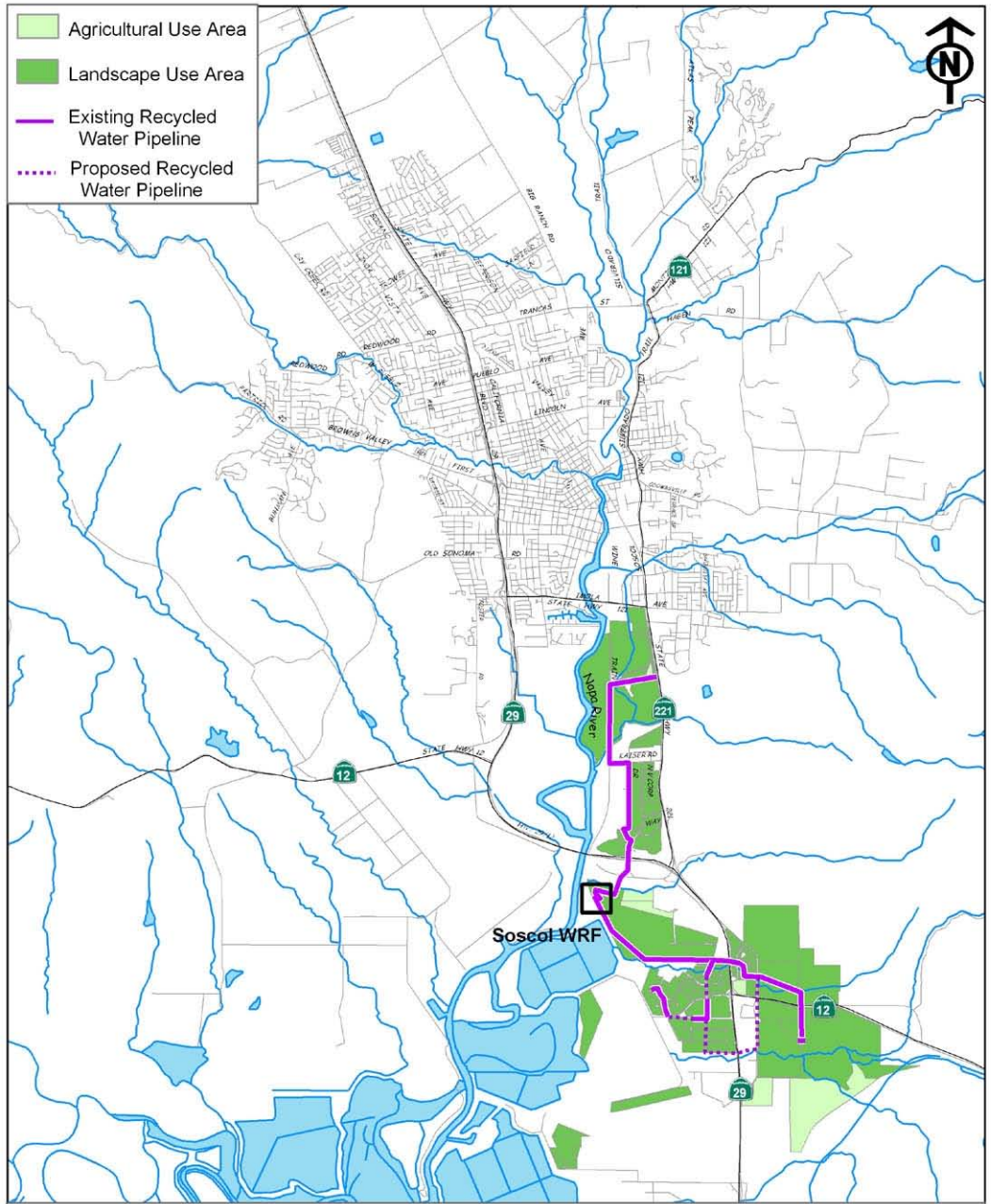
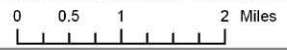


Figure 2-5
Strategy No. 2: Recycle Enough to Meet NPDES Permit Requirements

Data Source: Napa County Parcel Database, 2003



Recycled Water Distribution Strategies

Types of Strategies Considered:

- Reliably Meet River Discharge Prohibition (#2)
- Recycle Everything (#1)
- Recycle Water in Specific Areas (#5, #6)
- Maximize Use of Existing Storage (#3, #4, #7)

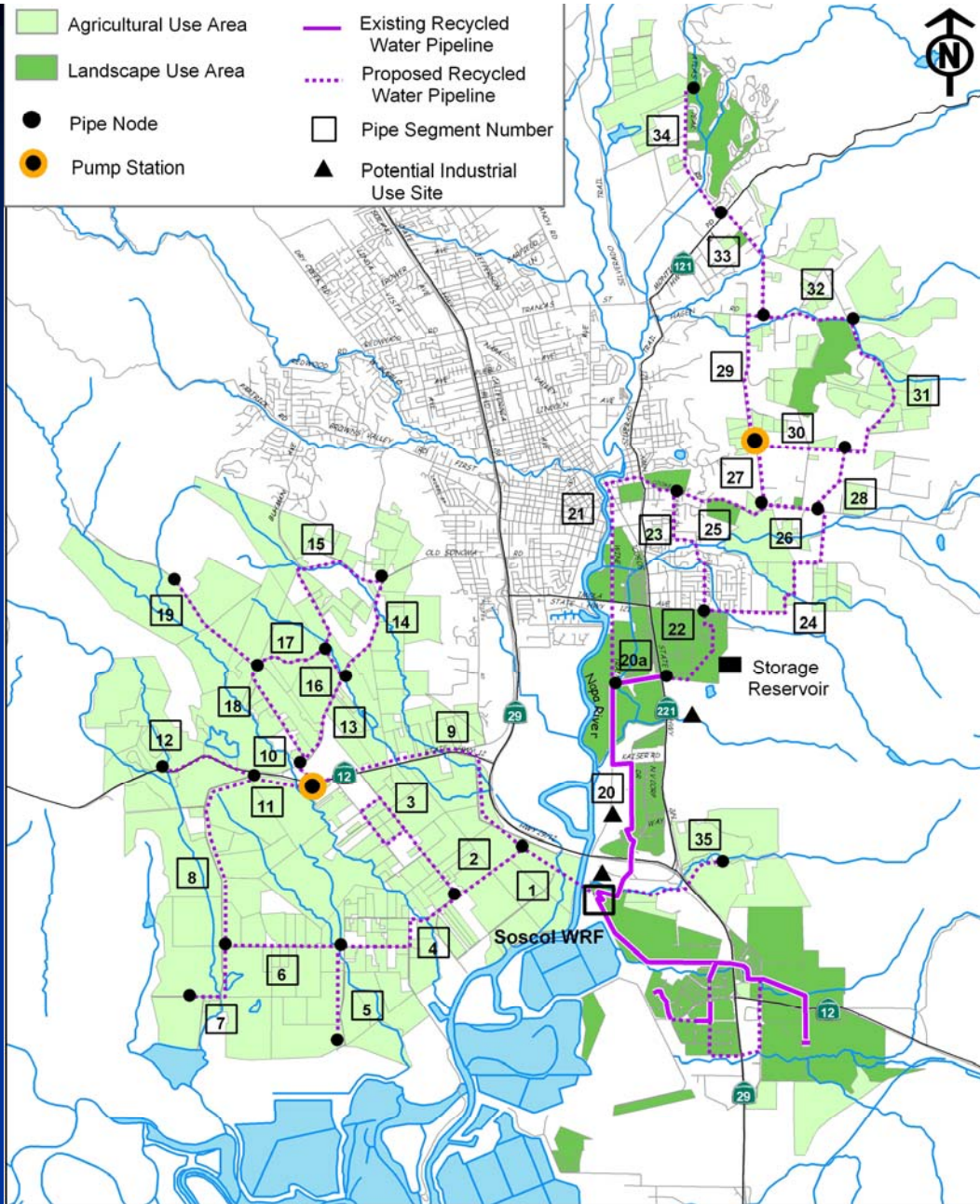
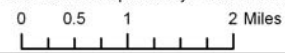


Figure 2-3
Strategy No. 1: Recycle All Water Produced

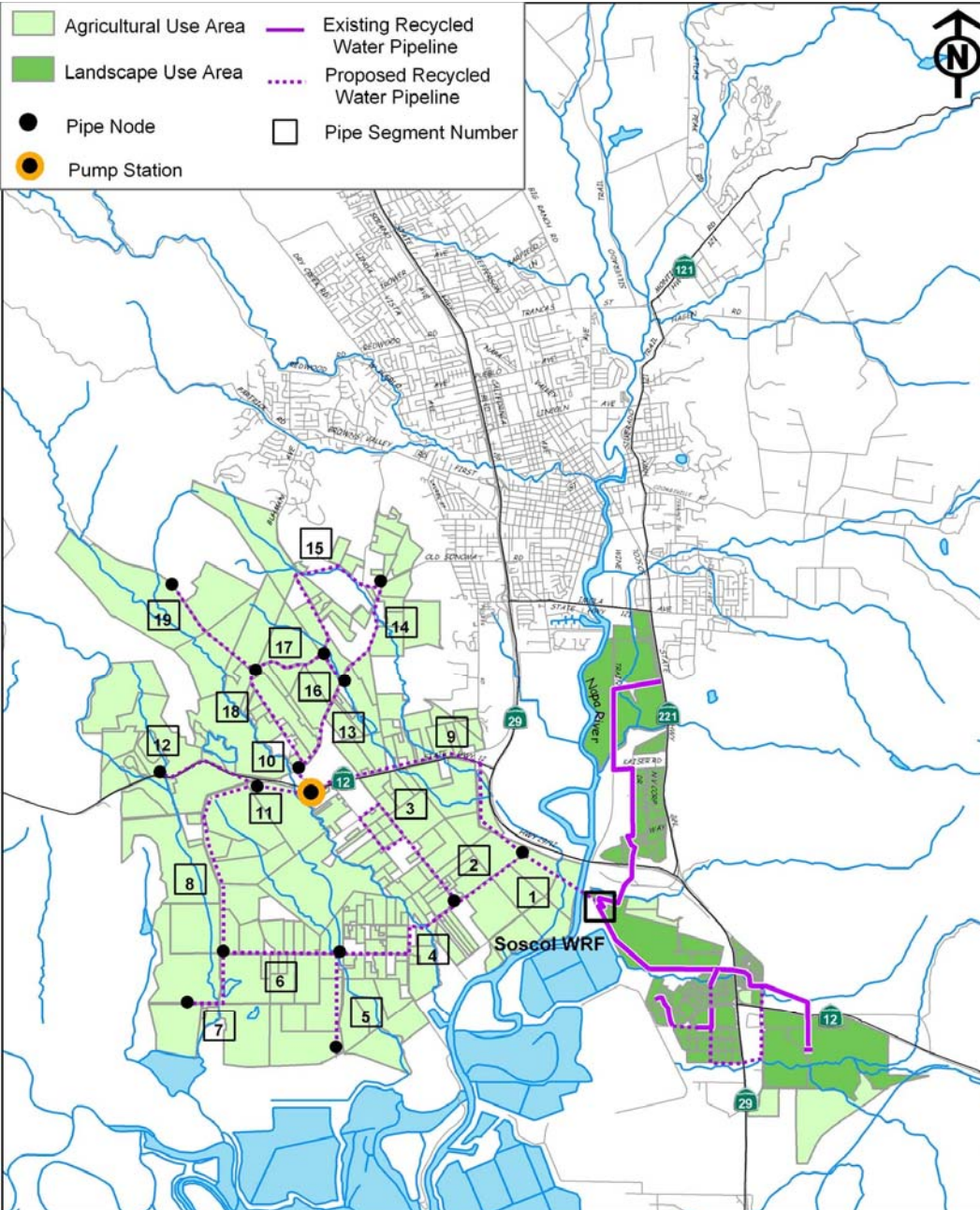
Data Source: Napa County Parcel Database, 2003



Recycled Water Distribution Strategies

Types of Strategies Considered:

- Reliably Meet River Discharge Prohibition (#2)
- Recycle Everything (#1)
- Recycle Water in Specific Areas (#5, #6)
- Maximize Use of Existing Storage (#3, #4, #7)



Strategy No. 4: Maximize Use of Existing Storage (Least Pipeline Cost)

Data Source: Napa County Parcel Database, 2003

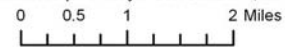


Figure 2-9

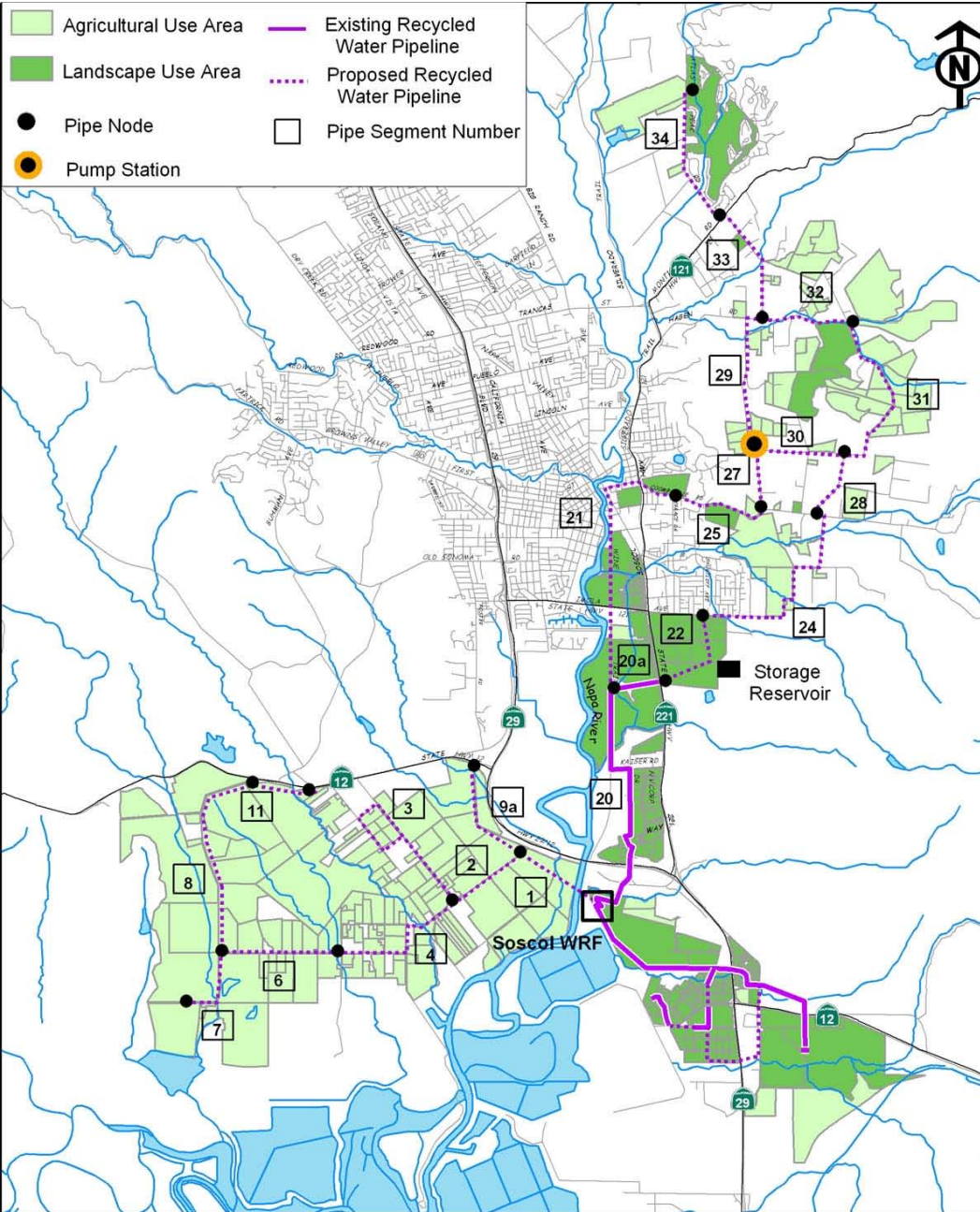
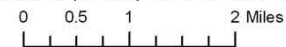


Figure 2-7
Strategy No. 3: Maximize Use of Existing Storage (Optimize Largest Users)

Data Source: Napa County Parcel Database, 2003



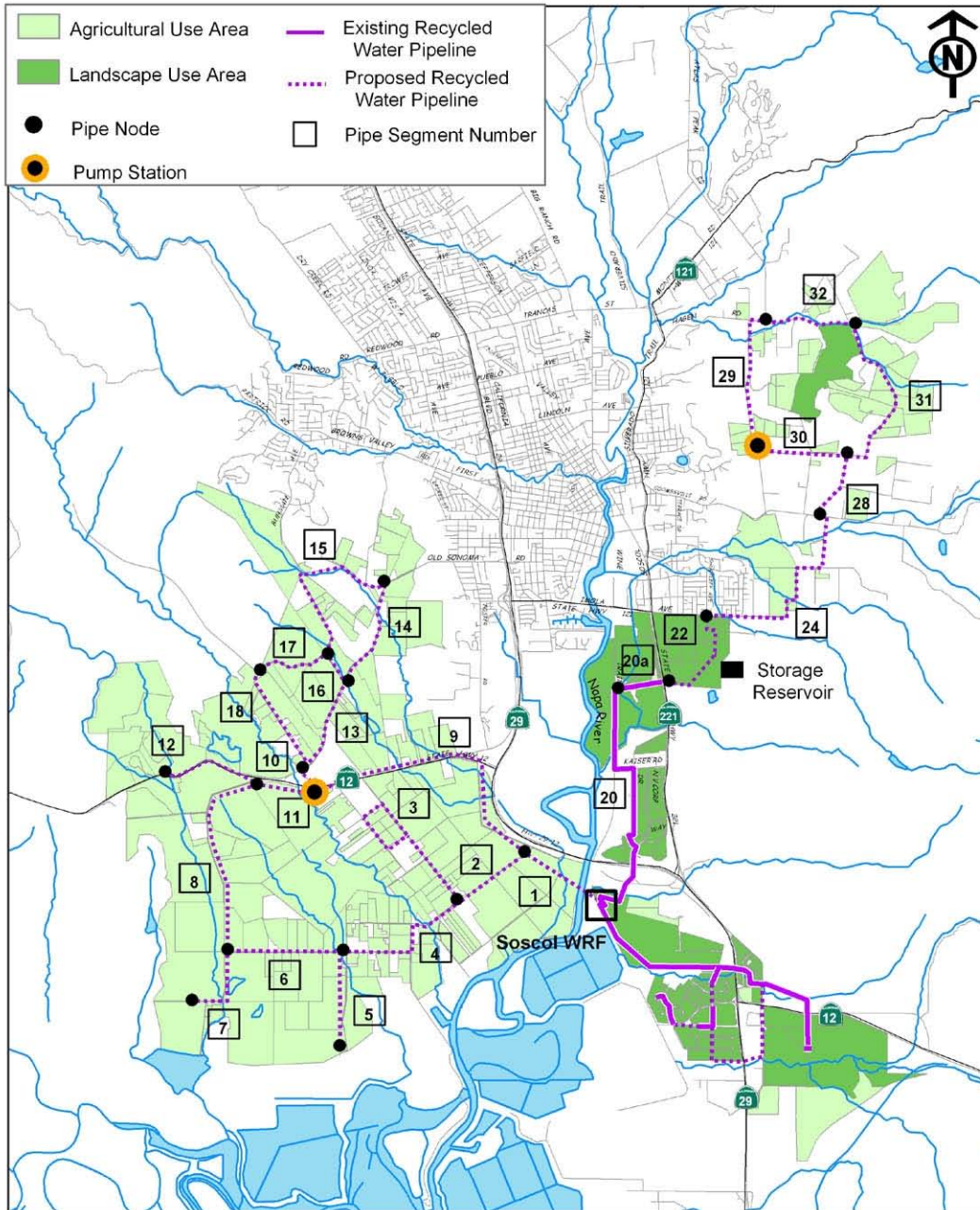


Figure 2-15
 Strategy No. 7: Maximize Use of Existing Storage (Augment Water Supply)

Selection of Strategy for Implementation

During workshops held in early 2005, the Board determined that *cost to the District's customers* should factor heavily into the selection of a distribution strategy.

However, the Board also felt a responsibility to *augment local water supplies* where needed and possible. So...

Final strategy is being
based on availability of
outside funding

If Outside Funding Is Not Available...

Recommended Strategy: No. 2

Benefits:

- Utilize capacity of existing pipeline
- Minimal capital outlay (\$1.9 million)
- Minimal additional O&M (\$40,000/year)
- Increased ability to meet discharge prohibition

Drawbacks:

- No assistance to water-short areas
- Continued use of operationally-intensive District reclamation sites

If Outside Funding Is Available...

Recommended Strategy: No. 3 (as of August, 2005)

Benefits:

- Utilize capacity of existing storage facilities
- Distribute water to MST, Carneros, and Silverado
- Conversion of District reclamation sites

Drawbacks:

- High capital outlay (\$64 million)
- High additional O&M (\$424,000/year)

So how much will it cost?

- Short answer is “We aren’t sure yet.”
- Longer answer is that we have been working for several years to get grant funding from state and federal sources.

Remaining funding needs will be from local sources. We are trying to identify several sources of revenue so no one source shoulders an unreasonable burden.

A user-friendly Water Cost Model that allows stakeholders to evaluate various construction and funding scenarios is available now.

What Now?

NSD Board asking for Input...

The selected strategy may be revised in order to optimize meeting the community's needs.

A Public Outreach Program was implemented with two community meetings in December; one in Carneros and one in MST

Open Houses

December 6: CARNEROS

December 8: MST/COOMBSVILLE

Attendance

CARNEROS = 42 signed in

MST = 53 signed in

**However, total attendance for both events
was approximately 105.**

Who Attended

Carneros Open House

- Agricultural Irrigators
- Fire District
- Small Parcel Residents

MST Open House

- Residents who live near large irrigators
- Napa Valley Country Club
- Agricultural Irrigators
- Tulocay Cemetery

Key Player Involvement

<u>Stakeholder</u>	<u>Open House</u>	<u>Letter</u>
Napa County Farm Bureau	Yes	Yes
Winegrowers of Napa County	Yes	-
Carneros Quality Alliance	Yes	-
Los Carneros Water District	Yes	Yes
Silverado Country Club	-	Yes
Napa Valley Country Club	Yes	Yes
Tulocay Cemetery	Yes	Yes
Stanly Ranch	Yes	-
UC Cooperative Extension	Yes	-
Napa County Supervisors (2)	Yes	-
Napa County Public Works	Yes	-

What They Said

- Written Comments -

Comments were generally consistent
with what we heard at Open Houses

22 Comments Received – All in Favor of Project

- 11 from Carneros Area**
- 10 from MST Area**
- 1 from Farm Bureau (both areas)**

What They Said

- Common Comments -

General

- Overall, very positive response**
- Interested in special assessment district**
- Preferred strategies that deliver water to their region**
- They need the water...Now!**

Concerns

- Lengthy project implementation**
- Costs - who will pay and how much**

What They Said

- Area Specific Comments -

Carneros Concerns

- Reliability of recycled water delivery**
- Effect on ground/aquifer water quality**
- Whether accepted for use on organic crops**
- More water might mean more growth**

MST Concerns

- Perceived lack of interest among largest water users**
- Will higher AV offset costs of special assessment?**
- Will recycled water usage raise groundwater table?**
- Effect on plants, grapes, livestock, groundwater quality**

Conclusions

The public outreach program was a success!

Loud message received: Recycled water is wanted in both MST and Carneros areas.

The most common questions:

- When will the water be available?
- What will it cost me?

There are several comments and questions to be addressed during CEQA process.

Next Steps

For a future NSD Board Meeting:

- Address all public comments received
- Revise recommended strategy, if appropriate
- Prepare financing plan based on construction plan

Financing Plan

Some thoughts...

- Only five types of funding to build the system
 - Sale of recycled water
 - Connection fees to recycled water system
 - Benefit District(s)
 - One-time Grants/Contributions
 - Ongoing Grants/Contributions
- NSD ratepayers can't/won't fund expansion of Recycled Water System

Financing Plan

NSD wants to help, but we understand that the lead in forming and managing benefit districts is the County's role...and County staff have expressed support for that.

District and County staff are in preliminary stages of meeting to determine exactly what additional information is needed to proceed.

Some of the Questions to Be Resolved:

What level of state and/or federal grant funding is available? Should we proceed or wait for more?

Where should the water go?

If Benefit Assessment Districts are formed, where should the boundaries be? How should the costs be allocated?