

THE KANSAS AQUATIC SPECIES CONSERVATION AGREEMENT: A PROGRAMMATIC SAFE HARBOR AGREEMENT AND CANDIDATE CONSERVATION AGREEMENT WITH ASSURANCES FOR FIFTEEN AQUATIC SPECIES IN KANSAS

BETWEEN THE:

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and

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Contents

	Page
1.0	Introduction1
2.0	Covered Species1
3.0	Authority and Purpose5
3.1	Authority 5
3.2	Purpose 5
4.0	Description of Lands Eligible for Enrollment.....6
5.0	Landowner Agreements and Certificates of Inclusion.....6
6.0	Neighboring Landowners and Neighboring Landowner Agreements8
7.0	Baseline or Existing Conditions10
7.1	Defining Baseline or Existing Population 11
7.2	Defining Baseline or Existing Habitat..... 11
7.3	Other Relevant Baseline or Existing Conditions 12
8.0	Covered Activities12
8.1	Reintroduction 13
8.2	Effectiveness Monitoring 14
8.3	Habitat Maintenance and Management Actions..... 14
8.4	Land Use Activities 15
8.5	Return to Baseline Conditions 16
9.0	Effects Analysis17
9.1	Incidental Take 17
9.2	Net Conservation Benefit..... 21
10.0	Incidental Take and Regulatory Assurances22
10.1	Assurances for Participating Landowners..... 23
10.2	Assurances for Neighboring Landowners 23
10.3	KDWP Section 7 Consultation 24
11.0	Changed and Unforeseen Circumstances24
11.1	Changed Circumstances..... 24
11.2	Unforeseen Circumstances 27
12.0	Responsibilities of the Parties and Cooperators27
12.1	Responsibilities of the Parties..... 27
12.2	Responsibilities of Enrolled Landowners 28
12.3	Responsibilities of the Neighboring Landowner 29

13.0	Monitoring, Reporting, and Adaptive Management	29
13.1	Compliance Monitoring	29
13.2	Effectiveness Monitoring	29
13.3	Notification of Take Requirement	29
13.4	Annual Reporting	29
13.5	Adaptive Management	30
14.0	Modifications and Amendments.....	30
14.1	Modification or Amendment of the SHA/CCAA Agreement.....	30
14.2	Modification or Amendment of the Landowner Agreement, Neighboring Landowner Agreement, or Certificate of Inclusion	31
15.0	Termination, Suspension, Revocation, and Renewal	32
15.1	Termination of the Enhancement of Survival Permit by the KDWP	32
15.2	Termination of a Landowner Agreement or Neighboring Landowner Agreement by a Cooperator	32
15.3	Termination of a Landowner Agreement or Neighboring Landowner Agreement by a Party	33
15.4	Suspension or Revocation of a Permit by the Service	33
15.5	Renewal of Agreement or Landowner Agreements	33
16.0	Succession and Transfer of Landowner Agreements and Certificates of Inclusion.....	34
17.0	Dispute Resolution.....	34
18.0	Funding	35
19.0	Remedies.....	35
20.0	No Third-Party Beneficiaries.....	35
21.0	Additional Management Actions	35
22.0	Access to Enrolled Properties	36
23.0	Other Species.....	36
24.0	Subordination of the Landowner Agreement	36
25.0	National Environmental Policy Act Compliance	36
26.0	National Historic Preservation Act Compliance	37
27.0	Notices and Reports.....	37
28.0	Authorizing Signatures	38

List of Appendices

- Appendix A** Species Descriptions
- Appendix B** Template Landowner Management Agreement and Certificate of Inclusion—Safe Harbor Program
- Appendix C** Template Landowner Management Agreement and Certificate of Inclusion—Candidate Conservation Agreement with Assurances Program
- Appendix D** Template Neighboring Landowner Management Agreement and Certificate of Inclusion
- Appendix E** Review of Impacts on Non-Covered Species During Enrollment

Acronyms and Abbreviations

CCAA	Candidate Conservation Agreement with Assurances
CFR	Code of Federal Regulations
COI	Certificate of Inclusion
Cooperator	participating landowner
Covered Area	Agreement covers all eligible, nonfederal lands in the State of Kansas
ESA	Endangered Species Act of 1973
FR	<i>Federal Register</i>
KDWP	Kansas Department of Wildlife and Parks
KSA	Kansas Statutes Annotated
Landowner Agreement	Landowner Management Agreement
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
Permit	Enhancement of Survival Permit
Service	U.S. Fish and Wildlife Service
SHA	Safe Harbor Agreement
SHPO	State Historic Preservation Officer

Glossary

The following terms are defined for the purposes of this Programmatic Safe Harbor Agreement and Candidate Conservation Agreement with Assurances (SHA/CCAA Agreement).

Agreement – This Programmatic Safe Harbor Agreement and Candidate Conservation Agreement with Assurances between the Kansas Department of Wildlife and Parks and the U.S. Fish and Wildlife Service.

Baseline conditions – Baseline conditions are defined as the population estimates and distribution and/or habitat characteristics and determined area of the enrolled property that sustain seasonal or permanent use by the covered species and will be determined at the time of enrollment. This term applies only to the Safe Harbor Agreement portion of this joint SHA/CCAA Agreement. See also *Existing conditions*.

Candidate Conservation Agreement with Assurances (CCAA) – A voluntary arrangement between the U.S. Fish and Wildlife Service and cooperating nonfederal landowners under the authority of Section 10(a)(1) of the Endangered Species Act of 1973 (ESA), 16 U.S.C. 1539(a)(1). Under the CCAA and associated Enhancement of Survival Permit, the nonfederal landowner implements actions that are consistent with the conditions of the permit.

Certificate of Inclusion (COI) – A Certificate of Inclusion is the mechanism by which nonfederal property owners participate in this SHA/CCAA Agreement. The Certificate of Inclusion extends the regulatory assurances and take authorization of Kansas Department of Wildlife and Parks' Section 10(a)(1)(A) Enhancement of Survival Permit to nonfederal landowners who choose to participate in the Agreement.

Changed circumstances – Changes in circumstances affecting a covered species that can be reasonably anticipated and planned for by the Kansas Department of Wildlife and Parks (e.g., the listing of non-covered species, a change in land use, drought, fire, disease, or the introduction of non-native invasive species).

Cooperator – Includes, but is not limited to, any private individuals; organizations; businesses; state, local, or tribal governments; or other entities that participate in this SHA/CCAA Agreement by signing a Landowner Agreement or a Neighboring Landowner Agreement and receiving a Certificate of Inclusion.

Covered activities – Those actions that could occur on an enrolled property that could directly or indirectly affect covered species and that could result in incidental take. Covered activities may also include the actions of the Kansas Department of Wildlife and Parks that support reintroduction, augmentation, and translocation that may result in take.

Covered Area – All eligible, *nonfederal lands* in the State of Kansas, for all eligible *nonfederal landowners*, who wish to participate in the SHA/CCAA Agreement.

Covered species – The listed species identified within this SHA/CCAA Agreement for which take authorization is provided by the Enhancement of Survival Permits. All species identified within this SHA/CCAA Agreement for which regulatory assurances are provided. Covered species are listed in Table 1 of the SHA/CCAA Agreement.

Current distribution or range– The species is known to have been present in the last twenty (20) years within the major river basin.

Eligible Lands – *Nonfederal lands* within the current or historical distribution of a covered species, as identified in maps in Appendix A.

Enhancement of Survival Permit (Permit) – A permit issued under the authority of Section 10(a)(1)(A) of the ESA that provides regulatory assurances and take allowances to nonfederal entities in exchange for actions achieving a net conservation benefit to covered species.

Enrolled property – All private or other nonfederal property, waters, or natural resources to which the assurances in this SHA/CCAA Agreement apply and on which incidental taking is authorized under the permits.

Existing conditions – Describes the population levels and a detailed description (qualitative and quantitative) of the existing habitat characteristics for the covered species on the covered property at the time of enrollment. This term applies only to the Candidate Conservation Agreement with Assurances portion of this joint SHA/CCAA Agreement. See also *Baseline conditions*.

Historical distribution or range – The expected pre-anthropogenic disturbance range of the species, as accepted (considered) by experts, including the U.S. Fish and Wildlife Service and Kansas Department of Wildlife and Parks.

Incidental take – See *Take*.

Invasive, non-native species – Invasive, non-native species are those that have potential to predate upon or outcompete other species for food and habitat and will, if left unchecked, become the dominate species in the local ecosystem. An invasive species does not have to be non-native to the state or the region but is typically, at the least, non-native to the local ecosystem such that its introduction disrupts the food web and previous species dynamics.

Nonfederal lands – Land held by the state, tribal, regional, or local governments; private or non-profit organizations; or private citizens.

Nonfederal landowner – A nonfederal landowner is a person with a fee simple, leasehold, or other property interest (including owners of water rights or other natural resources), or any other entity that may have property interest, sufficient to carry out the proposed management activities, subject to applicable State law, on nonfederal land (50 CFR 17.3).

Parties – Includes the Kansas Department of Wildlife and the U.S. Fish and Wildlife Service, which are jointly entering into this Programmatic Safe Harbor Agreement and Candidate Conservation Agreement with Assurances. See also *Agreement*.

Landowner Management Agreement (Landowner Agreement) – An agreement developed between the landowner and the State and/or U.S. Fish and Wildlife Service that describes the details of the management actions that each party will undertake.

Neighboring landowner – Any private, local, or state landowner; lessee; or renter whose property is connected to that of the reintroduction location, upstream or downstream, by aquatic habitat and is within a reasonable dispersal range of the reintroduced species.

Neighboring Landowner Management Agreement (Neighboring Landowner Agreement) – The Neighboring Landowner Agreement is a legally binding document that details the commitments and assurances for the neighboring landowner and Kansas Department of Wildlife and Parks. Appendix D provides a template Neighboring Landowner Agreement and Certificate of Inclusion for an SHA and CCAA.

Provisions – Standard state-required contractual provisions. See Section 13.0, *State-Required Contractual Provisions*, of Appendices B and C for more information.

Reintroduction – Reintroduction includes introduction, reintroduction (re-establishment), translocation, augmentation, or any other method of dispersing propagated species to suitable habitat for the purposes of increasing the current range and improving the sustainability of populations, with the ultimate goal of recovering the species.

Safe Harbor Agreement (SHA) – A voluntary agreement involving nonfederal landowners whose actions contribute to the recovery of species listed as endangered or threatened under the ESA. The agreement is between cooperating nonfederal property owners and the U.S. Fish and Wildlife Service or the National Oceanic and Atmospheric Administration. A programmatic SHA and associated permits authorize state, local, tribal governments, and other entities to enter into an agreement for a single, or multiple, species and hold the associated permit.

Take – To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

1.0 Introduction

This Programmatic *Safe Harbor Agreement (SHA)* and *Candidate Conservation Agreement with Assurances (CCAA)* (*SHA/CCAA Agreement*) is part of an application for an *Enhancement of Survival Permit (Permit)* under Section 10(a)(1)(A) of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*). The SHA/CCAA Agreement facilitates the introduction, reintroduction, augmentation, translocation (hereafter *reintroduction*), and conservation of imperiled native aquatic species in the State of Kansas. The SHA/CCAA Agreement is between the Kansas Department of Wildlife and Parks (KDWP) and the U.S. Fish and Wildlife Service (Service), collectively the *Parties*.

This SHA/CCAA Agreement covers all *eligible, nonfederal lands* in the State of Kansas (*Covered Area*), for all eligible *nonfederal landowners*, who wish to participate in the SHA/CCAA Agreement (see Section 4.0, *Description of Lands Eligible for Enrollment*). Nonfederal lands are those lands owned by nonfederal landowners, which include, but are not limited to, state, tribal, regional, or local governments; private or non-profit organizations; or private citizens (also see ESA regulatory definition above). By entering into this SHA/CCAA Agreement, the *Parties* are utilizing the Service's SHA and CCAA Programs¹ to further the conservation of the nation's fish and wildlife. Both this SHA/CCAA Agreement and the associated Permit targets nonfederal lands in Kansas, whose owners or land managers are willing to engage in habitat management actions to benefit the species covered by the SHA/CCAA Agreement.

To obtain an Enhancement of Survival Permit, the Service must determine that there is a reasonable expectation of a net conservation benefit to species covered (50 CFR 17.32 (c)(2)(ii), and 50 CFR 17.32(e)(2)(ii)). The duration of this SHA/CCAA Agreement is fifty (50) years from its effective date². Each participating landowner, or *Cooperator*, will enroll in the SHA, CCAA, or both through a *Landowner Management Agreement (Landowner Agreement)*. Once the Landowner Agreement is agreed upon, KDWP and the Cooperator will sign the *Certificate of Inclusion (COI)* (see Section 5.0, *Landowner Agreements and Certificates of Inclusion*, for details). The duration of the Landowner Agreements entered into under this SHA/CCAA Agreement and the associated COI will be for the remaining duration of the Permit unless another time period is agreed upon by the Parties and the Cooperator.

2.0 Covered Species

This SHA/CCAA Agreement covers 15 species, collectively referred to as the *covered species*. The covered species are listed in Table 1 and described in Appendix A to this SHA/CCAA Agreement. Only federally listed species can be covered by the SHA. Federally listed Topeka shiner, Neosho

¹ See 64 *Federal Register* [FR] 32717-32736 for the 1999 final policies and 69 FR 64084-24094 and 81 FR 95164-957175 for updates to these policies.

² The 50-year duration was selected because this period is long enough to provide real benefits, based on the biology of the covered species and the iterative nature of reintroduction and recovery, to reduce key threats (CCAA species) and contribute to the recovery of listed species (SHA species). Reintroduction efforts and habitat management activities often require long periods and possibly multiple rounds of reintroduction for benefits to accrue for the covered species. In addition, Landowner Agreements and Neighboring Landowner Agreements will be of varying durations and can be terminated at any time by the landowner.

mucket, Neosho madtom, rabbitsfoot mussel, and Arkansas River shiner are the only SHA-covered species at the time of this completed SHA/CCAA Agreement.

The remaining ten species are included in the CCAA because these species are not yet federally listed as threatened or endangered but could become listed during the term of the Permit based on the best professional judgement of KDWP, the Service, and ICF. If a covered species is federally listed during the permit term, the species will be covered by the SHA on the effective date of a final listing decision. All new COIs for the newly listed covered species on or after that date will be finalized as explained in Section 11.0, *Changed and Unforeseen Circumstances*. Covered species can be removed from or added to this SHA/CCAA Agreement according to the procedures described in Section 14.0, *Modifications and Amendments*.

Table 1. Covered Species and Historical Occurrence by River Basin

Species	Covered by an SHA or CCAA (as of original agreement signature date)	State/Federal Listing Status ^a	River Basin											
			Upper Republican	Kansas-Lower Republican	Solomon	Smoky Hill - Saline	Missouri	Marais Des Cygnes	Upper Arkansas	Lower Arkansas	Walnut	Neosho ^b	Cimarron	Verdigris
Reptiles														
Alligator snapping turtle <i>Macrochelys temminckii</i>	CCAA	SINC/-								X	X	X	X	X
Fish														
Peppered chub <i>Macrhybopsis tetranema</i>	CCAA	E/E								X	X		X	
Plains minnow <i>Hybognathus placitus</i>	CCAA	T/-		X	X	X	X			X	X	X	X	X
Silver chub <i>Macrhybopsis storeriana</i>	CCAA	E/-	X	X			X				X			
Hornyhead chub <i>Nocomis biguttatus</i>	CCAA	T/-		X				X						
Arkansas River shiner <i>Notropis girardi</i>	SHA	E/T								X	X		X	
Topeka shiner <i>Notropis topeka</i>	SHA	T/E	X	X	X	X	X				X	X	X	
Neosho madtom <i>Noturus placidus</i>	SHA	T/T										X		

Species	Covered by an SHA or CCAA (as of original agreement signature date)	State/Federal Listing Status ^a	River Basin											
			Upper Republican	Kansas-Lower Republican	Solomon	Smoky Hill – Saline	Missouri	Marais Des Cygnes	Upper Arkansas	Lower Arkansas	Walnut	Neosho ^b	Cimarron	Verdigris
Invertebrates (all mussels)														
Butterfly mussel <i>Ellipsaria lineolata</i>	CCAA	T/-							X				X	X
Fluted shell <i>Lasmigona costata</i>	CCAA	T/-							X				X	X
Cylindrical papershell <i>Anodontooides ferussacianus</i>	CCAA	E/-	X	X	X	X	X							
Flat floater <i>Anodonta suborbiculata</i>	CCAA	E/-							X			X	X	X
Neosho mucket <i>Lampsilis rafinesqueana</i>	SHA	E/E							X				X	X
Rabbitsfoot mussel <i>Quadrula cylindrica cylindrica</i> ^c	SHA	E/T											X	X
Western Fanshell <i>Cyprogenia aberti</i>	CCAA	E/C							X				X	X

^a Listing Status Key: E = Endangered, T = Threatened, C = Candidate, SINC = Species in Need of Conservation (Kansas designation only).

^b The Spring River, where Neosho muckets are known to occur, is within the Neosho River Basin.

^c The scientific name of the rabbitsfoot under the Federal List of Threatened and Endangered Animals (Federal List) is currently *Quadrula cylindrica*. Since the U.S. Fish and Wildlife Service listed the species in 2013, revisions to the nomenclature and systematic taxonomy have been proposed (*Theliderma cylindrica*).³ However, the documents associated with this programmatic CCAA/SHA have opted to use the scientific name currently used by the Federal List.

³ Williams, James D., Arthur E. Bogan, Robert S. Butler, Kevin S. Cummings, Jeffrey T. Garner, John L. Harris, Nathan A. Johnson, and G. Thomas Watters. 2017. A Revised List of the Freshwater Mussels (Mollusca: Bivalvia: Unionida) of the United States and Canada. *Freshwater Mollusk Biology and Conservation* 20:33–58.

3.0 Authority and Purpose

3.1 Authority

The Service's authority to enter into this SHA/CCAA Agreement are Sections 2, 7, and 10 of the ESA, as amended (16 U.S.C. 1531 *et seq.*) and the Fish and Wildlife Coordination Act (16 U.S.C. 661–666(c)). This SHA/CCAA Agreement also is entered into in accordance with the Services' Final Safe Harbor Policy (64 *Federal Register* [FR] 32717) and CCAA final policy (64 FR 32726) as well as the Service's implementing regulations at 50 Code of Federal Regulations (CFR) Sections 17.22(c), 17.32(c), 17.22(d), and 17.32(d) and KDWP's authority under Kansas Statutes Annotated (KSA) Sections 12-2904, 32-807, and 32-957 through 32-963.

Section 2 of the ESA states that encouraging parties through federal financial assistance and a system of incentives to develop and maintain conservation programs is a key to safeguarding the nation's heritage in fish, wildlife, and plants. Section 7(a)(1) of the ESA requires the Service to review programs it administers and to utilize such programs in furtherance of the purposes of the ESA. Section 10(a)(1)(A) of the ESA allows the Service to authorize *incidental take* for activities that enhance the propagation and survival of species. *Take*, as defined under the ESA, means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. *Incidental take* is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. See Section 9.1, *Incidental Take*, for a description of take associated with this SHA/CCAA Agreement; see Section 10.0, *Incidental Take and Regulatory Assurances*, for additional information about the Permits. This SHA/CCAA Agreement applies only to the federal ESA. Some species are also protected in Kansas as designated under the Kansas Nongame and Endangered Species Conservation Act of 1975. KDWP implements this act. This SHA/CCAA Agreement will help facilitate conservation actions for species that are listed by the state as either threatened or endangered (see Table 1). However, nothing in this SHA/CCAA Agreement affects KDWP's implementation of the Kansas Nongame and Endangered Species Conservation Act of 1975, including any exemptions provided by KDWP under this state act.

3.2 Purpose

The purpose of this SHA/CCAA Agreement is to facilitate the propagation and reintroduction of covered species across Kansas and to maintain and enhance habitat for covered species within the watersheds identified in Table 1. KDWP will lead or participate in reintroductions on federal or nonfederal lands. Nonfederal landowners may enroll their land in this SHA/CCAA Agreement.

Another purpose of this SHA/CCAA Agreement is to ensure that all nonfederal landowners that voluntarily enroll under the SHA or CCAA are granted consistent regulatory assurances under the ESA. Federal agencies will be provided regulatory assurances through the ESA Section 7 consultation process. Those assurances are then passed on to nonfederal landowners by KDWP. The Parties and Cooperators have an interest in using existing programs and partnerships throughout the range of the covered species to advance the purposes of this SHA/CCAA Agreement and to provide technical assistance and regulatory assurances to nonfederal landowners to facilitate the conservation and recovery of the covered species by engaging voluntary landowner cooperation in the reintroduction and habitat conservation of these aquatic species.

The conservation goals of this SHA/CCAA Agreement are to increase the resiliency, redundancy, and representation of the covered species populations through reintroductions and to protect, enhance, and expand habitat availability (stream bed and banks). Under this SHA/CCAA Agreement, Cooperators will maintain habitat available to the covered species and assist with habitat conservation per the terms of the Landowner Agreement. Cooperators will facilitate the ability to reintroduce populations and manage enrolled lands as agreed to in their Landowner Agreement, in a manner that maintains, improves, or restores habitat for the covered species.

Expected outcomes of this SHA/CCAA Agreement include the management, protection, enhancement, and restoration of instream habitat; improved water quality; reduced erosion; reduced sedimentation; improved riparian habitat; and improved land use practices on enrolled lands during the term of the SHA/CCAA Agreement. The reintroduction activities included in this SHA/CCAA Agreement will increase the probability that covered species will expand their range and survive and recruit new cohorts in reintroduced areas.

4.0 Description of Lands Eligible for Enrollment

Lands eligible for voluntary enrollment under this SHA/CCAA Agreement include those nonfederal lands in and adjacent to the aquatic habitats identified in the covered species descriptions and historical and current distribution maps provided in Appendix A, including lands adjacent to federal lands and state-owned or state-managed lands. The Parties to this SHA/CCAA Agreement will prioritize eligible properties based on criteria developed during implementation of this SHA/CCAA Agreement specific to each covered species. These criteria will include, but will not be limited to, habitat quality and quantity, lack of invasive species, consistency with recovery plan or other conservation plan strategies, and availability of willing landowners. Federal lands are not eligible for enrollment under this SHA/CCAA Agreement, though nonfederal landowners adjacent to federal lands are eligible for enrollment.

5.0 Landowner Agreements and Certificates of Inclusion

To enroll a property under this SHA/CCAA Agreement, KDWP and the *nonfederal landowner* must enter into a Landowner Agreement. Landowners may also enroll a property through a legal landowner representative such as a renter, lessee, tenant, operator, or designated attorney.⁴ Once the Landowner Agreement is agreed upon, the landowner (or landowner representative) signs the COI. The COI extends the assurances and take allowances covered by the KDWP's Section 10(a)(1)(A) Enhancement of Survival Permit to the participating landowner.

A property enrolled under the procedures outlined herein will be referred to as an *enrolled property* (collectively, as the enrolled properties) and the landowner will be referred to as a Cooperator, as defined in the Service's Safe Harbor Agreement and Candidate Conservation Agreement with Assurances Final Policy (64 FR 32705-32716). KDWP will maintain a database of all Landowner Agreements issued under this SHA/CCAA Agreement.

⁴ In some circumstances, a nonfederal landowner may be legally represented by a third party such as a renter, lessee, tenant, or operator. In these cases, the third-party representative will need to prove that he/she has legal authorization from the landowner to enter into the Landowner Agreement for the duration of that Landowner Agreement.

Landowners will work with KDWP to determine which covered species are appropriate to include in the Landowner Agreement. Only the covered species to be reintroduced or already present on the enrolled property will be included in the Landowner Agreement. There may be instances when a Landowner Agreement will include more than one covered species. This is possible so long as the landowner can document that the *covered activities* will benefit all the covered species included in the Landowner Agreement (see Section 8.0, *Covered Activities*).

Landowners may enroll all or a portion of their property under this SHA/CCAA Agreement. If the potential for take of the covered species is limited to a portion of the property, the Landowners Agreement will describe the legal boundaries of the enrolled property and, if possible, qualitatively describe the portion of the property on which take may occur. KDWP anticipates that the enrolled portion of the property will be determined on a case-by-case basis, depending on the covered activities and the covered species, and will generally be defined by a distance from the species habitat (e.g., stream or riparian area). For example, enrolled lands for freshwater mussels may include the stream and a 75-foot riparian buffer as measured from the bankfull water line or from the top of steep cutbanks. Appendices B and C of this SHA/CCAA Agreement provide template Landowner Agreements for the SHA Program and the CCAA Program, respectively. If the target covered species is a federally listed species, the Landowner Agreement must be consistent with the Template Landowner Management Agreement and Certificate of Inclusion—Safe Harbor Program (Appendix B). If the target covered species is not federally listed, the Landowner Agreement must be consistent with the Template Landowner Management Agreement and Certificate of Inclusion—Candidate Conservation Agreement with Assurances Program (Appendix C).⁵

Each Landowner Agreement shall include a detailed description of the *baseline conditions* (SHA) or *existing conditions* (CCAA) of the lands on the enrolled property. (See Section 7.0, *Baseline or Existing Conditions*, for additional information regarding these terms.) A Landowner Agreement will also include permission from the Cooperator to allow KDWP and the Service access to the property for aquatic species reintroduction and monitoring, if deemed necessary, and, if applicable and agreed upon by all parties, habitat management actions. Permission to access property will also be granted to evaluate potential situations of changed circumstances. (See Section 11.0, *Changed and Unforeseen Circumstances*.) Each Landowner Agreement will contain a legal description of the enrolled property boundary (or portion of the property enrolled) as well as the spatial extent of the relevant aquatic habitat. A landowner wishing to enroll a property under this SHA/CCAA Agreement shall:

1. Meet and discuss the terms and conditions of this SHA/CCAA Agreement as included in the applicable template Landowner Agreement (Appendix B or C) with KDWP.
2. With the assistance of KDWP, develop a Landowner Agreement for the property to be enrolled that is consistent with the appropriate template (Appendix B or C) and designed specifically to benefit one or more covered species in accordance with this SHA/CCAA Agreement.
3. Sign the Landowner Agreement, along with the KDWP Secretary or Assistant Secretary.

⁵ In instances where there are multiple target species and these species are both listed and non-listed, there must be two Landowner Agreements and COIs, one for the listed species (Appendix B) and one for the non-listed species (Appendix C).

If a property is owned by multiple owners, either (1) all landowners must sign the Landowner Agreement, or (2) one of the landowners, as a designated representative of all landowners, must sign the Landowner Agreement. If the second option is used, the signing landowner must produce documentation to KDWP demonstrating that the signatory has the legal authority to sign the Landowner Agreement on behalf of all landowners of the enrolled property.

In cases where land is under lease, rent, or other management agreement, a land operator can also sign this SHA/CCAA Agreement. To sign the Landowner Agreement a land operator must provide documentation to KDWP proving legal control of land management activities. Enrollment by a legal landowner representative (anyone other than the record landowner), such as a renter, lessee, tenant, operator, or designated attorney requires the completion of the Designated Landowner Representative Agreement included in Appendix B and C.

A Landowner Agreement will become effective and binding on the date of the last signature of each of the parties thereto of the COI included in the Landowner Agreement (Appendix B for covered federally listed species and Appendix C for covered non-listed species).⁶ The COI authorizes incidental take of covered species and provides the associated regulatory assurances to the Cooperator. See Section 10.0, *Incidental Take and Regulatory Assurances*, for more details. The COI will authorize incidental take of covered species for up to the remaining duration of the 50-year term of the Permit at the time the COI is signed. The rights and obligations under this SHA/CCAA Agreement and the Landowner Agreement shall remain with the ownership of the enrolled lands (see Section 16.0, *Succession and Transfer of Landowner Agreements and Certificates of Inclusion*, for details).

6.0 Neighboring Landowners and Neighboring Landowner Agreements

The successful reintroduction of a covered species on federal or nonfederal lands has the potential to expand the range of the species, potentially resulting in the presence of listed, proposed, or candidate species in wetlands, creeks, streams, or rivers of neighboring landowners. A neighboring landowner for the purposes of this SHA/CCAA Agreement is defined as any nonfederal landowner, lessee, or renter whose property is connected to the reintroduction location, upstream or downstream and is within a reasonable dispersal range of the reintroduced species through suitable habitat. Enrollment in a Neighboring Landowner Agreement by the legal landowner representative will require completion of the Designated Landowner Representative Agreement included in Appendix D.

Projects and activities on neighboring nonfederal lands may conflict with these dispersed individuals of the reintroduced covered species. This SHA/CCAA Agreement is designed to facilitate these reintroductions by not increasing any regulatory obligations under the ESA. Therefore, the SHA/CCAA Agreement is also available to eligible neighboring nonfederal landowners to ensure that their projects and ongoing activities are not affected by reintroduction of the covered species nearby. Enrolled neighboring landowners will not be required to allow reintroductions of the covered species on their property, but they may voluntarily agree to implement habitat

⁶ In instances where a Cooperator agrees to reintroduction of a covered listed species and a covered non-listed species, KDWP would issue the Cooperator two Landowner Agreements and COIs.

management actions and/or allow KDWP to perform monitoring of the covered species on their property (see Appendix D). To be eligible for coverage as a neighboring landowner, the neighboring property must (1) support suitable habitat and (2) be located in an area with a reasonable potential for the reintroduced species to occur (as described in the paragraph below). A qualitative description of the spatial extent of connectivity and of suitable habitat is described in Table 2 for each covered species or group of covered species. This information is intended to be only a guide. The final determination of eligible neighboring lands will be made by KDWP based on site-specific information and the covered species involved.

Table 2. Criteria for Eligible Neighboring Landowners

Covered Species	Criteria for Eligible Neighboring Landowners ^a
Alligator snapping turtle <i>Macrochelys temminckii</i>	Mainstem of waterbody where reintroduction occurs extending onto adjoining parcels, plus one stream order class below the order of the reintroduced waterbody (using Strahler/Kansas Biological Survey Stream Order dataset) within the same 8-digit HUC. Suitable habitat discussed in Appendix A, Section A.1.1.1.
Peppered chub <i>Macrhybopsis tetranema</i>	Mainstem of waterbody where reintroduction occurs extending onto adjoining parcels, plus direct tributaries containing suitable habitat (suitable habitat discussed in Appendix A, Section A.1.1.2). Eligible property must support suitable habitat (i.e., permanently flowing channels with sandy substrates).
Plains minnow <i>Hypognathus placitus</i>	Mainstem of waterbody where reintroduction occurs extending onto adjoining parcels, plus direct tributaries containing suitable habitat (suitable habitat discussed in Appendix A, Section A.1.1.3).
Silver chub <i>Macrhybopsis storeriana</i>	Mainstem of waterbody where reintroduction occurs extending onto adjoining parcels, plus direct tributaries containing suitable habitat (suitable habitat discussed in Appendix A, Section A.1.1.4).
Hornyhead chub <i>Nocomis biguttatus</i>	Mainstem of waterbody where reintroduction occurs extending onto adjoining parcels, plus direct tributaries containing suitable habitat. Eligible property must support suitable habitat (i.e., stream channels with gravel substrates; see Appendix A, Section A.1.1.5).
Topeka shiner <i>Notropis topeka</i>	Mainstem of waterbody where reintroduction occurs extending onto adjoining parcels, plus direct tributaries containing suitable habitat. Eligible property must support suitable habitat (i.e., sand, gravel, or rubble substrate which can be covered with silt; see Appendix A, Section A.1.1.6). Suitable habitat may also include off-channel perennial habitats with macrophytes, exposed gravel, and the presence of sand shiners (<i>Notropis stramineus</i>), green sunfish (<i>Lepomis cyanellus</i>), fathead minnows (<i>Pimephales promelas</i>), white sucker (<i>Catostomus commersonii</i>) and/or black bullhead (<i>Ameiurus melas</i>) if survey data are available.
Arkansas River shiner <i>Notropis girardi</i>	Mainstem of waterbody where reintroduction occurs extending onto adjoining parcels, plus direct tributaries containing suitable habitat. Eligible property must support suitable habitat (see Appendix A, Section A.1.1.7).
Neosho madtom <i>Noturus placidus</i>	Mainstem of waterbody where reintroduction occurs extending onto adjoining parcels, plus direct tributaries containing suitable habitat. Eligible property must support suitable habitat (see Appendix A, Section A.1.1.8).

Covered Species	Criteria for Eligible Neighboring Landowners ^a
All covered mussels ^b	Mainstem of waterbody where reintroduction occurs extending onto adjoining parcels, plus direct tributaries containing suitable habitat (suitable habitat discussed for each covered mussel species in Appendix A, Sections A.1.1.9 through A.1.1.14). Eligible property must also support suitable habitat for mainstem and direct tributaries (i.e., perennial flows and the presence of host fish species).

^a The final determination of eligible neighboring lands will be made by KDWP based on site-specific information.

^b Because all covered mussel species require fish hosts for their glochidia, the criteria for perennial flows and the presence of host fish for eligibility is assumed for all covered mussels.

Neighboring landowners may include, but are not limited to, farms, ranches, municipal facilities such as water treatment plants, state lands, state or local roads or bridges, or utility rights-of-way. A neighboring landowner is eligible to participate in this SHA/CCAA Agreement when the property has potential to provide suitable habitat for an introduced covered species, the property is within a distance to the reintroduction location such that colonization can be reasonably expected, there is hydrologic or other habitat connectivity between the reintroduction location and the neighboring property, and the neighboring landowner’s activities have the potential to incidentally take the reintroduced species.

Eligible neighboring landowners can participate in this SHA/CCAA Agreement by applying to the program administrator at KDWP for a *Neighboring Landowner Management Agreement and Certificate of Inclusion (Neighboring Landowner Agreement)* consistent with the template provided in Appendix D. Signatories to Neighboring Landowner Agreement will receive a COI to this SHA/CCAA Agreement that authorizes incidental take that is incidental to otherwise lawful activities.

As with a Landowner Agreement, the baseline condition or existing condition (whichever is applicable) will be described in the Neighboring Landowner Agreement consistent with Section 7.0, *Baseline or Existing Conditions*. Unlike the Landowner Agreement, the Neighboring Landowner Agreement will not require property access for reintroductions or monitoring. However, if the neighboring landowner wishes to provide access to the property or participate in habitat management actions, these activities can be included in the Neighboring Landowner Agreement.

7.0 Baseline or Existing Conditions

Each Landowner Agreement entered into under the SHA component of this SHA/CCAA Agreement (i.e., a federally listed covered species) must describe the baseline conditions existing on the enrolled property (or on the portion of the property that will be enrolled) at the time the Landowner Agreement is executed. Under the Service’s Final Safe Harbor Policy (64 FR 32717–32726), baseline conditions include a population estimate, if available, and a description of the distribution and habitat characteristics on the property that support existing use by the covered species, either seasonally or permanently, at the time the Landowner Agreement is executed between the KDWP and the Cooperator. In cases where no seasonal or permanent occupation by covered listed species is documented (i.e., the covered listed species is most likely absent from the property), the Landowner Agreement will describe baseline conditions to be zero in terms of both species numbers and habitat conditions, unless the Cooperator, KDWP, and the Service mutually agree to describe a different baseline condition (64 FR 32717–32726).

Similarly, each Landowner Agreement entered into under the CCAA component of this SHA/CCAA Agreement must describe the existing conditions on the enrolled property at the time the Landowner Agreement is executed. Existing conditions should include the population levels, if available or determinable, of the covered species existing at the time KDWP and the Cooperator negotiate the SHA/CCAA Agreement. It should also include a detailed description of the existing habitat characteristics of the lands and/or waters on the enrolled property that sustain any current, permanent, or seasonal use by the covered species.⁷

One of the main purposes of this SHA/CCAA Agreement is to provide a mechanism to alleviate the perceived regulatory burden on private landowners when a species is reintroduced to its historical habitat. Because the covered species are most likely to be absent from the aquatic habitat on the enrolled property, a zero population baseline or existing condition is expected on many enrolled properties. Where a covered species is absent from a property, the baseline or existing habitat condition will need to be described. In those circumstances where KDWP may be augmenting low populations of a covered species with additional individuals or translocating individuals from one location to another, the baseline or existing population will not be zero. When the baseline or existing population is not zero, the baseline or existing population will be described, as existing information allows, along with the baseline or existing habitat conditions.

Each Landowner Agreement will define the baseline or existing conditions in terms of population, habitat, and existing land use. The processes to define the baseline or existing population and the baseline or existing habitat conditions, and other relevant conditions, are described in the following subsections.

7.1 Defining Baseline or Existing Population

If a property proposed for enrollment may be or is known to be occupied by the covered species, the baseline population (for the SHA) or existing population (for the CCAA) must be described. Data informing a population estimate for an enrolled property may include:

- Relatively recent survey data of the property or nearby sites (e.g., within a time period over which the population has most likely not changed substantially); or
- Data collected near the proposed property such that the population on the surveyed property can be assumed to be the same on the proposed property.

In cases where data on population sizes are absent or inconclusive, a qualitative description of the baseline or existing population will be included in the Landowner Agreement. If there is no potential that the covered species occupies the site proposed for enrollment prior to the reintroduction, the population baseline or existing population will be defined as zero in the Landowner Agreement.

7.2 Defining Baseline or Existing Habitat

In addition to defining the baseline or existing population, the baseline or existing habitat must also be described in the Landowner Agreement. The baseline or existing habitat will be informed by an on-site or desktop habitat assessment and will include the following items.

⁷ U.S. Fish and Wildlife Service. 2003. *Draft Candidate Conservation Agreements with Assurances Handbook*. June. Available: <https://www.fws.gov/endangered/esa-library/pdf/handbooktext.pdf> Accessed: October 14, 2020.

- A qualitative description of the land cover types (e.g., riparian, stream, etc.) and features (e.g., overhanging banks, woody debris, gravel substrate) of the enrolled property that will provide suitable habitat.
- Quantification (acres or stream miles) of the extent of suitable habitat.
- A map or maps that show the extent and location of the suitable habitat on the enrolled property.
- Images such as photographs or aerial images that illustrate the baseline or existing habitat condition.

7.3 Other Relevant Baseline or Existing Conditions

Besides population and habitat, other relevant baseline or existing conditions may be included in the Landowner Agreement. These additional conditions would be described when and where KDWP and the Cooperator agree they would improve implementation of assurances. The following is a list of potentially relevant baseline or existing conditions to consider including in the Landowner Agreement.

- Description of livestock access to aquatic habitat (e.g., presence and use of fencing).
- Current land use practices, especially as they are relevant to suitable habitat on the enrolled property.
- Presence, condition, and status of any water intakes, including the presence of a screen.
- Location of existing or planned land agreements and a description of the activities that will occur or could occur within the designated portion of the enrolled property.
- The presence of erosion- or sediment-reducing features such as runoff capture ponds or vegetated buffer strips.

8.0 Covered Activities

Covered activities are those actions that could occur on an enrolled property that could directly or indirectly affect covered species and that could result in incidental take (see Section 9.0, *Effects Analysis*, for details). These activities include conservation-related actions implemented by KDWP or the landowner to maintain or enhance habitat, reintroduce species, avoid and minimize impacts on covered species, and monitor reintroduced populations. Covered activities also include day-to-day land use activities typical on enrolled lands (e.g., agriculture, ranching, etc.).

The types of potential covered activities that could be implemented on any given property are described in the sections below. For each enrolled property, KDWP and the Cooperator will agree on the covered activities to be implemented on the property and those actions will be described in the Landowner Agreement. Once the Landowner Agreement is agreed upon by KDWP and the Cooperator, KDWP and the Cooperator will sign a COI, as described under Section 5.0, *Landowner Agreements and Certificates of Inclusion*. Should the Parties or the Cooperator wish to modify the Landowner Agreement to revise existing covered activities, or add new ones, they may, with the concurrence of all, modify or amend the Landowner Agreement to include such measures as described in Section 14.0, *Modifications and Amendments*.

8.1 Reintroduction

Covered activities for the purpose of introduction, reintroduction, augmentation, and translocations of covered species include:

- Marking and tagging
- Handling and transporting
- Releasing into the wild on enrolled lands
- Surveying and assessing to determine suitability of release site

These activities are summarized below and are detailed in associated KDWP protocols and propagation plans.

Introduction, reintroduction, augmentation, or translocations of the covered species will require transport and release of juveniles propagated in aquaculture facilities, or potentially adults and/or juveniles translocated from existing populations (source populations). (Captive rearing and/or collection of source individuals are not a covered activity for this SHA/CCAA Agreement. Any impacts on a source population resulting from aquaculture activities will be described under a separate Section 6(c) Cooperative Agreement between the Service and KDWP or a separate Section 10(a)(1)(A) research and recovery permit.)

Hatchery-reared alligator snapping turtles will provide head-started individuals for reintroduction efforts, though adults and/or juveniles may also be captured for translocation from existing populations. All alligator snapping turtle individuals (either trapped or hatchery-reared) will be marked prior to release using a unique passive integrated transponder tag number for identification. Covered fish species from hatcheries will be reared to fry, fingerling, or adult life stages before transfer into live wells for transport to reintroduction sites. Hatchery-reared fish, or covered fish species captured from existing populations, may be marked with visible implant, elastomer or passive integrate transponder tags and held in a live well until transported and released.

Covered mussel species, whether from hatchery or from existing populations, will be marked with a unique identifier to track survival rates, growth, and other pertinent factors. Unique identifiers will include the use of laser engraving, permanent fixture of tag/label with approved adhesives, or similar techniques using current technology. To facilitate long-term monitoring, marks/tags will likely be placed in a part of the shell that receives the least abrasion and wear as the mussel grows (i.e., near the center of the shell, away from the umbo). In cases where marking is not possible (i.e., release of host fish bearing glochidia), periodic surveys to determine presence of juvenile mussels may be done to assess successful establishment. Reintroduction or translocation from an existing population at another site will be done under conditions that will minimize stress on the mussels, such as avoiding periods in summer when air temperatures exceed 95 degrees Fahrenheit, very low water conditions, or high flow events. If potential spread of pathogens or invasive species from a propagated or translocated population is a concern, mussels may be held in clean, filtered water for 4 hours to purge their guts prior to transport and release; shell exteriors can be scrubbed gently to remove particles. Mussels may be hand-placed gently in the substrate in the correct orientation

(anterior end in the substrate) or laid on the substrate surface.⁸ If a population introduction is done with the goal of increasing the range and extent of the species in a specific stream or basin, the presence and status of host fish required by a given mussel species for successful reproduction (glochidial development) should be assessed prior to mussel release.

8.2 Effectiveness Monitoring

Effectiveness monitoring includes population and habitat surveys to assess the long-term success of the reintroduction and habitat management actions. The type, frequency, and approximate timing of property visits, as well as any notice requirements, will be agreed upon in coordination with the landowner and stipulated in the Landowner Agreement or Neighboring Landowner Agreement. Monitoring may be performed at some or all enrolled properties. Alligator snapping turtles may be collected using baited hoop traps, typically set between 1:00 p.m. and 6:00 p.m. and checked the following morning. Covered fish species may be captured using standard fisheries sampling techniques (i.e., electrofishing, trapping, and seining). For the covered mussel species, tactile surveys will be conducted by surveyors wading the stream while sweeping the surface of the substrate with their hands to detect mussels.

Depending on the population size and goals of reintroduction, surveys may involve qualitative or quantitative methodology.⁹ For all covered species, captured individuals will be inspected to assess presence of an identifying mark, and any untagged individuals found may be tagged or marked as well. Additional actions could include measuring specimens to assess growth rates. For covered mussel species, the shell valves may be gently pried apart to assess breeding status of females by examining the gills. Captured mussels can be kept in mesh bags in the water and held out of water only as long as needed for counting and measuring, then replaced in the substrate.

8.3 Habitat Maintenance and Management Actions

All Cooperators agree to document and maintain the existing or baseline habitat condition for the applicable covered species. This may include the following maintenance actions.

- Maintain existing riparian habitat.
- Ensure connectivity of covered species on enrolled lands.
- Refrain from undertaking activities that adversely affect hydrologic function of habitat for covered species.
- Adhere to best management practices to protect water quantity and quality.

Cooperators may also voluntarily agree to habitat management actions in the Landowner Agreement to enhance habitat conditions for the reintroduced species or the species already present. The KDWP will encourage Cooperators to include habitat management actions in the Landowner Agreement to enhance habitat on enrolled lands such that habitat conditions improve beyond the documented baseline or existing conditions. Specific habitat management actions may

⁸ Simmons, B. R., M. A. Patterson, and J. W. Jones. 2018. Chapter 7: Juvenile Mussel Release and Monitoring. In M. A. Patterson, R. A. Mair, N. L. Eckert, C. M. Gatenby, T. Brady, J. W. Jones, B. R. Simmons and J. L. Devers, *Freshwater Mussel Propagation for Restoration*, pp. 223–239. New York: Cambridge University Press.

⁹ Strayer, D. L., and D. R. Smith. 2003. A Guide to Sampling Freshwater Mussel Populations. *American Fisheries Society Monograph 8*. Bethesda, MD: American Fisheries Society.

be recommended, depending on the land use and covered activities (Section 8.4, *Land Use Activities*). The habitat management actions agreed to in each Landowner Agreement are site-specific and determined on a case-by-case basis between KDWP and the Cooperator. Examples of habitat maintenance and management actions that could be implemented on an enrolled property include, but are not limited to, the following actions.

- Stream buffer establishment and enhancement.
- Installation and maintenance of erosion and pollution control measures (e.g., installation of fencing to restrict grazing, noncultivated buffers between cultivated land and aquatic habitat).
- Cessation, reduction, or modification of land use practices such as pesticide application, animal or vehicle activity in streamside areas, or ground disturbance (e.g., grading, building, mowing, disking).
- Capture and treatment of stormwater or other runoff to improve water quality of receiving aquatic habitat.
- Passage improvement projects for covered species that have minor or negligible effects on the human environment.¹⁰
- Screening of water diversions.
- Minimize or avoid disturbance to covered species habitat, particularly at certain times of the year (e.g., spawning or nesting season).

KDWP and the Cooperator agree on the habitat management actions to be implemented on the property, those actions will be described in the Landowner Agreement.

8.4 Land Use Activities

Land use activities are those property-specific activities implemented routinely on enrolled lands as part of the legal use of the enrolled or neighboring property. The land use activities agreed to in each Landowner Agreement are site specific and determined on a case-by-case basis between KDWP and the Cooperator.

Land use activities, for example, may support farming, ranching, and forestry, and the construction and use of small to medium-sized structures in support of the primary land use activity, on the enrolled lands (see Section 5.0, *Landowner Agreement and Certificates of Inclusion*, for a description of how enrolled lands would be identified and described for each Cooperator). Land use activities covered by the Agreement include:

- Ground and vegetation disturbance activities such as tilling, overland travel by vehicles, crop harvest and bailing, vehicle and structure repair, ground disturbance by livestock, harvest and bailing of crops, creating fire breaks, and tree removal.

¹⁰ As with all covered activities in this SHA/CCAA Agreement, passage improvement projects included as habitat management actions in this SHA/CCAA Agreement must qualify for the Categorical Exclusion used for National Environmental Policy Act compliance for this SHA/CCAA Agreement. See Section 25.0, *National Environmental Policy Act Compliance*, for details.

- In-stream disturbance activities such as water diversions, in-stream impoundments, and streamside access points for recreation or livestock access.

The frequency of land use activities on forestry lands is generally low. Some infrequent on-road or off-road vehicle traffic and potentially some clearing and grubbing may be associated with understory maintenance. Ground disturbance may be associated with the creation of fire breaks; as with farming and ranching, there may be the occasional need for construction of support buildings. Timber harvest activities, though they occur infrequently, require the use of large equipment and may involve substantial ground disturbance.

The Cooperator and KDWP, in coordination on the development of the Landowner Agreement, will work together to evaluate land use activities and the compatibility with covered species conservation. In addition, the Cooperator and KDWP will follow the evaluation process in Appendix E to identify additional measures that might be necessary to minimize or avoid impacts to non-covered federally listed species.

Due to the magnitude of ground disturbance associated with timber harvest and the sediment and erosion such disturbance would generate, forestry lands may be incompatible with the reintroduction under this SHA/CCAA Agreement. However, if sufficient buffer lands exist between the timber harvest location and the habitat for covered species on the enrolled property, the adverse effects of timber harvest can be avoided or minimized such that enrollment is possible.

Reintroductions may also occur in developed areas (i.e., residential or commercial development). Ground-disturbing activities are likely to be infrequent and of a low magnitude in semirural and low-density residential locations. Areas of moderate- and high-density development are more likely to have relatively frequent ground-disturbing activities that contribute sediment and toxins to the local stream or river. However, construction in developed regions is much more likely to be strictly regulated and enforced by state and federal environmental laws. The potential for developed lands to be enrolled in this SHA/CCAA Agreement is low because developed lands have smaller parcel sizes that are not typically conducive to conservation. Also, aquatic habitat in developed regions is likely to be degraded and is therefore unlikely to meet the habitat requirements for reintroduced species. Although the number of opportunities to enroll developed lands may be low, there may be exceptions, and thus, these types of lands and activities are described here.

8.5 Return to Baseline Conditions

A Cooperator in the SHA may return the enrolled property to its baseline conditions through any legal means, provided the conditions outlined in Section 15.2, *Termination of a Landowner Agreement or Neighboring Landowner Agreement by a Cooperator*, are met. A return to baseline conditions may include KDWP removing the reintroduced species from the property (with or without a request from the Cooperator to do so), a cessation of habitat management actions, or reinitiation of a legal, but curtailed or ceased, land management activity.

A request for a return to baseline conditions is expected to be rare. If it does occur, it is expected to be a return to baseline habitat or land use conditions rather than a request to return the population to baseline conditions.

9.0 Effects Analysis

9.1 Incidental Take

Implementation of covered activities—reintroduction, monitoring, habitat management actions, typical daily land use activities—on enrolled properties has the potential to result in incidental take of covered species. In addition, incidental take of listed covered species could occur because of a landowner returning an enrolled property to baseline conditions. The sections below discuss the potential for incidental take of covered species as a result of implementation of this SHA/CCAA Agreement.

9.1.1 Impacts from Reintroduction and Effectiveness Monitoring

Alligator Snapping Turtle

Reintroduction will require the transport and release of juvenile alligator snapping turtles. Individuals will be transported via live tanks, marked with a unique identifying tag, and released by hand. Handling and transport of alligator snapping turtles are expected to result in temporary physiological stress and altered behavior. Short-term physiological and behavioral stress may occur as a result of the changed temperature, turbidity, and surroundings of the natural environment. Feeding behaviors are not expected to be significantly affected because turtles will forage for live prey in both the artificial and natural environments. After some time, it is expected that alligator snapping turtles will recover from any short-term physiological and behavioral effects and adapt to the new surroundings.

Alligator snapping turtle monitoring may be performed at some or all enrolled properties. Baited traps and/or radio telemetry will be used per standard trapping protocols. These methods require that traps are checked frequently to avoid death or injury of individuals. When captured, turtles are measured and weighed by hand and any new, unmarked turtles will be tagged. Turtles will then be released at the location of capture. Capture and handling are expected to result in short-term physiological stress that will dissipate after it is returned. Although very unlikely, there is some potential for reintroduction and monitoring to result in the injury or mortality of an individual. Estimated incidental take from reintroduction and monitoring is expected to be no more than one individual out of the reintroduced population. Any impacts from incidental take would be outweighed by the expected benefits to the local or regional population from reintroduction and habitat management actions.

Fish

Handling and transport associated with reintroduction, translocation, or monitoring activities are expected to result in temporary physiological stress and altered behavior on individual fish. This effect is expected to dissipate shortly after release. Changes in temperature, turbidity and surroundings of the natural environment may also result in physiological and behavioral stress. Feeding behaviors are not expected to be significantly affected and covered fish species are anticipated to forage in both the artificial and natural environments. After some time, it is expected that the covered fish species will recover from any short-term physiological and behavioral effects and adapt to the new surroundings.

Monitoring activities include mostly actions by KDWP to measure the condition of covered fish species habitat and populations status on enrolled lands. Some of these activities may result in take

of covered fish species, but such take is anticipated to be minimal and the monitoring is necessary to determine the effectiveness of the reintroduction. Examples of monitoring activities include the following.

- Capture and handling of covered fish species by various techniques, including trapping, netting, electrofishing, and angling.
- Tagging of covered fish species to measure survival and movement.
- Measurement of aquatic physical habitat, including, but not limited to, channel cross sections, habitat unit mapping, riparian zone surveys, and stream temperatures.
- Ongoing operation of flow-monitoring devices.

Habitat management actions or land use activities in streamside habitats may cause individual fish to disperse away from the activity locations. Such disturbance to individuals is likely to be temporary and, thus, will not likely adversely affect the feeding, breeding, or sheltering of these fish.

Reintroduction and monitoring have the potential to result in the injury or mortality of individuals. Estimated incidental take is expected to be less than 1% of the reintroduced population. Any impacts from incidental take would be outweighed by the expected benefits to the local or regional population from reintroduction and habitat management actions.

Mussels

Handling and transport associated with reintroduction of covered freshwater mussels will most likely result in some temporary physiological stress, but these effects should dissipate shortly after release, if the mussels are placed in suitable habitat, which can differ according to the species. Similarly, capture and handling of covered mussels during monitoring efforts is expected to result in short-term physiological stress that will dissipate after the individual is returned to the substrate.

Sites selected for mussel release should be able to support all life stages, including substrate conditions, appropriate host fish, food availability, and water quantity and quality. Timing of mussel release should be such that conditions are suitable for survival in the receiving habitat to minimize mussel stress and mortality. Periods of high flow can scour out translocated mussels, while very low water levels may cause additional metabolic stress from elevated water temperature and reduced dissolved oxygen. The stream hydrograph should be known so that mussels are not placed in an area likely to go dry at baseflow. Post-release monitoring activities should be frequent enough to detect the effects of stressors without causing undue disruption to the mussel bed. For juveniles, which are more sensitive to disturbance, this monitoring may be done within one (1) year after release, and subsequent long-term monitoring every three to five (3–5) years, as well as after events likely to disrupt a population (i.e., drought, flooding).

Successful mussel reproduction relies on the presence of appropriate host fish for a given mussel species at periods when females are releasing glochidia. One of the many causes of freshwater mussel declines is the loss of appropriate host fish; without host fish, released mussels may grow to adulthood but no self-sustaining populations will be established. The presence of host fish in the system will be confirmed prior to mussel translocation (see monitoring activities described for fish in the previous subsection, *Fish*).

Incidental take of covered mussel species associated with reintroduction and monitoring activities are expected to be less than 1% of the reintroduced population. Any impacts from incidental take

would be outweighed by the expected benefits to the local or regional population from reintroduction and habitat management actions.

9.1.2 Impacts from Habitat Management Actions

Habitat management actions implemented to improve near-stream or in-stream conditions for the reintroduced species are expected to benefit the species in the long term. However, in the short term, restoration or enhancement actions could affect reintroduced species. Ground disturbance associated with the planting of vegetative buffers, fence construction, or stormwater capture ponds could result in sediment being transported to the occupied aquatic habitat by a rain event. These impacts are expected to be of a short duration and low intensity, but the benefits of improved habitat are expected to be long term. Similarly, instream actions to improve passage also have the potential to cause short-term increases in turbidity and disturbance, but, long term, connectivity in the local waterbody will be improve.

Habitat management actions have the potential to increase turbidity and could lead to behavioral responses (avoidance of the turbid area), injury to gill structures (of fish or mussels), or modification of the benthic habitat. These impacts are expected to be of short duration and low intensity and will be offset by long-term improvements to habitat quality. Adverse effects from habitat management actions are expected to affect less than 1% of the total reintroduced population of fish or mussels. For alligator snapping turtles, take from habitat management actions are not expected as a result of increased turbidity or reduced water quality. However, ground disturbance within the riparian zone could affect nests. As mentioned above, incidental take is expected to be offset by the long-term benefit of habitat improvements.

9.1.3 Impacts from Land Use Activities

Lawful activities that may occur on a Cooperator or neighboring landowner property include ground disturbance, livestock management, water diversions, and vegetation management (Section 8.4, *Land Use Activities*). Although the actual level of incidental take for lawful land use activities is unknown, incidental take is expected to be insignificant relative to the benefits to the conservation, expansion, and recovery of the covered species. The potential impacts on the covered species and their habitats from lawful land use activities are discussed in further detail below.

Examples of ground-disturbing activities include construction of small to medium-sized outbuildings necessary to support the primary land use activity, road grading, tree removal, and crop production. Ground-disturbing activities loosen the soil and have the potential to contribute suspended sediment to nearby waterbodies, primarily after rain events. Suspended sediment can increase turbidity, which can decrease visibility and affect foraging success. In more extreme events, sediment can clog or injure gill structures in fish and mussels. Once settled, sediment can modify the benthic environment, covering hardscape features that may otherwise be used by fish and mussels.

Livestock management, particularly the use of streams as a source of livestock water, and livestock grazing can degrade instream and riparian habitat. Trampling of instream and riparian habitat can increase erosion, leading to the potential for increased turbidity and the input of excessive sedimentation into habitats used by fishes and mussels. Livestock grazing in or near streams can also provide a pathway for animal wastes to enter streams, promote nutrient loading, reduce dissolved oxygen levels, and result in a degradation of overall water quality.

Water diversions most likely include a streamside pump and small-diameter pipe that extends into the water. Water diversions are unlikely to run permanently; rather, they operate intermittently to fill water tanks, holding ponds, or other off-stream features. Irrigation or stock water withdrawals may entrain fish and result in death when withdrawals are ceased following the period of use. Most water diversions are unlikely to have perceptible effects at the location of reintroduction; however, the cumulative effect of multiple diversions in a local area may have effects, particularly during times of low flow. Determining an estimate of incidental take as a result of water diversion is difficult for several reasons: (1) determining whether an individual did not spawn as a result of water depletions versus natural causes is extremely difficult in the field, (2) effects that reduce fecundity are difficult to quantify, (3) finding a dead or injured listed covered fish would be difficult because carcasses are subject to rapid scavenging, and (4) natural fluctuations in river flows and species abundance may mask effects of ongoing land uses.

Streamside vegetation management such as canopy trimming and mowing performed as part of typical land use activities may have some local effects on shade and water temperatures; however, these changes are likely to be too small to be measured. Land use activities that require streamside tree removal or cutting could weaken streambanks, reduce bank stability, and decrease habitat complexity for species such as alligator snapping turtle or fish that may use undercut banks and deep scour holes. However, it should be noted that streamside vegetation management generally, and tree and canopy removal specifically, could have beneficial effects on waterbodies in native prairie ecosystems (even if that is not the primary objective of the land use action).

The use of prescribed fire to manage rangeland can remove vegetation and destabilize soil, which, in turn, increases the risk of erosion on the burned area. Postfire streamflows can transport solid and dissolved materials that adversely affect water quality, including increased sedimentation. However, increases in sediment loading as a result of prescribed burning is dependent on the surface area of the prescribed burn, burn severity, topography, and the distance between the burned area and waterbody.

Adverse effects on covered species from land use activities are likely to be short-term behavioral or physiological in nature. However, there is some low potential for these lawful activities to result in the injury or mortality of individuals from reintroduced or existing populations. Take from land use activities is not expected to exceed 1% of the reintroduced population of fish or mussels. Take of alligator snapping turtles from water quality impairments generated from typical land use activities is not expected. However, it is possible, though unlikely, that an individual could be struck by a vehicle or a nest could be disturbed. Take related to vehicle strike is not expected to exceed one individual.

9.1.4 Genetic and Competition Impacts

Reintroduced individuals will either be sourced from a captive breeding program or will be native, naturally occurring individuals translocated from another location. In most cases, reintroduced or translocated individuals will be placed in locations where the species is absent, thereby avoiding any effects on existing local populations. However, in some cases, reintroduced or translocated individuals have the potential to affect the genetics of individuals that may be present in the region. Small genetic variabilities between locations are likely and may result in positive or neutral changes in progeny. There is also the possibility that interbreeding between native and captive breeding populations, or between native and translocated individuals, could result in negative phenotypic characteristics that reduce prey capture or predator avoidance rates. These types of genetic changes

are very difficult to measure because they typically manifest as small physiological or behavioral changes that develop slowly over time. Large genetic differences that would preclude interbreeding or result in precipitous declines in progeny creation or survival are not expected for the following reasons.

- Natural-born, translocated individuals will be placed in proximity to their natal watershed, where genetic differences with existing individuals are expected to be relatively small or negligible.
- The reintroduction location for captive-bred individuals is unlikely to have an existing population because the purpose of the program is to reestablish populations where they are absent.
- The captive breeding program will implement protocols that ensure native genetics are preserved and negative effects such as inbreeding and genetic depression are avoided or minimized.

The reintroduction or translocation of a population could also result in intraspecies competition where the newly introduced population outcompetes an existing population for food or habitat resources. This impact is not expected for reasons similar to those described in the preceding paragraph. Translocated, naturally born individuals will be moved to locations proximate to the natal location, making it unlikely that differences in behavior could result in unusual intraspecies competition. Adverse effects from genetic differences or competition are not expected to occur for the reasons described above. However, in rare instances, these adverse effects may occur at some reintroduction sites, but these effects are expected to be mild; take could be up to 1% of the total reintroduced population of fish or mussels. For alligator snapping turtle, take from genetic differences or competition is not expected.

9.1.5 Return to Baseline Conditions

Incidental take associated with a return to baseline habitat or land use conditions could include indirect physiological or behavioral effects from a temporary or permanent reduction in habitat quality. Incidental take associated with a return to baseline population conditions could result in injury and mortality as a result of the capture and transfer of individuals. Any level of incidental take associated with a return to baseline conditions is consistent with the overall goal of providing a net conservation benefit to recovery of the species on enrolled properties.

9.2 Net Conservation Benefit

Reintroduction efforts will increase the range and population above the baseline or existing condition and thus result in a clear conservation benefit to the covered species. Any adverse effects on these reintroduced populations from the effects of transporting covered species to reintroduction sites, land uses on the enrolled properties, and species and habitat monitoring are expected to be minor and short term, reducing the benefits provided by the reintroduction itself only slightly.

This SHA/CCAA Agreement assumes that, in most instances, there will be a baseline population or existing population of zero for the covered species on each enrolled property; as a result, reintroduction will not result in an adverse effect on a local or regional population. All successful

reintroduction efforts where there is no known existing population are reasonably expected to provide a net conservation benefit to the covered species.

This SHA/CCAA Agreement also allows for the reintroduction of propagated individuals, or translocation of naturally born individuals, to a property with an existing small population (the purpose of translocations and reintroductions is to help restore or supplement populations where they have been lost or depleted). In these instances, there is potential for impacts on the native population as a result of genetic differences or intraspecies competition. As discussed in Section 9.1.4, *Genetic and Competition Impacts*, the potential for these impacts to occur are considered very low; if they occur, these impacts could result in a small reduction in the net conservation benefit if reintroduced or translocated populations come in contact with existing populations of the same species.

Cooperators enrolling in this SHA/CCAA Agreement agree to maintain habitat as documented in the existing/baseline condition described in their Landowner Agreement, thereby providing habitat that meets the conservation needs of the covered species. In addition, KDWP will encourage Cooperators to include in their Landowner Agreement habitat management actions to further restore and improve habitat.

10.0 Incidental Take and Regulatory Assurances

There are two general types of incidental take covered by this SHA/CCAA Agreement: (1) incidental take associated with implementation of the covered activities, which include typical, lawful activities on the enrolled property, and (2) incidental take associated with a return to baseline conditions for federally listed species included in the SHA.¹¹ Incidental take will be authorized by the Service through issuance of an Enhancement of Survival Permit for this SHA/CCAA Agreement. Incidental take authorization associated with a COI under CCAA would become effective if any of the covered species not listed at the time of the Permit become listed during the term of this SHA/CCAA Agreement. Through this SHA/CCAA Agreement and the associated Permit, the Service provides the SHA and CCAA regulatory assurances found at 50 CFR Sections 17.22(c)(5), 17.22(d)(5), 17.32(c)(5), and 17.32(d)(5) to the KDWP. Specifically, the Service will not require additional or different management activities be undertaken by the KDWP (the permittee), without the consent of KDWP, provided the SHA/CCAA Agreement is being properly implemented. The KDWP, in turn, will pass these assurances onto the Cooperators enrolling under this SHA/CCAA Agreement through the individual Landowner Agreements, as explained below. The regulatory assurances described in the subsections that follow are included verbatim in the template Landowner Agreements and COIs (Appendices B and C). These regulatory assurances shall also be incorporated verbatim in each Landowner Agreement.

¹¹ A Cooperator enrolled in a CCAA for a species that is not federally listed does not require take authorization to return the enrolled property to existing conditions, because take of the species is not prohibited. If the covered species becomes listed during the COI term, the Cooperator does not receive take authorization for return to existing conditions. However, a Cooperator may choose to amend the enrollment for the new federally listed species and to include the species under the SHA. Baseline conditions would be assessed at the time of amendment and take associated with a return to baseline would be authorized through the updated Landowner Agreement and COI. See Section 11.1, *Changed Circumstances*, for additional details.

10.1 Assurances for Participating Landowners

Under the terms of this SHA/CCAA Agreement, the baseline conditions (under the SHA) or existing conditions (under the CCAA) for each participating landowner's property will be established consistent with Section 7.0, *Baseline or Existing Conditions*, and set forth in the individual Landowner Agreement. The Cooperator's COI will authorize take incidental to the covered activities specified in the Landowner Agreement, on the enrolled property, for the period set forth in the Landowner Agreement. Such lawful activities may include those described in Section 8.0, *Covered Activities*. For the SHA, Cooperators may also, at the end of their Landowner Agreement, return conditions of the site and the covered species back to the originally agreed upon baseline condition at the time of COI issuance.

The Service provides assurances to Cooperators that additional or different management activities will not be required by the Cooperator, provided the Landowner Agreement is being implemented properly. Further, the Service will not require additional land, water, or resource use restrictions be placed upon the Cooperator's property, beyond those voluntarily agreed to in the Landowner Agreement, should the covered species become listed in the future.

The above-listed SHA and CCAA regulatory assurances are valid provided that all of the following qualifications and conditions are met.

1. The Cooperator is in compliance with the Landowner Agreement.
2. When appropriate, the Cooperator provides KDWP at least thirty (30) days written notice of the intention to conduct any activity that is outside normal operations (as described in the Landowner Agreement) that could result in incidental take of a covered species.

Notwithstanding the minimum thirty- (30-) day notice requirement in number three (3), above, the Cooperator is requested to provide as much advance notification to KDWP as possible so that KDWP has time to implement measures to avoid or minimize incidental take, if feasible. KDWP shall provide written response of receipt of such notice within ten (10) days of receiving notice. Should KDWP fail to respond with written notice to the Cooperator within ten (10) days of receiving the notice, and provided that each of the three preceding qualifications and conditions has been satisfied, the Cooperator may proceed with the proposed activity.

The preceding qualifications and conditions will be included in each Landowner Agreement.

10.2 Assurances for Neighboring Landowners

KDWP and the Service encourage eligible neighboring landowners concerned with nearby reintroductions of covered species to enroll their property in a Neighboring Landowner Agreement as described in Section 6.0, *Neighboring Landowners and Neighboring Landowner Agreements*. However, if introductions, reintroductions, and/or translocations are successful, resulting in listed species occupying additional stream and river habitats where adjacent landowners are not enrolled in a Neighboring Landowner Agreement and, therefore, do not receive regulatory assurances, KDWP and the Service will use the maximum flexibility allowed under the ESA Section 10 Exceptions, Section 7 Consultation, and Interagency Cooperation policies to work with these neighboring landowners in cooperative conservation efforts.

10.3 KDWP Section 7 Consultation

As a permitting requirement to this SHA/CCAA Agreement, the Service is required to complete an internal Section 7 consultation to ensure the permit issuance will not jeopardize the continued existence of any federally listed species with potential to occur on properties enrolled under this SHA/CCAA Agreement or result in destruction or adverse modification of designated critical habitat.

In some cases, reintroductions of covered species under this SHA/CCAA Agreement may be funded or carried out by the Service or another federal agency in cooperation and partnership with KDWP. In other cases, reintroductions by KDWP may occur on federal land. It is the intent of the Service for the Biological Opinion for this SHA/CCAA Agreement to satisfy, to the extent allowable by law and regulation, future Section 7 consultation requirements of federal actions associated with this SHA/CCAA Agreement, as long as those actions are entirely consistent with this SHA/CCAA Agreement.

11.0 Changed and Unforeseen Circumstances

11.1 Changed Circumstances

Despite management and protection efforts, there may be changes in circumstances that are beyond the control of the property owner. *Changed circumstances* are conditions or events with potential to affect a covered species population or its habitat that the Parties to this SHA/CCAA Agreement can reasonably anticipate and plan for (50 CFR Section 17.3). The listing of a covered or non-covered species, a change in land use, drought, fire, disease, or the introduction of non-native, invasive species are changed circumstances with potential to affect the species covered under this SHA/CCAA Agreement.

In the event of changed circumstances, the Cooperator will not be held responsible for the loss, provided they are otherwise in compliance with the Landowner Agreement. The Cooperator may request, in writing, that the Parties adjust or reduce the baseline conditions or existing conditions of the enrolled property, in light of the changed circumstance. The Parties may agree to the requested adjustment or reduction and revise the baseline or existing conditions of the Cooperator's Landowner Agreement, as appropriate, to reflect the new circumstances, in accordance with Section 7.0, *Baseline or Existing Conditions*.

If identified changed circumstances occur, the Parties will work with the participating Cooperators, where feasible, to limit additional incidental take of the covered species as a result of the changed circumstance. Additional reintroduction, monitoring, or habitat management actions beyond those agreed to under the Landowner Agreement or Neighboring Landowner Agreement will not be required without the consent of the Cooperator(s). Table 3 describes the changed circumstances identified by this SHA/CCAA Agreement, the potential effects of these changed circumstances, and the range of actions the Parties may implement in response.

Table 3. Changed Circumstances Identified by This SHA/CCAA Agreement, Potential Effects, and Potential Responses

Changed Circumstance	Potential Effect on Covered Species	Potential Response
<p>Listing of a Species Covered by SHA/CCAA Agreement</p>	<p>Following the effective date of a final federal listing rule of a covered species, take authorization for the newly listed species would become effective for covered activities on enrolled lands (Landowner Agreements under the CCAA).</p> <p>Cooperators already enrolled in the CCAA for the newly listed species receive assurances that the Service will not ask for additional commitments or resources for the newly listed species. Incidental take associated with a return to existing conditions is not authorized by the COI.</p> <p>Applicants submitting a Landowner Agreement after the effective date of the final listing rule of the covered species would enroll under the SHA and may receive incidental take authorization for return to baseline conditions.</p>	<p>Following the effective date of a listing decision, KDWP will communicate with Cooperators enrolled in the CCAA for the newly listed species. COI applications received after the effective date for the final listing decision would be part of the SHA and would follow the process described in this SHA/CCAA Agreement for SHA enrollment.</p>
<p>Listing of a Species not Covered by SHA/CCAA Agreement</p>	<p>Reintroductions, habitat management actions, or land use activities covered by this SHA/CCAA Agreement could adversely affect a newly listed species not covered by the SHA/CCAA Agreement. For example, the reintroduction of a covered species may increase competition for food or habitat with the newly listed non-covered species.</p>	<p>If a non-covered species that occurs within the SHA/CCAA Agreement area becomes a federally listed species, the Service will assess whether the implementation of the SHA/CCAA Agreement may affect the species. If implementation may result in incidental take of the species, the Service and KDWP will work with the affected Cooperators to determine appropriate modifications to the Landowner Agreement’s habitat management actions to avoid incidental take. If incidental take cannot be avoided, the Service and KDWP will determine whether it would be beneficial to amend the SHA/CCAA Agreement and permit (see Section 14.0, <i>Modifications and Amendments</i>, for amendment procedures) to cover such additional species. If KDWP proposes an amendment and a new species is added to the SHA/CCAA Agreement and the Cooperator wishes to conserve the species and receive assurances for that species, KDWP and the Cooperator would mutually amend the Landowner Agreement to document baseline conditions and potentially modify</p>

Changed Circumstance	Potential Effect on Covered Species	Potential Response
		or add habitat management actions or land use activities.
Drought	Drought can affect water quality and reduce the extent of potential habitat. Potential secondary effects of drought may include a reduction in prey species and an increase in susceptibility to predation.	Upon identification of drought conditions, the Parties will determine if adequate habitat quantity and quality is available on the enrolled lands or is expected to become available once the drought ends. The Parties will also discuss any potential actions that could be taken by KDWP or the Cooperator to offset drought effects (e.g., limit or cease water diversions). If there is adequate habitat or if the Cooperator agrees to implement additional habitat management actions to offset drought effects, the Landowner Agreement will be modified to adjust the baseline or existing conditions or modify or add habitat management actions, or both. If the covered species may be lost from the enrolled property as a result of the drought, the Parties may elect to translocate the species to a location with improved habitat and terminate the Landowner Agreement.
Wildfire	If wildfires occur on covered lands, the greatest potential for effect is the input of sediment or the modification of water-side vegetation. Sedimentation can decrease water quality and damage gill structures. The loss of vegetation can lead to increased water temperatures or modification to the bank structure and associated habitat, such as undercut banks or scour holes.	Should a wildfire affect a significant portion of the enrolled lands, the Parties will determine if adequate habitat is available on the enrolled lands for covered species. The Parties will also discuss any potential actions that could be taken by KDWP or the Cooperator to offset wildfire effects (e.g., replanting). If there is adequate habitat or if the Cooperator agrees to implement additional measures to offset drought effects, the Landowner Agreement will be modified to adjust the baseline or existing conditions or modify or add habitat management actions, or both. If not, the Parties may elect to capture any remaining individuals for reintroduction elsewhere with adequate habitat and terminate the Landowner Agreement. Covered species may be reintroduced to the enrolled properties after they have recovered from the wildfire.
Disease	Several native and non-native diseases can affect covered species. Impacts include direct mortality, decreased survival rates, and increased competition for food or habitat.	In the case of disease, the Parties will discuss any potential actions that could be taken by KDWP or the Cooperator to offset the effects (e.g., treatment). If there is a need to adjust the baseline or existing

Changed Circumstance	Potential Effect on Covered Species	Potential Response
		conditions as a result of the disease, or if the Cooperator agrees to implement additional measures to offset disease effects, the Landowner Agreement will be modified to adjust the baseline or existing condition or modify or add habitat management actions, or both. If disease causes loss of all species at a reintroduction site, the Landowner Agreement may be terminated, unless additional individuals could be reintroduced in the future if adequate, unaffected habitat exists at the site.
Introduction of Invasive, Non-Native Species	<i>Invasive, non-native species</i> have the potential to predate upon covered species or outcompete them for food or habitat. Invasive, non-native species are those species not native to the watershed or waterbody and that have potential to outcompete other species for food and habitat and will, if left unchecked, become a dominant species in the local ecosystem.	Measures to eradicate or control the invasive species may be implemented on enrolled properties where there is permission from the Cooperator. Capture and translocation of the covered species to an unaffected location may also be considered.

11.2 Unforeseen Circumstances

Unforeseen circumstances are those circumstances affecting a covered species or its habitat that could not be reasonably anticipated by the Parties at the time of the SHA/CCAA Agreement and that result in a substantial and adverse change in the status of the covered species. If additional habitat management actions or other actions are necessary to respond to unforeseen circumstances, the Parties will work with the Cooperator to determine what additional habitat management actions modifications would be appropriate to address the circumstance. However, implementation of additional habitat management actions is not required in response to unforeseen circumstances.

12.0 Responsibilities of the Parties and Cooperators

12.1 Responsibilities of the Parties

The Parties agree to work cooperatively to further the purposes of this SHA/CCAA Agreement. Each Party is tasked with and accountable for certain responsibilities, as outlined below. However, both Parties agree that the implementation of this SHA/CCAA Agreement will be undertaken as a collaborative effort. The Parties will ensure that the requirements of this SHA/CCAA Agreement and any available incentives are presented to landowners to encourage enrollment under this SHA/CCAA Agreement. Moreover, nothing in this SHA/CCAA Agreement shall limit the ability of any federal or state conservation authority to perform its lawful duties, including, but not limited to,

conducting investigations as authorized by statute, regulation, and/or court guidance and direction. Specific responsibilities for each of the Parties to this SHA/CCAA Agreement are detailed as follows.

KDWP shall:

- Implement and administer this SHA/CCAA Agreement
- Work with interested property owners to draft, finalize, and sign Landowner Agreements and associated COIs and Neighboring Landowner Agreements and associated COIs.
- Describe the baseline or existing conditions.
- Reintroduce covered species on enrolled properties.
- Perform monitoring, when and where possible, as agreed upon under the Landowner Agreement, to assess the status of the reintroduction.
- Monitor reintroduced covered species.
- Monitor and track habitat management actions and effectiveness on enrolled lands
- Coordinate and assist with covered species habitat management on Cooperators' enrolled properties when and where applicable and agreed upon by both Parties.
- Submit to the Service annual reports detailing SHA/CCAA Agreement implementation status to date. Refer to Section 13.4, *Annual Reporting*.

The Service shall:

- Receive and review annual reports submitted by KDWP.
- Provide technical assistance to KDWP, when requested.
- If appropriate, participate in the reintroduction or augmentation of covered species populations on enrolled properties.
- Support KDWP in efforts to secure funding for implementation, monitoring, and management associated with the SHA/CCAA Agreement.

12.2 Responsibilities of Enrolled Landowners

Cooperating nonfederal landowners (i.e., owners of enrolled properties) will be responsible for complying with the Landowner Agreement. Consistent with their Landowner Agreements, Cooperators shall:

- Allow appropriate property access for reintroduction and monitoring.
- Maintain or improve baseline or existing habitat and land use conditions.
- Implement any agreed-upon habitat management actions, as described in the Landowner Agreement as the landowner's responsibility.
- Implement all other actions or activities as stated within the Landowner Agreement.

12.3 Responsibilities of the Neighboring Landowner

Cooperating neighboring landowners (i.e., owners of enrolled properties) will be responsible for complying with the Neighboring Landowner Agreement. Consistent with their Neighboring Landowner Agreements, Cooperators shall:

- Allow baseline/existing conditions evaluation to be conducted on property.
- Implement all actions or activities as stated within the Neighboring Landowner Agreement.

13.0 Monitoring, Reporting, and Adaptive Management

13.1 Compliance Monitoring

Compliance monitoring may be performed by KDWP or its designee on the enrolled property per the Landowner Agreement. Compliance monitoring will include periodic site visits to ensure the property is being managed consistent with this SHA/CCAA Agreement and the Cooperator's Landowner Agreement or Neighboring Landowner Agreement. Cooperators may be requested to submit an annual summary describing any actions taken under their Landowner Agreement over the year. This may include a request for photos of enrolled lands to allow KDWP to identify whether adaptive management or a site visit may be necessary.

13.2 Effectiveness Monitoring

Effectiveness monitoring is described in Section 8.2, *Effectiveness Monitoring*.

13.3 Notification of Take Requirement

Although it will not be possible in all incidental take situations, to the extent possible, enrolled landowners agree to provide KDWP with an opportunity to rescue individuals of the Covered Species before anticipated and authorized take occurs (e.g., ground-disturbing activities anticipated to result in extreme sedimentation of nearby covered species habitat). In such cases, notification of take should be provided to KDWP 30 days prior to the action; minimally, notification must occur no less than 14 days prior to the action.

For those situations in which unanticipated, authorized take has occurred, the enrolled landowner agrees to notify KDWP within 48 hours of any observation of take of the covered species on the enrolled lands. If KDWP observes or learns of any take of the Covered Species on an enrolled property, it shall also notify the Service within 48 hours of learning of the take.

13.4 Annual Reporting

KDWP will submit an annual report to the Service that will include the following.

- Identification of covered Cooperators and properties enrolled during the reporting period or any enrollees who have withdrawn from the program.

- Summary or list of all enrolled properties (cumulatively) to the end of the reporting period.
- Identification of the covered activities during the reporting period—reintroduction of covered species, effectiveness monitoring, habitat management actions, or land use activities—implemented on the enrolled properties.
- Any adaptive management considerations or actions taken, consistent with the Landowner Agreement or Neighboring Landowner Agreement.
- A summary of notifications of take from enrolled landowners.
- Any actions taken by KDWP to rescue individuals prior to activity or termination of a Landowner or Neighboring Landowner Agreement.
- Total of observed take that occurred during the annual reporting period.

Reports will cover the period from October 1 to September 30 each year and be due to the Service on December 1. The first annual report will be due to the Service on December 1 after the first full reporting period. Copies of the report will be submitted to the Service and will be made available, upon request, to the Cooperators.

13.5 Adaptive Management

Adaptive management allows for mutually agreed-upon changes to the covered activities outlined in the Landowner Agreement or Neighboring Landowner Agreement in response to changing conditions or new information. If reintroductions or habitat management actions do not yield the expected results, new or additional measures can be discussed between the Parties and the Cooperator. Where there is agreement between the KDWP, the Service, and the Cooperator, the Landowner Agreement or Neighboring Landowner Agreement can be amended to include new or revised measures with landowner agreement. Decisions related to adaptive management may be based on monitoring results and conclusions from annual reporting. However, adaptive management decisions can be made at any time deemed necessary by the Parties and the Cooperator. The process for amending a Landowner Agreement is discussed in the next section.

14.0 Modifications and Amendments

14.1 Modification or Amendment of the SHA/CCAA Agreement

Either Party may propose modifications or amendments to this SHA/CCAA Agreement, as provided in 50 CFR Section 13.23, by providing written notice to and obtaining the written concurrence of the other Party if such modifications or amendments do not change the determinations that this SHA/CCAA Agreement can be reasonably expected to provide a net conservation benefit to the covered species. Such notice shall include a statement of the proposed modification, the reason for it, and its expected results. The Parties will use their best efforts to respond to the proposed modification or amendment within sixty (60) days of receiving the notice. Proposed modifications and amendments will become effective upon the other Party's written concurrence.

If it is agreed by both Parties that the SHA/CCAA Agreement is to be modified or amended to address minor issues, the SHA/CCAA Agreement could be changed administratively without the need to necessitate further review and analysis, including public notification in the *Federal Register*, public comment period, and other administrative compliance actions as required by the ESA, and any other applicable laws, regulations, policies, and directives. In other situations such as changes in take authorization, adding or removing covered species, formal modifications/amendments may be necessary in accordance with all applicable legal requirements, including, but not limited to, the ESA, the National Environmental Policy Act (NEPA), and the Service permit regulations at 50 CFR Sections 13 and 17. A *Federal Register* notice of the proposed Permit amendment and public comment period may be required if the Service deems such actions necessary. Notwithstanding, the Service reserves the right to amend the Permit for just cause at any time during the term of the Permit upon written finding of necessity, providing that any such amendment shall be consistent with the requirements of 50 CFR Section 17.22(c)(5) or 50 CFR Section 17.32(c)(5) or 50 CFR Section 17.22(d)(5) or 50 CFR Section 17.32(d)(5), as applicable.

14.2 Modification or Amendment of the Landowner Agreement, Neighboring Landowner Agreement, or Certificate of Inclusion

A Cooperator or KDWP may propose modifications or amendments to a Landowner Agreement or Neighboring Landowner Agreement so long as those revisions meet the provisions of the SHA/CCAA Agreement, are reasonably expected to provide a net conservation benefit, and the Permit requirements are met. If the Cooperator wishes to initiate a modification, written notice should be provided to KDWP. Such notice shall include a statement of the proposed modification, the reason for it, and its expected results. KDWP will respond to the proposed modification within sixty (60) days of receiving the notice. The proposed modification or amendment will be discussed between KDWP and the Cooperator and described in writing. The proposed modification or amendment will become effective upon signature of the KDWP and the Cooperator. Once the revised Landowner Agreement or Neighboring Landowner Agreement is complete, KDWP and the Cooperator will sign a new COI consistent with the amended Landowner Agreement.

Through the term of Landowner Agreements, species covered under the CCAA may become listed. If a non-listed covered species becomes listed, Cooperators receive assurances and incidental take authorization associated with that covered species for covered activities. Incidental take associated with a return to existing conditions is not authorized. A Cooperator may choose to amend their Landowner Agreement to cover the newly listed species under the SHA rather than the CCAA. At the time of the Landowner Agreement amendment from the CCAA to the SHA, baseline conditions would be documented and incidental take authorization for a return to baseline conditions would be provided.

15.0 Termination, Suspension, Revocation, and Renewal

15.1 Termination of the Enhancement of Survival Permit by the KDWP

The KDWP shall provide 120-day written notice to the Service and all Cooperators to terminate the Enhancement of Survival Permit. Upon notice, or prior to, the KDWP will work with the Service to determine the approach to succession, transfer, or termination of the SHA/CCAA Agreement and address mutual interests of all Parties at that time. If the Enhancement of Survival Permit is terminated, this SHA/CCAA Agreement and the Certificates of Inclusion issued pursuant to it are also terminated.

15.2 Termination of a Landowner Agreement or Neighboring Landowner Agreement by a Cooperator

A Cooperator may terminate his/her SHA or CCAA Landowner Agreement or Neighboring Landowner Agreement before the expiration date. In such instances, the Cooperator will, if possible, provide ninety (90) days prior written notice to the KDWP, which shall, in turn, provide written notice to the Service. The Cooperator may return the property to baseline conditions (for SHA species) even if the expected net conservation benefit has not been realized, provided the landowner is in compliance with the Landowner Agreement or Neighboring Landowner Agreement. For Cooperators terminating their Landowner Agreement prior to species listing, the Cooperator may return the property to existing conditions because there are no take prohibitions prior to listing. The Cooperator will, if possible, provide KDWP the opportunity to relocate the covered species within sixty (60) days of receipt of the termination notice. If a property is being returned to baseline conditions, this return must be completed within the SHA/CCAA Agreement's permit term.

Once the SHA or CCAA Landowner Agreement and the associated COI are terminated, the Cooperator will no longer have the authority to incidentally take the covered species. Enrolled Neighboring Landowners may choose to maintain their existing agreements, especially if the reintroduced species was not removed from the neighboring property.

A return to baseline conditions for species in the SHA may result in incidental take of ESA-listed species. The following conditions are required for a return to baseline conditions.

- A Cooperator will not be authorized to directly take (for example, intentionally kill, injure, capture, or transport) the SHA covered species in an effort to return the property to baseline conditions or for any other purpose.
- Cooperators will notify KDWP at least 60 calendar days before returning to baseline conditions.
- Cooperators will allow KDWP access to their enrolled properties to capture SHA covered species and move them off the property, if deemed advisable, prior to the return to baseline conditions.

If a property is being returned to initial habitat conditions, this return must be completed within the KDWP permit term.

15.3 Termination of a Landowner Agreement or Neighboring Landowner Agreement by a Party

A Party has the right to terminate any Landowner Agreement or Neighboring Landowner Agreement and the associated COI where the Cooperator or the Cooperator's successor(s) is (are) found to be in non-compliance with the terms and conditions of the Landowner Agreement. If a Cooperator is found to be in non-compliance, KDWP will issue a written letter of non-compliance to the Cooperator. The Cooperator shall have sixty (60) days from receipt of the letter to rectify the non-compliance issue(s). If the issue(s) is not resolved, or a plan is not in place to resolve the issue to the satisfaction of KDWP and the Service by the end of the sixty- (60-) day period, the Landowner Agreement or Neighboring Landowner Agreement shall be declared terminated and null and void. At that point, the associated COI shall also cease to be in effect.

The Service reserves the right to utilize, at its discretion, the provisions in the preceding paragraph to review and/or terminate a Cooperator's Landowner Agreement or Neighboring Landowner Agreement which includes the COI. The Service, in cooperation with KDWP, may also terminate a Landowner Agreement or Neighboring Landowner Agreement and associated COI if it is determined that use of the enrolled property is no longer necessary for conservation or recovery efforts for the covered species.

15.4 Suspension or Revocation of a Permit by the Service

The Service may suspend or revoke either Enhancement of Survival Permit for cause in accordance with the laws and regulations in force at the time, including, but not limited to, 50 CFR Sections 13.27, 13.28, 17.22(d)(7), and 17.32(d)(7). The Service may exercise its authority to suspend or revoke the Permit if continuation of the permitted activity would appreciably reduce the likelihood of survival and recovery in the wild of any listed species, directly or indirectly alter designated critical habitat such that it would appreciably diminish the value of that critical habitat for both the survival and recovery of a listed species, or contribute to the potential for future listing. Before revoking a permit, the Service, with the consent of KDWP and in coordination with the affected Cooperators, will pursue all appropriate options to avoid permit revocation. These options may include, but are not limited to, extending or modifying the existing permit, capturing and relocating the species, compensating the affected Cooperator(s) to forgo an activity, purchasing an easement or fee simple interest in the affected property(ies) from a willing landowner, or arranging for a third-party acquisition of a fee simple interest in the affected property(ies) from a willing landowner.

15.5 Renewal of Agreement or Landowner Agreements

This SHA/CCAA Agreement may be considered for renewal upon the written approval of the Parties as long as the renewed agreement meets issuance criteria for the relevant Enhancement of Survival Permit. If the parties wish to renew the SHA/CCAA Agreement, and it continues to meet the standards for an SHA and CCAA, the Service will evaluate for renewal.

If the status of the covered species has declined since the original SHA/CCAA Agreement was signed, an "as-is" renewal of the SHA/CCAA Agreement may no longer meet the SHA/CCAA Agreement standard, and reintroduction, augmentation, or habitat management actions that are additional, different, or more extensive than those required in the original SHA/CCAA Agreement, may be necessary.

Renewal of an SHA/CCAA Agreement and the Permit requires a *Federal Register* notice, whether or not it involves amending the SHA/CCAA Agreement. The Service must also reevaluate NEPA and the Section 7 consultation/conference to see if the analyses need updates since the SHA/CCAA Agreement was initially signed and the Permits issued. Similarly, either Party shall be authorized to renew any Landowner Agreement and the associated COI with or without modification with the written approval of the Parties and the Cooperator, provided that this SHA/CCAA Agreement and its associated Permit are still in effect.

16.0 Succession and Transfer of Landowner Agreements and Certificates of Inclusion

The right of succession under this SHA/CCAA Agreement and any associated Landowner Agreement shall be governed by 50 CFR Section 13.24. The rights and obligations under each Landowner Agreement shall apply to the owner of the enrolled property and are transferable to subsequent nonfederal landowners, or their legal representatives, pursuant to 50 CFR Section 13.25. After becoming a party to a Landowner Agreement and holder of a Certificate of Inclusion, the new owner(s) will have the same rights and obligations with respect to the enrolled property as the previous owner(s). The new owner(s) also will have the option of receiving assurances by entering into a new Landowner Agreement and receiving a new Certificate of Inclusion or of terminating the Landowner Agreement, as described in Section 15.2, *Termination of Landowner Agreement or a Neighboring Landowner Agreement by a Cooperator*. A Cooperator shall provide written notice to the KDWP of any transfer of ownership of the enrolled property at least ninety (90) calendar days prior to the intended transfer, and KDWP will, in turn, provide such notice to the Service. Succession or transfer of a Landowner Agreement or Certificate of Inclusion shall be governed by Service regulations then in effect.

It will be the sole responsibility of the original Cooperator to inform his/her successor(s) in interest or potential buyers that the property is enrolled under this SHA/CCAA Agreement. However, after notification of change in ownership of the enrolled property, KDWP, at its discretion, will attempt to contact the new or prospective landowner to explain the original Landowner Agreement and this SHA/CCAA Agreement and to determine whether the new landowner will become a Cooperator to the original Landowner Agreement, enter a new Landowner Agreement, or cease enrollment under this SHA/CCAA Agreement. Upon becoming a Cooperator to this SHA/CCAA Agreement and associated Permit, the new Cooperator will have the same rights and obligations with respect to the enrolled property as the original Cooperator.

17.0 Dispute Resolution

The Parties agree to work together in good faith to resolve any disputes that might arise from this SHA/CCAA Agreement and any Landowner Agreement entered into in accordance with this SHA/CCAA Agreement. The Parties also agree to engage in the following dispute resolution procedures.

- The aggrieved party will notify the other parties of the potential violation, the basis for contending a violation has occurred, and the remedies it proposes to correct the alleged violation. The party alleged to be in violation will have 30 days, or such other time as may be agreed, to respond.

- Within 30 days after such response was provided or was due, representatives of the parties having authority to resolve the dispute will meet and negotiate in good faith toward a solution satisfactory to all involved parties, or will establish a specific process and timetable to seek such a solution.
- If any issues cannot be resolved through such negotiations, the parties involved will consider nonbinding mediation or other, alternative nonbinding dispute resolution processes, and, if a nonbinding dispute resolution process is agreed upon, will make good faith efforts to resolve all remaining issues through that process.

18.0 Funding

The responsibilities of each Party under this SHA/CCAA Agreement will be funded by respective agency resources. KDWP and the Service will engage in efforts to secure long-term funding for implementation of reintroduction, monitoring, or habitat management actions described in Section 8.0, *Covered Activities*, of this SHA/CCAA Agreement under various ESA programs, including, but not limited to, Partners for Fish and Wildlife, Recovery, Candidate, and At-Risk Species; Cooperative Endangered Species Conservation Fund (Section 6); and other State and private resources. Each Party's responsibilities under this SHA/CCAA Agreement are subject to, and contingent upon, availability of funds for this purpose.

19.0 Remedies

Each Party shall have all remedies otherwise available to enforce the terms of this SHA/CCAA Agreement and the Permit.

20.0 No Third-Party Beneficiaries

Neither this SHA/CCAA Agreement nor any associated Landowner Agreement shall create any new right or interest in any member of the public as a third-party beneficiary nor shall it authorize anyone not a party to this SHA/CCAA Agreement or an associated Landowner Agreement to maintain a suit for personal injuries or damages pursuant to this SHA/CCAA Agreement and the associated Landowner Agreement. The duties, obligations, and responsibilities of the Parties to this SHA/CCAA Agreement with respect to third parties shall remain as imposed under existing law.

21.0 Additional Management Actions

Nothing in this SHA/CCAA Agreement shall be construed to limit or constrain either Party or a Cooperator from implementing additional management actions not provided in this SHA/CCAA Agreement as long as such actions (1) maintain the original goals and objectives of the Landowner Agreement, (2) do not exceed the types or levels of incidental take described in Section 9.0, *Effects Analysis*, and (3) do not otherwise interfere or affect the beneficial actions set forth in this SHA/CCAA Agreement. Cooperators should coordinate closely with KDWP to ensure that additional actions proposed meet these criteria. The Cooperator and KDWP may determine that some changes warrant amendment to the Landowner Agreement, as described in Section 14.0, *Modifications and Amendments*.

22.0 Access to Enrolled Properties

Each Landowner Agreement must stipulate that the Cooperator will allow KDWP, or other properly permitted persons designated by KDWP, to enter upon the enrolled property at reasonable hours and times pursuant to 50 CFR Sections 13.21 and 13.47. Before accessing an enrolled property, KDWP or their designee will provide at least 2 weeks advanced notice. Property access will occur at a mutually agreed-upon time and location. During entries on the enrolled lands, KDWP or their designee shall have controlled access to enter only those areas deemed necessary by KDWP to conduct monitoring or access enrolled lands.

Nothing in this section precludes KDWP or the Service from carrying out their duties as required and authorized by law, including law enforcement investigations.

23.0 Other Species

Surveys for non-covered federally listed species will not be required of the Cooperators as a condition to participate in this SHA/CCAA Agreement. However, neither regulatory assurances nor incidental take authorizations will be conveyed to a Cooperator for any federally listed species that is not identified in the Cooperator's Landowner Agreement as a covered species. Cooperators would not receive regulatory assurances for the species already present on the property at the time of permit issuance. If other federally listed species are known to exist on an enrolled property, the Parties will seek cooperative and comprehensive solutions with the Cooperator to tailor management actions to avoid incidental take of, and to minimize any disturbance to, the non-covered species. The Cooperator and KDWP will follow the evaluation process in Appendix E to identify measures that might be necessary to avoid incidental take of, and to minimize any disturbance to, the non-covered federally listed species (see also Section 8.0, *Review of Impacts to Non-Covered Species, of Appendices B and C*).

24.0 Subordination of the Landowner Agreement

Each Landowner Agreement will be subordinate to this SHA/CCAA Agreement and each Certificate of Inclusion issued hereunder shall be subordinate to the Permit.

25.0 National Environmental Policy Act Compliance

The Service must analyze the impacts of its participation in this SHA/CCAA Agreement as required by NEPA (42 U.S.C. 4332). Any federal agency undertaking a major federal action that is likely to affect the human environment must conduct an environmental review pursuant to NEPA. Issuance of the Service of Enhancement of Survival Permits under the ESA Section 10(a)(1)(A) is a federal action subject to NEPA.

26.0 National Historic Preservation Act Compliance

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470 *et seq.*), requires federal agencies to take into account the effects of their undertakings on properties eligible for inclusion in the National Register of Historic Places. An undertaking is defined as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; those requiring a federal permit, license, or approval; and those subject to state or local regulation administered pursuant to a delegation or approval by a federal agency.

In accordance with Section 101(b)(3) of the NHPA, the State Historic Preservation Officer (SHPO) has a specific consultative function in the Section 106 process and advises and assists federal agencies in carrying out their Section 106 responsibilities. The SHPO reflects the interests of the state and its citizens and advises the consultation process to help ensure that historic properties are considered throughout an undertaking's planning and development. SHPO responsibilities include participating in consultation and reviewing an agency's documentation and effect finding.

Service issuance of an incidental take permit is a federal action subject to Section 106 of the NHPA. To comply with Section 106, the Service will consider the effects of permit issuance on properties listed on or eligible for listing in the National Register of Historic Places.

27.0 Notices and Reports

Any notices and reports, including monitoring reports, required hereunder, shall be delivered to the Parties' designees identified below. Names and addresses may be changed upon written notification to both Parties.

28.0 Authorizing Signatures

IN WITNESS WHEREOF, THE PARTIES HERETO have, as of the date last signed below, executed this SHA/CCAA Agreement.

Secretary

Kansas Department Wildlife and Parks
1020 South Kansas Avenue, Suite 200
Topeka, KS 66612-1326

Date

Field Supervisor

U.S. Fish and Wildlife Service
Kansas Field Office
2609 Anderson Avenue
Manhattan, KS 66502-2801

Date