

City of Calistoga

Staff Report

TO: Honorable Mayor and City Council
FROM: James M. Smith, Senior Civil Engineer
VIA: Dan Takasugi, Public Works Director/City Engineer
DATE: March 3, 2009
SUBJECT: Presentation Regarding Upcoming Opportunities for Calistoga to Participate in Two Special Projects for the State Water Project – North Bay Aqueduct Alternate Intake Project and Delta Habitat Conservation and Conveyance Plan

APPROVAL FOR FORWARDING:


James C. McCann, City Manager

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2 **INTRODUCTION:**
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4 The Napa County Flood Control and Water Conservation District (Napa County FCWCD) and
5 the Solano County Water Agency (Solano) both bought into the State of California's State Water
6 Resources Development System, commonly known as the State Water Project (SWP), in the
7 early 1960's. These two agencies represent the "North Bay Aqueduct (NBA)" contractors and
8 (direct) users of the SWP in the North Bay Area. The City of Calistoga, along with the cities of
9 American Canyon and Napa, currently participate in the project, as subcontractors to the Napa
10 County FCWCD.

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12 Since the original construction of the NBA, drinking water quality regulations have become more
13 rigorous, and the NBA water quality has been found to be relatively poor. In addition, recent
14 environmental litigation related to the overall Sacramento-San Joaquin River Delta (Delta)
15 condition, including fisheries concerns, has complicated operations of all SWP facilities,
16 including the NBA. Hence, various studies and investigations of water supply systems and the
17 health of the Delta have been initiated over the years. Two new investigations of these matters
18 are now getting underway, and the City of Calistoga, along with the other Napa and Solano
19 County interests, are being asked to consider participating in these projects, including paying for
20 a proportionate financial contribution toward the project costs.

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22 Regarding the first project, the NBA Alternate Intake, investigations are just getting started to
23 evaluate the potential for relocating the existing NBA facilities to an upstream location to
24 improve the long-term water supply reliability and water quality of this important source of water
25 to Napa and Solano County residents. The second project is referred to as the Delta Habitat
26 Conservation and Conveyance Plan (DHCCP); it is a program to develop alternatives for

27 conveying State Water Project and Central Valley Project water across the Delta in an
28 environmentally superior manner.
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30 **RECOMMENDATION:**

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32 Receive presentation; ask questions of staff and of Mr. Felix Riesenber, Principal Water
33 Resources Engineer for Napa County; and provide initial Council input as to the proposed
34 participation in the two special projects. A final decision on participation in the DHCCP is
35 proposed for the March 17, 2009, Council meeting. A Council decision regarding the NBA
36 Alternate Intake project could occur at the March 17, 2009 meeting, or else later in the spring,
37 as the Council wishes.

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39 **BACKGROUND/DISCUSSION:**

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41 General Information

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43 NBA water is pumped from Barker Slough in the Delta at a point about eight miles east of Travis
44 Air Force Base. Treatment plants from various cities in Solano and Napa Counties take water
45 from the NBA for treatment and distribution to their customers. Napa County FCWCD and
46 Solano pay all capital costs and all operations and maintenance costs for the NBA, with the
47 payments made in proportion to the water rights and water deliveries of each entity.

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49 Calistoga has an agreement with the City of Napa to 'treat and wheel' the NBA water. Raw
50 water from the NBA system is typically treated at Napa's Jamieson Canyon Water Treatment
51 Plant. It is then conveyed by Napa up the Valley to near Conn Creek at Silverado Trail, at which
52 point a City of Calistoga pipeline conveys the water the remaining distance to Calistoga.

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54 Water Quality

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56 The DWR, which owns and operates the SWP, periodically monitors and reports on water
57 quality at the NBA source. The DWR has long reported that the NBA has high levels of organic
58 carbon and high levels of turbidity. Due to the vast and substantially developed watershed area
59 above Barker Slough, there is little that can be done to effectively control high organic carbon
60 and turbidity originating in the watershed. Therefore, local agencies must remove these
61 constituents through their individual water treatment facilities, at higher costs than would be
62 incurred were the water quality better. In general, raw water quality improves the farther one
63 travels in the upstream direction, so an upstream point of diversion would have improved raw
64 quality.

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66 Environmental Considerations

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68 Over the past two decades, increased concern regarding environmental effects of water
69 diversion from the Delta has occurred. These issues have typically concerned south Delta
70 users of the State and Federal water projects and have not affected Napa and Solano County
71 issues. However, there have been minor impacts to our NBA operations in past years, and the
72 potential for future impacts to NBA operations may be increasing.

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74 In 1993, the Delta Smelt was officially listed as a Threatened Species by the United States Fish
75 and Wildlife Service (USFWS). Thus far, the water supply impacts on the NBA have been

76 minimal. The USFWS has issued a series of Biological Opinions (BO's) on the SWP and the
77 Central Valley Project's impact on Delta Smelt. The most recent BO was released on
78 December 15, 2008. It has been determined that the NBA has minimal impact on Delta Smelt
79 and finds that the existing fish screens are adequate to protect all life stages. There are no
80 pumping restrictions on the NBA at the present time. However, there may be increased
81 monitoring of NBA impacts in the future.

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83 In addition to the Delta Smelt, the recent (Fall 2008) State listing of Longfin Smelt under the
84 California Endangered Species Act could add some additional flow requirements to the Delta
85 Smelt BO flow regime. These will not be known until the California Department of Fish and
86 Game develops a California Endangered Species Act take permit for the SWP. It is hoped that
87 the Delta Smelt BO will provide adequate coverage for Longfin Smelt; however this has not yet
88 been determined and could be a future point of contention.

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90 **Special Projects**

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92 **Alternate Intake Project**

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94 In 2002, CALFED awarded Solano County an \$188,560 grant to perform a feasibility study on
95 an NBA alternate intake. The study was completed in 2003 with the conclusion that the project
96 was feasible. On August 14, 2008 Solano approved a funding agreement with DWR to start
97 environmental review, permitting, and preliminary design of the NBA alternate intake project.

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99 The total estimated cost to prepare the environmental documentation and supporting
100 preliminary design work is approximately \$9 million dollars from now through May 2012 and
101 would be shared 69% Solano – 31% Napa if both agencies participate. In addition, Solano has
102 been awarded a \$4.5 million grant for DWR's work on the NBA Alternate Intake Project. Solano
103 has indicated that Napa County FCWCD would benefit relative to our 31% contribution, as these
104 funds would be used to offset DWR costs and would not be attributed to either Solano or Napa
105 County FCWCD directly. This grant, which would effectively cut the project costs in half, should
106 be available in the middle of 2009.

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108 Another point to note is that the recently completed Delta Vision process recommended
109 relocating various major water supply diversions to improve municipal drinking water quality and
110 to eliminate the direct pumping impacts that can occur. The NBA is specifically named as a
111 recommended diversion relocation project.

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113 **Benefits of Participation in Alternate Intake Project**

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- 115 1. Direct participation in decision-making regarding alternatives for any proposed new
116 alternate intake facilities. These decisions will have major cost implications for Napa
117 County agencies, and it is very important to make sure our interests are fairly
118 represented.
- 119 2. Failure to participate could limit Napa County FCWCD to using only Barker Slough in
120 the future. Barker Slough may be subject to future pumping restrictions.
- 121 3. Because of the recognized benefits of relocating the NBA (Delta Vision), it is possible
122 that significant funding assistance could be provided by the State or Federal
123 governments. Being "ready to go" will be helpful should this opportunity arise. If
124 Napa County FCWCD declined to participate in this early phase of the project, and

- 125 the design proceeded without considering the needs of Napa County agencies, Napa
126 County FCWCD would not be able to take advantage of any funding that might be
127 made available.
- 128 4. Because Solano has secured \$4.5 million in Proposition 84 funding that they have
129 indicated is to be shared with Napa County FCWCD, this presents an appreciable
130 financial benefit to Napa County.
- 131 5. Participating in this process will keep Napa County FCWCD and our local agencies
132 informed and involved in the planning and environmental process. Napa County
133 FCWCD would then be better able to evaluate whether or not to participate in actual
134 project construction when that time comes. By participating in this phase, we are not
135 committed to continuing with actual construction if it is too expensive or if there is no
136 funding assistance available.

137 **Disadvantages of Participation in Alternate Intake Project**

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140 The primary argument against participation is the costs, both of these initial efforts (planning,
141 preliminary design and environmental work) and actual construction.

142 **Schedule and Costs**

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145 The environmental review, planning and preliminary design phase of this NBA Alternate Intake
146 Project is expected to be completed in May 2012. Costs are described in general terms above.
147 A table showing total anticipated cash flow requirements for each Napa County FCWCD
148 Member Agency is attached; Calistoga's share would be \$91,700 over four years. This table
149 shows the cost-sharing scenario based on the Proposition 84 grant funding being available to
150 benefit Napa County. If the grant funding were not included, all costs would be approximately
151 double those indicated.

152 **Delta Habitat Conservation and Conveyance Plan (DHCCP)**

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155 The DHCCP is a program to develop alternatives for conveying State Water Project and Central
156 Valley Project water across the Delta in an environmentally superior manner. The project will
157 include the preparation of an Environmental Impact Report/Environmental Impact Statement
158 (EIR/EIS) and a preliminary program design to support the EIR/EIS. Participation in this
159 process would be via the Delta Specific Project Committee (DSPC), which is a sub-committee of
160 the State Water Project Contractor's Authority – a joint powers authority established by the
161 State Water Contractors – to allow participating contractors to be involved in the decision-
162 making process.

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164 Napa County's existing "straw" in the Delta (the NBA) is likely to be impacted by the DHCCP,
165 and our participation in the plan allows our concerns to be heard. This plan is also important
166 since the proposed NBA Alternative Intake Project could potentially be lumped into an overall
167 Delta solution and be incorporated into this DHCCP; this could be potentially advantageous
168 regarding funding and future repayment of any new NBA facilities.

169 **Benefits of Participation in DHCCP**

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172 1. Direct participation in the decision-making process. Decisions made during this process
173 could impact NBA users. Conversely, there is an opportunity to have a positive

- 174 influence on the outcome. Direct participation will give Napa and Solano Counties a
175 larger voice.
176 2. Be in position to receive funding help – large-scale solutions to solving the current Delta
177 problems will be good candidate projects to receive state or federal funding assistance.
178 3. It helps the overall strength of the State Water Contractors position in this process if
179 more SWC agencies participate.
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181 **Disadvantages of Participation in DHCCP**

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183 The primary argument against participation is the costs, both of these initial efforts (planning
184 and environmental work) and actual construction of improvements.
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186 **Schedule and Costs**

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188 The DHCCP work plan identified to date is scheduled to be completed by 2011, and the total
189 cost of the effort is approximately \$140 million. As indicated in the attached cost work sheet,
190 the total costs is shared among all Federal and State water contractors, and Calistoga's share
191 would be \$34,200 over three years. Note – if a project is approved and goes to construction,
192 the initial planning and environmental review costs will be reimbursed to the agencies. NBA
193 users would likely not be asked to share costs of construction, unless our NBA Alternative
194 Intake Project is included.
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196 **FISCAL IMPACT:**

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198 The potential costs are described above and in the attachments.
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200 **ATTACHMENTS**

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202 (2) Cost Estimate Worksheets

DHCCP Cost Estimates as of December 2008

Total Estimated Costs of the DHCCP effort are \$140,000,000 to be shared evenly with the Federal CVP Contractors.

	2008		2009		2010		2011		Total
	Jan-Dec	Jan-June	Jan-June	July-Dec	Jan-June	July-Dec	Jan-June	July-Dec	
DWR 50% Share	\$12,670,000	\$12,250,000	\$15,050,000	\$15,050,000	\$15,050,000	\$14,980,000			\$70,000,000
Napa County Share 0.737%*	\$93,378	\$90,283	\$110,919	\$110,919	\$110,919	\$110,403			\$515,900

	Local Share**	2008		2009		2010		2011		Total
		Jan-Dec	Jan-June	Jan-June	July-Dec	Jan-June	July-Dec	Jan-June	July-Dec	
American Canyon	0.1792	\$16,733	\$16,179	\$19,877	\$19,784	\$19,877	\$19,784		\$92,449	
Napa	0.7545	\$70,454	\$68,118	\$83,688	\$83,299	\$83,688	\$83,299		\$389,247	
Callistoga	0.0663	\$6,191	\$5,986	\$7,354	\$7,320	\$7,354	\$7,320		\$34,204	
Total	1.0000	\$93,378	\$90,283	\$110,919	\$110,403	\$110,919	\$110,403		\$515,900	

* Assumes 95% of SWP Table A participation for entire project (current estimates are at 98%)

** Napa County Cost Share Based on Total Ultimate Annual Entitlements (29,025 AF)

