

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
Central Valley Project, California

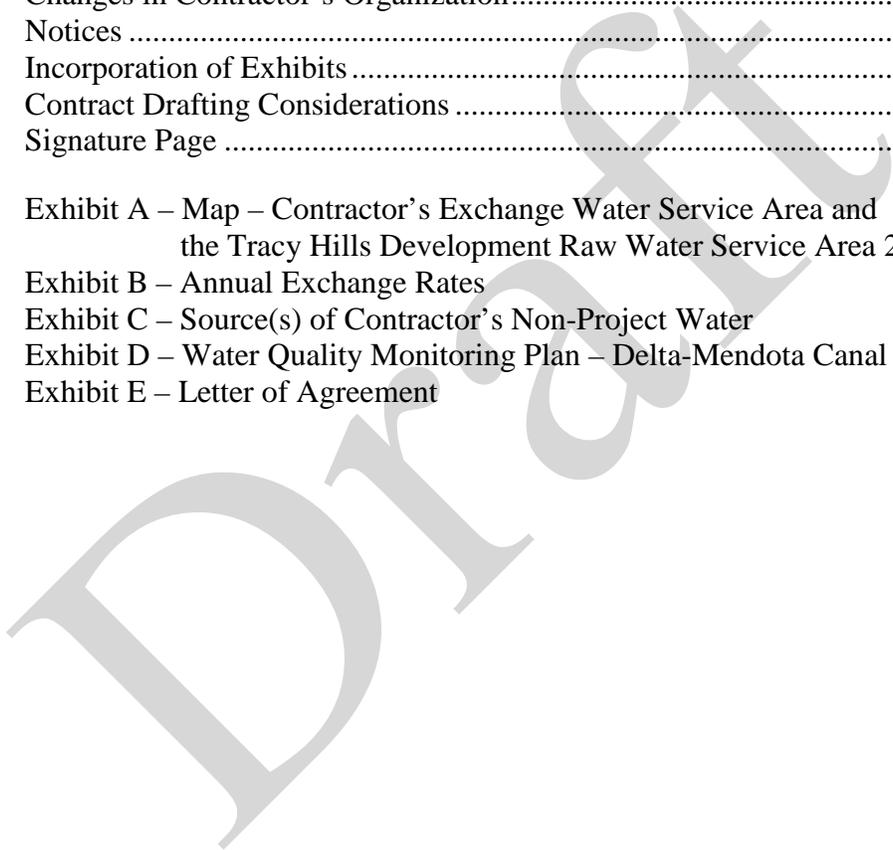
LONG-TERM CONTRACT PROVIDING FOR EXCHANGE OF WATER
BETWEEN THE UNITED STATES
AND
BYRON BETHANY IRRIGATION DISTRICT –
DELTA DIVISION AND SAN LUIS UNIT

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LONG-TERM CONTRACT PROVIDING FOR EXCHANGE OF WATER
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AND
BYRON BETHANY IRRIGATION DISTRICT –
DELTA DIVISION AND SAN LUIS UNIT

1 THIS CONTRACT, executed this _____ day of _____, 2012,
2 pursuant to the Act of June 17, 1902 (32 Stat. 388), and acts amendatory thereof or
3 supplementary thereto, including the Act of February 21, 1911 (36 Stat. 925), Section 14 of the
4 Reclamation Project Act of August 4, 1939, (53 Stat. 1187), and Section 305 of the Reclamation
5 States Emergency Drought Relief Act of 1991, enacted March 5, 1992 (106 Stat. 59), all
6 collectively hereinafter referred to as the Federal Reclamation laws, between the UNITED
7 STATES OF AMERICA, hereinafter referred to as the United States, represented by the officer
8 executing this Contract, hereinafter referred to as the Contracting Officer, and BYRON
9 BETHANY IRRIGATION DISTRICT, hereinafter referred to as the Contractor;

10 WITNESSETH, That:

11 EXPLANATORY RECITALS

12 [1st] WHEREAS, the United States has constructed and is operating the Central
13 Valley Project, California, for diversion, storage, carriage, distribution and beneficial use, for
14 flood control, irrigation, municipal, domestic, industrial, fish and wildlife mitigation, protection
15 and restoration, generation and distribution of electric energy, salinity control, navigation and

16 other beneficial uses, of waters of the Sacramento River, the American River, the Trinity River,
17 and the San Joaquin River and their tributaries; and

18 [2nd] WHEREAS, the Contractor asserts an entitlement to pre-1914 water rights
19 water for irrigation and municipal purposes; and

20 [3rd] WHEREAS, the Contractor has requested the Contracting Officer approve
21 the use of Excess Capacity in the Delta-Mendota Canal and associated facilities of the Delta
22 Division and San Luis Unit, Central Valley Project for the introduction of Non-Project Water,
23 and the conveyance, storage, and/or delivery of Exchanged Water to the Contractor’s Raw Water
24 Service Area 2 for Municipal and Industrial purposes; and

25 [4th] WHEREAS, pursuant to the terms and conditions of this Contract and in
26 accordance with Section 14 of the Reclamation Project Act of 1939, the United States is willing
27 to make available an equivalent amount of Project Water via an exchange of Non-Project Water
28 less losses;

29 NOW, THEREFORE, in consideration of the covenants herein contained, the
30 parties to this Contract agree as follows:

31 DEFINITIONS

32 1. When used herein unless otherwise distinctly expressed, or manifestly
33 incompatible with the intent of the parties as expressed in this Contract, the term:

34 (a) “Calendar Year” shall mean the period January 1 through December 31,
35 both dates inclusive;

36 (b) “Contracting Officer” shall mean the Secretary of the Interior’s duly
37 authorized representative acting pursuant to this Contract or applicable Reclamation law
38 or regulation;

39 (c) “Excess Capacity” shall mean capacity in the Project Facilities in excess
40 of that needed to meet the Project’s authorized purposes, as determined exclusively by the
41 Contracting Officer, which may be made available for the introduction of Non-Project Water and
42 conveyance, storage, and/or delivery of Exchanged Water;

43 (d) “Exchange Water” or “Exchanged Water” shall mean that Project Water
44 made available to the Contractor by the Contracting Officer from Project Facilities for a like
45 amount of the Contractor’s introduced Non-Project Water less losses;

46 (e) “Irrigation Water” shall mean Project Water that is used primarily in the
47 commercial production of agricultural crops or livestock, including domestic use incidental
48 thereto. Irrigation Water shall not include water used for purposes such as the watering of
49 landscaping or pasture for animals (e.g., horses) which are kept for personal enjoyment or water
50 delivered to landholdings operated in units of less than five acres, unless the Contractor
51 establishes to the satisfaction of the Contracting Officer that the use of water delivered to such
52 landholding is a use described in this subdivision of this Article;

53 (f) “Municipal and Industrial (M&I) Water” shall mean Project Water, other
54 than Irrigation Water, made available to the Contractor. M&I Water shall include water used for
55 human use and purposes such as the watering of landscaping or pasture for animals
56 (e.g., horses) which are kept for personal enjoyment or water delivered to land holdings operated
57 in units of less than five acres unless the Contractor establishes to the satisfaction of the
58 Contracting Officer that the use of water delivered to any such landholding is a use described in
59 subdivision (e) of this Article;

60 (g) “Non-Project Water” shall mean water acquired by or available to the
61 Contractor from the source(s) identified in Exhibit C that has not been appropriated by the
62 United States;

63 (h) “Operating Non-Federal Entity(ies)” shall mean the non-Federal entity
64 that has the obligation pursuant to a separate agreement with the United States to operate and
65 maintain all or a portion of the Project Facilities, and which may have funding obligations with
66 respect thereto;

67 (i) “Project” or “CVP” shall mean the Central Valley Project, owned by the
68 United States and managed by the Department of the Interior, Bureau of Reclamation;

69 (j) “Project Facilities” shall mean the Delta-Mendota Canal, O’Neill Forebay,
70 San Luis Reservoir, and associated facilities, constructed as features of the Delta Division and
71 San Luis Unit, Central Valley Project;

72 (k) “Project-Use Power” is that electrical energy, and its associated ancillary
73 service components, required to provide the full electrical service needed to operate and maintain
74 Project Facilities, and to provide electric service for Project purposes and loads in conformance
75 with the Reclamation Project authorization;

76 (l) “Project Water” shall mean all water that is developed, diverted, stored, or
77 delivered by the Secretary in accordance with the statutes authorizing the Project and in
78 accordance with the terms and conditions of water rights acquired pursuant to California law;

79 (m) “Rates” shall mean the amount to be paid to the United States by the
80 Contractor, as set forth in Exhibit B, for the use of Excess Capacity in the Project Facilities made
81 available for Storage and Conveyance, pursuant to this Contract;

82 (n) "Raw Water Service Area 2" shall mean the geographic area located
83 within the Contractor's boundary wherein the Contractor is authorized by this Contract to deliver
84 Exchanged Water within the CVP permitted water rights place of use. The Contractor's Raw
85 Water Service Area 2 is described in Exhibit A and may be modified in accordance with
86 Article 24 without amendment to this Contract;

87 (o) "Secretary" shall mean the Secretary of the Interior, a duly appointed
88 successor, or an authorized representative acting pursuant to any authority of the Secretary and
89 through any agency of the Department of the Interior;

90 (p) "Year", "Annual", or "Annually" shall mean the period from and
91 including March 1 of each Calendar Year through the last day of February of the following
92 Calendar Year.

93 TERM OF CONTRACT

94 2. (a) This Contract shall become effective March 1, 2013 and shall remain in
95 effect through February 28, 2053. The Contractor may request a new contract in writing to the
96 Contracting Officer no later than February 28, 2051.

97 (b) The Contracting Officer shall not seek to terminate this Contract by reason
98 of an asserted material breach by the Contractor unless it has first provided the Contractor with at
99 least 60 days written notice of the asserted breach and the Contractor fails to cure such breach or
100 fails to diligently commence curative actions satisfactory to the Contracting Officer for a breach
101 that cannot be fully cured within 60 days of the Contractor's receipt of written notice.

102 (c) This Contract may be terminated at any time by mutual consent of the
103 parties hereto.

INTRODUCTION, CONVEYANCE, STORAGE, EXCHANGE
AND/OR DELIVERY OF WATER

104
105
106 3. (a) During the term of this Contract, the Contractor, in accordance with an
107 approved schedule submitted by the Contractor pursuant to subdivision (g) of this Article, may
108 introduce Annually up to 4,725 acre-feet of Non-Project Water during the months of March
109 through October from the source identified in Exhibit C into the Delta-Mendota Canal at
110 milepost 3.32R. Prior to introducing any Non-Project Water, the Contracting Officer will
111 determine the availability of Excess Capacity consistent with Article 9 of this Contract. At the
112 time the Contractor introduces Non-Project Water into the Delta-Mendota Canal, the Contracting
113 Officer will designate a like amount of Project Water less 5 percent for losses, up to 4,500 acre-
114 feet, as Exchanged Water. The United States or the designated Operating Non-Federal
115 Entity(ies) shall convey Exchanged Water through Excess Capacity in the Project Facilities,
116 from said point of introduction to the Contractor for delivery at milepost 15.88L, or to storage, or
117 to such other location(s) mutually agreed to in writing by the Contracting Officer and the
118 Contractor.

119 (b) The quantity of Exchanged Water delivered to the Contractor from Project
120 Facilities shall not exceed the quantity of Non-Project Water previously introduced into the
121 Project Facilities by the Contractor, less 5 percent for losses.

122 (c) This Contract does not preclude any action deemed necessary by the
123 Contracting Officer to recover from the Contractor, Project Water delivered in an amount that
124 exceeds the quantity of Exchanged Water authorized pursuant to subdivision (a) of this Article,
125 or any other remedy available to the Contracting Officer under existing law.

126 (d) If at any time the Contracting Officer determines that Project Facilities are
127 operationally constrained or have insufficient capacity to allow Non-Project Water to be
128 exchanged in accordance with an approved schedule submitted by the Contractor, the
129 Contracting Officer shall so notify the Contractor as provided in Article 9(d). Within 24 hours of
130 said notice, the Contractor shall revise its schedule accordingly.

131 (e) Exhibit C may be modified or replaced by mutual agreement of the
132 Contractor and the Contracting Officer to reflect changes to the source of Non-Project Water
133 without amendment of this Contract; *Provided*, That no such modification or replacement shall
134 be approved by the Contracting Officer absent all appropriate environmental documentation,
135 including but not limited to documents prepared pursuant to the National Environmental Policy
136 Act of 1969 (NEPA) and the Endangered Species Act of 1973 (ESA), as amended.

137 (f) All Exchanged Water delivered to the Contractor pursuant to this Contract
138 shall be used for M&I purposes, only within that portion of Raw Water Service Area 2 that is
139 within the CVP permitted water rights place of use.

140 (g) The Contractor shall not introduce Non-Project Water into the Project
141 Facilities or take delivery of Exchanged Water unless and until a schedule or any revision(s)
142 thereto have been approved by the Contracting Officer. At the beginning of each Year, the
143 Contractor shall submit appropriate schedule(s) to the Contracting Officer and the designated
144 Operating Non-Federal Entity(ies) showing the monthly estimated quantities of Non-Project
145 Water to be introduced into the Project Facilities and the amount of Exchanged Water to be
146 conveyed, stored, and later made available to the Contractor during the then-current Year. The
147 initial schedule and any revision(s) thereof shall be in a form acceptable to the Contracting

148 Officer and shall be submitted at such times and in such manner as determined by the
149 Contracting Officer.

150 (h) Exchanged Water remaining in the Project Facilities on March 1 of each
151 Year unless otherwise agreed to by the parties, shall incur a rescheduling fee or other appropriate
152 fees, which shall be updated Annually. The Contracting Officer will notify the Contractor
153 Annually of any changes to the rescheduling guidelines.

154 (i) Any Exchanged Water made available to the Contractor at its request for
155 delivery which is not accepted by the Contractor or for which a revised schedule has not been
156 submitted by the Contractor within 30 days after such water is made available shall be deemed to
157 be unused water, available to the United States for other Project purposes.

158 (j) All Exchanged Water remaining in Project Facilities at Contract
159 termination, shall be deemed to be unused water available to the United States for other Project
160 purposes, unless the Contractor has a newly executed contract.

161 (k) In the event Excess Capacity becomes unavailable for Exchanged Water
162 stored in Project Facilities, the Exchanged Water shall be deemed the first water spilled from
163 Project Facilities; *Provided*, That the Contracting Officer will to the extent possible, within a
164 reasonable time frame, inform the Contractor by written notice in addition to other means of
165 notice of any impending spill from Project Facilities where Exchanged Water may be stored.

166 (l) Unless otherwise agreed to in writing by the Contracting Officer, the
167 Non-Project Water shall be introduced, conveyed, exchanged, and/or delivered on behalf of the
168 Contractor through existing Project Facilities in accordance with the Contractor's License
169 No. 12-LC-20-0171, "Long-Term License for the Erection, Operation, Maintenance, and Storage
170 of Temporary Structures", dated **TBD** . If additional temporary inflow or delivery

171 facilities are required to effectuate the introduction of Non-Project Water into the Project
172 Facilities or the delivery of the Exchanged Water on behalf of the Contractor from the Project
173 Facilities, the Contractor shall, at its own cost and expense, obtain all appropriate environmental
174 documents necessary and land use authorization(s) issued by the United States for any such
175 facilities located on certain lands for the right-of-way in connection with Project Facilities,
176 including existing and any new construction of Project or non-Project facilities. The Contractor
177 hereby grants to the Contracting Officer and the Operating Non-Federal Entities access, for the
178 purpose of this Contract, to all inflow and delivery facilities installed by the Contractor and in
179 accordance with Contractor's License No. 12-LC-20-0171.

180 (m) Neither the introduction of Non-Project Water nor the delivery of
181 Exchange Water pursuant to this Contract will be supported with Project-Use Power.
182 Project-Use Power is not available to pump Non-Project Water, to operate pumps that were not
183 built as Federal facilities as part of the Project, or to pump Project Water outside the authorized
184 service area, or provide for other uses. If electrical power is required to introduce the
185 Non-Project Water or pump the Exchanged Water at the point of delivery, the Contractor shall be
186 responsible for the acquisition and payment of all electrical power and associated transmission
187 service charges, and provide a copy of a power contract and copies of payment documents to the
188 Contracting Officer as evidence that such electrical power has been contracted and paid for prior
189 to the introduction or delivery of any Non-Project Water and Exchanged Water.

190 (n) The Contractor shall have no rights to any benefits from increased power
191 generation that may result from the introduction of the Non-Project Water and or conveyance of
192 Exchanged Water in or through Project Facilities authorized pursuant to this Contract.

216 (d) The Operating Non-Federal Entity, namely, the San Luis &
217 Delta-Mendota Water Authority, hereinafter referred to as the SLDMWA, or its successor shall
218 be responsible for the calibration, measurement, recording, and reporting of the flow
219 measurements of Non-Project Water and Exchanged Water provided for under this Contract, and
220 shall provide the Contracting Officer and the Contractor with monthly water delivery reports
221 demonstrating whether or not the Contractor has introduced Non-Project Water into the Project
222 Facilities sufficient to offset the amount of Exchanged Water delivered for the Contractor from
223 the Project Facilities and to account for any conveyance losses.

224 (e) Upon the request of the Contractor, the Contracting Officer shall
225 investigate, or cause to be investigated by the Operating Non-Federal Entity, the accuracy of all
226 measurements of Non-Project Water and/or Exchanged Water required by this Contract. If the
227 investigation discloses errors in the recorded measurements, such errors shall be promptly
228 corrected. If the investigation discloses that measurement devices are defective or inoperative,
229 the Contracting Officer shall take any necessary actions to ensure that the responsible party
230 makes the appropriate adjustments, repairs, or replacements to the measurement devices. In the
231 event the Contractor, as the responsible party, neglects or fails to make such adjustments, repairs,
232 or replacements to the measurement devices within a reasonable time and to the reasonable
233 satisfaction of the Contracting Officer, the Contracting Officer may cause such adjustments,
234 repairs, or replacements to be made and the costs thereof shall be charged to the Contractor and
235 the Contractor shall pay said charges to the United States immediately upon receipt of a detailed
236 billing. For any period of time during which accurate measurements of the Non-Project Water
237 and/or Exchanged Water have not been made, the Contracting Officer shall consult with the
238 Contractor and the Operating Non-Federal Entity prior to making a determination of the quantity

239 of Non-Project Water and/or Exchanged Water introduced, conveyed and delivered for that
240 period of time and such determination by the Contracting Officer shall be final and binding on
241 the Contractor.

242 OPERATION AND MAINTENANCE BY OPERATING NON-FEDERAL ENTITIES

243 5. (a) The operation and maintenance of a portion of the Project Facilities to be
244 used to introduce Non-Project Water, and convey, store, and/or deliver the Exchanged Water to
245 the Contractor, and responsibility for funding a portion of the costs of such operation and
246 maintenance, have been transferred from the United States to the designated Operating Non-
247 Federal Entities, which are the SLDMWA, pursuant to a separate agreement identified as
248 Contract No. 8-07-20-X0354, dated March 1, 1998, as amended, and the California Department
249 of Water Resources, hereinafter referred to as DWR, pursuant to a separate agreement identified
250 as Contract No. 14-06-200-9755, as amended. Such separate agreements shall not interfere with
251 or affect the rights or obligations of the Contractor or the United States hereunder.

252 (b) The Contractor shall pay directly to the SLDMWA, or to any successor
253 approved by the Contracting Officer under the terms and conditions of the separate agreement
254 described in subdivision (a) of this Article 5, all rates, charges, or assessments of any kind,
255 including any assessment for reserve funds, that the SLDMWA or such successor determines,
256 sets, or establishes for the operation and maintenance of the portion of the Project Facilities
257 operated and maintained by the SLDMWA or such successor used to convey and deliver the
258 Non-Project Water and Exchanged Water to the Contractor.

259 (c) If the operation and maintenance of any portion of the Project Facilities
260 used to convey, store, and/or deliver the Non-Project Water or Exchanged Water to the
261 Contractor is performed by DWR, or any successor thereto, the Contractor shall pay directly to

262 SLDMWA, or to any successor approved by the Contracting Officer under the terms and
263 conditions of the separate agreement described in subdivision (a) of this Article 5, all rates,
264 charges, or assessments of any kind, including any assessment for reserve funds, that SLDMWA
265 or such successor determines, sets, or establishes for the operation and maintenance of the
266 portion of the Project Facilities operated and maintained by DWR or such successor used to
267 convey and deliver the Non-Project Water and Exchanged Water to the Contractor. The
268 Contracting Officer shall adjust those components of the Rates for the Non-Project Water and
269 Exchanged Water conveyed under this Contract by deleting the costs associated with the activity
270 being performed by DWR or its successor.

271 (d) In the event the United States reassumes operation and maintenance of any
272 portion of the Project Facilities from the Operating Non-Federal Entity(ies), the Contracting
273 Officer shall so notify the Contractor, in writing, and shall revise the Rates on Exhibit B to
274 include the costs associated with the operation and maintenance activities reassumed by the
275 United States. The Contractor shall, thereafter, in the absence of written notification from the
276 Contracting Officer to the contrary, pay the Rates specified in the revised Exhibit B directly to
277 the United States in compliance with Article 6 of this Contract.

278 PAYMENTS AND ADJUSTMENTS

279 6. (a) At the time the Contractor submits a schedule, or any revision(s) thereof
280 pursuant to subdivision (i) of Article 3 of this Contract, the Contractor shall make an advance
281 payment to the United States, 60 days in advance, at the Rate shown on Exhibit B for each
282 acre-foot of Non-Project Water introduced into the Project Facilities; *Provided*, That where the
283 Contractor's schedule provides for multiple introductions of Non-Project Water, advance
284 payment may be made in increments corresponding to the amount of each scheduled

285 introduction. Non-Project Water shall not be introduced into Project Facilities by the Contractor
286 prior to such payment being received by the United States.

287 (b) The amount of any overpayment by the Contractor by reason of the
288 quantity of Non-Project Water introduced into the Project Facilities and Exchanged Water
289 conveyed, stored, and/or delivered pursuant to this Contract, as exclusively determined by the
290 Contracting Officer, having been less than the quantity which the Contractor otherwise under the
291 provisions of this Contract would have been required to pay for, shall be applied first to any
292 accrued indebtedness arising out of this Contract then due and owing to the United States by the
293 Contractor. Within 60 days after March 1 of each Year, unless otherwise agreed to by the
294 parties, the Contractor may request a refund of any amount of such payment. Provided, that no
295 refund shall be made by the United States to the Contractor for any quantity of Non-Project
296 Water or Exchanged Water deemed to be unused water available to the United States for other
297 Project purposes pursuant to subdivision (i) and (j) of Article 3 of this Contract.

298 (c) The payment of the Rates set forth in this Article for the use of Project
299 Facilities are exclusive of operation and maintenance costs to be paid directly to the Operating
300 Non-Federal Entity(ies) by the Contractor, and any additional charges that the Contractor may
301 assess its water users.

302 (d) The Rates and costs, set forth in Exhibit B, shall be updated Annually
303 without amending this Contract.

304 OTHER PAYMENTS

305 7. In addition to the payments described in Article 6 above, the Contractor is
306 required upon execution and for the duration of this Contract, to have an executed letter of
307 agreement as provided for in Exhibit E, with the Contracting Officer to among other things,

308 allow for payment in advance of all costs incurred by Reclamation while administering this
309 Contract. The letter of agreement is the instrument funded by the Contractor to cover
310 Reclamation's costs for ongoing administration and monitoring of this Contract or other actions
311 applicable to this Contract that may occur until the expiration or termination of this Contract.
312 The letter of agreement may be modified, revised, or amended without amending this Contract.

313 MEDIUM FOR TRANSMITTING PAYMENTS

314 8. (a) All payments from the Contractor to the United States under this Contract
315 shall be by the medium requested by the United States on or before the date payment is due. The
316 required method of payment may include checks, wire transfers, or other types of payment
317 specified by the United States.

318 (b) Upon execution of the Contract, the Contractor shall furnish the
319 Contracting Officer with the Contractor's taxpayer's identification number (TIN). The purpose
320 for requiring the Contractor's TIN is for collecting and reporting any delinquent amounts arising
321 out of the Contractor's relationship with the United States.

322 EXCESS CAPACITY

323 9. (a) The availability of Excess Capacity shall be determined exclusively by the
324 Contracting Officer, which may involve consultation with SLDMWA and/or DWR or their
325 respective successors. Nothing contained in this Contract shall limit or preclude the
326 United States from utilizing available capacity in the Project Facilities for the storage and
327 conveyance of Project Water pursuant to Federal law, Reclamation law or policy, and existing
328 contract(s); or for using Excess Capacity in the Project Facilities for the introduction of
329 Non-Project Water and the conveyance, storage, and/or delivery of Exchanged Water.

330 (b) The Contracting Officer will retain regulatory authority and operational
331 control over exchanges to ensure: (i) that Project Water is positioned where it can continuously
332 serve Project purposes; (ii) that storage space is maintained to allow for scheduled movement of

333 Project Water; (iii) that conveyance capacity is maintained for scheduled movement of Project
334 Water; and (iv) that the interest of the Project and its beneficiaries are protected.

335 (c) The Contracting Officer and the Operating Non-Federal Entity(ies) shall
336 not be obligated to allow introduction of Non-Project Water, or to convey, store, and/or deliver
337 Exchanged Water during periods of maintenance or for other operating requirements.

338 (d) If at any time the Contracting Officer determines that there will not be
339 Excess Capacity in the Project Facilities sufficient to allow the Non-Project Water to be
340 introduced, and/or Exchanged Water to be conveyed, stored and/or delivered in accordance with
341 an approved schedule submitted by the Contractor, the Contracting Officer or the Operating
342 Non-Federal Entity(ies) shall so notify the Contractor with as much advance notice as feasible
343 with written or electronic notification to follow within a reasonable timeframe. Within 24 hours
344 of said notice, the Contractor shall revise its schedule accordingly.

345 (e) No provision of this Contract shall be construed in any way as a basis for
346 the Contractor to establish a priority to or a permanent right to the use of Excess Capacity in
347 Project Facilities nor to set a precedent to obligate the United States to enter into contracts with
348 any other entities or individuals.

349 RECEIPT AND DISTRIBUTION OF NON-PROJECT AND EXCHANGE
350 WATER – SALE, TRANSFER, OR EXCHANGE OF NON-PROJECT WATER

351 10. (a) The Contractor shall comply with all applicable Federal, State, and local
352 laws, rules and regulations, including but not limited to, State water law, applicable State and
353 Federal court decisions, and/or decisions, or orders of any other entity of competent jurisdiction,
354 in relation to the Non-Project Water. The Contractor shall provide written notice to the
355 Contracting Officer at the time any action is commenced in State court, Federal court, or any

356 other entity of competent jurisdiction, related to the Contractor's rights to the Non-Project Water.
357 It is expressly understood by the parties that the United States does not claim any interest in the
358 acquisition or use of the Non-Project Water beyond the terms specifically set forth in this
359 Contract.

360 (b) The Exchanged Water provided to the Contractor pursuant to this
361 Contract shall be delivered only to Raw Water Service Area 2 lands that are within the CVP
362 water rights permitted place of use as defined in sub-Article 1(n) and identified in Exhibit A
363 herein.

364 (c) The Contracting Officer makes no representations as to the accuracy of the
365 description or of the validity of the Contractor's rights to the Non-Project Water described in
366 Exhibit C. The Contracting Officer does not guarantee, certify or warrant the right to
367 Non-Project Water of the Contractor.

368 (d) No sale, transfer, or exchange of Exchanged Water conveyed under this
369 Contract may, except as otherwise expressly provided herein, take place without the prior written
370 approval of the Contracting Officer.

371 WATER CONSERVATION

372 11. (a) Prior to the delivery of water provided from or conveyed through federally
373 constructed or federally financed facilities pursuant to this Contract, the Contractor shall develop
374 a water conservation plan, as required by subsection 210(b) of the RRA and 43 C.F.R. 427.1.

375 (b) Omitted. ^[1]

376 ^[1] Subdivision b is a placeholder for language addressing the treatment of Exchange Water in an existing CVP water
377 conservation plan/program.

378

UNITED STATES NOT LIABLE

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12. (a) The United States, its officers, agents and employees, including the

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Operating Non-Federal Entity(ies), shall not be responsible for the control, care, or distribution

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of the Non-Project Water before it is introduced into Project Facilities or Exchanged Water after

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it is delivered from the Project Facilities.

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(b) The Contractor shall indemnify and hold harmless the United States, its

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officers, agents and employees, and the Operating Non-Federal Entity(ies), from any loss or

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damage and from any liability on account of personal injury, death, or property damage, or

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claims for personal injury, death, or property damage, of any nature whatsoever arising out of

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any actions or omissions of the Contractor, its directors, officers, agents, contractors, and

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employees, under this Contract, including the determination of the quantity of Excess Capacity

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available and the manner or method or quantity in which the Non-Project Water and Exchanged

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Water is introduced, conveyed, stored, exchanged, and/or delivered to/from the Project Facilities,

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excepting only such personal injury, death or property damage caused solely by the willful

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misconduct of the United States, its officers, agents and employees or the willful misconduct of

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the Operating Non-Federal Entity(ies). Nothing contained in this Article shall be construed as an

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assumption of liability by the Contractor with respect to such matters.

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OPINIONS AND DETERMINATIONS

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13. (a) Where the terms of this Contract provide for actions to be based upon the

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opinion or determination of either party to this Contract, said terms shall not be construed as

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permitting such action to be predicated upon arbitrary, capricious, or unreasonable opinions or

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determinations. Both parties, notwithstanding any other provisions of this Contract, expressly

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reserve the right to seek relief from and appropriate adjustment for any such arbitrary, capricious,

401 or unreasonable opinion or determination. Each opinion or determination by either party shall be
402 provided in a timely manner. Nothing in subdivision (a) of this Article 13 is intended to or shall
403 affect or alter the standard of judicial review applicable under Federal law to any opinion or
404 determination implementing a specific provision of Federal law embodied in statute or
405 regulation.

406 (b) The Contracting Officer shall have the right to make determinations
407 necessary to administer this Contract that are consistent with the provisions of this Contract, the
408 laws of the United States and the State of California, and the rules and regulations promulgated
409 by the Secretary. Such determinations shall be made in consultation with the Contractor to the
410 extent reasonably practicable.

411 PROTECTION OF WATER AND AIR QUALITY

412 14. (a) Project Facilities used to make available, convey, store, and deliver
413 Exchanged Water to the Contractor shall be operated and maintained in the most practical
414 manner to maintain the quality of the Exchanged Water at the highest level possible as
415 determined by the Contracting Officer: Provided, That the United States does not warrant the
416 quality of the Exchanged Water delivered to the Contractor and is under no obligation to furnish
417 or construct water treatment facilities to maintain or improve the quality of the Exchanged Water
418 delivered to the Contractor.

419 (b) The Contractor shall comply with all applicable water and air pollution
420 laws and regulations of the United States and the State of California; and shall obtain all required
421 permits or licenses from the appropriate Federal, State, or local authorities necessary for the
422 introduction of water by the Contractor; and shall be responsible for compliance with all Federal,
423 State, and local water quality standards applicable to surface and subsurface drainage and/or
424 discharges generated through the use of Project Facilities or Contractor facilities or water
425 provided by the Contractor within the Contractor's Boundaries.

426 (c) This Article shall not affect or alter any legal obligations of the Secretary
427 to provide drainage or other discharge services.

428 (d) The Non-Project Water introduced into the Project Facilities shall be of
429 such quality, as determined exclusively by the Contracting Officer, as to not significantly

430 degrade the quality of the Project Water. If it is determined by the Contracting Officer that the
431 quality of the Non-Project Water from any source identified in Exhibit C will significantly
432 degrade the quality of Project Water in or introduced into the Project Facilities, the Contractor
433 shall, upon receipt of a written notice, or otherwise from the Contracting Officer, arrange for the
434 immediate termination of the introduction of Non-Project Water from such source into the
435 Project Facilities, and Exhibit C shall be modified to delete such source of Non-Project Water.

436 (e) Exhibit D identifies the Quality Assurance Project Plan and includes the
437 minimum water quality standards for monitoring the quality of Non-Project Water introduced by
438 the Contractor into Project Facilities and the laboratories approved by the Contracting Officer
439 that are to be used for conducting water quality analyses. The Contractor is responsible for
440 sampling and analytical costs associated with evaluating quality of the Non-Project Water.
441 Non-Project Water introduced into Project Facilities for purposes of water quality testing is
442 considered Project water.

443 (f) At all times during the term of this Contract, the Contractor shall be in
444 compliance with the requirements of the then-current Quality Assurance Project Plan approved
445 by the Contracting Officer. The Quality Assurance Project Plan describes the sample collection
446 procedures, water testing methods, and data review process, including quality control/quality
447 assurance protocols, to verify analytical results.

448 (g) The Contracting Officer reserves the right to require additional analyses to
449 ensure the Non-Project Water meets the Bureau of Reclamation's water quality acceptance
450 criteria.

451 CHARGES FOR DELINQUENT PAYMENTS

452 15. (a) The Contractor shall be subject to interest, administrative, and penalty
453 charges on delinquent payments. If a payment is not received by the due date, the Contractor
454 shall pay an interest charge on the delinquent payment for each day the payment is delinquent
455 beyond the due date. If a payment becomes 60 days delinquent, in addition to the interest
456 charge, the Contractor shall pay an administrative charge to cover additional costs of billing and
457 processing the delinquent payment. If a payment is delinquent 90 days or more, in addition to
458 the interest and administrative charges, the Contractor shall pay a penalty charge for each day the
459 payment is delinquent beyond the due date, based on the remaining balance of the payment due
460 at the rate of 6 percent per year. The Contractor shall also pay any fees incurred for debt
461 collection services associated with a delinquent payment.

462 (b) The interest charge rate shall be the greater of either the rate prescribed
463 quarterly in the *Federal Register* by the Department of the Treasury for application to overdue
464 payments or the interest rate of 0.5 percent per month. The interest charge rate will be
465 determined as of the due date and remain fixed for the duration of the delinquent period.

466 (c) When a partial payment on a delinquent account is received, the amount
467 received shall be applied first to the penalty charges, second to the administrative charges, third
468 to the accrued interest, and finally to the overdue payment.

469 EQUAL EMPLOYMENT OPPORTUNITY

470 16. During the performance of this Contract, the Contractor agrees as follows:

471 (a) The Contractor will not discriminate against any employee or applicant for
472 employment because of race, color, religion, sex, disability, or national origin. The Contractor
473 will take affirmative action to ensure that applicants are employed, and that employees are
474 treated during employment, without regard to their race, color, religion, sex, disability, or
475 national origin. Such action shall include, but not be limited to the following: employment,

476 upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination;
477 rates of pay or other forms of compensation; and selection for training, including apprenticeship.
478 The Contractor agrees to post in conspicuous places, available to employees and applicants for
479 employment, notices to be provided by the Contracting Officer setting forth the provisions of this
480 nondiscrimination clause.

481 (b) The Contractor will, in all solicitations or advertisements for employees
482 placed by or on behalf of the Contractor, state that all qualified applicants will receive
483 consideration for employment without regard to race, color, religion, sex, disability, or national
484 origin.

485 (c) The Contractor will send to each labor union or representative of workers
486 with which it has a collective bargaining agreement or other contract or understanding, a notice,
487 to be provided by the Contracting Officer, advising the labor union or workers' representative of
488 the Contractor's commitments under Section 202 of Executive Order 11246 of
489 September 24, 1965 (EO 11246), and shall post copies of the notice in conspicuous places
490 available to employees and applicants for employment.

491 (d) The Contractor will comply with all provisions of EO 11246, and of the
492 rules, regulations, and relevant orders of the Secretary of Labor.

493 (e) The Contractor will furnish all information and reports required by
494 EO 11246, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant
495 thereto, and will permit access to his books, records, and accounts by the Contracting Agency
496 and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules,
497 regulations, and orders.

498 (f) In the event of the Contractor's noncompliance with the nondiscrimination
499 clauses of this Contract or with any of such rules, regulations, or orders, this Contract may be
500 canceled, terminated or suspended in whole or in part and the Contractor may be declared
501 ineligible for further Government contracts in accordance with procedures authorized in
502 EO 11246, and such other sanctions may be imposed and remedies invoked as provided in
503 EO 11246 or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by
504 law.

505 (g) The Contractor will include the provisions of paragraphs (a) through (g) in
506 every subcontract or purchase order unless exempted by the rules, regulations, or orders of the
507 Secretary of Labor issued pursuant to Section 204 of EO 11246, so that such provisions will be
508 binding upon each subcontractor or vendor. The Contractor will take such action with respect to
509 any subcontract or purchase order as may be directed by the Secretary of Labor as a means of
510 enforcing such provisions, including sanctions for noncompliance: *Provided, however,* That in
511 the event the Contractor becomes involved in, or is threatened with, litigation with a
512 subcontractor or vendor as a result of such direction, the Contractor may request the United
513 States to enter into such litigation to protect the interests of the United States.

514

CERTIFICATION OF NONSEGREGATED FACILITIES

515 17. The Contractor hereby certifies that it does not maintain or provide for its
516 employees any segregated facilities at any of its establishments and that it does not permit its
517 employees to perform their services at any location under its control where segregated facilities
518 are maintained. It certifies further that it will not maintain or provide for its employees any
519 segregated facilities at any of its establishments and that it will not permit its employees to
520 perform their services at any location under its control where segregated facilities are
521 maintained. The Contractor agrees that a breach of this certification is a violation of the Equal
522 Employment Opportunity clause in this Contract. As used in this certification, the term
523 “segregated facilities” means any waiting rooms, work areas, rest rooms and wash rooms,
524 restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas,
525 parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing
526 facilities provided for employees which are segregated by explicit directive or are in fact
527 segregated on the basis of race, creed, color, or national origin, because of habit, local custom,
528 disability, or otherwise. The Contractor further agrees that (except where it has obtained
529 identical certifications from proposed subcontractors for specific time periods) it will obtain
530 identical certifications from proposed subcontractors prior to the award of subcontracts
531 exceeding \$10,000 which are not exempt from the provisions of the Equal Employment
532 Opportunity clause; that it will retain such certifications in its files; and that it will forward the
533 following notice to such proposed subcontractors (except where the proposed subcontractors
534 have submitted identical certifications for specific time periods):

535 NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT
536 FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

537 A Certification of Nonsegregated Facilities must be submitted prior to the award
538 of a subcontract exceeding \$10,000 which is not exempt from the provisions of
539 the Equal Employment Opportunity clause. The certification may be submitted
540 either for each subcontract or for all subcontracts during a period (i.e., quarterly,
541 semiannually, or annually). Note: The penalty for making false statements in
542 offers is prescribed in 18 U.S.C.1001.

543 COMPLIANCE WITH CIVIL RIGHTS LAWS AND REGULATIONS

544 18. (a) The Contractor shall comply with Title VI of the Civil Rights Act of 1964
545 (Pub. L. 88-352; 42 U.S.C. § 2000d), the Rehabilitation Act of 1973 (Pub. L. 93-112, Title V, as
546 amended; 29 U.S.C. § 791, et seq.), the Age Discrimination Act of 1975 (Pub. L. 94-135,
547 Title III; 42 U.S.C. § 6101, et seq.), Title II of the Americans with Disabilities Act of 1990 (Pub.
548 L. 101-336; 42 U.S.C. § 12131, et seq.), and any other applicable civil rights laws, and with the
549 applicable implementing regulations and any guidelines imposed by the U.S. Department of the
550 Interior and/or Bureau of Reclamation.

551 (b) These statutes prohibit any person in the United States from being
552 excluded from participation in, being denied the benefits of, or being otherwise subjected to

553 discrimination under any program or activity receiving financial assistance from the Bureau of
554 Reclamation on the grounds of race, color, national origin, disability, or age. By executing this
555 contract, the Contractor agrees to immediately take any measures necessary to implement this
556 obligation, including permitting officials of the United States to inspect premises, programs, and
557 documents.

558 (c) The Contractor makes this agreement in consideration of and for the
559 purpose of obtaining any and all Federal grants, loans, contracts, property discounts, or other
560 Federal financial assistance extended after the date hereof to the Contractor by the Bureau of
561 Reclamation, including installment payments after such date on account of arrangements for
562 Federal financial assistance which were approved before such date. The Contractor recognizes
563 and agrees that such Federal assistance will be extended in reliance on the representations and
564 agreements made in this Article and that the United States reserves the right to seek judicial
565 enforcement thereof.

566 (d) Complaints of discrimination against the Contractor shall be investigated
567 by the Contracting Officer's Office of Civil Rights.

568 GENERAL OBLIGATION – BENEFITS CONDITIONED UPON PAYMENT

569 19. (a) The obligation of the Contractor to pay the United States as provided in
570 this Contract is a general obligation of the Contractor notwithstanding the manner in which the
571 obligation may be distributed among the Contractor's water users and notwithstanding the
572 default of individual water users in their obligation to the Contractor.

573 (b) The payment of charges becoming due pursuant to this Contract is a
574 condition precedent to receiving benefits under this Contract. The United States shall not allow
575 the introduction of Non-Project Water and make Exchanged Water available to the Contractor
576 through Project Facilities during any period in which the Contractor is in arrears in the advance
577 payment of Rates and charges due the United States. The Contractor shall not introduce
578 Non-Project Water and deliver Exchanged Water under the terms and conditions of this Contract
579 for lands or parties that are in arrears in the advance payment of rates and charges as levied or
580 established by the Contractor.

581 BOOKS, RECORDS, AND REPORTS

582 20. The Contractor shall establish and maintain accounts and other books and records
583 pertaining to administration of the terms and conditions of this contract, including the
584 Contractor's financial transactions; water supply data; project operation, maintenance, and
585 replacement logs; project land and rights-of-way use agreements; the water users' land-use (crop
586 census), land-ownership, land-leasing, and water-use data; and other matters that the Contracting
587 Officer may require. Reports shall be furnished to the Contracting Officer in such form and on
588 such date or dates as the Contracting Officer may require. Subject to applicable Federal laws
589 and regulations, each party to this contract shall have the right during office hours to examine

590 and make copies of the other party’s books and records relating to matters covered by this
591 contract.

592 CONTINGENT UPON APPROPRIATION OR ALLOTMENT OF FUNDS

593 21. The expenditure or advance of any money or the performance of any obligation of
594 the United States under this contract shall be contingent upon appropriation or allotment of
595 funds. Absence of appropriation or allotment of funds shall not relieve the Contractor from any
596 obligations under this contract. No liability shall accrue to the United States in case funds are
597 not appropriated or allotted.

ASSIGNMENT LIMITED – SUCCESSORS AND ASSIGNS OBLIGATED

598 22. The provisions of this Contract shall apply to and bind the successors and assigns
599 of the parties hereto, but no assignment or transfer of this Contract or any right or interest therein
600 by either party shall be valid until approved in writing by the other party.

601 OFFICIALS NOT TO BENEFIT

602 23. No Member of or Delegate to the Congress, Resident Commissioner, or official of
603 the Contractor shall benefit from this Contract other than as a water user or landowner in the
604 same manner as other water users or landowners.

605 CHANGES IN CONTRACTOR’S ORGANIZATION

606 24. While this Contract is in effect, no change may be made in the Contractor’s Raw
607 Water Service Area 2, by inclusion or exclusion of lands or by any other changes which may
608 affect the respective rights, obligations, privileges, and duties of either the United States or the
609 Contractor under this Contract including, but not limited to, dissolution, consolidation, or
610 merger, except upon the Contracting Officer’s written consent.

611 NOTICES

612 25. Any notice, demand, or request authorized or required by this Contract shall be
613 deemed to have been given, on behalf of the Contractor, when mailed, postage prepaid, or
614 delivered to the Bureau of Reclamation, Area Manager, South-Central California Area Office,
615 1243 “N” Street, Fresno, California 93721, and on behalf of the United States, when mailed,
616 postage prepaid, or delivered to the Board of Directors of the Byron Bethany Irrigation District,
617 7995 Bruns Road, Byron, California 94514-1625. The designation of the addressee or the
618 address may be changed by notice given in the same manner as provided in this Article for other
619 notices.

620 INCORPORATION OF EXHIBITS
621 26. Exhibits A through E are attached hereto and incorporated herein by reference and
622 may be updated without amending this Contract.

623 CONTRACT DRAFTING CONSIDERATIONS

624 27. This Contract has been negotiated and reviewed by the parties hereto, each of
625 whom is sophisticated in the matters to which this Contract pertains. The double-spaced articles
626 of this Contract have been drafted, negotiated, and reviewed by the parties, and no one party
627 shall be considered to have drafted the stated articles.

628 IN WITNESS WHEREOF, the parties hereto have executed this Contract as of
629 the day and year first above written.

630 UNITED STATES OF AMERICA

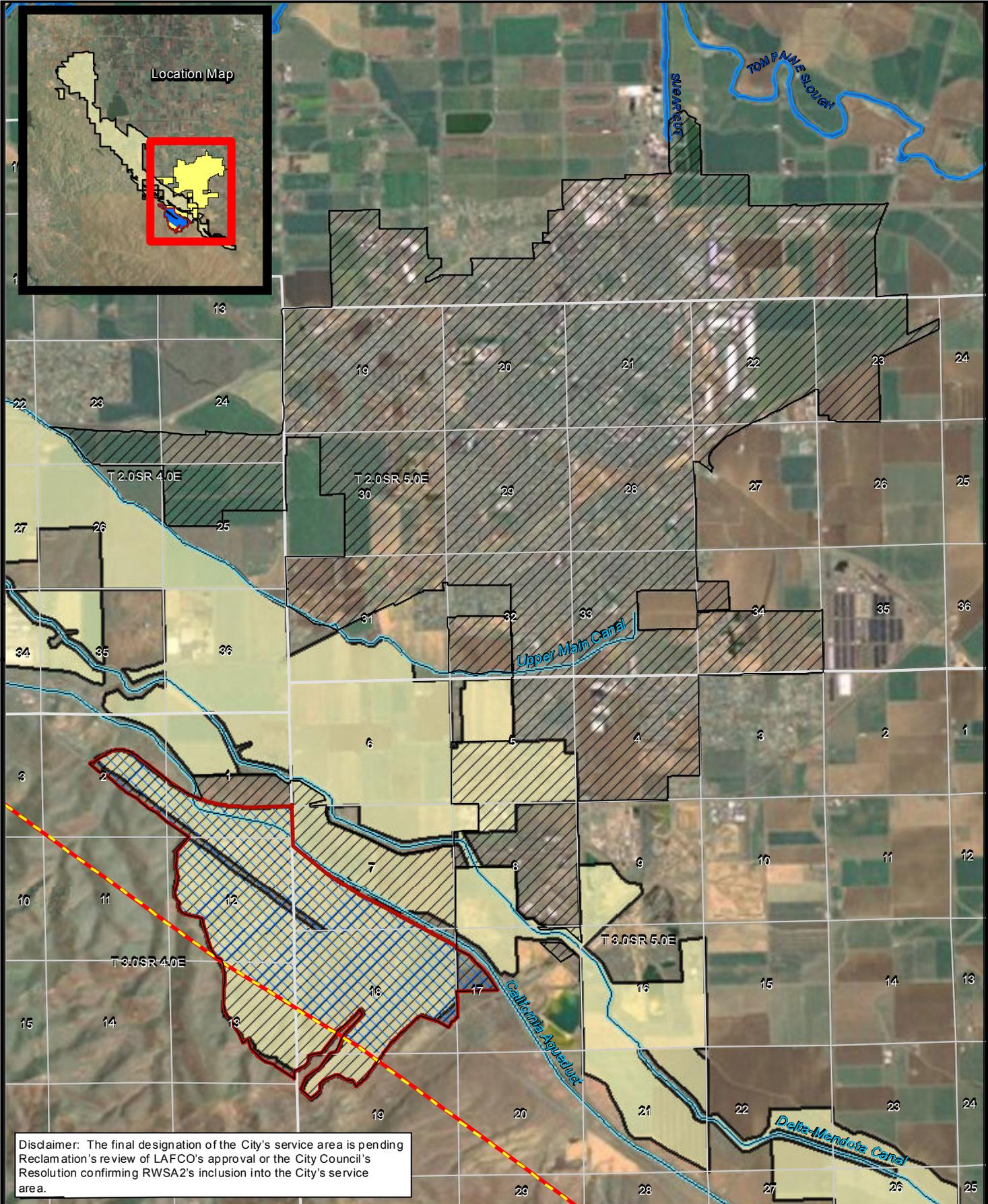
631 By: _____
632 Regional Director, Mid-Pacific Region
633 Bureau of Reclamation

634 BYRON BETHANY IRRIGATION DISTRICT
635 (SEAL)

636 By: _____
637 Board President

638 Attest:

639 _____
640 Secretary



Disclaimer: The final designation of the City's service area is pending Reclamation's review of LAFCO's approval or the City Council's Resolution confirming RWSA2's inclusion into the City's service area.

- Consolidated POU (CPOU)
- Tracy Hills Development Raw Water Service Area #2
- City of Tracy (See Above Disclaimer)
- Exchanged Water Service Area
- Byron-Bethany I.D.

Byron-Bethany I.D. Long-Term Exchange Contract

Exchange Contract No. 11-WC-20-0149

Exhibit A

DRAFT



EXHIBIT B

**BYRON BETHANY IRRIGATION DISTRICT
YEAR 2012 ANNUAL RATES
(Per Acre-Foot)**

Cost of Service (COS) Rate¹	M&I Water
Capital Component	
Storage	\$2.40
Conveyance	\$4.58
Conveyance Pumping	
O'Neill Pumping Plant	\$0.54
Other Cost	\$1.75
Benefit Charge²	\$0.00
O&M Component	
Water Marketing	\$3.13
Storage	\$7.49
Conveyance and Conveyance Pumping ³	
Total COS (O&M +Capital)⁴	\$19.89

EXPLANATORY NOTES

1. 2012 Special Ratebook – Warren Act Contract, Schedule W-1.
2. Cost for benefits of use of facilities. While there are no current rates assigned, future related costs may be established.
3. Conveyance and conveyance pumping O&M costs were removed for ratesetting purposes and are to be billed directly by the Operating Non-Federal Entity.
4. All costs components identified in the Cost of Service Rate of this rate exhibit are required to be paid for each acre-foot of Non-Project water introduced, conveyed, stored, exchanged, and/or delivered.

Additional details of the rate components are available on the Internet at
www.usbr.gov/mp/cvpwaterrates/ratebooks/special

EXHIBIT C
SOURCE(S) OF CONTRACTOR'S NON-PROJECT WATER
BYRON BETHANY IRRIGATION DISTRICT

Source of Non-Project Water: The source of Non-Project Water is the Contractor's asserted entitlement to pre-1914 Water Rights with a priority date of May 18, 1914 for 40,000 miners inches (equivalent to 700,000 acre-feet annually) measured under four-inch pressure from Italian Slough, a tributary to Old River. Pursuant to "Agreement Between Byron Bethany Irrigation District and the State of California Department of Water Resources," executed May 4, 1964, the Department of Water Resources (DWR) was allowed to cross and destroy a portion of the District's lateral. In exchange, the Contractor was granted permanent and perpetual use as its point of diversion the DWR's State Water Project Intake Channel.

For the purposes of this Contract, the Contractor is requesting to divert up to 4,725 acre-feet of this source of Non-Project Water through a newly constructed pipeline under Contractor's License No. 12-LC-20-0171 ("Long-Term License for the Erection, Operation, Maintenance, and Storage of Temporary Structures") from the District's Pump Station 3 off Canal 70 for the conveyance and introduction into the Delta Mendota Canal during the months of March through October on an annual basis.

Point of Introduction: Based on the availability of Excess Capacity and with Contracting Officer approval, the Contractor may introduce the Non-Project Water from their pipeline into the Delta-Mendota Canal at milepost 3.32R in accordance with an approved schedule.

Point of Delivery: Reclamation will convey the Contractor's Exchanged Water either to storage in Project facilities for later delivery or convey it directly to milepost 15.88L of the Delta-Mendota Canal or to such other location(s) mutually agreed to in writing by the Contracting Officer and the Contractor..

RECLAMATION

Managing Water in the West

2012 Delta-Mendota Canal Pump-in Program Water Quality Monitoring Plan



U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
South-Central California Area Office

Revised: 06 Feb 2012

Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

List of Abbreviations and Acronyms

Authority	San Luis and Delta-Mendota Water Authority
°C	degrees Celsius
DMC	Delta-Mendota Canal
DMC Headworks	DMC Milepost 2.5, Jones Pumping Plant
DMC Check 13	DMC Milepost 70, O'Neill Forebay
DMC Check 20	DMC Milepost 111, near Firebaugh
DMC Check 21	DMC Milepost 116, terminus at Mendota Pool
COC	chain of custody
CVP	Central Valley Project
DFG	California Department of Fish and Game
EC	electrical conductivity, $\mu\text{S}/\text{cm}$
Exchange Contractors	San Joaquin River Exchange Contractors Water Authority
°F	degrees Fahrenheit
mg/L	milligrams per liter, equivalent to parts per million
QA	Quality Assurance
QC	Quality Control
QCO	Quality Control Officer
Reclamation	U.S. Department of the Interior, Bureau of Reclamation
Regional Board	California EPA, Central Valley Regional Water Quality Board
TDS	Total dissolved solids, mg/L
USGS	U.S. Geological Survey
$\mu\text{g}/\text{L}$	micrograms per liter, equivalent to parts per billion
$\mu\text{S}/\text{cm}$	microSiemens per cm, salinity in water

Draft

2012 Delta-Mendota Canal Pump-in Program Water Quality Monitoring Plan

Introduction

The overall supply of Central Valley Project (CVP) water has been reduced by drought and restrictions on pumping from the Sacramento-San Joaquin Delta. Under the Warren Act of 1911, Reclamation may execute temporary contracts to convey non-project water in excess capacity in federal irrigation canals. In 2012, Reclamation proposes to execute temporary contracts with water districts to convey groundwater in the Delta-Mendota Canal (DMC) subject to the monitoring and reporting requirements outlined in this document.

Estimated 2012 Warren Act Contract Quantities

District	Acre-feet
Banta Carbona ID	5,000
Del Puerto WD	10,000
West Stanislaus ID	3,000
San Luis WD	10,000
Panoche WD	10,000
Pacheco WD	6,000
Mercy Springs WD	6,000
Total	50,000

This document describes the plan for measuring the changes in the quality of water in the DMC caused by the conveyance of groundwater during 2012, plus changes in groundwater elevation to estimate subsidence. Various agencies will use these data to determine the water quality conditions in the DMC, Mendota Pool, and wetlands water supply channels, and physical condition of local groundwater resources.

This document has been prepared by the U.S. Department of the Interior, Bureau of Reclamation (Reclamation), in cooperation with the San Luis & Delta-Mendota Water Authority (Authority), and the San Joaquin River Exchange Contractors Water Authority (Exchange Contractors), with assistance from staff of Banta Carbona Irrigation District, Del Puerto Water District, San Luis Water District, and Panoche Water District. This monitoring plan will be conducted by staff of Reclamation, the Authority, and Water Districts and will complement independent monitoring by other Federal, State, and private agencies.

Several sampling techniques will be used to collect samples of water, including real-time, grab, and composite. The techniques used at each location are summarized in Section 3.

Continuous measurement of specific conductance (salinity) will be recorded at four stations in the canal using sondes connected to digital data loggers. The data will be averaged every 15 minutes, sent via satellite to the California Data Exchange Center where it will be posted in the Internet as preliminary data:

<http://cdec.water.ca.gov/queryDaily.html>

Central Valley Operations Office will post the daily average salinity measurements on its website:

<http://www.usbr.gov/mp/cvo/wqrpt.html>

The real-time data will be collected by Reclamation and used in a mass balance to calculate and predict water quality conditions along the DMC. The calculated results will be reported to various agencies, and compared with independent field measurements collected by the Reclamation, the Exchange Contractors, US Geological Survey, and California EPA Central Valley Regional Water Quality Control Board (Regional Board).

Based on available funding, Reclamation will operate autosamplers at four locations along the DMC and Mendota Pool that will collect daily composite samples for measurement of selenium and salinity.

Reclamation and the Regional Board will collect grab samples from various locations in the watershed to measure selenium and many other parameters.

Reclamation will use these data to assess changes in water quality and groundwater conditions caused by the 2012 DMC Pump-in Program, and will implement the terms and conditions of the 2012 Warren Act Contracts, exchange agreements, and the 2012 Letter from the Exchange Contractors to Reclamation (Appendix 1).

Background

The Delta Division of the federal Central Valley Project (CVP) delivers water to almost a million acres of farmland in the San Joaquin Valley of California. The CVP is also the sole source of clean water for state and federal wildlife refuges and many private wetlands in Fresno, Merced, San Joaquin, and Stanislaus Counties.

The source of water for the Division is delta of the Sacramento and San Joaquin Rivers. This water is suitable in quality for irrigation and wetlands. The region is regularly affected by droughts that reduce the supply of water. Environmental regulations also restrict the operation of the Jones Pumping Plant to divert water from the Delta. The salinity of water in the Delta is highly variable due to the influence of tides and outflow of river water.

The Delta-Mendota Canal (DMC) carries CVP water to farms, communities, and wetlands between Tracy and Mendota. The 116 mile canal is operated and maintained by the San Luis and Delta-Mendota Water Authority (Authority) under contract with

Reclamation. Inflows of tailwater and subsurface water add contaminants to the DMC. The conveyance of groundwater may further degrade the quality of water in the canal.

The districts and refuges in the Delta Division use groundwater to supplement their contractual supply from the CVP. Three Delta Division districts also have riparian rights to water in the San Joaquin River. These other supplies of groundwater and riparian water are called “Non-Project Water” because they have not been appropriated by the United States for the purposes of the CVP.

The Warren Act of 1911⁽¹⁾ authorizes Reclamation to execute temporary contracts to impound, store, and carry water in federal irrigation canals when excess capacity is available. Such contracts will be negotiated by Reclamation with Delta Division water districts to allow the introduction of non-project water into the DMC to supplement the supply of CVP water to help farmers deliver enough water to irrigate and sustain valuable permanent crops like grapes, citrus, and deciduous fruit, and to sustain the local multi-billion dollar farming economy.

The quality of local groundwater is variable and must be measured to confirm that there will be no harm to downstream water users when the non-project water is pumped into the DMC. Reclamation has developed a set of standards for the acceptance of non-project water in the DMC based on the requirements of downstream water users.

In 2012, environmental regulations and climate change continue to reduce the supply of surface water for the Central Valley Project. Water managers now must depend on groundwater to supplement surface water for irrigation. However, continuous pumping of groundwater can quickly reduce local aquifers and can cause irreversible damage to facilities through subsidence.

Reclamation will require information about each source of groundwater and more monitoring of the aquifer to measure overdraft, prevent subsidence, and determine the feasibility of continuing this program in the future. Staff from the Authority and water districts will be required to take regular measurements of depth to groundwater, pump rates, and in-stream salinity measurements.

This Monitoring Plan will ensure that monitoring data will measure any changes in the quality of CVP water in the DMC and Mendota Pool, and assess impacts on local aquifers.

Monitoring Mission and Goals

The mission of this monitoring program is to produce physical measurements that will determine the changes in the quality of the water in canal caused by the conveyance of groundwater during 2012. The data will be used to implement the terms of the 2012 Warren Act Contracts and exchange agreements, and to ensure that the quality of CVP water is commensurate with the needs and expectations of water users.

¹ Act of February 21, 1911, ch. 141, 36 Stat. 925

The monitoring program will also deal with changes to groundwater resources to identify and prevent long-term problems to local aquifers and facilities.

Program Goals

The general goals of monitoring are:

- Evaluate the quality of water in each well, and
- Confirm that the blend of CVP water and groundwater is suitable for domestic, agricultural, and wetlands uses.
- Provide reliable data for regulation of the 2012 DMC Pump-in Program to prevent contamination problems
- Provide measurements of groundwater dynamics (depth, recharge) to identify overdraft and subsidence

Study Area

The Study Area for this program encompasses the Delta-Mendota Canal from Tracy to Mendota, and the Mendota Pool. The canal is divided into two reaches in relation to the O'Neill Forebay and the connection to the State Water Project.

Water Quality Standards

Non-project water must meet the standards listed in Tables 6 and 7. The lists have been developed by Reclamation to measure constituents of concern that would affect downstream water users. In particular, the concentration of selenium in any pump-in water shall not exceed 2 µg/L, the limit for the Grasslands wetlands water supply channels specified in the 1998 Basin Plan.² The salinity of each source of pump-in water shall not exceed 1500 mg/L TDS. The other constituents are mainly agricultural chemicals listed in the California Drinking Water Standards (Title 22)³.

² California Regional Water Quality Control Board, Central Valley Region, Fourth Edition of the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins.
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr.pdf

³ California Code of regulations, Title 22. The Domestic Water Quality and Monitoring Regulations specified by the State of California Health and Safety Code (Sections 4010 4037), and Administrative Code (Sections 64401 et seq.), as amended.
<http://www.cdph.ca.gov/certlic/drinkingwater/Documents/Lawbook/dwregulations-06-24-2010.pdf>

Water Quality Monitoring Plan

In-stream Monitoring

The quality of water in the DMC will be measured at the locations listed in Tables 1, 2, and 3.

Reclamation will operate and maintain the real-time stations listed in Table 1. Based on available funding, Reclamation will continue to collect water samples at the sites listed in Table 2 under the DMC Water Quality Monitoring Program. Reclamation will be responsible for the costs of sampling and analysis of water sampled from the DMC under this monitoring program.

Table 3 is a list of places along the canal near clusters of wells that could pump into the canal under this program. If the real-time monitoring is not sufficient to identify in-stream changes in quality caused by the addition of groundwater, Reclamation may require weekly measurements at the checks listed in Table 3 to determine local effects from groups of wells. For example, if the quantity of CVP water in the canal is limited, Reclamation will require detailed monitoring to identify the individual and cumulative changes in water quality caused by the addition of groundwater.

Table 1. Real-Time Monitoring Stations

Location	Operating Agency	Parameters	Frequency	Remarks
DMC Headworks Milepost 3.5	CVO	EC	Real-time	CDEC Site: DMC
DMC Check 13 Milepost 70	CVO	EC	Real-time	CDEC site : ONI
DMC Check 20 Milepost 111	CVO	EC	Real-time	CDEC site : DM2
DMC Check 21 Milepost 116.5	CVO	EC	Real-time	CDEC site : DM3

Key: CDEC: California Data Exchange Center CVO: Central Valley Operations Office

Table 2. Water Quality Monitoring Stations

Location	Operating Agency	Parameters	Frequency	Remarks
DMC Headworks Milepost 3.46	Reclamation	EC, selenium	Daily composite	Autosampler
DMC at McCabe Rd Milepost 68	Reclamation	Various	Monthly	Grab sample
DMC Check 13 Milepost 70	Reclamation	EC, selenium	Daily composite	Autosampler
DMC at Russell Ave Milepost 97.7	Reclamation	EC, selenium, boron, mercury	Monthly	Grab sample
DMC at Telles Farm Bridge Milepost 100	Reclamation	EC, selenium	Monthly	Grabs sampler
DMC at Washoe Ave Milepost 110.1	Reclamation	EC, selenium, boron, mercury	Monthly	Grab sample
DMC Check 21 Milepost 116.5	Reclamation	EC, selenium	Daily composite	Autosampler
CCID Main Canal at Bass Ave	Reclamation	EC, selenium	Daily composite	Autosampler

Key: Reclamation: MP-157 Environmental Monitoring Branch

Note: Frequency may be reduced at Headworks and Check 13 in 2012.

Table 3. In-Stream Monitoring Stations (Optional)

Location	Responsible Agency	Parameters	Frequency	Remarks
DMC Check 2 Milepost 16.2	SLDMWA	EC	Weekly	Field measurement
DMC Check 3 Milepost 20.6	SLDMWA	EC	Weekly	Field measurement
DMC Check 6 Milepost 34.4	SLDMWA	EC	Weekly	Field measurement
DMC Check 7 Milepost 38.7	SLDMWA	EC	Weekly	Field measurement
DMC Check 9 Milepost 48.6	SLDMWA	EC	Weekly	Field measurement
DMC Check 12 Milepost 64.0	SLDMWA	EC	Weekly	Field measurement
DMC Check 16 Milepost 85.1	SLDMWA	EC	Weekly	Field measurement
DMC at Telles Bridge Milepost 100.9	SLDMWA	EC	Weekly	Field measurement

Key: SLDMWA: San Luis and Delta-Mendota Water Authority

Wellhead Monitoring

Initial Analysis

All districts participating in the 2012 DMC Pump-in Program must provide the following information about each well to Reclamation prior to pumping groundwater into the DMC:

- the location of each well, pumping rate, and point of discharge into the DMC;
- complete water quality analyses (Table 5 or 6)⁴
- the depth to groundwater in every well before pumping into the DMC commences.

Though most of the wells are privately owned, the Districts must provide access to each well for Reclamation and Authority staff.

All water samples must be sampled and preserved according to established protocols in correct containers. Analyses should be conducted by laboratories that have been approved by Reclamation, listed in Table 7. Each sample of well water must be sampled and analyzed at the expense of the well owner. Reclamation staff will review the analytical results and notify the District which wells may pump into the DMC in 2012.

Compliance Monitoring

Daily Salinity

Mean daily salinity of water in the DMC will be assessed with the sensors along the canal that report real-time data to CDEC, listed in Table 1. Reclamation and the Authority will monitor daily changes in salinity along the canal.

Weekly Monitoring

Reclamation may require weekly measurements of salinity along the DMC if the real-time sensors are not sufficient to identify changes. If necessary, Reclamation will direct the Authority to measure the EC of water in the canal at the places listed in Table 3. These sites are located downstream from clusters of wells that could pump into the DMC. In addition, Reclamation may also direct Authority staff to measure the EC of the water in each active well

The weekly volume of groundwater pumped into the DMC from each well will be measured by the Authority and sent to Reclamation at the end of each week.

Selenium Monitoring

Reclamation will continue to measure selenium in the canal and Mendota Pool with autosamplers listed in Table 2. Reclamation may collect random samples of water from

⁴ Note: Laboratory analyses of water in each well may be measured within three years

various active wells; the cost of these selenium tests will be borne by Reclamation. Based on available funds, Reclamation may also measure boron in the canal and wells.

Depth to Groundwater

The Authority will to measure the depth to groundwater in each active well quarterly. Table 8 is a summary of measurements collected by the Authority since May 1995. The current depth to groundwater in each well will be compared to the depths listed in Table 8. If the current depth exceeds the maximum depth observed in Table 8, then Reclamation will advise the District to stop pumping from that well until the depth of water in the well recovers to an agreed depth, such as the median observed depth.

Data Compilation and Review

All compliance monitoring data collected by the Authority (i.e., flow/ EC/depth of groundwater in each active well, flow/EC in the DMC) will be entered into worksheets and presented each week to Reclamation via e-mail. Reclamation will review the data to identify changes in the quality of water in the canal and in individual wells, and potential changes in the local aquifer that could lead to overdraft or subsidence.

Water Quality Monitoring Parameters and Data Management

The following sections describe the parameters for real-time and laboratory measurement of water quality, as well as methods for quality control, data management, and data reporting.

Real-Time Water Quality Monitoring Parameter

Reclamation and the Central Valley Operations Office have sensors along the DMC that measure salinity and temperature of water. These continuous measurements are posted on the Internet in real-time.

Salinity

Salinity is a measure of dissolved solids in water. It is the sum weight of many different elements within a given volume of water, reported in milligrams per liter (mg/L) or parts per million (ppm). Salinity is an ecological factor of considerable importance, influencing the types of organisms that live in a body of water. Also, salinity influences the kinds of plants and fish that will grow in a water body. Salinity can be estimated by measuring the electrical conductivity (EC) of the water.

Central Valley Operations Office (CVO) uses this conversion factor for estimating Total Dissolved Solids (TDS) from EC:

$$\text{TDS (mg/L)} = \text{EC } (\mu\text{S/cm}) * 0.618 + 16$$

Sampling For Laboratory Analyses of Water Quality

The following sections describe constituents for laboratory analyses of water quality, as well as methods for water quality sampling and chain of custody documentation.

Constituents

Table 5 and 6 are lists of constituents to be measured at in each well that will pump into the DMC during 2012. Parameters include selenium, mercury, boron, nutrients, and other compounds that cannot be measured with field sensors. Table 7 is a list of laboratories whose sampling and analytical practices have been approved by Reclamation.

Sampling methods

Grab samples will be collected in a bucket or bottle from the point of discharge into the canal. Samples of canal water should be collected mid-stream from a bridge or check structure. Grab samples should be poured directly into sample bottles appropriate to the analyses. This technique is for samples collected weekly or less frequently. The analytical laboratory will specify the sample volume, type of bottle, need for preservative, and special handling requirements. Reclamation may train field staff on proper sample collection and handling.

Time composite samples will be collected from the DMC by Reclamation using an autosampler. Daily composite samples will consist of up to eight subsamples taken per day and mixed into one sample. Weekly composite samples will consist of seven daily subsamples mixed into one sample.

Chain of Custody documentation

Chain of custody (COC) forms will be used to document sample collection, shipping, storage, preservation, and analysis. All individuals transferring and receiving samples will sign, date, and record the time on the COC that the samples are transferred.

Laboratory COC procedures are described in each laboratory's Quality Assurance Program Manual. Laboratories must receive the COC documentation submitted with each batch of samples and sign, date, and record the time the samples are transferred. Laboratories will also note any sample discrepancies (e.g., labeling, breakage). After generating the laboratory data report for the client, samples will be stored for a minimum of 30 days in a secured area prior to disposal.

Chain of Custody documentation

Chain of custody (COC) forms will be used to document sample collection, shipping, Quality control (QC) is the overall system of technical activities that measure the attributes and performance of a process, item, or service against defined standards to verify that stated requirements are met.

Quality assurance (QA) is an integrated system of management activities involving, planning, implementation, documentation, assessment, reporting, and quality improvement to ensure that a process, item, or service is of the type and quality needed and expected by the customer.

QA objectives will be used to validate the data for this project. The data will be accepted, rejected, or qualified based on how sample results compare to established acceptance criteria.

The precision, accuracy, and contamination criteria will be used by the QCO to validate the data for this project. The criteria will be applied to the blind external duplicate/split, blank, reference, or spiked samples submitted with the production samples to the analytical laboratories by the participating agencies to provide an independent assessment of precision, accuracy, and contamination.

Laboratories analyze their own QC samples with the client's samples. Laboratory QC samples, including laboratory fortified blanks, matrix spikes, duplicates, and method blanks, assess precision, accuracy, and contamination. Laboratory QC criteria are stated in the analytical methods or determined by each laboratory. Since internal control ranges are often updated in laboratories based on instrumentation, personnel, or other influences, it is the responsibility of the QCO to verify that these limits are well documented and appropriately updated during system audits. The preferred method of reporting the QC results is for the laboratory to provide a QC summary report with acceptance criteria for each QC parameter of interest.

For water samples, the QCO will use a statistical program to determine if current concentrations for parameters at given sites are consistent with the historical data at these sites. A result is determined to be a historical outlier if it is greater than 3 standard deviations from the average value for the site. The presence of an outlier could indicate an error in the analytical process or a significant change in the environment.

Samples must be prepared, extracted, and analyzed within the recommended holding time for the parameter. Data may be qualified if the sample was analyzed after the holding time expires.

Completeness refers to the percentage of project data that must be successfully collected, validated, and reported to proceed with its intended use in making decisions.

Constraints with regard to time, money, safety, and personnel were some of the factors in choosing the most representative sites for this project. Monitoring sites have been selected by considering the physical, chemical, and biological boundaries that define the system under study.

Sites also were selected to be as representative of the system as possible. However, Reclamation will continue to evaluate the choice of the sites with respect to their representativeness and will make appropriate recommendations to the Contracting Officer given a belief or finding of inadequacy.

Comparability between each agency's data is enhanced through the use of Standard Operating Procedures that detail methods of collection and analysis. Each agency has chosen the best available protocol for the sampling and analyses for which it is responsible based on the agency's own expertise. Audits performed by the QCO will

reinforce the methods and practices currently in place and serve to standardize techniques used by the agencies.

Chain of Custody documentation

Chain of custody (COC) forms will be used to document sample collection, shipping, Real-Time Data – Raw data from field sensors, must be identified as preliminary, subject to change

Provisional Data - Data that have been reviewed by the collecting agency but may be changed pending re-analyses or statistical review

Laboratory Data – Data produced by the laboratory following laboratory QA/QC protocols

Chain of Custody documentation

Chain of custody (COC) forms will be used to document sample collection, shipping, In-stream data will be collected by Reclamation. Routine measurements of flow, EC, and depth of groundwater in each well will be collected by the Authority and sent to Reclamation each week.

Reclamation will compile these data in a water balance model developed by Reclamation, the Authority, and Exchange Contractors to predict the change in salinity in the canal with the addition of groundwater.

Real-time data will be used to monitor day-to-day patterns and assess actual conditions. The real-time data will be posted in regular e-mail messages to the districts and Authority. Reclamation will compile all flow, water quality, and groundwater data into a final report for future reference.

Chain of Custody documentation

Chain of custody (COC) forms will be used to document sample collection, shipping, and handling.

Water Quality Requirements

Each week, Reclamation staff will use the real-time salinity measurements (Table 1) and optional weekly in-stream measurements (Table 3) to monitor and determine the changes in salinity in the DMC, and determine if the groundwater pump-ins have caused these changes. Reclamation staff will compile other water quality data collected for this program and by others do evaluate changes in the canal.

Reclamation and the Authority will allow groundwater to be pumped into the DMC if such water does not cause the concentration of important constituents in the canal to exceed certain thresholds listed in Tables 4a and 4b. The 2012 Exchange Contractors letter will have further conditions for the lower portion of the canal.

Table 4a. Maximum Allowable Concentration of Seven Constituents in the Upper DMC (between Jones Pumping Plant and Check 13)

Constituent	Monitoring Location	Maximum concentration in the DMC
Arsenic	McCabe Road	10 µg/L
Boron	McCabe Road	0.7 mg/L
Nitrates as N	McCabe Road	45 mg/L
Selenium	Check 13	2 µg/L
Specific conductance (EC)	Check 13	1,200 µS/cm
Sulfates	McCabe Road	250 mg/L
Total Dissolved Solids*	Check 13	800 mg/L

*Calculation: TDS (mg/L) = EC (µS/cm) x 0.618 + 16

Reclamation will direct the Districts to stop pumping groundwater into the upper DMC if the concentration of any of these constituents in the canal exceed the maximum allowable concentrations listed in Table 4a.

Table 4b. Maximum Allowable Concentration of Three Constituents in the Lower DMC

Constituent	Monitoring Location	Maximum concentration in the DMC
Selenium	Check 21	2 µg/L
Daily Change in TDS	Checks 13 – 20	Less than 30 mg/L
Total Dissolved Solids*	Check 20	450 mg/L

Reclamation will direct the Districts to stop pumping groundwater into the lower DMC if any of the parameters listed in Table 4b are exceeded.

Reclamation will continue to monitor the effects of the six sumps near Firebaugh that pump subsurface groundwater into the canal. Note: the sumps are located downstream of the proposed wells listed in Table 8.

Reclamation reserves the right to modify this monitoring program at any time to change.

Revised: 06 Feb 2012 SCC-107

Table 5. Water Quality Standards for Acceptance of Groundwater into the Upper Delta-Mendota Canal
Jones Pumping Plant to Check 13 (O'Neill Forebay)

Constituent	Units	Maximum Contaminant Level	Detection Limit for Reporting	CAS Registry Number	Recommended Analytical Method
Primary					
Aluminum	mg/L	1 (1)	0.05 (2)	7429-90-5	EPA 200.7
Antimony	mg/L	0.006 (1)	0.006 (2)	7440-36-0	EPA 200.8
Arsenic	mg/L	0.01 (1)	0.002 (2)	7440-38-2	EPA 200.8
Barium	mg/L	1 (1)	0.1 (2)	7440-39-3	EPA 200.7
Beryllium	mg/L	0.004 (1)	0.001 (2)	7440-41-7	EPA 200.7
Boron	mg/L	0.7 (16)		7440-42-8	EPA 200.7
Cadmium	mg/L	0.005 (1)	0.001 (2)	7440-43-9	EPA 200.7
Chromium	mg/L	0.05 (1)	0.01 (2)	7440-47-3	EPA 200.7
Lead	mg/L	0.015 (9)	0.005 (8)	7439-92-1	EPA 200.8
Mercury	mg/L	0.002 (1)	0.001 (2)	7439-97-6	EPA 245.1
Nickel	mg/L	0.1 (1)	0.01 (2)	7440-02-0	EPA 200.7
Nitrate (as NO ₃)	mg/L	45 (1)	2 (2)	7727-37-9	EPA 300.1
Nitrate + Nitrite (sum as nitrogen)	mg/L	10 (1)			EPA 353.2
Nitrite (as nitrogen)	mg/L	1 (1)	0.4 (2)	14797-65-0	EPA 300.1
Selenium	mg/L	0.002 (13)		7782-49-2	EPA 200.8
Thallium	mg/L	0.002 (1)	0.001 (2)	7440-28-0	EPA 200.8
Secondary					
Chloride	mg/L	250 (7)		16887-00-6	EPA 300.1
Copper	mg/L	1 (10)	0.05 (8)	7440-50-8	EPA 200.7
Iron	mg/L	0.3 (6)		7439-89-6	EPA 200.7
Manganese	mg/L	0.05 (6)		7439-96-5	EPA 200.7
Molybdenum	mg/L	0.01 (11)		7439-98-7	EPA 200.7
Silver	mg/L	0.1 (6)		7440-22-4	EPA 200.7
Sodium	mg/L	69 (15)		7440-23-5	EPA 200.7
Specific Conductance	µS/cm	2,200 (7)			SM 2510 B
Sulfate	mg/L	250 (7)		14808-79-8	EPA 300.1
Total Dissolved Solids	mg/L	1,500 (7)			SM 2540 C
Zinc	mg/L	5 (6)		7440-66-6	EPA 200.7
Radioactivity					
Gross Alpha	pCi/L	15 (3)	3 (3)		SM 7110C
Organic Chemicals					
Atrazine	µg/L	1 (4)	0.5 (5)	1912-24-9	EPA 508.1
Bentazon	µg/L	18 (4)	2 (5)	25057-89-0	EPA 515
Carbofuran	µg/L	18 (4)	5 (5)	1563-66-2	EPA 531.1-2
Chlordane	µg/L	0.1 (4)	0.1 (5)	57-74-9	EPA 505
Chlorpyrifos	µg/L	0.025 (14)		2921-88-2	EPA 8141
2,4-D	µg/L	70 (4)	10 (5)	94-75-7	EPA 515.1-4
Diazinon	µg/L	0.16 (14)		333-41-5	EPA 507
Dibromochloropane (DBCP)	µg/L	0.2 (4)	0.01 (5)	96-12-8	EPA 504.1
Endrin	µg/L	2 (4)	0.1 (5)	72-20-8	EPA 505
Ethylene Dibromide (EDB)	µg/L	0.05 (4)	0.02 (5)	206-93-4	EPA 504.1
Glyphosate	µg/L	700 (4)	25 (5)	1071-83-6	EPA 547
Heptachlor	µg/L	0.01 (4)	0.01 (5)	76-44-8	EPA 505
Heptachlor Epoxide	µg/L	0.01 (4)	0.01 (5)	1024-57-3	EPA 505
Lindane	µg/L	0.2 (4)	0.2 (5)	58-89-9	EPA 505
Methoxychlor	µg/L	30 (4)	10 (5)	72-43-5	EPA 505
Molinate	µg/L	20 (4)	2 (5)	2212-67-1	EPA 525.2
2, 4, 5-TP (Silvex)	µg/L	50 (4)	1 (5)	93-72-1	EPA 515.1-4
Simazine	µg/L	4 (4)	1 (5)	122-34-9	EPA 508.1
Thiobencarb	µg/L	70 (4)	1 (5)	28249-77-6	EPA 525.2
Toxaphene	µg/L	3 (4)	1 (5)	8001-35-2	EPA 505

Table 5. Water Quality Standards for Acceptance of Groundwater into the Upper Delta-Mendota Canal Jones Pumping Plant to Check 13 (O'Neill Forebay)

Sources:

Title 22. The Domestic Water Quality and Monitoring Regulations specified by the State of California Health and Safety Code (Sections 4010-4037), and Administrative Code (Sections 64401 et seq.), as amended.

- | | |
|--------------------------------------|------------------------------------|
| (1) Title 22. Table 64431-A (mg/L) | (6) Title 22. Table 64449-A (mg/L) |
| (2) Title 22. Table 64432-A (mg/L) | (7) Title 22. Table 64449-B (mg/L) |
| (3) Title 22. Table 64442 (pCi/L) | (8) Title 22. Table 64678-A (mg/L) |
| (4) Title 22. Table 64444-A (mg/L) | (9) Title 22. Section 64678 (d) |
| (5) Title 22. Table 64445.1-A (mg/L) | (10) Title 22. Section 64678 (e) |

[California Drinking Water Regulations Sep 2011](#)

<http://www.cdph.ca.gov/certlic/drinkingwater/Documents/Lawbook/dwregulations-2011-09-22.pdf>

California Regional Water Quality Control Board, Central Valley Region, Fourth Edition of the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins.

- (13) Basin Plan, Table III-1 (ug/L) (selenium in Grasslands water supply channels)
(14) Basin Plan, Table III-2A (ug/L) (chlorpyrifos & diazinon in San Joaquin River from Mendota to Vernalis)

[Sacramento & San Joaquin River Basin Plan 2009](#)

http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr.pdf

Ayers, R. S. and D. W. Westcot, *Water Quality for Agriculture*, Food and Agriculture Organization of the United Nations - Irrigation and Drainage Paper No. 29, Rev. 1, Rome (1985).

- (15) Ayers, Table 1 (mg/L) (sodium)
(16) Ayers, Table 21 (mg/L) (boron)

[Water Quality Standards for Agriculture 1985](#)

<http://www.fao.org/DOCREP/003/T0234E/T0234E00.HTM>

revised: 10 Jan 2012 SCC-107

Table 6. Water Quality Standards for Acceptance of Groundwater into the lower Delta-Mendota Canal Check 13 (O'Neill Forebay) To Check 21 (Mendota Pool)

Constituent	Units	Maximum Contaminant Level		CAS Registry Number	Recommended Analytical Method
Bicarbonate	mg/L	61	(5)	71-52-3	SM 2320 A
Boron	mg/L	0.7	(3)	7440-42-8	EPA 200.7
Calcium	mg/L	80	(5)	7440-70-2	EPA 200.5
Chloride	mg/L	40	(5)	189689-94-9	EPA 300.1
Chlorpyrifos	µg/L	0.025	(2)	2921-88-2	EPA 8141
Chromium, total	µg/L	50	(1)	7440-47-3	EPA 200.7
Diazinon	µg/L	0.16	(2)	333-41-5	EPA 507
Hardness	mg/L				calculated
Magnesium	mg/L	16	(5)	7439-95-4	EPA 200.5
Mercury	µg/L	2	(1)	7439-97-6	EPA 245.1
Molybdenum	µg/L	10	(3)	7439-98-7	EPA 200.7
Nickel	µg/L	100	(1)	7440-02-0	EPA 200.7
Nitrate (as NO ₃)	mg/L	45	(1)	7727-37-9	EPA 300.1
Nitrite (as nitrogen)	mg/L	1	(1)	14797-65-0	EPA 300.1
pH	units	5.0 - 7.0	(5)		EPA 150.1
Potassium	mg/L	4.5	(5)	7440-09-7	EPA 200.5
SAR		<2	(5)		calculated
Selenium	µg/L	2	(2)	7782-49-2	EPA 200.8
Sodium	mg/L	69	(3)	7440-23-5	EPA 200.7
Specific Conductance	µS/cm	1,230	(4)		SM 2510 B
Sulfate	mg/L	250	(1)	14808-79-8	EPA 300.1
Total Dissolved Solids	mg/L	800	(4)		SM 2540 C

(1) Title 22. The Domestic Water Quality and Monitoring Regulations specified by the State of California Health and Safety Code (Sections 4010-4037), and Administrative Code (Sections 64401 et seq.), as amended.

(2) California Regional Water Quality Control Board, Central Valley Region, Fourth Edition of the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins. Table III-2A

(3) Ayers, R. S. and D. W. Westcot, *Water Quality for Agriculture*, Food and Agriculture Organization of the United Nations - Irrigation and Drainage Paper No. 29, Rev. 1, Rome (1985).

(4) Second Amended Contract for Exchange of Waters, No 11r-1144, Article 9. Quality of Substitute Water.

(5) Spectrum Analytic, Inc. Guide to Interpreting Irrigation Water Analysis. Washington C.H., Ohio
http://www.spectrumanalytic.com/support/library/ir/A_Guide_to_Interpreting_Irrigation_Water_Analysis.htm

Table 7. Approved Laboratory List for the Mid-Pacific Region Environmental Monitoring Branch

APPL Laboratory	<u>Address</u>	908 North Temperance Avenue, Clovis, CA 93611
	<u>Contact</u>	Diane Anderson (Project Manager) or Cynthia Clark
	<u>P/F</u>	(559) 275-2175 / (559) 275-4422
	<u>Email</u>	danderson@applinc.com; cclark@applinc.com
	<u>Methods</u>	Approved for inorganic and organic parameters in water and soil
Basic Laboratory	<u>Address</u>	2218 Railroad Avenue Redding, CA 96001 USA
	<u>Contact</u>	Nathan Hawley, Melissa Hawley, Ricky Jensen
	<u>P/F</u>	(530) 243-7234 / (530) 243-7494
	<u>Email</u>	nhawley@basiclab.com (QAO), mhawley@basiclab.com (PM), sthomas@basiclab.com (quotes) poilar@basiclab.com (sample custody), khawley@basiclab.com (sample custody)
	<u>CC Info</u>	nhawley@basiclab.com, Jennifer Rawson (ext. 203 - invoices) Reanalysis requests need to always be addressed to Melissa Hawley and CC'd to Nathan Hawley Quotes address to Sabrina Thomas and cc Nathan Hawley
	<u>Methods</u>	Approved for inorganic/organic parameters
	<u>Methods</u>	
Block Environmental Services	<u>Address</u>	2451 Estand Way Pleasant Hill, CA 94523 USA
	<u>Contact</u>	David Block
	<u>P/F</u>	(925) 682-7200 / (925) 686-0399; (925) 382-9760 Cell
	<u>Email</u>	dblock@blockenviron.com
	<u>Methods</u>	Approved for Toxicity Testing
California Laboratory Services	<u>Address</u>	3249 Fitzgerald Road Rancho Cordova, CA 95742
	<u>Contact</u>	Scott Pieters
	<u>P/F</u>	(916) 638-7301 / (916) 638-4510
	<u>Email</u>	scottp@californialab.com (p.m.) , janetm@californialab.com (QA)
	<u>Methods</u>	Approved for inorganic, organic, and microbiological parameters.
Caltest Analytical Laboratory	<u>Address</u>	1885 N. Kelly Rd. Napa, CA 94558
	<u>Contact</u>	Mike Hamilton
	<u>P/F</u>	(707) 258-4000/(707) 226-1001
	<u>Email</u>	Mike_Hamilton@caltestlabs.com ; info@caltestlabs.com
	<u>Methods</u>	Approved for inorganic parameters
Dept. of Fish & Game - WPCL	<u>Address</u>	2005 Nimbus Road Rancho Cordova, CA 95670 USA
	<u>Contact</u>	David B. Crane - Laboratory Director Patty Bucknell - Inorganic Chemist Gail Chow - QA Manager + re-analysis requests (916) 358-2840
	<u>P/F</u>	(916) 358-2858 / (916) 985-4301, Sample Receiving: (916) 358-0319 Scott or Mary
	<u>Email</u>	dcrane@ospr.dfg.ca.gov; pbucknell@ospr.dfg.ca.gov; gcho@ospr.dfg.ca.gov
	<u>Methods</u>	Approved only for metals analysis in tissue, organics pending
Fruit Growers Laboratory	<u>Address</u>	853 Corporation Street Santa Paula, CA 93060 USA
	<u>Contact</u>	David Terz, QA Director
	<u>P/F</u>	(805) 392-2024 / (805) 525-4172
	<u>Email</u>	davidt@fglinc.com
	<u>Methods</u>	Approved for all inorganic and organic parameters in drinking water and general physical analysis in soils.

Table 7. Approved Laboratory List for the Mid-Pacific Region Environmental Monitoring Branch

Montgomery Watson/Harza Laboratories	<u>Address</u>	750 Royal Oaks Drive Ste. 100 Monrovia, CA 91016 USA
	<u>Contact</u>	Bradley Cahoon and Rita Reeves (Project Managers - Sacramento), Linda Geddes* (Project Manager - Monrovia) *Work with Linda after samples arrive at laboratory
	<u>P/F</u>	(916) 418-8358, (626) 386-1100, Linda - (626) 386-1163, Rita cell 916-996-5929
	<u>Email</u>	Bradley.Cahoon@us.mwhglobal.com, linda.geddes@mwhglobal.com
	<u>CC Info</u>	cc. Rita on all communications to Bradley.
	<u>Methods</u>	<i>Approved for all inorganic, organic, and radiochemistry parameters in drinking water</i>
Moore Twining Laboratories, Inc.	<u>Address</u>	2527 Fresno Street Fresno, CA 93721 USA
	<u>Contact</u>	Julio Morales (PM), Maria Manuel (QA Officer), Sample Control (Bottle Orders), Juli Adams (Lab Director); Lisa Montijo (Assistant PM)
	<u>P/F</u>	(559) 268-7021 / (559) 268-0740
	<u>Email</u>	juliom@mooretwining.com; mariam@mooretwining.com; julia@mooretwining.com; lisam@mooretwining.com
	<u>Methods</u>	<i>Approved for COD by SM5220D and general chemistry including boron analysis (not TOC)</i>
Olson Biochemistry Laboratories	<u>Address</u>	SDSU; Box 2170, ACS Rm. 133 Brookings, SD 57007 USA
	<u>Contact</u>	Nancy Thiex, Laboratory Director
	<u>P/F</u>	(605) 688-5466 / (605) 688-6295
	<u>Email</u>	Nancy.Thiex@sdstate.edu
	<u>CC Info</u>	For re-analysis: contact Zelda McGinnis-Schlobohm and Nancy Anderson Zelda.Schobohm@SDSTATE.EDU, Nancy.Anderson@SDSTATE.EDU For analysis questions only: just CC. Nancy Anderson
	<u>Methods</u>	<i>Approved for boron, selenium, and molybdenum analyses (except boron in soil; Olson does not have the capability)</i>
Sierra Foothill Laboratory, Inc.	<u>Address</u>	255 Scottsville Blvd, Jackson, CA 95642
	<u>Contact</u>	Sandy Nurse (Owner) or Dale Gimble (QA Officer)
	<u>P/F</u>	(209) 223-2800 / (209) 223-2747
	<u>Email</u>	sandy@sierrafoothilllab.com, CC: dale@sierrafoothilllab.com
	<u>Methods</u>	<i>Approved for all inorganic parameters, microbiological parameters, acute and chronic toxicity.</i>
TestAmerica	<u>Address</u>	880 Riverside Parkway West Sacramento, CA 95605 USA
	<u>Contact</u>	Linda Laver
	<u>P/F</u>	(916) 374-4362 / (916) 372-1059 fax
	<u>Email</u>	Linda.Laver@TestAmericaInc.com
	<u>Methods</u>	<i>Approved for all inorganic parameters and hazardous waste organics. Ag analysis in sediment, when known quantity is present, request 6010B</i>
Western Environmental Testing Laboratories	<u>Address</u>	475 East Greg Street # 119 Sparks, NV 89431 USA
	<u>Contact</u>	Erin Pfau (Client Services), Andy Smith (Lab Drctr)
	<u>P/F</u>	(775) 355-0202 / (775) 355-0817
	<u>Email</u>	erinp@wetlaboratory.com, andy@wetlaboratory.com
	<u>Methods</u>	<i>Approved for inorganic parameters (metals, general chemistry) and coliforms.</i>

revised: 2/14/2011

**Table 8. Summary of Depth to Groundwater in Wells Beside the Delta-Mendota Canal (feet)
May 1995 - Dec 2011**

DMC Milepost	Max	Min	Average	Median	Recent	Count
12.37L	327.8	164.2	230.7	226.0	240.0	53
12.69L	244.8	207.5	224.7	223.0	213.0	53
12.75R	295.0	212.0	249.6	253.0	253.0	52
13.31L	275.8	210.0	227.9	223.5	210.0	52
14.26R	268.5	225.0	239.2	238.0	227.0	52
15.11R	264.0	200.0	241.1	244.0	260.0	53
21.25L	156.0	106.0	122.0	116.0	132.0	51
21.86L	130.0	89.6	108.7	108.0	107.0	53
22.77R	170.0	39.2	134.8	135.0	135.0	53
23.41L	254.0	141.0	191.8	189.5	174.0	53
30.43R	169.8	121.8	145.0	145.8	143.0	53
30.43L	191.0	102.0	126.1	124.2	191.0	53
31.60L	277.0	110.1	213.8	231.8	133.0	53
33.71L	198.6	130.9	164.3	167.9	136.0	53
35.73R	287.0	146.8	165.2	160.6	181.0	53
36.01L	290.0	137.2	203.9	185.5	256.0	51
36.80L	204.0	111.0	154.4	153.0	153.0	52
37.10L	277.0	158.0	192.3	191.0	173.0	52
37.32L	200.0	150.8	165.3	161.7	164.0	52
37.58L	170.0	127.8	145.9	141.2	146.0	52
45.78R	121.0	83.0	99.7	97.1	102.0	52
48.97L	130.0	71.0	96.7	94.5	71.0	48
48.96LNEW	101.0	88.0	95.0	96.0	101.0	8
51.66L	141.2	86.4	107.9	106.0	92.0	52
58.28L	69.0	27.0	44.4	43.1	52.0	51
60.06R	95.0	37.6	67.0	67.2	73.0	51
66.71L	54.0	19.8	36.4	34.1	40.0	51
78.31L	49.3	21.9	29.3	27.9	28.0	60
79.13R	111.8	57.8	82.8	87.8	57.8	60
79.13L	87.8	63.3	72.2	68.8	87.8	8
79.60L	83.2	52.9	65.3	63.0	59.6	60
80.03L	80.0	16.0	35.8	35.5	37.4	60
80.03R	143.5	73.0	108.4	122.8	73.0	9
80.62R	100.2	47.8	61.9	59.8	57.0	60
80.62L	69.0	19.4	43.6	43.0	41.3	60
81.08-R	72.5	55.1	60.5	58.1	56.5	8
83.08-R	64.9	37.6	46.3	43.0	44.1	35
83.67-L	71.6	12.0	25.0	23.4	24.2	35
90.18R	201.3	103.9	138.5	132.4	129.8	60
90.19L1	218.5	98.9	145.3	137.4	145.5	60
90.19L2	190.0	72.0	131.7	124.5	118.8	60
90.39R	212.0	105.0	138.7	133.8	134.6	60

**Table 8. Summary of Depth to Groundwater in Wells Beside the Delta-Mendota Canal (feet)
May 1995 - Dec 2011**

DMC Milepost	Max	Min	Average	Median	Recent	Count
90.60L	192.0	28.7	136.5	132.0	131.5	60
90.61R	198.0	104.0	137.1	132.7	132.5	60
90.91L	285.9	93.2	143.8	136.1	127.1	60
91.15L	287.7	97.4	138.0	129.3	129.3	60
91.36L	217.0	11.3	103.0	118.9	11.3	60
91.57R	222.2	91.8	134.2	128.0	131.2	60
91.68R	219.6	99.2	142.1	138.9	167.5	60
91.77R	172.2	96.0	127.1	124.2	n/a	60
91.80L	195.2	93.1	133.8	126.5	130.0	60
92.00R	172.6	109.0	137.7	131.2	n/a	60
92.14L	215.1	98.8	143.5	138.7	140.8	60
92.20R	220.0	95.8	141.0	139.1	132.0	60
92.72L	218.3	100.2	146.2	134.5	133.4	60
93.20L	296.1	102.2	138.1	131.0	134.9	60
93.27R	228.4	115.0	157.7	150.5	158.0	59
93.27L	218.9	100.8	144.7	140.1	141.7	60
94.26L	228.1	99.7	142.4	133.2	168.9	60
95.62L	213.4	99.6	143.0	129.9	167.9	60
97.28L	138.8	34.0	67.8	52.6	128.3	60
98.74L	114.2	39.2	53.8	45.8	56.9	60
99.24L	158.3	31.5	60.7	51.5	93.6	60
99.82L	181.8	19.5	64.4	54.7	75.0	60
100.24L	136.6	28.1	58.1	49.8	66.2	60
100.65L	131.2	36.5	64.7	58.2	98.8	60
100.85L	98.3	39.0	57.2	55.0	67.6	59
101.27L	131.4	37.4	63.4	50.5	74.4	59
102.04R	130.0	38.0	62.1	51.5	61.5	59
106.20R	138.3	60.7	90.4	83.2	126.0	59
113.72L	29.2	13.2	21.6	21.6	n/a	59
115.32R	82.9	18.5	30.6	31.6	19.8	59
115.62L	42.0	12.2	25.6	24.4	17.6	58
115.84R	39.2	14.9	24.8	23.0	19.3	59
116.40L1	77.0	14.2	29.8	27.8	17.2	59
116.40L2	74.0	11.3	29.8	23.7	29.1	55

Source: San Luis & Delta-Mendota Water Authority

Appendix 1. 2012 Letter from Exchange Contractors



Consisting of 240,000 acres on the Westside of the San Joaquin Valley

February 3, 2012

JAMES E. O'BANION
Chairman

ROY CATANIA
Vice Chairman

STEVE CHEDESTER
Executive Director

LARRY FREEMAN
Water Resources Specialist

JOANN WHITE
Administrative Assistant

**MINASIAN, SPRUANCE,
MEITH, SOARES &
SEXTON LLP**
Legal Counsel

**CENTRAL CALIFORNIA
IRRIGATION DISTRICT**

James E. O'Banion
President

Christopher White
General Manager

**SAN LUIS CANAL
COMPANY**

James L. Nickel
President

Chase Hurley
General Manager

**FIREBAUGH CANAL
WATER DISTRICT**

Mike Stearns
President

Jeff Bryant
General Manager

**COLUMBIA CANAL
COMPANY**

Roy Catania
President

Randy Houk
General Manager

P.O. Box 2115
541 H Street
Los Banos, CA 93635
(209) 827-8616
Fax (209) 827-9703
e-mail: jtoscana@sjrecwa.net
Website: www.sjrecwa.net

VIA EMAIL & U.S. MAIL

Mr. Michael Jackson
U.S. Bureau of Reclamation
1243 N Street
Fresno, CA 93721-1813

Ms. Frances Mizuno
San Luis & Delta-Mendota Water Authority
Post Office Box 2157
Los Banos, CA 93635

RE: **2012 DMC Pumping**

Dear Michael and Frances:

This letter is to confirm the San Joaquin River Exchange Contractors Water Authority's (Exchange Contractors) approval of your request to continue the DMC pumping program in 2012. As a result of subsidence effects being determined in 2008, this year's program must continue to include that no pumping will be allowed in Management Areas 2 and 3.

Additionally, the joint groundwater study between the Central California Irrigation District, the City of Los Banos and the United States Bureau of Reclamation was completed in the Los Banos aquifer subarea due to significant groundwater concerns in April 2010. The study and its recommendations are to be incorporated into the 2012 DMC pumping program.

The Exchange Contractors' Board approval for this pumping program is based upon the conditions set forth below:

1. Any well that is proposed to pump into the lower DMC must obtain a current water quality analysis. The analysis shall consist of Ag Suitability and selenium, plus any other constituents the U.S. Bureau of Reclamation (USBR) may require. (Wells may be pumped for 24

Mr. Michael Jackson
Ms. Frances Mizuno
RE: **2012 DMC Pumping**
February 3, 2012
Page 2

hours in order to get the initial sample for water quality testing.) These tests will be conducted on a monthly basis for the duration of the pumping period. From our perspective, pumping may begin once we have received copies of current lab test results for salinity and selenium, recognizing the other constituents may take longer to obtain the lab results.

2. Only wells that test at 1,500 ppm TDS or less at the well head will be allowed.
3. Only wells that test at 2 ppb selenium or less at the well head will be allowed.
4. The calculated degradation caused by the lower DMC wells shall not exceed 30 ppm. (The model developed by USBR during the 2008 and 2009 pumping program shall be used and USBR shall provide at least weekly updates of the reports to the Exchange Contractors.)
5. At any time, the wells in the lower DMC will be shut off if the measured water quality at Check 20 on the DMC exceeds 450 ppm TDS in a single day. The wells may resume pumping after the average water exceedence no longer exists for 3 days. Wells with water quality at the well head of 450 TDS or less would be allowed to continue to pump and would not be subject to this restriction.
6. Pumping in the Los Banos aquifer subarea shall only be credited for use in that local subarea (San Luis Water District) and is subject to the monitoring triggers established in the April 2010 joint report between the Central California Irrigation District, the City of Los Banos and the United States Bureau of Reclamation.
7. The water would be credited to the receiving district as a whole, not for specific growers.
8. The wells will only run through February 28, 2013.

If you agree with the program as outlined, and before any additional lower DMC pumping commences, we request that each of your agencies confirm in writing to the program described above. Please contact us if you have any questions regarding this matter.

Sincerely,



Steve Chedester

cc: San Joaquin River Exchange Contractors Board Members
Paul Minasian, Esq.



United States Department of the Interior

BUREAU OF RECLAMATION
South-Central California Area Office
Tracy Office (CVP)
RRI Box 35
Byron, California 94514-9614



IN REPLY
REFER TO:
TO-440
WTR-4.00

JUN 11 1999

Letter of Agreement
No. 9-07-20-W1610

Board of Directors
Byron-Bethany Irrigation District
PO Box 160
Byron, California 94514-0160

Subject: Proposed Long-Term Warren Act Contract with Byron-Bethany Irrigation District - Central Valley Project (CVP), California

Dear Board Members:

This Letter of Agreement (Agreement) is presented in response to Byron-Bethany Irrigation District's (District) request for the Bureau of Reclamation (Reclamation) to initiate the process for a long-term Warren Act Contract (Contract) for conveyance and/or storage of non-Project water in Federal facilities.

Approval depends on the determination that the use of CVP facilities will not adversely impact the CVP water supply or operations. The limitation of the conveyance of non-Project water will be the availability of excess capacity in Federal facilities.

Reclamation is willing to participate in discussions and negotiations for a Contract and review of the Contract, provided that the District agrees to pay all of the resulting costs, including the administrative overhead incurred by Reclamation. Such expenditures will include the costs Reclamation incurs to participate in the negotiation session(s), the review of the proposed Contract that is ultimately prepared and adopted, and all the required Federal environmental documentation.

By counter-signing this Agreement, the District agrees to the following:

1. The District shall advance to Reclamation the amount of money needed to finance all expenses incurred by Reclamation in participating in Contract negotiation session(s), reviewing the negotiated Contract, participating in any public involvement program, and in preparation of all appropriate Federal environmental documentation. Such expenses shall include, but not be limited to, appropriate salaries and expenses of the participating Reclamation staff (including benefits and overhead, travel, and per diem expenses) and an appropriate share of Reclamation overhead costs.
2. The District shall submit to Reclamation an initial advance of \$1,000. The payment of this initial advance does not guarantee that the proposed Contract will be approved.
3. Upon the District's written request, Reclamation shall provide the District with a summary of expenses incurred by Reclamation in connection with the Contract process.

4. Upon Reclamation's written request, the District shall advance additional funds to Reclamation to supplement the initial advance. Reclamation's written request shall describe the additional costs anticipated by Reclamation.

5. This Agreement shall become effective on the date of execution by the District and shall remain in effect until it is terminated by either party with thirty (30) days advance written notice to the other party; provided that the District shall submit additional funds, if needed, to pay for Reclamation's expenses up to the date of termination. Uncommitted funds remaining after Reclamation approves the Contract or this Agreement is terminated, shall be refunded to the District.

If the terms of this Agreement are satisfactory, please have the appropriate District official(s) sign all three originals of this letter. Please return two signed originals of this letter, a certified copy of your resolution authorizing the signature of the District official(s), and \$1,000 deposit, to:

U.S. Bureau of Reclamation
South-Central California Area Office (Tracy)
RR 1, Box 35
Byron, California 94514-9614
Attention: Mr. Buddy Smith

If there are any questions concerning this Agreement, please contact me at (209) 836-6279, or Ms. Marge Kresha at (209) 836-6259 or for the hearing impaired at (209) 836-6282.

Sincerely,



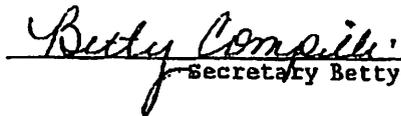
Buddy J. Smith
Supervisory Repayment Specialist

In Triplicate

BYRON BETHANY IRRIGATION DISTRICT



~~President~~ General Manager
Rick Gilmore



Secretary Betty Compilli

8/11/99
Date