

1 **DRAFT COMPATIBILITY DETERMINATION**

2
3 **Use:** Cooperative Farming

4
5 **Refuge Name:** Upper Ouachita National Wildlife Refuge

6
7 **Parishes:** Morehouse and Union Parishes, Louisiana

8
9 **Date Established:** November 9, 1978

10
11 **Establishing and Acquisition Authorities:**

12 Migratory Bird Conservation Act [16 United States Code (USC) §715(d)] and Emergency
13 Wetlands Resources Act [16 USC §3901(b)]

14
15 **Refuge Purposes:**

16 “for use as an inviolate sanctuary, or for any other management purpose, for migratory birds”
17 [Migratory Bird Conservation Act, 16 USC §715(d)]; and for “...the conservation of the
18 wetlands of the nation in order to maintain the public benefits they provide and to help fulfill
19 international obligations contained in various migratory bird treaties and conventions...”
20 [Emergency Wetlands Resources Act, 16 USC §3901(b)].

21
22 **National Wildlife Refuge System Mission:**

23 The mission of the National Wildlife Refuge System is “to administer a national network of
24 lands and waters for the conservation, management, and where appropriate, restoration of the
25 fish, wildlife, and plant resources and their habitats within the United States for the benefit of
26 present and future generations of Americans” [National Wildlife Refuge System Administration
27 Act of 1966, as amended (16 U.S.C. §668dd-668ee)].

28
29 **Other Applicable Laws, Regulations, and Policies:**

30 Antiquities Act of 1906 (34 Stat. 225)

31 Migratory Bird Treaty Act of 1918 (15 U.S.C. §§ 703-711; 40 Stat. 755)

32 Migratory Bird Conservation Act of 1929 (16 U.S.C. § 715r; 45 Stat. 1222)

33 Migratory Bird Hunting Stamp Act of 1934 (16 U.S.C. §§ 718-178h; 48 Stat. 451)

34 Criminal Code Provisions of 1940 (18 U.S.C. § 41)

35 Bald and Golden Eagle Protection Act (16 U.S.C. §§ 668-668d; 54 Stat. 250)

36 Refuge Trespass Act of June 25, 1948 (18 U.S.C. § 41; 62 Stat. 686)

37 Fish and Wildlife Act of 1956 (16 U.S.C. §§ 742a-742j; 70 Stat. 1119)

38 Refuge Recreation Act of 1962 (16 U.S.C. §§ 460k-460k-4; 76 Stat. 653)

39 Wilderness Act (16 U.S.C. § 1131; 78 Stat. 890)

40 Land and Water Conservation Fund Act of 1965

41 National Historic Preservation Act of 1966, as amended (16 U.S.C. § 470, et seq.; 80 Stat. 915)

42 National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. §§ 668dd, 668ee; 80
43 Stat. 927)

44 National Environmental Policy Act of 1969, NEPA (42 U.S.C. § 4321, et seq; 83 Stat. 852)

45 Use of Off-Road Vehicles on Public Lands (Executive Order 11644, as amended by Executive
46 Order 10989)

47 Endangered Species Act of 1973 (16 U.S.C. § 1531 et seq; 87 Stat. 884)
48 Refuge Revenue Sharing Act of 1935, as amended in 1978 (16 U.S.C. § 715s; 92 Stat. 1319)
49 National Wildlife Refuge Regulations for the Most Recent Fiscal Year [50 Code of Federal
50 Regulations (CFR) Subchapter C; 43 CFR §§ 3101.3-3]
51 Emergency Wetlands Resources Act of 1986 (S.B. 740)
52 North American Wetlands Conservation Act of 1990
53 Food Security Act (Farm Bill) of 1990 as amended (HR 2100)
54 The Property Clause of the U.S. Constitution Article IV 3, Clause 2
55 The Commerce Clause of the U.S. Constitution Article 1, Section 8
56 The National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57, 16 USC §
57 668dd)
58 Executive Order 12996, Management and General Public Use of the National Wildlife Refuge
59 System, March 25, 1996
60 Title 50, Code of Federal Regulations, Parts 25-33
61 Archaeological Resources Protection Act of 1979
62 Native American Graves Protection and Repatriation Act of 1990
63

64 **Description of Use:**

65 (a) *What is the use?*
66

67 Farming is used by the U.S. Fish and Wildlife Service on national wildlife refuges in the
68 Southeast Region as a habitat management tool to provide high energy food sources for millions
69 of wintering ducks, geese, and swans and other migratory bird species. Within the lower
70 Mississippi Valley, these food resources are critical to each refuge's ability to successfully meet
71 the goals and objectives set by the Lower Mississippi Valley Joint Venture (LMVJV 2016) as
72 stepped down from the North American Waterfowl Management Plan (NAWMP 2012) and the
73 respective Comprehensive Conservation Plans (CCPs) and Habitat Management Plans (HMPs)
74 developed for each refuge in this landscape. Upper Ouachita National Wildlife Refuge (NWR or
75 Refuge) has a wintering waterfowl habitat objective to provide over 4.2 million duck energy
76 days (DEDs) each year (CCP Objective C-1, HMP Objectives 4.1.6 and 4.1.7) (USFWS 2008b,
77 USFWS 2011).
78

79 The Refuge uses a combination of farming, moist soil, and forested wetlands to provide suitable
80 wintering waterfowl habitat. Studies have documented that wintering waterfowl in the
81 Mississippi Alluvial Valley (MAV) prefer regions composed of 50% cropland, 20% moist soil
82 wetlands, 20% forested wetlands, and 10% open water habitats. (Strickland *et. al* 2009).
83 Thousands of acres of naturally occurring moist soil and forested wetlands, as well as open
84 water, are present on Upper Ouachita NWR. These acres of natural food and open water, in
85 conjunction with farming, will allow the Refuge to mimic the preferred composition of wintering
86 waterfowl habitats found by Strickland et al. (2009).
87

88 Cooperative farming is an economic use whereby a farmer produces crops (primarily corn, rice,
89 and millet) on a refuge and, in lieu of a rental payment, leaves an unharvested share of the
90 planted crop for wintering waterfowl and other wildlife species. On Upper Ouachita NWR,
91 farmers are also required to flood the unharvested share of the planted crop making it more
92 attractive for wintering waterfowl. The farmer is responsible for all equipment, fuel, seed,
93 fertilizer, approved herbicides, and labor necessary to farm the Refuge. The Refuge is
94 responsible for identifying the type and location of crops to be planted, providing the farmer with
95 an approved list of herbicides for use, and identifying the Refuge's location of crop share which
96 will contribute to the waterfowl management goals and objectives.

97
98 There are three primary management options to meet step-down habitat objectives under the
99 NAWMP for wintering waterfowl on the Refuge: 1) moist soil management, 2) force account
100 farming (i.e., Refuge staff farms the fields), and 3) cooperative farming.

101
102 Moist soil management is the manipulation of naturally occurring wetland plants to produce
103 preferred waterfowl forage (Strader and Stinson 2005). Under moist soil management, staff uses
104 a combination of 1) disking, mowing, and/or burning wetland plants to set back plant succession,
105 2) application of herbicides or mechanical disturbance to control undesirable plants, and 3)
106 prescribed flooding of natural wetlands or wetland impoundments to make forage available to
107 waterfowl. Several natural-occurring moist soil wetlands are already present on Upper Ouachita
108 NWR.

109
110 Force account farming is farming conducted by the Refuge staff which allows 100% of the crop
111 to be retained for waterfowl use. Extensive staff time and farming equipment (e.g., farm tractors,
112 seed drill(s), boom sprayers, and other farming implements) are used by the Service to force
113 account farm. Knowledgeable staff are also needed to ensure desired crop productivity is
114 obtained, which will meet habitat objectives and energetic requirements of wintering waterfowl.

115
116 Of the three management options available to meet wintering waterfowl objectives, force
117 account farming and moist soil management require high initial investments by the Service for
118 equipment and high annual expenses such as equipment repair and replacement, large
119 requirements of staff time, seed, fertilizer, lime, diesel fuel, and herbicide costs. Refuge
120 Managers also must decide if staff time dedicated to these management options can be conducted
121 in a way that does not limit other management needs such as threatened and endangered species
122 management, forest management, and management of priority public uses. Cooperative farming
123 is therefore considered to be the most effective option for the Refuge to meet wintering
124 waterfowl habitat objectives (HMP Objective 4.1.7; USFWS 2011).

125
126 *(b) Where would the use be conducted?*

127
128 Farming on the Refuge would occur on the 1,594 acres of agriculture fields located in the
129 Mollicy Unit (Figure 1). The Refuge Manager may decide to farm less than 1,594 acres in any
130 given year due to weather conditions, economic considerations, or refuge management needs.

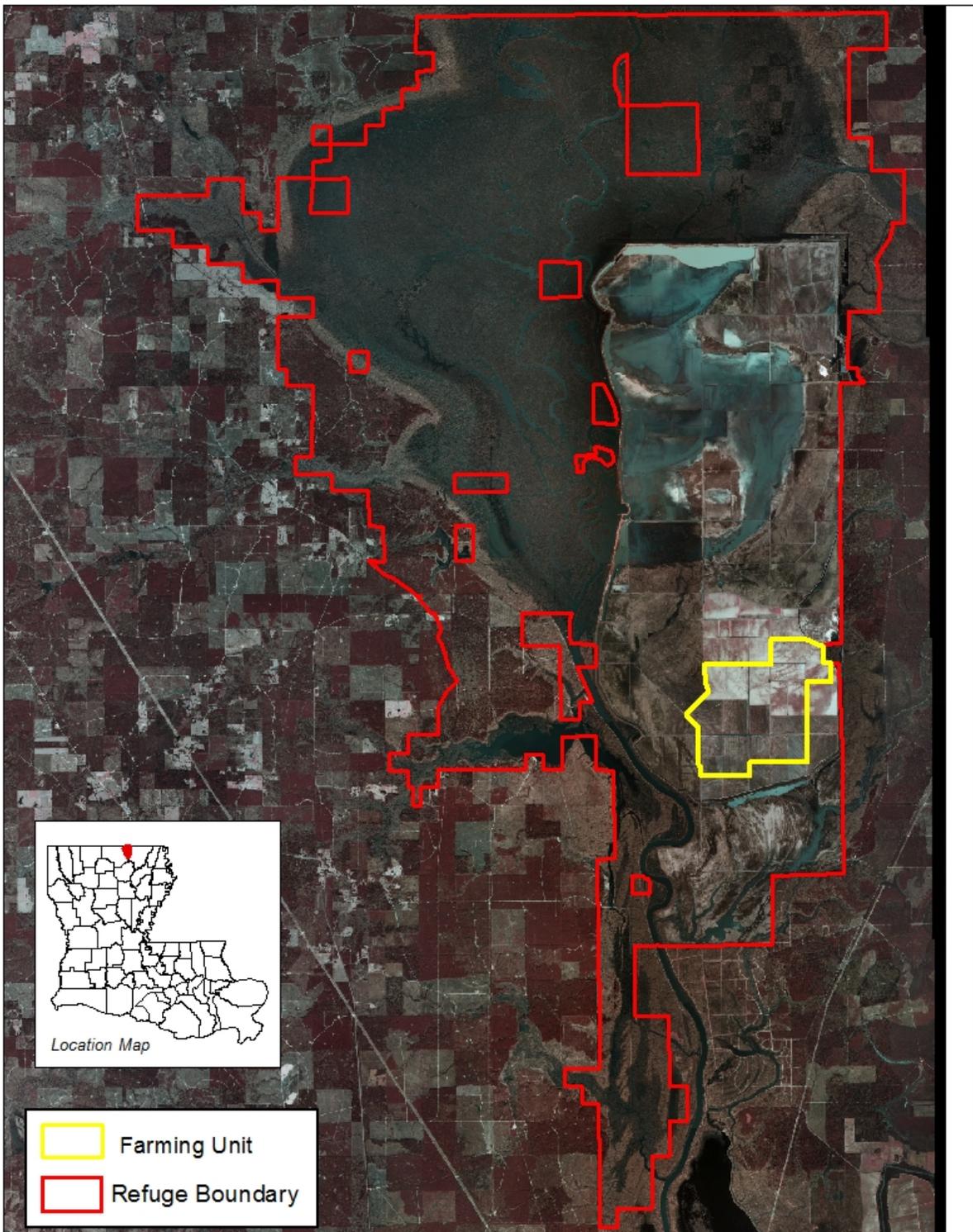


Figure 1. Farming unit at Upper Ouachita NWR.

131
132
133
134

135 (c) *When would this use be conducted?*

136

137 Cooperative farming activities (field-prep, planting, harvesting, etc.) generally occur between
138 March 15 and November 15. The farmer is also responsible for keeping the Refuge's share of
139 crops flooded at an optimum waterfowl foraging depth throughout the winter months, generally
140 between November 1 – March 15.

141

142 (d) *How would this use be conducted?*

143

144 The cropping is done under the terms and conditions of a cooperative farming agreement or
145 special use permit issued by the Project Leader. The terms of the permit insure that all current
146 Service and Refuge guidelines and restrictions are followed. Permittee selection and associated
147 determination of cost or shares will follow relevant Refuge Manual guidance (5 RM 17 and 6
148 RM 4) and Region 4 specific guidance for farming.

149

150 The cooperative farming program is a component of the refuge's annual habitat management
151 program and activities conducted by the cooperator support the accomplishment of refuge habitat
152 management objectives. We follow best management practices in the implementation of the
153 cooperative farming program. Forested or grass buffers are established between all farm fields
154 and any adjacent wetlands and streams. We prepare pesticide use proposals (7 RM 14) for
155 application of all pesticides, and only those that are shown to not impact fish and wildlife
156 resources are approved.

157

158 Annual cooperative farming agreements (agreement) are established with farmers prior to the
159 planting season. An agreement outlines the crop(s), location, and amount of acreage to be
160 planted during the coming year and is signed by the cooperative farmer (cooperator) and the
161 Refuge Manager or designee. The cooperator is responsible for all equipment, fuel, seed,
162 fertilizer, chemicals, and labor necessary to produce the crop and flood the Refuge's share during
163 the wintering waterfowl period. Pumping of water is always in the fields in which the crop
164 shares are derived. Cooperative farmers are required to perform soil tests to determine nutrient
165 needs (fertilizer and lime applications) according to the local Agriculture Extension Service.
166 Application of pesticides must follow the Refuges Integrated Pest Management plan and be
167 approved through the U.S. Fish and Wildlife Service's Pesticide Use Proposal System (PUPS)
168 process. Attached to the agreement will be a list of pesticides approved for use through the
169 PUPS process. The cooperator assumes responsibility for all associated costs for the crops
170 grown and for flooding of the Refuge's share. Modifications to the original farming agreement
171 may occur throughout the farming season, by writing addendums to the original agreement
172 which have been agreed upon and signed by both the cooperator and Refuge Manager or
173 designee. The Refuge Manager or designee will administer the cooperative farming program and
174 be required to prepare farming contracts, meet with farmers, verify crop plantings, verify pest
175 problems, and negotiate any needed addendums during the year.

176

177

178

179

180

181 (e) Why is this use being proposed?
182

183 The Mississippi Alluvial Valley (MAV) is a continentally important region for migrating and
184 wintering waterfowl in North America (Reinecke et al. 1989). The total wintering waterfowl
185 population objective in the MAV is 4.5 million ducks and geese (Reinecke and Loesch 1996;
186 Lower Mississippi Valley Joint Venture (LMVJV) 2016), which includes mallard, northern
187 pintail, American black duck, gadwall, American wigeon, green-winged teal, northern shoveler,
188 wood duck, and geese. The initial population goals were adjusted for 15% winter mortality
189 (Reinecke and Loesch 1996) and to account for early migrating ducks that winter in Mexico
190 (LMVJV 2007). Waterfowl habitats are ranked with a value that describes the amount of energy
191 they provide in food resources, known as “duck-energy-days” or DED’s. DEDs are defined as
192 the number of ducks that can be energetically sustained in one acre of foraging habitat for one
193 day (LMVJV 2016). Waterfowl energy needs are modeled for an overwintering period of 110
194 days, representing early November to late February (Reinecke and Loesch 1996). Additionally,
195 DED objectives were adjusted to account for goose competition (LMVJV 2016) and Wood
196 Ducks were assumed to feed 75% in forested wetlands and 25% in moist-soil wetlands (LMVJV
197 2016).

198
199 As a result, across the 110-day period the overall NAWMP goal for the MAV is 469,336,891
200 DEDs (Table 1). Currently the state of Louisiana is deficient in wintering waterfowl habitat by
201 53.4 million duck energy days (LMVJV 2016). Thus, the cooperative farming program adds
202 essential capacity in the ability of National Wildlife Refuges to significantly contribute to
203 NAWMP DED goals and objectives. In fact, refuges are expected to produce 23 million more
204 DEDs in Louisiana to make up for the deficit, which is roughly double what they are already
205 contributing (LMVJV 2016). Upper Ouachita’s step down allocation is 4.2 million DEDs
206 (USFWS 2011).

207
208 At the present time, the Refuge does not have staff or equipment necessary to manage and
209 maintain the acreage needed to meet its waterfowl DED objectives without the assistance of the
210 cooperative farming program. Refuge cooperative farming operations will continue under
211 carefully regulated conditions.

212
213 The primary purpose for farming on national wildlife refuges is to ensure that waterfowl can
214 meet their foraging needs which enhances their body condition and supports reproductive output.
215 Female ducks that are in good physical condition when leaving the wintering grounds, nest
216 earlier and have larger clutch sizes than those in poor condition (Ringelman 1990, Dzus and
217 Clark 1998). Early nests and larger clutch sizes produce a greater number of fledgling ducks
218 than late nests and smaller clutches (Krapu 1981, Heitmeyer 1988, Strickland *et al.* 2009). Thus,
219 availability of high-quality foraging habitat on the wintering grounds, especially in disturbance-
220 free areas (sanctuary), is positively related to the reproductive output of waterfowl during
221 breeding season. Waterfowl habitat in the Southeastern United States is of paramount
222 importance since 50% of the continental waterfowl population winter in this region annually
223 (unpubl. data, M. Koenff, USFWS).

224
225
226

227 TABLE 1. DUCK ENERGY DAY (DED) OBJECTIVES BASED ON ENERGY DEMAND OF
 228 STEPPED-DOWN NAWMP OBJECTIVES FOR THE MAV PORTION OF THE LMVJV
 229 (LMVJV 2016).

State	DED Objective
Arkansas	219,427,337
Kentucky	4,708,843
Louisiana	120,913,290
Mississippi	72,637,077
Missouri	18,025,015
Tennessee	33,625,658
MAV TOTAL	469,336,891

230
 231 The cooperative farming use on the Refuge was previously analyzed in the Environmental
 232 Assessment (USFWS 2008a) for the Refuge’s CCP; the Finding of No Significant Impact for the
 233 CCP’s Environmental Assessment was signed in August 2008 (USFWS 2008b). The
 234 cooperative farming use was found to be appropriate and compatible on Upper Ouachita NWR.
 235 The cooperative farming use was also analyzed in the Refuge’s HMP and associated
 236 Environmental Action Statement (USFWS 2011). Environmental conditions and farming
 237 operations have not changed substantially since those analyses. Compatibility policy (603 FW 2)
 238 requires that the Service reevaluate these types of uses at least every 10 years; the previous
 239 compatibility determination for cooperative farming was signed in 2008 with the final CCP and
 240 Finding of No Significant Impact (USFWS 2008b). This compatibility determination updates
 241 and replaces the 2008 compatibility determination for cooperative farming.

242
 243 **Availability of Resources:**

244 The need for staff time for the development and administration of cooperative farming program
 245 is already committed and available. Most of the needed work to prepare for this use would be
 246 done as part of routine habitat management duties. The decision to use a cooperative farmer
 247 would occur as part of strategies developed under habitat management planning and discussions
 248 (USFWS, 2011).

249
 250 *Resources involved in the administration and management of the use* – Refuge staff is
 251 responsible for drafting the Cooperative Farming Agreement and necessary Pesticide Use
 252 Proposals. Administration of the cooperative farming program consists of approximately 20
 253 staff days or less than five percent of refuge staff time devoted to administering this activity.

254
 255 *Special equipment, facilities, or improvements necessary to support the use* – None

256
 257 *Maintenance costs* – Maintenance costs include personnel and equipment for maintaining roads
 258 for farm field access.

259
 260 *Monitoring costs* – Existing Refuge staff monitors the farming program to ensure compatibility
 261 and compliance with the Farming Agreement.

262
 263 *Offsetting revenues* – None
 264

265 **Anticipated Impacts of the Use:**

266 The 2008 Environmental Assessment for the CCP (USFWS 2008a) analyzed the impacts of the
267 Proposed Action, including cooperative farming; a summary of that analysis is included. The
268 2008 Finding of No Significant Impact for the CCP's Environmental Assessment found that no
269 significant impacts were expected to result from implementation of the Proposed Action, which
270 included cooperative farming activities. Further, the 2011 HMP and companion Environmental
271 Action Statement, the Intra-Service Section 7s for the CCP, and the Section 7s for the annual
272 Pesticide Use Proposals all support the CCP's Finding of No Significant Impact, including from
273 cooperative farming activities.

274
275 In terms of the impacts related specifically to habitat objectives of the Refuge, we expect no
276 impact to the diversity of fish, wildlife or plants no occurring on the Refuge. The relatively
277 small impact area (3% of the Refuge) suggests that no plant or species of fish and wildlife will be
278 negatively impacted or extirpated from the refuge.

279
280 *Short-term impacts* – Soil disturbance is likely to occur when the areas are disked during the
281 spring planting season, but these impacts can be lessened by the implementation of no-till and
282 conservation tillage farming methods. It is Service policy that the long-term productivity of the
283 soil will not be jeopardized to meet wildlife objectives (6 RM 4). Buffer strips adjacent to
284 waterways and sensitive areas help trap sediments and hold agricultural run-off.

285
286 Pesticides will be used and approved through the PUPS process prior to application. The
287 minimum effective volume will be applied and Best Management Practices will be followed.

288
289 *Long-term impacts* – Both current and proposed management recognize the benefits for
290 providing supplemental forage for migratory waterfowl and waterbirds within the Mississippi
291 Flyway. Refuge farming practices (both current and proposed) are designed for the predominate
292 benefit of waterfowl (ducks and geese). However, many other species would benefit directly or
293 indirectly from Refuge crops. Croplands on the Refuge provide an accessible, high-energy food
294 source during the wintering period of migratory waterfowl. Most waterfowl are opportunistic
295 feeders, and some species such as Canada geese, snow geese, mallard, northern pintails, and teal
296 have learned to capitalize on the abundant foods produced by agriculture (Bellrose 1976).
297 During the last century, migration routes and wintering areas have changed in response to
298 availability of these foods (Fredrickson and Drobney 1979). Some species have developed such
299 strong migratory traditions that many populations are now dependent on agricultural foods for
300 their migration or winter survival (Ringelman 1990). However, during breeding and molting
301 periods, waterfowl require a balanced diet with high protein content. Agricultural foods, most of
302 which are neither nutritionally balanced nor high in protein, are seldom used during these
303 periods. During fall, winter, and early spring, when vegetative foods make up a large part of their
304 diet, agricultural foods are preferred forage except in arctic and subarctic environments (Sugden
305 1971).

306
307 Cooperative farmers are allowed to use Environmental Protection Agency (EPA) approved
308 pesticides by way of a closely monitored Service-wide Pesticide Use Proposal System. These
309 pesticides are reviewed and approved by the U.S. Environmental Protection Agency (EPA) under
310 the Federal Insecticide, Fungicide, and Rodenticide Act (7 USC §136) (FIFRA). EPA conducts

311 risks assessments to ensure that approved pesticides will not generally cause unreasonable
312 adverse effects on the environment. In addition to EPA's review of each pesticide, pesticides
313 proposed for use on refuge lands go through an extensive Service review process in order to
314 conduct a toxicity profile prior to their use. This review process provides the refuge with best
315 management practices (BMP's) that assist the refuge with the use of each pesticide and reduces
316 potential impacts to non-target pest species. As part of the PUPS process, Intra-Service Section 7
317 consultation is conducted, for each pesticide, which evaluates any possible impacts to threatened
318 and/or endangered species that are near and/or adjacent to the spray area. The Service is
319 typically more restrictive than what is called for on the label particularly when it comes to
320 buffers. Each chemical is carefully evaluated and ultimately approved by the Regional IPM
321 Coordinator through the PUPS process.

322

323 **Public Review and Comment:**

324 The period of public review and comment will be 14 days and will be announced in the local
325 newspaper(s). Comments will be summarized in this section after being received.

326

327 **Determination:**

328

_____ Use is Not Compatible

 X Use is Compatible with Following Stipulations

329

330 **Stipulations Necessary to Ensure Compatibility:**

331 The cooperative farming program is regulated through annual cooperative farming agreements
332 that specify the fields, crops to be grown, acceptable farming practices, and approved pesticides
333 and use procedures. Special conditions contained in each cooperative farming agreement include
334 the listed items.

335

336 • The program will adhere to general conditions for cooperative farming programs as listed
337 in the Refuge Manual (6 RM 4 Exhibit 1).

338 • All operations on the refuge cropland are to be carried out in accordance with the best
339 management practices (BMPs) and soil conservation practices

340 ○ Fifty foot (50') vegetative buffer strips are maintained around all fields and water
341 bodies

342 • Refuge shares, crop type, and location will be determined prior to harvest, not prior to
343 planting

344 • Cooperating farmers will be subject to Service policy and regulations regarding use of
345 chemicals. Herbicide and pesticide use is restricted by type and to the minimum
346 necessary amount applies.

347 • The use of genetically modified crops and neonicotinoid treated seeds are prohibited on
348 Service lands.

349 • Special conditions of special use permits will address unique local conditions as
350 applicable.

351 ○ No fall disking allowed

352 ○ Crops must be harvested by October 15

- 353 ○ Refuge share crops will be flooded at least 4 inches from November 1 through
354 March 1
355 ○ No drainage of seasonally flooded habitat is allowed until after March 1
356

357 **Justification:**

358 Cooperative farming use was analyzed in the Environmental Assessment (USFWS 2008a) for the
359 Refuge's CCP; the Finding of No Significant Impact for the CCP's Environmental Assessment
360 was signed in August 2008 (USFWS 2008b). Cooperative farming use was found to be
361 appropriate and compatible on Upper Ouachita NWR. Cooperative farming use was also
362 analyzed in the Refuge's HMP and associated Environmental Action Statement (USFWS 2011).
363 Environmental conditions and farming operations have not changed substantially since those
364 analyses. Conditions/stipulations imposed in cooperative farming agreements ensure that
365 farming activities minimize impacts to Refuge resources.
366

367 The Biological Integrity, Diversity, and Environmental Health Policy ([601 FW 3](#)) was approved
368 in 2001 and updated in 2006 as one of the 14 directives contained within the NWRS
369 Improvement Act of 1997. This policy provides Refuge Managers with an evaluation process to
370 analyze refuge resources and recommend the best management practices in concert with the
371 Refuge purpose(s) and the NWRS mission. This policy specifically addresses farming in 601
372 FW 3.15(B) and 601 FW 3.15(C).
373

374 “Our habitat management plans call for the appropriate management strategies
375 that mimic historic conditions while still accomplishing refuge objectives...
376 Farming, haying, logging, livestock grazing, and other extractive activities are
377 permissible habitat management practices only when prescribed in plans to meet
378 wildlife or habitat management objectives, and only when more natural methods,
379 such as fire or grazing by native herbivores, cannot meet refuge goals and
380 objectives.” [\[601 FW 3.15\(B\)\]](#)
381

382 “We do not allow refuge uses or management practices that result in the
383 maintenance of non-native plant communities unless we determine there is no
384 feasible alternative for accomplishing refuge purpose(s).” [\[601 FW 3.15\(C\)\]](#)
385

386 In addition this policy provides guidance on biological integrity, diversity, and environmental
387 health in a landscape context ([601 FW 3.7\(C\)](#)).
388

389 “In pursuit of refuge purposes, individual refuges may at times compromise elements of
390 biological integrity, diversity, and environmental health at the refuge scale in support of
391 those components at larger landscape scales. When evaluating the appropriate
392 management direction for refuges, refuge managers will consider their refuges’
393 contribution to biological integrity, diversity and environmental health at multiple
394 scales.”
395

396 The Refuge acknowledges that the cooperative farming program may influence some aspects of
397 biological integrity, diversity, and environmental health from the cooperating farmer's share on
398 the Refuge. We try to minimize these impacts using best management practices. However,

399 cooperative farming through the refuge’s share on Upper Ouachita NWR allows the Refuge to
400 meet HMP (2011) and CCP (2008) objectives and contribute to, regional (LMVJV 2016), and
401 national objectives (NAWMP, 2012) for providing vital wintering waterfowl habitat in the most
402 productive and cost-effective manner.

403
404 In the case of Upper Ouachita NWR, croplands constitute less than 3% of the Refuge
405 acreage, but allow the Refuge to potentially provide up to 9 million DEDs. The use of
406 cooperative farming is the only viable method available to meet the 4.2 million allocated DEDs
407 at this time. Measures are taken to ensure that Integrated Pest Management and best
408 management practices are followed by the cooperative farmers. Cooperative farming is the most
409 cost effective method to produce the necessary foods to support wintering waterfowl and
410 associated objectives.

411
412 The missions of the Refuge System provided in the Refuge Improvement Act of 1997 states that
413 the “...mission of the National Wildlife Refuge System is to administer a national network of
414 lands for the *conservation, management* and, where appropriate, restoration of fish, wildlife, and
415 plant resources, and their habitats with the United States for the benefit of present and future
416 generations of Americans (emphasis added).

417
418 Conservation and management means to sustain and, where appropriate, restore and enhance,
419 healthy populations of fish, wildlife, and plants utilizing, in accordance with applicable Federal
420 and Sates laws, methods and procedures associated with modern scientific resource programs.
421 These definitions denote active management and is in keeping with the House report on the Act
422 which states that the “Refuge System should stand as a monument to the science and practice of
423 wildlife management.”

424
425 It thus follows, that if an economic use of a natural resource is shown to be conservation and
426 management as defined in the Act, it does contribute to the mission by the very definition of
427 terms used. If a use contributes to the mission, it thus meets the standard or threshold established
428 in 50 CFR 29.1. In accordance with 50 CFR 29.1, cooperative farming, as described in this
429 compatibility determination, significantly contributes to the mission, purposes, goals, and
430 objectives of Upper Ouachita NWR and Refuge System mission.

431
432 **NEPA Compliance for Refuge Use Description:**

_____ Categorical Exclusion without Environmental Action Statement

 X Categorical Exclusion and Environmental Action Statement

_____ Environmental Assessment and Finding of No Significant Impact

_____ Environmental Impact Statement and Record of Decision

433 This compatibility determination can be categorically excluded from further NEPA analysis
434 under 40 CFR §1508.4, 516 DM 8.5(A)(1), 516 DM 8.5(B)(7), 516 DM 8.5(B)(9), and 516 DM
435 8.5(C)(5). Further, the actions do not trigger an extraordinary circumstance as outlined under 43
436 CFR §46.215. The cooperative farming use is consistent with the 2008 Comprehensive
437 Conservation Plan and associated Environmental Assessment (USFWS 2008a) and Finding of
438 No Significant Impact (USFWS 2008b) for Upper Ouachita NWR. Environmental conditions
439 and farming operations have not changed substantially since that analysis. This compatibility
440 determination updates and replaces the 2008 compatibility determination for cooperative
441 farming.

442

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524 **Approval of Compatibility Determinations:**
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527 **SIGNATURE: REFUGE**
528 **MANAGER:**_____

529 **(Signature and date)**

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532 **REVIEW: REFUGE**
533 **SUPERVISOR:**_____

534 **(Signature and date)**

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537 **CONCURRENCE: REGIONAL**
538 **CHIEF:**_____

539 **(Signature and date)**

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543 **MANDATORY 10-YEAR REEVALUATION DATE:** _____