North Bay Water Reuse Program
Phase 2 Scoping Studies
Membership and Outreach Study
Summary Memorandum
June 2011
North Bay Water Reuse Program  
Phase 2 Scoping Studies  
Membership and Outreach Study Summary Memorandum  
June 2011

Introduction

This memorandum describes the context, activities, and results of a brief Membership and Outreach Study conducted to investigate participation in investigations to expand the North Bay Water Reuse Program beyond Phase 1.

The North Bay Water Reuse Authority (Authority/NBWRA) is in an enviable position. The Authority has made significant progress over a relatively short period of time by completing Phase 1 Feasibility Studies, securing a 2-phased construction authorization and, being awarded $8.5 M in federal construction grants for member’s Phase 1 projects.

Although significant work lies ahead in securing the remaining $16.5 M needed for Phase 1 construction projects, the NBWRA Board of Director’s understands the importance of concurrent planning activities in support of additional projects to meet the region’s sustainable water supply goals.

In support of this decision, the Board has decided to begin preliminary planning studies so that they, and others in the North Bay region, can better understand their options prior to initiating full Phase 2 Feasibility Studies.

There are three primary drivers supporting the Board’s decision; availability of additional recycled water supply, Program momentum with a seamless transition into Phase 2 projects and, interest from existing and new agencies to implement additional recycled water projects.

Purpose and Intent

As the North Bay Water Reuse Program (Program) is a large regional effort, it is prudent to begin Phase 2 planning investigations with a series of Scoping Studies. There will be three Scoping Studies undertaken as part of this process, Membership and Outreach, Project Definition and Multi-purpose Recycled Water Storage.
Phase 2 Studies

At the conclusion of each of the Scoping Studies, the NBWRA Board and other participating agencies can decide if their respective needs are met through this approach and determine if they would like to continuing with the next study stage or leave the group planning process.

The first Study, Membership and Outreach, has identified those interested in participating in the Scoping investigations.

The second Study, Projects Definition, will describe what would be involved in full Phase 2 Feasibility Studies and provide a scope of work, schedule and budget to complete the full investigations.

The third Study, Multi-purpose Recycled Water Storage Investigation, will identify the quantity, general location, potential users and storage needs of recycled water supplies and assist participating agencies in understanding the scale and potential costs of integrating storage into the Program.

The combined findings from the three Scoping Studies will facilitate informed decisions on whether or not to proceed with full Phase 2 Feasibility Investigations.

Approach

This Study, Membership and Outreach, was conducted in three parts; County meetings hosted by NBWRA members, a Regional Workshop where the NBWRA Board and Study participants were presented the findings from the 3-County process and, presentation and adoption of the Study recommendations at the May 2011 NBWRA Board meeting.

County Outreach

NBWRA members in each County hosted Outreach meetings during March and April 2011. During these meetings, we described the Program, how it worked, why we were considering Phase 2 Studies and, what would be included the future Study process.
The Outreach meetings were conversational in format with discussion centering on the potential benefits agencies could derive from participating in the Scoping Studies and or, joining the NBWRA for Phase 2 Feasibility Studies and project implementation.

The invitation list is in the table below and the County Workshop PowerPoint Presentation can be found in Appendix A.

<table>
<thead>
<tr>
<th>North Bay Water Reuse Program</th>
<th>Phase 2 Scoping Studies</th>
<th>Membership and Outreach Study Invitation List</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marin County</strong></td>
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<td><strong>Napa County</strong></td>
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<td>Marin County Public Works</td>
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</table>

**Regional Workshop**
The Regional Workshop participants included the NBWRA Board, Technical Advisory Committee and participants in the 3-County Outreach meetings.

There were two primary purposes to this event; to present the findings from the 3-County meetings for possible integration into future NBWRA studies and, to ask all agencies in attendance to confirm participation in the Project Definition Study with their respective Boards. This allowed each agency’s Board to vote on participating and obligate funds for the Project Definition Study cost-share.

For NBWRA members, the recommendation to participate in the Project Definition Study was to be included in the NBWRA Board packet for the May 23, 2011 meeting. For new non-member agencies, we asked that they send a letter, expressing their interest in participating, to the NBWRA Chair in time for the May Board meeting.

The PowerPoint Presentation given at the Regional Workshop can be found in Appendix B.

**Membership and Outreach Recommendations**
The summary Membership and Outreach presentation was given at the NBWRA Board meeting on May 23, 2011. The presentation included the drivers for initiating the Scoping Study process, content and timelines for proposed future investigations, findings and benefits from each County, results from the Membership Outreach process and cost per participant in the proposed Project Definition Study.
Also included in the presentation were future actions for the NBWRA to consider in the coming year regarding membership, grant submittals and budget planning for next fiscal year.

The PowerPoint Presentation given at the NBWRA Board of Directors meeting can be found in Appendix C.

**Conclusions**

The Membership Outreach process resulted in several new agencies partnering with the NBWRA in the next Scoping Study, Project Definition. They are the County of Marin, City of Petaluma, City of Sonoma, Valley of the Moon Water District, Los Carneros Water District and the City of American Canyon.

The NBWRA has secured a 50% cost-share from the US Bureau of Reclamation for the Scoping Studies and including this cost-share, the cost per agency to participate in the Project Definition Study is $9,250.

At their May 2011 Board meeting, the Board of Directors approved proceeding with the Project Definition Study and adopted the FY 11/12 budget in support of that action.

The County of Marin, City of Petaluma and the City of American Canyon sent letters expressing interest in participating in the Project Definition Study and they are found in Appendix D.

The City of Sonoma and Valley of the Moon Water District will participate in partnership with Sonoma County Water Agency and Los Carneros Water District will participate in partnership with the County of Napa.
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Appendices

Appendix A - County Workshop PowerPoint Presentation March-April 2011
Appendix B - Regional Workshop PowerPoint Presentation April 27, 2011
Appendix C - Final Membership and Outreach PowerPoint Presentation May 23, 2011
Appendix D - Letters of Intent to Participate
   City of American Canyon
   County of Marin – Department of Public Works
   City of Petaluma – Letter and Resolution w/out referenced Seconded Amended MOU
Appendix A
County Workshop PowerPoint
March-April 2011
North Bay Water Reuse Program

Phase 2 Feasibility Studies
Membership and Outreach

Sonoma County
New Member Outreach
Friday April 22, 2011
The Phase 1 EIR/EIS action area extends approximately 10 to 15 miles inland from the San Pablo Bay within Marin, Sonoma, and Napa Counties. The action area extends as far south as Point San Pedro in Marin County, and as far north as Milliken Canyon located 28 miles to the northeast in eastern Napa County, and encompasses about 318 square miles of land. Source: Draft Environmental Impact Report/Environmental Impact Statement (Draft EIR/EIS) for the North San Pablo Bay Restoration and Reuse Project.
The Program has 2 Phases

Phase 1
- $3 M in Feasibility Studies were completed with a 50% federal cost-share
- Construction was authorized for $100 M with a 25% federal cost-share
- 7 Projects in Marin, Sonoma and Napa Counties are now in design and construction
- $7.36 M in ARRA grant funding was secured for projects

Phase 2
- Eligible entities and projects need to be identified
- Feasibility Studies need to be completed – studies will determine scale of Phase 2
- Authorization for construction is already secured
- Construction of Phase 1 projects should be near completion by 2016 - Initiation of Phase 2 Project Design and Construction can begin
Federal Program Authorization

North Bay Water Reuse Authority
and
North Bay Water Reuse Program

• Eligible Entities are Members of the Authority in the North San Pablo Bay Watershed Areas of:
  o Marin,
  o Napa,
  o Solano or,
  o Sonoma Counties

• Projects are for Reclamation and Reuse Relating to:
  o Water quality improvement
  o Wastewater treatment
  o Groundwater recharge and protection
  o Surface water augmentation or,
  o Related improvements
How the Program Functions Between Member Agencies

- NBWRA is organized under an MOU
- It is governed by a Board of Directors of locally elected officials and a Technical Advisory Committee comprised of Member Agency GM’s
- The Sonoma County Water Agency is the Administrative Agent for the NBWRA
- Members pay equally for a portion of costs and other costs are pro-rated based on formulas in the MOU
- Program-wide study funding is shared by all Members
- Construction funding is distributed on a formula in the MOU and each Member Agency implements their own projects
Phase 2 Feasibility Studies

Questions Addressed at Each Stage

- **Membership & Outreach**: Who are the Agencies Proceeding with Phase 2
- **Project Definition**: What is the Scope of Work and Budget to Complete Phase 2
- **Dual Storage Feasibility**: Storage is Critical for Phase 2 - Is it Feasible & Cost Effective
- **Develop Alternatives**: What are the Alternatives & How do They Rank
- **Feasibility Study**: Define the Selected Alternative Feasibility Level Design Layouts and Costs
- **Financial Evaluation**: How will Agencies Meet Financial Demands
- **Environmental Evaluation**: How are Impacts Addressed and Mitigated
Phase 2 Feasibility Studies

Activities at Each Stage

Membership & Outreach
- Agency Workshops
- Agency Goals
- Preliminary Identification of Agency members and Projects
- Organizational Issues
- Membership Memorandum

Project Definition
- Conceptual Operations
- Prelim Program & Costs
- Phase 1 Program Valuation
- Financial Capability Review
- Conceptual Benefits: Energy, Water & Environmental
- Feasibility Workplan
- Project Definition Report

Dual Storage Feasibility
- Supply & Demand
- Conceptual Operations Analysis
- Identify New Pond Sites
- Geotechnical for Ponds
- Layout & 10% Design
- Storage Report

Develop Alternatives
- Existing & Future Conditions
- Project Criteria
- Develop Alternatives
- Evaluate Alternatives
- Project Costs
- Fatal Flaw Analysis
- Alternatives Report

Feasibility Study
- Finalize Project Criteria
- Finalize Supply & Demand
- Finalize Existing & Future Conditions
- Alignment Mapping
- Alignment Geotechnical
- Hydraulics Appendix
- Final Feasibility Level Alternatives
- Project Costs
- Analyze Final Alternatives
- Feasibility Study Report

Financial Evaluation
- Economic Analysis
- Financial Capability
- Project Cost Effectiveness

Environmental Evaluation
- Project Development
- NOI/NOP
- Draft EIR/EIS
- Final EIR/EIS
- ROD
- BO
- ESA Section 7
- Archeological Section 106
Phase 2 Feasibility Studies

Funding and Schedule

**Membership & Outreach**
March – May 2011
- $59,100 - FY 10/11
  - Federal $29,600
  - NBWRA $29,600
Board Approved Study on Feb 14, 2011
- Pending Outcomes from Membership Study, NBWRA Cost-share for FY 2011/12
- Budget and Notice to Proceed with Study will be on May 23 Board Agenda

**Project Definition**
July – Dec 2011
- $166,500 - FY 10/11
  - Federal $83,250
  - NBWRA $83,250
Board Approved Obligating Federal Funding on Feb 14, 2011

**Dual Storage Feasibility**
Jan – Sept 2012
- $449,000 – FY 11/12
  - Federal $150,000
  - NBWRA $299,000

**Develop Alternatives**
Oct 2012 – Sept 2013
- Est. $248,200
  - Federal $124,100
  - NBWRA $124,100

**Feasibility Study**
- Est. $651,700
  - Federal $325,850
  - NBWRA $325,850

**Financial Evaluation**
July – Sept 2014
- Est. $100,500
  - Federal $50,250
  - NBWRA $50,250

**Environmental Evaluation**
- Est. $1,683,000
  - Federal $841,500
  - NBWRA $841,500

Preliminary estimate for Reclamation Agreement
Actual budget and schedule to be determined in “Project Definition”
Conceptual Level Operational Analysis:
Preliminary monthly operations analysis to determine seasonal storage needs, potential integration with Phase 1 facilities, and general points of delivery.

Preliminary Identification of Program and Costs for Design and Construction:
Conceptual level layouts of storage, conveyance and distribution facilities to develop an order of magnitude level estimate of cost sufficient to determine the cost range of a potential Phase 2.

Phase 1 Program Valuation:
Conceptual approaches to value of benefits and potential costs of joining NBWRP Phase 2 based on value to the new project members derived from Phase 1 activities and relationships.

Review of Members’ Ability to Meet Non-Federal Cost Share:
Preliminary assessment of the capacity of participating agencies to take on construction projects and fund the non-federal cost share.

Conceptual Level Project Benefits:
To justify local and federal expenditures, the benefits of a potential Phase 2 projects must be identified.

Preliminary qualitative description:
  – Water and energy benefits
  – Environmental and habitat

Scope of Work for Full Phase 2 Feasibility, Economic, and Environmental Studies

Project Definition Report and Presentations

What is a Project Definition Study?
The Scope of Work and Budget to Complete Phase 2
Why is Storage Key in Phase 2?
Supply & Demand Relationship Drive Storage Needs

Example for One Agency:

Estimated Storage Requirement by Agency to Reuse All Available Flow:

<table>
<thead>
<tr>
<th>Area</th>
<th>Available Supply (AF)</th>
<th>Assumed Demand type</th>
<th>Seasonal Storage Requirement (AF)</th>
<th>Storage as Percent of Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Napa SD</td>
<td>6,197</td>
<td>Vineyard</td>
<td>6,113</td>
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<td>Sonoma Valley CSD</td>
<td>3,908</td>
<td>Vineyard</td>
<td>3,540</td>
<td>91%</td>
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<td>Novato</td>
<td>7,865</td>
<td>Landscape</td>
<td>4,226</td>
<td>54%</td>
</tr>
<tr>
<td>Las Gallinas valley SD</td>
<td>2,567</td>
<td>Landscape</td>
<td>1,851</td>
<td>72%</td>
</tr>
</tbody>
</table>
Project Specific Questions

- Are there projects identified?
- What is the stage of those projects: conceptual, planning, designed?
- What are the anticipated uses: landscape, agriculture, environmental?
- Has any environmental analysis been completed?
- What is the location of the project or facilities so we can put it in our GIS database?
  - Service area boundaries
  - Pipeline routes
  - Treatment plants
  - Storage
- Water balance
  - Available supply
  - Annual
  - Seasonal variability
  - Level of treatment
- Anticipated demands
  - Annual
  - Seasonal variability
  - Type of use
How to Join in the Next Study
Project Definition

- Project Definition will determine what will be included in Phase 2 Feasibility Studies
- It will determine the value of Phase 1 studies and construction authorization and the new member buy-in costs for Phase 2
- It will be cost-shared at 50% federal and 50% local
- The non-federal cost to participate is will shared among all agencies
- We would like an letter of interest from your Boards to the NBWRA by mid-May 2011
Membership and Outreach
Next Steps and Schedule

• Complete Membership and Outreach Study and deliver outcomes at April 27, 2011 Workshop
• Work with NBWRA TAC to prepare a recommendation to the Board of Direction regarding proceeding with the Project Definition Study
• If approved, begin Project Definition Study in July-August 2011
## Comparison between BARWC and NBWRP

### Bay Area Recycled Water Coalition
- Regional Coalition to leverage costs for obtaining federal authorizations and appropriations for project construction
- Each member must complete USBR Title XVI Feasibility Studies, NEPA Compliance and Financial Capability (2-4 years)
- Once Project is determined feasible, it must be authorized for construction and then compete with other authorized Title XVI projects for funding (2-4 years)
- BARWC Members advocate for regional funding but Projects compete individually and are ranked on criteria such as timely ability to construct and recycled water yield

### North Bay Water Reuse Program
- Regional Coalition to share costs for securing Program-wide funding for studies and project construction
- All members cost-share and are included in the Program-wide USBR Title XVI Feasibility Studies, NEPA Compliance and Financial Capability (2-4 years)
- Program is already authorized for Phase 2 construction once Feasibility Studies are complete
- The Program competes for funding as a regional entity encompassing all members projects and therefore ranks highly in demonstrating readiness to proceed, multiple benefits and program-wide yield of recycled water
Appendix B
Regional Workshop PowerPoint
April 27, 2011
North Bay Water Reuse Program

Phase 2 Feasibility Studies
Membership and Outreach

Workshop & Discussion

Wednesday April 27, 2011
Agenda for Today

• Workshop overview
• Membership & Outreach Study context & purpose
• **Review & discussion**
• Outcomes of outreach meetings
• Conclusions & recommendations
• **Review & discussion**
• Next steps
• **Discussion & direction from agencies**
Workshop Objectives

• Discuss findings & opportunities
• Support agency decision-making regarding proceeding to next Phase 2 study
• Receive input and direction
North Bay Water Reuse Program

MEMBERSHIP & OUTREACH
CONTEXT AND PURPOSE
Why Start Phase 2 now?

• Timing can be critical to continued success
• Timeline to complete studies
• Readiness to proceed for Federal construction funding
Unique assets of NBWRP

• Federal authorization
• Proven track record with Reclamation
• Water supply to support regional sustainability
# Phase 1 Implementation

<table>
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<tr>
<th>Project</th>
<th>Agencies</th>
<th>Project Size</th>
</tr>
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<tbody>
<tr>
<td>Hamilton Field/Novato South</td>
<td>LGVSD &amp; NMWD</td>
<td>$11,142,000</td>
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<tr>
<td>Novato North</td>
<td>Novato SD &amp; NMWD</td>
<td>$10,550,000</td>
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<tr>
<td>Novato Central</td>
<td>Novato SD &amp; NMWD</td>
<td>$13,181,000</td>
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<td>SV Recycled Water Project</td>
<td>SVCSD</td>
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<td>Napa Sonoma Salt Marsh Pipeline</td>
<td>SVCSD</td>
<td>$20,925,000</td>
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<td>MST</td>
<td>Napa SD</td>
<td>$34,699,000</td>
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<td>Napa State Hospital Pipeline</td>
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<td>$3,139,000</td>
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<td><strong>Total Costs</strong></td>
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<td>Federal Funds Authorized</td>
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<td><strong>$25,000,000</strong></td>
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<tr>
<td>Federal Funds Received to Date</td>
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<td><strong>$7,328,000</strong></td>
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</tbody>
</table>
Challenge to More Recycling

• Significant recycled water is available
• Timing of supply does not meet seasonal demands
• Storage is key to success of Phase 2
Why is Storage Key in Phase 2?

Example for One Agency:

We used the “easy” water in Phase 1

Impact of Demand

Estimated Storage Requirement by Agency to Reuse All Available Flow:

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Dual Purpose Storage Appraisal Study

- Preliminary study to increase program storage potential while providing significant habitat
- Identified opportunities for multi-purpose balancing reservoirs
- Discussed:
  - Approaches to systems & operations
  - Constraints to address in development
Storage/Habitat Elements Considered

- Habitat aspects
- Water quality benefits
- Water quality issues
- Vegetation management
- Vector control
- Topography
- Public access
- Pond contouring & depth
- Levee design
- Water control structures & features
- Climate change & sea level rise
- Depth to groundwater
- Floodplain definition
Putting Membership & Outreach Study into Phase 2 Context

• How does this information translate into the Federal Title XVI study process?
• An overall Phase 2 process was developed based on Phase 1 experience & lessons
• Phase 2 complete process definition required to initiate Reclamation cooperative agreement
• Phase 2 study process can change as needed or can be stopped
Phase 2 Feasibility Studies

Questions Addressed at Each Stage

Membership & Outreach
- Who are the Agencies Proceeding with Phase 2

Project Definition
- What is the Scope of Work and Budget to Complete Phase 2

Dual Storage Feasibility
- Storage is Critical for Phase 2 - Is it Feasible & Cost Effective

Develop Alternatives
- What are the Alternatives & How do They Rank

Feasibility Study
- Define the Selected Alternative Feasibility Level Design Layouts and Costs

Financial Evaluation
- How will Agencies Meet Financial Demands

Environmental Evaluation
- How are Impacts Addressed and Mitigated
Phase 2 Feasibility Studies

**Membership & Outreach**

- Agency Workshops
- Agency Goals
- Preliminary Identification of Agency Members and Projects
- Organizational Issues
- Membership Memorandum

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**Project Definition**

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North Bay Water Reuse Program

OUTCOMES OF MEMBERSHIP & OUTREACH
Program-wide Benefits

• Use of Recycled Water is called out in Marin, Sonoma and Napa County General Plans
• It provides a new water supply to support agriculture, urban and environmental needs
• It reduces demand on regional surface and groundwater supplies
• It supports and builds regional collaboration through efficient planning and cost-sharing
Marin County Benefits

• The NBWRP shares mutual goals the County’s Watershed Restoration Program
• Collaboration could add value through leveraging and cost savings in project planning and implementation
• An expanded, sustainable supply of recycled water could support additional urban reuse and add environmental and fire protection benefits
Sonoma County Benefits

• Expanded availability of recycled water could supply new users in community schools and recreation areas
• It would provide additional wetlands and environmental benefits
• It would contribute to expanded agricultural use
• It would protect the groundwater basin and help prevent saline water intrusion
Napa County Benefits

• Opportunities for expanded reuse are available but are dependent on storage

• Potential partnerships exist between local agencies to expand and serve new community, agricultural and environmental uses
Consistent with Phase 1 Objectives

- Offset urban and agricultural demands on potable water supplies
- Enhance local and regional ecosystems
- Improve local and regional water supply reliability
- Maintain and protect public health and safety
- Promote sustainable practices
- Give top priority to local needs for recycled water
- Implement recycled water facilities in an economically viable manner

Source: NBWRP Phase 1 EIR/EIS
## Summary of Outreach Responses

<table>
<thead>
<tr>
<th>New Member Outreach</th>
<th>Not Interested in Participating in Project Definition Study</th>
<th>Participation in Project Definition Study Under Consideration</th>
<th>Will Participate in Program Definition Study</th>
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<td>Cost-share with VOMWD</td>
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<td>Existing Member Participation</td>
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<td>Novato Sanitary District</td>
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<td>Napa Sanitation District</td>
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</table>
Summary of Findings

• Consistent and Supportive of:
  – Broad North Bay Regional goals
  – Marin, Sonoma and Napa County goals
  – NBWRP Phase 1 objectives

• New and existing member agency interest in participating in Project Definition Study

• Timing is appropriate to initiate studies to segue from Phase 1 to Phase 2 construction projects

• Preliminary investigations show enough recycled water available to justify further investigation
NBWRA Organization

• Current MOU has no *Study* cost-share formula
• Project Definition Study costs would be shared
  – 50% by Reclamation
  – 50% shared equally by participating agencies
Project Definition Recommendation and Study Budget

Proceed with Project Definition Study to define benefits, costs, and interests in further Phase 2 studies.

<table>
<thead>
<tr>
<th>Total Cost for Phase 2 Project Definition Study</th>
<th>Reclamation Funding (available)</th>
<th>Local Funding</th>
<th>Cost per Agency for 6 Members</th>
<th>Cost per Agency for 8 Members</th>
<th>Cost per Agency for 10 Members</th>
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<td>$166,500</td>
<td>$83,250</td>
<td>$83,250</td>
<td>$13,875</td>
<td>$10,406</td>
<td>$8,325</td>
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North Bay Water Reuse Program

NEXT STEPS
Initiation of Project Definition Study

• Member Agencies decide if they want to proceed with the study and if so, include costs in their annual budgets

• TAC makes a recommendation to proceed and if so, includes the study costs and approves FY 11/12 NBWRA Budget

• The NBWRA Board of Directors takes action on the study recommendation and approves the budget

• SCWA enters into agreements with interested agencies who are participating in the Project Definition study
## Schedule of Decision-making

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<td>Novato SD</td>
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<td>Membership Outreach Workshop</td>
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<td>NBWRA TAC Phase 2 - Project Definition Study Decision and FY 11/12 Budget</td>
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North Bay Water Reuse Program

Phase 2 Studies

Membership and Outreach Summary

Future Phase 2 Studies

Monday May 23, 2011
Membership and Outreach Study

Purpose:

To determine if there is sufficient interest from regional agencies to initiate further Phase 2 studies.
NBWRP Assets in Support of Phase 2 Studies

- Federal construction authorization for Phase 2
- Proven track record with US Bureau of Reclamation
- Identified available recycled water supply to support regional water resource sustainability goals
Phase 2 Planning Horizon

- Timing can be critical to continued success
- Timeline to complete studies
- Readiness to proceed for Federal construction funding

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</tbody>
</table>
Summary of Findings

• Consistent and Supportive of:
  – Broad North Bay Regional goals
  – Marin, Sonoma and Napa County goals
  – NBWRP Phase 1 objectives

• New and existing member agency interest in participating in Project Definition Study

• Timing is appropriate to initiate studies to segue from Phase 1 to Phase 2 construction projects

• Preliminary investigations show enough recycled water available to justify further investigation
## North Bay Water Reuse Program

### Phase 2 Membership Outreach Results

**Monday May 23, 2011**

<table>
<thead>
<tr>
<th>NBWRA Agencies</th>
<th>Will Participate in Project Definition Study</th>
<th>Will Not Participate in Program Definition Study</th>
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<tbody>
<tr>
<td><strong>Marin County</strong></td>
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<tr>
<td>Las Gallinas Valley Sanitary District</td>
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<tr>
<td>Novato Sanitary District</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td><strong>County of Marin - New Partner</strong></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>North Marin Water District</td>
<td>X</td>
<td></td>
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<tr>
<td><strong>Sonoma County</strong></td>
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<tr>
<td>Sonoma County Water Agency</td>
<td>X</td>
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<tr>
<td><strong>City of Petaluma - New Partner</strong></td>
<td>X</td>
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</tr>
<tr>
<td>Sonoma Valley County Sanitation District</td>
<td>X</td>
<td></td>
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<tr>
<td><strong>City of Sonoma - New Partner</strong></td>
<td>Cost-share with SVCSD</td>
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<tr>
<td><strong>Valley of the Moon Water District - New Partner</strong></td>
<td>Cost-share with SVCSD</td>
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<tr>
<td><strong>Napa County</strong></td>
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<tr>
<td>Napa Sanitation District</td>
<td>X</td>
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<tr>
<td><strong>City of American Canyon - New Partner</strong></td>
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<tr>
<td>County of Napa</td>
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<td><strong>Los Carneros Water District - New Partner</strong></td>
<td>Cost-share with County of Napa</td>
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<thead>
<tr>
<th>Total Number of Participating Agencies</th>
<th>9</th>
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</table>
Project Definition Recommendation and Study Budget

Proceed with Project Definition Study to further define Phase 2 program benefits and costs to NBWRA member agencies

<table>
<thead>
<tr>
<th>Total Cost for Phase 2 Project Definition Study</th>
<th>$166,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Funding (available)</td>
<td>$83,250</td>
</tr>
<tr>
<td>Local Funding</td>
<td>$83,250</td>
</tr>
<tr>
<td><strong>Cost per Agency for 9 Members</strong></td>
<td><strong>$9,250</strong></td>
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</tbody>
</table>
Future Phase 2 Studies
Phase 2 Studies

Phase 2 Scoping Studies

- Membership & Outreach
  - Go/Stop Decision
- Project Definition
  - Go/Stop Decision
- Storage Investigation
  - Go/Stop Decision

Phase 2 Feasibility Studies

- Develop Alternatives
  - Define the Selected Alternative
  - Feasibility Level Design
  - Layouts and Costs
- Feasibility Study
  - How will Agencies Meet Financial Demands
- Financial Evaluation
  - How are Impacts Addressed and Mitigated
- Environmental Evaluation

Who are the Agencies Proceeding with Phase 2

What is the Scope of Work and Budget to Complete Phase 2

Storage is Critical for Phase 2 - Is it Feasible & Cost Effective

What are the Alternatives & How do They Rank

Define the Selected Alternative

Environmental Evaluation
Initiation of Project Definition Study

• Agencies have decided to proceed with the study and have committed funds for their cost-share
• TAC has made a recommendation to proceed
• The Board of Directors need to act on the recommendation and approve the budget
• As fiscal agent, SCWA will invoice participating agencies
**Phase 2 Scoping Studies**

### Membership & Outreach
- **$59,100 - FY 10/11**
  - Federal $29,600
  - NBWRA $29,600

- **Agency Workshops**
- **Agency Goals**
- **Preliminary Identification of Members and Projects**
- **Organizational Issues**
- **Membership Memorandum**

### Project Definition
- **$166,500 - FY 11/12**
  - Federal $83,250
  - NBWRA $83,250

- **Conceptual Operations**
- **Prelim Program & Costs**
- **Phase 1 Program Valuation**
- **Financial Capability Review**
- **Conceptual Benefits**
- **Feasibility Workplan**
- **Project Definition Report**

### Storage Investigation
- **Est. Cost $450,000 - FY 12/13**
  - Cost shared USBR/NBWRA

- **Supply & Demand**
- **Conceptual Operations Analysis**
- **Identify New Pond Sites**
- **Geotechnical for Ponds**
- **Layout & 10% Design**
- **Storage Report**
Project Definition Study Schedule

<table>
<thead>
<tr>
<th>Task</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
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<td>Operations Analysis</td>
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<td>Preliminary Program D&amp;C Costs</td>
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<td>Phase 1 Buy-in Concepts</td>
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<td>Members Ability to Pay</td>
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<td>Conceptual Project Benefits</td>
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</table>
FY 11/12 Organizational Actions in Support of Phase 2 Scoping Studies

• Determine interest in continuing with next scoping study – Storage Investigation
• Apply for grant for 50% cost-share to conduct Storage Investigation
• Include Storage Investigation cost-share in FY NBWRA 12/13 Budget
Actions for Consideration:

- When do interested agencies become full members - after completion of Project Definition or Storage Investigation?
- When should the MOU be amended to include new member agencies and a study cost-share formula?
- When should Phase 1 buy-in costs be discussed with new members?
Appendix D

Letters of Intent to Participate
May 6, 2011

Bill Long, Chair
North Bay Water Reuse Authority
c/o Novato Sanitary District
500 Davidson Street
Novato, CA 94945-3399

SUBJECT: NBWRA Project Study

Dear Mr. Long:

The City of American Canyon is interested in participating in the North Bay Water Reuse Authority Project Definition study that will be conducted between August 2011 and February of 2012.

We understand our share of the study costs will range from $8,000 to $10,000, depending on the final number of participants and that, as fiscal agent for the NBWRA, the Sonoma County Water Agency will invoice the City for its share of the study costs.

We look forward to being involved in project workshops and attending NBWRA meetings. If you need additional information, please contact Michael Throne, Public Works Director, at (707) 647-4558; e-mail mthrone@cityofamericancanyon.org.

Sincerely,

Richard J. Ramirez
City Manager

cc: Michael Throne, Public Works Director
May 11, 2011

Bill Long, Chair
North Bay Water Reuse Authority
c/o Novato Sanitary District
500 Davidson Street
Novato, CA 94945-3399

Dear Bill,

We support the goals of the North Bay Water Reuse Authority (NBWRA) and request to participate in the Project Definition study that will be conducted between August and February of 2011/12. We appreciate that the goals of the Reuse Authority align with and complement our watershed program process to support the identification of integrated projects.

We understand our share of the study costs will range between $8,000-10,000 depending on the final number of participants and that the Sonoma County Water Agency is the fiscal agent for the NBWRA. Please send me an invoice for our participation.

Sincerely,

Farhad Mansourian
Director

cc: Supervisor Judy Arnold
10 May 2011

Bill Long, Chair, North Bay Water Reuse Authority
c/o Novato Sanitary District
500 Davidson Street
Novato, CA 94945-3399

Re: North Bay Water Reuse Authority Membership

Dear Mr. Long,

At the request and coordination of Supervisor David Rabbitt, we met this past Monday with Ginger Bryant, Renee Webber and Kevin Booker to receive information on the activities of the North Bay Water Reuse Authority. Following the meeting, I had an opportunity to discuss the presentation with John Brown, our City Manager. He has agreed with our recommendation to submit a request to the Petaluma City Council to authorize the participation in the Project Definition Study that is planned to be conducted between August and February of 2011/12.

We understand, from the presentation, that our share of the study costs, as members of the Authority, will range between $8,000 and $10,000 dependent upon the final number of participants. We also understand that Sonoma County Water Agency is the fiscal agent for the NBWRA; and, in that role, they will invoice the City for our share of the study costs.

I will prepare an Agenda Report and Resolution to present to the City Council at their upcoming June 6, 2011 meeting and request their authorization to proceed. I anticipate including in that Resolution a recommendation that the City respectfully request an appointment to the voting structure of the Authority and direct staff to be involved with all project workshops and attend all NBWRA meetings.

We look forward to working with the Authority and the Technical Advisory Committee on the critical work effort all agencies face in addressing recycled
water reuse. Please don’t hesitate to contact my office if you have any questions or need further information.

Sincerely,

[Signature]

Pamela Tuft
Interim Director

C: John C. Brown, City Manager
   David Rabbitt, Supervisor
   Rem Scherzinger, Engineering Manager
   Ginger Bryant
   Renee Webber, SCWA
   Kevin Booker, SCWA
   project file
Resolution No. 2011-092 N.C.S.
of the City of Petaluma, California

AUTHORIZING THE CITY MANAGER TO EXECUTE THE MEMORANDUM
OF UNDERSTANDING ESTABLISHING MEMBERSHIP
IN THE NORTH BAY WATER REUSE AUTHORITY

WHEREAS, on May 19, 2008, the City Council adopted Resolution No. 2008-085
N.C.S. Adopting the City of Petaluma General Plan 2025 ("General Plan"), including its
Technical Appendix C, a Water Demand and Supply Analysis Report (2006); and,

WHEREAS, the General Plan and its Water Demand and Supply Analysis Report
identify recycled water as an essential source of water supply to meet potable water demand in
the City through 2025; and,

WHEREAS, General Plan Goal 8-G-3 requires the City to maximize the use of recycled
water as a potable water offset to manage water demands and to meet regulatory requirements
for wastewater discharge; and,

WHEREAS, General Plan Goal 8-G-4 requires the City to manage the wastewater
collection and treatment system to address 100 percent capture and treatment of the City's
wastewater in an economically and ecologically sound manner; and,

WHEREAS, the North Bay Water Reuse Authority has been formed by various North
Bay Area public agencies to coordinate efforts to seek federal funding for recycled water projects
pursuant to Public Law 10; and,

WHEREAS, the City of Petaluma has ongoing and planned projects and programs to
expand its treatment and use of recycled water, including but not limited to the Water Recycling
Facility and River Access Improvements Project and the Water Recycling Expansion Project
which could benefit from federal fund; and,

WHEREAS, membership in and cooperation with the North Bay Water Reuse Authority
may improve the City’s access to federal grant funds to partially defray the costs of ongoing
and/or planned recycled water projects.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE
CITY OF PETALUMA that the City Manager is authorized and directed to execute the Second
Amended Memorandum of Understanding, North Bay Water Reuse Authority (NBWRA),
attached to this resolution as Exhibit A, on behalf of the City of Petaluma.

Under the power and authority conferred upon this Council by the Charter of said City.

REFERENCE: I hereby certify the foregoing Resolution was introduced and adopted by the
Council of the City of Petaluma at a Regular meeting on the 6th day of June, 2011,
by the following vote:

AYES: Albertson, Barrett, Mayor Glass, Harris, Vice Mayor Healy, Kearney, Renée
NOES: None
ABSENT: None
ABSTAIN: None

ATTEST:

City Clerk

Resolution No. 2011-092 N.C.S.

Page 2