

1                                   MEMORANDUM OF UNDERSTANDING  
2                                   BETWEEN THE U.S. BUREAU OF RECLAMATION  
3   AND  
4                                   THE U.S. FISH AND WILDLIFE SERVICE  
5   PROVIDING FOR  
6                                   PROJECT AND ACQUIRED WATER SUPPLIES  
7   TO  
8                                   UNITS OF THE NATIONAL WILDLIFE REFUGE SYSTEM  
9   IN THE SAN JOAQUIN VALLEY  
10   AND  
11                                   THE NATIONAL WILDLIFE REFUGES  
12   IN THE TULARE LAKE BASIN  
13   OF  
14                                   CALIFORNIA  
15

16                                   THIS MEMORANDUM OF UNDERSTANDING (MOU), made this \_\_\_\_ day of  
17 \_\_\_\_\_, 20\_\_\_\_, by and between THE UNITED STATES BUREAU OF  
18 RECLAMATION (Reclamation), and THE U.S. FISH AND WILDLIFE SERVICE (Service),  
19 hereinafter called the “parties,” defines the parties’ roles and responsibilities to meet the  
20 requirements of Section 3406(d) of the Central Valley Project Improvement Act of October 30,  
21 1992, Title XXXIV of Pub. L. No. 102-575 (CVPIA) which states, in pertinent part,”... the  
22 Secretary shall provide, either directly or through contractual agreements with other appropriate  
23 parties, firm water supplies of suitable quality to maintain and improve wetland habitat areas on  
24 units of the National Wildlife Refuge System in the Central Valley of California; ...”

25                                   EXPLANATORY RECITALS

26                                   WHEREAS, the United States has constructed and is operating the Central Valley  
27 Project, California (Project), for diversion, storage, carriage, and distribution of the waters of the

28 Sacramento River, the American River, the Trinity River, and the San Joaquin River and their  
29 tributaries for the following beneficial uses, including, but not limited to, flood control,  
30 irrigation, municipal, domestic, industrial water service, the protection, restoration and  
31 enhancement of fish, and wildlife, and associated habitats in the Central Valley, the generation  
32 and distribution of electric energy, salinity control, and navigation; and

33 WHEREAS, Reclamation and the Service are entering into this long-term MOU pursuant  
34 to Section 3406(d) of the CVPIA to make available and convey water supplies pursuant to this  
35 MOU for lands of the National Wildlife Refuge (NWR) System in the San Joaquin Valley, which  
36 include: Units of the San Luis NWR, San Luis, Kesterson, West Bear Creek (formerly West  
37 Gallo), Freitas, and East Bear Creek (formerly East Gallo), Merced NWR; and in the Tulare Lake  
38 Basin which includes Kern NWR and Pixley NWR; and WHEREAS, the wetlands of  
39 the Central Valley have declined to approximately 300,000 acres and these remaining wetlands  
40 provide critical wildlife habitat and other environmental benefits, and important recreational and  
41 educational opportunities; and

42 WHEREAS, the Bureau of Reclamation's 1989 Refuge Water Supply Report  
43 concluded that "... it is clear that each refuge requires a dependable supply of good quality water  
44 to facilitate proper wetland habitat management for the migratory birds of the Pacific Flyway and  
45 resident wildlife and flora."; and

46 WHEREAS, Section 3406(d) of the CVPIA requires the Secretary to provide firm  
47 water supplies of suitable quality, through long-term contractual agreements with appropriate  
48 parties, to maintain and improve certain wetland habitat areas in the Central Valley

49 in furtherance of the objectives of the Central Valley Habitat Joint Venture and the Central  
50 Valley Project to protect, restore and enhance fish and wildlife and associated habitats; and

51 WHEREAS, the directives of Section 3406(d) of the CVPIA have been carried  
52 out through a cooperative and collaborative effort between the Bureau of Reclamation and Fish  
53 and Wildlife Service, acting for the Secretary of the Interior, the California Department of Fish  
54 and Game, the Grassland Water District, and the Central Valley Habitat Joint Venture partners;  
55 and this cooperative and collaborative effort is expected to continue; and

56 WHEREAS, Reclamation intends to use Project facilities, in part, to provide firm  
57 water supplies of suitable quality to maintain and improve the Refuges; and

58 WHEREAS, the Service has demonstrated to the satisfaction of Reclamation that  
59 the Service has fully utilized the water supplies available to it for reasonable and beneficial use  
60 for fish and wildlife preservation and enhancement (wetland management) and/or Reclamation  
61 has concluded through the Bureau of Reclamation's 1989 Refuge Water Supply Report and the  
62 San Joaquin Basin Action Plan/Kesterson Mitigation Action Plan Report that the Service has  
63 projected future demand for water use such that the Service has the capability and expects to  
64 fully utilize for reasonable and beneficial use the quantity of water to be made available to it  
65 pursuant to this MOU; and

66 WHEREAS, Reclamation and the Service are willing to execute this MOU  
67 pursuant to subsection 3406(d) of the CVPIA on the terms and conditions set forth below;

68 NOW, THEREFORE, in consideration of the mutual and dependent covenants  
69 herein contained, it is hereby mutually agreed by the parties hereto as follows:

70 DEFINITIONS

71           1.       When used herein unless otherwise distinctly expressed, or manifestly  
72 incompatible with the intent of the parties or expressed in this MOU, the term:

73                   (a)       "Calendar Year" shall mean the period January 1 through December 31,  
74 both dates inclusive;

75                   (b)       "Service's Boundary" shall mean the Refuge(s) to which the Service is  
76 permitted to provide Delivered Water under this MOU as identified in Exhibit "A". Exhibit "A"  
77 may be revised without amending this MOU upon mutual agreement of the Service and  
78 Reclamation;

79                   (c)       Omitted

80                   (d)       "Critically Dry Year" shall mean any Year in which either of the following  
81 eventualities exists:

82                           (1)       The forecasted full natural inflow to Shasta Lake for the current  
83 water year (October 1 of the preceding Calendar Year through September 30 of the current  
84 Calendar Year), as such forecast is made by Reclamation, on or before February 20, and  
85 reviewed as frequently thereafter as conditions and information warrant, is equal to or less than  
86 3,200,000 acre feet: or

87                           (2)       The total accumulated actual deficiencies below 4,000,000 acre-  
88 feet in the immediately prior water year or series of successive prior water years, each of which  
89 had inflows of less than 4,000,000 acre-feet, together with the forecasted deficiency for the  
90 current water year exceed 800,000 acre-feet;

91                                   For the purpose of determining a Critically Dry Year, the computed inflow  
92 to Shasta Lake under present upstream development above Shasta Lake shall be used as the full

93 natural inflow to Shasta Lake. In the event that major construction completed above Shasta Lake  
94 materially alters the present regimen of the stream systems contributing to Shasta Lake, the  
95 computed inflow to Shasta Lake used to define a Critically Dry Year will be adjusted to eliminate  
96 the effect of such material alterations.

97                                   After consultation with the State, the National Weather Service, and other  
98 recognized forecasting agencies, Reclamation shall select the forecast to be used and will make  
99 the details of it available to the Service. The same forecast used by Reclamation for operation of  
100 the Project shall be used to make forecasts hereunder.

101                           (e)     "CVPIA" shall mean the Central Valley Project Improvement  
102 Act, Title XXXIV of the Act of October 30, 1992 (106 Stat. 4706);

103                           (f)     "Delivered Water" shall mean the Level 2 Water Supplies and the  
104 Incremental Level 4 Water Supplies diverted by the Service pursuant to this MOU at the Point(s)  
105 of Delivery in accordance with Article 4(c) of this MOU;

106                           (g)     "Hydrologic Circumstances" shall mean the conditions described in  
107 subdivision (d) of this Article;

108                           (h)     "Incremental Level 4 Water Supplies" shall mean the difference between  
109 the Level 2 Water Supplies and the Level 4 Water Supplies depicted in Exhibit "B";

110                           (i)     "Level 2 Water Supplies" shall mean the quantities of water referred to in  
111 section 3406 (d)(1) of the CVPIA and depicted in Exhibit "B" of this MOU;

112                           (j)     "Level 4 Water Supplies" shall mean the quantities of water referred to in  
113 section 3406 (d)(2) of the CVPIA and depicted in Exhibit "B" of this MOU;

114 (k) “Non-Project Facilities” shall mean any non-Project water conveyance or  
115 storage facilities;

116 (l) “Non-Project Water” shall mean water or water rights, other than “Project  
117 Water”, acquired, appropriated by, transferred to or assigned to the Service or, transferred to the  
118 United States for delivery to one or more of the Service’s Refuges, as identified in Exhibit “B”;

119 (m) “Point(s) of Delivery” shall mean the location(s) established and revised  
120 pursuant to Article 5(a) of this MOU , at which Level 2 Water Supplies of Project Water and  
121 Incremental Level 4 Water Supplies are deemed to be delivered to the Service and at which the  
122 Service shall assume the responsibility for the further control, carriage, handling, use, disposal or  
123 distribution of such water supplies so long as such water supplies are being used in accordance  
124 with the terms and conditions of this MOU;

125 (n) “Project” shall mean the Central Valley Project owned by the United  
126 States and managed by the Department of the Interior, Bureau of Reclamation;

127 (o) “Project Water” shall mean all water that is developed, diverted, stored, or  
128 delivered by the Secretary in accordance with the statutes authorizing the Central Valley Project  
129 and in accordance with the terms and conditions of applicable water rights acquired pursuant to  
130 California law;

131 (p) “Refuge(s)” shall mean the lands in the units of the National Wildlife  
132 Refuge System in the Central Valley of California; Gray Lodge, Los Banos, Volta, North  
133 Grasslands and Mendota state wildlife management areas; and the Grassland Resource  
134 Conservation District all identified in the Refuge Water Supply Report and the land(s) identified  
135 in the San Joaquin Basin Action Plan/Kesterson Mitigation Action Plan Report prepared by the

136 Bureau of Reclamation as set forth in Section 3406(d) of the CVPIA and/or as revised in  
137 accordance with subdivision (b) of this Article;

138 (q) "Refuge Water Supply Report" shall mean the report issued by the Mid-  
139 Pacific Region of the Bureau of Reclamation of the United States Department of the Interior  
140 entitled "Report on Refuge Water Supply Investigations, Central Valley Hydrologic Basin,  
141 California" (March 1989);

142 (r) "Secretary" shall mean the Secretary of the Interior, a duly appointed  
143 successor, or an authorized representative acting pursuant to any authority of the Secretary  
144 through any agency of the Department of the Interior;

145 (s) "Year" shall mean the period from and including March 1 of  
146 each Calendar Year through the last day of February of the following Calendar Year;

147 TERM OF MOU

148 2. (a) This MOU shall be effective on March 1, 2001 and shall remain in effect  
149 through February 28, 2026.

150 (b) Upon request by the Service, this MOU shall be renewed for successive periods  
151 of twenty-five (25) years each, subject to the terms and conditions mutually agreeable to the  
152 parties. The Service shall request renewal of the MOU at least two (2) years prior to the date on  
153 which this MOU expires.

154 WATER TO BE MADE AVAILABLE AND DELIVERED TO THE SERVICE

155 3. (a) During each Year, consistent with State water rights, permits and licenses,  
156 federal law, and subject to the provisions set forth in Articles 8 and 9 of this MOU, Reclamation  
157 shall make available at the established Point(s) of Delivery, and/or convey to the Service the

158 maximum quantities of Project Water and Non-Project Water, respectively, required to provide  
159 each of the Refuges with the Level 2 Water Supplies set forth in Exhibit “B” and the Incremental  
160 Level 4 Water Supplies set forth in Exhibit “B”. The quantities of Level 2 Water Supplies and  
161 Incremental Level 4 Water Supplies made available and/or conveyed to the Service shall be  
162 scheduled in accordance with the provisions of Article 4 of this MOU; Provided, that, Section  
163 3406(d)(2) of the CVPIA provides that the Incremental Level 4 Water Supplies shall be acquired  
164 in cooperation with the State of California and in consultation with the Central Valley Habitat  
165 Joint Venture and other interests in cumulating increments of not less than ten percent per  
166 annum, from the date the CVPIA was enacted, through voluntary measures which include, but  
167 are not limited to, water conservation, conjunctive use, purchase, lease, donations, or similar  
168 activities, or a combination of such activities which do not require involuntary reallocation of  
169 Project yield, water being provided as all or part of the Incremental Level 4 Water Supplies for  
170 each of the Refuges can be made available only to the extent that Reclamation is able to acquire  
171 the Incremental Level 4 Water Supplies from willing sources; Accordingly, Reclamation shall  
172 use its best efforts to acquire the Incremental Level 4 Water Supplies and shall coordinate  
173 acquisitions of Level 4 Water Supplies with acquisitions of Environmental Water Account  
174 (EWA) water pursuant to the Operating Principles Agreement, dated August 28, 2000, attached  
175 to the Record of Decision for the CALFED Bay-Delta Program, dated August 28, 2000, and/or  
176 other acquisitions of water for environmental purposes to ensure that acquisitions of Incremental  
177 Level 4 Water Supplies have a priority at least equal to acquisitions of EWA and/or other  
178 environmental water each year. Reclamation also agrees that the Interagency Refuge

179 Management Team shall be included among the interests consulted in acquiring Incremental  
180 Level 4 Water Supplies.

181 (b) The Service shall continue use of the Non-Project Water component of the  
182 Level 2 Water Supplies set forth in Exhibit "B" as long as such Non-Project Water remains  
183 available to the Service and is of suitable quality. In the event that such water supply is  
184 unavailable to the Service, or is not of suitable quality, subject to the provisions set forth in  
185 Articles 8 and 9 of this MOU, Reclamation shall deliver to the Service sufficient substitute  
186 Project Water to ensure that the quantities of Level 2 Water Supplies are available to the Service  
187 in accordance with subdivision (a) of this Article.

188 (c) The Service shall comply with all requirements of any biological  
189 opinion(s) addressing the execution of this MOU developed pursuant to Section 7 of the  
190 Endangered Species Act of 1973, as amended, which are applicable to each of the Refuge(s) and  
191 comply with environmental requirements applicable to each of the Refuge(s) as may be required  
192 for specific activities.

193 (d) The Service shall make reasonable and beneficial use of all Delivered  
194 Water furnished pursuant to this MOU consistent with the wetland habitat water management  
195 plan(s) described in Article 15 of this MOU.

196 (e) In order to maximize water available to Refuges and better manage such  
197 water, the Service may request Reclamation's permission to reschedule a portion of the Level 2  
198 Water Supplies and/or a portion of the Incremental Level 4 Water Supplies made available to the  
199 Service for use within the Service's Boundary during the current Year for use within the  
200 subsequent Year. Reclamation may permit such rescheduling in accordance with applicable law,

201 and the then-current applicable rescheduling guidelines and policies. Upon execution of this  
202 MOU, Reclamation shall have adopted amendments to any applicable rescheduling guidelines  
203 and policies to provide for the rescheduling of refuge water in accordance with this Article.  
204 After execution of this MOU and annually thereafter, Reclamation shall provide the Service with  
205 a copy of the then-current rescheduling guidelines and policies.

206 (f) Reclamation shall not interfere with the Service's right pursuant to Federal  
207 Reclamation law and applicable California law to the beneficial use of water furnished pursuant  
208 to this MOU so long as the Service fulfills all of its obligations under this MOU. A reduction in  
209 water supplies pursuant to Article 9 of this MOU shall not be deemed to constitute such  
210 interference.

211 TIME FOR DELIVERY OF WATER

212 4. (a) On or about February 20 of each Calendar Year, Reclamation shall provide  
213 the Service, in writing, with a preliminary forecast of whether the upcoming Year will be a  
214 Critically Dry Year; and, if a Critically Dry Year is forecast, the extent to which Level 2 Water  
215 Supplies to be made available to the Service during the upcoming Year are to be shorted pursuant  
216 to Article 9 of this MOU; and the amount of Incremental Level 4 Water Supplies estimated to be  
217 made available to the Service pursuant to this MOU for the upcoming Year. The forecast will be  
218 updated monthly, as necessary, based on then-current hydrologic conditions. Upon the request of  
219 the Service, Reclamation shall make available to the Service the data on which Reclamation  
220 relied to determine whether the Year in question will or will not be a Critically Dry Year and to  
221 determine the amounts of Level 2 Water Supplies and Incremental Level 4 Water Supplies to be  
222 made available to the Service pursuant to this MOU during a Critically Dry Year.

223 (b) Based on the forecast(s) referred to in subdivision (a) of this Article, on or  
224 before March 1 of each Calendar Year, the Service shall submit to Reclamation a written  
225 schedule, satisfactory to Reclamation, showing both the monthly and annual quantities of Level 2  
226 Water Supplies and Incremental Level 4 Water Supplies to be delivered by Reclamation to each  
227 of the Refuges pursuant to this MOU. Each schedule shall be updated on a monthly basis to  
228 reflect actual use and remaining estimated needs.

229 (c) In accordance with subdivision (a) of Article 3 of this MOU, Reclamation  
230 shall make available and/or convey Level 2 Water Supplies and Incremental Level 4 Water  
231 Supplies for diversion by the Service at the Points of Delivery in accordance with the schedule  
232 submitted by the Service pursuant to subdivision (b) of this Article, or any written revision(s)  
233 thereto, mutually agreed to by Reclamation and the Service which are submitted to Reclamation  
234 within a reasonable time prior to the date(s) on which the requested change(s) is/are to be  
235 implemented.

236 POINT OF DIVERSION, MEASUREMENT AND RESPONSIBILITY FOR DISTRIBUTION  
237 OF WATER

238 5. (a) The original Point(s) of Delivery shall be established by written mutual  
239 agreement of the Service and Reclamation. Such Point(s) of Delivery may be revised without  
240 amending this MOU upon written mutual agreement of Reclamation and the Service.

241 (b) All water delivered to the Service pursuant to this MOU is to be measured  
242 at the Point(s) of Delivery to reflect the quantities of Level 2 Water Supplies and Incremental  
243 Level 4 Water Supplies delivered to the Service's Boundary. Upon the request of the Service or  
244 on Reclamation's own initiative, Reclamation shall investigate the accuracy of such

245 measurements and the parties will jointly take any necessary steps to adjust any errors appearing  
246 therein. For any period of time when accurate measurement has not been made, Reclamation  
247 shall consult with the Service prior to making a determination of the quantity of Delivered Water  
248 for that period of time. The Service shall advise Reclamation on or before the 10th calendar day  
249 of each month of the quantities of Level 2 Water Supplies and Incremental Level 4 Water  
250 Supplies taken during the preceding month at the Point(s) of Delivery.

251 (c) Reclamation shall not be responsible for the control, carriage, handling,  
252 use, disposal, or distribution of water delivered to the Service pursuant to this MOU beyond the  
253 Point(s) of Delivery specified in subdivision (a) of this Article.

#### 254 POOLING OF WATER SUPPLIES

255 6. (a) Whenever the maximum quantities of Level 2 Water Supplies and/or the  
256 Incremental Level 4 Water Supplies depicted in Exhibit "B" are reduced pursuant to Article 9 of  
257 this MOU, the remaining Level 2 Water Supplies and/or the Incremental Level 4 Water Supplies  
258 may be pooled for use on other Refuge(s); Provided, that no individual Refuge shall receive more  
259 Level 2 Water Supplies than would have been made available to it absent a reduction pursuant to  
260 Article 9 of this MOU; or be reduced by more than twenty-five (25) percent; Provided further,  
261 that Reclamation makes a written determination that pooling of water for use on other Refuge(s)  
262 would not have an adverse impact, that cannot be reasonably mitigated, on Project operations,  
263 other Project Contractors, or other Project purposes; Provided further, that Reclamation  
264 determines that such reallocation is permitted under the terms and conditions of the applicable  
265 underlying water right permit and/or license; and Provided still further, that water made available

266 under this MOU may not be scheduled for delivery outside the Service's Boundary without prior  
267 written approval of Reclamation.

268 (b) An Interagency Refuge Water Management Team, to be chaired by  
269 Reclamation and to be established upon execution of this MOU, shall be entitled to  
270 collaboratively allocate the pooled water supplies and provide a schedule for delivery of the  
271 pooled supplies to meet the highest priority needs of the Refuge(s) as depicted in Exhibit "B";  
272 Provided, however, nothing in this Article is intended to require the Service to pool the water  
273 supply provided for in this MOU. The Interagency Refuge Water Management Team shall be  
274 composed of designees of the Bureau of Reclamation, the United States Fish and Wildlife  
275 Service, the California Department of Fish and Game, and the Grassland Water District.

276 TRANSFERS, REALLOCATIONS OR EXCHANGES OF WATER

277 7. Subject to the prior written approval of Reclamation, the Project Water made  
278 available under this MOU may be transferred, reallocated or exchanged in that Year to other  
279 Refuge(s) if such transfer, reallocation or exchange is requested by the Service and is authorized  
280 by applicable Federal and California State laws, and then-current applicable guidelines or  
281 regulations.

282 TEMPORARY REDUCTIONS--RETURN FLOWS

283 8. (a) Consistent with the authorized purposes and priorities of the Project and  
284 the requirements of Federal law, Reclamation shall make all reasonable efforts to optimize water  
285 deliveries to the Service as provided in this MOU.

286 (b) The quantity of water to be delivered to the Service as herein provided  
287 may be temporarily discontinued or reduced when investigation, inspection, maintenance, repair,

288 or replacement of any of the Project facilities and/or Non-Project Facilities or any part thereof  
289 necessary for the delivery of water to the Service is required. Reclamation shall give and/or  
290 arrange to have the owner/operator of Non-Project Facilities give the Service due written notice  
291 in advance of such temporary discontinuance or reduction, except in case of an emergency, when  
292 no advance notice is possible, in which case Reclamation shall notify and/or arrange to have the  
293 owner/operator of the Non-Project Facilities notify the Service of said discontinuance or  
294 reduction as soon as is feasible; Provided, that Reclamation shall use its best efforts to avoid any  
295 discontinuance or reduction in such service. Upon resumption of service after such reduction or  
296 discontinuance, and if requested by the Service, Reclamation will make all reasonable efforts,  
297 consistent with other obligations and operational constraints, to deliver the quantity of water  
298 which would have been delivered hereunder in the absence of such discontinuance or reduction.

299 (c) The United States reserves the right to all seepage and return flow water  
300 derived from Delivered Water which escapes or is discharged beyond the Service's Boundary;  
301 Provided, that this shall not be construed as claiming for the United States any right to seepage or  
302 return flow being put to beneficial use pursuant to this MOU within the Service's Boundary by  
303 the Service or those claiming by, through, or under the Service.

#### 304 WATER SHORTAGE AND APPORTIONMENT

305 9. (a) In a Critically Dry Year, Reclamation may temporarily reduce, for that  
306 Year, the availability of Level 2 Water Supplies up to twenty-five (25) percent of the maximum  
307 quantities set forth in Exhibit "B" whenever reductions due to Hydrologic Circumstances are  
308 imposed upon agricultural deliveries of Project Water; Provided, that such reductions shall not  
309 exceed in percentage terms the reductions imposed on agricultural service contractors. The

310 quantity of Non-Project Water available to one or more of the Refuges as part of its/their Level 2  
311 Water Supplies may be reduced by more than twenty-five (25) percent in Years when the  
312 quantity of Project Water made available to the Service can be reduced by no more than twenty-  
313 five (25) percent. In such cases, Reclamation shall make up the supply difference with water  
314 supplies provided by Reclamation to ensure that Level 2 Water Supplies from all sources are not  
315 reduced by more than twenty-five (25) percent.

316 (b) Reductions in the Level 2 Water Supplies to be made available to the  
317 individual Refuge(s) pursuant to this MOU, shall be imposed only in a Critically Dry Year. For  
318 the Incremental Level 4 Water Supplies provided from Non-Project Water and Project Water,  
319 reductions shall be imposed in accordance with the priority or priorities that were applied to such  
320 Non-Project Water and the shortages assigned to Project Water prior to its transfer or acquisition  
321 as Incremental Level 4 Water Supplies.

322 RULES AND REGULATIONS

323 10. The parties agree that the delivery of water pursuant to this MOU is subject to  
324 Federal Reclamation law, as may be amended and supplemented, as applicable, and the rules and  
325 regulations promulgated by the Secretary of the Interior under Federal Reclamation law.

326 QUALITY OF WATER

327 11. (a) Consistent with other legal obligations, the water delivered by  
328 Reclamation to the Service pursuant to this MOU shall be of suitable quality to maintain and  
329 improve wetland habitat areas and of comparable quality to water provided to other Project  
330 purposes within the same geographical areas; Provided, that Reclamation is under no obligation  
331 to construct or furnish water treatment facilities to maintain or to improve the quality of the water

332 furnished to the Service pursuant to this MOU. The quality of Delivered Water may be  
333 monitored by the Service at the Point(s) of Delivery on an as needed basis. Should Reclamation,  
334 in consultation with the Service, determine that the Level 2 Water Supplies and/or the Level 4  
335 Water Supplies to be made available to the Service pursuant to this MOU during all or any part  
336 of a Year will not be of the quality that the Service feels is suitable to maintain and improve  
337 wetland habitat areas, the Service and Reclamation shall meet within 48 hours or at a time  
338 mutually agreeable to the parties and determine the appropriate actions necessary to identify and  
339 address the source of the water quality problems.

340 (b) The operation and maintenance of Project facilities shall be performed in  
341 such manner as is practicable to maintain the quality of raw water made available through such  
342 facilities at the highest level reasonably attainable as determined by Reclamation. The Service  
343 shall be responsible for compliance with all State of California and Federal water quality  
344 standards and directives applicable to surface return flows arising from water conveyed to the  
345 Refuges pursuant to this MOU. This MOU does not create any obligation on Reclamation to  
346 provide drainage services.

347 USE OF NON-PROJECT FACILITIES FOR WATER DELIVERY

348 12. Any use of Non-Project Facilities, including use of State Water Project facilities  
349 pursuant to Joint Point of Diversion or other use of State Water Project facilities to deliver the  
350 water supplies provided for in the MOU, or any agreement for the use of such Non-Project  
351 Facilities, shall in no way alter the obligation of Reclamation to make available and deliver water  
352 supplies in accordance with all of the terms and conditions of this MOU. In addition, any costs

353 incurred in the use of Non-Project Facilities to deliver water supplies pursuant to this MOU shall  
354 be paid for in accordance with Section 3406(d)(3) of the CVPIA.

355 OPINIONS AND DETERMINATIONS

356 13. (a) Where the terms of this MOU provide for actions to be based upon the  
357 opinion or determination of either party to this MOU, said terms shall not be construed as  
358 permitting such action to be predicated upon opinions or determinations that are arbitrary,  
359 capricious or unreasonable. Both parties, notwithstanding any other provisions of this MOU,  
360 expressly reserve the right to seek relief from and appropriate adjustment for any such arbitrary,  
361 capricious, or unreasonable opinion or determination. Each opinion or determination by either  
362 party shall be provided in a timely manner. Nothing in this subdivision of this Article is intended  
363 to or shall affect or alter the standard of judicial review applicable under federal law to any  
364 opinion or determination implementing a specific provision of federal law embodied in statute or  
365 regulation.

366 (b) Both parties to this MOU shall have the right to make determinations  
367 necessary to administer this MOU that are consistent with the provisions of this MOU, the laws  
368 of the United States and of California, and the rules and regulations promulgated by the Secretary  
369 of the Interior. Each party shall make such determinations in consultation with the other party to  
370 the extent reasonably practicable.

371 WATER CONSERVATION

372 15. (a) The Service shall prepare individual refuge wetland habitat water  
373 management plan(s) in order to ensure the effective use of water supplies to meet wetland  
374 resource needs and to meet the objectives of the Central Valley Habitat Joint Venture and the

375 purposes of the CVPIA to maintain and improve certain Central Valley wetland habitat areas.  
376 Criteria to prepare and evaluate refuge wetland habitat water management plan(s) shall be  
377 developed by the Interagency Refuge Water Management Team within one (1) year of the  
378 execution of this MOU, and reviewed and updated every five (5) years thereafter taking into  
379 consideration the provisions of the Interagency Coordinated Program Task Force report dated  
380 June 1998. The criteria shall include economically feasible water management measures which  
381 can improve the Services' efficient use of water in a manner appropriate for wetland and wildlife  
382 management, and shall also include time schedules for meeting the water use efficiency and  
383 conservation objectives. The criteria shall grant substantial deference to on-going state efforts  
384 related to wetlands water management and shall take into account the unique requirements  
385 associated with water use for the maintenance and enhancement of wetland and wildlife habitat.  
386 The Service shall make all reasonable efforts to complete the original wetland habitat water  
387 management plan(s) within one (1) year of the establishment of the criteria. Reclamation will  
388 review and determine if the wetland habitat water management plan(s) meet the established  
389 criteria for evaluating said plan within ninety (90) days of receipt of each plan.

390 (a) Prior to the Service being afforded opportunities such as pooling  
391 and rescheduling of water supplies pursuant to Articles 3 and 6 of this MOU, the Service must be  
392 implementing a wetland habitat water management plan that has been determined by  
393 Reclamation to meet the established criteria developed pursuant to subdivision (a) of this Article  
394 for preparing and evaluating said plan. Continued pooling and rescheduling benefits pursuant to  
395 Articles 3 and 6 of this MOU shall be contingent upon the Service's continued implementation of  
396 such wetland habitat water management plans. In the event Reclamation determines the Service

397 is unable to implement its wetland habitat water management plan, due to circumstances beyond  
398 its control, the benefits of Articles 3 and 6 of this MOU shall be continued so long as the Service  
399 diligently works with Reclamation to obtain such determination at the earliest practicable date,  
400 and thereafter the Service begins implementing its wetland habitat water management plan  
401 immediately after the circumstances preventing implementation have ceased.

402 (c) In the event that implementation of the wetland habitat water management  
403 plan(s) prepared pursuant to subdivision (a) of this Article results in water savings, all conserved  
404 water supplies may be transferred/reallocated, under the terms and conditions of this MOU, to  
405 other wetland, wildlife and fishery needs in accordance with the recommendations of the  
406 Interagency Refuge Water Management Team established pursuant to Article 6 of this MOU;  
407 Provided, that Reclamation makes a written determination that such transfer/reallocation of  
408 conserved water would not have an adverse impact, that cannot be reasonably mitigated, on  
409 Project operations, other Project Contractors or other Project purposes; Provided further, that the  
410 transfer/reallocation is requested by the Service and Reclamation determines that the  
411 transfer/reallocation is authorized by applicable laws, and then-current applicable guidelines  
412 and/or regulations.

413 (d) The Service shall submit to Reclamation an annual update on the status of  
414 its implementation of the wetland habitat water management plan(s) for the previous Water Year.

415 (e) At five (5) year intervals, the Service shall revise its wetland habitat water  
416 management plan(s), as necessary, to reflect the then-current criteria for preparing and evaluating  
417 said plans and submit such revised plan(s). Upon completion of such revised plan(s), the Service

418 shall submit such revised plan(s) to Reclamation for review and so Reclamation can determine  
419 whether such plan(s) meet the then-current criteria.

420 EXISTING OR ACQUIRED WATER OR WATER RIGHTS

421 16. Except as provided in subdivision (b) of Article 3, the exercise of existing water  
422 rights by the Service, or its acquisition of additional water or water rights from other than the  
423 United States, shall not alter the obligation of Reclamation to provide the maximum quantities of  
424 Level 2 Water Supplies and Incremental Level 4 Water Supplies under subdivision (a) of Article  
425 3 of this MOU.

426 IN WITNESS WHEREOF, the parties hereto have executed this MOU as of the day and  
427 year first above written.

428 By: \_\_\_\_\_

429 Regional Director, Mid-Pacific Region

430 Bureau of Reclamation

431 By: \_\_\_\_\_

432 Manager, California, Nevada Operations Office

433 U.S. Fish and Wildlife Service

DRAFT MOU

DRAFT 11/15-2000 (RWS)

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