

Order 12988 on Civil Justice Reform and will not unduly burden the federal court system. HHS adverse decisions may be reviewed in United States District Courts pursuant to the APA. HHS has attempted to minimize that burden by providing petitioners an opportunity to seek administrative review of adverse decisions. HHS has provided a clear legal standard it will apply in considering petitions. This rule has been reviewed carefully to eliminate drafting errors and ambiguities.

#### G. Executive Order 13132 (Federalism)

HHS has reviewed this rule in accordance with Executive Order 13132 regarding federalism, and has determined that it does not have "federalism implications." The rule does not "have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government."

#### H. Executive Order 13045 (Protection of Children From Environmental, Health Risks and Safety Risks)

In accordance with Executive Order 13045, HHS has evaluated the environmental health and safety effects of this rule on children. HHS has determined that the rule would have no effect on children.

#### I. Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use)

In accordance with Executive Order 13211, HHS has evaluated the effects of this rule on energy supply, distribution or use, and has determined that the rule will not have a significant adverse effect on them.

#### J. Effective Date

The Secretary has determined, pursuant to 5 U.S.C. 553(d)(3), that there is good cause for this rule to be effective immediately to eliminate legal inconsistencies between new statutory requirements under 42 U.S.C. 7384f and 7384q and regulatory requirements under 42 CFR part 83 and to make the implementation of the new statutory requirements feasible.

#### List of Subjects in 42 CFR Part 83

Government employees, Occupational safety and health, Nuclear materials, Radiation protection, Radioactive materials, Workers' compensation.

#### Text of the Rule

■ For the reasons discussed in the preamble, the interim rule amending 42

CFR part 83, published on December 22, 2005 (70 FR 75950), is confirmed as final with the following changes:

#### PART 83—[AMENDED]

■ 1. The authority citation for part 83 continues to read as follows:

**Authority:** 42 U.S.C. 7384q; E.O. 13179, 65 FR 77487, 3 CFR, 2000 Comp., p. 321.

#### Subpart B—Definitions

##### § 83.5 [Amended]

■ 2. Amend § 83.5 by removing paragraph (k) and redesignating paragraphs (l) through (p) as paragraphs (k) through (o), respectively.

#### Subpart C—Procedures for Adding Classes of Employees to the Cohort

■ 3. Amend § 83.11 as follows:

■ A. By revising the section heading,

■ B. By replacing the term "submission" with the term "petition" in paragraphs (a) through (d) and (f).

■ C. By replacing the phrases "7 calendar days" and "7 day period" with "30 calendar days" and "30-day period", respectively, in paragraph (c).

■ D. By replacing "8 calendar days" with "31 calendar days" in paragraph (e).

■ E. By adding a new paragraph (g) to read as follows:

##### § 83.11 What happens to petitions that do not satisfy all relevant requirements under §§ 83.7 through 83.9?

\* \* \* \* \*

(g) A petitioner whose petition has been found not to satisfy the requirements for a petition under either paragraph (d) or (e) of this section may submit to NIOSH a new petition for the identical class of employees at any time thereafter on the basis of new information not provided to NIOSH in the original petition. In such a case, the petitioner is required to fully re-address all the requirements of §§ 83.7–83.9 in the petition.

■ 4. Amend § 83.13 by revising paragraph (d)(4) and adding paragraph (e) to read as follows:

##### § 83.13 How will NIOSH evaluate petitions, other than petitions by claimants covered under § 83.14?

\* \* \* \* \*

(d)(4) A summary of the findings concerning the adequacy of existing records and information for reconstructing doses for individual members of the class under the methods of 42 CFR part 82 specifying, for each class defined in the report, whether NIOSH finds that it is feasible to estimate the radiation doses of members

of the class with sufficient accuracy, and a description of the evaluation methods and information upon which these findings are based; and

\* \* \* \* \*

(e) The NIOSH report under paragraph (d) of this section shall be completed within 180 calendar days of the receipt of the petition by NIOSH. The procedure for computing this time period is specified in § 83.5(c). In addition, the computing of 180 calendar days shall not include any days during which the petitioner may be revising the petition to remedy deficiencies identified by NIOSH under § 83.11(a) or (b), nor shall it include any days during which the petitioner may request a review of a proposed finding under § 83.11(c) or during the conduct of such a review under § 83.11(d).

Dated: March 16, 2007.

**Michael O. Leavitt,**

Secretary, Department of Health and Human Services.

**Editorial Note:** This document was received in the Office of the Federal Register on July 3, 2007.

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## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 16

#### RIN 1018–AT29

#### Injurious Wildlife Species; Silver Carp (*Hypophthalmichthys molitrix*) and Largescale Silver Carp (*Hypophthalmichthys harmandi*)

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** The U.S. Fish and Wildlife Service (Service or we) adds all forms of live silver carp (*Hypophthalmichthys molitrix*), gametes, viable eggs, and hybrids; and all forms of live largescale silver carp (*Hypophthalmichthys harmandi*), gametes, viable eggs, and hybrids to the list of injurious fish, mollusks, and crustaceans under the Lacey Act. The best available information indicates that this action is necessary to protect the interests of human beings, and wildlife and wildlife resources, from the purposeful or accidental introduction, and subsequent establishment, of silver carp and largescale silver carp populations in ecosystems of the United States. Live silver carp and largescale silver carp, gametes, viable eggs, and hybrids can be

imported only by permit for scientific, medical, educational, or zoological purposes, or without a permit by Federal agencies solely for their own use; permits will also be required for the interstate transportation of live silver or largescale silver carp, gametes, viable eggs, or hybrids currently within the United States. Interstate transportation permits may be issued for scientific, medical, educational, or zoological purposes.

**DATES:** This rule is effective August 9, 2007.

**FOR FURTHER INFORMATION CONTACT:** Kari Duncan, Chief, Branch of Invasive Species at (703) 358-2464 or [kari\\_duncan@fws.gov](mailto:kari_duncan@fws.gov).

#### **SUPPLEMENTARY INFORMATION:**

##### **Background**

In October 2002, the U.S. Fish and Wildlife Service (Service or we) received a petition signed by 25 members of Congress representing the Great Lakes region to add silver, bighead, and black carp to the list of injurious wildlife under the Lacey Act (18 U.S.C. 42). A follow-up letter to the original petition had seven additional Legislator signatures that supported the petition.

##### **Summary of Previous Actions**

The Service published a **Federal Register** notice of inquiry on silver carp (68 FR 43482-43483, July 23, 2003), and provided a 60-day public comment period. We received 31 comments in total, but 12 of these did not address the issues raised in the notice of inquiry. We considered the information provided in the 19 relevant comments.

Most of the comments supported the addition of silver carp to the list of injurious wildlife, but provided no additional information. One commenter noted that silver carp have no commercial value, but was concerned that listing would hinder control and management. One commenter asked us to delay listing until a risk assessment could be completed. Biological synopses and risk assessments were completed for silver and largescale silver carp. A proposed rule to add all forms of live silver and largescale silver carp to the list of injurious fishes under the Lacey Act was published on September 5, 2006 (71 FR 52305); the comment period on the proposed rule closed on November 6, 2006. We received 97 comments on the proposed rule. In total, the Service received 116 pertinent letters during the public comment periods. Most of the 116 letters received urged the Service to list silver and largescale silver carp as injurious

wildlife, but provided no additional information. Similar comments were grouped into issues; these issues and our responses to each are presented below.

##### **Comments Received on the Proposed Rule**

*Issue:* One commenter stated that there is currently no market for silver carp; very few silver carp are in culture (for maintenance of stocks) or use. However, there is great potential for silver carp use in aquaculture within Arkansas and Mississippi by utilizing an enclosed system that would prevent escape of silver carp. The potential for silver carp use in the United States has not been fully realized.

*Response:* This rule will prohibit the importation and interstate transport of live silver carp, gametes, viable eggs, and hybrids, which will in no way affect the use of silver carp in States where they already exist.

*Issue:* One aquaculture industry group stated that there is no meaningful role of silver carp in cleaning ponds and tanks for southern U.S. aquaculture producers and that there would be little or no economic impact associated with this rule. However, they also noted that the natural invasion of silver carp will continue into waters of other States, whether the proposed rule is enacted or not. The comment stated that, given the existing conditions and circumstances of silver carp, listing these species will do little or nothing to address the problems stated in the proposed rule. Listing would not address the real problem of preventing the spread of naturally occurring populations; States already have the authority to address these problems, so Federal intervention does not seem necessary.

*Response:* The Service agrees that this rulemaking will not address the ecological impacts of silver carp already in the environment. This rulemaking is intended to prevent or delay the introduction of silver carp into waterbodies where they do not currently exist, which will help protect native species. Many States have requested Federal intervention because the States only have authority to regulate possession within State boundaries.

*Issue:* A few commenters stated that they did not understand why nine questions were included in the proposed rule. These commenters believe that asking those questions has delayed the rulemaking. In addition, they expressed concern with the length of time it takes to add species to the list of injurious wildlife.

*Response:* Nine questions were included in the proposed rule in order

to ascertain if there were any additional data pertinent to the analyses required by various laws and executive orders relating to the Federal rulemaking process. Inclusion of these nine questions has in no way delayed the process of adding silver and largescale silver carp to the list of injurious wildlife.

*Issue:* One commenter stated that the proposed rule contained repetition of unnecessary facts and that many assumptions were made without scientific research.

*Response:* The Service has reviewed the proposed rule to reduce repetition in the final rule. Research has been conducted on silver carp impacts and due to the similarities between silver carp and largescale silver carp, we feel that reasonable extrapolations of potential impacts have been made.

*Issue:* A few commenters stated that penalties for injurious wildlife should be increased.

*Response:* Penalties for violations of the Lacey Act are set by Congress.

##### **Peer Review**

We asked scientists who have knowledge of fisheries biology or invasive species to provide peer review of the proposed rule during the public comment period. The peer reviewers had a few technical comments and suggestions; however, all concluded that the data and analyses used in the proposed rule were appropriate and the conclusions drawn were clear and concise. Additionally, peer reviewers provided additional documentation of potential impacts to native species. This information has been incorporated into the final rule.

##### **Description of the Final Rule**

The regulations contained in 50 CFR part 16 implement the Lacey Act (18 U.S.C. 42) as amended. Under the terms of the injurious wildlife provisions of the Lacey Act, the Secretary of the Interior is authorized to prohibit the importation and interstate transportation of species designated by the Secretary as injurious. Injurious wildlife are those species, offspring, and eggs that are injurious to wildlife or wildlife resources, to human beings, or to the interests of forestry, horticulture, or agriculture of the United States. Wild mammals, wild birds, fish, mollusks, crustaceans, amphibians, and reptiles are the only organisms that can be added to the injurious wildlife list. The lists of injurious wildlife are at 50 CFR 16.11-16.15.

By adding all forms of live silver carp and largescale silver carp, including hybrids, to the list of injurious wildlife,

their importation into, or transportation between, States, the District of Columbia, the Commonwealth of Puerto Rico, or any territory or possession of the United States by any means whatsoever is prohibited, except by permit for zoological, educational, medical, or scientific purposes (in accordance with permit regulations at 50 CFR 16.22), or by Federal agencies without a permit solely for their own use. Federal agencies who wish to import silver carp or largescale silver carp for their own use must file a written declaration with the District Director of Customs and the U.S. Fish and Wildlife Service Inspector at the port of entry. No live silver carp or largescale silver carp, progeny thereof, viable eggs, or hybrids imported or transported under permit may be sold, donated, traded, loaned, or transferred to any other person or institution unless such person or institution has a permit issued by the U.S. Fish and Wildlife Service. The interstate transportation of any live silver carp or largescale silver carp, gametes, viable eggs, or hybrids currently held in the United States for any purpose is prohibited without a permit. Any regulation pertaining to the possession or use of silver carp and largescale silver carp within States continues to be the responsibility of each State.

### Biological

The commonly named silver carp belongs to the family Cyprinidae, with the species name of *Hypophthalmichthys molitrix*. Silver carp are native to Asia (China and Eastern Siberia), from about 54 °N southward to 21 °N. Silver carp are primarily phytoplanktivores, but are highly opportunistic, eating phytoplankton, zooplankton, bacteria, and detritus. Silver carp are well established throughout much of the Mississippi River Basin, and its range is expanding in that basin.

The commonly named largescale silver carp (or southern silver carp or Vietnamese carp) also belongs to the family Cyprinidae, with the species name of *Hypophthalmichthys harmandi*. Largescale silver carp are native to fresh waters of northern Hainan Island, China, and the Red (Hong Ha) River of northern Vietnam from subtropical to tropical (21–22 °N). The species does not occur naturally on the Chinese mainland. Largescale silver carp feed on phytoplankton and prefer slow-moving, plankton-rich open waters. There is no indication that this species has been imported into or introduced into the open waters of United States.

For additional information on the biology, use, history and pathways of introduction into the United States for silver and largescale silver carp, please refer to the proposed rule published in the **Federal Register** on September 5, 2006 (71 FR 52305).

### Factors That Contribute to Injuriousness for Silver Carp

#### Introduction and Spread

The major pathway for introduction of silver carp in the United States was importation for biological control of plankton in aquaculture ponds and sewage lagoons. The pathway that led to the presence of this species in open waters of the United States was likely escape from these facilities. Subsequent escapes and the mixture of silver carp with other species that were stocked likely contributed to the expansion of the species' range, along with natural reproduction.

Other probable pathways that may aid the spread of existing populations of silver carp include connected waterways, contamination of pond-grown baitfishes with silver carp, ballast water release, release or escape from livehaulers that support commercial fisheries, or spread by commercial fishers themselves.

Silver carp are difficult to handle and transport because of their propensity to jump when disturbed. As a result, there has been very little culture of silver carp in the United States since 1985, and they are not being cultured commercially at this time. However, should culture of silver carp resume, a potential pathway for introduction would be escape or release from a facility or during the transport and sale of live fish in retail markets.

Silver carp are likely to be spread when juveniles are collected by cast net for use as live baitfish. Silver carp juveniles are very similar in appearance to shad, and anglers sometimes catch young silver carp and use them as live bait. Release of live bait has been identified as a source for more than 100 introductions of fishes beyond their natural range in the United States. Although adult and market-sized silver carp are fragile and do not survive collection and transport well, fingerling silver carp are less susceptible to mortality due to handling stress.

Silver carp, caught as bycatch, may be sold as fillets or to live fish markets. Another potential pathway for further introductions is the intentional release of silver carp through animal rights activism or prayer release (the ceremonial release of a fish in honor of the one that will be eaten).

Silver carp have survived, have become established in river systems, and have been reproducing in natural waters of the United States since at least 1995. Because silver carp can occupy lakes, there is serious concern that this species will further expand its range beyond riverine environments and into lake environments including the Great Lakes. If introduced, it is highly likely that silver carp will establish reproducing populations in other major river systems, such as the Potomac/Chesapeake, Columbia, and Sacramento/San Joaquin Delta. In their native range, juveniles and adults are also found in lakes, reservoirs, and canals where they grow well, but probably cannot spawn and recruit without access to an appropriate riverine habitat.

#### Hybrids

Hybridization of silver carp with native fishes is not known to be possible, but silver carp are known to hybridize and produce viable offspring with both bighead carp (*H. nobilis*), a nonnative species also present in the Mississippi River basin, and largescale silver carp, a species not yet known to be in the United States. Bighead carp × silver carp and the reciprocal cross are fertile. Bighead carp × silver carp are common in parts of the United States. The presence of large numbers of wild-spawned hybrids implies that bighead and silver carp often spawn in the same place at the same time in United States waters. Silver carp × bighead hybrids adversely impact food availability for native species due to the size they attain and the amount of food they eat. Hybrids with largescale silver carp would likely adversely affect food availability for native species as well.

Hybridization may also be possible with grass carp, but hybridization with common carp (*Cyprinus carpio*) is unlikely because the spawning locations and behaviors of the two genera are so different.

#### Potential Effects on Native Species

Silver carps' food consumption rate is high, but widely variable. Fry at the smallest size class consumed up to 140% of their body weight daily; 63 mg fingerlings consumed just more than 30% and 70–166 mg fingerlings consumed 63% of their body weight. Adult silver carp have been shown to consume 8.8 kilograms (kg) of food per year, with 90% of the consumption occurring during the three warmest months of the year.

Silver carp are quite tolerant of broad water temperatures from 4 °C to 40 °C. Silver carp can grow quickly (20 to 30

kg in 5 to 8 years), and large adults can reach over 1.2 meters in length and 50 kg in weight. Silver carp are difficult to age, but have been reported to live 15–20+ years.

The reproductive potential of silver carp is high and increases with body size. It has been estimated that silver carp weighing 3.18 to 12.1 kg can produce 145,000–5,400,000 eggs. Silver carp mature anywhere from 3–8 years, and males usually mature one year earlier than females. The same female may spawn twice during one growing season. Silver carp exhibit a prolonged spawning period, into late summer or early fall, in the United States.

Due to the large size, fast growth rate, high food consumption rate and high reproductive potential of silver carp, competition for food and habitat with native planktivorous fishes and with post-larvae and early juveniles of most native fishes is likely high. Since nearly all larvae and juvenile fishes are planktivorous and based on other demonstrated impacts, it is highly likely that silver carp are adversely affecting many native fishes in the Mississippi River Basin, particularly in waters where food may become limited, though long-term studies have not yet been conducted. Affected native species include paddlefish (*Polyodon spathula*), bigmouth buffalo (*Ictiobus cyprinellus*), gizzard shad (*Dorosoma cepedianum*), emerald shiner (*Notropis atherinoides*), and threadfin shad (*Dorosoma petenens*). It is highly likely silver carp would adversely affect fishes in the Great Lakes basin or other watersheds, if they establish.

Paddlefish, native to the Mississippi River Basin and Gulf of Mexico river drainages from east Texas to Alabama, is a large river fish that has declined in abundance in recent years because of overharvest and habitat alteration. Like the silver carp, paddlefish uses plankton as its primary food source, so silver carp or hybrids would directly compete with paddlefish for food throughout most of the paddlefish's range. Other fishes, such as buffalos or shads, use both plankton and aquatic invertebrates as food. While these fishes are currently more common than paddlefish, they may be at risk if silver carp, silver × largescale silver carp hybrids, or silver × bighead hybrids establish and reduce plankton. Gizzard shad are a primary forage base for predacious fishes and important to the ecology of Midwestern rivers; thus, the likely competition with silver carp in these waters is cause for concern.

Because silver carp are likely to negatively affect important planktivorous forage fishes such as the

gizzard shad and emerald shiner, scientists have indicated that fishes and birds that prey on these species would likely also be negatively affected. Adult silver carp are too large to be preyed on by almost any native predator. Young silver carp have likely been incorporated into the diets of piscivorous birds and fishes to some degree, but the extent of this predation is not known. Ecosystem balance is likely to be modified if silver carp populations become large enough to dominate other planktivorous fish species. The most likely negative effect would be an alteration of fish community structure through competition for food.

Silver carp have been shown to have major effects on nutrient cycling and have had adverse effects on primary productivity, which could alter food webs and ultimately alter nutrient and energy cycling in aquatic communities. There is evidence of nutrient overloading in waters where silver carp have been introduced. Excrement from silver carp has been found to increase levels of certain nutrients, some which cannot be consumed by other animals in the digested form or may be harmful, which has led to a net decrease in food resources available in several studies. Recent studies on the effects of silver carp on toxin-producing blue-green algae indicate that certain species of blue-green algae are often controlled by silver carp, but that other species are often enhanced, particularly those like *Microcystis aeruginosa* that have a mucosal covering that inhibits digestion by silver carp. These organisms can pass alive through the digestive tract and, in the process, acquire nutrients that can later be used for growth and cell division. Additionally, *M. aeruginosa* has been shown to produce more toxins in the presence of filter feeding fishes, especially silver carp. Once established, these fish are likely to cause shifts in the food web and compete with other zooplanktivorous fishes and fish larvae for food. Changes in the community structure towards smaller size plankton may have negative effects on fishes native to the United States that subsist on larger zooplankton.

Adverse effects of silver carp on some threatened and endangered freshwater mussels and fishes are likely to be moderate to high. There are currently 116 fishes and 70 mussels on the Federal List of Endangered and Threatened Wildlife. Because silver carp have the same habitat requirements as approximately 40 fishes and 25 mussels currently on the endangered or threatened species list, these listed species will likely be impacted by

competition for food and habitat by the introduction and establishment of silver carp.

Habitat requirements, springs and small streams, of the remaining listed fishes and mussels would probably preclude any detectable effects as it is unlikely that silver carp could survive in such small bodies of water.

Adverse effects of established populations of silver carp on endangered and threatened fishes would most likely be through direct competition for food resources, particularly phytoplankton and, to a lesser extent, zooplankton, in the water column during the larval stage. Potential for direct predation and injury of drifting fertilized eggs and larvae of native fishes also exists. The fact that silver carp can become extremely abundant and reach a very large size (> 1 m in length) in rivers, lakes, and reservoirs increases the probability of a negative impact on aquatic ecosystems they invade as high densities of silver carp decrease food availability for native species. Mussels are also filter feeders but live partly or totally buried in the substrate; their association with the benthic environment means that they would be less likely to be affected by filter-feeding silver carp. Nevertheless, changes in the fish community structure caused by silver carp are likely to have adverse effects on abundance and availability of host fishes required for mussel reproduction, which may result in a decline of native mussels.

#### *Habitat Degradation*

There is low risk of silver carp causing direct habitat degradation or destruction, although the presence of silver carp is sometimes associated with decreased water clarity, which may also impact benthic chemistry and community structure. The effect of these fishes on nutrients, sediment re-suspension (which can stimulate plankton growth), and decreasing dissolved oxygen varies. Excrement from silver carp, which can equal their body weight in 10 days, has organically enriched lake bottoms and altered the benthic macroinvertebrate community structure.

However, due to the impacts listed above, it is highly likely that silver carp would have adverse effects on designated critical habitats of threatened and endangered species. There are currently 60 species of fishes and 18 mussels with designated critical habitat. Of those, at least 26 inhabit lakes or reaches of streams large enough to support silver carp. Therefore, dense populations of silver carp are likely to affect the critical habitats upon which

the threatened and endangered species depend.

#### Potential Pathogens

Many species of parasites and bacterial diseases occur in silver carp. The only viral disease agent of silver carp found in the literature is *Rhabdovirus carpio*, the causative agent for spring viraemia of carp (SVC), a systemic, acute, and highly contagious infection that is known to cause mortality in native fishes. Silver carp are susceptible to many diseases caused by parasitic protozoans and trematodes, and several crustacean parasites, such as anchor worm (*Lernaea bhadransis*), have also been reported from silver carp.

Although there have been studies of disease-causing agents of silver carp, none have investigated the transfer of these pathogens from silver carp to native fishes of the United States. However, two parasites known to infect silver carp are a threat to native North American fishes, including cyprinids: The gill-damaging *Lernaea cyprinacea*, known as anchorworm (this parasite is also known to affect salmonids and eels), and *Bothriocephalus acheilognathi*, known as Asian carp tapeworm. The Asian carp tapeworm, initially introduced into U.S. waters from grass carp, has infected native threatened and endangered fishes (including the yaqui chub (*Gila purpurea*), beautiful shiner, (*Cyprinella formosa*), yaqui topminnow (*Poeciliopsis occidentalis sonoriensis*), colorado pikeminnow (*Ptychocheilus lucius*), and humpback chub (*G. cypha*)) and fishes of concern such as the roundtail chub (*G. robusta*), a candidate for Federal listing as a threatened or endangered fish and listed as endangered by Colorado, in five States. When infected baitfish were released into Lake Mead, the tapeworm was spread to two endangered fishes, virgin spinedace (*Lepidomeda mollispinis*) and woundfin minnow (*Plagopterus argentissimus*) in Utah and Nevada. Approximately 90% of large juvenile and adult humpback chubs in the Little Colorado River are infected with this cestode. The Asian carp tapeworm has been reported from more than 40 other cyprinid fishes and fishes of other orders. Silver carp are hosts of this parasite, but suffer minimal adverse effects from it. As hosts of this tapeworm, silver carp have the potential to spread it to native fishes, beyond the five States where it has already been found (Arizona, Colorado, Nevada, New Mexico, and Utah). This is a parasite that erodes mucus membranes and intestinal tissues, often leading to death

of the host. The most probable pathway of introduction was by the release of infected baitfishes. As the introduced range of silver carp grows in U.S. waters, silver carp will likely spread the parasite and a number of native fishes, particularly, but not limited to, cyprinids, percids, and centrarchids, will likely become hosts of the Asian carp tapeworm.

Some disease-causing agents harbored by silver carp pose health risks to humans. The psychotropic pathogen *Listeria monocytogenes* has been found in market and fish farm samples of silver carp. *Clostridium botulinum* was found in 1.1% of fresh and smoked samples of silver carp from the Mazandaran Province in Iran. The toxigenic fungi *Aspergillus flavus*, *Alternaria*, *Penicillium*, and *Fusarium* were found from silver carp and from pond water in which they were raised at a fish farm in northern Iran. In addition, live *Salmonella* spp. can be found in silver carp for at least 14 days after transfer to clean water, and silver carp, therefore, should be considered as a potential carrier for *Salmonella* (*S. typhimurium*).

#### Impacts to Humans

Silver carp in the United States cause substantial impacts to the health and welfare of human beings who use waterways infested with silver carp. There are numerous reports of injuries to humans and damage to boats and boating equipment because of the jumping habits of silver carp in the vicinity of moving motorized watercraft. Some reported injuries include cuts from fins, black eyes, broken bones, back injuries, and concussions. Silver carp also cause property damage including broken radios, depth finders, fishing equipment, and antennae. Some vessels have been retrofitted with a Plexiglas pilot's cab as protection against jumping silver carp.

#### Factors That Reduce or Remove Injuriousness for Silver Carp

##### Detection and Response

If silver carp were introduced or spread into new U.S. waters, it is unlikely that the introduction would be discovered until the numbers were high enough to impact wildlife and wildlife resources. Widespread surveys of waterways are not conducted to establish species' presence lists. Delay in discovery would limit the ability and effectiveness to rapidly respond to the introduction and prevent establishment of new populations. It is unlikely that silver carp could be eradicated from

U.S. waterways unless they are found in unconnected waterbodies.

#### Potential Control

The ability to control spread of established populations depends on their access to open waterways and riverine habitat to spawn. Barriers may help control the spread of silver carp from the Mississippi River basin into the Great Lakes or other waterbodies, but barriers could also negatively affect migratory native fishes. There are still several pathways by which silver carp from established populations in the Mississippi River Basin might be moved to new waterbodies, such as the Potomac River or Columbia River, and become established.

Due to the extensive established range of silver carp in the Mississippi River Basin, conventional control methods are not feasible to reduce established populations. Massive fishing efforts utilizing netting and electrofishing may be effective in reducing populations, but many non-target fish species would also be killed. Justifying the expense of such efforts would require a large commercial demand, which does not currently exist, nor is likely given the jumping behavior of silver carp that makes fishing difficult. Selective removal of silver carp is possible given their location in the water column, but water trawling could also remove other non-target fish such as paddlefish.

The large and growing range of silver carp in U.S. waterways makes chemical control of established populations highly unlikely, both physically and fiscally. Use of chemical treatments, such as rotenone, would be expensive, only locally effective, and would negatively affect all fishes and invertebrates, not just the target carp. At present, there is no method known to substantially reduce established populations of silver carp. Eradication is not possible with presently available technology.

#### Recovery of Disturbed Sites

Because the ability to eradicate this species is low, there is little likelihood for rehabilitation or recovery of ecosystems disturbed by this species. Additionally infested waterways allow connections to unpopulated sites. Utilizing sterile silver carp would do little to reduce or remove injuriousness as the present range of establishment in the Mississippi River Basin is too extensive for this option to reduce current silver carp populations in this area. The use of daughterless fish technology (introducing sterile males to produce unviable eggs) may reduce populations, but this would take many

years before it would reduce numbers of fish where they currently exist. Research is being conducted on the use of pheromones to control carp, but it is years from demonstrating effectiveness in natural waters and mass production. These technologies might be useful to prevent establishment of silver carp in new areas.

#### *Potential Pathogens*

Silver carp are host to many parasites and bacterial diseases that are or could be a threat to native North American fishes. If silver carp transfer pathogens to native fish, the ability and effectiveness to control these transfers would be very low because silver carp and native fishes share the same habitat.

#### *Potential Ecological Benefits for Introduction*

The ability of silver carp to effectively filter particles and reliance on phytoplankton for much of its diet led to research into their effectiveness as a biological control agent for phytoplankton in wastewater systems and other ponds. There is conflicting data concerning the benefit of using silver carp to control excess nutrients. Regardless of their effect on increasing or decreasing phytoplankton and zooplankton abundance, studies have consistently shown that filter feeding by silver carp shifts the species composition of these communities to smaller species. Silver carp have been observed to cause nuisance algal blooms through a trophic cascade. Scientists believe that the removal of larger zooplankton and phytoplankton by foraging silver carp may result in stimulating growth of smaller species.

#### *Conclusion*

In summary, the Service finds all forms of live silver carp, including gametes, viable eggs and hybrids, to be injurious to wildlife and wildlife resources of the United States and to the interests of human beings because:

- Silver carp are highly likely to spread from their current established range to new waterbodies in the United States;
- Silver carp are highly likely to compete with native species, including threatened and endangered species, for food and habitat;
- Silver carp have the potential to carry pathogens and transfer them to native fish;
- Silver carp are likely to develop dense populations that will likely affect critical habitat for threatened and endangered species and could further imperil other native fishes and mussels;

- Silver carp are negatively impacting humans;
- It would be difficult to eradicate or reduce large populations of silver carp, or recover ecosystems disturbed by the species; and
- There are no potential ecological benefits for U.S. waters from the introduction of silver carp.

#### **Factors That Contribute to Injuriousness for Largescale Silver Carp**

##### *Potential Introduction and Spread*

To our knowledge, the largescale silver carp has not been imported into the United States. Within its native range, largescale silver carp occur in subtropical to tropical climates, which exist in parts of the United States. Therefore, should pure largescale silver carp be introduced to U.S. waters, its potential range would likely include subtropical waters such as those present in southern Florida, southern Texas, and Hawaii.

The growth rate of largescale silver carp is greater than that of silver carp. The reproductive capability is expected to be similar to that of silver carp, though largescale silver carp reach sexual maturity at a younger age than silver carp so they will spawn earlier.

In culture situations, silver carp has hybridized with largescale silver carp. The hybrids did not grow as quickly as largescale silver carp but exceeded the growth rate of silver carp. Largescale silver carp × silver carp hybrids were introduced in Kazakhstan where they became established. The climate of Kazakhstan is temperate; thus, largescale silver carp × silver carp hybrids are more cold-tolerant than pure largescale silver carp. The faster growth rate of these hybrids than pure silver carp and the increased palatability of largescale silver carp compared to silver carp may conceivably stimulate interest in culturing either the hybrids or pure largescale silver carp in the United States. Because hybrids can tolerate temperate climates, they have the potential to be cultured in many southern States and would have a wider potential range where they could establish in the United States.

Escape from containment, as has happened with silver carp, would provide a pathway for release of largescale silver carp into natural waters of the United States. Should this fish or its hybrids be released into natural waters, connected waterways would become a secondary pathway for spread. Because of the morphological similarity between this species and silver carp, stock contamination of silver carp by

largescale silver carp is possible if imported from regions with populations of *H. harmandi*. Another possible introduction pathway, should largescale silver carp or their hybrids be imported for culture, would be sale of live individuals in food fish markets.

Likelihood of spread of largescale silver carp, should they be introduced, would be high in subtropical and tropical river systems of the United States. Hybrid largescale silver carp × silver carp, however, would have high potential to live in much of the temperate United States. Because largescale silver carp can occupy and reproduce in reservoirs, they could also live in lakes. The same is likely true for hybrids. Young largescale silver carp or any hybrids captured by anglers for use as live bait would be a pathway that could lead to numerous future introductions of these species.

#### *Hybrids*

Hybridization with native fishes is not believed to be possible, but largescale silver carp are known to hybridize and to produce viable offspring with silver carp and possibly bighead carp, both of which are present in U.S. waters. Largescale silver × silver carp hybrids are tolerant of a temperate climate (ca. 42–46° N). (45° N is a latitude that parallels the border between New York State and Ontario, Canada). Therefore, these hybrids would likely be capable of surviving and probably establishing throughout much of the United States where suitable waters exist. Largescale silver carp grow faster than silver carp but hybrids do not grow as quickly as pure largescale silver carp. It is highly likely that any largescale silver carp hybrids would directly compete with native species for food and habitat.

#### *Potential Effects on Native Species*

Largescale silver carp consume primarily planktonic food sources. It is unknown if largescale silver carp feed more heavily on phytoplankton than zooplankton, but their hybrids with silver carp would likely show a preference for phytoplankton. Some adults may weigh 20–30 kg. The rapid growth and high fat content of this fish has made it the most cultured species for food in Vietnam. Largescale silver carp and hybrids are highly likely to compete for food with other planktivorous native fishes and with post-larvae and early juveniles of most native fishes should they become established in the United States.

Fishes most likely to be affected are those species whose diet is predominantly plankton including paddlefish (*Polyodon spathula*), native

to the Mississippi River Basin and Gulf of Mexico river drainages from east Texas to Alabama, buffalos (*Ictiobus* spp.), or shads (*Dorosoma* spp.). Given that these fish may already be competing with bighead and silver carps in some areas, the presence of largescale silver carp would increase food competition and increase the likelihood of negative impacts to native species.

Potential for direct predation and injury of drifting fertilized eggs and larvae of fishes exists. Mussels are also filter feeders but live partly or totally buried in the substrate; they would be less likely to be affected by water column filter-feeding largescale silver carp. Nevertheless, changes in the fish community structure caused by largescale silver carp would likely have adverse effects on abundance and availability of host fishes required for mussel reproduction.

There are other possible, but less likely, effects that may cascade through any aquatic ecosystem with an established population of largescale silver carp. Nutrient levels are a concern because there is evidence of overloading of nutrients in waters into which silver carp have been introduced, and the same may apply to largescale silver carp or their hybrids.

Competition for habitat between largescale silver carp and native species is likely high, especially in large rivers, lakes, and reservoirs. Because they are planktivorous, the potential of largescale silver and any hybrids to cause habitat degradation or destruction is low as is direct predation on native mammals, birds, amphibians, reptiles, mollusks or other live, non-aquatic animals.

Additional adverse impacts on native wildlife, wildlife resources, and ecosystem balance are likely few, except for fishes. Ecosystem balance would likely be modified if populations of largescale silver carp or any hybrids become large enough to dominate planktivorous fish species.

Because largescale silver carp may survive and become established and compete with native fishes, there is no acceptable escape or release threshold for largescale silver carp or their hybrids.

Adverse effects of largescale silver carp on selected threatened and endangered freshwater mussels and fishes would be expected to be moderate to high. There are currently 116 fishes and 70 mussels on the Federal List of Endangered and Threatened Wildlife. Because largescale silver carp have the same habitat requirements as approximately 40 fishes and 25 mussels currently on the endangered or

threatened species list, these listed species in tropical or subtropical areas will likely be impacted by the introductions of largescale silver carp through competition for food and habitat. However, the habitat requirements, springs and small streams, of the remaining listed fishes and mussels would probably preclude any detectable effects as it is unlikely that largescale silver carp or their hybrids would survive in such small bodies of water.

It is likely that largescale silver carp and highly likely that their hybrids with silver carp would have adverse effects on designated critical habitats of threatened and endangered species. There are currently 60 species of fishes and 18 mussels with designated critical habitat. At least 26 fishes and mussels with critical habitat inhabit lakes or reaches of streams large enough to support hybrids of largescale silver carp and silver carp. Largescale silver carp and their hybrids have the potential to alter food webs and ultimately alter nutrient and energy cycling in aquatic communities. The most likely effect would be an alteration of fish community structure through competition for food. Fishes and mussels that are determined to be candidates for listing under the Endangered Species Act would likewise be at risk.

Native species may be placed in danger of extinction as a result of the introduction or establishment of largescale silver carp if pure stock became established in subtropical or tropical waters in the United States. However, there is a higher risk for negative impacts to native fishes from largescale silver carp hybrids. Large populations of largescale silver carp or hybrids would likely alter native fish community structures, ultimately resulting in decline of native mussels since many rely on native host fishes for reproduction. The fact that largescale silver carp have the potential to become abundant and reach a very large size (> 1 m in length) in rivers, lakes, and reservoirs increases the probability of a negative impact on aquatic ecosystems should largescale silver carp be introduced and become established.

#### *Potential Pathogens*

The potential for largescale silver carp to transfer pathogens is largely unknown. No detailed studies of disease-causing agents of largescale silver carp have been found, but at least three trematode parasites (*Dactylogyrus harmandi*, *D. hypophthalmichthys*, *D. chentushenae*) are known to infect largescale silver carp. Bighead, silver,

grass, and black carps are known to host the Asian carp tapeworm (*Bothriocephalus acheilognathi*), but it is unknown whether largescale silver × silver carp host this species. Since largescale silver carp are very similar to silver carp, they likely can host the Asian carp tapeworm and infected fish, if introduced to U.S. waters, could spread it to native fishes.

#### *Potential Impacts to Humans*

The potential impact on the health and welfare of humans from largescale silver carp or any hybrids is unknown. Because largescale silver carp remain deep in the water column during daylight hours and swim toward the surface at night to feed on plankton, they may be less prone to jumping than silver carp in response to sounds of boat engines during daytime. However, if largescale silver × carp hybrids display the jumping behavior of pure silver carp, their potential to injure humans could be considerable.

#### **Factors That Reduce or Remove Injuriousness for Largescale Silver Carp**

##### *Detection and Response*

If largescale silver carp were introduced into U.S. waters, it is unlikely that the introduction would be discovered until the numbers were high enough to impact wildlife and wildlife resources. Widespread surveys of waterways are not conducted to establish species' presence lists. Delay in discovery would limit the ability and effectiveness to rapidly respond to the introduction and prevent establishment.

##### *Potential Control*

If largescale silver carp were to escape and become established in natural waters, management of established populations would be highly unlikely both physically and fiscally. Some control might be possible with massive fishing efforts using nets, but this is unlikely to stem range expansion. There would have to be substantial commercial demand to justify the expense of such efforts.

Chemicals or selective removal may be used to manage populations in localized areas. However, selective removal of largescale silver carp would be difficult because they remain in deeper waters during daylight hours when such removal efforts would probably occur. Pheromones may be a viable option to limit spread; this possibility is under investigation for silver carp, and may have applicability to largescale silver carp.

However, research into this control method is in early stages.

Because no evidence exists that largescale silver carp have been imported or released into U.S. waters, triploidy or induced sterility could potentially reduce injuriousness. However, these processes are costly, time-consuming, and not 100% effective so there is potential for triploid largescale silver carp to cause harm if they were released.

It would be difficult to control the spread of largescale silver carp to new locations except, perhaps, by use of electric, acoustic, physical and other types of barriers. At present, there is no method known to substantially reduce populations of introduced fishes in U.S. waterways. It is highly unlikely that largescale silver carp could be eradicated from U.S. waterways, should they be introduced, unless they are found in unconnected waterbodies.

#### *Recovery of Disturbed Sites*

Although there is no evidence that this species has been introduced or targeted for introduction into the United States, the lack of available methods to detect, eradicate or control introduced populations indicates that should largescale silver carp be introduced, rehabilitation or recovery of ecosystems disturbed by this species would be highly unlikely.

#### *Potential Pathogens*

The potential for largescale silver carp or any hybrids to infect native fishes with pathogens is largely unknown. Should such transfers prove viable, the ability and effectiveness to control the spread of pathogens to native fishes would be low.

#### *Potential Ecological Benefits for Introduction*

There are no potential ecological benefits for introduction of largescale silver carp or any hybrids in natural waters of the United States.

#### *Conclusion*

In summary, the Service finds all forms of live largescale silver carp, including gametes, viable eggs and hybrids, to be injurious to the wildlife and wildlife resources of the United States and to the interests of human beings because:

- Largescale silver carp are likely to escape or be released into the wild if imported into the United States;
- Largescale silver carp are highly likely to survive, become established, and spread in tropical or subtropical areas of the United States if they escape or are released;

- Largescale silver carp would likely carry pathogens that could be transferred to native fish;

- Largescale silver carp and hybrids are likely to compete with native species, including threatened and endangered species, for food and habitat;

- Largescale silver carp could develop dense populations that would likely affect critical habitat for threatened and endangered species and are highly likely to negatively impact native fishes and mussels;

- Largescale silver carp have been shown to hybridize with silver carp, a nonnative species already established in the United States, and would likely have a larger range than pure largescale silver carp;

- Largescale silver carp hybrids with silver carp may display jumping behavior that could injure humans;

- If largescale silver carp were introduced into the United States, it would be extremely difficult to prevent their spread and to control populations in natural waters;

- It would be difficult to eradicate or reduce large populations of largescale silver carp and to recover ecosystems disturbed by the species; and

- There are no potential ecological benefits from the introduction of largescale silver carp for U.S. waters.

#### **Required Determinations**

##### *Paperwork Reduction Act (44 U.S.C. 3501 et seq.)*

This rule contains potential information collection activity for FWS Form 3-200-42, Import/Acquisition/Transport of Injurious Wildlife. Completion of this form would be necessary to apply for a permit to import, or transport across State lines, any live silver or largescale silver carp, gametes, viable eggs, or hybrids for scientific, medical, educational, or zoological purposes. The Service already has approval from the Office of Management and Budget (OMB) to collect information for this special use permit under OMB control number 1018-0093. This approval expires July 31, 2007. The Service may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

##### *Regulatory Planning and Review*

(a) In accordance with the criteria in Executive Order 12866, OMB has designated this rule as a significant regulatory action.

This rule will not have an annual economic effect of \$100 million or more or adversely affect an economic sector, productivity, jobs, the environment, or other units of the government. A brief assessment to clarify the costs and benefits associated with this rule follows.

#### *Costs Incurred*

##### *Silver Carp*

We expect this rule to have minimal costs. Silver carp are not cultured in the United States, nor do we believe that they are imported or exported. Currently, there are some commercial fisheries for silver carp in the Mississippi, Missouri, and Illinois rivers. Usually, commercial fishermen are catching silver carp as bycatch, which can account for up to 50 percent of the catch. Silver carp are not favorable because of their jumping habits and because they are less desirable by the consumer. In Missouri, many of the fishermen do not primarily target Asian carp (bighead and silver carp) because the price received is low (\$0.10-\$0.15 per pound). Instead, they fish for bighead and silver carp when other species or opportunities are unavailable. Many fishermen do not distinguish between bighead carp and silver carp.

Data for the silver carp fishery are limited. According to public comments received, small commercial fisheries for silver carp exist in Illinois, Iowa, and Kentucky. Table 1 shows commercial fishery landings and value in Iowa and Illinois in 2003. Compared to the total commercial harvest and value, Asian carp represented 11 percent of landings and 6 percent of value in 2003. Because Illinois does not distinguish between bighead carp and silver carp in its annual report, we are unable to determine the magnitude of silver carp landings for the entire area. For Iowa, silver carp represented less than 1 percent of total landings. In 2005, silver carp represented less than 1 percent of commercial landings in Kentucky and less than one-tenth of commercial landings in Louisiana (public comments, J. Gasset 25 Oct 2006 and J. Roussel 6 Nov 2006).

The majority of the silver carp catch is sold as round weight. In Illinois, fishermen can sell silver carp as long as they are not transported live once the fish are taken off the water. No impacts are expected to the silver carp market because they are not delivered live.

TABLE 1.—2003 COMMERCIAL FISHERY LANDINGS AND VALUE IN IOWA AND ILLINOIS

	Illinois <sup>1</sup>	Iowa <sup>2,3</sup>	Total
Total Commercial Harvest (lbs) .....	6,385,473	2,242,997	8,628,470
Asian Carp* .....	900,497	15,774	916,271
Silver Carp .....		3,828	3,828
Total Commercial Value (\$) .....	\$1,334,467	\$496,765	\$1,831,232
Asian Carp* .....	\$99,055	\$1,735	\$100,790
Silver Carp .....		\$421	\$421

\* Asian carp includes bighead carp and silver carp. The value for Asian carp and silver carp in Iowa is based on the average \$0.11/lb received, which is the same as Illinois.

<sup>1</sup> Illinois Department of Natural Resources. 2005. 2003 Commercial Catch Report. Brighton, Illinois.

<sup>2</sup> Personal communication, Gene Jones, Iowa Department of Natural Resources.

<sup>3</sup> Iowa Department of Natural Resources. 2003. Fisheries Management Section 2003 Completion Reports. Des Moines, Iowa.

The market for live silver carp in U.S. markets is unknown and no public comments received reported a U.S. market for live silver carp. It is possible that silver carp are inadvertently shipped along with live bighead carp. However, most live haulers will not haul live silver carp because the fish do not transport well. Furthermore, the consumer prefers bighead carp to silver carp. Because only sales of live silver carp would be regulated by this rulemaking, we do not expect any impacts to commercial fishermen unless they are transporting live silver carp across State lines for processing. While the exact impact is unknown, we expect it to be minimal.

#### Largescale Silver Carp

There is no known use for largescale silver carp in the United States or import or export of the species into or from the United States. We do not know of any future plans to use largescale silver carp in the United States. During the public comment period, no comments reported largescale silver carp being used. Therefore, we do not expect the rule to add largescale silver carp to the list of injurious wildlife to have any costs.

#### Benefits Accrued

##### Silver Carp

Within several waters of the Midwest, silver carp comprise a percentage of the commercial catch as bycatch (non-target species). This may be negatively impacting revenue for commercial fishermen because silver carp are not as valuable as the native species that are targeted.

Furthermore, it is possible that silver carp populations will be delayed or not become established in new watersheds (Columbia Basin, Chesapeake Basin, and Sacramento-San Joaquin Delta) with similar attributes as the Mississippi River Basin as a result of this rulemaking. Silver carp are likely to compete with native fish for food, causing declines in native fishes in the

United States, particularly those that rely heavily on plankton as a food resource.

Thus, this rule will protect native fish, and the recreational and commercial fisheries associated with native fish. In terms of recreational fisheries, benefits would accrue due to (1) consumer surplus generated from fishing native fish and (2) fishing-related expenditures such as food, lodging, and equipment. In terms of commercial fisheries, benefits would accrue due to the revenue from fishing native fish, which are more valuable than silver carp. The timeline for when these benefits would accrue depends on the potential spread and impacts of silver carp. The extent of benefits to recreational and commercial fisheries is unknown.

#### Largescale Silver Carp

There have been no reports that largescale silver carp are in the United States. However, native fish populations are likely to decline if largescale silver carp were to establish populations in the United States. With this rule, we reduce the risk of the introduction and establishment of largescale silver carp (or any hybrids) in U.S. watersheds. Thus, this rule protects native fish and the recreational and commercial fisheries associated with native fish. In terms of recreational fisheries, benefits would accrue due to the continued (1) consumer surplus generated from fishing native fish and (2) fishing-related expenditures such as food, lodging, and equipment. In terms of commercial fisheries, benefits would accrue due to the continued revenue from fishing native fish. The extent of benefits to recreational and commercial fisheries is unknown because it depends on the introduction and subsequent establishment of largescale silver carp populations in the United States.

(b) This rule will not create inconsistencies with other Federal agencies' actions. This rule pertains only to regulations promulgated by the

Service under the Lacey Act. No other agencies are involved in these regulations.

(c) This rule will not materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients. This rule does not affect entitlement programs. This rule is aimed at regulating the importation and movement of nonindigenous species that cause or have the potential to cause significant economic and other impacts on natural resources that are the trust responsibility of the Federal Government.

(d) OMB has determined that this rule raises novel legal or policy issues.

#### Regulatory Flexibility Act

Under the Regulatory Flexibility Act (as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever a Federal agency publishes a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions) (5 U.S.C. 601 et seq.). However, no regulatory flexibility analysis is required if the head of an agency certifies that the rule would not have a significant economic impact on a substantial number of small entities. Thus, for a regulatory flexibility analysis to be required, impacts must exceed a threshold for "significant impact" and a threshold for a "substantial number of small entities." See 5 U.S.C. 605(b). SBREFA amended the Regulatory Flexibility Act to require Federal agencies to provide a statement of the factual basis for certifying that a rule would not have a significant economic impact on a substantial number of small entities.

This rulemaking may impact a small number of fishermen selling live silver carp. The number of fishermen targeting silver carp is unknown. Because the

market for live silver carp is also unknown, we are unable to estimate the degree of impact of this rulemaking. We expect this rulemaking to have a minimal effect on commercial fishermen selling live silver carp because many live haulers do not transport live silver carp. We do not expect this rulemaking to affect aquaculture because silver carp, largescale silver carp, or any hybrids are not being cultured in the United States at this time.

Many small businesses within the retail trade industry (such as hotels, gas stations, taxidermy shops, bait and tackle shops, etc.) may benefit from continued recreational fishing without impacts from silver carp, largescale silver carp, or any hybrids. Furthermore, small businesses associated with commercial fishing (fishermen, wholesalers, and retailers) will also benefit from continued commercial fishing without impacts from silver carp, largescale silver carp, or any hybrids. We do not know the extent to which these small businesses will continue to benefit. However, we expect this benefit to be distributed across various watersheds, and so we do not expect that the rule will have a significant economic effect (benefit) on a substantial number of small entities in any region or nationally.

Therefore, we certify that this rule will not have a significant economic effect on a substantial number of small entities as defined under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.). An initial or final Regulatory Flexibility Analysis is not required. Accordingly, a Small Entity Compliance Guide is not required. For the reason described below, no individual small industry within the United States will be significantly affected if silver carp or largescale silver carp importation is prohibited.

#### *Small Business Regulatory Enforcement Fairness Act*

The rule is not a major rule under 5 U.S.C. 804(2), the Small Business Regulatory Enforcement Fairness Act. This rule:

(a) Does not have an annual effect on the economy of \$100 million or more. Silver carp is in limited commercial trade in the United States and primarily as filets; the largescale silver carp is not known to be imported or present in the United States. Silver carp are likely to negatively affect many native fishery resources if they continue to spread in the United States. The largescale silver carp could devastate many native fishery resources if it is introduced to U.S. waterways. This rulemaking will protect the environment from the

introduction and spread of nonnative species and will indirectly work to sustain the economic benefits enjoyed by numerous small establishments connected with recreational and commercial fishing.

(b) Will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions.

(c) Does not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises.

#### *Unfunded Mandates Reform Act*

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.), this rule does not impose an unfunded mandate on State, local, or tribal governments or the private sector of more than \$100 million per year. The rule would not prohibit intrastate transport or any use of silver carp or largescale silver carp within State boundaries. Any regulations concerning the use of silver carp or largescale silver carp within individual States will be the responsibility of each State. The rule does not have a significant or unique effect on State, local, or tribal governments or the private sector. A statement containing the information required by the Unfunded Mandates Reform Act is not required.

#### *Takings*

In accordance with Executive Order 12630, the rule does not have significant takings implications. A takings implication assessment is not required. This rule would not impose significant requirements or limitations on private property use.

#### *Federalism*

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. This rule would not have substantial direct effects on States, in the relationship between the Federal government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 13132, we determine that this rule does not have sufficient Federalism implications to warrant the preparation of a Federalism Assessment.

#### *Civil Justice Reform*

In accordance with Executive Order 12988, the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and

meets the requirements of sections 3(a) and 3(b)(2) of the Executive Order. The rule has been reviewed to eliminate drafting errors and ambiguity, was written to minimize litigation, provides a clear legal standard for affected conduct rather than a general standard, and promotes simplification and burden reduction.

#### *National Environmental Policy Act*

We have prepared environmental assessments (EAs) in conjunction with this rulemaking, and have determined that this rulemaking is not a major Federal action significantly affecting the quality of the human environment within the meaning of section 102(2)(C) of the National Environmental Policy Act (NEPA of 1969 (42 U.S.C. 4321 et seq.)). No comments on the draft environmental assessments were received. For copies of the final EAs, contact the individual identified above in the section **FOR FURTHER INFORMATION CONTACT**, or access the documents at <http://www.fws.gov/contaminants/ANS/ANSinjurious.cfm>.

Adding silver carp and largescale silver carp to the list of injurious wildlife is intended to prevent their further introduction and establishment into natural waters of the United States in order to protect native fishes, the survival and welfare of wildlife and wildlife resources, and the health and welfare of humans. Not listing silver carp as injurious may allow for an expansion to States where they are not already found, thus increasing the risk of their escape and establishment in new areas due to accidental release and, perhaps, intentional release. Their establishment is negatively impacting native fish, wildlife, and humans. Silver carp are established throughout much of the Mississippi River Basin. Releases of silver carp into natural waters of the United States are likely to occur again, and the species is likely to become established in additional U.S. waterways, threatening native fish populations, wildlife, and wildlife resources dependent on phytoplankton, zooplankton, bacteria, and detritus, and impacting human health.

Largescale silver carp are not known to be in the United States, but if introduced to natural waters, they would likely impact the welfare and survival of native fish and wildlife, as well as the health and welfare of humans. In addition, largescale silver carp are visually similar to silver carp and can readily hybridize with silver carp, so they would be difficult to distinguish from silver carp.

*Government-to-Government  
Relationship With Tribes*

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951), Executive Order 13175, and 512 DM 2, we have evaluated potential effects on Federally recognized Indian tribes and have determined that there are no potential effects. This rule involves the importation and interstate movement of all forms of live silver carp, largescale silver carp, gametes, viable eggs, and hybrids. We are unaware of trade in these species by Tribes.

*Effects on Energy*

On May 18, 2001, the President issued Executive Order 13211 on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This rule is not expected to affect energy supplies,

distribution, and use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

**References Cited**

A complete list of all references used in this rulemaking is available upon request from the Branch of Invasive Species (see the **FOR FURTHER INFORMATION CONTACT** section).

**List of Subjects in 50 CFR Part 16**

Fish, Imports, Reporting and recordkeeping requirements, Transportation, Wildlife.

■ For the reasons discussed in the preamble, the U.S. Fish and Wildlife Service amends part 16, subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, as set forth below.

**PART 16—[AMENDED]**

■ 1. The authority citation for part 16 continues to read as follows:

**Authority:** 18 U.S.C. 42.

■ 2. Amend § 16.13 as follows:

- a. By removing the word "and" at the end of paragraph (a)(2)(iii);
- b. By removing the period at the end of paragraph (a)(2)(iv)(BB) and adding in its place "; and"; and
- c. By adding a new paragraph (a)(2)(v) to read as set forth below.

**§ 16.13 Importation of live or dead fish, mollusks, and crustaceans, or their eggs.**

(a) \* \* \*

(2) \* \* \*

(v) Any live fish, gametes, viable eggs, or hybrids of the species silver carp, *Hypophthalmichthys molitrix*, and largescale silver carp, *Hypophthalmichthys harmandi*.  
\* \* \* \* \*

Dated: May 18, 2007.

**Todd Willens,**

*Acting Assistant Secretary for Fish and Wildlife and Parks.*

[FR Doc. E7-13371 Filed 7-9-07; 8:45 am]

**BILLING CODE 4310-55-P**