

Memorandum

DATE: **NOV 17 2014**

REPLY TO
ATTN OF: MPD (R. Olsen, 803-952-9049)

SUBJECT: Department of Energy- Savannah River (DOE-SR) Land Use Plan

TO: Ker-Chi Chang, Office of Deactivation and Decommissioning Facility Engineering (EM-13), HQ

REFERENCE: DOE Order 430.1B, *Real Property Asset Management*

This memorandum transmits the updated Savannah River Site (SRS) Land Use Plan, developed in accordance with DOE Order 430.1B, *Real Property Asset Management*.

The SRS Land Use Plan integrates land use planning and management for the DOE-SR. It is a strategy level document that identifies the key elements of land use planning and shows how these elements work together. DOE Order 430.1B is the primary land use planning guide for SRS. This Order directs DOE to comply with the requirements of the National Environmental Policy Act, site planning and asset management, long term stewardship plans, institutional control plans, stakeholder public participation, economic development, privatization of assets, environmental law, cultural asset management, historic preservation and natural resource management. The SRS Land Use Plan is an integral part of meeting the overall requirements regarding responsible management of real property assets and compliments the SRS Ten Year Site Plan.

A draft of the SRS Land Use Plan was reviewed by DOE Headquarters, the Environmental Protection Agency, South Carolina Department of Health Environmental Control and Subject Matter Experts.

If you have any questions, please contact Rich Olsen of my staff at (803) 952-9049.


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MPD-14-020

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U.S. DEPARTMENT OF
ENERGY

Savannah River Site Land Use Plan

U.S. Department of Energy–Savannah River
Savannah River Site
Aiken, S.C.

November, 2014

SRNS-RP-2014-00537

Savannah River Site

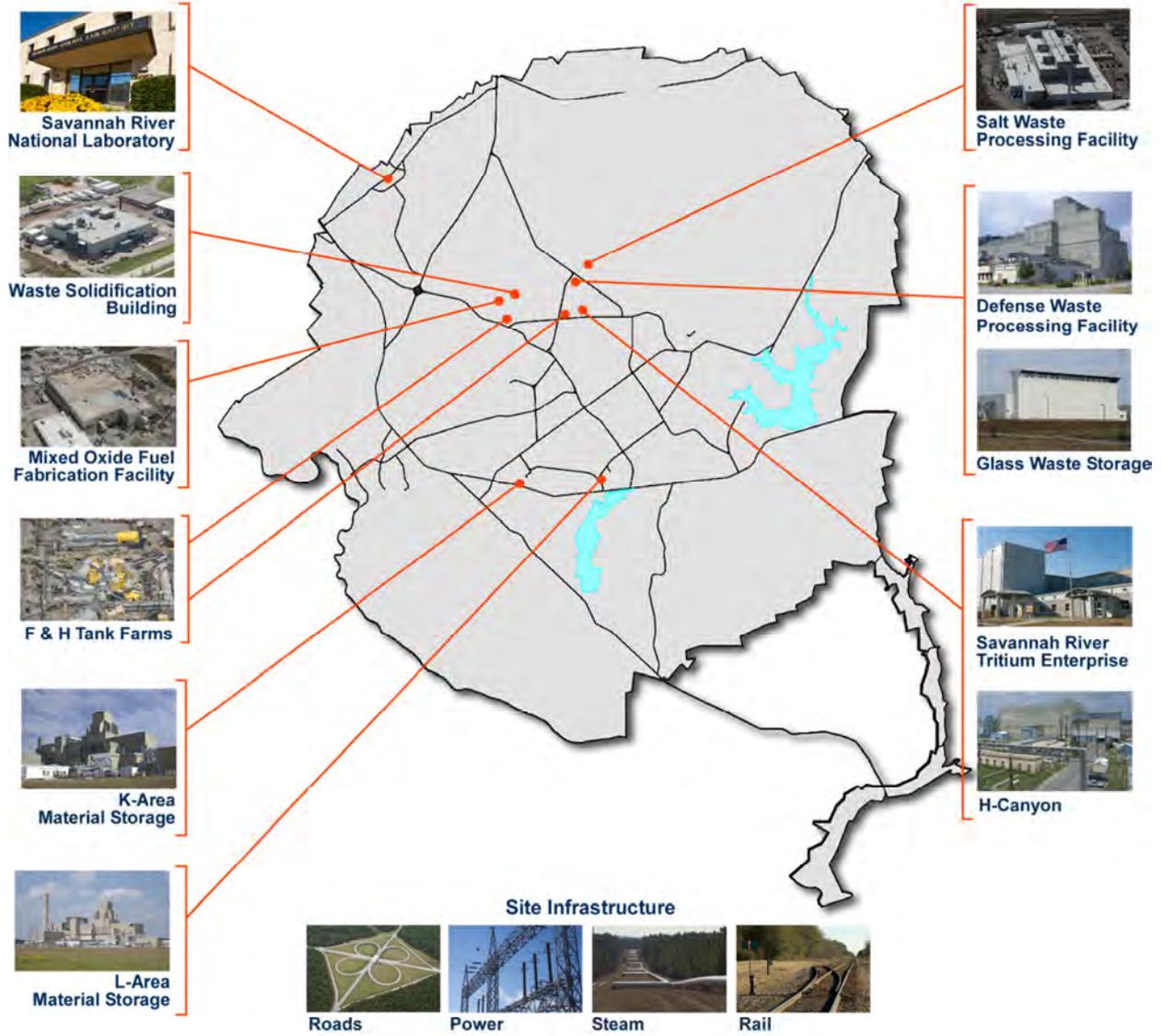


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Land Use Planning Assumptions

- SRS will maintain its current physical boundary under the ownership of the federal government in perpetuity, except where lease or transfer to private or public sector entities in accordance with applicable laws/regulations aligns with DOE objectives and enhances economic development in the surrounding region. Land use will be nonresidential.
- Upon completion of environmental cleanup and nuclear materials disposition missions, long term environmental monitoring responsibilities will be released to another DOE Program Secretarial Office.
- Canisters of vitrified high level nuclear waste will be shipped off-site to a national repository.
- National Nuclear Security Administration Defense Programs will continue as an enduring mission.
- Savannah River National Laboratory, a national asset, solving critical issues for national security, clean energy and environmental management, will continue as an enduring mission.
- Natural resources (forests, watersheds, endangered species) are valued site assets and will continue to be actively managed. Unique ecological habitats and archaeological sites will be protected and enhanced.
- SRS will continue to set aside specific research sites for the purpose of preserving non-industrial reference areas for environmental and ecological baseline data.
- Site infrastructure will be right-sized to support assigned site missions.

SRS Land Use Plan

1.0 Executive Summary

This Land Use Plan integrates land use planning and management for the Department of Energy's Savannah River Site (SRS). It is a strategy level document that identifies the key elements of land use planning and shows how these elements work together. Responsibilities and SRS contacts are provided for obtaining additional information.

The Department of Energy (DOE) requires integrated land use planning at all of its sites to ensure support of current and future DOE missions, and to ensure appropriate reuse of land no longer needed to support DOE missions. At a multi-program site such as SRS, overall land use management responsibilities are assigned to a Lead Program Secretarial Office, or landlord, which for SRS is the Office of the Assistant Secretary for Environmental Management (EM). DOE-SR coordinates land use planning and actions with the National Nuclear Security Administration (NNSA) and other SRS programs and tenants. All uses of SRS land require extensive evaluation and involvement in decision making by SRS federal and contractor organizations.

Originally built to supply nuclear materials for national defense, SRS today continues to support national defense and also serves the national priorities of environmental cleanup and nuclear nonproliferation. Current mission activities include consolidation, stabilization, processing and disposition of excess nuclear materials and wastes; extraction and loading of tritium gas; soil and groundwater remediation; and operation of the Savannah River National Laboratory (SRNL). The nature of SRS missions places heightened requirements on all aspects of site management to ensure the safety and protection of workers, the public and the environment.

The EM cleanup program will continue until complete, while NNSA tritium operations is an enduring mission that will last well beyond the EM cleanup program. Also, the capabilities and mission unique facilities of SRS, along with SRNL's work for other DOE, federal and international agencies, may lead DOE to assign other work to SRS in the future. When missions are completed, facilities and lands are cleaned up and buildings are demolished, closed in place or reutilized. In addition, environmental monitoring and research activities, and natural resource, cultural, archaeological, and historic requirements will continue. All of these future considerations will require some degree of long term protection and management by DOE which will continue to place restrictions on significant portions of SRS land. With the exception of some limited areas around the site perimeter, unrestricted use of major portions of SRS land is not now envisioned.

However, some SRS land may be suitable for non-DOE uses. For example, DOE approved operation of a regional landfill at SRS. Also, SRS currently supports military training exercises in non-restricted areas of the site. SRS anticipates future interest by both governmental and private entities in new uses of its land.

This plan summarizes, 1) SRS land use planning requirements, the major factors being current DOE mission requirements and existing laws and regulations, and 2) the land use management process, including the process for requesting use of SRS land.

SRS Land Use Plan

2.0 Introduction

The Savannah River Site was built in the 1950's to produce nuclear materials for the nation's defense. Current DOE missions at SRS serve national priorities of environmental cleanup, defense, and nuclear nonproliferation. SRS covers 310 square miles in Aiken, Allendale and Barnwell counties of South Carolina. The Site boundary is approximately 12 miles south of Aiken, SC and 15 miles southeast of Augusta, GA and is bounded on its southwestern border by the Savannah River.¹

All SRS land is owned and controlled by the US Department of Energy. Departmental land and facilities are valuable national resources. Specific uses of SRS land are determined by the missions established for DOE and other missions or uses established by Congress. DOE requires that any land no longer required for SRS missions be made available for public use².

SRS is required to establish and maintain a land use management process and plan³. The purpose of the SRS Land Use Plan is to guide the integrated management of site land with other site assets to support site missions and strategic objectives.

This SRS Land Use Plan (LUP) and the SRS Ten Year Site Plan (TYSP) integrate the life cycle mission requirements for Environmental Management and the National Nuclear Security Administration and translate them into a unified vision for management of the real property assets of the Site (LUP: land, TYSP: facilities and infrastructure, Figure 1-2). Together, these two plans describe the current state of SRS Land, facilities and infrastructure and the comprehensive planning processes that guide fulfillment of the requirements.

SRS anticipates future interest by both governmental and private entities in new uses of its land. This Land Use Plan describes the process for requesting other uses of SRS land.

Figure 1-1, Location of SRS



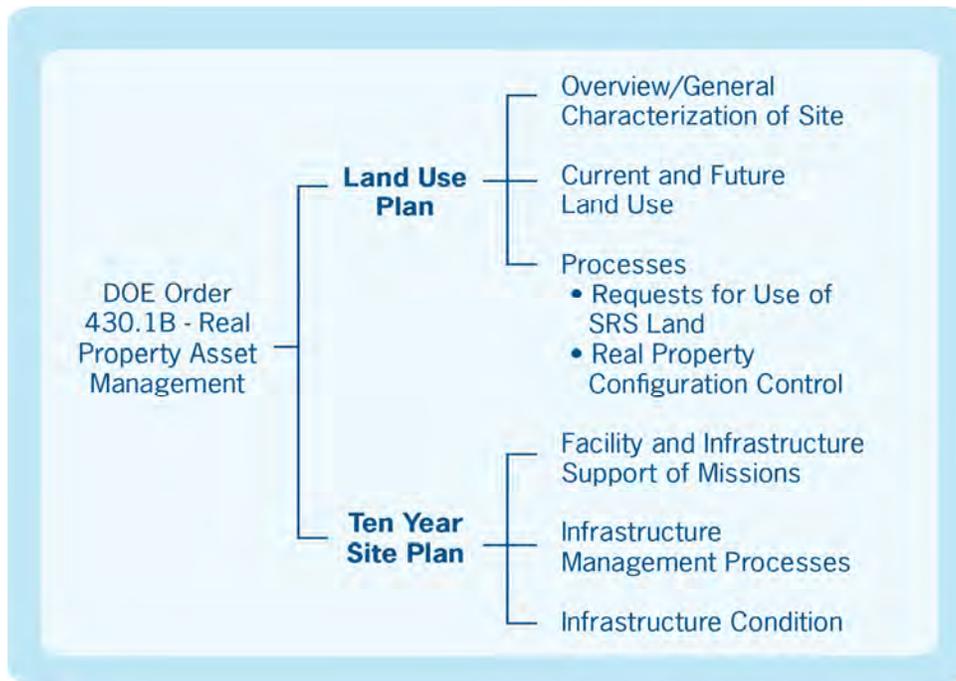
¹ US Dept. of Energy Savannah River Operations Office web site (http://www.srs.gov/general/news/factsheets/srs_esrs.pdf)

² DOE Order 430.1B (Chg 2, 4-25-11), *Real Property Asset Management*, Section 4.b.(4)

³ DOE Order 430.1B (Chg 2, 4-25-11), *Real Property Asset Management*, Section 4.b.(3)

SRS Land Use Plan

Figure 1-2, Relationship of LUP & TYSP



3.0 Requirements

DOE Order 430.1B

DOE Order 430.1B, *Real Property Asset Management*⁴, is the primary land use planning guide for SRS. This Order directs DOE sites to comply with the requirements of the National Environmental Policy Act (NEPA)⁵, site planning and asset management, long term stewardship plans, institutional control plans, stakeholder public participation, economic development under community reuse organizations, privatization of assets, environmental law, cultural asset management, historic preservation, and natural resource management.⁶ By extension, NEPA also invokes the Resource Conservation and Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Endangered Species Act; the Migratory Bird Treaty Act; the Bald and Golden Eagle Protection Act; the National Historic Preservation Act; and the Archaeological Resources Protection Act. More information on these requirements is provided in Section 5.0, under the heading Requirements/Constraints (page 15).

The SRS Land Use Plan is an integral part of meeting the overall requirements regarding responsible management of real property assets.

⁴ DOE Order 430.1B (Chg 2, 4-25-11), *Real Property Asset Management*, Section 4.b.(3)

⁵ National Environmental Policy Act of 1969 and 10 Code of Federal Regulations (CFR) Part 1021

⁶ *United States Department of Energy Natural Resources Management Plan for the Savannah River Site*, May, 2005 (prepared by United States Department of Agriculture Forest Service–Savannah River)

SRS Land Use Plan

DOE Strategic Plan

The *U.S. Department of Energy Strategic Plan 2014-2018*, directs DOE sites to manage assets in a sustainable manner that supports the DOE mission ⁷. Sites and laboratories are directed to address current and future use of land and facilities including sustainable operations and post-closure responsibilities. DOE sites are challenged to operate more efficiently, perform cleanup, and address post-closure responsibilities such that sites and laboratories have smaller footprints and more efficient and effective infrastructure. Mission objectives, energy efficiency and sustainability principles will drive decisions on capital infrastructure, and real property. This includes planning, divestiture, acquisition and sharing of assets with other governments, communities, academia and industry; supporting conveyance and reuse of unneeded land and facilities; and performing long-term surveillance and maintenance of legacy sites.

Assumptions

The foundational assumptions that guide all decisions regarding SRS land and other physical assets are:

- SRS will maintain its current physical boundary under the ownership of the federal government in perpetuity, except where lease or transfer to private or public entities in accordance with applicable laws and regulations aligns with DOE objectives and enhances economic development in the surrounding region. Land use will be nonresidential.
- Upon completion of environmental cleanup and nuclear materials disposition missions, long term environmental monitoring responsibilities will be released to another DOE Program Secretarial Office.
- Canisters of vitrified high-level nuclear waste will be shipped off-site to a national repository.
- National Nuclear Security Administration (NNSA) Defense Programs will continue as an enduring mission.
- Savannah River National Laboratory (SRNL), a national asset, solving critical issues for national security, clean energy and environmental management, will continue as an enduring mission.
- Natural resources (forests, watersheds, and endangered species) are valued site assets and will continue to be actively managed ⁸. Unique ecological habitats and archaeological sites ⁹ will be protected and enhanced.
- SRS will continue to set aside specific research sites ¹⁰ for the purpose of preserving non-industrial reference areas for environmental and ecological baseline data.
- Site infrastructure will be right-sized to support assigned site missions.

⁷ *U.S. Department of Energy Strategic Plan 2014-2018*, available at <http://www.energy.gov/budget-performance>

⁸ U.S. Forest Service Interagency Agreement No. AI 09-00SR22188; and *United States Department of Energy Natural Resources Management Plan for the Savannah River Site*, May, 2005 (prepared by United States Department of Agriculture Forest Service–Savannah River)

⁹ DOE Policy 141.1, DOE management of cultural resources; and *Archaeological Resource Management Plan of the Savannah River Archaeological Research Program*, December 1989, updated October, 2012

¹⁰ 1972 establishment of National Environmental Research Park by the Atomic Energy Commission; 1987 DOE Order 4300.1B; DOE Policy P430.1; and Cooperative Agreement DE-FC09-07SR22506 with the University of Georgia Research Foundation for the Savannah River Ecology Laboratory, May 16, 2011

SRS Land Use Plan

4.0 Current Land Use

Missions

The primary SRS missions are EM legacy cleanup, NNSA tritium, and NNSA nonproliferation. EM operates SRNL as part of its mission scope. The headings below describe SRS missions and other key site activities. Additional details are available in the *Savannah River Site Ten Year Site Plan*.¹¹ Figure 4-1 on page 11 shows a map of the location of the Site’s missions. Existing SRS missions and mission support activities occupy about 7% of site land area as shown in Table 4-1. The facility layout of SRS locates major radioactive operations away from the Site boundaries, creating a substantial buffer zone to reduce the risk of accidental exposure to the general public. The regulatory authorization for operation of SRS nuclear facilities requires maintaining the Site boundary as it currently exists.

Table 4-1, SRS Land Use Summary

Federal Land Use	Approximate Area	
	Acres	Percent
Primary SRS Missions/Mission Support (Industrial Areas)	14,076	7%
Research Set-Aside Areas	14,005	7%
Land Buffer for Nuclear Activities/ Natural Resource Management	169,623	86%
Site Total	198,344	100%

Environmental Management (EM):

The EM mission and goal is to complete SRS environmental cleanup from past nuclear materials production activities and to complete and operate major facilities supporting disposition of liquid waste and surplus weapons plutonium. Specific elements of the EM work scope include:

- Radioactive Liquid Tank Waste Stabilization and Disposition
- Solid Waste Stabilization and Disposition
- Nuclear Materials Stabilization and Disposition
- Used Nuclear Fuels Stabilization and Disposition
- Soil and Water Remediation and Facility Deactivation and Decommissioning
- Safeguards and Security
- Landlord Support Services
- Natural Resource Management
- Savannah River National Laboratory Operation

¹¹ *Savannah River Site Ten Year Site Plan, Fiscal Year 2014-2023, SRNS-RP-2013-00005, May 2013, and Savannah River Site Ten Year Site Plan Limited Update, Fiscal Year 2015-2024, SRNS-RP-2014-00006*

SRS Land Use Plan

SRNL is the applied research and development laboratory at the U.S. Department of Energy's Savannah River Site. SRNL supports EM and NNSA and performs work for other DOE, federal and international agencies. The laboratory applies state-of-the-art science to provide practical, high-value, cost-effective solutions to complex technical problems such as the detection of nuclear materials, the cleanup of contaminated groundwater and soils, the development of hydrogen as an energy source, maintaining a viable national defense, and the safe management of hazardous materials. In addition SRNL supports radiological and nuclear incident response training by federal agencies and military units. Building on over 60 years of technological achievement and a framework of vital core competencies, the laboratory continues to identify, develop and deploy innovative technologies to meet the needs of a variety of customers across the nation.

National Nuclear Security Administration (NNSA):

In support of national defense missions, the NNSA Defense Program (DP) has designated SRS as DOE's center for tritium supply management for the enduring nuclear weapons stockpile. Also, the NNSA Nuclear Nonproliferation Program (NN) is currently establishing the capability to disposition surplus plutonium at SRS via two construction projects: the Mixed Oxide (MOX) Fuel Fabrication Facility (MFFF) and the Waste Solidification Building (WSB). The specific elements of the NNSA work scope are:

- Tritium Supply – extraction of tritium from irradiated target rods and management of the tritium inventory for the nuclear stockpile.
- Nuclear Stockpile Maintenance – loading of tritium and deuterium into reservoirs that are used in the gas transfer system of a nuclear weapon.
- Nuclear Stockpile Evaluation – surveillance of gas transfer systems to assure reliability in the absence of nuclear testing.
- Helium-3 Recovery – recovery of this byproduct of tritium's radioactive decay for use in neutron detectors and various commercial applications.
- Fissile Material Disposition (NN) – disposition of special nuclear materials including highly enriched uranium and convert surplus weapons-grade plutonium to a form that can be used to generate electricity in commercial nuclear power reactors. Once irradiated, the plutonium in the MOX fuel can no longer be readily used for nuclear weapons.

Other Key Site Activities:

SREL: The University of Georgia operates the Savannah River Ecology Laboratory (SREL) for DOE-SR¹². SREL provides DOE, stakeholders and the public an independent assessment of the impacts of SRS operations on the environment, delivered through research, education and public outreach programs.

Designated as the first of seven National Environmental Research Parks¹³ (NERP) by the Atomic Energy Commission (now the Department of Energy), SRS is an important ecological component of the Southeastern Mixed Forest Ecoregion. Integral to the SRS NERP are the DOE Research Set-Aside Areas. Scattered across the SRS, these 30 tracts of land have been reserved for ecological research

¹² Cooperative Agreement DE-FC09-07SR22506 with the University of Georgia Research Foundation for the Savannah River Ecology Laboratory, May 16, 2011

¹³ 1972 establishment of National Environmental Research Park; and 1987 DOE Order 4300.1B, DOE Policy P430.1

SRS Land Use Plan

and are protected from public access and most routine site maintenance and forest management activities. Ranging in size from 8.5 acres to 7,364 acres, the 30 DOE Set-Aside Areas total 14,005 acres and comprise approximately 7% of the Site's total area (highlighted in green on the map in Figure 5-2). Long-term ecological studies are conducted in these Set-Aside Areas, which also serve as control areas for evaluation of the potential impacts of SRS operations on other regions of the Site. The SREL is custodian of the Set-Aside Areas.

USFS-SR: The United States Department of Agriculture Forest Service – Savannah River conducts a comprehensive natural resource management program for the SRS under an interagency agreement with DOE-SR. This includes wildland fire suppression, threatened and endangered species restoration, invasive species control, habitat management, watershed management, boundary maintenance, management of secondary roads, and related research.¹⁴

WSI-SRS: WSI-SRS provides paramilitary security services for the physical protection of security interests. These services include Law Enforcement, Canine, Special Response Team, Material Transportation, Helicopter and Administrative Operations to support the SRS Mission.

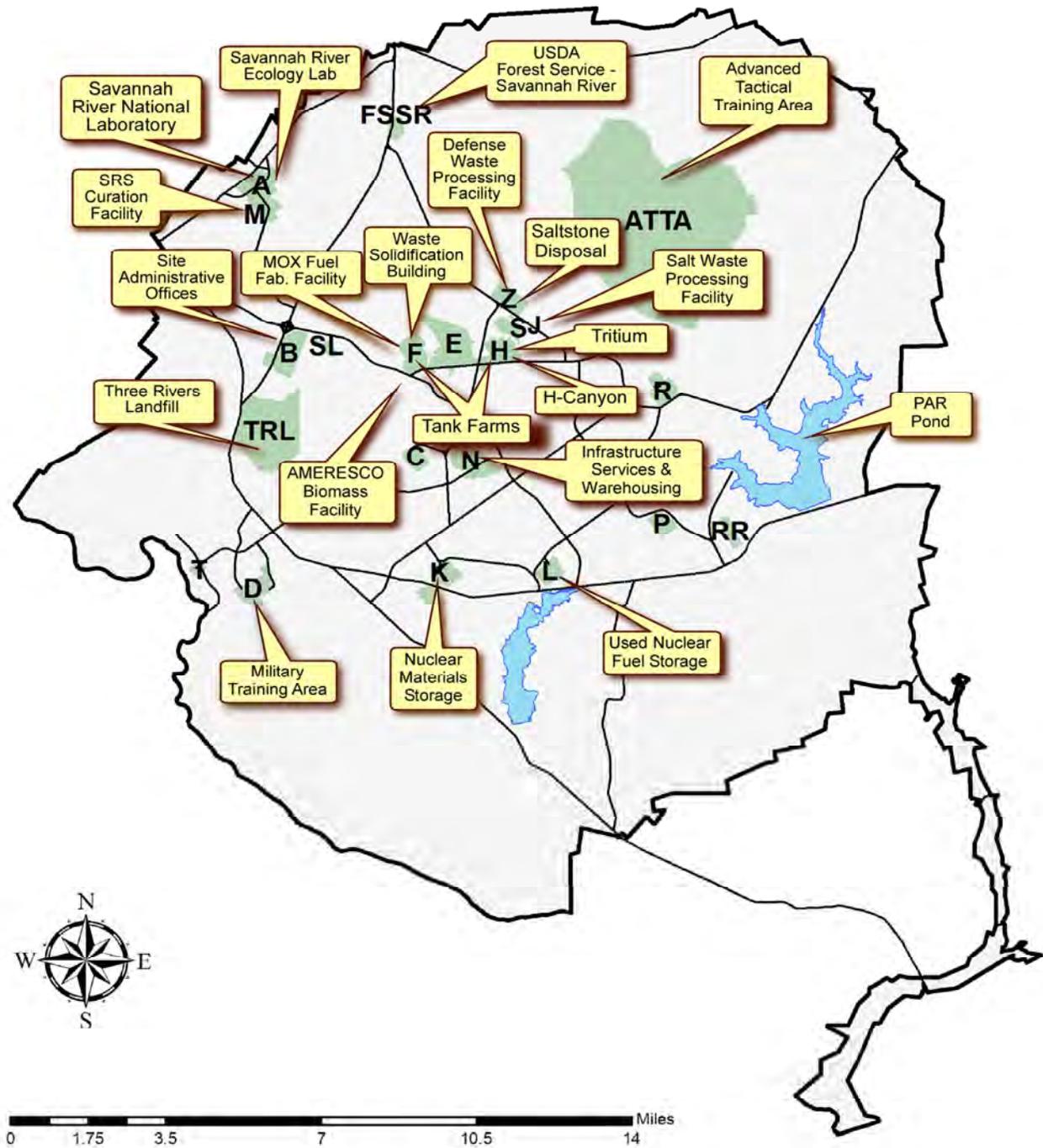
United States Army: SRS has an interagency agreement with the U.S. Army for the use of specific areas of the Site to conduct low intensity, non-live-fire tactical maneuver training activities in support of current and future National Defense mission requirements.

Three Rivers Landfill: SRS leases 1380 acres of land to the Three Rivers Solid Waste Authority, a nine county partnership, for operation of a regional landfill. In addition to providing waste disposal services to local governments within the partner counties, SRS uses the landfill for certain of its own solid waste disposal needs.

¹⁴ For detailed information see: United States Department of Energy Natural Resources Management Plan for the Savannah River Site, May, 2005 (prepared by United States Department of Agriculture Forest Service–Savannah River)

SRS Land Use Plan

Figure 4-1, Current Savannah River Site Operations by Site Area



SRS Land Use Plan

The following listing of missions and mission support functions by Site Area supplements the site map shown in Figure 4-1:

A Area	SRNL, SREL, SRS Operations Center, administrative offices and infrastructure support
B Area	Administrative offices, laboratory facilities, and protective force operations
C Area	Administrative offices, infrastructure operations and heavy water storage
D Area	Deactivated; currently used for military training
E Area	Management of solid wastes
F Area	Waste management operations, MFFF, WSB, analytical laboratories, TRU waste processing, and Tank Farm
H Area	Nuclear chemical separations and waste management operations, Tritium, Tank Farm, and training
J Area	Liquid radioactive waste pretreatment
K Area	Nuclear materials storage
L Area	Receipt and storage of Used Nuclear Fuel, heavy water storage
M Area	SRS Curation Facility
N Area	Infrastructure services and facilities, including construction support, Stores and warehouses
P Area	In-situ stabilization
R Area	In-situ stabilization
S Area	Liquid radioactive waste immobilization and storage
Z Area	Treatment and disposal of low radioactivity salt solution
ATTA	Advanced Tactical Training Area for protective forces training
RR	SRS Rail Yard facilities and administrative offices
FSSR	US Forest Service site land management
AMERESCO	Biomass energy facility

SRS Land Use Plan

Infrastructure

DOE missions, support functions, and other approved activities at SRS require extensive infrastructure support. A complex network of systems serves major portions of the site. SRS infrastructure systems are listed below and the maps shown in Figure 4-2 illustrate the extent of the site covered by these systems. Detailed maps are available via the site's Geographic Information System when required for detailed planning.

Infrastructure Systems:

- Electrical Generation and distribution – 230KV and 115KV

- Steam Generation and distribution. Four biomass boiler facilities

- Water Domestic, Fire, Chilled, River and Sanitary systems

- Roads State (30 miles), Primary (126 mi.), and Secondary (1100 miles) road systems

- Railroads 33 active miles of track and 3 locomotives

- Communications & Information Technology Enterprise applications, desktop computing, network security, and data centers. Over 100 miles of fiber optics and copper cabling in support of site networks and telecommunications; wireless infrastructure in selected site areas.

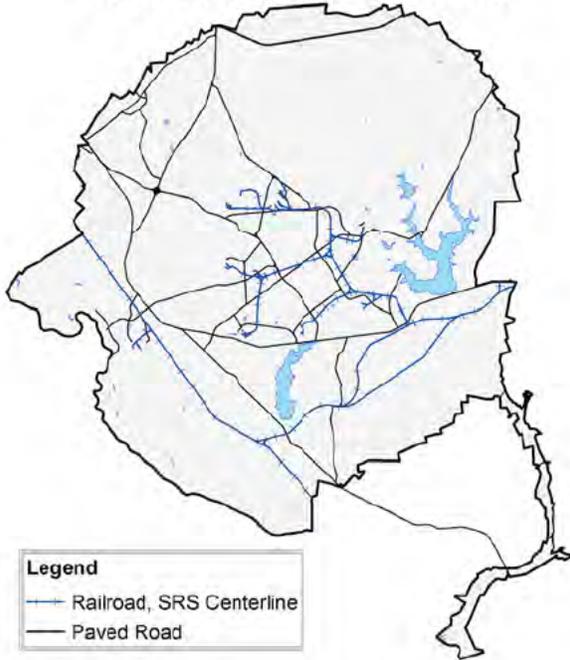
- Emergency Response Medical services, three fire stations, and emergency management operations center

DOE sites are required to continually assess mission infrastructure requirements, monitor and report infrastructure conditions, and maintain and invest in infrastructure as needed to ensure continuing mission support is provided. SRS uses an Infrastructure Mission Alignment Plan and the Ten Year Site Plan as key tools for planning and managing infrastructure.

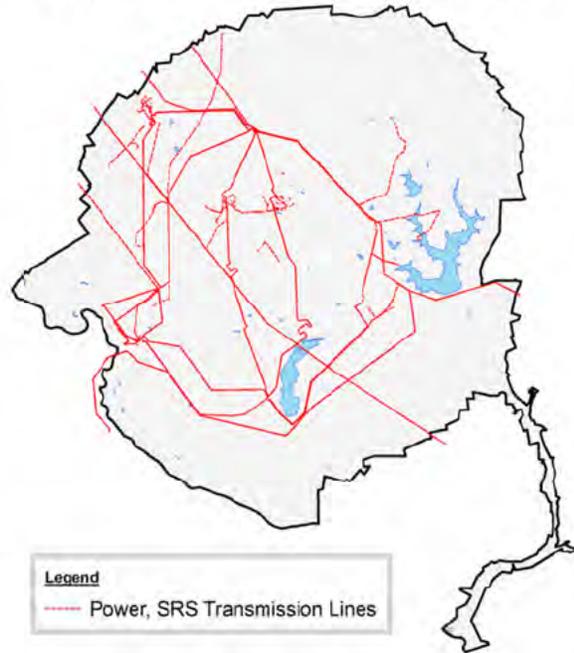
The amount of land occupied by SRS infrastructure systems is small. However, the location and availability of infrastructure support are factors to be considered when evaluating changes in site land use (see Section 5.0 – Land Use Management Processes).

Figure 4-2, SRS Key Infrastructure Maps

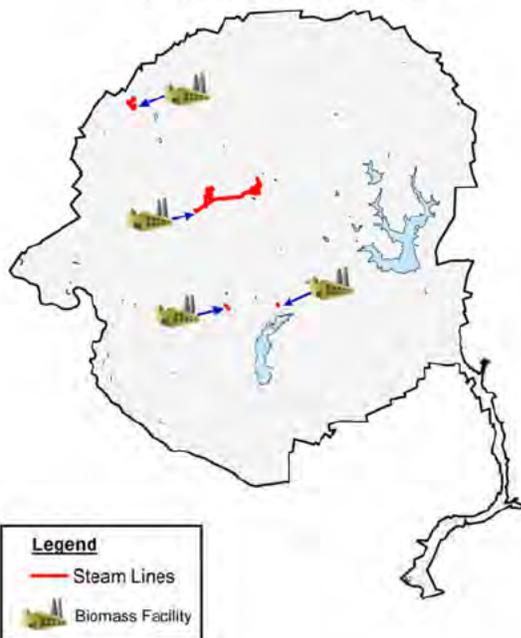
SRS Paved Roads and Rail



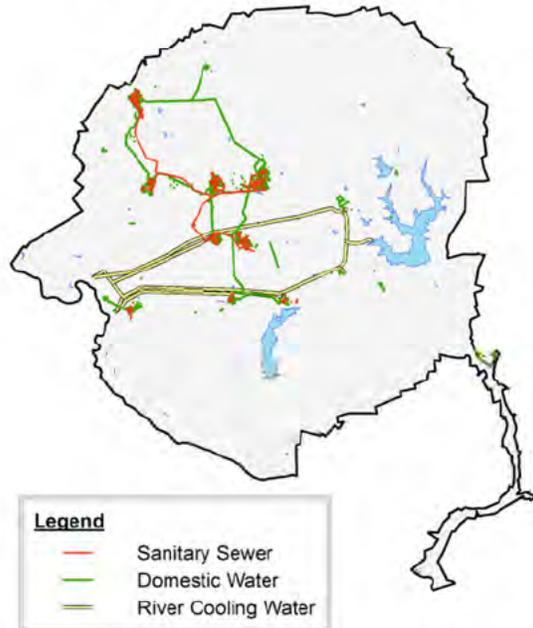
SRS Electrical Distribution System



SRS Steam Systems



SRS Domestic Water, Sanitary Sewer, and River Water Systems



SRS Land Use Plan

5.0 Future Land Use

Projections of future use of SRS land are based on, 1) Documented missions, 2) Requirements and constraints, and 3) Expressed interest in SRS land by other than DOE. The following three sections address these considerations.

Documented Missions

The primary determinant of future SRS land use for the foreseeable future will be the presence of approved DOE missions. Current missions and mission support activities of an industrial nature occupy about 7% of SRS land. The EM cleanup program will continue until complete, while the current EM nuclear materials management and NNSA tritium operations are enduring missions that will last well beyond the EM cleanup program. Also continuing will be SRNL's work in support of SRS missions as well as work for other DOE, federal and international agencies.

The nuclear-related missions at SRS will require maintaining the current site boundary to provide a significant land area to serve as a protective safety and security buffer. This requirement accounts for 86% of the site's land area (Table 4-1). The natural resources of this large land area are managed by the USFS-SR as described in Section 4.0.

DOE requirements for land to support the congressionally approved missions are described in the TYSP which incorporates requirements contained in the SRS Environmental Management Program Management Plan¹⁵ and the NNSA-SRFO Ten Year Site Plan¹⁶. These EM and NNSA documents describe the scope, duration, deactivation, decommissioning, remediation, and long term stewardship requirements for each mission. The TYSP aligns facility and infrastructure support with EM and NNSA missions. The TYSP also documents SRS issues with infrastructure investment required to sustain site missions.

When SRS missions are completed, facilities and lands are cleaned up and buildings are demolished, closed in place or reutilized. This reduces DOE's requirements for land, but portions of this land will remain under DOE control. Therefore, the total land area devoted to current missions that may become available for reuse will be minimal.

Requirements/Constraints

Environmental monitoring, protection, and research activities, as well as natural resource, cultural, archaeological, and historic requirements will also continue at SRS for the foreseeable future. These requirements/constraints apply to the entire site; however, the land devoted to Primary SRS Mission Support Areas (7%) and the Research Set-Aside Areas (7%) specifically restrict usage of only 14% of SRS land (see Table 4-1). Use of the remaining 86% of land may be restricted by some requirements/constraints. All future proposed land uses will be evaluated to ensure that the environmental, natural resource, cultural, archaeological, and historic requirements are met.

¹⁵ SRS Environmental Management Program Management Plan, August, 2013

¹⁶ NNSA-SRFO Ten Year Site Plan Update, FY 2015-FY2024, Rev. 1, SRNS-T0001- 2014-0103

SRS Land Use Plan

Examples of environmental constraints that impact future SRS land use are groundwater contamination plumes. These underground contamination areas are being contained and cleaned up, but must be considered when planning for site land use. A map of the plumes is shown in Figure 5-1. Also, an example of natural resource protection requirements is that for endangered species as shown in Figure 5-2 below.

Figure 5-1, SRS Groundwater Contamination Plumes

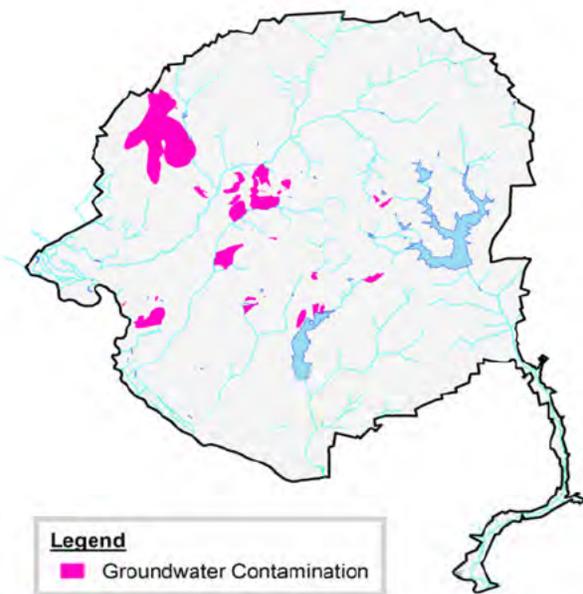
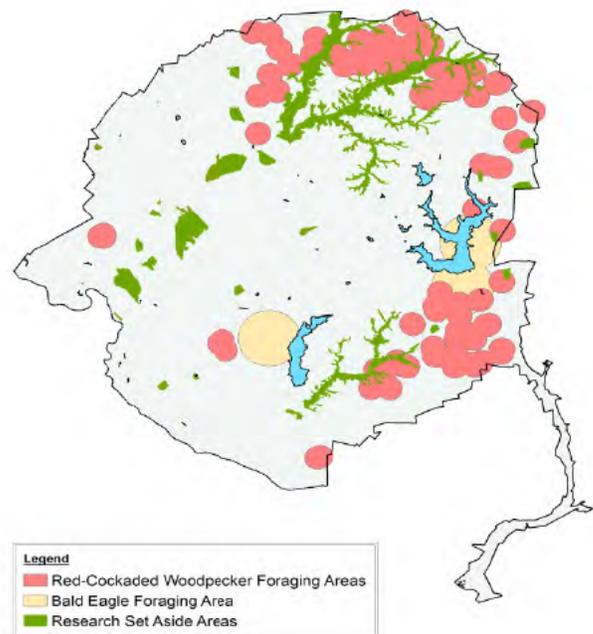


Figure 5-2, Illustration of Typical Environmental/Ecological Management Areas



Expressed Interest in SRS Land By Other Than DOE

Except for the possibility of some limited areas around the site perimeter, unrestricted use of major portions of SRS land is not now envisioned. However, some SRS land may be suitable for non-DOE uses. For example, DOE approved operation of a regional landfill at SRS. Also, SRS currently supports military training exercises in non-restricted areas of the site. Recently the South Carolina Military Department (SCMD) and DOE signed a Memorandum Of Understanding outlining the use of land and the construction of facilities at SRS. The agreement will integrate relevant SRS and South Carolina National Guard capabilities to enhance our nation's ability to respond to natural, man-made or criminal events involving chemical, biological, radiological, nuclear, and explosive materials. The facilities will serve the SCMD, other military organizations, other federal agencies, and SRNL.

The Site anticipates future interest by both governmental and private entities in new uses of its land and is studying which, if any, tracts of land may be excess to our DOE missions in support of a new headquarters' initiative to eliminate under-utilized federal property. Section 6.0 outlines the process for requesting new uses of SRS land.

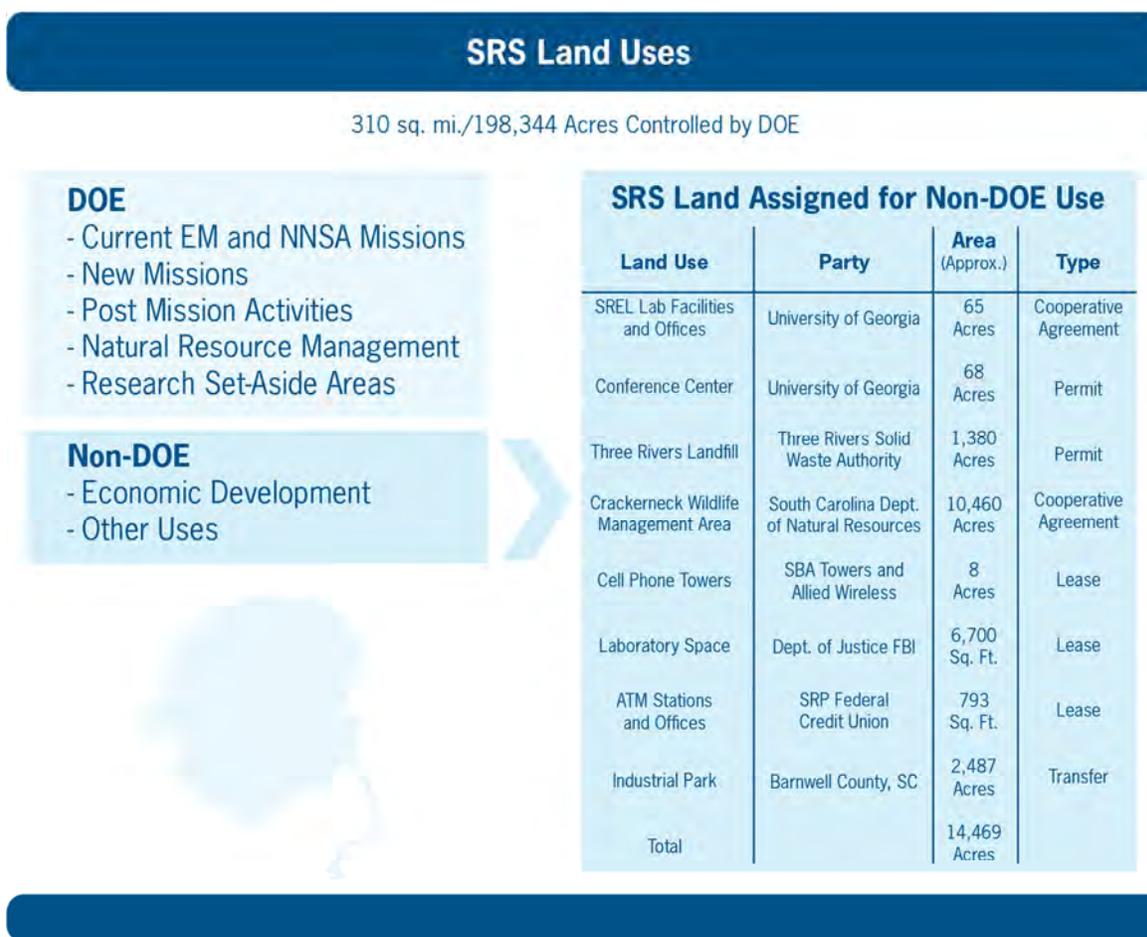
SRS Land Use Plan

6.0 Land Use Management Processes

DOE Order 430.1B, *Real Property Asset Management*, requires DOE sites to ensure that existing DOE land is maintained and available for approved DOE missions. It also directs DOE to acquire additional land as needed for DOE missions and to make existing land that is no longer needed available for reuse.

The assumptions listed in Section 3.0 state that SRS will maintain its current physical boundary under the ownership of the federal government in perpetuity, except where lease or transfer to public or private sector entities aligns with DOE objectives and enhances economic development in the surrounding region. The exception in this statement allows for requests for additional uses of SRS land to be submitted to the federal government for evaluation. Figure 6-1 below provides an overview of how these requirements have been addressed at SRS.

Figure 6-1, SRS Land Overview



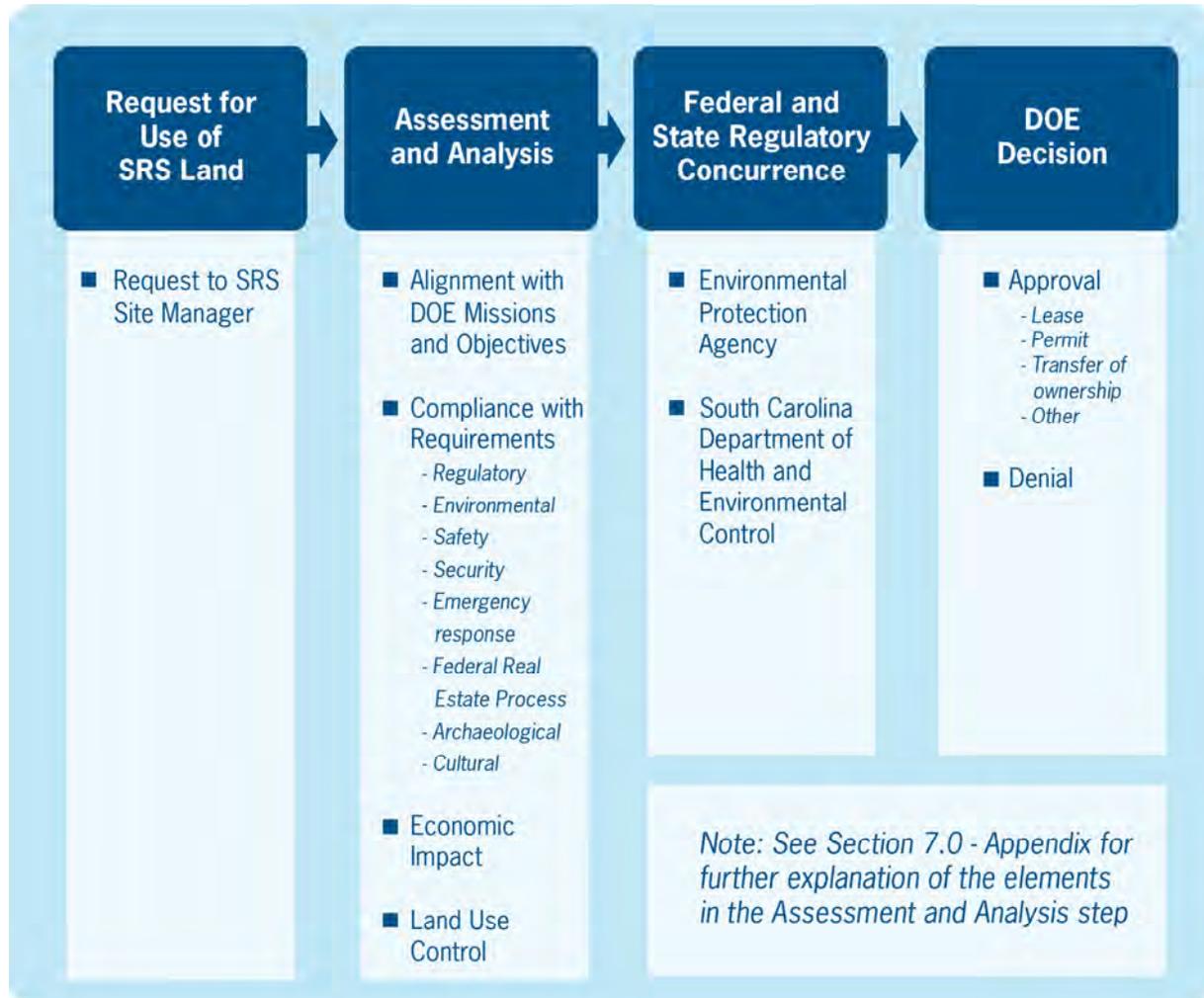
Note: See Section 8.0 – Appendix, for further explanation of the types of Non-DOE land use agreements

SRS Land Use Plan

Requests for Use of SRS Land

For those interested in requesting new uses for SRS land, Figure 6-2, outlines the steps for processing these requests. This process is managed locally by DOE-SR, but each step involves multiple inputs from local, state and federal stakeholders and DOE-HQ specialists and management. All uses of SRS land require extensive evaluation and involvement in decision making.

Figure 6-2, Decision Flow – Request for Use of SRS Land



Getting Started

Requests for new uses of SRS land must be submitted in writing to the SRS DOE-SR Manager. An appropriate DOE-SR person will be assigned to assist each requester. This lead person will help the requester work through the process depicted above. Interested parties should contact SRS through the DOE Office of External Affairs email address:

DOE-SREmployeeCommunications@srs.gov

SRS Land Use Plan

7.0 - Appendix: Assessment and Analysis Step of Figure 6-2, Decision Flow

Alignment with DOE Missions and Objectives

SRS evaluates the compatibility of proposed land uses with authorized DOE missions and other DOE objectives. DOE Order 430.1B requires that all uses of DOE assets support the DOE Strategic Plan, the Secretary's 5-year planning guidance, and appropriate program guidance. The Order specifies that the site land use plan must identify all land needed to support site missions. Also, Site/Field managers must ensure mission resource requirements for real property assets, including their plans and budgets, are prepared to meet the program missions, budgets, and planning estimates¹⁷.

Compliance with Requirements

Environmental and Regulatory

NEPA requires all Federal agencies to consider the impact of their proposed actions on the "human environment" before the commitment of significant resources and project implementation. Specific environmental restoration or protection requirements that impact land use at SRS are prescribed by established NEPA reviews, the SRS Federal Facility Agreement (via associated CERCLA Records of Decision and Land Use Control Implementation Plans), and the SRS Resource Conservation and Recovery Act permit for individual facilities or waste units. SRS procedures establish responsibilities and requirements for the implementation of, and compliance with, the NEPA process as specified in 10 CFR 1021. This includes the responsibilities and requirements for preparation and use of an Environmental Evaluation Checklist (EEC)¹⁸. The EEC, which initiates the NEPA review process at SRS, is used to identify potential environmental impacts and regulatory requirements (e.g., Federal and State required permits) associated with proposed SRS actions. The EEC outcomes may range from no additional action required to development of a full Environmental Impact Statement.

Safety, Security and Emergency Response

SRS evaluates the safety, security and emergency response requirements for all land use proposals to ensure protection of workers and the public. The nuclear-related missions and legacy of SRS require careful evaluation of any proposed land use changes. Requirements for approved proposals will be specified in the established written agreements (leases, Memoranda of Understanding, contracts, etc.)

Federal Real Estate Process

Land leases, transfers and other land use actions that are entered into by SRS are governed by DOE Order 430.1B, Section 4.b, Requirements – Real Estate. These requirements include acquisition, planning and management, determination of excess, and disposal. Also, the Code of Federal Regulations, 10 CFR 770, addresses requirements for transfer of real property at defense nuclear facilities for economic development. 41 CFR, Chapters 101 and 102, Federal Property Management

¹⁷ DOE Order 430.1B (Chg. 2, 4-25-11), *Real Property Asset Management*, Sections 4.a.3), 4.b.(3) and 5

¹⁸ National Environmental Policy Act Implementation (NEPA) and the Environmental Evaluation Checklist (EEC), SRS Manual 3Q, Procedure 5.1 (EEC: Form OSR 14-347 LN)

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Regulations, (reference d), and the *DOE Real Estate Process—Desk Guide for Real Estate Personnel* (reference f) provide detailed guidance and procedures for completing real estate actions. Any property transfer at SRS must also comply with the *Federal Facility Agreement for the Savannah River Site* (FFA) and Section 120(h) of CERCLA, 42 U.S.C. § 9620(h). SRS prefers to make property available by lease or permit rather than fee simple transfer.

Cultural and Archaeological

DOE Policy 141.1, DOE Management of Cultural Resources, identifies 24 laws, regulations, Executive orders, and guidance that apply to cultural resource management. Cultural resources include archaeological sites/artifacts, and natural resources and sacred objects of importance to American Indians. DOE management responsibilities at SRS include identification, evaluation and protection of archaeological historic sites, including artifact preservation and other mitigation measures. SRS cultural resource compliance is based on a programmatic memorandum of agreement among DOE-SR, the South Carolina State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation (ACHP). Through a cooperative agreement between DOE-SR and the South Carolina Institute of Archaeology and Anthropology, the Savannah River Archaeological Research Program (SRARP) provides the technical expertise to help DOE meet cultural resources regulatory requirements for all SRS operations. The SRARP prepares, updates and helps implement the *Archaeological Resource Management Plan* through an integrated program of archaeological protection, compliance based research, and public education and outreach.

To comply with the requirements of Federal historic preservation laws and regulations involving DOE operations at SRS, DOE developed a programmatic assessment and a *Cold War Cultural Resources Management Plan* (CRMP). The CRMP describes the Site's Cold War built environment, identifies Cold War era historic properties, and serves as a management tool to avoid, minimize, or mitigate adverse effects to these properties. Under this plan, a structure may be preserved and maintained or it might be thoroughly photographed and documented then demolished. The CRMP was developed and is managed in consultation with the SHPO, the ACHP, the SRS Citizens Advisory Board, Citizens for Nuclear Technology Awareness, and local communities.

Economic Impact

The Code of Federal Regulations, 10 CFR 770 defines “economic development” as the use of transferred DOE real property in a way that enhances the production, distribution, or consumption of goods and services in the surrounding region(s) and furthers the public policy objectives of the laws governing the downsizing of DOE's defense nuclear facilities. Land use proposals submitted to SRS should include a description of the economic development that would be furthered by the land transfer (e.g., jobs to be created or retained or improvements to be made) and information supporting the economic viability of the proposal.

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Land Use Control

Use of all lands and waters on the SRS are coordinated via the Site Use Program which is described in the SRS Site Real Property Configuration Control Manual¹⁹. To assure proper configuration control, all land use requires an approved Site Use Permit. A Site Use (SU) evaluation may also include use of the Site Selection Process²⁰ to determine the most appropriate locations for an activity. Evaluations also include use of a Computer Aided Design file of site wide coverage depicting all approved SU permit boundaries. Each SU boundary is also linked to a Site Use System Administration database. Approved SU Permits are housed in the site Electronic Document Workflow System which is maintained by Records Management. This database contains SU permit number, description, responsible organization, approval date, and proposed termination date. Prior to the start of any new work on SRS land a Site Clearance Permit is required.

8.0 – Appendix: Types of SRS Land Use Assignments

Lease

Any agreement which gives rise to relationship of landlord and tenant (Real Property) or lessor and lessee (Real or Personal Property).

Permit

In general any document which grants a person or entity the right to do something.

Cooperative Agreement

An agreement between the United States and a State, a local government, or other recipient when the principal purpose of the relationship is to transfer something of value to the State, local government, etc. to carry out a public purpose of support or stimulation authorized by federal law instead of acquiring (by purchase, lease or barter) property or services for the direct benefit or use of the U.S. Government.

Transfer

An act of the parties or of the law by which the title to property is conveyed from one person or entity to another.

¹⁹ SRS Real Property Configuration Control, SRS Manual 1D, Procedure 3.02

²⁰ SRS Engineering Guide No. 02110-G, Site Selection Guidance

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9.0 Acronyms

ACHP	Advisory Council on Historic Preservation
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CRMP	Cultural Resources Management Plan
DOE	Department of Energy
DOE-EM	Department of Energy – Environmental Management
DOE-HQ	Department of Energy – Headquarters
DOE-SR	Department of Energy – Savannah River
DP	Defense Programs
EEC	Environmental Evaluation Checklist
EM	Environmental Management
LUP	Land Use Plan
NN	Nuclear Nonproliferation
MOX, MFFF	Mixed Oxide Fuel Fabrication Facility
NEPA	National Environmental Policy Act
NERP	National Environmental Research Park
NNSA	National Nuclear Security Administration
NNSA-SRFO	National Nuclear Security Administration – Savannah River Field Office
RCRA	Resource Conservation and Recovery Act
SREL	Savannah River Ecology Laboratory
SRNL	Savannah River National Laboratory
SRS	Savannah River Site
TYSP	Ten Year Site Plan
USFS-SR	United States Forest Service – Savannah River
WSB	Waste Solidification Building



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