

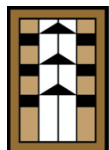
**U.S. DEPARTMENT OF AGRICULTURE  
FARM SERVICE AGENCY**

***DRAFT PROGRAMMATIC ENVIRONMENTAL  
ASSESSMENT***

***Farm Storage Facility Loan (FSFL) Program***

**Date Prepared: November 2024**

**Prepared by:**



**The Clark  
Group, LLC**

# Cover Sheet

Proposed Action	The Farm Service Agency of the United States Department of Agriculture proposes to continue the Farm Storage Facility Loan program as currently administered, without alterations to eligible facilities, commodities, or applicants.
Type of Document:	This is a Programmatic Environmental Assessment
Lead Agency:	United States Department of Agriculture, Farm Service Agency
Cooperating Agencies:	N/A
Further Information	Jason McMillin, Natural Resource Specialist, 202-774-7266, Jason.mcmillin@usda.gov
Comments:	<p>This Programmatic Environmental Assessment was prepared in accordance with FSA's National Environmental Policy Act implementing procedures found in 7 CFR § 799, as well as the National Environmental Policy Act of 1969 (42 USC §§ 4321 et seq., as amended).</p> <p>A copy of the Draft Programmatic Environmental Assessment and related material was posted to the Farm Service Agency's Current NEPA Documents Page at (<a href="https://www.fsa.usda.gov/programs-and-services/environmental-cultural-resource/nepa/current-nepa-documents/index">https://www.fsa.usda.gov/programs-and-services/environmental-cultural-resource/nepa/current-nepa-documents/index</a>)</p> <p>Written comments regarding this Programmatic Environmental Assessment can be submitted to the Farm Storage Facility Loan (FSFL) Program PEA Comments at: [Address]</p>

# Table of Contents

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<b>COVER SHEET</b> .....	<b>2</b>
<b>TABLE OF CONTENTS</b> .....	<b>3</b>
<b>ACRONYMS AND ABBREVIATIONS</b> .....	<b>6</b>
<b>1. INTRODUCTION</b> .....	<b>8</b>
<b>1.1 BACKGROUND</b> .....	<b>8</b>
<b>1.2 PURPOSE AND NEED FOR THE PROPOSED ACTION</b> .....	<b>8</b>
<b>1.3 ENVIRONMENTAL ANALYSIS OF THE FSFL PROGRAM</b> .....	<b>8</b>
<b>1.4 DECISION TO BE MADE</b> .....	<b>9</b>
<b>1.5 REGULATORY COMPLIANCE</b> .....	<b>9</b>
<b>1.6 PUBLIC INVOLVEMENT AND CONSULTATION</b> .....	<b>10</b>
1.6.1 SCOPING .....	10
1.6.2 PUBLIC COMMENT PERIOD .....	10
<b>2. PROPOSED ACTION AND ALTERNATIVES</b> .....	<b>11</b>
<b>2.1 ALTERNATIVE 1: EXISTING PROGRAM ALTERNATIVE (PROPOSED ACTION)</b> .....	<b>11</b>
<b>2.2 ALTERNATIVE 2: EXPANDED PROGRAM ALTERNATIVE</b> .....	<b>11</b>
<b>2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM ANALYSIS</b> .....	<b>12</b>
<b>3. AFFECTED ENVIRONMENT</b> .....	<b>13</b>
<b>3.1 SCOPE OF THE AFFECTED ENVIRONMENT</b> .....	<b>13</b>
3.1.1 GEOGRAPHIC SCOPE .....	13
3.1.2 TEMPORAL SCOPE .....	14
<b>3.2 RESOURCE AREAS</b> .....	<b>14</b>
3.2.1 LAND USE.....	14
3.2.2 ENERGY .....	17
3.2.3 NOISE.....	18
3.2.4 WASTE AND HAZARDOUS MATERIALS .....	19
3.2.5 AIR QUALITY .....	21
3.2.6 FARMLAND AND SOILS.....	22
3.2.7 CLIMATE CHANGE .....	24
3.2.8 WATER RESOURCES .....	25
3.2.9 BIOLOGICAL RESOURCES .....	30
3.2.10 CULTURAL RESOURCES .....	32
3.2.11 HUMAN POPULATION.....	33
<b>4. ENVIRONMENTAL CONSEQUENCES</b> .....	<b>42</b>
<b>4.1 RESOURCES DISMISSED FROM ANALYSIS</b> .....	<b>42</b>
4.1.1 LAND USE — LAND USE AND ZONING .....	42
4.1.2 LAND USE — NATIONAL NATURAL LANDMARKS AND WILDERNESS AREAS.....	42
4.1.3 LAND USE — VISUAL RESOURCES.....	43
4.1.4 NOISE.....	43
4.1.5 AIR QUALITY .....	43
4.1.6 WATER RESOURCES — FEDERALLY PROTECTED WATER RESOURCES .....	43
<b>4.2 ENERGY</b> .....	<b>43</b>

4.2.1 EVALUATION CRITERIA .....	43
4.2.2 ALTERNATIVE 1: EXISTING PROGRAM ALTERNATIVE (NO ACTION).....	44
4.2.3 ALTERNATIVE 2: EXPANDED PROGRAM ALTERNATIVE (PROPOSED ACTION).....	44
<b>4.3 WASTE AND HAZARDOUS MATERIALS .....</b>	<b>45</b>
4.3.1 EVALUATION CRITERIA .....	45
4.3.2 ALTERNATIVE 1: EXISTING PROGRAM ALTERNATIVE (NO ACTION).....	45
4.3.3 ALTERNATIVE 2: EXPANDED PROGRAM ALTERNATIVE (PROPOSED ACTION).....	45
<b>4.4 FARMLAND AND SOILS .....</b>	<b>46</b>
4.4.1 EVALUATION CRITERIA .....	46
4.4.2 ALTERNATIVE 1: EXISTING PROGRAM ALTERNATIVE (NO ACTION).....	46
4.4.3 ALTERNATIVE 2: EXPANDED PROGRAM ALTERNATIVE (PROPOSED ACTION).....	46
<b>4.5 CLIMATE CHANGE.....</b>	<b>47</b>
4.5.1 EVALUATION CRITERIA .....	47
4.5.2 ALTERNATIVE 1: EXISTING PROGRAM ALTERNATIVE (NO ACTION).....	47
4.5.3 ALTERNATIVE 2: EXPANDED PROGRAM ALTERNATIVE (PROPOSED ACTION).....	48
<b>4.6 WATER RESOURCES .....</b>	<b>49</b>
4.6.1 SURFACE WATER.....	49
4.6.2 WATER RESOURCES — GROUNDWATER.....	50
4.6.3 FLOODPLAINS .....	51
4.6.4 WETLANDS .....	52
<b>4.7 BIOLOGICAL RESOURCES .....</b>	<b>52</b>
4.7.1 VEGETATION, WILDLIFE, AND HABITAT .....	53
4.7.2 FEDERALLY PROTECTED SPECIES .....	53
<b>4.8 CULTURAL RESOURCES.....</b>	<b>54</b>
4.8.1 EVALUATION CRITERIA .....	54
4.8.2 ALTERNATIVE 1: EXISTING PROGRAM ALTERNATIVE (NO ACTION).....	54
4.8.2 ALTERNATIVE 2: EXPANDED PROGRAM ALTERNATIVE (PROPOSED ACTION).....	55
<b>4.9 HUMAN POPULATION .....</b>	<b>55</b>
4.9.1 SOCIOECONOMICS .....	55
4.9.2 ENVIRONMENTAL JUSTICE .....	57
4.9.3 OCCUPATIONAL HEALTH AND SAFETY .....	58
<b>5. CUMULATIVE IMPACTS .....</b>	<b>60</b>
5.1 PAST, PRESENT, AND REASONABLY FORESEEABLE ACTIONS.....	60
5.2 CUMULATIVE ANALYSIS .....	61
<b>6. IMPLEMENTATION.....</b>	<b>63</b>
6.1 SITE-SPECIFIC ENVIRONMENTAL EVALUATION PROCESS .....	63
6.2 INTEGRATION OF THE PEA AND THE ESW .....	65
6.3 FSFL SPECIAL CONDITIONS AND CONDITIONAL APPROVAL .....	65
<b>APPENDIX A: LIST OF PREPARERS.....</b>	<b>67</b>
<b>APPENDIX B: REFERENCES .....</b>	<b>68</b>
<b>APPENDIX C: PERSONS AND AGENCIES CONTACTED .....</b>	<b>74</b>
<b>APPENDIX D: SCOPING COMMENT MATRIX.....</b>	<b>80</b>
<b>APPENDIX E: ENVIRONMENTAL SCREENING WORKSHEET .....</b>	<b>83</b>

**APPENDIX F: UNDERGROUND STORAGE TANK PERMIT/NOTIFICATION  
REQUIREMENTS BY STATE .....84**

# Acronyms and Abbreviations

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APE	Area of Potential Effects
ARPA	American Rescue Plan Act
BLM	Bureau of Land Management
CAA	Clean Air Act
CCC	Commodity Credit Corporation
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
DOE	United States Department of Energy
EIS	Environmental Impact Statement
EO	Executive Order
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ERS	Economic Research Service
ESA	Endangered Species Act
ESW	Environmental Screening Worksheet
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FSA	Farm Service Agency
FSFL	Farm Storage Facility Loan
GDP	Gross Domestic Product
GHG	Green House Gas
NAAQS	National Ambient Air Quality Standards
NASS	National Agricultural Statistics Service
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWSRS	National Wild and Scenic Rivers System
OSHA	Occupational Safety and Health Administration
PEA	Programmatic Environmental Assessment
PHSMA	Pipeline and Hazardous Materials Administration
RCRA	Resource Conservation and Recovery Act
SDWA	Safe Drinking Water Act
SFHA	Special Flood Hazard Area

SHPO	State Historic Preservation Officer
SMP	Stormwater Management Plan
SWPPP	Storm Water Pollution Prevention Plan
THPO	Tribal Historic Preservation Officer
US	United States
USACE	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USFS	United States Forest Service
USGS	United States Geological Survey
UST	Underground Storage Tanks
WASDE	World Agricultural Supply and Demand Estimates

# I. Introduction

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## I.1 Background

The Farm Storage Facility Loan (FSFL) program was originally created in 1949 and was discontinued in the early 1980s when the demand for on-farm storage capacity was adequately met. Re-established in May 2000 under the authority of the Commodity Credit Corporation Charter Act (15 United States Code (USC) § 714b), the FSFL program provides low-interest financing to farmers to finance construction, improvements, or upgrades to on-farm storage facilities for eligible agricultural commodities. The program is available nationwide and is administered by the Farm Service Agency (FSA) on behalf of the United States Department of Agriculture (USDA) Commodity Credit Corporation (CCC) (FSA, 2023).

Since the program began in 2000, 59,464 FSFLs have been disbursed, totaling \$4.3 billion. Loan terms range from 3 to 12 years. On-farm storage capacity has increased by 900 million bushels since the FSFL program's re-establishment, yet there is still a need for more storage capacity across the US (FSA, 2023).

## I.2 Purpose and Need for the Proposed Action

The purpose of the Proposed Action is to improve nationwide on-farm storage capacity for small- and mid-sized agricultural operations by providing loans to upgrade and build farm storage facilities for eligible commodities. The purpose of the project is based on a need to improve the ability of farmers to preserve harvested crops, reduce post-harvest losses, and improve farmers' marketing and sales opportunities.

## I.3 Environmental Analysis of the FSFL Program

This Programmatic Environmental Assessment (PEA) examines the potential environmental consequences of continuing the FSFL program in its current state, without alterations to eligible facilities, applicants, or commodities. This PEA will also evaluate whether the existing FSFL program is compliant with all the new and relevant federal environmental and historic preservation requirements, including updates to the National Environmental Policy Act (NEPA) and the Justice40 Initiative.

In addition, the PEA will evaluate the potential impacts of adding new storage structures to the list of structures eligible for funding under the FSFL program, as well as the programmatic effects of the FSFL program in the context of climate change, with a particular focus on potential greenhouse gas (GHG) emissions that may result from the program's implementation.

The impacts of the FSFL program have previously been evaluated by PEAs prepared in 2009 and 2017. The 2009 PEA assessed the impacts of aspects of the FSFL Program authorized by the Food, Conservation, and Energy Act of 2008 (2008 Farm Bill), including expanding the eligible commodities, adding eligible storage structures, and making changes to loan terms and maximum loan limits (FSA, 2009). The 2017 PEA assessed the impacts of adding aquaculture species to the list of eligible FSFL commodities and adding aquaculture storage structures to the list of structures eligible for FSFL funding. The 2009 and 2017 FSFL PEAs are incorporated in this document by reference, and the specific impacts are summarized under the Existing Program alternative for each resource in **Section 4**.

The FSFL program demonstrates a consistent record of compliance with environmental regulations, having never been subject to environmental litigation. In all instances where a PEA was conducted, the FSFL program received a Finding of No Significant Impact (FONSI) determination, confirming that its activities do not have substantial environmental consequences



that would necessitate further review. As a result, no Environmental Impact Statement (EIS) has ever been required for the program. Moreover, all 33,000 projects funded by the FSFL program have met the criteria for categorical exclusion, exempting them from the need to prepare an EA or EIS. This reflects the program's adherence to sustainable practices and its ability to operate within established regulatory frameworks without necessitating more comprehensive environmental review.

## I.4 Decision to be Made

The FSA will determine which of the two alternatives outlined in this PEA to proceed with based on the analysis of the potential impacts and will determine if there is the potential for significant impacts on any resource areas as a result of either alternative. Based on the outcome of the PEA, the FSA will decide whether a FONSI will be issued or whether it is necessary to develop an EIS for the FSFL program.

## I.5 Regulatory Compliance

This PEA and the resulting program implementation will adhere to the following regulatory requirements and guidance documents:

- NEPA (42 USC §§ 4321-4370);
- Council on Environmental Quality's (CEQ's) NEPA implementing regulations (40 Code of Federal Regulations (CFR) § 1500-1508);
- FSA's NEPA implementing regulations (7 CFR § 799);
- CCC's regulations for the FSFL program (7 CFR § 1436), as amended by Section 1005 of ARPA;
- FSA handbook 1-EQ (Rev. 3), Environmental Quality Programs (FSA, 2016); and
- FSA handbook 1- FSFL (Rev. 3), Farm Storage Facility Loan Program (FSA, 2017).
- Clean Air Act (CAA) (42 USC § 7401);
- Clean Water Act (CWA) (33 USC § 1251 et seq.);
- Safe Drinking Water Act (SDWA) (40 CFR § 149);
- Endangered Species Act of 1973 (ESA) (16 USC §§ 1531-1544);
- Bald and Golden Eagle Protection Act of 1940 (16 USC §§ 668-668c);
- Migratory Bird Treaty Act of 1918 (16 USC §§ 703-711);
- Coastal Barrier Resources Act (16 USC § 3501);
- Coastal Zone Management Act of 1972 (16 USC § 1451);
- Wild and Scenic Rivers Act of 1968 (16 USC §§ 1271-1287);
- National Historic Preservation Act of 1966 (NHPA) (36 CFR § 800);
- Subtitle B, Highly Erodible Land Conservation, and Subtitle C, Wetland Conservation, of the Food Security Act of 1985 (7 CFR § 12);
- Executive Order (EO) 11988, Floodplain Management;
- EO 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input;
- EO 11990, Protection of Wetlands;
- EO 13112, Invasive Species;
- EO 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, as amended by EO 14006, EO 14082, and EO 14096;
- Wilderness Act of 1964 (16 USC §§ 1131-1133);
- Farmland Protection Policy Act of 1981 (FPPA) (7 USC § 4201, et seq.);
- Noise Control Act of 1972 (42 USC §§ 4901-4918);

- Resource Conservation and Recovery Act (RCRA) (40 CFR § 239-282); and
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC § 103).

These federal requirements, as well as additional state regulatory and statutory requirements will be addressed as applicable to FSFL implementation in **Chapter 3** of the PEA, which will describe the Affected Environment and the resource areas with the potential to be impacted by the Proposed Action and alternatives.

## **I.6 Public Involvement and Consultation**

### ***I.6.1 Scoping***

Scoping letters describing the Proposed Action and alternatives were sent to the relevant state and federal agencies on May 14, 2024. The list of persons and agencies contacted is included in this PEA as **Appendix C**. The scoping period lasted for 30 days and allowed recipients to submit responses and feedback on the scope of the PEA as well as the Proposed Action and alternatives. The scoping questions and comments submitted by stakeholders and the FSA's response to these questions are included in this PEA as **Appendix D**. Scoping comments were received, but they did not influence the PEA analysis, as they primarily focused on clarifying the scope of work rather than offering feedback to refine the project scope.

### ***I.6.2 Public Comment Period***

In addition to the 30-day scoping period, members of the public will have an opportunity to provide comments on the draft PEA during the public comment period. A notice of availability (NOA) will be published on the FSA's website at the start of the public comment period, and the website will be maintained with all relevant project materials throughout the duration of the public comment period. After all public comments have been incorporated into the PEA, the final PEA will be published on the FSA's website along with the NOA and FONSI (if applicable).

## 2. Proposed Action and Alternatives

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### 2.1 Alternative 1: Existing Program Alternative (Proposed Action)

Under Alternative 1, the FSFL program would continue as currently administered, without changes to eligible commodities, facilities, or applicants. The FSFL program would continue to follow the program requirements outlined in 7 CFR § 1436. In compliance with the Justice40 Initiative, the FSFL program would also continue to direct over 40% of its benefits to disadvantaged communities (U.S. White House, 2021). Loan terms would remain between three and twelve years and would be available to small and mid-sized agricultural operations as well as new farmers. Eligible commodities under Alternative 1 include the following:

- Grains;
- Oilseeds;
- Peanuts;
- Pulse crops;
- Hay;
- Hemp;
- Honey;
- Renewable biomass commodities;
- Fruits and vegetables;
- Floriculture;
- Hops;
- Maple sap;
- Milk;
- Cheese;
- Yogurt;
- Butter;
- Eggs;
- Meat/poultry (unprocessed);
- Rye; and
- Aquaculture.

Eligible facilities under this alternative include the following:

- Grain bins;
- Hay barns;
- Bulk tanks;
- Facilities for cold storage; and
- Drying and handling and storage equipment (including storage and handling trucks).

Alternative 1 will function as the No Action Alternative for the analysis in this PEA.

### 2.2 Alternative 2: Expanded Program Alternative

Under Alternative 2, the following farm storage facilities may be made eligible for funding through the FSFL program in addition to those listed under Alternative 1:

- **Greenhouses:** A greenhouse is a structure, typically made of transparent materials like glass or clear plastic, designed to create a controlled environment for growing plants. Its

main purpose is to trap heat from the sun, which warms the interior, allowing plants to thrive even in colder or less ideal outdoor conditions. Greenhouses range in size and their temperature, humidity, and light levels can be managed to promote the growth of a wide variety of plants, such as vegetables, flowers, and herbs, regardless of the weather outside.

- **Precision agriculture handling and monitoring equipment:** any technology (including equipment that is necessary for the deployment of that technology) that directly contributes to a reduction in, or improved efficiency of, inputs used in crop or livestock production, including Global Positions System-based or geospatial mapping; satellite or spatial imagery; yield monitoring; soil mapping; sensors for gathering data on crop, soil, or livestock conditions; Internet of Things and telematics technologies; data management software and advanced analytics; network connectivity products and solutions; Global Positioning System guidance or auto-steer systems variable rate technology for applying inputs, such as section control; and any other technology, as determined by the Secretary of Agriculture, that leads to a reduction in, or improves the efficiency of, crop and livestock production inputs, which may include seed, feed, fertilizer, chemicals, water, and time.
- **Propane tanks:** Propane tanks are sturdy metal containers designed to store and transport propane gas, a common fuel used in the agricultural sectors for heating and powering equipment. Propane tanks eligible for funding under the FSFL program would include both aboveground and underground storage tanks. Propane tanks are pressurized to keep the propane in liquid form, and they feature safety mechanisms, such as pressure relief valves, to prevent accidents due to overpressure.

All other aspects of the existing FSFL program, including applicant eligibility requirements and eligible commodities for FSFL funding, would be the same as under Alternative 1. Alternative 2 will function as the Proposed Action for the analysis in this PEA.

### 2.3 Alternatives Considered but Eliminated from Analysis

No other alternatives were considered as part of this PEA.

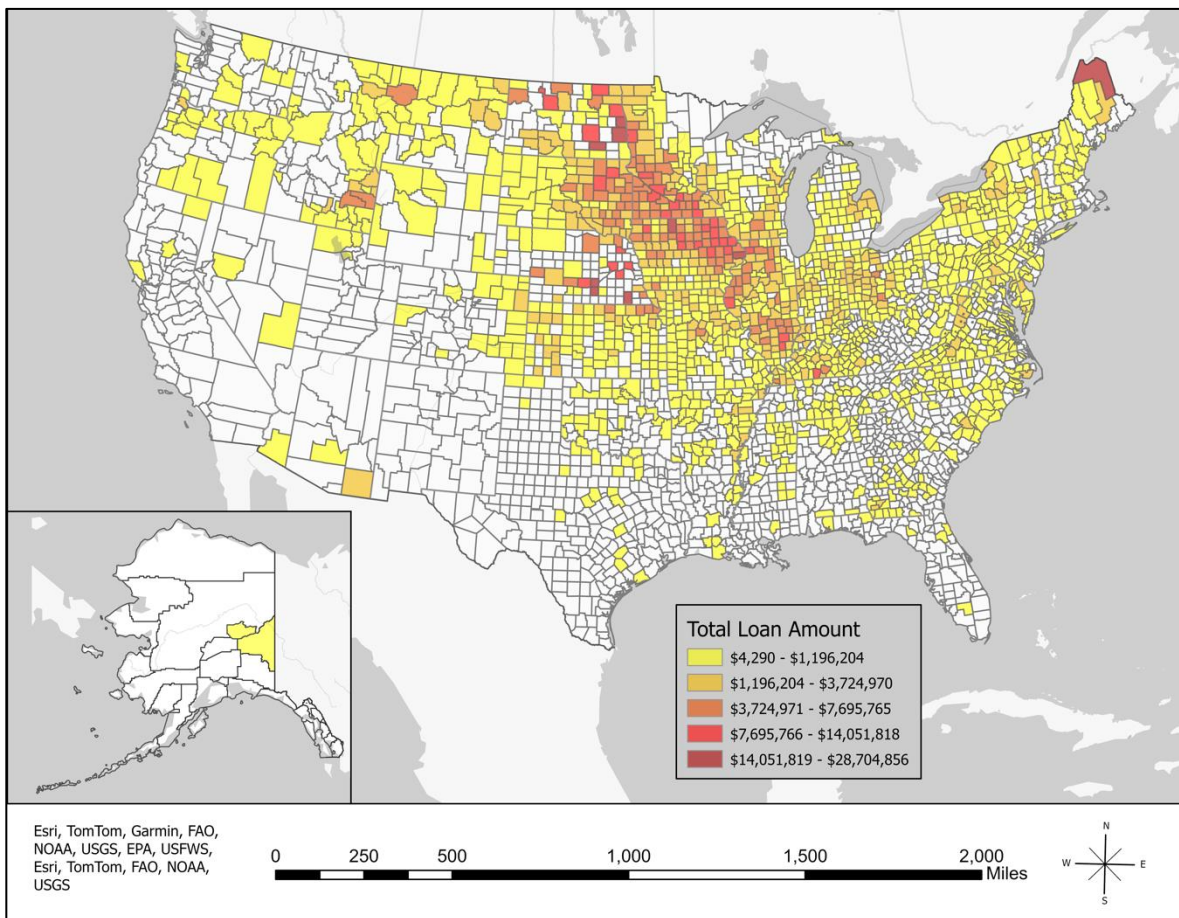
### 3. Affected Environment

This section describes the environmental resources that would be affected by the implementation of the alternatives described in **Chapter 2**. The area with the potential to be impacted by the Proposed Action is known as the Affected Environment. **Section 3.1** describes the geographic and temporal scope of the Affected Environment, while **Section 3.2** discusses key resource areas in the Affected Environment.

#### 3.1 Scope of the Affected Environment

##### 3.1.1 Geographic Scope

The geographic scope of the PEA is nationwide across the US and its territories (FSA, 2023). The FSFL program provides loans to producers to construct or upgrade on-farm storage and handling facilities for eligible commodities nationwide (refer to **Section 2.1** for the list of eligible commodities). See **Figure 3.1-1** for a distribution map of the total FSFL program loan amounts approved per county over 10 years, from 2013 to 2023 (FSA, 2024).



**Figure 3.1-1: Total FSFL Program Loan Amounts Approved Per County, 2013–2023**

Site-specific analyses are omitted from this PEA, as these analyses are covered by the FSA’s Environmental Screening Worksheet (ESW). When a producer applies to the FSFL program to construct or renovate a farm storage facility, or to purchase storage and handling equipment, the FSA must document the potential site-specific impacts the proposed project could have on the environment by filling out an ESW. The ESW is consistent with the FSA’s NEPA

implementing regulations at 7 CFR § 799 and must be completed before the approval of an FSFL application to determine whether the proposed activities could adversely affect protected resources. FSA county offices are responsible for completing the ESW based on the information provided by applicants and for collecting data needed to ensure compliance with NEPA, the NHPA, the ESA, and other related laws, regulations, and EOs. The ESW is then reviewed by an FSA agency official who determines whether the proposed activity may occur. A copy of the ESW is included in this PEA as **Appendix E**.

### 3.1.2 Temporal Scope

The temporal scope of this PEA encompasses a comprehensive 10-year review of FSFL program data, allowing for a thorough analysis of the program’s environmental impacts and trends. The temporal scope also allows for a well-rounded evaluation of the program’s long-term impacts, informing future decision-making processes. **Table 3.1-1** provides the number of approved FSFLs by fiscal year, as well as the total approved loan amounts (FSA, 2024).

TABLE 3.1-1: NUMBER OF LOANS APPROVED BY FISCAL YEAR <sup>1</sup>		
FISCAL YEAR	TOTAL APPROVED LOANS	TOTAL APPROVED LOAN AMOUNT
2013	1,858	\$172,537,619
2014	1,751	\$139,930,468
2015	2,020	\$164,094,662
2016	1,962	\$154,260,290
2017	2,553	\$210,725,398
2018	2,586	\$227,953,124
2019	2,332	\$230,397,383
2020	3,934	\$335,529,317
2021	3,999	\$392,716,316
2022	2,342	\$304,598,895
2023	1,739	\$200,515,419

<sup>1</sup>Source: FSA, 2024

This PEA has a five-year review requirement, to document that any underlying assumption on the analysis remains valid as described in **Chapter 2**. If program eligibility requirements are updated after the publication of this PEA, additional analysis may be required.

## 3.2 Resource Areas

### 3.2.1 Land Use

#### 3.2.1.1 Land Use and Zoning

##### Definition of the Resource

**Land use** is the term used to describe the human use of land (United States Environmental Protection Agency (EPA), 2023). It represents the economic and cultural activities that are practiced at a given place. These activities include, but are not limited to, agricultural, residential, industrial, open space, commercial, or recreational uses.

**Zoning** regulates human development patterns, including the density, construction, alteration, and use of buildings, structures, or land (United States Department of Housing and Urban Development 2024).

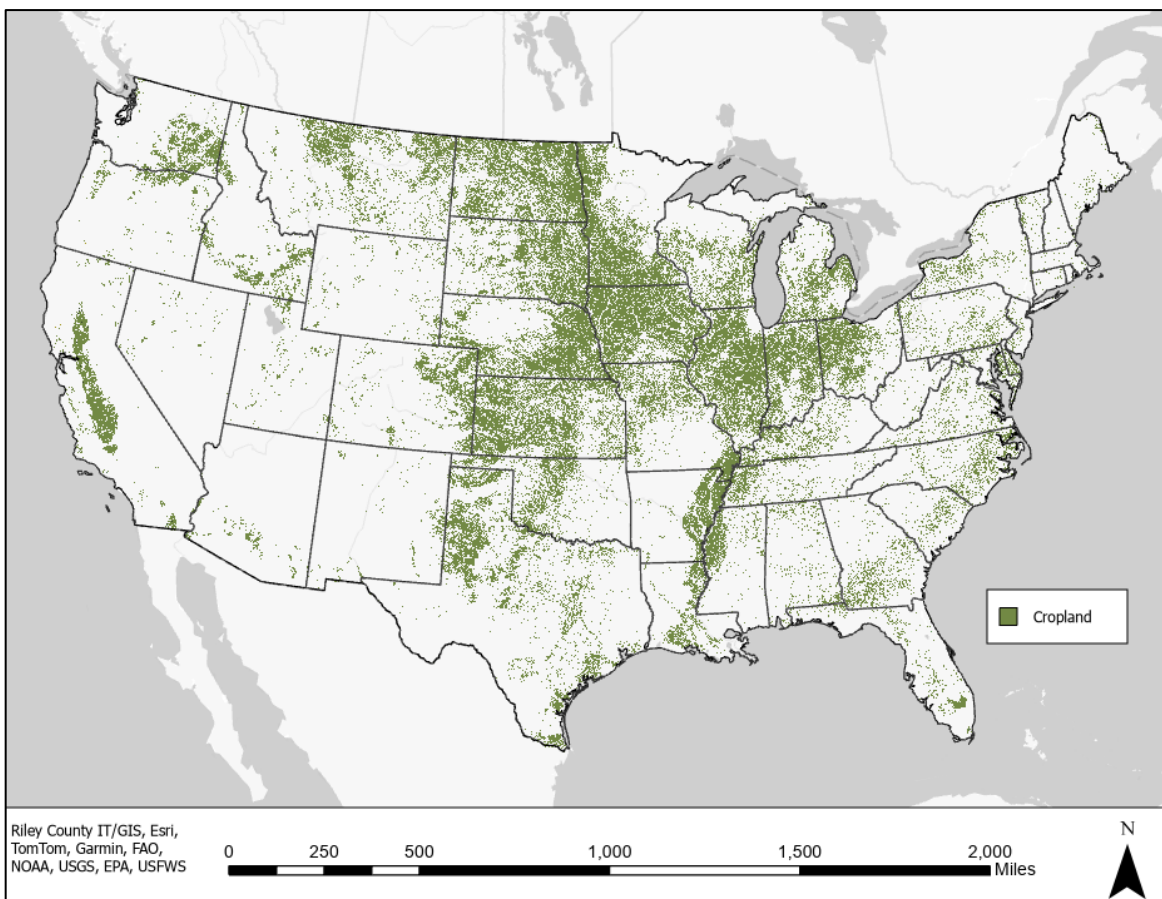
## Regulatory Requirements

Land use is typically regulated at the local level through municipal permits, regulations, and requirements. FSFL program regulations require borrowers to demonstrate compliance with NEPA as well as all relevant local zoning, land use, and building codes for farm storage facilities to be eligible for funding (7 CFR § 1436.5(a)).

At a site-specific level, the completion of an ESW serves as the FSA's documentation of compliance with NEPA, as well as the requirements of other environmental laws, regulations, and EOs. The ESW includes a description of the proposed project location, its present use, and the surrounding land uses as well as an evaluation of whether the Proposed Action is consistent with local and state zoning requirements (see **Appendix E** for details).

## Affected Environment

The land use in the Affected Environment for this PEA is exclusively agricultural, as FSFL funding is limited to existing farms producing eligible commodities. There are over 1,900,000 farms and 880,100,000 acres of farmland in the US (USDA National Agricultural Statistics Service (NASS), 2024). Agricultural production accounts for about 52% of the US total land area (USDA Economic Research Service (ERS), 2024). See Figure 3.2-1 for a map showing the distribution of farmland in the US.



**Figure 3.2-1: Farmland in the US**

### 3.2.1.2 National Natural Landmarks and Wilderness Areas

#### Definition of the Resource

A **National Natural Landmark** is a natural area that has been designated by the Secretary of the Interior in recognition that the site contains significant examples of the nation’s biological and/or geological features (36 CFR § 62.2).

A **Wilderness Area** is “an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which 1) generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable; 2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; 3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and 4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value” (16 USC §1131(c)).

#### Regulatory Requirements

The National Natural Landmark Program is administered by the National Park Service (NPS) under 36 CFR § 62. The program recognizes areas preserved by federal, state, and local agencies as well as private organizations and individuals.

Wilderness Areas are managed by the federal agency that had jurisdiction over the land prior to its inclusion in the National Wilderness Preservation System (16 USC §1131(b)). FSA policy calls for consultation with the appropriate management agency when activities it funds would develop land or create a disturbance or nuisance that was not there before within or near the boundary of a Wilderness Area.

#### Affected Environment

There is the potential for FSFL-funded facilities to be proposed for locations near National Natural Landmarks and Wilderness Areas. Given the nationwide scale of the FSFL program, it is not feasible to describe all locations near National Natural Landmarks and Wilderness Areas. However, an interactive map of the nationwide Wilderness Areas is available online at the University of Montana’s Wilderness Connect website (University of Montana, 2024). Additionally, an interactive map showing National Natural Landmarks is available at the National Natural Landmark Directory (NPS, 2024). **Table 3.2-1** lists the nationwide Wilderness Areas and Landmarks.

TABLE 3.2-1: NATIONWIDE WILDERNESS AREAS AND NATIONAL NATURAL LANDMARKS			
	WILDERNESS AREAS <sup>1</sup>		NUMBER OF NATIONAL NATURAL LANDMARKS <sup>2</sup>
	NUMBER	MILLIONS OF ACRES	
United States	803	111.7	604

Source: United States Forest Service (USFS), 2024<sup>1</sup>, NPS, 2024<sup>2</sup>

### 3.2.1.3 Visual Resources

#### Definition of the Resource

A **visual resource** is any object (natural and built, moving and stationary) or feature, such as a landform or water body, which is visible on a landscape (Bureau of Land Management (BLM), 2024). The composition of visual resources in an area determines its scenic quality.



## Regulatory Requirements

Under NEPA, federal agencies must consider the visual impacts of proposed projects, including the potential effects on scenic resources, and the scenic experiences of people who view the landscape.

### Affected Environment

FSFL loans are only available to producers of FSFL-eligible commodities to increase the capacity of on-farm storage capacity. Accordingly, the visual resources of the Affected Environment can be described as agricultural. The USFS Agricultural Handbook Number 701, describes Rural/Agricultural Landscape Character as follows:

*“Landscape character that has resulted from extensive human activities, no longer appearing natural, such as conversion of native landscapes into extensively cultivated farmlands, vineyards, pastures, or an area of domestic livestock production”* (USFS, 1995).

## 3.2.2 Energy

### 3.2.2.1 Definition of the Resource

**Energy** is the capacity for doing work. Forms of energy include thermal, mechanical, electrical, and chemical. Energy may be transformed from one form into another (USDA, 2024).

**Energy consumption** is the amount of energy consumed in the form in which it is acquired by the user. The term excludes electrical generation and distribution losses (USDA, 2024).

**Propane** is a three-carbon alkane gas (C<sub>3</sub>H<sub>8</sub>). It is stored under pressure inside a tank as a colorless, odorless liquid. As pressure is released, the liquid propane vaporizes and turns into gas that is used in combustion (Department of Energy (DOE), 2024).

### 3.2.2.2 Regulatory Requirements

The Department of Energy Organization Act of 1977 created the DOE to coordinate federal energy policies and programs and to promote energy conservation (42 USC § 7112). The DOE establishes energy-efficiency standards for certain appliances and equipment and currently covers more than 60 different products, including heaters, furnaces, air conditioners, and refrigeration equipment (DOE, 2024).

### 3.2.2.3 Affected Environment

In 2016, the agricultural sector consumed 1,872 trillion British thermal units of energy, accounting for about 1.9% of total US primary energy consumption. Of that energy, diesel accounted for 44% of direct energy consumption, electricity 24%, natural gas 13%, gasoline 11%, and liquified petroleum gas (including propane) 7% (ERS, 2018). Farm production expenses for energy needs have increased, with 4.3% of total farm expenses going towards gasoline, fuels, and oil in 2022, up from 4.1% in 2017 (NASS, 2024). See **Table 3.2-2** for farm production expenses related to gasoline, fuels, and oils.

TABLE 3.2-2: FARM PRODUCTION EXPENSES — GASOLINE, FUELS, AND OILS <sup>1,2</sup>			
2022		2017	
FARMS	EXPENSES (\$1,000)	FARMS	EXPENSES (\$1,000)
1,800,125	18,385,303 (4.3% of total)	1,921,692	13,474,121 (4.1% of total)

<sup>1</sup>Source: NASS, 2024

<sup>2</sup>Gasolines, fuels, and oils expenses include the cost of all gasoline, diesel, natural gas, liquified petroleum gas, motor oil, and grease products for the farm. Expenses exclude fuel for personal use of automobiles by the family and others, fuel used for cooking and heating the farmhouse, and any other use outside of farmwork.

Propane is a common heating source for agricultural heating needs, particularly in regions like the Midwest where winter temperatures can be a threat to livestock health. In agricultural settings, propane is used to warm buildings housing animals as well as buildings used for horticultural purposes. It is frequently utilized in greenhouses to maintain temperatures conducive to plant growth and to aid in dehumidifying, which helps to prevent plant diseases and to enhance crop quality. Propane is also used to power machinery such as irrigation engines, generators, flame-weeding systems, and wind machines to protect sensitive crop species. In total, 80% of grain dryers, machines that dry out grain to prevent spoilage during storage, run on propane. (National Council on Energy, 2024).

### 3.2.3 Noise

#### 3.2.3.1 Definition of the Resource

**Environmental noise** is defined as the intensity, duration, and character of sounds from all sources (42 USC § 4902(11)). Noise can be intermittent or continuous, steady or impulsive, and can involve any number of sources and frequencies. It can be readily identifiable or generally nondescript.

#### 3.2.3.2 Regulatory Requirements

The Noise Control Act of 1972 (42 USC § 4901) directs all federal agencies to comply with federal, state, and local requirements regarding the control and abatement of environmental noise. The Noise Control Act directs primary responsibility to state and local governments to address noise pollution. Noise is often regulated under nuisance ordinances or the use of exclusionary zoning at the local level.

At a site-specific level, the completion of an ESW serves as the FSA’s documentation of compliance with NEPA, as well as the requirements of other environmental laws, regulations, and EOs. ESW requires an evaluation of whether a proposed action would result in a permanent increase in noise.

#### 3.2.3.3 Affected Environment

Agriculture can generate high levels of noise pollution due to the use of heavy equipment (Penn State, 2022). Noise-generating sources in agricultural settings include tractors, harvesters, chainsaws, grain dryers, and squealing pigs (National Institute of Health, 2011). See **Table 3.2-3** for examples of noise-generating activities in agricultural settings.

TABLE 3.2-3: SOUND LEVELS <sup>1</sup>	
SOUND LEVEL (DECIBELS)	ACTIVITY
70	Chicken housing
85	Tractor
95	Grain auger
100	Pig squeals
110	Grain dryer

<sup>1</sup>Source: National Institute of Health, 2011

Prolonged exposure to agricultural noise at excessive levels can cause permanent hearing loss to farmers and farmworkers unless noise control measures are taken. Noise-induced hearing loss ranks among the top 10 work-related conditions outlined by the National Institute for Occupational Safety and Health. Agricultural workers experience one of the highest rates of occupational hearing loss, with many workers experiencing hearing loss by the age of 30 (National Agricultural Safety Database, 2024).

### **3.2.4 Waste and Hazardous Materials**

#### **3.2.4.1 Solid Waste and Wastewater Management**

##### Definition of the Resource

**Solid waste** is any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. Solid waste does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges (42 USC § 6903(27)).

**Wastewater** is used water from any combination of domestic, industrial, commercial, or agricultural activities, surface runoff/stormwater, and any sewer inflow/sewer infiltration (Tilley et al., 2014).

##### Regulatory Requirements

The Resource Conservation and Recovery Act (RCRA) regulates hazardous and non-hazardous waste at facilities that are currently in use (40 CFR § 239-282). RCRA Subtitle D sets minimum criteria and standards for state and local government regulation of non-hazardous solid waste. Through this process of state authorization, the EPA has delegated the primary authority for implementing RCRA solid waste programs to all 50 states. The EPA requires state programs to be equivalent, no less stringent, and consistent with the Federal RCRA program.

The National Pollutant Discharge Elimination System (NPDES) Permit Program regulates point source pollution (e.g., pipes, facilities, or man-made ditches) (40 CFR § 122-124). An NPDES Construction Stormwater General Permit is required for construction activities that will disturb more than one acre of land. The NPDES stormwater program regulates stormwater discharges from three potential sources: municipal separate storm sewer systems, construction activities, and industrial activities.

At a site-specific level, the completion of an ESW serves as the FSA's documentation of compliance with NEPA, as well as the requirements of other environmental laws, regulations, and EOs. The ESW includes an evaluation of whether a proposed action would require an NPDES permit (see **Appendix E** for details).

##### Affected Environment

Agriculture accounts for more than 80% of the water consumption in the US (USDA, 2020). Water consumption leads to the generation of agricultural wastewater from a variety of activities, including but not limited to animal feeding operations, processing of agricultural products, and runoff from croplands (Connecticut Department of Energy & Environmental Protection, 2024). If not properly managed, wastewater has the potential to pollute both surface waters and groundwater. Agricultural activities requiring an NPDES permit include animal feeding operations, application of pesticides, and aquaculture. See the 2017 FSFL PEA for a discussion of the NPDES permitting requirements for aquaculture farms and facilities (FSA, 2017).

#### **3.2.4.2 Hazardous Materials**

##### Definition of the Resource

A **hazardous material** is a substance or material that is capable of posing an unreasonable risk to health, safety, and property when transported in commerce (49 USC § 5103). The term includes both hazardous substances and hazardous wastes. The Department of Transportation,

Pipeline and Hazardous Materials Administration (PHSMA) maintains a list of hazardous materials at 49 CFR § 172.101.

The term **hazardous substance** is defined by the CERCLA as any element, compound, mixture, solution, or substance designated under Section 311(b)(2)(A) of the Federal Water Pollution Control Act (33 USC § 1321(b)(2)(A)); Section 9602 of CERCLA (42 USC § 9602); Section 3001 of the Solid Waste Disposal Act (42 USC § 6921); Section 307(a) of the Federal Water Pollution Control Act (33 USC § 1317(a)); Section 112 of the CAA (42 USC § 7412); or Section 7 of the Toxic Substances Control Act (15 USC § 2606). The term does not include petroleum or natural gas (EPA, 2024). There are currently about 800 CERCLA hazardous substances.

**Hazardous waste** is defined by RCRA (amended by the Hazardous and Solid Waste Amendment) as a solid waste, or a combination of solid wastes, which, because of its quantity, concentration, or physical, chemical, or infectious characteristics may A) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed (42 USC § 6903(5)).

### Regulatory Requirements

CERCLA, or the Superfund Act, was enacted in December 1980 to establish prohibitions and requirements for closed and abandoned hazardous waste sites, impose liability for hazardous waste releases, and create a trust fund for cleanup when responsible parties cannot be identified. CERCLA authorizes both short-term responses to hazardous releases as well as long-term remediation to mitigate risks from hazardous waste sites (42 USC § 103).

The Superfund Amendments and Reauthorization Act of 1986 authorizes the EPA to respond to spills and other releases of hazardous substances to the environment. Title III of this Act authorizes the Emergency Planning and Community Right-to-Know Act (EPCRA), which mandates that facilities with hazardous substances prepare emergency plans and report accidental releases. EO 12856 (Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements, August 1993) requires federal agencies comply with EPCRA provisions.

Hazardous waste, a subset of solid waste, is regulated by RCRA Subtitle C, which covers the generation, transportation, treatment, storage, and disposal of hazardous wastes, enforced by the EPA. RCRA Subtitle C also regulates “corrective action,” or cleanup activities required due to waste mismanagement, implemented by the EPA through guidance and statutory authority under the Hazardous Remediation Waste Management Requirements (61 FR 18780).

RCRA Subtitle I addresses the problems of leaking underground storage tanks (USTs). The UST program is primarily implemented by states and territories. See **Appendix F** for a matrix of underground storage tank permitting and notification requirements by state.

### Affected Environment

For this PEA, solid and hazardous wastes are expected during the construction or renovation of farm storage facilities, and to a lesser extent, during their daily operation. The 2009 FSFL PEA includes a discussion of the potential for the following hazardous materials to be generated due to the construction or operation of FSFL-funded facilities: hydrocarbons, paint, adhesives, cleaning compounds, asbestos-containing materials, lead-based paint; USDA-authorized fumigants; refrigerants; and ozone-depleting substances. The 2009 FSFL PEA is incorporated

into this PEA by reference. As such, this PEA will focus on hazardous materials not covered in the 2009 FSFL PEA, specifically, propane storage containers.

Propane storage containers come in various sizes and shapes and may be stationary or portable. The containers are pressurized to hold propane in its liquid form. Although propane is not listed as a hazardous substance under CERCLA and is not subject to the EPCRA, it is listed as a hazardous material on the PHSMA Hazardous Material Table, where it is classified as a flammable gas (49 CFR § 172.101).

Propane container installation is regulated at the national, state, and local levels. Stationary steel tanks are commonly installed both aboveground and underground to fuel propane-powered appliances. While not a federal requirement, propane tank installations typically follow National Fire Protection Association codes to minimize fire risks and prevent propane exhaust from entering building interiors (National Fire Protection Association, 2024). Underground propane tank installations must comply with state regulations for UST permitting and notification, which are listed in **Appendix F** of this PEA.

### **3.2.5 Air Quality**

#### **3.2.5.1 Definition of the Resource**

**Air quality** is defined as the extent to which ambient air, or the portion of the atmosphere, external to buildings, to which the general public has access, is pollution-free (40 CFR § 50.1(e)).

**Air pollutant:** Any air pollution agent or combination of such agents, including any physical, chemical, biological, or radioactive substance or material that is emitted into or otherwise enters the ambient air (42 USC § 7602(g)).

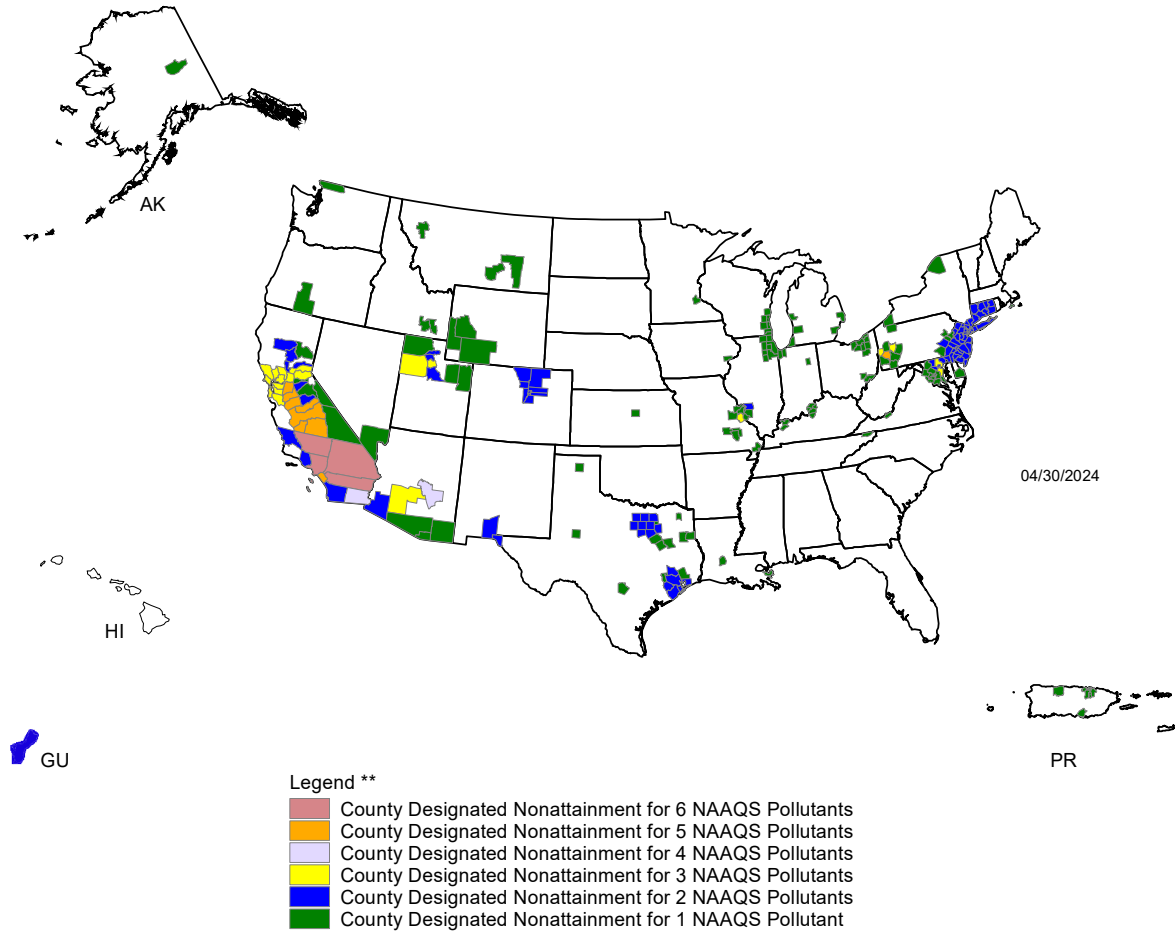
**Non-attainment:** A geographic area with air quality that does not meet the air quality standards for a pollutant is called a “non-attainment” area (42 USC § 7501(2)).

#### **3.2.5.2 Regulatory Requirements**

The CAA established the National Ambient Air Quality Standards (NAAQS) for six criteria air pollutants, which are widespread, common pollutants known to be harmful to human health. NAAQS are currently set for carbon monoxide, lead, ground-level ozone, nitrogen dioxide, particulate matter, and sulfur dioxide (42 USC § 7401). The EPA oversees the enforcement of the CAA, determines whether areas are in attainment or non-attainment with NAAQS, and approves local maintenance plans.

#### **3.2.5.3 Affected Environment**

Air quality attainment levels vary nationwide. See **Figure 3.2-2** for counties listed as being in non-attainment with NAAQS (EPA, 2024a).



**Figure 3.2-2: Counties Designated as Nonattainment for NAAQS Pollutants**

### 3.2.6 Farmland and Soils

#### 3.2.6.1 Definition of the Resource

**Farmland** protected under the FPPA includes prime farmland, unique farmland, and land of statewide or local importance that can include forestland, pastureland, cropland, or other land not considered urban build-up land or water (7 CFR § 658.2).

**Soil** is defined as the unconsolidated mineral or organic material on the immediate surface of the Earth that serves as a natural medium for the growth of land plants (USDA Natural Resource Conservation Service (NRCS), 2024).

#### 3.2.6.2 Regulatory Requirements

The FPPA is designed to minimize the impact that federal programs and projects have on the conversion of farmland to non-agricultural uses. Projects are subject to FPPA requirements if they may irreversibly convert prime farmland to nonagricultural use. The conversion of farmland to nonagricultural uses does not include the construction of on-farm structures necessary for farm operations (7 CFR § 658.3).

The Food Security Act of 1985, as amended, requires producers participating in programs that are administered by the FSA, including the FSFL program, to abide by conditions on any land that is owned or farmed that is considered highly erodible. Under the Food Security Act, producers are ineligible for FSA funding if an activity would contribute to the excessive erosion

of highly erodible land (for example, the production of an agricultural commodity on highly erodible land without a conservation plan or conservation system in place) (7 CFR § 12).

### 3.2.6.3 Affected Environment

Since 1997, the total number of farms, acreage of farmland, and acreage of cropland in the US has steadily declined, with harvested cropland experiencing a 25% decrease in acreage between 1997 and 2022 (NASS, 2024). The decrease in farmland is largely due to the conversion of farmland to commercial, residential, and industrial development. **Table 3.2-4** illustrates the acreage of primary field crops that utilize farm storage facilities from 2002 to 2020, with projections to 2030, along with the harvested acres of those crops. Except for oats, the acreage planted and harvested for each crop in **Table 3.2-4** is expected to remain relatively consistent from 2020 to 2030.

TABLE 3.2-4: ACRES OF PLANTED AND HARVESTED CROPS 2000–2030						
CROP TYPE	2000 <sup>1</sup>	2010 <sup>2</sup>	2020 <sup>3</sup>	2030 <sup>4</sup>	PERCENT CHANGE 2000–2020	PREDICTED PERCENT CHANGE 2020–2030
	(MILLIONS OF ACRES)					
<b>Corn</b>						
Planted	79.6	88.2	90.7	88.0	14%	-3%
Harvested	72.4	81.4	82.3	80.1	14%	-3%
<b>Sorghum</b>						
Planted	9.2	5.4	5.9	6.5	-36%	10%
Harvested	7.7	4.8	5.1	5.7	-34%	12%
<b>Oats</b>						
Planted	4.5	3.1	3.0	2.3	-33%	-23%
Harvested	2.3	1.3	1.0	0.7	-57%	-30%
<b>Barley</b>						
Planted	5.9	2.9	2.7	2.5	-54%	-7%
Harvested	5.2	2.5	2.2	2.1	-58%	-5%
<b>Wheat</b>						
Planted	62.6	53.6	44.5	45.5	-29%	2%
Harvested	53.1	47.6	36.8	37.2	-31%	1%
<b>Soybeans</b>						
Planted	74.3	77.4	83.4	87.0	12%	4%
Harvested	72.4	76.6	82.6	86.1	14%	4%

Sources: <sup>1</sup>USDA World Agricultural Supply and Demand Estimates (WASDE), 2002, <sup>2</sup>WASDE, 2012, <sup>3</sup>WASDE, 2022, <sup>4</sup>IAPC, 2024

The US has 313.7 million acres of prime farmland, a decrease of 15.2 million acres since 1982. Approximately 65% of prime farmland is used as active cropland (USDA, 2017). Soil composition varies across the US, influenced by factors like geology, climate, and land use history. This diversity in soil types significantly impacts the suitability of various areas for specific crops and agricultural practices. The NRCS maintains the Soil Survey Geographic Database, which contains site-specific soil information for most areas in the US (NRCS, 2024).

### 3.2.7 Climate Change

#### 3.2.7.1 Definition of the Resource

**Climate Change** refers to significant and long-term alterations in Earth's climate patterns, including shifts in temperature, precipitation, and weather extremes, primarily resulting from human activities, such as the burning of fossil fuels, deforestation, and industrial processes. These activities release GHGs into the atmosphere, which trap heat and contribute to the warming of the planet (Pielke, 2004).

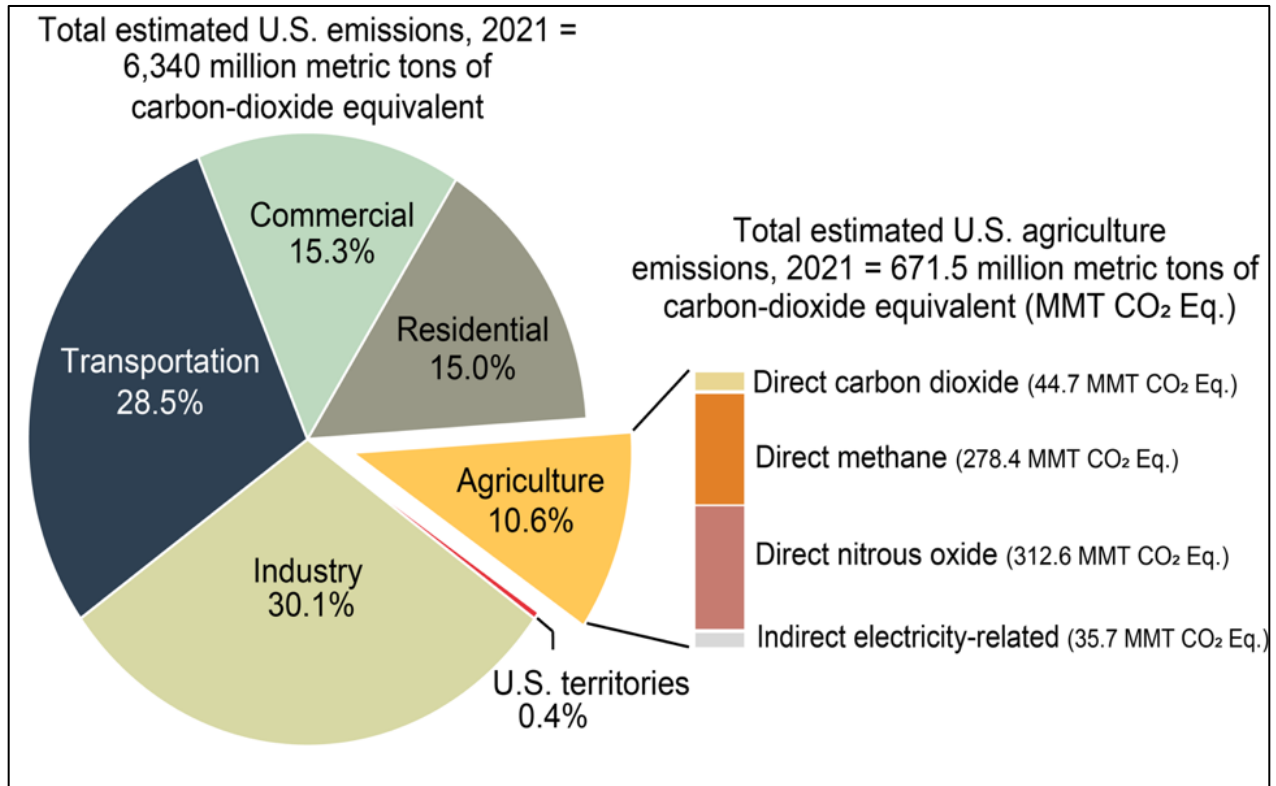
#### 3.2.7.2 Regulatory Requirements

Under NEPA, federal agencies must consider the effects of climate change on and from proposed projects.

#### 3.2.7.3 Affected Environment

GHG emissions from human activities have caused the global annual average surface air temperatures to increase by about 2°F since 1850 (National Oceanic and Atmospheric Administration (NOAA), 2024). In the US, the leading sectors of GHG emissions contributing to climate change were industry, transportation, commercial, residential, and agriculture. The percentage of total estimated GHG emissions in the US by sector for 2021 can be seen in **Figure 3.2-3** (ERS, 2023).

The agricultural sector accounted for 10.6% of US greenhouse gas emissions in 2021, of which, electricity-related CO<sub>2</sub> emissions accounted for 0.6%. Other agricultural emissions include nitrous oxide from cropped and grazed soils, methane from enteric fermentation and rice cultivation, nitrous oxide and methane from managed livestock manure, and CO<sub>2</sub> from on-farm energy use (ERS, 2023).



**Figure 3.2-3: Estimated US Greenhouse Gas Emissions by Economic Sector**



Climate change is expected to impact agricultural production by altering temperature, precipitation, carbon dioxide concentrations, and water availability. These changes will disrupt growing zones and days, which depend on precipitation, air temperature, and soil moisture. For instance, the Midwest faces agricultural losses, including reduced corn yields and damage to specialty crops like apples, due to rapid shifts between wet and dry conditions and increased stress from climate-induced increases in pests and pathogens. In the Southwest, extreme heat intensified wildfires, and drought are already threatening agricultural workers' health, reducing cattle production, and damaging wineries. Similarly, agriculture in the Northern Great Plains is expected to suffer primarily negative effects related to changing temperature and rainfall patterns, and by 2070, the Southern Great Plains are also expected to lose cropland acreage as lands transition to pasture or grassland (U.S. Global Change Research Program, 2023).

### **3.2.8 Water Resources**

#### **3.2.8.1 Surface Water Quality**

##### Definition of the Resource

**Water quality standards** are provisions of state or federal law that consist of a designated use or uses for the waters of the US and water quality criteria for such waters based upon such uses. Water quality standards are to protect the public health or welfare, enhance the quality of water, and serve the purposes of the CWA (40 CFR § 131.3(i)).

**Surface water** means all water that is open to the atmosphere and subject to surface runoff (40 CFR § 141.2).

##### Regulatory Requirements

The CWA is the main law governing pollution of the nation's surface water resources, using water quality standards, permitting, and monitoring to protect surface water quality (33 USC § 1251 et seq.). Section 304(a) of the CWA sets the minimum pollutant criteria standards for all waters of the US to ensure that water quality remains suitable for aquatic or marine life, and for human health and safety (33 USC § 1314(a)). Section 303(d) authorizes the EPA to assist states, territories, and authorized tribes in listing waters that do not meet these criteria and developing the Total Maximum Daily Load criteria, which define the maximum amount of a pollutant allowed in a waterbody (33 USC § 1313(d)).

The EPA typically grants qualified states the authority to enforce water quality standards and issue permits. States must meet the EPA's minimum criteria but may adopt more stringent standards. The CWA mandates that permitted discharges must not degrade surface water quality beyond EPA or state standards (33 USC § 1251 et seq.). Pollutant discharge is controlled through permits such as those issued under the NPDES Permit Program (see **Section 3.2.4** of this PEA for details). For NPDES permitting requirements related to aquaculture, refer to the 2017 FSFL PEA.

##### Affected Environment

Surface water in the US includes rivers, lakes, reservoirs, ponds, and streams. Surface water is replenished primarily by precipitation, which collects in watersheds and flows downhill due to gravity, forming networks of waterways across the landscape. In the US, surface water plays a crucial role in providing freshwater for drinking, irrigation, industrial uses, recreation, and supporting aquatic ecosystems. The management of surface water resources involves considerations of water quality, flow regulation, flood control, and conservation efforts to sustainably meet human and environmental needs (USGS, 2024).

Surface water pollutants can originate from various sources, including agricultural runoff, urban stormwater, and industrial discharges. These pollutants can include excess nutrients, fertilizers, pesticides, suspended solids, pathogens, and other contaminants (Ribaud, M.O, Horan, R.D., & Smith, M.E., 1999; EPA, 2005). Such pollutants can impact water quality, aquatic habitats, and public health (Brusseau, M.L., Pepper, I.L., & Gerba, C.P., 2019). See the 2017 FSFL PEA for a discussion of the potential impacts of various discharges on coastal and oceanic water quality.

Physical alterations, such as changes in water flow and the introduction of non-native species, can also affect surface water. Sediment runoff from ground-disturbing activities can degrade water quality by increasing turbidity and smothering aquatic habitats (Soka University, 2024).

## Groundwater

### Definition of the Resource

**Groundwater** is defined as water that exists underground in saturated zones beneath the land surface (40 CFR § 257.53).

**Sole Source Aquifers** are those designated by the EPA as those that supply at least 50% of the drinking water consumed in the area overlying the aquifer. Such areas have no alternative drinking water supply that could physically, legally, and economically supply all those who depend on the aquifer for drinking water.

### Regulatory Requirements

The SDWA establishes standards for drinking water quality to ensure safe drinking water for the public. Sole Source Aquifer designation under the SDWA aims to help protect highly valuable drinking water resources from being impacted by development by requiring an EPA review of any project proposed within a Sole Source Aquifer designation area receiving federal assistance (40 CFR § 149).

At a site-specific level, the completion of an ESW serves as the FSA's documentation of compliance with NEPA, as well as the requirements of other environmental laws, regulations, and EOs. The ESW requires an evaluation of whether a proposed action would impact sole source aquifers (see **Appendix E** for details).

### Affected Environment

Groundwater serves as a vital component of the US water resources, existing beneath the Earth's surface within porous rock formations called aquifers. It naturally accumulates through precipitation infiltration and percolation into the ground over time, replenishing aquifers that vary in depth and composition across different regions. Groundwater quality across the US reflects this diversity, influenced by factors such as geological formations, recharge rates, and local hydrological conditions. Human activities, however, can significantly impact groundwater quality. For example, agricultural practices have the potential to introduce nitrates to groundwater from fertilizers and pesticides, while industrial activities can contribute heavy metals, such as lead, arsenic, and mercury. Urban development also has the potential to alter natural recharge rates and introduce pollutants from wastewater systems. These contaminants pose health risks when groundwater serves as a primary source of drinking water (Li, P., Karunanidhi, D., Subramani, T., & Srinivasamoorthy, K., 2021).

Groundwater levels can also be impacted by over-extraction for agricultural, industrial, and municipal uses. This can lead to a decline in water tables, reduced water availability, and land subsidence. Protecting groundwater resources involves managing withdrawal rates, preemptively controlling sources of contamination, and implementing sustainable water use practices (USGS, 2024a).

### 3.2.8.2 Floodplains

#### Definition of the Resource

A **flood** is when an area experiences inundation from rising waters or from the overflow of streams, rivers, or other bodies of water, or from tidal surges, abnormally high tidal water, tidal waves, tsunamis, hurricanes, or other severe storms or deluge (42 USC § 4121(a)(1)).

#### Regulatory Requirements

EO 11988 Floodplain Management requires federal agencies to ensure proposed actions would not adversely affect floodplains and to avoid development in floodplains wherever there is a practicable alternative.

EO 13690 established the Federal Flood Risk Management Standard, a more protective standard for evaluating flood risk to ensure projects funded by the Federal government are more resilient to the impacts of flooding. The Federal Flood Risk Management Standard applies to all federally funded projects.

The National Flood Insurance Program (NFIP) provides access to federally backed insurance to local communities in exchange for adopting floodplain management ordinances and regulations to reduce future flood risks. In support of the NFIP, FEMA identifies flood hazard areas throughout the country on maps called Flood Insurance Rate Maps. These maps identify Special Flood Hazard Areas (SFHAs) and other areas of flood hazards (42 USC § 4101 et seq.).

FSFL program regulations require borrowers to annually provide proof of flood insurance if the CCC determines such insurance is necessary to protect the interests of the CCC and to annually provide proof that the structure for which the loan is given has all peril structural insurance (7 CFR § 1436.5(a)(9)).

#### Affected Environment

Floodplains in the US are vital ecosystems that provide numerous ecological, social, and economic benefits. They act as natural flood control systems, absorbing excess water during flood events, which helps to reduce the severity of floods downstream. Floodplains also support diverse wildlife habitats, serve as crucial fish breeding grounds, and maintain water quality by filtering pollutants. However, floodplains are also susceptible to periodic inundation, which can pose significant risks to human life and property. Effective floodplain management requires a balance between development and the preservation of their natural functions (Tockner, K., Lorang, M. S., & Stanford, J. A., 2021).

FEMA Policy #104-008-03, issued in February 2020, provides clarification on implementing NFIP design and performance standards for agricultural structures in SFHAs. Under FEMA Policy #104-008-03, communities must ensure that new construction and substantial improvements of non-residential structures in SFHAs comply with NFIP floodplain management development requirements, including elevation or dry floodproofing, adequate flood openings, and the use of flood-resistant materials. Exceptions to these requirements may be granted under certain conditions, such as for structures with low damage potential or in cases of exceptional hardship (FEMA, 2020).

FSA policy is to protect floodplains in compliance with EO 11988, as amended by EO 13690, as well as floodplain regulations, guidance, and policies established by FEMA. To implement this policy, the FSA conducts thorough assessments of proposed projects to identify the potential impacts of proposed projects on floodplains and avoid adverse effects and incompatible development or practices in these areas (USGS, 2023; USDA, 2016). These assessments include a review of FEMA Flood Insurance Rate Maps and consider factors like the extent of

flood inundation, the frequency and severity of floods, and the presence of critical habitat. This ensures that FSA-funded projects do not exacerbate flood risks or impair natural floodplain functions (FEMA, 2020).

### 3.2.8.3 Wetlands

#### Definition of the Resource

A **wetland** is an area inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (40 CFR § 230.41(a)).

#### Regulatory Requirements

The Food Security Act of 1985, as amended, requires producers participating in programs administered by the FSA, including the FSFL program, to abide by conditions on any land owned or farmed that is considered to be a wetland. Producers are ineligible for FSA funding if an activity would result in adverse impacts on wetlands (7 CFR § 12).

EO 11990 (Protection of Wetlands) requires federal agencies to consider alternatives to wetland sites when planning a proposed action and to limit potential damages if an activity affecting a wetland cannot be avoided.

Under Section 404 of the CWA, the United States Army Corps of Engineers (USACE) regulates the discharge of dredged or filled material into waters and wetlands of the US.

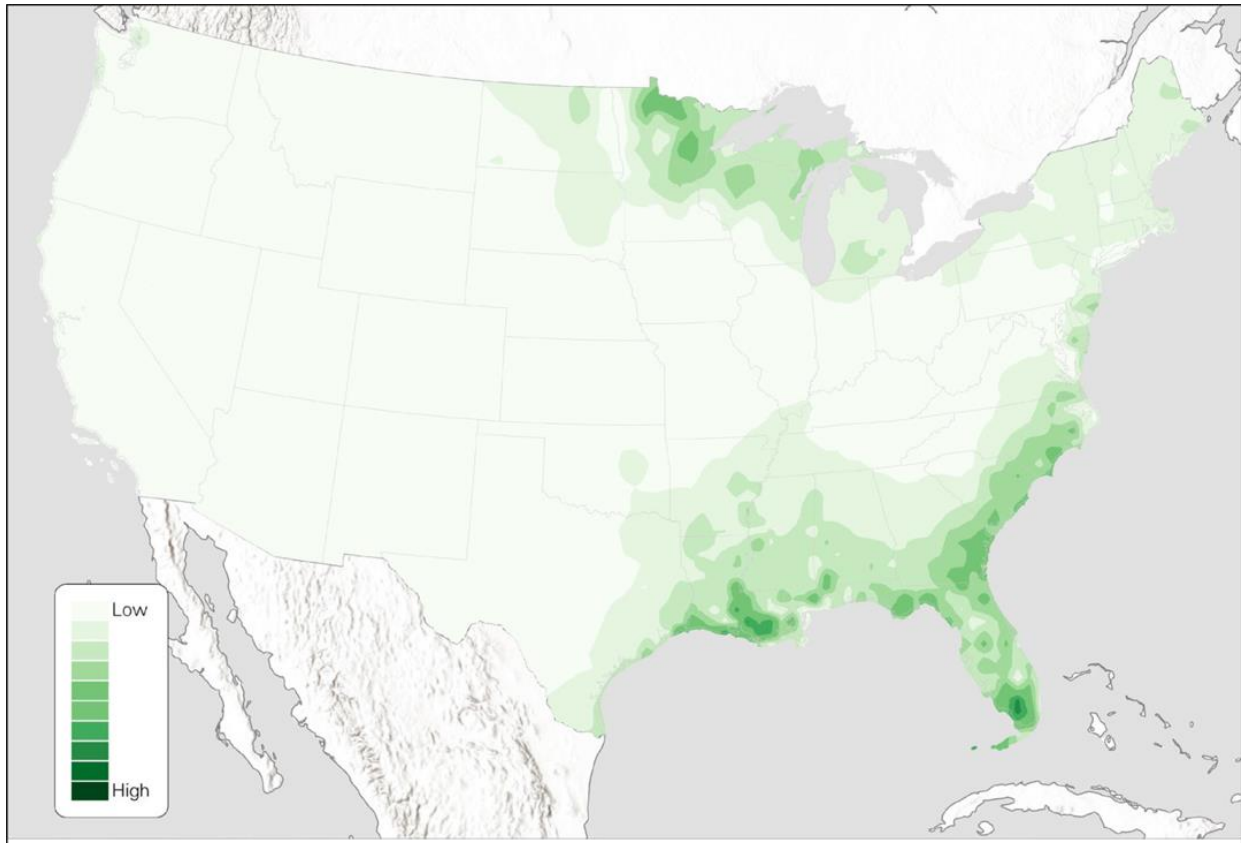
#### Affected Environment

Wetlands across the US comprise diverse ecosystems with unique hydrological conditions and essential ecological functions. Wetlands exist in various forms (see **Figure 3.2-4**), supporting a rich diversity of plant and animal life (United States Fish and Wildlife Service (USFWS), 2019). These areas feature emergent, submerged, or floating vegetation that enhances biodiversity and serves as critical habitats for wildlife, including migratory birds, waterfowl, amphibians, and aquatic species. Wetlands provide crucial ecosystem services such as water filtration, flood regulation, and carbon sequestration, which support local economies through activities like commercial fisheries, recreation, and cultural heritage (USDA, 2014).

In 2019, there were an estimated 116.4 million acres of wetlands in the US, accounting for less than 6% of the land area within the conterminous US. The vast majority of these were freshwater, making up 95% of all US wetlands. Most wetlands were vegetated, including 92% of freshwater and 80% of saltwater wetlands (USFWS, 2019).

In recent years, there has been a notable increase in the rate of wetland loss, which has exacerbated the decline in wetland acreage across the US. Wetland acreage in the US has decreased significantly, in part due to agricultural development leading to wetland drainage and infilling. Between 1986–1997, urban and rural development accounted for over half (53%) of net wetland loss, followed by agriculture (26%) and upland forested plantations (23%) (USFWS, 2019).

Net wetland loss has substantially increased by more than 50% since the last Wetlands Status and Trends study period (2004–2009), resulting in the loss of 221,000 acres of wetlands, primarily to uplands, between 2009 and 2019. These losses disproportionately affected vegetated wetlands (forested, scrub-shrub, and/or emergent), resulting in a net loss of 670,000 acres of these wetlands, an area greater than the state of Rhode Island (USFWS, 2019).



**Figure 3.2-4: Relative Wetland Area (i.e., High to Low Wetland Density) for the Conterminous United States in 2019 (USFWS, 2019)**

#### 3.2.8.4 Federally Protected Water Resources

##### Definition of the Resource

For the purpose of this PEA, **federally protected water resources** include coastal zones, coastal barriers, wild and scenic rivers, and rivers in the Nationwide River Inventory.

**Coastal zones** are the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches (16 USC § 1453).

**Coastal barriers** are depositional geological features that are subject to wave, tidal, and wind energies, and protects landward aquatic habitats from direct wave attack (16 USC § 3502).

##### **Wild and Scenic Rivers System** (16 USC §1273)

**Wild rivers** are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted.

**Scenic rivers** are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

The **Nationwide River Inventory** is a listing of free-flowing river segments in the US that have been identified as having one or more "outstandingly remarkable" natural or cultural value(s). Nationwide River Inventory river segments are potential candidates for inclusion in the National Wild and Scenic Rivers System (16 USC § 1276).

## Regulatory Requirements

The Coastal Zone Management Act manages coastal resources in coastal and Great Lakes states to prevent the loss of living marine resources, alterations in ecological systems, and decreases in undeveloped areas available for public use (16 USC § 1451).

The Coastal Barrier Resources Act restricts the development of the designated areas of the Coastal Barrier Resources System (16 USC § 3501).

The Wild and Scenic Rivers Act created the National Wild and Scenic Rivers System (NWSRS) to protect, preserve, and enhance designated wild and scenic rivers by prohibiting or restricting uses that would affect their “free-flowing” condition. It recognizes the appropriate use and development of the NWSRS and requires projects receiving federal assistance to avoid or mitigate impacts on NWSRS river segments (16 USC § 1271). Wild and scenic rivers are managed by an interagency council of the following four federal agencies: NPS, BLM, USFWS, and USFS.

The Nationwide Rivers Inventory (NRI) is a register of river segments that potentially qualify as national wild, scenic, or recreational river areas. The inventory is compiled and maintained by the NPS.

## Affected Environment

The NWSRS maintains an interactive website that provides maps and visitor information for each state (NWSRS, 2024). The NPS supports a similar system for the Nationwide Rivers Inventory (NPS, 2024a). **Table 3.2-5** provides a summary of wild and scenic rivers and rivers listed on the Nationwide Rivers Inventory, in the US.

TABLE 3.2-5: NATIONWIDE WILD AND SCENIC RIVERS AND RIVERS LISTED ON THE NATIONWIDE RIVERS INVENTORY		
	MILES OF WILD AND SCENIC RIVERS	NATIONWIDE RIVERS INVENTORY MILES
United States	13,366 <sup>1</sup>	~3,200 <sup>2</sup>

Sources: National Wild and Scenic Rivers System, 2024; NPS, 2024a

FSA policy includes not approving actions that would have a significant adverse effect on rivers in the NWSRS or rivers listed in the NRI (FSA, 2017).

### **3.2.9 Biological Resources**

#### **3.2.9.1 Vegetation and Wildlife**

##### Definition of the Resource

**Vegetation** refers to plant life, including agricultural and developed vegetation, desert and semi-desert, forest, shrubs, herbs, and natural land cover (National Integrated Drought Information System, 2024).

**Wildlife** is any member of the animal kingdom, including any mammal, fish, bird (including any migratory, nonmigratory, or endangered bird for which protection is also afforded by treaty or other international agreement), amphibian, reptile, mollusk, crustacean, arthropod or other invertebrate, and includes any part, product, egg, or offspring thereof, or the dead body parts thereof (16 USC § 1532(8)).

##### Affected Environment

FSFL funds are available to producers across the US and its territories, potentially affecting a diverse range of terrestrial and aquatic species. Due to the broad geographic scope, it is not

feasible to list all species that could be present on eligible lands, but generalizations can be made based on terrestrial ecoregions. Ecoregions are areas of relatively homogenous soils, vegetation, climate, and geology, each with associated wildlife adapted to that region. Ecoregions of the US are described in the 2009 FSFL PEA, which is incorporated by reference in this PEA (FSA, 2009).

### 3.2.9.2 Federally Listed Species

#### Definition of the Resource

**Endangered:** Any species that is in danger of extinction throughout all or a significant portion of its range (16 USC § 1532(6)).

**Threatened:** Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (16 USC § 1532(20)).

**Critical habitats** for threatened or endangered species are specific areas within the geographic range of the species that are found to contain the physical or biological features essential to its conservation (16 USC § 1532(5)).

#### Regulatory Requirements

The ESA establishes a national program for conserving threatened and endangered species (16 USC § 1531). Under the ESA, species that are, or are likely to become, in danger of extinction are listed as “endangered” or “threatened.” Section 7 of the ESA requires federal agencies to ensure their actions do not jeopardize listed species or destroy or adversely affect their critical habitat. It includes requirements for when a federal agency must consult with the USFWS and/or National Marine Fisheries Service (NMFS) to determine a proposed action’s effect on listed species and their critical habitats.

Other federal wildlife protections include the following: the Bald and Golden Eagle Protection Act (16 USC § 668), the Migratory Bird Treaty Act (16 USC §§ 703-711), and EO 13112, Invasive Species (EO 13112, 1999). The Bald and Golden Eagle Protection Act prohibits taking (defined as pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing) or possessing bald and golden eagles (16 USC § 668). The Migratory Bird Treaty Act prohibits the taking, killing, or possessing of migratory birds (16 USC §§ 703-711). EO 13112 requires federal agencies to prevent introducing invasive species and provide for their control (EO 13112, 1999).

At a site-specific level, the completion of an ESW serves as the FSA’s documentation of compliance with NEPA, as well as the requirements of other environmental laws, regulations, and EOs. The ESW requires an evaluation of whether a proposed action would result in adverse impacts on threatened and endangered species as well as critical habitats. This evaluation requires coordination with the USFWS and NMFS to identify species and critical habitats that may be affected by a proposal before funding or approval is granted (see **Appendix E** for details).

#### Affected Environment

Protected species often have specific living conditions based on their reproductive requirements. In total, 1,678 protected species have been determined to be threatened and endangered within the US and its territories (**Table 3.2-6**). Of these, 825 listed species have a designated critical habitat (USFWS, 2024a).

TABLE 3.2-6: PROTECTED SPECIES WITHIN THE US		
SPECIES GROUP	NUMBER OF THREATENED OR ENDANGERED SPECIES	NUMBER OF SPECIES WITH DESIGNED CRITICAL HABITAT <sup>1</sup>
<b>WILDLIFE</b>		
<b>Amphibians</b>	43	26
<b>Arachnids</b>	11	7
<b>Birds</b>	101	32
<b>Clams</b>	123	45
<b>Corals</b>	0	2
<b>Crustaceans</b>	32	18
<b>Fishes</b>	139	99
<b>Insects</b>	99	45
<b>Mammals</b>	82	35
<b>Reptiles</b>	52	18
<b>Snails</b>	52	19
<b>PLANTS</b>		
<b>Non-Flowering Plants</b>	45	18
<b>Flowering Plants</b>	893	461
<b>Total:</b>	<b>1,678</b>	<b>825</b>

Source: USFWS, 2024, USFWS, 2024a

<sup>1</sup>Final critical habitat only, does not include proposed

### 3.2.10 Cultural Resources

#### 3.2.10.1 Definition of the Resource

**Cultural resources** are the remains of past human activity. Cultural resources eligible for listing or listed on the National Register of Historic Places (NRHP) are called historic properties under the NHPA, as amended. Historic properties can include archeological sites, objects, buildings, structures, cemeteries, rural historic or prehistoric landscapes, and places that are associated with tribal or community values, traditions, or beliefs and that are minimally 50 years of age or older (NPS, 2024b).

#### 3.2.10.2 Regulatory Requirements

Section 106 of the NHPA and its implementing regulations at 36 CFR § 800 require federal agencies to consider the effects of their actions on historic properties. Actions with the potential to affect historic properties are referred to as undertakings under Section 106. An undertaking can include projects carried out with financial assistance, including the FSFL grant program.

The Section 106 regulations lay out the step-by-step process for assessing potential adverse effects on historic properties, including the requirement that federal agencies consult with the applicable State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) and federally recognized Tribes regarding the identification of historic properties that could be adversely affected by federal undertakings. The Section 106 process has the following four steps: establish the undertaking, identify and evaluate historic properties, assess the effects on historic properties, and resolve the adverse effects. While the preservation of historic



properties is not mandated, agencies must work with consulting parties and the SHPO/THPO to resolve the adverse effects that could result from the implementation of a federal undertaking.

### 3.2.10.3 Affected Environment

Areas that have the potential to be impacted by a proposed action (also known as the Area of Potential Effects or APE) include existing agricultural lands, farm properties, and those areas below ground that could contain previously unidentified archaeological sites or burials. The APE typically includes a buffer outside of the direct physical impacts area to allow for the consideration of potential indirect impacts that could result from a proposed action. Each SHPO develops management plans that outline the level of analysis a given state requires to identify historic properties, including the area that needs to be included in any identification effort.

Given the nationwide scale of the FSFL program, it is not feasible to describe all the locations that have the potential to contain significant cultural resources. The NPS maintains a list of currently known historic properties on the NRHP. In addition, each state keeps an inventory of significant properties at the state and local level, including archaeological site files and maps.

## 3.2.11 Human Population

### 3.2.11.1 Socioeconomics

#### Definition of the Resource

**Socioeconomics** is a branch of economics that examines the relationship between economic factors and society (USDA, 2020a). Socioeconomic analyses generally include detailed investigations of the prevailing population, income, employment, and housing conditions of a community.

#### Regulatory Requirements

Eligibility requirements for FSFL borrowers are outlined in 7 CFR § 1436.5.

#### Affected Environment

Socioeconomic resources analyzed in this PEA include population trends in rural areas, general agricultural characteristics, on-farm storage capacity, and information on the existing FSFL program.

#### **Rural Population Trends**

As of July 2022, the US population residing in nonmetropolitan areas was 46 million people, composing approximately 13.8% of the total US population. Despite the natural population changes (equal to total births minus deaths) in nonmetro areas being consistently negative (i.e. more deaths than births), the total population in nonmetro areas saw positive changes from 2020–2022 due to large levels of migration. Nonmetro counties saw an overall growth of 0.14% in 2020–2021 and 0.12% in 2021–2022. This renewed growth period follows declining or near-zero annual growth rates between 2010 and 2020 (Davis et al., 2023).

#### **General Agricultural Statistics**

Farming accounts for a significant portion of the US economic output, with the total market value of agricultural products sold in 2022 accounting for over 2% of the total US current-dollar gross domestic product (GDP) (NASS, 2024; Bureau of Economic Analysis, 2023). According to the Bureau of Economic Analysis, the agriculture industry group accounted for 0.02 percentage points of the 2.6% real GDP increase in 2022. The 2022 USDA Census of Agriculture estimates that there were about 3.3 million farm producers in the US, with 42% of all producers identifying farming as their primary occupation, and over 70% identifying their place of residence as the

farm they operate. The average US farm producer is estimated to have spent approximately 23 years in the industry. Approximately 64% of these producers self-identified as male and 95% identified as white. Of the 1.9 million farms in the US, the vast majority are classified as “family or individual” practices (NASS, 2024).

Between 2002 and 2022, the total number of farms in the US declined by 11%, the total acreage of land in farms declined by 6%, and the total area of harvested cropland declined by 20% (NASS, 2024). However, in the same period, the estimated change in the market value of all farmland and farm buildings saw an increase of 104%, and the market value of all machinery and equipment currently used in the industry increased by 40%. There was also a 66% increase in the market value of agricultural sales from 2002 to 2022, adjusted for inflation to 2022-dollar values (Federal Reserve Bank of Minneapolis, 2024).

The farming industry is largely populated by small-scale, family-owned farms, with farms over 1,000 acres accounting for approximately 8.4% of the number of farms in the US. **Table 3.2-7** displays the changes in farm characteristics from 2002 to 2022. The popularity of organic agriculture has increased throughout the past few years. The 2021 Certified Organic Survey identified over 17,000 certified organic farms in the US, totaling more than \$11 billion in total sales across 3.6 million acres of cropland, which is a 48% increase in organic sales and a 34% increase in organic cropland since 2016 (NASS, 2017; NASS, 2022).

<b>TABLE 3.2-7: FARM SIZE AND PRODUCTIVITY CHANGES 2002–2022<sup>1</sup></b>				
<b>YEARS</b>	<b>NUMBER OF FARMS<sup>2</sup></b>	<b>LAND AREA<sup>3</sup> (ACRES)</b>	<b>CROP AREA<sup>4</sup> (SQURE FEET)</b>	<b>SALES<sup>45</sup> (\$)</b>
2002 to 2007	4%	-2%	-4%	29%
2007 to 2012	-4%	-1%	-8%	20%
2012 to 2017	-3%	-2%	-5%	-8%
2017 to 2022	-7%	-2%	-6%	17%
<b>2002 to 2022</b>	<b>-11%</b>	<b>-6%</b>	<b>-20%</b>	<b>66%</b>

<sup>1</sup> Source: NASS, 2024

<sup>2</sup> Total Farms denotes the number of farms surveyed by the USDA for the 2022 Census of Agriculture.

<sup>3</sup> Land Area denotes the total acreage in all US farms.

<sup>4</sup> Crop Area displays the total square footage of crops grown on all US farms.

<sup>5</sup> Sales denotes the market value of agricultural products sold by all US farms, adjusted for inflation to 2022 dollars.

### **Current Nationwide On-Farm Storage Capacity**

Including facilities funded by the FSFL program, nationwide on-farm storage capacity was 13,592,000,000 bushels as of 2023, a growth of 23% from 2003 (NASS, 2024a; NASS, 2004). In comparison, off-farm storage capacity grew by 40% during the same period. The most common commodity stored is grain, with grain stocks accounting for 72% of on-farm and 60% of off-farm storage capacities in 2023 (NASS, 2024a). Other commonly stored items include oilseed and pulse crops. See **Table 3.2-8** for the capacities of both on-farm and off-farm storage facilities and the proportion of storage used for grain stocks (NASS, 2020; NASS, 2021; NASS, 2024a). For information on refrigerated cold storage and the storage of biomass energy crops, see the 2009 FSFL PEA. Information on aquaculture storage can be found in the 2017 FSFL PEA. Both the 2009 FSFL PEA and the 2017 FSFL PEA are incorporated by reference into the analysis contained in this PEA.

Table 3.2-8: FARM STORAGE CAPACITY 2019-2023						
STORAGE TYPE	2019 <sup>1</sup>	2020 <sup>2</sup>	2021 <sup>2</sup>	2022 <sup>3</sup>	2023 <sup>3</sup>	PERCENT CHANGE 2019–2023
	(1000'S OF BUSHELS)					
On-Farm Capacity	13,533,000	13,490,000	13,540,000	13,580,000	13,592,000	0.4%
Off-Farm Capacity <sup>a</sup>	11,618,210	11,752,210	11,817,420	11,822,905	11,875,900	2.2%
% of On-Farm Storage in Grain Stocks <sup>b</sup>	69%	67%	67%	64%	72%	5.8%
% of Off-Farm Capacity in Grain Stocks <sup>ab</sup>	65%	63%	63%	57%	60%	-5.9%

Sources: <sup>1</sup>NASS, 2020, <sup>2</sup>NASS, 2021, <sup>3</sup>NASS, 2024a

<sup>a</sup> Off-farm storage capacity includes stocks at mills, elevators, warehouses, terminals, and processors.

<sup>b</sup> Grain Stocks include corn, sorghum, oats, barley, wheat, and soybeans.

### Existing FSFL Program Information

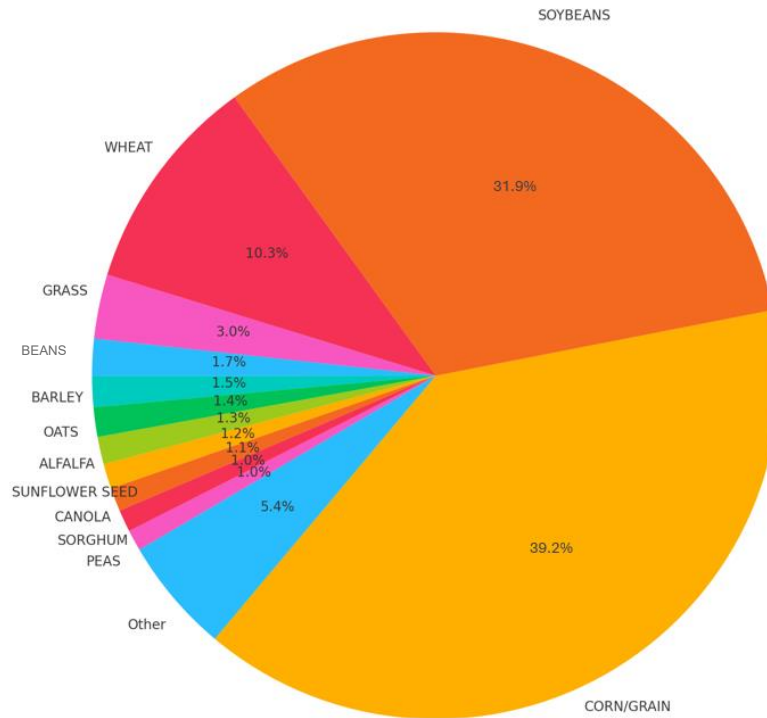
The FSFL program provides low-interest loans to support the construction, renovation, or enhancement of farm storage facilities, such as grain bins, dairy storage, and other on-farm storage solutions (FSA, 2023). The FSFL program is available nationwide, providing support to agricultural producers in every state, from large-scale operations in the Midwest to smaller farms in the Northeast, South, and West. **Table 3.2-9** shows the distribution of FSFLs by state over the past 10 years (FSA, 2024). Iowa leads with 4,918 loans totaling \$488,710,097 as of 2023, reflecting its status as the state with the highest number of planted crops. Conversely, Rhode Island has the fewest FSFLs distributed, with just one loan for \$29,550 (FSA, 2024). The low number of FSFLs in Rhode Island is consistent with its limited farm acreage — only 60,000 acres statewide — and the smallest average farm size in the country (NASS, 2024).

TABLE 3.2-9: NUMBER OF FSFLS BY STATE, 2013–2023 (FSA, 2024)		
STATE	LOANS APPROVED	TOTAL LOAN AMOUNT APPROVED
Alabama	77	\$4,954,853
Alaska	2	\$55,502
Arizona	7	\$1,419,676
Arizona	347	\$20,408,376
California	8	\$503,750
Colorado	85	\$6,818,073
Connecticut	24	\$772,383
Delaware	33	\$5,055,370
Florida	20	\$1,519,452
Georgia	173	\$15,587,575
Idaho	198	\$28,308,707
Illinois	2,172	\$270,365,770
Indiana	643	\$83,243,809

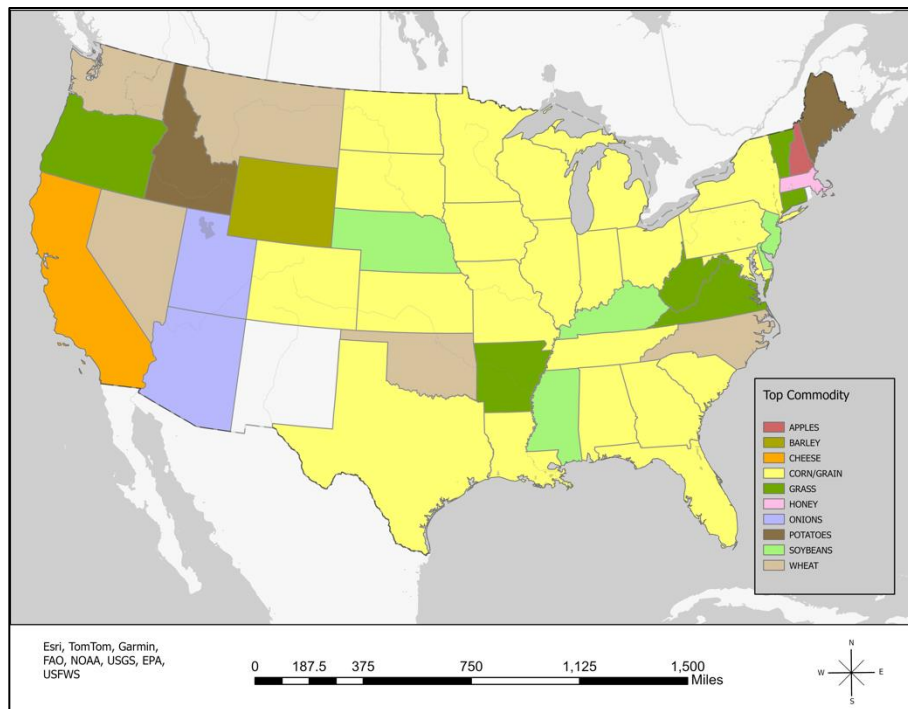
**TABLE 3.2-9: NUMBER OF FSFLS BY STATE, 2013–2023 (FSA, 2024)**

<b>STATE</b>	<b>LOANS APPROVED</b>	<b>TOTAL LOAN AMOUNT APPROVED</b>
Iowa	4,918	\$488,719,097
Kansas	760	\$86,003,443
Kentucky	745	\$66,401,358
Louisiana	21	\$2,845,003
Maine	134	\$23,818,249
Maryland	144	\$11,719,735
Massachusetts	11	\$371,646
Michigan	276	\$29,629,676
Minnesota	3,926	\$374,782,057
Mississippi	84	\$8,830,687
Missouri	1,580	\$102,396,971
Montana	612	\$35,759,898
Nebraska	2,079	\$204,033,360
Nevada	3	\$195,985
New Hampshire	45	\$1,456,386
New Jersey	45	\$2,105,997
New York	559	\$35,092,474
North Carolina	206	\$13,614,579
North Dakota	1,346	\$148,728,034
Ohio	813	\$82,756,793
Oklahoma	105	\$6,274,477
Oregon	71	\$6,796,097
Pennsylvania	389	\$21,041,888
Rhode Island	1	\$29,550
South Carolina	88	\$5,890,560
South Dakota	2,567	\$212,076,354
Tennessee	164	\$9,925,432
Texas	68	\$4,639,077
Utah	19	\$2,084,921
Vermont	21	\$1,905,862
Virginia	797	\$32,965,800
Washington	26	\$1,476,248
West Virginia	123	\$5,525,112
Wisconsin	651	\$64,342,376
Wyoming	58	\$3,714,558

The most funded commodity type is for facilities that store corn and grain, followed by soybeans and wheat, as shown in **Figure 3.2-5** (FSA, 2024a). The top-funded commodity in each state aligns with the most commonly grown crop, as illustrated in **Figure 3.2-6**. For instance, New Hampshire's top commodity receiving FSFL funding is apples, while Idaho's is potatoes.



**Figure 3.2-5: FSFL Funding Allocation by Commodity Type, 2013-2023 (FSA, 2024a)**



**Figure 3.2-6: Top FSFL-Funded Commodity by State, 2013–2023 (FSA, 2024a)**

The most common facility type funded by the FSFL program are grain storage bins, followed by storage and handling equipment, and storage and handling trucks. The least common facility type funded by the FSFL program are biomass structures, followed by bulk tanks for maple syrup. **Table 3.2-10** shows the distribution of FSFL-funded facilities (FSA, 2024a).

TABLE 3.2-10: DISTRIBUTION OF FACILITY TYPES FOR OUTSTANDING FSFL LOANS, 2013–2023 <sup>1,2</sup>	
FACILITY TYPE	COUNT
Grain Storage Bin	9,549
Storage and Handling Equipment	5,217
Storage and Handling Trucks	1,112
Hay Structure	853
Affixed Drying Equipment	798
Additions/Modifications of Existing Storage	383
Bunker-Type horizontal, or open silos for Silage	162
Cold Storage — Fruits/Vegetables	152
Flat Storage	142
Bulk Tank — Milk	82
Upright Silo	62
Grain Storage Crib	39
Freezer	38
Cold Storage Non-Fruits/Vegetables	25
Bunker-Type, horizontal, or open silos for High Moisture Grain	23
Bulk Tank — Maple Syrup	15
Biomass Structure	1

<sup>1</sup> Source: FSA, 2024a

<sup>2</sup> Note: data only includes outstanding FSFLs, or loans that have been issued but not yet fully repaid. The FSFL program does not track facility types for completed loans.

### 3.2.11.2 Environmental Justice

#### Definition of the Resource

**Environmental justice** is the just treatment and meaningful involvement of all people regardless of income, race, color, national origin, Tribal affiliation, or disability in agency decision making and other federal activities that affect human health and the environment so that people (i) are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts of environmental and other related burdens, and the legacy of racism or other structural or systemic barriers; and (ii) have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices (EO 14096, 2023).

A **minority** is an individual or group of individuals who are members of one or more of the following groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black; not of Hispanic origin; or Hispanic (CEQ 1997).

## Regulatory Requirements

EO 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, as amended by EO 14006, EO 14082, and EO 14096, directs federal agencies to avoid disproportionate and adverse health and environmental effects on low-income, disabled, and minority populations (environmental justice communities). An adverse effect is considered disproportionate if it predominately impacts an environmental justice community or is more severe for them than for others (Federal Highway Administration, 2012). This includes risks and hazards related to climate change, cumulative environmental impacts, and the legacy of racism or other structural or system barriers.

The USDA defines socially disadvantaged groups as those “whose members have been subjected to racial or ethnic prejudice because of their identity as members of a group without regard to their individual qualities” (NRCS, 2018). This includes farms operated by women and individuals identifying as Black or African American, American Indian or Alaska Native, Hispanic or Latino, or Asian or Pacific Islander. The Justice40 Initiative requires that 40% of the overall benefits of certain federal investments, including the FSFL program, are sent to disadvantaged and marginalized communities (U.S. White House, 2021). Socially disadvantaged farmers and ranchers are also eligible to receive benefits from several programs under the 2018 Farm Bill, including farm credit programs, crop insurance, conservation programs, and research incentivization provisions. (ERS, 2024a).

The FSA’s equal opportunity and non-discrimination requirements stipulate that no recipient of a FSFL shall subject any person or cause any person to be subjected to discrimination on the basis of race, religion, color, national origin, gender, or other prohibited basis. In addition, the CCC will not discriminate against any applicant on the basis of race, color, religion, national origin, sex, marital status, or age, provided the applicant can execute a legal contract. Furthermore, the CCC shall not discriminate on the basis of whether all or a part of the applicant’s income derives from any public assistance program (7 CFR §1436.19).

## Affected Environment

Agricultural producers in the US come from a wide array of cultural and ethnic backgrounds. **Table 3.2-11** shows the percentage of ethnic minority producers by farm type, and **Table 3.2-12** shows the percentage of farms with female producers (NASS, 2024).

<b>TABLE 3.2-11: PERCENT OF ETHNIC MINORITY FARM PRODUCERS BY FARM TYPE<sup>1</sup></b>					
<b>FARM TYPE<sup>2</sup></b>	<b>% OF TOTAL FARMS WITH THE FOLLOWING PRODUCERS<sup>3</sup>:</b>				
	<b>HISPANIC</b>	<b>NATIVE AMERICAN</b>	<b>BLACK</b>	<b>ASIAN</b>	<b>HAWAIIAN OR AAPI</b>
FAMILY/INDIVIDUAL	4%	2%	2%	1%	0.14%
PARTNERSHIP	5%	1%	1%	1%	0.15%
CORPORATION	6%	1%	1%	2%	0.21%
OTHER	4%	7%	2%	1%	0.23%
<b>ALL (TOTAL)</b>	<b>6%</b>	<b>4%</b>	<b>4%</b>	<b>3%</b>	<b>2%</b>

<sup>1</sup> Source: NASS, 2024

<sup>2</sup> Farm Type is defined as the operation’s legal status classification, with four subcategories: Family or individual (sole proprietorship), Partnership (including family partnership), Corporation (including family corporations), and Other (including estate or trust, prison farms, grazing association, American Indian reservation, etc.).

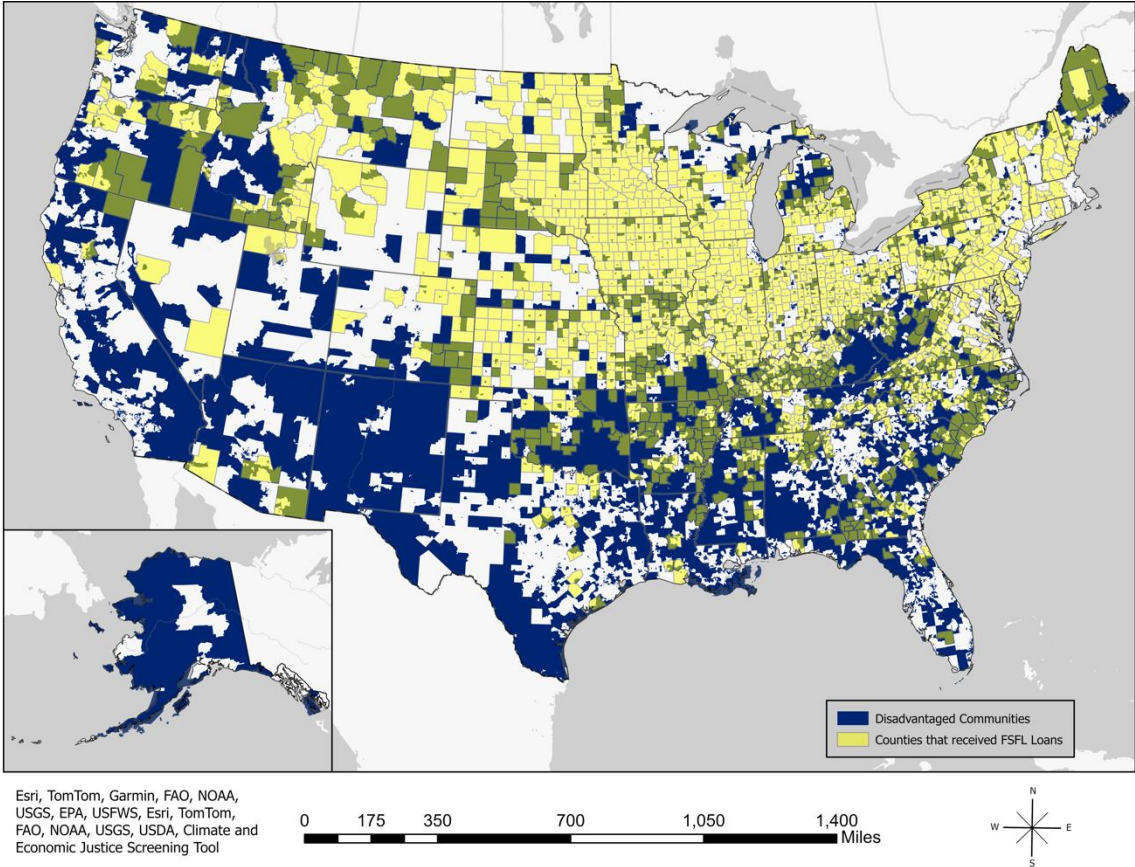
<sup>3</sup> Farm “producers” are defined as anyone involved in making decisions for the farm operation.

TABLE 3.2-11: PERCENT OF FARMS WITH FEMALE PRODUCERS BY FARM TYPE <sup>1</sup>	
FARM TYPE <sup>2</sup>	% OF TOTAL FARMS WITH FEMALE PRODUCERS:
FAMILY/INDIVIDUAL	59%
PARTNERSHIP	53%
CORPORATION	57%
OTHER	58%
<b>ALL (TOTAL)</b>	<b>58%</b>

<sup>1</sup> Source: NASS, 2024

<sup>2</sup> Farm Type is defined as the operation’s legal status classification, with four subcategories: Family or individual (sole proprietorship), Partnership (including family partnership), Corporation (including family corporations), and Other (including estate or trust, prison farms, grazing association, American Indian reservation, etc.).

**Figure 3.2-7** compares the distribution of FSFLs to disadvantaged Justice40 communities, as defined by the CEQ’s Climate and Economic Justice Screening Tool (FSA, 2024; CEQ, 2024). Disadvantaged communities are shown in dark blue, the counties that have received FSFLs from 2013–2023 are shown in yellow, and the disadvantaged areas that have received FSFLs are shown in green. Communities are considered to be disadvantaged if they are in census tracts meeting the threshold for at least one burden category or are on land within the boundaries of federally recognized Tribes. From 2013 to 2023, 95.54% (\$8.63 billion) of the total FSFL funds (\$9.03 billion) were distributed to counties with disadvantaged communities, far exceeding the Justice40 Initiative’s 40% requirement (FSA, 2024).



**Figure 3.2-7: Distribution of FSFLs to Justice40 Communities (CEQ, 2024; FSA, 2024)**



### 3.2.1.1.3 Occupational Health and Safety

#### Definition of the Resource

**Occupational safety and health standard** means a standard that requires conditions, or the adoption or use of one or more practices, means, methods, operations, or processes that are reasonably necessary or appropriate, to provide safe or healthful employment and places of employment (29 CFR §1910.2(f)).

#### Regulatory Requirements

The Occupational Safety and Health Administration (OSHA) Act standards govern the general safety requirements relating to farm storage facilities for general industry practices (29 CFR § 1910), construction (29 CFR § 1926), and agriculture (29 CFR § 1928). OSHA Standards 29 CFR § 1928.51 Rollover Protective Structures, and 29 CFR § 1928.57, Guarding of Farm Field Equipment, Farmstead Equipment, and Cotton Gins, govern the safety requirements for agricultural equipment.

The EPA Worker Protection Standard provides workplace practices and procedures to reduce the risk of illness or injury resulting from workers' and handlers' occupational exposure to pesticides used in the production of agricultural plants on farms or in nurseries, greenhouses, and forests, and also from the accidental exposure of workers or other such persons to pesticides (40 CFR § 170.1).

#### Affected Environment

Besides the typical industrial risks (falling, electrocution, collisions with equipment, etc.), there are several specific potential safety risks associated with the operations of farm storage facilities depending on the facility type and function. See the 2009 FSA PEA for a discussion of the following farm storage facility safety risks: tractor accidents, hazards regarding horizontal and vertical silos, entanglement of machinery parts, refrigerant, and confined spaces.

This PEA will focus on the occupational safety risks not previously covered by the 2009 PEA, including risks from greenhouses and propane tanks. See **Section 3.2.6** for a discussion of occupational risks due to noise.

#### **Greenhouses**

Safety risks regarding greenhouses focus mainly on working in an enclosed environment, which increases the potential for worker exposure to air contaminants, including pesticides, herbicides, and emissions from gas-powered equipment (OSHA, 2020). Greenhouses fall under the EPA's Worker Protection standard, which includes provisions for personal protective equipment, labeling, employee notification, safety training, safety posters, decontamination supplies, and emergency assistance to reduce the risk of exposing workers to pesticides (40 CFR § 170).

#### **Propane**

Exposure to high concentrations of propane can decrease the amount of oxygen in the air and cause suffocation with symptoms of headache, dizziness, lightheadedness, and passing out. In addition, contact with liquified propane may cause frostbite (New Jersey Department of Health 2015). Propane is also considered to be a flammable gas and a dangerous fire hazard by the PHSMA (49 CFR § 172.101).

## 4. Environmental Consequences

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This section describes the potential impacts of implementing the alternatives described in **Chapter 2**. The cumulative impacts are discussed in **Chapter 5**.

Programmatic environmental documents analyze impacts on a broad scale, such as those resulting from proposed policies, plans, programs, or projects where subsequent specific actions will be implemented. A NEPA analysis for those subsequent actions is tiered to the programmatic NEPA review. When FSFL applications are received, the potential for environmental impacts of site-specific activities funded by the program would be evaluated using an ESW, which would also determine whether the proposed activities require the preparation of a site-specific EA.

The impacts of proposed changes to the FSFL program are discussed below. The exact locations, timing, type, and specifications of facilities funded by FSFL program loans are unknown.

### 4.1 Resources Dismissed from Analysis

Some resources are eliminated from the detailed analysis following CEQ regulations (40 CFR § 1501.7), which state the following:

*“The lead agency shall identify and eliminate from detailed study the issues that are not significant or that have been covered by prior environmental review, narrowing the discussion of these issues in the document to a brief presentation of why they would not have a significant effect on the human or natural environment.”*

For the Proposed Action and alternatives, the impacts on some protected resources are expected to be the same as those covered in the 2009 FSFL PEA or the 2017 FSFL PEA. Other protected resources have also been dismissed from analysis, as impacts on these resources would be negligible or nonexistent. The resources that were not eliminated have been carried forward for detailed analysis in the remainder of **Chapter 4**.

#### 4.1.1 Land Use — Land Use and Zoning

For all alternatives, the activities funded under the FSFL program would continue to be located on existing farms producing eligible commodities. FSFL-funded activities would also continue to follow FSFL program regulations, which state that borrowers must conform to federal, state, and local land use and zoning regulations for proposed storage structures to be eligible for FSFL funding (7 CFR § 1436.5(a)(8)). By following the existing FSFL program regulations, no impacts on land use or zoning are anticipated from the alternatives considered in this PEA.

#### 4.1.2 Land Use — National Natural Landmarks and Wilderness Areas

While FSFL-funded activities would occur on privately owned land, there is the potential for an FSFL-funded activity to border a National Natural Landmark or Wilderness Area. However, FSA policy requires coordination and consultation with federal agencies that manage protected lands when they may be impacted by an FSA-funded activity (FSA, 2016). If an action has the potential to have a significant adverse effect on a National Natural Landmark or a Wilderness Area, it is FSA policy not to approve the action, or to prescribe mitigation measures through consultation with the NPS to reduce impacts below the level of significance. A completed ESW serves as site-specific documentation for addressing potential impacts on National Natural Landmarks or Wilderness Areas. By following established FSA policy, no significant impacts on

National Natural Landmarks or Wilderness Areas are anticipated from the alternatives considered in this PEA.

#### **4.1.3 Land Use — Visual Resources**

For all alternatives, the visual resources in the Affected Environment would continue to be characterized as agricultural. No activities under the alternatives considered would alter the landscape character of the Affected Environment. As such, impacts on the visual resources are not anticipated.

#### **4.1.4 Noise**

FSA policy is to not implement activities that have the potential to greatly increase the permanent noise levels of an area (FSA, 2016). In addition, the FSFL program requires borrowers to be compliant with local zoning and land use codes, including local noise ordinances, to be eligible for funding (7 CFR § 1436.5(a)(8)). A completed ESW serves as site-specific documentation of potential noise impacts, if applicable (see **Appendix E** for a copy of the ESW, and **Chapter 6** for a discussion on the implementation of site-specific evaluations). By following existing FSA policy as well as the implementing regulations of the FSFL program, the Proposed Action or its alternatives are not anticipated to create significant noise impacts.

#### **4.1.5 Air Quality**

No impacts on air quality beyond those described in the 2009 FSFL PEA are expected to result from the implementation of the Proposed Action or alternatives. The 2009 FSFL PEA stated that temporary minor impacts on local air quality could result from soil disturbances and emissions during the construction of a farm storage facility; however, these emissions would not differ measurably from those resulting from the current continued use of land for agriculture and would not exceed ambient air quality standards. As such, the 2009 FSFL PEA concluded that the FSFL program would not result in any adverse impacts on air quality and removed this resource area from the impacts analysis. The Proposed Action and the alternatives would not result in an increase in air quality emissions beyond what is described in the 2009 FSFL PEA. As such, no significant air quality impacts are anticipated.

#### **4.1.6 Water Resources — Federally Protected Water Resources**

While FSFL-funded activities would occur on privately owned land, there is the potential for an FSFL-funded activity to border a federally protected water resource. However, FSA policy requires coordination and consultation with federal agencies that manage protected lands when they may be impacted by an FSA-funded activity (FSA, 2016). If an action has the potential to have a significant adverse effect on a Wild and Scenic River or a river listed in the Nationwide Rivers Inventory, it is FSA policy not to approve the action. By following established FSA policy, no significant impacts on federally protected water resources are anticipated from the alternatives considered in this PEA.

## **4.2 Energy**

### **4.2.1 Evaluation Criteria**

Impacts in energy would be considered significant if the Proposed Action would result in a substantial increase in the nationwide level of demand for energy and/or result in the use of energy in a wasteful, inefficient, excessive, or unnecessary manner.

#### **4.2.2 Alternative 1: Existing Program Alternative (No Action)**

Under Alternative 1, the FSFL program would continue to be implemented as currently administered and would not update the list of commodities or facilities eligible for an FSFL. As such, Alternative 1 would not result in a substantial increase in the nationwide level of demand for energy above the existing levels or result in the use of energy in a wasteful manner. However, as the Existing Program Alternative would maintain the status quo, it could potentially limit the FSFL program's ability to adapt to the evolving energy needs of agricultural producers.

##### *Significance Determination*

No significant adverse impacts on energy are anticipated under Alternative 1.

#### **4.2.3 Alternative 2: Expanded Program Alternative (Proposed Action)**

Under Alternative 2, the FSFL program would revise the list of eligible storage facilities to include greenhouses, propane tanks, and precision agriculture handling and monitoring equipment. These three categories of farm storage facilities would all provide beneficial impacts on energy using the following methods:

##### Precision Agriculture Handling and Monitoring Equipment

Precision agriculture handling and monitoring equipment would have the potential to offer significant benefits to energy efficiency in agricultural settings by enabling more targeted and efficient use of resources. With features like GPS-guided machinery, sensors, and data analytics, agricultural producers could precisely apply water, fertilizers, and pesticides, reducing waste and minimizing energy consumption. This precision would minimize excessive fuel use in machinery, reducing the potential for wasteful energy expenditure. Additionally, real-time monitoring would allow for quick adjustments in response to changing environmental conditions, optimizing energy use throughout the growing process. By adding precision agriculture handling and monitoring equipment to the list of FSFL-eligible facilities, agricultural producers nationwide would be able to lower energy-related operational costs and improve overall sustainability.

##### Greenhouses

Greenhouses improve energy efficiency in agricultural settings by enabling controlled growing environments that optimize temperature, humidity, and light conditions, reducing the need for energy-intensive inputs like supplemental heating or cooling. In addition, concentrating energy use within a confined space minimizes waste and can be paired with renewable energy sources like solar panels, which can be installed using FSFL funding, to further enhance sustainability. Overall, the addition of greenhouses to the list of FSFL-eligible facilities would help to improve the overall energy efficiency of agricultural producers nationwide.

##### Propane Tanks

Propane tanks provide consistent energy for critical farm operations like heating, grain drying, and irrigation, reducing the dependence on grid electricity and more carbon-intensive fuels. As such, adding propane tanks to the list of FSFL-eligible facilities would have the potential to reduce energy costs for agricultural producers. Also, the addition of propane tanks would have the potential to enhance the flexibility and energy independence of agricultural producers, particularly in rural areas where energy infrastructure may be limited or unreliable. By allowing agricultural producers to invest in on-site propane storage, they could better manage their energy needs, particularly during peak demand periods or emergencies.

##### *Significance Determination*

Beneficial impacts on energy are anticipated under Alternative 2.

## 4.3 Waste and Hazardous Materials

### 4.3.1 Evaluation Criteria

Impacts from waste would be considered significant if an alternative would result in a significant nationwide increase in the generation of waste that would exceed the capacity of available waste management operations and facilities available to safely handle and dispose of the waste, or if an alternative resulted in waste management that was noncompliant with applicable federal, state, local, and Tribal regulations.

Impacts from hazardous materials would be considered significant if an alternative would create contaminated sites or would disturb existing contaminated sites to a degree that would result in adverse effects on human health or the environment.

### 4.3.2 Alternative 1: Existing Program Alternative (No Action)

Under Alternative 1, the FSFL program would continue to be implemented as currently administered and would not update the list of commodities or facilities eligible for an FSFL. As such, Alternative 1 would not impact the rate of waste generated by the construction or operation of FSFL-eligible farm storage facilities. Additionally, the construction of new farm storage facilities under Alternative 1 would not generate hazardous materials or create contaminated sites, as these facilities would not require hazardous materials for construction or generate hazardous waste during operation. For existing farm storage facilities renovated with an FSFL, a site-specific environmental evaluation would be conducted prior to the renovation to assess the potential presence of hazardous materials (see **Chapter 6** for more information). If hazardous materials are discovered, appropriate measures would be taken in accordance with existing laws, regulations, procedures, and guidelines to minimize potential risks to humans and the environment.

#### *Significance Determination*

No significant adverse impacts from waste and hazardous materials are anticipated under Alternative 1.

### 4.3.3 Alternative 2: Expanded Program Alternative (Proposed Action)

Under Alternative 2, the FSFL program would revise the list of eligible storage facilities to include greenhouses, propane tanks, and precision agriculture handling and monitoring equipment. Impacts from greenhouses and precision agriculture handling and monitoring equipment on waste and hazardous materials are expected to be the same as impacts from the existing list of eligible storage facilities as described in the 2009 and 2017 FSFL PEAs. As such, the discussion of impacts from waste and hazardous materials in this PEA is limited to the installation and operation of propane tanks.

Both aboveground and underground propane tanks would be eligible for FSFL funding under Alternative 2. Propane tanks, if damaged or not installed properly, would have the potential for an accidental release or spill of propane, which is listed as a hazardous material by the PHSMA (49 CFR § 172.101). An accidental release of propane could contaminate elements of the environment that it comes into contact with, such as soil, surface water, or groundwater. To minimize the risk of accidental releases or spills of propane, the installation of propane tanks purchased using an FSFL would follow all applicable federal, state, and local permitting and notification requirements, including requirements for the installation, operation, and disposal of USTs, following the FSFL program requirements found at 7 CFR § 1436. See **Appendix F** for a list of permitting/notification requirements for the installation of USTs by state.

### *Significance Determination*

By following all applicable permitting and notification requirements for the installation of propane tanks, including requirements for the installation of USTs, no significant adverse impacts from waste and hazardous materials are anticipated under Alternative 2.

## **4.4 Farmland and Soils**

### **4.4.1 Evaluation Criteria**

Impacts on farmland would be considered significant if an alternative would result in a nationwide increase in the rate of loss or conversion of prime farmland or farmland of state or local importance.

Impacts on soils would be considered significant if an alternative would result in a permanent increase to the nationwide rate of soil erosion or lead to mass wasting, mass damage to vegetation, or a sustained increase in waterbody sedimentation.

### **4.4.2 Alternative 1: Existing Program Alternative (No Action)**

Under Alternative 1, the FSFL program would not revise the list of commodities or facilities eligible for a FSFL. All construction and/or remodeling of farm storage facilities funded by the FSFL program would fall under the exemptions for the FPPA described in **Section 3.2.6**. As such, no impacts on farmland are anticipated.

No impacts on soils beyond those described in the 2009 and 2017 FSFL PEAs would result from Alternative 1. As described in the 2009 FSFL PEA, the existing list of facilities eligible for construction may result in minor, localized disturbances of soil during construction activities such as grading, leveling, and the installation of storage structures, leading to increased rates of erosion by water and wind while soils are exposed. Without mitigation, an increased rate of erosion could cause mass wasting, damage to vegetation, or sedimentation of nearby waterbodies.

To mitigate impacts on soil, a site-specific environmental evaluation would be conducted prior to construction and/or renovation activities to identify potential erosion problems or unique soil conditions (see **Chapter 6** for more information). Per the Food Security Act of 1985, as amended, producers are ineligible for FSA funding if an activity would contribute to the excessive erosion of highly erodible land (7 CFR § 12). FSFL program participants are notified of this requirement, agree to these terms as part of the environmental screening process, and complete and sign Form AD-1026 (Highly Erodible Land Conservation and Wetland Conservation Certification), which certifies compliance with the Act. If potential erosion problems or unique soil conditions are discovered during a site-specific environmental evaluation, a conservation plan would be required prior to allowing the location to be approved for construction. In addition, FSFL projects that exceed state ground disturbance thresholds are required to obtain a Construction General Permit and SMP/SWPPP prior to commencing construction and/or renovation activities. Following federal, state, and local permit requirements would reduce impacts on soil below the level of significance for the FSFL program as currently administered.

### *Significance Determination*

No significant adverse impacts on farmland and soils are anticipated under Alternative 1.

### **4.4.3 Alternative 2: Expanded Program Alternative (Proposed Action)**

Impacts on farmland under Alternative 2 would be the same as those described in Alternative 1.

Alternative 2 has the potential to generate increased impacts on soil resources as compared to Alternative 1 due to an increase in the number of structures eligible for new construction or alteration using FSFL program funding. The construction and renovation of farm storage facilities typically require ground disturbance, which has the potential to increase erosion and runoff leading to the increased sedimentation of nearby waters, and soil compaction. However, following the federal, state, and local compliance requirements as described in Alternative 1 would reduce impacts from the implementation of Alternative 2 on soils to below the level of significance.

#### *Significance Determination*

No significant adverse impacts on farmland and soils are anticipated under Alternative 2.

## 4.5 Climate Change

### 4.5.1 Evaluation Criteria

Impacts on climate change would be considered significant if an alternative were to cause a significant increase in the nationwide emission of GHGs. Impacts from climate change would be significant if they were to reduce the effectiveness of an alternative.

### 4.5.2 Alternative 1: Existing Program Alternative (No Action)

The facilities eligible for FSFL program funding under Alternative 1 have the potential to experience reduced effectiveness due to the impacts of climate change. Hotter and more humid conditions from climate change could lead to an increase in on-farm post-harvest losses where storage conditions are inadequate. For example, the storage of grain under damp or poorly aerated conditions can lead to mold. Hotter and more humid temperatures may also lead to increases in both pest frequency and intensity and the proliferation of microbes or fungi, which, again, would lead to higher crop losses where storage facilities are inadequate. Additionally, farm storage facilities have the potential to be damaged during extreme weather events, which are expected to increase in frequency due to climate change (Godde et al., 2021).

Eligible facilities under Alternative 1 also have the potential to emit higher rates of GHG emissions as a result of climate change. Higher ambient temperatures would lead to an increase in the number of days where ambient temperatures are higher than the base temperature required for the optimal storage of a commodity, known as storage degree days. Storage degree days can be used as an indicator of when additional energy is needed to keep a storage facility at an optimal temperature. As such, an increase in storage degree days may decrease the ability of a storage facility to store crops outside of their growing season. Higher annual average temperatures would also lead to a decrease in the length of the winter subperiod, or the amount of time that commodities can be stored without climate control measures, as ambient temperatures are below the storage base temperature (Lesinger et al., 2020). This results in an increase in the amount of energy required to maintain a constant base temperature.

However, these potential increases in GHGs are mitigated by the energy-saving opportunities provided offset by the FSFL program. Producers who use FSFL funding to build or upgrade storage facilities can invest in more energy-efficient designs and technologies. These better insulation, efficient lighting, and advanced cooling systems that can replace outdated facilities and reduce overall energy consumption. Additionally, FSFL funds may be used to purchase solar panels, provided that these solar panels are used as an energy source exclusively for FSFL-approved structures or equipment (FSA, 2016). These aspects of the existing FSFL program present a path toward reducing GHG emissions and enhancing the sustainability of farm storage practices, even in the face of changing climate conditions.

### *Significance Determination*

No significant adverse impacts to and from climate change are anticipated under Alternative 1.

#### **4.5.3 Alternative 2: Expanded Program Alternative (Proposed Action)**

Under Alternative 2, the impacts on and from climate change from the FSFL program funding the construction and renovation of grain bins, hay barns, bulk tanks, facilities for cold storage, and drying and handling storage equipment would be the same as under Alternative 1.

Alternative 2 would add greenhouses, propane tanks, and precision and handling monitoring equipment to the list of eligible facilities for FSFL program funding. These three categories of farm storage facilities would all help to reduce agricultural GHG emissions using the following methods:

##### Precision Agriculture Handling and Monitoring Equipment

Precision agriculture handling and monitoring equipment would reduce the impacts of climate change by allowing producers to optimize the expenditures of water, chemicals, and energy on crops. The use of precision agriculture handling and monitoring equipment would also allow producers to produce higher crop yields using less resources and space. Implementing precision agriculture handling and monitoring equipment would therefore reduce impacts from the FSFL program on climate change by improving crop resilience, enhancing soil carbon storage, and reducing GHG emissions (U.S. Global Change Research Program, 2023)

Adding precision agriculture handling and monitoring equipment to the list of eligible FSFL-funded facilities would also allow producers to better adapt to the impacts of climate change. Through the ability to monitor crop conditions in real-time, producers would have early warning tools to combat extreme weather events like drought, as well as other climate-related impacts such as pests and disease (Climate ADAPT, 2023). Therefore, adding precision agriculture handling and monitoring equipment would improve the resilience and profitability of FSFL-eligible commodities.

##### Greenhouses

Greenhouses would reduce impacts on the FSFL program from climate change by reducing the vulnerability of producers to growing season fluctuations through a controlled growing environment. By adding greenhouses to the list of FSFL-eligible facilities, producers would be able to capitalize on a longer growing season for many commodities in a wider range of locations.

Greenhouses can also reduce impacts from the FSFL program on climate change by reducing GHG emissions in agricultural settings. Greenhouses create controlled growing environments that optimize temperature, humidity, and light conditions, reducing the need for energy-intensive inputs and thus reducing GHG emissions. Additionally, by concentrating energy use within a confined space, greenhouses minimize waste and even integrate renewable energy sources like solar panels, which are eligible for FSFL funding, to further enhance sustainability.

##### Propane

Switching to cleaner energy sources like propane for generating electricity and heat on farms has the potential to result in significantly beneficial impacts on climate change nationwide by reducing GHG emissions. Propane, when released directly into the atmosphere, is not considered to be a GHG. As such, replacing fuel sources that generate GHGs with propane would reduce nationwide GHG emissions. Additionally, propane can reduce GHG emissions by replacing conventional fuels used to power farm machinery, leading to further emission reductions in agricultural operations (DOE, 2024b).



However, the physical conditions of propane storage tanks can be affected by environmental factors, which may be exacerbated by climate change, including increased heat, wind, rain, and flooding. Storms and flooding can cause aboveground tanks to be lifted off their pad or be damaged due to flying or floating debris (EPA, 2022). USTs also are vulnerable to damage during natural disasters such as tornados, fires, and hurricanes, all of which may increase in frequency due to climate change (EPA, 2024b). To mitigate these impacts, the FSA would perform a site-specific analysis prior to the placement of a storage tank that would consider the locations' climate and weather patterns and would install USTs following the state requirements listed in **Appendix F**. FSFL borrowers would also continue to follow the local regulations for construction in order to be eligible for funding (7 CFR § 1436.5(a)(8)).

#### *Significance Determination*

No significant adverse impacts on and from climate change are anticipated under Alternative 2. Implementation of Alternative 2 would provide beneficial impacts on farmers and producers by helping them better withstand impacts from climate change.

### **4.6 Water Resources**

As identified in Section 4.1, federally protected water resources have been dismissed from the analysis. The impact analysis for this resource area includes the following subsections:

- 4.6.1: Surface Water;
- 4.6.2: Groundwater;
- 4.6.3: Floodplains; and
- 4.6.4: Wetlands.

#### **4.6.1 Surface Water**

##### **4.6.1.1 Evaluation Criteria**

Impacts on surface water would be considered significant if the implementation of the Proposed Action resulted in changes to water quality, threatened or damaged unique hydrologic characteristics, or violated established laws or regulations.

##### **4.6.1.2 Alternative I: Existing Program Alternative (No Action)**

Under Alternative 1, no impacts on surface water from grain bins, hay barns, bulk tanks, facilities for cold storage, or drying and handling storage equipment beyond those described in the 2009 FSFL PEA would occur. In addition, no impacts on surface water from aquaculture storage and handling facilities beyond those described in the 2017 FSFL PEA would occur.

The FSFL program has the potential to impact surface water resources due to ground-disturbing activities associated with the construction or renovation of farm storage facilities. These activities could lead to soil erosion, sedimentation of waterbodies, and streambed scouring of nearby waters. Increased erosion and runoff could impact water quality, particularly if projects are adjacent to impaired waterbodies as defined by Section 303(d) of the CWA. To mitigate impacts on surface water, the FSFL program would continue to require the obtainment of an NPDES permit for projects impacting over one acre and would utilize BMPs to minimize impacts of projects under one acre.

For projects impacting over one acre, a SWPPP would also be prepared as part of the process to obtain NPDES permit coverage for stormwater discharges. The SWPPP specifies BMPs to prevent construction pollutants from contacting stormwater, with the intent of keeping erosion products from entering receiving waters. Through the implementation of a SWPPP, impacts on surface water resources for projects over one acre would be localized and cease after

construction/renovation activities were complete. For project areas of less than one acre, utilizing BMPs like temporary vegetation covers, erosion control fencing, and erosion control blankets would minimize impacts on surface water resources. These impacts would also be localized and cease after construction. Therefore, no significant negative impacts on surface water quality are expected under Alternative 1.

#### *Significance Determination*

No significant adverse impacts on surface water resources are anticipated under Alternative 1.

#### **4.6.1.3 Alternative 2: Expanded Program Alternative (Proposed Action)**

Alternative 2 has the potential to generate increased impacts on surface water resources as compared to Alternative 1 due to an increase in the number of structures eligible for new construction or alteration using FSFL program funding. The construction and renovation of farm storage facilities typically require ground disturbance, which has the potential to increase erosion and runoff leading to increased sedimentation of nearby waters, and soil compaction. However, following the federal, state, and local compliance requirements as described in Alternative 1 would reduce impacts from the implementation of Alternative 2 on surface waters to below the level of significance.

#### *Significance Determination*

No significant adverse impacts on surface water resources are anticipated under Alternative 2.

### **4.6.2 Water Resources — Groundwater**

#### **4.6.2.1 Evaluation Criteria**

Impacts on groundwater would be considered significant if the Proposed Action resulted in significant changes to groundwater availability, resulted in groundwater contamination, or resulted in changes to groundwater discharge or recharge patterns.

#### **4.6.2.2 Alternative 1: Existing Program Alternative (No Action)**

Construction and renovation activities can lead to soil compaction, reducing the soil's ability to absorb water, which, in turn, diminishes groundwater recharge. The removal of vegetation during these activities also increases surface runoff, which can lead to reduced infiltration and further limit groundwater development.

Prior to the construction of any FSFL-funded facilities, a site-specific environmental evaluation would identify the potential for any impact on groundwater. A completed ESW serves as site-specific documentation for a discussion of groundwater impacts, if applicable (see **Appendix E** for a copy of the ESW, and **Chapter 6** for a discussion on the implementation of site-specific evaluations). If potential impacts are identified, measures would be taken to avoid or minimize potential site-specific impacts. In addition, compliance with local land use plans, zoning ordinances, and building permits per 7 CFR § 1436.5(a)(8) as well as regulations, procedures, and guidelines for the use of hazardous substances would further reduce the potential for adverse impacts on groundwater. By following the existing implementing regulations of the FSFL program, significant adverse impacts on groundwater are not anticipated under Alternative 1.

#### *Significance Determination*

With the use of site-specific mitigation measures and BMPs, no significant adverse impacts on groundwater are anticipated under Alternative 1.

#### 4.6.2.3 Alternative 2: Expanded Program Alternative (Proposed Action)

Alternative 2 has the potential to generate increased impacts on groundwater as compared to Alternative 1 due to an increase in the number of structures eligible for new construction or alternative using FSFL program funding. In particular, the placement of both underground and aboveground propane storage tanks has the potential to adversely impact groundwater quality. If not properly installed, these structures may leak, leading to the contamination of groundwater resources. To mitigate the impact of propane tank installation on groundwater, the FSFL program would adhere to BMPs to prevent leaks and ensure tanks are installed with protective measures. Additionally, borrowers would continue to be required to obtain necessary environmental permits and follow regulations that protect groundwater resources as described in **Section 4.5.2.2**. Consequently, when properly mitigated, significant adverse impacts on groundwater are not anticipated under Alternative 2.

##### *Significance Determination*

With the use of site-specific mitigation measures and BMPs, no significant adverse impacts on groundwater are anticipated under Alternative 2.

### **4.6.3 Floodplains**

#### 4.6.3.1 Evaluation Criteria

Impacts on floodplains would be considered significant if a floodplain is directly or indirectly altered enough to present a substantially increased flood danger to an area or if an alternative is noncompliant with applicable state or local floodplain ordinances.

#### 4.6.3.2 Alternative 1: Existing Program Alternative (No Action)

Impacts on floodplains could occur if an FSFL-funded storage facility was constructed in or affected a flood zone. However, local governments participating in the NFIP are required to review proposed construction plans and issue development permits for projects that occur within floodplains to reduce potential impacts. The FSFL program also requires applicants to demonstrate compliance with applicable federal, state, and local zoning, land use, and building codes and to provide all-peril structural insurance and flood insurance if required by the CCC (7 CFR § 1436.5(a)). The FSFL program also would ensure compliance with FEMA Policy 104-008-03 (Floodplain Management Requirements for Agricultural Structures and Accessory Structures) and would follow FEMA guidance when developing mitigation measures for farm storage facilities construction in floodplains. By following the applicable floodplain regulations and applying site-specific mitigation measures, no significant impacts on floodplains are anticipated.

##### *Significance Determination*

With the use of site-specific mitigation measures and BMPs, no significant adverse impacts on floodplains are anticipated under Alternative 1.

#### 4.6.3.3 Alternative 2: Expanded Program Alternative (Proposed Action)

Alternative 2 has the potential to generate increased impacts on floodplains as compared to Alternative 1 due to an increase in the number of structures eligible for new construction or alteration using FSFL program funding. Construction and renovation activities can lead to soil compaction, reducing floodplains' capacity to absorb and retain floodwaters, leading to increased surface runoff and reduced groundwater recharge. The removal of vegetation in floodplains also contributes to sedimentation and reduces the floodplain's ability to dissipate flood energy effectively.

In particular, the placement of both underground and aboveground propane storage tanks has the potential to adversely impact floodplains. These structures may be dislodged and leak if they are not installed to account for flood forces (FEMA, 2020a). To mitigate the impact of propane tank installation on floodplains, the FSFL program would follow FEMA Policy 104-008-03 for agricultural structures in floodplains and locate propane tanks outside of SFHAs where feasible. In locations where storing propane tanks outside of SHFAs is not feasible, tanks would be designed to minimize risks, such as locating tanks at an elevation higher than the base flood elevation. Borrowers would also continue to be required to obtain flood or all peril structural insurance if required to protect structures in SHFAs (7 CFR § 1436.5(a)(9)). Consequently, when properly mitigated, the impacts on floodplains would be minor.

#### *Significance Determination*

With the use of site-specific mitigation measures and BMPs, no significant adverse impacts on floodplains are anticipated under Alternative 2.

### **4.6.4 Wetlands**

#### **4.6.4.1 Evaluation Criteria**

Impacts on wetlands would be considered significant if the soil structure, hydrology, or vegetation of a wetland or its buffer were altered directly or indirectly.

#### **4.6.4.2 Alternative 1: Existing Program Alternative (No Action)**

Under the Food Security Act of 1985, as amended, participants in FSA programs are prohibited from using any FSFL program loan in such a way that might result in adverse impacts on wetlands (7 CFR § 12). FSFL program participants are notified of this requirement, agree to these terms as part of the environmental screening process, and complete and sign Form AD-1026 (Highly Erodible Land Conservation and Wetland Conservation Certification), which certifies compliance with the Act. If a preexisting wetland determination is not available during the environmental screening process, form FSA-858 (Determining If a Wetland May Be Present) is used to document wetland indicators on the site. If wetland indicators are found, the applicant may relocate the proposed project or may employ the services of an approved wetland delineator to provide documentation of any wetlands on site. If wetlands could be impacted by a proposed project, the applicant would be required to obtain a permit from the USACE and determine a plan to mitigate impacts on wetlands before commencing project activities. If impacts on wetlands cannot be sufficiently mitigated, the FSA would not fund the project. By following the FSA program requirements as outlined in 7 CFR § 12, no significant impacts on wetlands are anticipated from the alternatives considered in this PEA.

#### *Significance Determination*

No significant adverse impacts on wetlands are anticipated under Alternative 1.

#### **4.6.4.3 Alternative 2: Expanded Program Alternative (Proposed Action)**

Impacts on wetlands under Alternative 2 are the same as under Alternative 1.

#### *Significance Determination*

No significant adverse impacts on wetlands are anticipated under Alternative 2.

### **4.7 Biological Resources**

The impact analysis for this resource area includes the following subsections:

- 4.7.1: Vegetation, Wildlife, and Habitat; and
- 4.7.2: Federally Protected Species

## **4.7.1 Vegetation, Wildlife, and Habitat**

### **4.7.1.1 Evaluation Criteria**

Impacts on biological resources would be considered significant if the implementation of a proposed action reduced wildlife populations to a level of concern, removed land with unique vegetative characteristics, or resulted in the incidental take of a protected species.

### **4.7.1.2 Alternative 1: Existing Program Alternative (No Action)**

Under Alternative 1, temporary negative impacts on vegetation could occur, as site preparation activities for the construction of farm storage facilities may include vegetation clearing. In some cases, facilities and equipment could be placed in previously undisturbed settings resulting in the removal of existing vegetation. Likewise, the temporary or permanent loss of wildlife habitat could occur as a result of direct habitat loss or disturbance during construction activities. However, farm storage facilities would mostly be constructed on non-agricultural portions of farms that have been previously disturbed. In addition, an ESW would be completed prior to the commencement of project activities that would identify any potentially unique vegetative characteristics that may require additional analysis (see **Appendix E** for a copy of the ESW, and **Chapter 6** for a discussion on the implementation of site-specific evaluations). BMPs and mitigation measures would be implemented on an as-needed basis to minimize disturbance and soil compaction, which could lead to secondary impacts on vegetation, such as from potential soil erosion.

Temporary disturbances or displacement of wildlife could occur during the construction of farm storage facilities, such as from the use of heavy machinery or increased human activity on the farm. This disturbance would be temporary, localized, and would cease once the building is complete, and the wildlife would likely move back into the area. No significant negative impacts on wildlife are expected from the implementation of Alternative 1.

#### *Significance Determination*

No significant adverse impacts on vegetation, wildlife, and habitat are anticipated under Alternative 1.

### **4.7.1.3 Alternative 2: Expanded Program Alternative (Proposed Action)**

Alternative 2 has the potential to generate increased impacts on vegetation, wildlife, and habitat as compared to Alternative 1, due to an increase in the number of structures eligible for new construction or alteration using FSFL program funding. The construction and renovation of farm storage facilities typically require ground disturbance, which has the potential to cause vegetation removal and habitat loss. Construction and renovation activities also have the potential to temporarily disturb or displace wildlife. However, following the site-specific evaluation process and implementing mitigation measures and BMPs as described in Alternative 1 would reduce impacts on vegetation, wildlife, and habitat from the implementation of Alternative 2 to below the level of significance.

#### *Significance Determination*

No significant adverse impacts on vegetation, wildlife, and habitat are anticipated under Alternative 2.

## **4.7.2 Federally Protected Species**

### **4.7.2.1 Evaluation Criteria**

Impacts on federally protected species would be considered significant if the Proposed Action would result in the take of a federally protected species or affect the designated critical habitat.

Impacts would also be considered significant if noise or other disturbances resulting from the Proposed Action led to impacts on federally protected species in the area. Impacts on migratory birds are more likely to be significant if they occur during a species' known breeding season.

#### 4.7.2.2 Alternative 1: Existing Program Alternative (No Action)

The FSA's policies and regulations do not permit the authorization, funding, or implementation of any proposal that is likely to jeopardize the continued existence of any species listed as endangered or threatened, or any proposal that is likely to destroy or adversely modify the habitats of listed species when such habitats have been determined critical to the species' existence. The FSA addresses the potential effects on threatened and endangered species and their designated critical habitats by completing an ESW to determine the effects of each loan request. The ESW screening process requires consultation with the USFWS or NMFS in cases where threatened and endangered species and their critical habitats may be present (see **Appendix E** for a copy of the ESW). Funding requests are denied if the potential to impact a protected species is identified (FSA, 2016). By following the existing FSA policies and regulations, no significant impacts on federally listed species are expected from under Alternative 1.

##### *Significance Determination*

No significant adverse impacts on federally protected species are anticipated under Alternative 1.

#### 4.7.1.3 Alternative 2: Expanded Program Alternative (Proposed Action)

Impacts on federally protected species under Alternative 2 are the same as under Alternative 1.

##### *Significance Determination*

No significant adverse impacts on federally protected species are anticipated under Alternative 2.

## 4.8 Cultural Resources

### 4.8.1 Evaluation Criteria

Impacts on cultural resources would be considered significant if issuance of an FSFL were to result in adverse effects on National Register-eligible or listed historic properties pursuant to Section 106 of the NHPA and its implementing regulations at 36 CFR § 800.

#### 4.8.2 Alternative 1: Existing Program Alternative (No Action)

Under Alternative 1, the FSFL program would not revise the list of commodities or facilities eligible for an FSFL grant. Eligible facilities under this alternative would continue to include the installation of grain bins, hay barns, bulk tanks, facilities for cold storage, and drying and handling storage equipment (including storage and handling trucks).

No impacts on cultural resources beyond those described in the 2009 or 2017 FSFL PEAs would be expected to result from the Proposed Action. As with the storage facilities described in the 2009 and 2017 FSFL PEAs, the completion of an ESW would be required prior to any loan commitment or onset of ground-disturbing activities associated with the issuance of an FSFL. This would include a determination of the potential impacts on any identified historic properties through the Section 106 review process and in consultation with the appropriate SHPO/THPO and Tribes. See **Appendix E** for a copy of the ESW, and **Chapter 6** for a discussion on the implementation of site-specific evaluations.

As described in the 2009 FSFL PEA, impacts on historic properties that could result from the Proposed Action would include impacts on existing or previously unidentified archaeological sites during land clearing and ground-disturbing activities. The FSA would determine what significant impacts on historic properties would likely be based on previous cultural resources investigations and known historic properties located in a proposed project area, beginning with the completion of an ESW.

#### *Significance Determination*

No significant adverse impacts on cultural resources are anticipated under Alternative 1. By following the Section 106 regulations, completing an ESW, and applying site-specific mitigation measures, no significant impacts on cultural resources are anticipated.

#### **4.8.2 Alternative 2: Expanded Program Alternative (Proposed Action)**

Alternative 2 has the potential to increase impacts on cultural resources beyond those listed under Alternative 1 due to the addition of greenhouses, precision agricultural handling and monitoring equipment, and propane tanks that could be funded through the FSFL program.

Consultation with the appropriate SHPO/THPO, Tribes, and other consulting parties would ensure the identification of known and unknown historic properties and determine the existence of any previously identified sites and the likelihood of discovering previously unknown sites in a given area.

#### *Significance Determination*

No significant adverse impacts on cultural resources are anticipated under Alternative 2. Any historic properties that are identified and subject to adverse effects would be mitigated pursuant to Section 106 in consultation with the SHPO/THPO and federally recognized Tribes.

## **4.9 Human Population**

### **4.9.1 Socioeconomics**

#### **4.9.1.1 Evaluation Criteria**

For this PEA, a significant impact on socioeconomic conditions can be defined as an adverse change that is outside the normal or anticipated range of agriculture's contribution to the nation's total economy, as this could negatively affect the overall US economic climate. These changes can be measured through socioeconomic indicators such as regional employment rates, employment demographics, population growth and movement trends, annual GDP, and income levels in areas surrounding project implementation. If these individual changes cause large-scale or long-term impacts on the greater economy, then the project would be considered to have significant socioeconomic impacts.

#### **4.9.1.2 Alternative 1: Existing Program Alternative (No Action)**

Under Alternative 1, the FSFL program would continue offering loans to eligible farmers nationwide for the same types of storage units and commodities outlined in the 2009 and 2017 FSFL PEAs. The 2009 FSFL PEA concluded that the FSFL program would "not result in significant socioeconomic impacts... but would create both economic and socioeconomic positive societal benefits" (FSA, 2009). The primary advantages of the FSFL program are lower interest rates and longer fixed-rate terms than traditional commercial loans, reducing the total cost of the loan and making the loans, and, consequently, the storage facilities, more accessible to farmers.

On-farm storage facilities allow farmers to maximize profits by preventing post-harvest loss, increasing product distribution flexibility and market responsiveness, preserving crop quality,

reducing transportation costs, and decreasing on-farm labor requirements. The USDA crop production projections for 2030 indicate a substantial increase in the harvest of some crops (WASDE, 2022). This increase in crop production will drive the need for additional on-farm storage, providing mechanisms to hedge the inherent risks associated with agricultural production activities. Recent trends showing significant increases in on-farm storage capacity suggest that FSFLs will meet an increasing need for farm storage and provide an economic benefit to participating farmers (see **Table 3.2-8** for details regarding on-farm storage capacity).

Additional on-farm storage could decrease potential income for local commercial storage facilities. However, between 2003 and 2023, the capacity of off-farm storage increased by roughly 40%, suggesting that the demand for commercial storage has not been significantly adversely affected by the current FSFL program (see **Table 3.2-8** for details regarding off-farm storage capacity). Thus, no significant negative impacts on the commercial farm storage industry would be expected due to the implementation of Alternative 1.

As described in the 2009 PEA, FSFLs could cause minor negative impacts on participating farmers and regional off-farm storage facilities. The highest amount that can be loaned under the FSFL program is \$500,000. Loans on the higher end of the total cap limit for the FSFL program may require longer terms for farmers to repay, increasing the total principal and making them more challenging to pay back. However, according to FSA data, the average size of an approved FSFL is approximately \$95,945, or only 19% of the total cap limit of \$500,000 per loan (FSA, 2024). In addition, the FSFL program is not a lender of last resort, meaning that all participants must demonstrate creditworthiness and can obtain readily available financing from other commercial sources, such as the Farm Credit System. If a producer chooses to construct or expand private storage facilities, they have likely determined that the associated costs would provide a return on investment. Due to the relative creditworthiness of participating farmers, it is expected that FSFLs under Alternative 1 will not increase farm debt loads beyond a reasonable level.

There would be no expected changes to the socioeconomic conditions of agricultural producers in the US from implementing Alternative 1. This program is highly site-specific and is unlikely to generate significant changes for construction or storage facility fabricators or component fabricators based on past use statistics. While the FSFL program is likely to generate new construction, this construction would likely have been considered regardless of the changes outlined in this PEA.

### *Significance Determination*

The FSFL program is anticipated to continue providing beneficial impacts on socioeconomic conditions under Alternative 1.

#### **4.9.1.3 Alternative 2: Expanded Program Alternative (Proposed Action)**

Alternative 2 would have the same socioeconomic impacts as those outlined in Alternative 1, with the exception of impacts resulting from the addition of greenhouses, precision agriculture handling and monitoring equipment, and propane tanks to the FSFL program. The impacts of each facility is described as follows:

##### Greenhouses

Loans for greenhouses would help farmers grow a larger variety and quantity of crops, enhancing crop quality and increasing income for enrolled farms. Since greenhouses have no potential to reduce property value or degrade the environmental quality of surrounding land, these loans would be expected to have only positive impacts on the enrolled farms.



### Precision Agriculture Equipment

Loans for precision agriculture equipment are anticipated to enhance crop production efficiency, productivity, and quality while lowering labor requirements. However, the FSFL program does not cover equipment repair and maintenance costs, which could add financial burdens on farmers. Despite this, since the FSFL program only offers loans to voluntary agricultural producers who demonstrate a good financial standing and the ability to repay debt, these additional costs are not expected to place undue financial strain on participants.

### Propane Tanks

Properly installed propane tanks are unlikely to cause adverse socioeconomic impacts. However, if not installed using best management practices (BMPs), they could harm the surrounding environment, reduce land value, and lead to financial losses. By following BMPs as well as state regulations regarding propane tank installation (included in this PEA as **Appendix F**), agricultural producers can avoid these risks and potentially increase their income through the use of propane tanks.

Overall, the potential impacts of Alternative 2 would be insignificant to the greater US economy but would provide beneficial socioeconomic impacts on individual producers at the site-specific level.

### *Significance Determination*

Beneficial socioeconomic impacts are anticipated under Alternative 2.

## **4.9.2 Environmental Justice**

### **4.9.2.1 Evaluation Criteria**

Impacts on environmental justice would be considered significant if the Proposed Action would result in disproportionate adverse health and environmental effects for communities with environmental justice concerns (as defined in EO 14096) or reduce their equitable access to a healthy environment.

### **4.9.2.2 Alternative 1: Existing Program Alternative (No Action)**

Under Alternative 1, eligibility requirements and the appeals process for the FSFL program would remain unchanged. Producers requesting FSFL funds would continue to have access to assistance in completing loan applications and other required documents directly from their state FSA Service Center. Program information would continue to be published in the Federal Register and announced by press releases, website postings, FSA newsletters, fact sheets, or local media. FSA state outreach coordinators would continue to work with county offices to inform individual farmers, including those in underserved communities and minority-based organizations about FSA programs and benefits.

While the primary focus of the FSFL program is to improve agricultural infrastructure by providing financial assistance for on-farm storage facilities, FSFLs support economic development in rural areas, including those that have been historically underserved. In addition, as previously discussed in **Section 3.2.11.2**, over 95% of FSFL funding is distributed to disadvantaged communities as defined by the Justice40 Initiative. By improving storage facilities through the FSFL program, the profitability and sustainability of small- and mid-sized farms are enhanced, contributing to the economic resilience of rural communities in historically underserved areas. Additionally, by improving storage facilities, including through the adoption of energy-efficient technologies, the FSFL program helps to reduce food waste, which helps reduce the environmental footprint of agricultural operations.

In addition, under 7 CFR §1436.19, FSFL recipients are prohibited from discriminating based on race, religion, color, national origin, gender, or another prohibited basis. The CCC also may not discriminate in credit transactions based on race, color, religion, national origin, sex, marital status, age, or public assistance-derived income, provided that the applicant can execute a legal contract. As such, by following the established FSFL program regulations, Alternative 1 would not lead to significant adverse impacts on environmental justice communities.

#### *Significance Determination*

No significant adverse impacts on environmental justice are anticipated under Alternative 1.

#### **4.9.2.3 Alternative 2: Expanded Program Alternative (Proposed Action)**

Impacts on environmental justice communities anticipated under Alternative 2 are the same as those anticipated under Alternative 1.

#### *Significance Determination*

No significant adverse impacts on environmental justice are anticipated under Alternative 2.

### **4.9.3 Occupational Health and Safety**

#### **4.9.3.1 Evaluation Criteria**

A significant impact on occupational health or safety could occur if an alternative violated established laws or regulations.

#### **4.9.3.2 Alternative 1: Existing Program Alternative (No Action)**

Under Alternative 1, the list of farm storage facilities eligible for funding under the FSFL program would remain unchanged. Alternative 1 has the potential to impact occupational health and safety during the construction or alteration of farm storage facilities and during their operation. Risks include falls, electrocution, equipment collisions, farm equipment rollovers, and grain silo accidents. However, by following OSHA standards for construction, renovation, and operational activities (29 CFR § 1910 for General Industry, 29 CFR § 1910 for Construction, and 29 CFR § 1928 for Agriculture), the EPA Worker Protection Standard, and any additional state or local occupational health and safety requirements, significant negative impacts are unlikely. Producers constructing farm storage facilities involving confined spaces would also be required to follow the precautions outlined in 29 CFR § 1910.146.

To help offset the cost of compliance with occupational health and safety standards, required safety equipment for farm storage facilities, such as ladders on silos, are eligible costs under the FSFL program. By requiring producers to comply with applicable federal, state, and local occupational health and safety requirements, and providing funding to offset compliance costs, no adverse impacts on occupational health and safety are anticipated under this alternative.

#### *Significance Determination*

No significant adverse impacts on occupational health and safety are anticipated under Alternative 1.

#### **4.9.3.3 Alternative 2: Expanded Program Alternative (Proposed Action)**

Alternative 2 would add greenhouses, propane tanks, and precision agriculture handling and monitoring equipment to the list of farm storage facilities eligible for FSFL program funding. Alternative 2 has the potential to generate impacts on operational health and safety due to activities associated with the construction of new types of storage buildings or structures or the alteration of existing buildings or structures, as well as the day-to-day operation of these facilities. However, by requiring producers to comply with applicable federal, state, and local

occupational health and safety requirements detailed in Alternative 1, and providing funding to offset compliance costs, no adverse impacts on occupational health and safety are anticipated under this alternative.

*Significance Determination*

No significant adverse impacts on occupational health and safety are anticipated under Alternative 2.

## 5. Cumulative Impacts

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The cumulative impacts analysis is important to understand how multiple actions in a particular time and space (e.g., geographic area) impact the environment. The CEQ regulations define cumulative effects as follows: "...effects on the environment that result from the incremental effects of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR § 1508.1(i)(3)).

Cumulative impacts most likely arise when a relationship exists between a proposed action and other actions occurring in a similar location or time period. Actions overlapping with or in proximity to the Proposed Action would be expected to have more potential for a relationship than those more geographically separated. Similarly, actions that coincide in time may have the potential for cumulative impacts.

Establishing an appropriate scope for cumulative impacts analysis is important for producing a meaningful analysis that appropriately informs agency decision making. This involves identifying the geographic or temporal boundaries within which to identify other activities that could contribute to cumulative impacts on resources. Boundaries should be based on ecologically and geographically relevant areas that sustain resources of concern. Temporal boundaries are defined by the duration of the Proposed Action's estimated effects and analyzed in proportion to the project's impact on relevant past, present, and reasonably foreseeable activities within that timeframe.

This cumulative impacts analysis focuses on the potentially affected resources identified in **Chapter 3** and uses the same nationwide geographic scope detailed in **Section 3.1**. Relevant past, present, and reasonably foreseeable activities identified in **Section 5.1** are based on potential geographic and temporal relationships to the Proposed Action within those identified boundaries. The cumulative effects on those resources are described in **Section 5.2**.

### 5.1 Past, Present, and Reasonably Foreseeable Actions

The FSFL program is designed to provide, through the FSA county offices, low-interest loans to eligible producers for the construction of on-farm storage facilities for eligible commodities. The program scale is national and includes US territories, and loans will be granted to individual eligible producers. The FSFL program has disbursed loans totaling approximately \$4.3 billion to date, with an average of 2,461 FSFLs made in each year between 2013 and 2023 (FSA, 2024). The Proposed Action would not alter any details of the existing FSFL program, including the number of FSFL awarded each year or the types of farm storage facilities eligible for funding.

For this analysis, other federal loan programs pertaining to farm storage facilities are the primary sources of information used in identifying past, present, and reasonably foreseeable actions. In addition to the FSFL program, there are several other federal programs designed to provide loans or financial assistance for on-farm storage facilities or improvements to farms. Some of the available federal funding opportunities are listed as follows:

- The Sugar Storage Facility Loan Program: authorizes loans to processors of domestically produced sugarcane and sugar beets (USC § 7971);
- The Emergency Grain Storage Facility Assistance Program: provides cost-share assistance to producers experiencing storage deficits due to disaster events (88 FR 16230);

- The Biomass Crop Assistance Program: provides financial assistance to producers that deliver eligible biomass crops to designated biomass conversion facilities (7 CFR § 1450);
- Direct Farm Ownership Loans: provides farmers with assistance to purchase farmland, construct or repair buildings and other fixtures, and promote soil and water conservation (7 CFR § 761);
- Renewable Energy System and Energy Efficiency Improvement Grants: primarily for renewable energy but can also cover certain energy efficiency improvements in farm storage facilities (7 CFR § 4380.113);
- The Business & Industry Guaranteed Loan Program: offers loans for various purposes including constructing, enlarging, or modernizing business facilities, including those in agriculture (7 CFR § 4279 Subpart B); and
- Small Business Administration's 7(a) Loan Program and 504 Loan Program: provides financial assistance to businesses, including those in agriculture. The loans can be used for construction projects (13 CFR § 120 Subpart H; 13 CFR § 120 Subpart B).

See the 2017 FSFL PEA for funding opportunities related to aquaculture operations. Many states also have their own agricultural loan programs that may include funding for storage facility construction.

## 5.2 Cumulative Analysis

Climate change, socioeconomic resources, and environmental justice populations may experience additive and interactive effects from the implementation of the Proposed Action. The other resources analyzed in detail in **Chapter 4** of this PEA are dismissed from this cumulative effects analysis because there are no anticipated impacts on these resources if established laws, regulations, and agency provisions and guidelines are followed. The activities associated with the construction or renovation of a storage facility potentially could have short-term localized impacts on the human and natural environment; however, these impacts would be minimized through BMPs and would cease once construction was complete. In addition, the completion of an ESW would reveal the presence of any resources of concern prior to the commencement of project activities, and the FSA would determine the appropriate mitigation or avoidance measures at a site-specific level. See **Appendix E** for a copy of the ESW, and **Chapter 6** for a discussion on the implementation of site-specific evaluations.

### Climate Change

The FSFL program aims to improve on-farm storage facilities for farmers, which allows farmers to better withstand extreme weather events and other climate-related challenges. This aligns with broader USDA and FSA efforts to promote climate-smart agricultural practices, which can enhance the resilience and sustainability of farming operations. No adverse cumulative impacts on or from climate change are anticipated as a result of the Proposed Action.

### Socioeconomics

Loan programs offered through the FSA for storage construction or renovation are voluntary and enrollment cannot be predicted. Except for the Sugar Storage Facility Loan Program, there is some overlap in the storage structure types eligible for the FSFL program. However, producers cannot apply for assistance for the same storage facility on the same land under multiple programs, reducing the potential for abuse of federal funding. Further, the temporal and spatial convergence of federal farm commodity storage structure loans is limited due to the individual

producer and commodity eligibility requirements of the individual programs, and their loan terms. As such, adverse cumulative impacts on socioeconomics are not anticipated.

### **Environmental Justice**

None of the loan programs listed in **Section 5.1** are considered to be Justice40 covered programs. Nevertheless, by offering loans to improve on-farm storage facilities for farmers, these programs, along with the FSFL program, serve to empower marginalized communities by promoting sustainable development in underserved areas. The programs also collectively create opportunities for economic development in communities that have historically been excluded from such opportunities. As such, beneficial cumulative impacts on environmental justice are anticipated as a result of the Proposed Action.

## 6. Implementation

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NEPA requires that environmental analyses include the identification of any irreversible and irretrievable commitments of resources that would be involved should an action be implemented. The term “irreversible” refers to the loss of future options and commitments of resources that cannot be renewed or recovered or can only be recovered over a long period. Irreversible commitments apply primarily to the use of nonrenewable resources, such as minerals or cultural resources, or to factors such as soil productivity, which are renewable only over a long period. Irretrievable refers to the loss of production or use of natural resources. For example, when a road is built through a forest, some or all of the timber production from an area is irretrievably lost while that area serves as a road; if the use changes, it is possible to resume timber production. No irreversible resource commitments would occur as a result of the Proposed Action. Irretrievable resources include those raw materials and fuels used during construction or soil and ground disturbance.

However, irreversible losses may result from site-specific actions stemming from this PEA that change the existing land use for the life of the farm storage facility. Site-specific actions are projects funded by the FSA through the FSFL program that are consistent with the eligibility requirements detailed in **Section 2.1**. The FSA anticipates using this PEA to guide the decision-making process regarding whether to fund site-specific actions through the FSFL program. It is expected that most activities proposed for funding under the FSFL program would be consistent with the analysis in this PEA. Supplemental EAs would be prepared if the eligibility requirements of the FSFL program change in a way that is substantially different from the Proposed Action and the changes are relevant to environmental concerns, or if there are significant new circumstances or information relevant to environmental concerns that would change the analysis in this PEA.

### 6.1 Site-Specific Environmental Evaluation Process

The evaluation of project-specific impacts would be conducted by FSA county office staff during the approval process for approval of an FSFL application and recorded in an ESW, which serves as the FSA’s documentation of compliance with NEPA, as well as the requirements of other environmental laws, regulations, and EOs. The ESW would be completed at the earliest possible time to ensure that any significant environmental issues are identified; that consultation among agencies, other area programs, and the public (where applicable) occurs; and that a decision is made on whether the PEA appropriately addresses all components of the project, or whether a more detailed analysis is required.

The FSA county office staff would complete the ESW in coordination with the agricultural producer or landowner. As part of the documentation process, the FSA county office staff would take inventory of the protected resources present in the action area and assess whether there is a potential to adversely impact those resources present. Examples of site-specific considerations for key resource areas and impacts requiring mitigation are listed in **Table 6.1-1**. **Table 6.1-1** is not comprehensive but provides key examples to guide the identification of circumstances that would require mitigation measures to avoid significant adverse impacts.

<b>TABLE 6.1-1: SITE-SPECIFIC CONSIDERATIONS AND IMPACTS REQUIRING MITIGATION</b>		
<b>CATEGORY</b>	<b>SITE-SPECIFIC CONSIDERATIONS</b>	<b>IMPACTS REQUIRING MITIGATION</b>
Sensitive Habitats	Presence of sensitive habitats (e.g., wetlands, riparian areas, endangered species habitats) within or adjacent to the project site.	Direct habitat loss, fragmentation, or disturbance; alteration of critical wildlife corridors.
Federally Listed Species	Presence of federally listed species or their critical habitat within or near the project area.	Habitat destruction, significant disturbance to species, interference with breeding or migration patterns.
Geology and Topography	Unique geology or topography, including areas prone to soil instability, erosion, or geological hazards	Soil erosion, slope instability, increased sedimentation in water bodies
Hydrology	Proximity to water bodies (e.g., rivers, streams, lakes) and watershed boundaries	Water quality degradation, aquatic habitat disruption, increased flood risk
Noise	Proximity to noise-sensitive areas (e.g., residential areas, schools, hospitals).	Elevated noise levels affecting human health and wildlife behavior.
Air Quality	Areas with existing air quality concerns or non-attainment zones for pollutants.	Increase in pollutant emissions, deterioration of air quality.
Climate Change	Areas vulnerable to climate change impacts (e.g., sea level rise, increased frequency of extreme weather events).	Exacerbation of climate change effects, increased greenhouse gas emissions.
Cultural Resources	Presence of cultural or historical resources (e.g., archaeological sites, historic structures, culturally significant landscapes)	Damage or destruction of cultural artifacts, adverse effects on historic properties
Infrastructure	Involvement with infrastructure development or alterations to utility networks	Disruption of existing infrastructure, impacts on utility services, community inconvenience
Land Use	Compliance with local land use regulations and zoning requirements	Conflict with zoning ordinances, incompatible land uses
Public Health and Safety	Potential risks to public health and safety, especially in hazard-prone areas	Increased risk of flooding, landslides, wildfire, or exposure to hazardous materials
Socioeconomic	Impacts on local economies, job markets, or community cohesion.	Substantial changes in economic activity, job losses, disruption of community structures.
Environmental Justice Communities	Presence of disadvantaged or vulnerable communities that may be disproportionately affected by the project.	Disproportionate adverse health and environmental effects on environmental justice communities.



TABLE 6.1-1: SITE-SPECIFIC CONSIDERATIONS AND IMPACTS REQUIRING MITIGATION		
CATEGORY	SITE-SPECIFIC CONSIDERATIONS	IMPACTS REQUIRING MITIGATION
Community Concerns	Significant public interest or community concerns regarding the proposed project	Public opposition, stakeholder conflicts, controversy over project benefits versus risks

The ESW evaluation process informs project design and identifies any mitigation or monitoring needs, which are recorded in a site-specific conservation plan. Once the ESW is completed, it is then reviewed by an FSA agency official who determines whether the proposed activity may occur.

## 6.2 Integration of the PEA and the ESW

The PEA and the ESW work together to provide a comprehensive analysis of the environmental impacts associated with the FSFL program. If the Proposed Action is approved, the FSA will use the PEA and ESWs to ensure that the implementation of site-specific projects under the FSFL program do not have significant adverse environmental impacts.

### PEA Coverage:

- **Broad Overview:** The PEA provides a comprehensive but broad overview of the programmatic impacts associated with the FSFL program. This analysis includes the establishment of baseline conditions, identification of potential environmental effects, and outline of the general mitigation measures applicable to a range of FSFL program activities.
- **Common Issues:** The PEA addresses common issues and mitigation measures at a nationwide programmatic level to ensure consistency across FSFL program actions.
- **Identification of Triggers:** The PEA highlights scenarios where it may not fully address site-dependent impacts, complexities, or significant environmental concerns, prompting further analysis during a site-specific evaluation.

### ESW Coverage:

- **Resource Area Evaluation:** The completion of an ESW is required to identify local resource areas that may be impacted.
- **Tailored Mitigation Strategies:** The completion of ESWs lead to the development of tailored mitigation strategies based on the impacts identified.
- **Integration with PEA Findings:** The analysis in the ESW should be integrated into the broader framework established by the PEA. This integration ensures consistency with FSFL program goals and objectives outlined in the programmatic assessment.

## 6.3 FSFL Special Conditions and Conditional Approval

The FSA provides conditional approvals for FSFLs whereby an agricultural provider or landowner is provided an opportunity to satisfy additional NEPA or other environmental compliance requirements before an action may occur. Use of FSFL program funding includes a requirement that prior to any expenditures associated with project activities, an ESW must be completed. Additionally, agricultural producers or landowners must demonstrate compliance with applicable laws for environmental protection by providing proof of permits, licenses, and authorizations prior to implementing the project. At the time of the ESW completion, the FSA will

inventory the protected resources present as described in **Section 6.1**. If the proposed project would result in adverse impacts on any protected resource, and the applicant cannot modify their action to avoid adverse impacts, the FSA may determine that the action is not appropriate for funding under the FSFL program.

## Appendix A: List of Preparers

APPENDIX A: LIST OF PREPARERS	
NAME AND TITLE	EDUCATION AND EXPERIENCE
Danielle Ward Contractor	M.S. Geography, The University of Utah B.S. Geological Sciences and English Literature, State University of New York at Geneseo Years of Experience: 9
Sarah LeClair Contractor	M.S. Environmental and Natural Resource Economics, University of Rhode Island B.S. Environmental and Natural Resource Economics, University of Rhode Island Years of Experience: 3
Patrick Blanchard Contractor	M.S. Environmental Law and Policy, Vermont Law School B.S., Natural Resource Management, Northland College Years of Experience: 15
Austin Rizzo Contractor	Ph.D. Fisheries Conservation, West Virginia University M.S. Conservation Ecology, Frostburg State University B.S. Natural Resources Management and Conservation, Cornell University Years of Experience: 15
Catherine Nadals Contractor	M.A. Anthropology, Northern Arizona University B.A. Anthropology, University of Hawai'i at Manoa Years of Experience: 25+
Lisa Mahoney, J.D. Contractor	Juris Doctor, Vermont Law School M.S Environmental Law and Policy, Vermont Law School B.S. Ecology, Evolution and Organismal Biology Years of Experience: 25+

## Appendix B: References

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## Appendix C: Persons and Agencies Contacted

APPENDIX C: PERSONS AND AGENCIES CONTACTED	
NAME AND TITLE	AFFILIATION
<b>FEDERAL AGENCIES</b>	
Alaska Regional Office	National Marine Fisheries Service
Greater Atlantic Regional Fisheries Office	National Marine Fisheries Service
Pacific Islands Regional Office	National Marine Fisheries Service
Southeast Regional Office	National Marine Fisheries Service
West Coast Regional Office	National Marine Fisheries Service
Martha Williams, USFWS Director	United States Fish and Wildlife Service
Paul Souza, Regional Director	United States Fish and Wildlife Service, Pacific Southwest Region
Sara Boario, Regional Director	United States Fish and Wildlife Service, Alaska Region
Matt Hogan, Regional Director	United States Fish and Wildlife Service, Mountain-Prairie Region
Kyla Hastie, Acting Regional Director	United States Fish and Wildlife Service, Northeast Region
Mike Oetker, Acting Regional Director	United States Fish and Wildlife Service, Southeast Region
Chuck Traxier, Acting Regional Director	United States Fish and Wildlife Service, Midwest Region
Amy Lueders, Regional Director	United States Fish and Wildlife Service, Southwest Region
Hugh Morrison, Regional Director	United States Fish and Wildlife Service, Pacific Region
<b>STATE AGENCIES</b>	
Chuck Sykes, Director	Alabama Department of Conservation and Natural Resources, Wildlife and Freshwater Fisheries Division, Montgomery Office
Lance R. LeFleur, Director	Alabama Department of Environmental Management, Office of the Director
Jeff Kitchens, Chief	Alabama Department of Environmental Management, Water Division
Melissa Head, Natural Resource Manager 2	Alaska Department of Natural Resources
Jason Brune, DEC Commissioner	Alaska Department of Environmental Conservation, Office of the Commissioner
Jason Olds, Acting Director	Alaska Department of Environmental Conservation, Division of Air Quality

**APPENDIX C: PERSONS AND AGENCIES CONTACTED**

NAME AND TITLE	AFFILIATION
Deeann Fetko, Director	Alaska Department of Environmental Conservation, Division of Environmental Health
Jon Wendel, Compliance Manager	Alaska Department of Environmental Conservation, Division of Water – Compliance
Gene McCabe, Program Manager	Alaska Department of Environmental Conservation, Division of Water – Wastewater Discharge Authorization
Doug Vincent-Lang, Commissioner	Alaska Department of Fish and Game, Commissioner's Office
Benjamin Mulligan, Deputy Commissioner	Alaska Department of Fish and Game, Commissioner's Office
Ty E. Gray, Director	Arizona Game and Fish Department, Director's Office
Karen Peters, Director	Arizona Department of Environmental Quality, Director's Office
Austin Booth, Director	Arkansas Game and Fish Commission
Bobby Martin, Commission Chairman	Arkansas Game and Fish Commission
General Contact Info	Arkansas Division of Environmental Quality, Director's Office
CDFW Regions	California Department of Fish and Wildlife
Yana Garcia, Secretary for Environmental Protection	California Environmental Protection Agency Office of the Secretary
Heather Disney Dugan, Acting Director	Colorado Parks and Wildlife
Carrie Besnette Hauser, Chair	Colorado Parks and Wildlife
Nicole Rowan, P.E., M.E., Director	Colorado Department of Public Health and Environment Water Quality Control Division
Katie Dykes, Commissioner	Connecticut Department of Energy & Environmental Protection Commissioner's Office
Shawn Garvin, Secretary	Delaware Department of Natural Resources and Environmental Control Office of the Secretary
John Clark, Acting Director	Delaware Department of Natural Resources and Environmental Control Division of Fish and Wildlife
Roger A. Young, Executive Director	Florida Fish and Wildlife Conservation Commission
John Calhoun, Ombudsman	Florida Department of Environmental Protection Office of the Ombudsman and Public Services
Ted Will, Director	Georgia Department of Natural Resources Wildlife Resources Division
Richard E. Dunn, Director	Georgia Department of Natural Resources Environmental Protection Division – Director's Office

**APPENDIX C: PERSONS AND AGENCIES CONTACTED**

NAME AND TITLE	AFFILIATION
Anna Truszczynski, Branch Chief	Georgia Department of Natural Resources Environmental Protection Division – Watershed Protection Branch
Dawn N. S. Chang, Chairperson	Hawaii Department of Land and Natural Resources
Ed Schriever, Director	Idaho Fish and Game Director’s Office
Jess Byrne, Director	Idaho Department of Environmental Quality
Natalie Phelps Finnie, Director	Illinois Department of Natural Resources Director’s Office
General Illinois EPA Contact	Illinois Environmental Protection Agency
Amanda Wuestefeld, Director	Indiana Department of Natural Resources Division of Fish and Wildlife
Brian C. Rockensuess, Commissioner	Indiana Department of Environmental Management Commissioner’s Office
Kayla Lyon, Director	Iowa Department of Natural Resources
General Contact Info	Kansas Department of Wildlife and Parks Office of the Secretary
General Contact Info	Kansas Department of Health and Environment
General Contact Info	Kentucky Energy and Environment Cabinet Department for Environmental Protection
General Contact Info	Kentucky Energy and Environment Cabinet Department for Natural Resources
Rich Storm, Commissioner	Kentucky Department of Fish & Wildlife Resources
Trey Iles	Louisiana Department of Wildlife and Fisheries Office of Wildlife
Rene LeBreton	Louisiana Department of Wildlife and Fisheries Office of Fisheries, Marine
Sherry Morton	Louisiana Department of Wildlife and Fisheries Office of Fisheries, Inland
Chuck Carr Brown, Ph. D., Secretary	Louisiana Department of Environmental Quality Office of the Secretary
Melanie Loyzim, Commissioner	Maine Department of Environmental Protection Office of the Commissioner
Judy A. Camuso, Commissioner	Maine Department of Inland Fisheries and Wildlife Commissioner’s Office
Josh Kurtz, Secretary	Maryland Department of Natural Resources Office of the Secretary
Suzanne Dorsey, Deputy Secretary	Maryland Department of the Environment Office of the Secretary
Mark Tisa, Director	Massachusetts Department of Fish and Game

**APPENDIX C: PERSONS AND AGENCIES CONTACTED**

<b>NAME AND TITLE</b>	<b>AFFILIATION</b>
	MassWildlife
Gary Moran, Acting Commissioner	Massachusetts Department of Environmental Protection
Shannon Lott, Acting Director	Michigan Department of Natural Resources
Daniel Eichinger, Acting Director	Michigan Department of Environment, Great Lakes, and Energy
Sarah Strommen, Commissioner	Minnesota Department of Natural Resources Office of the Commissioner
Lynn Posey, Executive Director	Mississippi Department of Wildlife, Fisheries, and Parks
Chris Wells, Executive Director	Mississippi Department of Environmental Quality
General Contact Info	Missouri Department of Natural Resources
Dustin Temple, Director	Montana Fish, Wildlife, and Parks Director's Office
Chris Dorrington, Director	Montana Department of Environmental Quality
Tim McCoy, Director	Nebraska Game and Parks Commission
Jim Macy, Director	Nebraska Department of Environment & Energy
General Contact Info	Nevada Department of Wildlife
James A. Settelmeyer, Director	Department of Conservation and Natural Resources
Scott Mason, Executive Director	New Hampshire Fish and Game
Robert Scott, Commissioner	New Hampshire Department of Environmental Services
Shawn M. LaTourette, Commissioner	New Jersey Department of Environmental Protection Office of the Commissioner
Dave Golden, Assistant Commissioner	New Jersey Department of Environmental Protection NJ Fish and Wildlife
Mike Sloane, Director	New Mexico Department of Game and Fish
James C. Kenney, Cabinet Secretary	New Mexico Environment Department
Basil Seggos, Commissioner	New York State Department of Environmental Conservation
Jacqueline Lendrum, Director	New York State Department of Environmental Conservation, Division of Fish and Wildlife
Cameron Ingram, Executive Director	North Carolina Wildlife Resources Commission
Elizabeth S. Biser, Secretary	North Carolina Department of Environmental Quality Office of the Secretary
Jeb Williams, Director	North Dakota Game and Fish
David Glatt	North Dakota Department of Environmental Quality
Mary Mertz, Director	Ohio Department of Natural Resources
Anne M. Vogel, Director	Ohio Environmental Protection Agency

**APPENDIX C: PERSONS AND AGENCIES CONTACTED**

<b>NAME AND TITLE</b>	<b>AFFILIATION</b>
J.D. Strong, Director	Oklahoma Department of Wildlife Conservation
General Contact Info	Oklahoma Department of Environmental Quality
Davia Palmeri, Director	Oregon Department of Fish and Wildlife Director's Office
Leah Feldon, Director	Oregon Department of Environmental Quality
General Contact Info	Pennsylvania Department of Environmental Protection
Terrence Gray, Director	Rhode Island Department of Environmental Management
Phillip Edwards, Chief	Rhode Island Department of Environmental Management Division of Fish and Wildlife
Robert Boyles, Executive Director	South Carolina Department of Natural Resources
Dr. Edward Simmer, Agency Director	South Carolina Department of Health and Environmental Control
Kevin Robling, Department Secretary	South Dakota Game, Fish, and Parks
Hunter Roberts, Department Secretary	South Dakota Department of Agriculture & Natural Resources
Victoria Lankford	Tennessee Wildlife Resource Agency Wildlife & Forestry Division
Eric Ward, Communications Director	Tennessee Department of Environment and Conservation TDEC Office of Communications
David Toskowitz, Ph.D., Executive Director	Texas Parks and Wildlife Department
Erin E. Chancellor, Acting Executive Director	Texas Commission on Environmental Quality
Justin Shirley, Director	Utah Division of Wildlife Resources
Kimberly D. Shelley, Executive Director	Utah Department of Environmental Quality, Executive Director's Office
Christopher Herrick, Commissioner	Vermont Agency of Natural Resources Vermont Fish and Wildlife Department
John Beling, Commissioner	Vermont Agency of Natural Resources Vermont Department of Environmental Conservation
Ryan Brown, Executive Director	Virginia Department of Wildlife Resources
Mike Rolband, Director	Virginia Department of Environmental Quality
Kelly Susewind, Director	Washington Department of Fish and Wildlife
Laura Watson, Director	Washington Department of Ecology
Brett W. McMillion, Director	West Virginia Division of Natural Resources
Harold Ward, Cabinet Secretary	West Virginia Department of Environmental Protection

**APPENDIX C: PERSONS AND AGENCIES CONTACTED**

<b>NAME AND TITLE</b>	<b>AFFILIATION</b>
Adam Payne, Secretary	Wisconsin Department of Natural Resources
Brian Nesvik, Director	Wyoming Game & Fish Department
Todd Parfitt, Director	Wyoming Department of Environmental Quality
<b>PUBLIC AND PRIVATE ORGANIZATIONS</b>	
Ramona Bartos, President	National Conference of State Historic Preservation Officers
General Contact Info	National Association of Tribal Historic Preservation Officers

# Appendix D: Scoping Comment Matrix

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**APPENDIX D: SCOPING COMMENT MATRIX**

COMMENT ID	FIRST NAME	LAST NAME	AFFILIATION	NATURE OF COMMENT	DATE COMMENT RECEIVED	MODE OF TRANSMITTAL	COMMENT
1	Christie	--	Colorado Water Quality Control Division	Information on the FSFL program	5/13/24	Email	Thanks for your message, but I am unsure who to direct this to. Can you please provide a bit more information about what this program is about?
2	Stefania	Muñoz	Texas Commission on Environmental Quality	PEA Scope of Analysis	5/13/24	Email	Thank you for your email. I have a couple of questions that I would like to ask: Are there any specific locations or environmental assessments for the Texas Commission on Environmental Quality (TCEQ) to review? Or is this just a notice? Have a great day!
3	Stefanie	Gutierrez	NOAA, Pacific Islands Regional Office	Change in stakeholder point of contact	5/13/24	Email	Greetings and thank you for reaching out regarding your environmental assessment. We kindly ask that you direct any NEPA-related correspondence to our NEPA office: <a href="mailto:pir.nepa@noaa.gov">pir.nepa@noaa.gov</a>
4	Bettina	Rayfield	Virginia Department of Environmental Quality	Method of PEA Submission	5/13/24	Email with Letter attachment	The email contained a letter with instructions on where to send the draft PEA for review.

**APPENDIX D: SCOPING COMMENT MATRIX**

COMMENT ID	FIRST NAME	LAST NAME	AFFILIATION	NATURE OF COMMENT	DATE COMMENT RECEIVED	MODE OF TRANSMITTAL	COMMENT
5	Marissa	Jimenez	Louisiana Department of Environmental Quality	PEA scope of analysis	5/14/24	Email	Good afternoon! Can we please have more detailed information related to the PEA and the scoping process? We are especially interested if there are any specific locations in Louisiana. Please send all Solicitations of Views (SOVs) requests and questions to SOVs@la.gov.
6	Scott	Slagor	Michigan State Historic Preservation Office	Section 106 Consultation	5/30/24	Email	Hello, I'm not familiar with the PEA process. What does this mean for Sec. 106 consultation?
7	Jennifer	Bellville-Marrion	Virginia Department of Historic Resources	Scoping feedback	6/11/24	Email with letter attachment	The email contained a letter stating that the Virginia Department of Historic Resources had no comments on the Proposed Action.

## **Appendix E: Environmental Screening Worksheet**

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## **Appendix F: Underground Storage Tank Permit/Notification Requirements by State**

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APPENDIX F: UNDERGROUND STORAGE TANK PERMIT/ NOTIFICATION REQUIREMENTS BY STATE		
STATE	PERMIT/NOTIFICATION REQUIREMENT	PERMIT/NOTIFICATION FORM LINK
Alabama	The owner or operator of an UST in Alabama must follow the notification requirements listed in Ala. Admin. Code § 335-6-15-.05.	<a href="#">Link</a>
Alaska	The owner or operator of an UST in Alaska must follow the requirements listed in 18 A.A.C. § 78.035.	<a href="#">Link</a>
Arizona	The owner or operator of an UST in Arizona must follow the notification requirements listed in A.A.C. § 18-12-222.	<a href="#">Link</a>
Arkansas	The owner or operator of an UST in Arkansas must follow the licensing requirements listed in A.C. § 8-7-805.	<a href="#">Link</a>
California	The owner or operator of an UST in California must follow the requirements listed in C.C.R. § 23-3-16.	<a href="#">Link</a>
Colorado	The owner or operator of an UST in Colorado must follow the requirements listed in 7 Colo. Code Regs § 1101-14-2-2.	<a href="#">Link</a>
Connecticut	The owner or operator of an UST in Connecticut must follow the requirements listed in § 22a-449(d)-a and Sections 22a-449(d) 101-113 of the Regulations for Connecticut State Agencies.	<a href="#">Link</a>
Delaware	The owner or operator of an UST in Delaware must follow the requirements listed in 7 Del. Admin. Code § 1351-A-1.0.	<a href="#">Link</a>
Florida	The owner or operator of an UST in Florida must follow the requirements listed in F.A.C. § 62-761.400.	<a href="#">Link</a>
Georgia	The owner or operator of an UST in Georgia must follow the notification requirements listed in GA. Code § 12-13-13 and the annual registration requirements listed in GA R&R § 391-3-15-.05.	<a href="#">Link for Notification</a>
		<a href="#">Link for Annual Registration</a>
Hawaii	The owner or operator of an UST in Hawaii must follow the permitting requirements listed in Haw. Code R. § 11-280.1-323.	<a href="#">Link</a>
Idaho	The owner or operator of an UST in Idaho must follow the requirements listed in I.D.A.P.A. § 58.01.07.	<a href="#">Link</a>
Illinois	The owner or operator of an UST in Illinois must follow the requirements listed in Ill. Admin Code. § 41:175.300.	<a href="#">Link</a>

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Indiana	The owner or operator of an UST in Indiana must follow the notification and registration requirements listed in 329 I.A.C. § 9-2-2.	<a href="#">Link for Initial Registration</a>
		<a href="#">Link for Change Notification Form</a>
Iowa	The owner or operator of an UST in Iowa must follow the requirements listed in I.A.C. § 567-135.3(3).	<a href="#">Link</a>
Kentucky	The owner or operator of an UST in Kentucky must follow the requirements listed in 401 K.A.R. § 42:020.	<a href="#">Link</a>
Louisiana	The owner or operator of an UST in Louisiana must follow the requirements listed in L.A.C. § 33:XI.301.	<a href="#">Link</a>
Maine	The owner or operator of an UST in Maine must follow the requirements listed in 38 M.C.R. § 096-695-5.	<a href="#">Link</a>
Maryland	The owner or operator of an UST in Maryland must follow the registration requirements listed in C.O.M.A.R. § 26.10.03.09.	<a href="#">Link</a>
Massachusetts	The owner or operator of an UST in Massachusetts must follow the requirements listed in 310 Mass. Reg. § 80.23.	<a href="#">Link</a>
Michigan	The owner or operator of an UST in Michigan must follow the requirements listed in M.C.L. § 324.21102.	<a href="#">Notice of Proposed Installation</a>
		<a href="#">Tank Registration</a>
Minnesota	The owner or operator of an UST in Minnesota must follow the notification and certification requirements listed in M.A.R. § 7150.0090.	<a href="#">Pre-Installation Notice</a>
		<a href="#">Post-Installation Notification</a>
Mississippi	The owner or operator of an UST in Mississippi must follow the notification requirements listed in M.A.C. § 11-5-2.2-280.22.	<a href="#">Link</a>
Missouri	The owner or operator of an UST in Missouri must follow the notification requirements listed in Mo. Code Regs 10 § 26-2.022.	<a href="#">Link</a>
Montana	The owner or operator of an UST in Montana must follow the requirements listed in A.R.M. § 17.56.13.	<a href="#">Link</a>
Nebraska	The owner or operator of an UST in Nebraska must follow the requirements listed in N.A.C. § 159-2.	<a href="#">Notification Link</a>
		<a href="#">Permit Application Link</a>
New Hampshire	The owner or operator of an UST in New Hampshire must follow the permitting and	<a href="#">Application Link</a>

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STATE	PERMIT/NOTIFICATION REQUIREMENT	PERMIT/NOTIFICATION FORM LINK
	notification requirements listed in N.H.C.A.R. § Env-Or-404.	<a href="#">Registration Link</a>
New Jersey	The owner or operator of an UST in New Jersey must follow the requirements listed in N.J.A.C. § 7:14B-9.2.	<a href="#">Notification Link</a>
		<a href="#">Registration Link</a>
New Mexico	The owner or operator of an UST in New Mexico must follow the requirements listed in N.M Code R. § 20.5.102.200.	<a href="#">Link</a>
New York	The owner or operator of an UST in New York must follow the requirements listed in 6 N.Y.C.R.R. § 613-1.9.	<a href="#">Link</a>
Nevada	The owner or operator of an UST in Nevada must follow the notification requirements listed in N.A.C. § 459.9947.	<a href="#">Mail Link</a>
		<a href="#">Online Link</a>
North Carolina	The owner or operator of an UST in North Carolina must follow the requirements listed in 15 N.C.A.C. § 02N.0303 and 15 N.C.A.C. § 02N.0304.	<a href="#">Permit Application Link</a>
		<a href="#">Application to Install Link</a>
Ohio	The owner or operator of an UST in Ohio must follow the requirements listed in Ohio Admin. Code § 1301: 7-9-04 and Ohio Admin. Code § 1301: 7-9-10.	<a href="#">Registration Link</a>
		<a href="#">Permit Application Link</a>
Oklahoma	The owner or operator of an UST in Oklahoma must follow the requirements listed in 17 O.S. § 308.	<a href="#">Link</a>
Oregon	The owner or operator of an UST in Oregon must follow the requirements listed in O.A.R. § 340-150-0020.	<a href="#">Link</a>
Pennsylvania	The owner or operator of an UST in Pennsylvania must follow the requirements listed in 25 Pa. Code § 245.203	<a href="#">Link</a>
Rhode Island	The owner or operator of an UST in Rhode Island must follow the requirements listed in 250 R. I. Code R. § 140-25-1.11.	<a href="#">Link</a>
South Carolina	The owner or operator of an UST in South Carolina must follow the requirements listed in SC Code § 44-2-10 et seq.	<a href="#">Link</a>
South Dakota	The owner or operator of an UST in South Dakota must follow the notification requirements listed in S.D. Admin R. § 74:56:01:011.	<a href="#">Link</a>
Tennessee	Owners of USTs in Tennessee shall follow the notification, reporting, and record keeping	<a href="#">Link</a>

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STATE	PERMIT/NOTIFICATION REQUIREMENT	PERMIT/NOTIFICATION FORM LINK
	requirements listed in Tenn. Comp. R. & Regs. § 0400-18-01-03.	
Texas	The owner or operator of an UST in Texas must follow the registration requirements listed in 30 TAC § 334.7.	<a href="#">Link</a>
Utah	The owner or operator of an UST in Utah must follow the notification requirements listed in Utah Administrative Code § R311-203-2.	<a href="#">Link</a>
Vermont	The owner or operator of an UST in Vermont must follow the notification and registration requirements listed in Vermont Administrative Code § 12-032-004-8, Subchapter 3.	<a href="#">Link</a>
Virginia	The owner or operator of an UST in Virginia must follow the notification requirements listed in 9 VAC § 25-580-70.	<a href="#">Link</a>
Washington	The owner or operator of an UST in Washington must follow the requirements listed in WAC § 173-360A-0820.	<a href="#">Link</a>
West Virginia	The owner or operator of an UST in West Virginia must follow the notification requirements listed in W. Va. Code § 22-17-8 and W. Va. Code § 22-17-9.	<a href="#">Notification Link</a>
		<a href="#">Installation/Upgrade Permit Link</a>
Wisconsin	The owner or operator of an UST in Wisconsin must follow the registration requirements listed in (Wis. Adm Code § ATCP 93145.	<a href="#">Link</a>
Wyoming	The owner or operator of an UST in Wyoming must follow the notification requirements listed in W.S. § 35-11-1419; W.S. § 35-11-1420.	<a href="#">Link</a>