

**CONTROL FORM FOR DOE/ORO DIRECTIVE**

**PART A (To be completed by the ORO DIRECTIVES MANAGEMENT GROUP, AD-440):**

**1. DIRECTIVE NUMBER, TITLE, AND DATE:**

**ORO O 450, CHAPTER VIII, CHANGE 2, ENDANGERED SPECIES ACT COMPLIANCE PROGRAM, dated 10/19/2007**

**2. PURPOSE OF TRANSMITTAL:**  New Directive  Revised Directive  Revised Control Form

**3. DOES THIS DIRECTIVE CANCEL OR EXTEND ANY OTHER DIRECTIVES?**  Yes  No  
**If "Yes," list what action (cancel or extend) and list the Directive(s) number(s), title(s), and date(s):**

This Directive cancels and replaces ORO O 450, Chapter VIII, Change 1, ENDANGERED SPECIES ACT COMPLIANCE PROGRAM, dated 12/09/2005.

The attached Directive is forwarded for review and action. Complete Part B and forward a completed hard copy of this form to ORO DMG, AD-440, by 11/08/2007.

**PART B (To be completed by the DIVISION OF PRIMARY INTEREST [DPI]):**

**COMPLETE FOR DOE DIRECTIVES ONLY:**

**4. SUPPLEMENTAL ORO DIRECTIVE REQUIRED?**

Is a new or revised supplemental ORO Directive required?  Yes  No

**If "Yes," target date for submission of supplemental ORO Directive is \_\_\_\_\_.**

**COMPLETE FOR BOTH DOE AND ORO DIRECTIVES:**

**5. CONTRACTOR APPLICABILITY.**

**Does this Directive affect the work performed by ORO Contractors?**  Yes  No

**If "Yes," whom?**  Bechtel Jacobs Company LLC  ORAU

UT-Battelle, LLC  ISOTEK (Bldg. 3019, ORNL)

Foster Wheeler (FWENC)  Wackenhut (WSI)

Other Contractors (list by name)

**6. SUBJECT MATTER EXPERT:** James Elmore Environmental and Quality Mgmt. Div., SE-32  
Name Organization

*Original Signed By*

**7. APPROVED BY:** David R. Allen, Dir. Environmental and Quality Mgmt. Div., SE-32 10/30/2007  
Signature Organization Date

**PART C (To be completed by the ORO DIRECTIVES MANAGEMENT GROUP, AD-440):**

**APPROVED FOR DISTRIBUTION IN ACCORDANCE WITH OFFICIAL DIRECTIVE DISTRIBUTION LIST:**

*Original Signed By*

Wayne H. Albaugh

10/31/2007

DMG Team Leader, AD-440

Date

**INSTRUCTIONS TO ADDRESSEES: THIS FORM IS TO BE FILED WITH THE DIRECTIVE AND RETAINED.**

(Revised 02/10/2006)

# U.S. Department of Energy

Oak Ridge Office

ORO O 450 Chapter VIII Change 2
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DATE: 10/19/2007

## **SUBJECT: ENDANGERED SPECIES ACT COMPLIANCE PROGRAM**

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1. PURPOSE. This Chapter assigns responsibility and accountability and provides administrative and/or contractual guidance for compliance with the Endangered Species Act (ESA) to Oak Ridge Office (ORO) and its contractors. Nothing in this issuance changes any requirements contained in any statutes or Department of Energy (DOE) Directive.
2. CANCELLATION. This Chapter cancels and replaces ORO O 450, Chapter VIII, Change 1, ENDANGERED SPECIES ACT COMPLIANCE PROGRAM, dated December 9, 2005.
3. APPLICABILITY. The provisions of this Chapter apply to ORO Principal Staff, management and operating contractors to the extent set forth in their contract, and other contractors as determined by the Contracting Officer's Representatives. Compliance with the ESA, including consultation, conference, and other procedures under Section 7 of the ESA, usually are consolidated with the National Environmental Policy Act (NEPA) process.
4. RESPONSIBILITIES.
  - a. NEPA Compliance Officer (NCO).
    - (1) Undertakes consultation with the U.S. Fish and Wildlife Service (FWS) including:
      - (a) Initial informal consultation.
      - (b) Submission of Biological Assessment (BA) to FWS, if requested.
      - (c) Any additional informal or formal consultation with FWS, if needed.
    - (2) Transmits BA and associated NEPA document to the FWS.
  - b. NEPA Document Manager (NDM).
    - (1) Interfaces with contractors to have the draft informal consultation letter(s) and the BA prepared, if requested.
    - (2) Reviews the draft consultation letter(s) and BA for required information and interfaces with contractors to have any necessary revisions made.

- (3) Transmits the draft consultation letter(s) and BA, if required, to the NCO.
    - (4) Supports the NCO in all consultations.
  - c. Contractors.
    - (1) Prepares the draft consultation letter(s) and the BA as requested by the NDM.
    - (2) Prepares draft consultation letters for appropriate State Agencies, if needed.
    - (3) Submits the draft consultation letter(s) and the BA to the NDM.
    - (4) Supports the NDM and NCO during the consultation process.
5. REQUIREMENTS AND PROCEDURES. See Attachment 1 for the requirements and procedures.
6. REFERENCES.
  - a. National Environmental Policy Act of 1969 (PL 91-190). Requires Federal agencies to consider environmental effects in the decision-making process.
  - b. Endangered Species Act of 1973 (PL 93-205). Section 7 outlines the procedures for Federal interagency cooperation to conserve Federally-listed species and designated critical habitats.
  - c. Implementing Regulations. 10 CFR Part 1021 Department of Energy National Environmental Policy Act Implementing Regulations.
  - d. Implementing Regulations. 50 CFR Part 402, Interagency Cooperation – Endangered Species Act of 1973, as amended, Joint Regulations on Endangered Species. This part establishes interagency cooperation procedures under §§ 7(a)-(d) of the ESA. Federal agencies are granted authority and given requirements to follow regarding endangered or threatened species of fish, wildlife, or plants and habitats of such species that have been listed as critical in § 7(a). Federal agencies are here encouraged to carry out conservation programs for listed species. In § 7(a)(2), agencies are directed to insure that any action it authorizes, funds, or carries out must not jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. Federal agencies must also confer with the Secretary of the Interior when any action is likely to adversely affect proposed critical habitat or a proposed threatened or endangered species directly. Subpart B – Consultation Procedures Section 402.12, Biological Assessments, addresses the requirements of a BA. A BA shall evaluate the potential effects of a proposed action on listed and proposed species, and designated and proposed critical habitat and determine whether any such species or habitat are likely to be adversely affected by the action. A BA is used in determining whether formal consultation or a conference is necessary.
  - e. Recommendations for the Preparation of Environmental Assessments and Environmental Impact Statements. These recommendations should materially aid those responsible for preparing and reviewing NEPA documents in focusing on significant environmental issues, adequately analyzing environmental impacts, and effectively presenting the analysis to decision makers and the public. Guidance is presented for compliance with the ESA.

- f. Environmental Assessment Checklist. Assists DOE NEPA practitioners in the preparation and review of DOE environmental assessments and provides guidance on compliance with the ESA.
  - g. Environmental Impact Statement Checklist. Assists DOE NEPA practitioners in the preparation and review of DOE environmental impact statements and provides guidance for compliance with the ESA.
  - h. Endangered Species Act Consultation Handbook, Procedures for Conducting Section 7 Consultations and Conferences. U.S. Fish and Wildlife Service and National Marine Fisheries Service. Final March 1998. This handbook was primarily developed to aid FWS and National Marine Fisheries Service biologists implementing the Section 7 consultation process. The purpose of the handbook is to provide information and guidance on the various consultation processes outlined in the regulations. Additionally, the handbook will ensure consistent implementation of consultation procedures by those biologists responsible for carrying out Section 7 activities. Chapters of the handbook pertain to major consultation processes, including Informal, Formal, Emergency, and Special Consultations, and Conferences.
  - i. Incorporating Biodiversity Considerations Into Environmental Impact Analysis Under the National Environmental Policy Act. Provides background on the complex subject of biodiversity, outlines some general concepts that underlie biological diversity analysis and management, describes how the issue is currently addressed in NEPA analysis, and provides options for agencies undertaking NEPA analyses that consider biodiversity. Addresses rare and ecologically important species including species not formally listed under the ESA or on state threatened and endangered species lists.
7. DEFINITIONS. See Attachment 6 for definitions. The terms defined in Attachment 6 are intended to familiarize the reader with words commonly used regarding threatened and endangered species. Therefore, not all terms are referenced in this document.
8. CONTRACTOR REQUIREMENTS DOCUMENT. None.
9. ATTACHMENTS.
- a. Attachment 1 - Requirements and Procedures for Actions Potentially Affecting Threatened and Endangered Species.
  - b. Attachment 2 - Informal Consultation Process.
  - c. Attachment 3 - Formal Consultation Process.
  - d. Attachment 4 - Sample of Initial Informal Consultation Letter.
  - e. Attachment 5 - Sample Letter for Submitting the Biological Assessment to the U.S. Fish and Wildlife Service.
  - f. Attachment 6 - Definitions.

## **REQUIREMENTS AND PROCEDURES FOR ACTIONS POTENTIALLY AFFECTING THREATENED AND ENDANGERED SPECIES**

### **1.0 PURPOSE.**

To establish procedures for the preparation, review, and approval of U.S. Fish and Wildlife Service (FWS) and state consultation letters and other consultation documents produced for compliance with the Endangered Species Act (ESA) and state laws for the protection of listed species under the purview of the U. S. Department of Energy (DOE) Oak Ridge Office (ORO).

### **2.0 APPLICABILITY.**

This procedure is applicable to actions under the jurisdiction of ORO and the responsibility of ORO personnel who prepare, review, or approve documentation for activities that may affect threatened and endangered species.

### **3.0 PROCEDURES.**

3.1 General Information. These procedures are intended to provide guidance for complying with the ESA when current or future ORO activities or ORO proposed actions may affect a plant or animal species or their critical habitat protected or given consideration under the ESA. This guidance is not intended to be used in the place of regulations on matters pertaining to threatened and endangered species. Consultation, conference, and Biological Assessment (BA) procedures under Section 7 of the ESA should be consolidated with National Environmental Policy Act (NEPA) procedures to the maximum extent feasible. Simultaneous compliance with NEPA and ESA procedures minimizes duplication of effort and avoids delay. DOE may combine ESA and NEPA documentation to reduce paperwork, such as the BA and environmental assessment, as long as the requirements of both statutes are met.

In addition to Federal protection under the ESA, state laws are designed to protect plant and animal resources. ORO personnel should also consider species protected or listed under state law and coordinate with state authorities in an effort to identify and conserve these species. Although state protected or listed species may not be protected under the ESA, they may be protected under other Federal laws such as the Migratory Bird Treaty Act, Fish and Wildlife Coordination Act, and other regulations protecting biota. Additionally, some state-listed species may be prime candidates for Federal listing if populations decline, and may be considered candidate species by the FWS.

Section 7 of the ESA requires all Federal agencies to consult with the National Marine Fisheries Service for marine and anadromus species, or the FWS for freshwater and terrestrial species, if they are proposing an action that may affect listed species or their designated habitat. Action is defined broadly to include funding, permitting and other regulatory actions (See 50 CFR Part 402.02). Any project that requires a Federal permit or receives Federal funding is subject to Section 7. Each Federal agency is to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. This is done through consultation, generally an informal process, which is illustrated in Attachment 2. The formal consultation process is diagrammed in Attachment 3. If such species may be present, ORO must prepare a BA, if the project is a major construction project. The purpose of the BA is to analyze the potential effects of the

project on listed species and critical habitat in order to establish and justify an “effect determination.” The FWS reviews the BA and, if it concludes that the project may adversely affect a listed species or their habitat, prepares a biological opinion. The biological opinion may recommend reasonable and prudent alternatives (RPAs) to the proposed action to avoid jeopardizing or adversely modifying habitat. RPAs carry great weight and are often treated as binding requirements.

Process. Early in the project, an initial informal letter (see Attachment 4) is sent to FWS describing the action and the potential for listed species or critical habitat to be present. Also, comments and the potential for occurrence of listed species in the area of the project are requested. The FWS will reply either with a no effect determination or request for DOE to prepare a BA. The BA is sent to FWS with DOE’s determination of effect. The FWS will respond with either a no effect determination or a request for formal consultation.

Initial Informal Consultation Letter. The initial informal consultation is a process used to determine whether a BA is required. The proposed action is described in the consultation letter. The description of the proposed action does not have to be comprehensive if details can be referenced from NEPA documents or other descriptions provided. The letter will be included in the NEPA Environmental Assessment (EA) or Environmental Impact Statement (EIS) document, or, if not a part of a NEPA document, consultation letters should be attached to the Categorical Exclusion (CX) package.

3.2 Biological Assessment. A BA results from a more rigorous process that is used to evaluate the potential effects of a proposed action on listed and proposed species and designated and proposed critical habitat, and to determine whether any such species or habitat are likely to be adversely affected by the action. The BA is used in determining whether formal consultation or a conference is necessary. The BA is based on a record of any listed or proposed species or designated or proposed critical habitat that may be present in the action area. This list may be obtained from the FWS or ORO may provide the list to the FWS for their concurrence. The contents of a BA are at the discretion of the Federal agency (ORO) and will depend on the nature of the Federal action. The following may be considered for inclusion:

- (1) The results of an on-site inspection of the area affected by the action to determine if listed or proposed species are present or occur seasonally.
- (2) The views of recognized experts on the species at issue.
- (3) A review of the literature and other information.
- (4) An analysis of the effects of the action on the species and habitat, including consideration of cumulative effects, and the results of any related studies.
- (5) An analysis of alternate actions considered by the Federal agency for the proposed action. If a proposed action requiring the preparation of a BA is identical, or very similar, to a previous action for which a BA was prepared, ORO may fulfill the BA requirement for the proposed action by incorporating by reference the earlier BA,

plus any supporting data from other documents that are pertinent to the consultation, into a written certification that:

- (a) The proposed action involves similar impacts to the same species in the same geographic area;
- (b) No new species have been listed or proposed or no new critical habitat designated or proposed for the action area; and
- (c) The BA has been supplemented with any relevant changes in information. The ORO shall use the BA in determining whether formal consultation or a conference is required under 50 CFR 402.14 or 402.10, respectively. If the BA indicates that there are no listed species or critical habitat present that are likely to be adversely affected by the action and the FWS concurs, then formal consultation is not required. The BA will be included in the NEPA document.

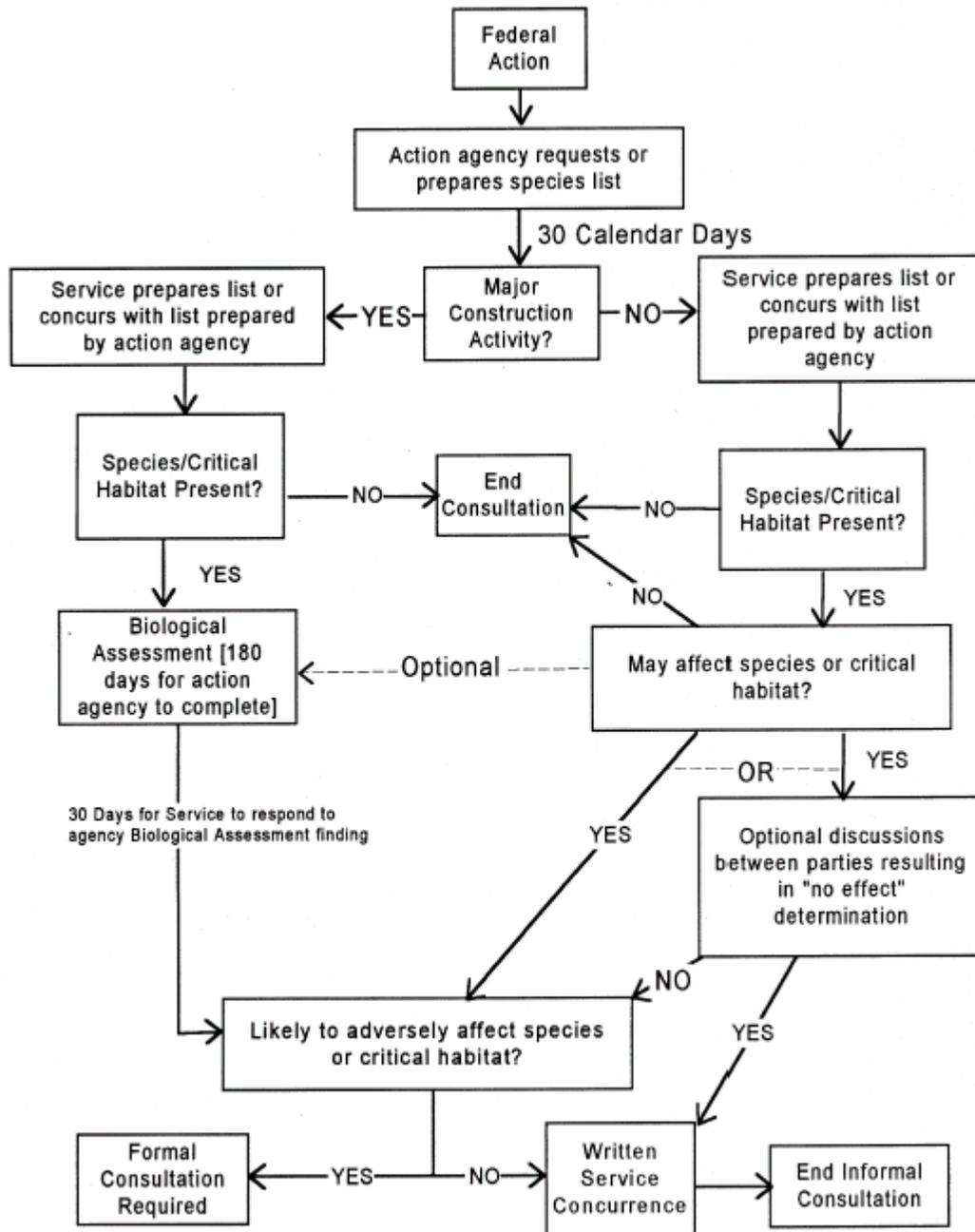
#### 4.0 RECORDS.

The NEPA Document Manager will maintain documentation of the BA. This documentation may be physically located with the NEPA contractor. At a minimum, this documentation should include relevant agency correspondence, BA and NEPA documentation (CX, EA or EIS).

#### 5.0 TRAINING.

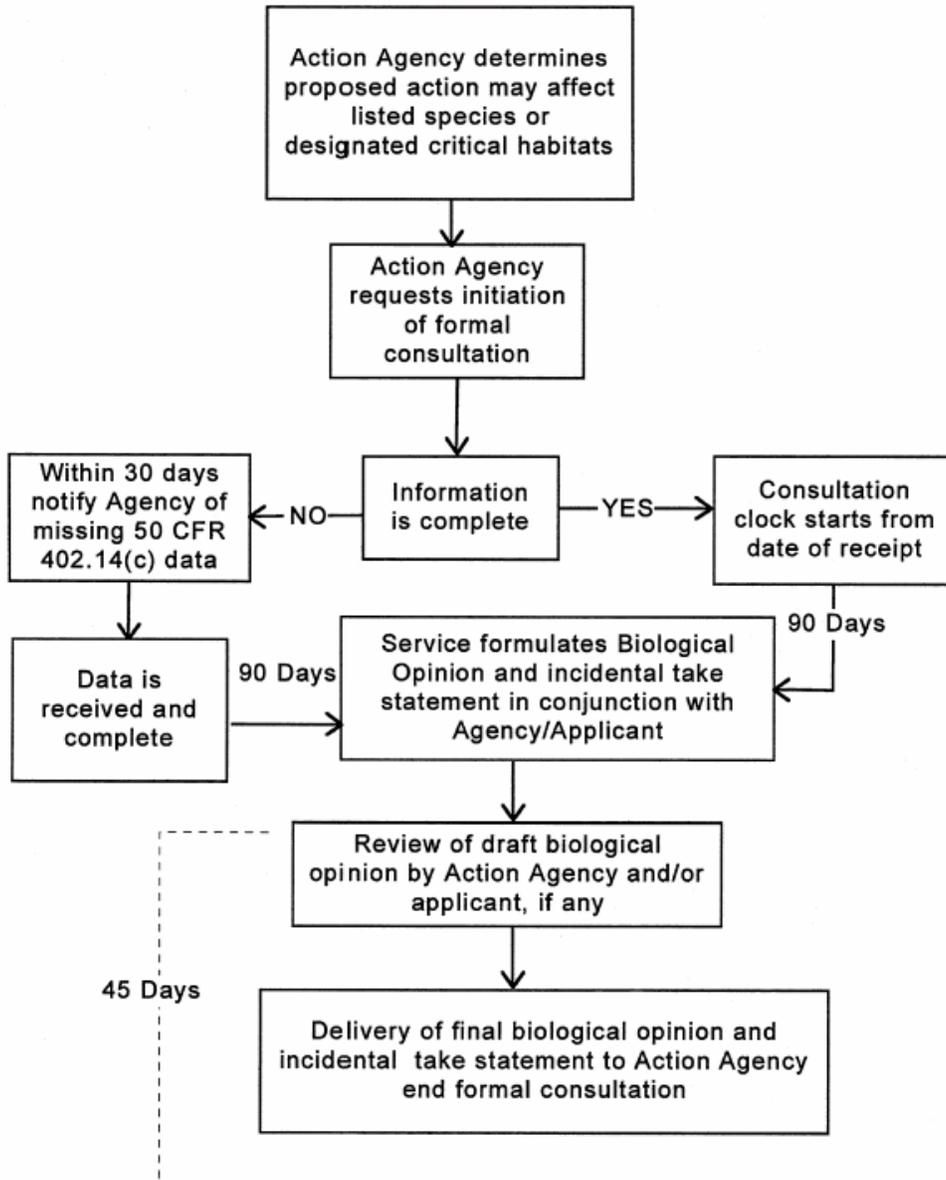
Training for this procedure should include required reading and understanding of this procedure, as well as additional NEPA/ESA training or experience with the NEPA/ESA process. All training should be documented and records maintained by the appropriate Training Coordinator.

**INFORMAL CONSULTATION PROCESS**



Source: Endangered Species Act Consultation Handbook, Procedures For Conducting Section 7 Consultations And Conferences. U.S. Fish And Wildlife Service And National Marine Fisheries Service. March 1998 Final.

### FORMAL CONSULTATION PROCESS



Source: Endangered Species Act Consultation Handbook, Procedures For Conducting Section 7 Consultations And Conferences. U.S. Fish And Wildlife Service And National Marine Fisheries Service. March 1998 Final.

## SAMPLE INFORMAL CONSULTATION LETTER



### Department of Energy

Oak Ridge Operations Office  
P.O. Box 2001  
Oak Ridge, Tennessee 37831—

March 22, 2001

Dr. Lee A. Barclay  
Field Supervisor  
Fish and Wildlife Service  
United States Department of Interior  
446 Neal Street  
Cookeville, Tennessee 38501

Dear Dr. Barclay:

#### **INFORMAL CONSULTATION UNDER SECTION 7 OF THE ENDANGERED SPECIES ACT: CHANGES TO THE BIOSOLIDS LAND APPLICATION PROGRAM ON THE OAK RIDGE RESERVATION**

The U.S. Department of Energy (DOE) is preparing an Environmental Assessment (EA) that will evaluate the environmental impacts of raising the current radionuclide loading limit from 4 mrem/yr to 10 mrem/yr on the Oak Ridge Reservation (ORR) Biosolids Land Application Sites and the addition of the Y-12 West End Treatment Facility (WETF) into the Y-12 and City of Oak Ridge Sanitary Sewer Systems. The proposed project areas are identified on the attached map.

The current land application program has been in operation since 1983 and is a cooperative venture between the City of Oak Ridge and DOE. Biosolids from the city wastewater treatment plant are land applied in liquid and/or solid form on six sites approved by the Tennessee Department of Environment and Conservation (TDEC) and permitted by U.S. Environmental Protection Agency (EPA) Region IV. The program has won a number of awards for management excellence including the 1997 Tennessee/Kentucky Water Environment Association and 1999 EPA Region IV. This program had a previous EA completed to cover normal operations, the addition of the East Tennessee Technology Park (ETTP) and the Oak Ridge National Laboratory (ORNL) sanitary biosolids and the establishment of radionuclide limits for biosolids and site soils that corresponds to a maximum dose of 4 mrem/yr. Enclosed is your correspondence concerning the previous EA.

The proposed action addresses the City of Oak Ridge request to increase the ORR Biosolids Land Application Site Radionuclide Loading Levels from a dose based upon 4 mrem/yr to 10 mrem/yr for a maximally exposed individual. This action would allow sufficient industrial growth within the city sewer system, if the need arises. The proposed action also would allow treated effluent discharges from the Y-12 plant West End Treatment Facility into the Y-12 and City of Oak Ridge Sewer Systems as a cost savings measure. All effluent discharges would meet

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Clean Water Act and City of Oak Ridge Industrial Discharge Permit limitations while the land application of city biosolids would be performed within TDEC and EPA land application permit criteria on the six application sites previously assessed in the last EA.

The land application of city biosolids is performed with a number of requirements designed to minimize impacts upon humans and the environment. Biosolids land application is prohibited from areas specifically designated to contain or be a known habitat for threatened or endangered plant or animal species. In 1996 a threatened/endangered species survey was performed for the six active land application sites. While the land application sites could provide suitable habitat for the Gray Bat, the conclusion of the survey was that no threatened or endangered plant or animal species or known habitats were specifically found on the ORR biosolids land application sites.

This letter is intended to serve as informal consultation under Section 7 of the Endangered Species Act. In this regard, DOE requests an updated list of protected species and habitats in the vicinity of the biosolids land application areas at Y-12 and ETTP and solicits your recommendations and comments about the potential effects of this proposed action. Your input will be used in the preparation of the on-going EA for the proposed actions.

If you need further information on this request, please do not hesitate to call me at (865) 576-0938.

Sincerely,



James L. Elmore, Ph.D.  
Alternate NEPA Compliance Officer

Enclosure

cc:  
H. Rice, EM-92  
D. Allen, SE-32  
J. Birchfield, Alliant Corporation

**SAMPLE LETTER FOR SUBMITTING THE BIOLOGICAL ASSESSMENT  
TO THE U.S. FISH AND WILDLIFE SERVICE**



**Department of Energy**

Oak Ridge Operations Office  
P.O. Box 2001  
Oak Ridge, Tennessee 37831—

July 11, 2002

Dr. Lee A. Barclay, Ph.D.  
Field Supervisor  
Fish and Wildlife Service  
446 Neal Street  
Cookeville, Tennessee 38501

Dear Dr. Barclay:

**ENVIRONMENTAL ASSESSMENT FOR THE DEPARTMENT OF ENERGY OAK  
RIDGE RESERVATION BIOSOLIDS LAND APPLICATION PROGRAM AND THE  
ADDITION OF THE Y-12 WEST END TREATMENT FACILITY INTO THE Y-12 AND  
CITY OF OAK RIDGE SANITARY SEWER SYSTEMS**

Thank you for your comments regarding the preparation of an Environmental Assessment (EA) for the Department of Energy Oak Ridge Reservation (DOE ORR) Biosolids Land Application Program and the addition of the Y-12 West End Treatment Facility (WETF) into the Y-12 and City of Oak Ridge Sanitary Sewer Systems. Per your request, our staff has prepared a Biological Assessment (enclosed) for the following federally listed endangered species:

Gray bat      (*Myotis grisescens*)  
Indiana bat   (*Myotis sodalis*)

Based upon the Biological Assessment (BA) performed for these species, it is the opinion of the DOE staff that a finding of not likely to impact has been determined. This determination was based on two main points. The first being that the ORR Application Sites were specifically selected to avoid waterways, caves, threatened and endangered species, etc. In addition, there is a 500 foot buffer zone around all waterways and there are no tree clearing operations now or planned in the future of the program. The final point regards the absence of a credible pathway for exposure to the species in question, in light of the fact that both the heavy metal and radionuclide levels are at basically background or non-detectable quantities for both vegetation and application site soils. As a point of clarification, although there have been extensive human health risk assessments conducted for existing and proposed changes to application site radionuclide loading limits, there have been no ecological risk assessments performed specifically for the ORR Biosolids Land Application Sites. The application of biosolids is regulated under 40 *CFR* 503, which regulates 9 specific heavy metals commonly found in sanitary biosolids. To date, the most heavily loaded site has only attained 7% of the prescribed Environmental Protection Agency's (EPA) limit for mercury for a site that has been in use for over 14 years.

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Dr. Lee A. Barclay, Ph.D.

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Radionuclide levels in biosolids are not regulated, therefore as a conservative measure, program limits were developed and approved by the Tennessee Department of Environment and Conservation (TDEC) for 23 specific radionuclides based upon a maximum dose rate of 4 mrem/yr to an on-site human. The same pathways and scenarios were used to calculate the new radionuclide limits for 10 mrem/yr exposure. It is important to note that the proposed increase from 4 to 10 mrem/yr is considered a "worst-case" scenario and has an extremely low probability of ever being achieved. This is due, in part, to use of existing sites, which have an average remaining life of 7 years, the implementation of an extremely effective city industrial pre-treatment program and substantial repair of existing sewer lines throughout the Y-12 Plant and City of Oak Ridge that reduce the inflow of naturally-occurring radioactive material (NORM).

Application site soil and vegetation radionuclide levels have been monitored throughout the 17-year operational history of the program and remain at or near background radionuclide levels of non-biosolids applied areas. It is for these reasons that the DOE staff believes that an ecological risk assessment is not warranted for the proposed action.

We have also provided the following documents at your request:

NPDES Permit #TN0024155  
Y-12 Plant Industrial Discharge Permit

Because the City of Oak Ridge has an EPA and TDEC Industrial Pre-Treatment Program, a revision to the existing City of Oak Ridge NPDES permit to allow the WETF discharges is not required. Alternatively, the City will revise the Y-12 Plant Industrial Discharge Permit to specifically address what parameters, monitoring frequency and effluent discharge limitations will be required. We ask that you please review the documents provided and inform us of any additional comments or concurrence for this BA as soon as possible. Should you have any questions or need further assistance, please feel free to contact me at (865) 576-0938.

Sincerely,



James L. Elmore, Ph.D.  
Alternate NEPA Compliance Officer

Enclosure

## DEFINITIONS

**Action** - An activity that is defined broadly to include funding, permitting, and other regulatory actions (See 50 CFR 402.02).

**Biodiversity** - The variety of life and its processes, including the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they occur.

**Biological assessment** - A document prepared for the Section 7 process to determine whether a proposed major construction activity under the authority of a Federal agency is likely to adversely affect listed species, proposed species, or designated critical habitat.

**Biological opinion** - A document that is the product of formal consultation, stating the opinion of the U.S. Fish and Wildlife Service (FWS) on whether or not a Federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

**Candidate species** - Plants and animals that have been studied and the FWS has concluded that they should be proposed for addition to the Federal endangered and threatened species list. These species have formerly been referred to as category 1 candidate species. From the February 28, 1996, Federal Register, page 7597: "those species for which the FWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list but issuance of the proposed rule is precluded."

**Category 1 candidate species** - A term no longer in use, having been replaced by the term candidate species.

**Category 2 candidate species** - A term no longer in use which previously referred to species for which the FWS had some indication that listing as threatened or endangered might be warranted, but there were insufficient data available to justify a proposal to list them.

**Category 3 candidate species** - A term no longer in use which previously referred to species that were once category 1 or 2 candidate species, but for which subsequent data indicated that listing as threatened or endangered was not appropriate.

**Conference** - The consultation process required for Federal actions that are likely to jeopardize the continued existence of a species proposed for listing or result in the destruction or adverse modification of proposed critical habitat.

**Conserve** - Carrying out actions to improve the health of a species so it no longer needs to be listed as threatened or endangered.

**Conservation** - From section 3(3) of the Endangered Species Act: "The terms conserve, conserving, and conservation mean to use and the use of all methods and procedures which are necessary to bring any endangered or threatened species to the point at which the measures provided under this Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transportation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking."

**Consultation** - All Federal agencies must consult with the FWS (or National Marine Fisheries Service) when any activity permitted, funded, or conducted by that agency may affect a listed species or designated critical habitat, or is likely to jeopardize proposed species or adversely modify proposed critical habitat. There are two stages of consultation: informal and formal.

**Critical habitat** - Specific geographic areas, whether occupied by listed species or not, that are determined to be essential for the conservation and management of listed species, and that have been formally described in the Federal Register.

**Delist** - The process of removing an animal or plant from the list of Endangered and Threatened Wildlife and Plants.

**Ecosystem** - Dynamic and interrelating complex of plant and animal communities and their associated nonliving (e.g. physical and chemical) environment.

**Ecosystem Approach** - Protecting or restoring the function, structure, and species composition of an ecosystem, recognizing that all components are interrelated.

**Endangered** - The classification provided to an animal or plant in danger of extinction within the foreseeable future throughout all or a significant portion of its range.

**Endangered Species Act of 1973, as amended** - Federal legislation intended to provide a means whereby the ecosystems upon which endangered and threatened species depend may be conserved, and provide programs for the conservation of those species, thus preventing extinction of native plants and animals.

**Endangered species permit** - A document issued by the FWS under authority of Section 10 allowing an action otherwise prohibited under Section 9 of the Endangered Species Act.

**Formal consultation** - The consultation process conducted when a Federal agency determines its action may affect a listed species or its critical habitat, and is used to determine whether the proposed action may jeopardize the continued existence of listed species or adversely modify critical habitat. This determination is stated in the FWS's biological opinion.

**Habitat** - The location where a particular taxonomy of plant or animal lives and its surroundings (both living and nonliving) and includes the presence of a group of particular environmental conditions surrounding an organism including air, water, soil, mineral elements, moisture, temperature, and topography.

**Habitat Conservation Plan (HCP)** - A plan which outlines ways of maintaining, enhancing, and protecting a given habitat type needed to protect species. The plan usually includes measures to minimize impacts, and might include provisions for permanently protecting land, restoring habitat, and relocating plants or animals to another area. An HCP is required before an incidental take permit may be issued.

**Harm** - An act that actually kills or injures wildlife. Such acts may include significant habitat modification or degradation when it actually kills or injures wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering.

**Historic range** - Those geographic areas the species was known or believed to occupy in the past.

**Incidental take** - Take that results from, but is not the purpose of, carrying out an otherwise lawful activity.

**Incidental take permit** - A permit issued under Section 10 of the Endangered Species Act to private parties undertaking otherwise lawful projects that might result in the take of an endangered or threatened species. Application for an incidental take permit is subject to certain requirements, including preparation by the permit applicant of a HCP.

**Informal consultation** - Informal consultation precedes formal consultation and includes any form of communication between the Federal action agency, applicant, or designated non-Federal representative and the FWS to determine if listed species may occur in the action area and what the effects of the action may be to such species. An informal consultation is often used to develop project modifications or alternatives to avoid adverse effects to listed species, which would then preclude the need for formal consultation.

**Jeopardy biological opinion** - A FWS Section 7 biological opinion that determines that a Federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

**Listed species** - A species, subspecies, or distinct vertebrate population segment that has been added to the Federal lists of Endangered and Threatened Wildlife and Plants as they appear in sections 17.11 and 17.12 of Title 50 of the Code of Federal Regulations (50 CFR 17.11 and 17.12).

**Listing** - The formal process through which the FWS adds species to the Federal List of Endangered and Threatened Wildlife and Plants.

**No jeopardy biological opinion** - A FWS Section 7 biological opinion that determines that a Federal action is not likely to jeopardize the existence of a listed species or result in the destruction or adverse modification of critical habitat.

**Petition (Listing)** - A formal request, with the support of adequate biological data, suggesting that a species, with the support of adequate biological data, be listed, reclassified, or delisted, or that critical habitat be revised for a listed species.

**Propose** - The formal process of publishing a proposed Federal regulation in the Federal Register and establishing a comment period for public input into the decision-making process. Plants and animals must be proposed for listing as threatened or endangered species, and the resulting public comments must be analyzed, before the FWS can make a final decision.

**Proposed species** - Any species of fish, wildlife, or plant that is proposed in the Federal Register to be listed under Section 4 of the Endangered Species Act.

**Range** - The geographic area a species is known or believed to occupy.

**Reclassify** - The process of changing a species official threatened or endangered classification.

**Recovery** - The process by which the decline of an endangered or threatened species is arrested or reversed, or threats to its survival neutralized so that its long-term survival in nature can be ensured.

**Section 4** - The section of the Endangered Species Act that deals with listing and recovery of species, and designation of critical habitat.

**Section 6** - The section of the Endangered Species Act that authorizes the FWS to provide financial assistance to States through cooperative agreements supporting the conservation of endangered and threatened species.

**Section 7** - The section of the Endangered Species Act that requires all Federal agencies, in consultation with the FWS, to insure that their actions are not likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of critical habitat.

**Section 9** - The section of the Endangered Species Act that deals with prohibited actions, including the import and export, take, possession of illegally taken species, transport, or sale of endangered or threatened species.

**Section 10** - The section of the Endangered Species Act that provides guidelines under which a permit may be issued to authorize activities prohibited by Section 9, such as take of endangered or threatened species.

**Species** - From Section 3(15) of the Endangered Species Act: “The term species includes any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.” A population of individuals that are more or less alike, and that are able to breed and produce fertile offspring under natural conditions.

**Species of Concern** - Species of concern is an informal term that refers to those species that the FWS believes might be in need of concentrated conservation actions. Such conservation actions vary depending on the health of the populations and degree and types of threats. At one extreme, there may only need to be periodic monitoring of populations and threats to the species and its habitat. At the other extreme, a species may need to be listed as a Federal threatened or endangered species. Species of concern receive no legal protection and the use of the term does not necessarily mean that the species will eventually be proposed for listing as a threatened or endangered species.

**Take** - From Section 3(18) of the Endangered Species Act: The term take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

**Threatened** - The classification provided to an animal or plant likely to become endangered within the foreseeable future throughout all or a significant portion of its range.