

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Proposal To Determine *Nerodia harteri paucimaculata* (Concho Water Snake) To Be a Threatened Species and To Determine Its Critical Habitat

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The U.S. Fish and Wildlife Service proposes to list a reptile, *Nerodia harteri paucimaculata* (Concho water snake), as a threatened species and to designate its critical habitat. The Concho water snake is endemic to the Concho and Colorado Rivers in Runnels, Tom Green, Concho, McCulloch, Coleman, Brown, Mills, San Saba, Lampasas, and Coke Counties, Texas, but no longer occurs in Coke County. The known populations of this snake are currently vulnerable due to low numbers and the threat of further loss of habitat due to inundation and downstream effects from reservoir construction. A determination that *Nerodia harteri paucimaculata* is threatened would implement for it the protection provided by the Endangered Species Act of 1973, as amended. The Service seeks data and comments from the public on this proposal.

DATES: Comments from all interested parties must be received by March 24, 1986. Public hearing requests must be received by March 10, 1986.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Regional Director, U.S. Fish and Wildlife Service, P.O. Box 1306, 500 Gold Avenue S.W., Room 4000, Albuquerque, New Mexico 87103. Comments and

materials received and other information regarding this proposal will be available for public inspection, by appointment, during normal business hours at the Service's Regional Office of Endangered Species at the above address.

FOR FURTHER INFORMATION CONTACT: Sally Stefferud, Biologist, Region 2 Endangered Species Staff, U.S. Fish and Wildlife Service (at the address above) (505/786-3972 or FTS 474-3972).

SUPPLEMENTARY INFORMATION:

Background

The Concho water snake (*Nerodia harteri paucimaculata*) is a member of the family Colubridae, and together with the Brazos water snake (*Nerodia harteri harteri*) constitutes the species *Nerodia harteri*, known as Harter's water snake. *Nerodia harteri paucimaculata* is confined to the Colorado River drainage and *Nerodia harteri harteri* is confined to the Brazos River drainage. These rivers drain separately in the Gulf of Mexico. *Nerodia harteri harteri* was discovered in 1936 in the Brazos River of Texas by Phillip Harter and was described by H. Trapido (1941). *Nerodia harteri paucimaculata* was discovered in 1944 by J. Marr and was described as a distinct subspecies by Tinkle and Conant in 1961. This subspecies is relatively small for *Nerodia*; adults rarely exceed 900 millimeters (35.4 inches) total length. There are 21-23 dorsal scale rows, four rows of dark brown blotches arranged in alternate fashion on the grayish dorsal surface, and distinct to obscure dark spots along either side of the pink to orange venter (Wright and Wright, 1957). *Nerodia harteri paucimaculata*, when compared to the nominate form, *Nerodia harteri harteri* (Brazos water snake), has reduced ventral spotting (often totally absent), a more reddish venter, differences in average counts of certain scale groups, and often a reddish dorsal ground color.

Adult Concho water snakes live in either shallow or deep flowing water over a variety of substrates, as long as there are sufficient deep, secure hiding places not too far from nursery grounds. Adults are often found basking in woody vegetation along the banks. Juvenile Concho water snakes, however, have much more rigid habitat requirements, the two most important features of which are shallow, rocky-bottomed flowing water and medium-large flat rocks on the shore to provide hiding places (Scott and Fitzgerald, 1985). Under appropriate conditions, the related Brazos River subspecies, *Nerodia harteri*, can live in impounded

waters and is currently found living in two reservoirs. The gradual slope, shelving rock, and rocky shore of portions of these two reservoirs have created the shallow waters and associated hiding areas necessary for juvenile Brazos water snakes. However, extensive biological surveys have not found Concho water snakes in any of the reservoirs located on the Concho and Colorado Rivers, probably because the shallow water and sloping rocky shoreline habitat necessary to support this subspecies does not exist in those reservoirs. Other snakes associated with Concho water snakes include *Nerodia erythrogaster*, *Nerodia rhombifera*, *Thamnophis proximus*, and *Agkistrodon piscivorus*, although only *Thamnophis proximus* is found regularly in the same type of microhabitat.

Historically, *Nerodia harteri paucimaculata* occurred over about 276 river miles of the Colorado and Concho Rivers. Now it is distributed discontinuously over a reduced range of approximately 199 miles in Runnels, Tom Green, Concho, McCulloch, Coleman, Brown, Mills, San Saba, and Lampasas Counties (Williams, 1971; Flury and Maxwell, 1981; Bronvak, 1975; Scott and Fitzgerald, 1985).

On December 30, 1982, the Service published a Vertebrate Notice of Review in the Federal Register (47 FR 58454-58460). *Nerodia harteri* was included in category 1 of that notice, which comprises those taxa for which the Service has on hand substantial information to support the biological appropriateness of proposing to list the species as endangered or threatened.

On February 14, 1984, the New Mexico Herpetological Society petitioned the Service to list the Harter's water snake as threatened with critical habitat. The Service found that substantial information has been presented that the petitioned action may be warranted. A notice of this finding was published on May 18, 1984 (49 FR 21089). A 1-year finding was reported on July 18, 1985 (50 FR 29238), that the petitioned action was warranted for the Concho water snake but that such action was precluded by work on other pending proposals, in accordance with section 4(b)(3)(B)(iii) of the Act. The 1-year finding for the Brazos water snake was reported concurrently and found that the petitioned action was not warranted for that subspecies. Publication of this proposed rule constitutes the final 1-year finding for the Concho water snake required under section 4(b)(3)(C)(i), that the petitioned action is warranted

Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations promulgated to implement the listing provisions of the Act (codified at 50 CFR Part 424) set forth procedures for adding species to the Federal list. Species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to the Concho water snake (*Nerodia harteri paucimaculata*) are as follows:

A. The present or threatened destruction, modification, or curtailment of its habitat or range. The remaining populations of Concho water snakes occur in nine Texas Counties: Runnels, Tom Green, Concho, McCulloch, Coleman, Brown, Mills, San Saba, and Lampasas. This snake historically occurred along approximately 276 miles of the Concho and Colorado Rivers, but has disappeared from 78 miles of that habitat on the upstream end of that range, and now has spotty distribution within approximately 199 miles of the rivers. The present range is located on the Concho River from near Veribest, Tom Green County, to the confluence with the Colorado River, and on the Colorado River from near Maverick, Runnels County, to the FM 45 bridge, Mills County, with a small, disjunct population located below Bend, San Saba County. However, 96 percent of the Concho water snakes located by Flury and Maxwell (1981) were found on one 80-mile stretch extending downstream on the Concho River from near the town of Veribest, Tom Green County, into the Colorado River just below its confluence with Salt Creek, northwest of the town of Doole, McCulloch County. Scott and Fitzgerald (1985) reported that 60 percent of the Concho water snakes they located were also within that same 80 miles, and an additional 30 percent were found in 12 miles of the Colorado River from near Maverick downstream to near Ballin in Runnels County, where Flury and Maxwell had found only 3 percent. Both studies found 10 percent or less of the Concho water snakes in the remaining 94 miles of the range. Thus, 90 to 99 percent of the Concho water snakes that have been located were concentrated only 52 percent of the present range. The results of Flury and Maxwell's 1981 study, and Scott and Fitzgerald's 1985 and 1984 studies, were confirmed by an additional survey conducted in May, 1985. This survey consisted of low-level aerial mapping of all apparently suitable

downstream to the confluence of the Concho and Colorado Rivers (river mile 0.0).

2. Colorado River in Runnels, Concho, Coleman, and McCulloch Counties, Texas. A stretch approximately 85 miles long of the river channel and river banks, up to 15 vertical feet above the water level at median discharge, extending from Farm to Market Road 3115 bridge near the town of Maverick (river mile 684.0) downstream to the confluence of the Colorado River and Salt Creek northeast of the town of Doole (river mile 598.1).

The proposed critical habitat includes 95 percent of the known remaining population of Concho water snakes. The proposed areas presently provide all of the ecological, behavioral, and physiological requirements essential for the long-term survival and recovery of this subspecies. Protection of the proposed habitats will ensure that sufficient numbers survive to prevent this snake from becoming endangered or extinct.

Section 4(b)(6) requires, for any proposed or final regulation that designates critical habitat, a brief description and evaluation of those activities (public or private) that may adversely modify such habitat or may be affected by such designation. Any activity that would lessen the amount of the minimum flow or would significantly alter the natural flow regime in those portions of the Concho and Colorado Rivers proposed for critical habitat could adversely impact the proposed critical habitat. Such activities include, but are not limited to, impoundment and water diversion. Any activity that would extensively alter the channel and bank morphology in those river portions and result in a significant decrease in the amount or quality of riffle habitat could adversely impact the proposed critical habitat. Such activities include, but are not limited to, channelization, excessive sedimentation, mining of rock or gravel, pollution, impoundment, and removal of riparian vegetation. Any activity that would significantly alter the water chemistry or temperature regime in those river portions could adversely impact the proposed critical habitat. Such activities include, but are not limited to, release of chemical or biological pollutants into the waters at a point source or by dispersed release.

Concho water snakes are found only in rivers and adjacent riparian areas flowing through privately owned lands. Therefore, this proposal is expected to have little effect upon the present land and water uses in the area. Known Federal activities that may be affected by this proposal are authorization of the

proposed construction of Stacy Reservoir on the Concho and Colorado Rivers, and possible future federally funded or authorized dam and reservoir construction, highway and bridge construction, or irrigation projects. Such activities, although on private lands, would be subject to section 7 consultation if Federal funding is involved, or if the activity requires Federal authorization. Stacy Dam and Reservoir require an authorizing permit from the U.S. Army Corps of Engineers, under section 404 of the Clean Water Act (33 U.S.C. 1344) and section 10 of the Rivers and Harbors Appropriation Act of 1899 (33 U.S.C. 403), as amended.

Section 4(b)(2) of the Act requires the Service to consider economic and other impacts of designating a particular area as critical habitat. The Service will consider the critical habitat designation in light of all additional relevant information obtained and will prepare an analysis of such impacts prior to the issuance of a final rule.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402, and are now under revision (see proposal at 48 FR 29990; June 29, 1983). Section 7(a)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in the destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry

out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

The Act and its implementing regulations found at 50 CFR 17.21 and 17.31 set forth a series of general prohibitions and exceptions that generally apply to threatened wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take, import or export, ship in interstate commerce in the course of a commercial activity, or sell or offer for sale in interstate or foreign commerce listed species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving threatened wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.32. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, for incidental take in connection with otherwise lawful activities, zoological exhibition, educational purposes, or special purposes consistent with the purposes of the Act.

Public Comments Solicited

The Service intends that any final rule adopted will be accurate and as effective as possible in the conservation of endangered or threatened species. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning any aspect of these proposed rules are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or the lack thereof) to *Nerodia harteri paucimaculata*;

(2) The location of any additional populations of *Nerodia harteri paucimaculata* and the reasons why any habitat should or should not be determined to be critical habitat as provided by Section 4 of the Act;

(3) Additional information concerning the range and distribution of this subspecies;

(4) Current or planned activities in the subject area and their possible impacts on *Nerodia harteri paucimaculata*; and

(5) Any foreseeable economic and other impacts resulting from the proposed designation of critical habitat.

Final promulgation of the regulations on the Concho water snake will take into consideration the comments and any additional information received by the Service, and such communications may lead to adoption of a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be filed within 45 days of the date of the proposal. Such requests should be made in writing and addressed to the Regional Director, U.S. Fish and Wildlife Service (see "ADDRESSES").

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the Federal Register on October 25, 1983 (48 FR 49244).

Literatures Cited

Benovak, G.T. 1975. An ecological survey of the reptiles and amphibians of Coke County, Texas. M.S. thesis, Angelo State University. 67 pp.

Fiary, J.W. and T.C. Maxwell. 1981. Status and distribution of *Nerodia harteri paucimaculata*. Office of Endangered Species, U.S. Fish and Wildlife Service, Albuquerque, New Mexico. vii + 73 pp.

Marr, J. 1944. Notes on amphibians and reptiles from the central United States. American Midland Naturalist 32:232-239.

Scott, N.J., Jr., and L.A. Fitzgerald. 1985. Status Survey of *Nerodia harteri*, Brazos and Concho-Colorado Rivers, Texas. Denver Wildlife Research Center, U.S. Fish and Wildlife Service, Museum of Southwestern Biology, Albuquerque, New Mexico. 44 pp.

Tinkle, D.W. and R. Conant. 1961. The rediscovery of the water snake *Natrix harteri* in western Texas, with the description of a new subspecies. Southwestern Naturalist 6:33-34.

Trapido, H. 1941. A new species of *Natrix* from Texas. American Midland Naturalist 32:673-680.

U.S. Army Corps of Engineers. Unpubl. Study Reservoir. Draft Environmental Impact Statement. Fort Worth District Office. 58 pp + appendices.

Williams, N. 1971. The ecology of *Natrix harteri paucimaculata*. M.S. thesis, Texas Tech University. 51 pp.

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Author

This proposed rule was prepared by David Bowman and Sally Stefferud, Endangered Species Staff, U.S. Fish and Wildlife Service, Albuquerque, New Mexico. John Paradiso, C.K. Dodd, and George E. Drewry of the Service's Washington Office of Endangered Species provided editorial assistance.

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Proposed Regulations Promulgation

PART 17—(AMENDED)

Accordingly, it is hereby proposed to amend Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, as set forth below:

1. The authority citation for Part 17 continues to read as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 86 Stat. 1411 (16 U.S.C. 1531 *et seq.*).

2. It is proposed to amend § 17.11(h) by adding the following, in alphabetical order under "Reptiles," to the List of Endangered and Threatened Wildlife:

§ 17.11 Endangered and threatened wildlife.

(h)
(h)

Species		Historic range	Vertebrate population where endangered or threatened	States	When listed	Critical habitat	Special rules
Common name	Scientific name						
REPTILES							
Snake, Concho water	<i>Nerodia harteri paucimaculata</i>	U.S.A. (TX)	Entire	T		17.95(c)	NA

3. It is further proposed to amend § 17.95(c), Reptiles, by adding the critical habitat of the Concho water snake as follows (the position of this entry under § 17.95(c) follows the same sequence as the species in § 17.11(h):

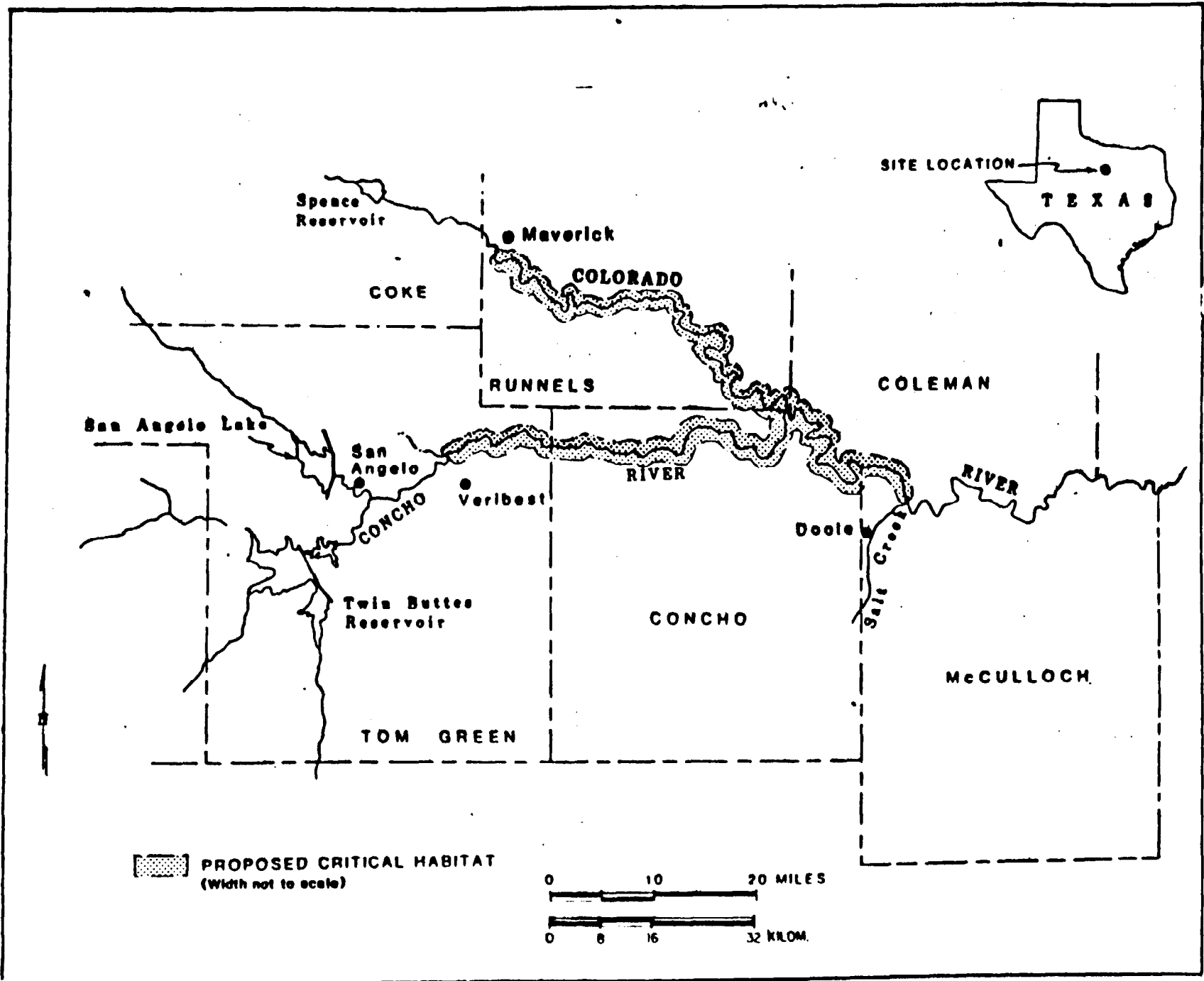
§ 17.95 Critical habitat—fish and wildlife.

(c)

Concho Water Snake (*Nerodia harteri paucimaculata*)

Texas: Areas of land and water as follows:
 1. Tom Green and Concho Counties. Concho River: 44.6 miles of the mainstream river channel and river banks, up to a level on both banks that is 15 vertical feet above the water level at median discharge, extending from Mullin's Crossing, northwest of the town of Veribest (river mile 44.6, U.S. Army Corps of Engineers), downstream to the confluence of the Concho and Colorado Rivers (river mile 0.0).
 2. Concho, Runnels, Coleman, and CcCulloch Counties. Colorado River: approximately 86 miles of the mainstream

river channel and river banks, up to a level on both banks that is 15 vertical feet above the water level at median discharge, extending from the Market Road 3115 bridge near the town of Maverick (river mile 684.0) downstream to the confluence of the Colorado River and Salt Creek northeast of the town of Doole (river mile 598.1).
 Constituent elements include shallow riffles and rapids with rock cover, dirt banks, rocky shorelines, and woody riparian vegetation.



Dated: December 26, 1985.

P. Daniel Smith,

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

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