



TOWN OF DENTON, MARYLAND

4 N. Second Street
Denton, Maryland 21629-1004

REQUEST FOR PROPOSALS

Denton Sludge Management Upgrade Study
Preliminary Engineering Report and Environment Report

SUBMITTALS DUE: March 23rd, 2022

MAIL TO:

**Town of Denton, Public Works
Attn: Mark Chandler
650 Legion Road
Denton, Maryland 21629**

GENERAL INFORMATION

The Denton WWTP was built in 1999 as a biological nutrient removal (BNR) plant to replace three failing facultative lagoons. The Treatment Plant was designed for an average daily flow of 800,000 gallons and for a peak hourly flow of 2.67 million gallons. In 2010, the treatment plant was upgraded to ENR standards.

The plant operates by the activated sludge process with nitrogen conversion. Phosphorus removal by chemical precipitation is also provided. Included in the process is a head chamber, screening, grit removal, aeration (Biolac) reactor basins, denitrification (post anoxic) reactor basins, secondary clarifiers, ultraviolet disinfection, and post aeration. Sludge handling consists of a sludge holding basin and sand/reed sludge drying beds. The existing sludge management components are detailed in Exhibit 1.

Since circa 2015, the challenges and expense of sludge disposal have been increasing. Some of these issues are related to handling additional sludge resulting from the ENR upgrade in 2010. Each year the costs associated with the disposal of sludge to the landfill are amplified as a direct result of the growing volume of sludge. These rising costs are anticipated to continue to increase as the operations team attempts to keep the reed drying beds from accumulating beyond their design capacity. Each reed drying bed is 30x70 feet and there are 16 beds. Each bed should not accumulate beyond 3-feet of sludge. Currently, most beds have sludge accumulation beyond 3-feet in depth. The operation team attempts to clean at least 2 beds per year. Due to the escalating costs, budget restraints and manpower shortages, cleaning more beds per year are not possible.

Sludge production costs for the last 3-years:

- 2018 = \$14,547
- 2019 = \$31,824
- 2020 = \$39,628

SCOPE OF SERVICES

Preliminary Engineering Report/Environmental Report:

The Town is looking to complete a Preliminary Engineering Report to study alternatives to the current sludge management system. Alternatives such as installing a mechanical dewatering device, constructing additional reed drying beds, converting the existing sludge holding tank to an MBR digester and land application will be considered.

With the soaring costs and operational challenges of the existing sludge management system, it makes sense to look at alternatives for sludge management. An alternative system, or a supplemental system, should result in a more effective and sustainable long-term solution for sludge management, both fiscally and operationally. The existing sludge management system is not sustainable for long term compliance.

The engineer shall study the current sludge management system to help the town determine areas of deficiency, analyze the system for project needs and alternatives, and project cost estimates. This PER/ER shall follow the guidelines provided in the federal interagency memorandum (USDA-RD Attachment A). The engineer shall examine actual records and sample data and make arrangements for additional testing

and/or data collection if the existing information is inadequate. The engineer shall solicit input and cooperate with Town personnel during the study to produce the optimum recommendation.

QUALIFICATIONS

The firm must have five (5) or more years of related experience and have appropriate licensure in the State of Maryland.

DEADLINES

Deadline for questions and clarifications:

All questions regarding the proposal and project must be received at the Public Works Department by close of business, **4pm, Wednesday, March 16th, 2022**, one week prior to the proposal submission deadline. Questions must be submitted in writing via regular mail, email, fax or hand delivery to the address and phone number shown above, or via e-mail at mchandler@dentonmaryland.com.

Deadline:

Submissions shall be due on **Wednesday, March 23rd, 2022, 2PM** local time, to the **Town of Denton Public Works, Attn: Mark Chandler, 650 Legion Road, Denton, Maryland 21629**. Late proposals shall not be accepted. The town will not be responsible for delay caused by mail service or for lack of verification when a return receipt is not requested by the firm. One (1) original and one (1) copy shall be provided in sealed envelopes. A pdf should also be provided on a CD.

FORM OF PROPOSAL

Proposals must contain all required information, whether expressly stated in writing, verbally expressed or addressed subsequently via written question and answer prior to the submission deadline. Firms may use standard industry forms, if any, in conjunction with a written narrative or such other forms as may be deemed appropriate so long as none of the required information is omitted. The town reserves the right to reject or accept any or all proposals, to waive any informalities and to otherwise act in the best interest of the Town in the evaluation and award of this contract for services.

The proposals shall be submitted in a sealed envelope,

The response to the request for qualifications shall consist of the following elements:

1. Letter of interest signed by the principal of the firm who would be in charge.
2. Description of the firm:
 - a. Synopsis of the qualifications
 - b. Summary of five similar projects, at least two of which are Preliminary Engineering Reports and Environment Reports for sludge management. Provide up-to-date contact information (name, title, phone number(s), e-mail address, mailing address) for the owners of these projects.
3. Description of the project team:
 - a. Location of the office from which the work would be based
 - b. Resumes of all key personnel on the project team
 - c. A flow chart showing authority and accountability for each individual and their specific roles and responsibilities in the project

- d. Listing of PER/ER projects and other major projects on which key personnel are presently working
4. Description of the technical approach to the project. Provide a narrative on how the firm would approach the study. How many alternatives would be screened and how many would be developed further with detailed cost estimates? What field data would be collected? What steps would the firm take to ascertain the best solution for the town? Additionally, provide a preliminary list of technologies (subject to change, based on input by the Town and others) to be considered for this project.
5. Anticipated timeline to complete the study.
6. Administrative Information: Proof of insurance coverage sufficient to protect the town from any potential liability during the course of the project(s). The town will be the sole determiner of the sufficiency of coverage and what constitutes acceptable proof of coverage. Submit documents required by the USDA-RD (Attachment A).

EVALUATION CRITERIA

Proposals will be rated based on a comprehensive review of the firm's understanding of the project, stated approach, qualifications of the firm and the individuals assigned to the project, expertise and experience with similar projects and resources available to provide the services required in a timely fashion, with the following weighting being used:

Experience with projects of similar scope	(25%)
Qualifications of the team members	(25%)
Review of the firm's detailed scope of services	(25%)
Cost Proposal (lump sum and hourly pricing)	(25%)

REJECTION OF SUBMITTALS

The Town of Denton reserves the right to reject any and all submittals and to waive irregularities in the evaluation process.

CONTRACT AWARD

The Town of Denton will score proposals using the above evaluation criteria and select the firm with the highest ranking. The selected firm shall enter into a contract for PER/ER services with the Town based on their submission. Authorization for work shall be granted by the Town prior to the firm commencing any work under the contract.

The Town of Denton reserves the right to negotiate and award additional phases of the project (design, bidding, construction management and inspection services) to the selected firm via contract amendment.

CONTRACT NEGOTIATION

The Town of Denton reserves the right to negotiate final contract elements of the submittals, proposals, terms and conditions, and/or scope of work prior to any formal contract award.

EQUAL OPPORTUNITY EMPLOYMENT

The Town of Denton is an equal opportunity employer that is committed to diversity and inclusion in the workplace. We prohibit discrimination and harassment of any kind based on race, color, sex, religion, sexual orientation, national origin, disability, or any other protected characteristic as outlined by federal, state, or local laws.

ATTACHMENTS

Exhibit 1: Existing Sludge Management Components (Map)

Attachment A: USDA-RD Interagency Memo: PER/ER (2013)

REQUEST FOR PROPOSALS

Town of Denton Sludge Management Study PER/ER

SEALED PRICE PROPOSAL

ITEM NO.	WORK TASK	UNIT	PRICE
1	Preliminary Engineering Report	Lump Sum	\$ _____
2	Environmental Report	Lump Sum	\$ _____
TOTAL OF ITEMS NO. 1 + 2			\$ _____

Name of Firm: _____

Printed Name: _____

Signed: _____

Date: _____

- Attach a schedule of rates for services showing hourly rates for key staff, overhead, profit, and unit costs for reimbursables. This will be used for negotiation of contract amendments.

[illegible]

PRINTS ISSUED FOR:

DATE _____

REVISIONS

NO.

GMB
GEORGE MILES & BOND LLC

GEORGE, MILES, & BUHR, LLC
ARCHITECTS & ENGINEERS
 SALISBURY BALTIMORE SEAFORD
 206 WEST MAIN STREET
 SALISBURY, MARYLAND 21801
 410 - 742 - 3115, FAX 410 - 548 - 5790
www.gmbnet.com

SLUDGE MANAGEMENT IMPROVEMENT PROJECT EXISTING CONDITIONS DENTON WWTP

EXHIBIT 1

SCALE	AS NOTED	SHEET NO.
DESIGN BY		
DRAWN BY	GHN	
CHECKED BY		
GMB FILE	200110	
DATE	8-31-20	EX. 1

UNITED STATES DEPARTMENT OF AGRICULTURE
Rural Utilities Service

BULLETIN 1780-2

SUBJECT: Preliminary Engineering Reports for the Water and Waste Disposal Program

TO: Rural Development State Directors, RUS Program Directors, and State Engineers

EFFECTIVE DATE: Date of approval.

OFFICE OF PRIMARY INTEREST: Engineering and Environmental Staff, Water and Environmental Programs

INSTRUCTIONS: This bulletin replaces existing RUS Bulletins 1780-2 (September 10, 2003), 1780-3 (October 2, 2003), 1780-4 (October 2, 2003), and 1780-5 (October 2, 2003).

AVAILABILITY: This bulletin and all the exhibits, as well as any Rural Development instruction or Rural Utilities Service instructions, regulations, or forms referenced in this bulletin are available at any Rural Development State Office. The State Office staff is familiar with the use of the documents in their States and can answer specific questions on Agency requirements.

This bulletin is available on the Rural Utilities Service website at
http://www.rurdev.usda.gov/RDU_Bulletins_Water_and_Environmental.html.

PURPOSE: This bulletin assists applicants and their consultants with instructions on how to prepare a Preliminary Engineering Report as part of an application for funding as required by 7 CFR 1780.33(c) and 7 CFR 1780.55.

MODIFICATIONS: Rural Development State Offices may modify this guidance when appropriate to comply with State statutes and regulations in accordance with the procedures outlined at Rural Development Instruction 2006-B (2006.55).



JACQUELINE M. PONTI-LAZARUK
Assistant Administrator
Water and Environmental Programs

4/4/13

Date

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Exhibit One Interagency Preliminary Engineering Report Template

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Application Document
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Project Planning
Water and Waste Disposal Facilities

ABBREVIATIONS

CDBG – Community Development Block Grant
CFR – Code of Federal Regulations
EDU – Equivalent Dwelling Unit
EPA – Environmental Protection Agency
GAO – Government Accountability Office
GPCD – Gallons per Capita per Day
HUD – Department of Housing and Urban Development
O & M – Operations and Maintenance
PER – Preliminary Engineering Report
RD – Rural Development
RUS – Rural Utilities Service
SRF – State Revolving Fund
USDA – United States Department of Agriculture
WEP – Water and Environmental Programs
WWD – Water and Waste Disposal

1 GENERAL

A PER is a planning document required by many state and federal agencies as part of the process of obtaining financial assistance for development of drinking water, wastewater, solid waste, and stormwater projects. An applicant for funding from the WWD program must submit a PER as required by 7 CFR 1780.33(c) and 1780.55. The PER describes the proposed project from an engineering perspective, analyzes alternatives to the proposal, defines project costs, and provides information critical to the underwriting process.

In 2012 the USDA, Rural Development (RD), Rural Utilities Service, Water and Environmental Programs formed a working group to develop an interagency template for PERs for use by both federal agencies and state administering agencies. The USDA-led working group included 36 individuals representing 4 federal agencies, 16 state agencies, the Border Environment Cooperation Commission, and the North Carolina Rural Center. Also, the effort was supported by the Small Community Water Infrastructure Exchange. On January 16, 2013, the principals of the federal participants executed an interagency memorandum supporting use of the interagency template, attached as Exhibit One.

2. PURPOSE

This bulletin provides information and guidance for applicants and professional consultants in developing a PER for submittal with an application for funding. RD State Offices should provide a copy of the Bulletin to applicants and consulting engineers upon request or refer them to the website listed on the Bulletin's cover sheet for an electronic copy.

3 HOW TO USE THE INTERAGENCY TEMPLATE

There has been increasing interest throughout the government at both state and federal levels to improve coordination between funding agencies in the processes involved in applications for infrastructure funding. A recent GAO report, "Rural Water Infrastructure: Additional Coordination Can Help Avoid Potentially Duplicative Application Requirements" (GAO-13-111), released October 16, 2012, called the effort of the working group led by USDA to develop the attached Interagency PER Template "encouraging" and stated that it would "help communities".

Content of a PER: The attached Interagency PER Template describes the content of a PER and should be used without modification, except for items noted below. Often an applicant will initially consider only a single funding source and later determine that an application to additional funding agencies is necessary. To avoid having to revise the PER to meet the additional agencies' needs, the consulting engineer should provide

responses to all sections of the PER outline, unless specific sections do not apply to a proposed project.

Short-Lived Assets: The short-lived asset table in Appendix A is a list of examples of short-lived assets. Depending on local practices and applicants, some of these items may not be considered short-lived assets if they are considered part of O&M or long-term capital financing. Consulting engineers and applicants should coordinate with each other and with the Agency to determine which items should be considered short-lived assets for specific projects.

Engaging State Partners: State Offices should engage funding partners to encourage state-wide adoption of the attached template as a standard for all state leveraging partners. Existing state-level agreements resulting from previous coordinated efforts for adopting a standard PER outline must be modified or replaced with this template. Efforts underway to adopt new state-level PER outlines must use this template. State-level agreements implementing this template between various leveraging partners should keep additional requirements to a minimum, but should not remove any required sections from the template.

Income Projections for Underwriting Purposes:

The State Office uses some of the information from the PER, especially Sections 6 (e) and (f), for underwriting purposes. Note that for income projection purposes, every effort should be made to identify actual data regarding water usage or wastewater generation. For metered systems, actual data should be used.

When financing construction of a new system or improvements to an existing system without any existing usage data, water use and wastewater generation approximations for income projection purposes should, if at all possible, be based on information from surrounding similar communities and systems. The source of data used should be documented in the PER.

The value of 100 GPCD shown in Section 6 is a general value and may not be appropriate for many rural systems financed with WWD funds, so in the absence of reliable data, a value of 5000 gallons per EDU per month (approximately 67 GPCD or 167 GPD per EDU) should be used.

Exhibit One: Interagency Preliminary Engineering Report Template



January 16, 2013

INTERAGENCY MEMORANDUM

Attached is a document explaining recommended best practice for the development of Preliminary Engineering Reports in support of funding applications for development of drinking water, wastewater, stormwater, and solid waste systems.

The best practice document was developed cooperatively by:

- [US Department of Agriculture, Rural Development, Rural Utilities Service, Water and Environmental Programs;](#)
- [US Environmental Protection Agency \(EPA\), Office of Water, Office of Ground Water and Drinking Water and Office of Wastewater Management;](#)
- [US Department of Housing and Urban Development \(HUD\), Office of Community Planning and Development;](#)
- [US Department of Health and Human Services, Indian Health Service \(IHS\);](#)
- [Small Communities Water Infrastructure Exchange;](#)

Extensive input from participating state administering agencies was also very important to the development of this document.

Federal agencies that cooperatively developed this document strongly encourage its use by funding agencies as part of the application process or project development. State administered programs are encouraged to adopt this document but are not required to do so, as it is up to a state administering agency's discretion to adopt it, based on the needs of the state administering agency.

A Preliminary Engineering Report (Report) is a planning document required by many state and federal funding agencies as part of the process of obtaining financial assistance for development of drinking water, wastewater, solid waste, and stormwater facilities. The attached Report outline details the requirements that funding agencies have adopted when a Report is required.

In general the Report should include a description of existing facilities and a description of the issues being addressed by the proposed project. It should identify alternatives, present a life cycle cost analysis of technically feasible alternatives and propose a specific course of action. The Report should also include a detailed current cost estimate of the recommended alternative. The attached outline describes these and other sections to be included in the Report.

Projects utilizing direct federal funding also require an environmental review in accordance with the National Environmental Policy Act (NEPA). The Report should indicate that environmental issues were considered as part of the engineering planning and include environmental information pertinent to engineering planning.

For state administered funding programs, a determination of whether the outline applies to a given program or project is made by the state administering agency. When a program or agency adopts this outline, it may adopt a portion or the entire outline as applicable to the program or project in question at the discretion of the agency. Some state and federal funding agencies will not require the Report for every project or may waive portions of the Report that do not apply to their application process, however a Report thoroughly addressing all of the contents of this outline will meet the requirements of most agencies that have adopted this outline.

The detailed outline provides information on what to include in a Report. The level of detail required may also vary according to the complexity of the specific project. Reports should conform substantially to this detailed outline and otherwise be prepared and presented in a professional manner. Many funding agencies require that the document be developed by a Professional Engineer registered in the state or other jurisdiction where the project is to be constructed unless exempt from this requirement. Please check with applicable funding agencies to determine if the agencies require supplementary information beyond the scope of this outline.


Any preliminary design information must be written in accordance with the regulatory requirements of the state or territory where the project will be built.


Information provided in the Report may be used to process requests for funding. Completeness and accuracy are therefore essential for timely processing of an application. Please contact the appropriate state or federal funding agencies with any questions about development of the Report and applications for funding as early in the process as practicable.

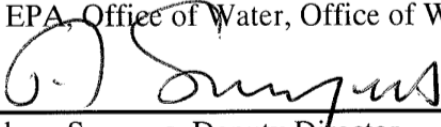
Questions about this document should be referred to the applicable state administering agency, regional office of the applicable federal agency, or to the following federal contacts:

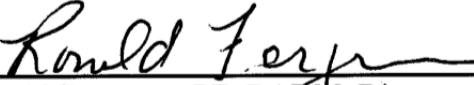
Agency	Contact	Email Address	Phone
USDA/RUS	Benjamin Shuman, PE	ben.shuman@wdc.usda.gov	202-720-1784
EPA/DWSRF	Kirsten Anderer, PE	anderer.kirsten@epa.gov	202-564-3134
EPA/CWSRF	Matt King	king.matt@epa.gov	202-564-2871
HUD	Stephen Rhodeside	stephen.m.rhodeside@hud.gov	202-708-1322
IHS	Dana Baer, PE	dana.baer@ihs.gov	301-443-1345


Sincerely,

 1/16/13
Jacqueline M. Ponti-Lazaruk, Assistant Administrator
USDA, Rural Development, Rural Utilities Service, Water and Environmental Programs

 01/16/13
Sheila Frace, Acting Deputy Director
US EPA, Office of Water, Office of Wastewater Management

 1/16/13
Andrew Sawyers, Deputy Director
US EPA, Director, Office of Water, Office of Ground Water and Drinking Water

 1/16/13
Ronald Ferguson, PE, RADM, Director
Division of Sanitation Facilities Construction, Indian Health Service

 1-16-13
Stanley Gimont, Director
Office of Block Grant Assistance, US Department of Housing and Urban Development

Attachment

WORKING GROUP CONTRIBUTORS

Federal Agency Partners	
USDA, Rural Development, Rural Utilities Service (Chair)	Benjamin Shuman, PE
EPA, Office of Water, Office of Ground Water and Drinking Water	Kirsten Anderer, PE
EPA, Office of Water, Office of Ground Water and Drinking Water	CAPT David Harvey, PE
EPA, Office of Water, Office of Wastewater Management	Matt King
EPA, Office of Water, Office of Wastewater Management	Joyce Hudson
EPA, Region 1	Carolyn Hayek
EPA, Region 9	Abimbola Odusoga
HUD, Office of Community Planning and Development	Stephen M. Rhodeside
HUD, Office of Community Planning and Development	Eva Fontheim
Indian Health Service	CAPT Dana Baer, PE
Indian Health Service	LCDR Charissa Williar, PE
USDA, Rural Development, Florida State Office	Michael Langston
USDA, Rural Development, Florida State Office	Steve Morris, PE

State Agency and Interagency Partners	
Arizona Water Infrastructure Finance Authority	Dean Moulis, PE
Border Environment Cooperation Commission	Joel Mora, PE
Colorado Department of Local Affairs	Barry Cress
Colorado Department of Public Health & Environment	Michael Beck
Colorado Department of Public Health & Environment	Bret Icenogle, PE
Georgia Office of Community Development	Steed Robinson
Idaho, Department of Environmental Quality	Tim Wendland
Indiana Finance Authority	Emma Kottlowski
Indiana Finance Authority	Shelley Love
Indiana Finance Authority	Amanda Rickard, PE
Kentucky Division of Water	Shafiq Amawi
Kentucky Department of Local Government	Jennifer Peters
Louisiana Department of Environmental Quality	Jonathan McFarland, PE
Maine Department of Health and Human Services	Norm Lamie, PE
Minnesota Pollution Control Agency	Amy Douville
Minnesota Pollution Control Agency	Corey Mathisen, PE
Missouri Department of Natural Resources	Cynthia Smith
Montana Department of Commerce	Kate Miller, PE
North Carolina Department of Commerce	Olivia Collier
North Carolina Rural Center	Keith Krzywicki, PE
North Carolina Department of Commerce	Vickie Miller, CPM
Rhode Island Department of Health	Gary Chobanian, PE
Rhode Island Department of Health	Geoffrey Marchant

ABBREVIATIONS

NEPA – National Environmental Policy Act

NPV – Net Present Value

O&M – Operations and Maintenance

OMB – Office of Management and Budget

Report – Preliminary Engineering Report

SPPW – Single Payment Present Worth

USPW – Uniform Series Present Worth

GENERAL OUTLINE OF A PRELIMINARY ENGINEERING REPORT

- 1) PROJECT PLANNING
 - a) Location
 - b) Environmental Resources Present
 - c) Population Trends
 - d) Community Engagement
- 2) EXISTING FACILITIES
 - a) Location Map
 - b) History
 - c) Condition of Existing Facilities
 - d) Financial Status of any Existing Facilities
 - e) Water/Energy/Waste Audits
- 3) NEED FOR PROJECT
 - a) Health, Sanitation, and Security
 - b) Aging Infrastructure
 - c) Reasonable Growth
- 4) ALTERNATIVES CONSIDERED
 - a) Description
 - b) Design Criteria
 - c) Map
 - d) Environmental Impacts
 - e) Land Requirements
 - f) Potential Construction Problems
 - g) Sustainability Considerations
 - i) Water and Energy Efficiency
 - ii) Green Infrastructure
 - iii) Other
 - h) Cost Estimates
- 5) SELECTION OF AN ALTERNATIVE
 - a) Life Cycle Cost Analysis
 - b) Non-Monetary Factors
- 6) PROPOSED PROJECT (RECOMMENDED ALTERNATIVE)
 - a) Preliminary Project Design
 - b) Project Schedule
 - c) Permit Requirements
 - d) Sustainability Considerations
 - i) Water and Energy Efficiency
 - ii) Green Infrastructure

- iii) Other
- e) Total Project Cost Estimate (Engineer's Opinion of Probable Cost)
- f) Annual Operating Budget
 - i) Income
 - ii) Annual O&M Costs
 - iii) Debt Repayments
 - iv) Reserves

7) CONCLUSIONS AND RECOMMENDATIONS

DETAILED OUTLINE OF A PRELIMINARY ENGINEERING REPORT

1) PROJECT PLANNING

Describe the area under consideration. Service may be provided by a combination of central, cluster, and/or centrally managed individual facilities. The description should include information on the following:

- a) Location. Provide scale maps and photographs of the project planning area and any existing service areas. Include legal and natural boundaries and a topographical map of the service area.
- b) Environmental Resources Present. Provide maps, photographs, and/or a narrative description of environmental resources present in the project planning area that affect design of the project. Environmental review information that has already been developed to meet requirements of NEPA or a state equivalent review process can be used here.
- c) Population Trends. Provide U.S. Census or other population data (including references) for the service area for at least the past two decades if available. Population projections for the project planning area and concentrated growth areas should be provided for the project design period. Base projections on historical records with justification from recognized sources.
- d) Community Engagement. Describe the utility's approach used (or proposed for use) to engage the community in the project planning process. The project planning process should help the community develop an understanding of the need for the project, the utility operational service levels required, funding and revenue strategies to meet these requirements, along with other considerations.

2) EXISTING FACILITIES

Describe each part (e.g. processing unit) of the existing facility and include the following information:

- a) Location Map. Provide a map and a schematic process layout of all existing facilities. Identify facilities that are no longer in use or abandoned. Include photographs of existing facilities.
- b) History. Indicate when major system components were constructed, renovated, expanded, or removed from service. Discuss any component failures and the cause for the failure. Provide a history of any applicable violations of regulatory requirements.
- c) Condition of Existing Facilities. Describe present condition; suitability for continued use; adequacy of current facilities; and their conveyance, treatment, storage, and disposal capabilities. Describe the existing capacity of each component. Describe and reference compliance with applicable federal, state, and local laws. Include a brief analysis of overall current energy consumption. Reference an asset management plan if applicable.

- d) Financial Status of any Existing Facilities. (Note: Some agencies require the owner to submit the most recent audit or financial statement as part of the application package.) Provide information regarding current rate schedules, annual O&M cost (with a breakout of current energy costs), other capital improvement programs, and tabulation of users by monthly usage categories for the most recent typical fiscal year. Give status of existing debts and required reserve accounts.
- e) Water/Energy/Waste Audits. If applicable to the project, discuss any water, energy, and/or waste audits which have been conducted and the main outcomes.

3) NEED FOR PROJECT

Describe the needs in the following order of priority:

- a) Health, Sanitation, and Security. Describe concerns and include relevant regulations and correspondence from/to federal and state regulatory agencies. Include copies of such correspondence as an attachment to the Report.
- b) Aging Infrastructure. Describe the concerns and indicate those with the greatest impact. Describe water loss, inflow and infiltration, treatment or storage needs, management adequacy, inefficient designs, and other problems. Describe any safety concerns.
- c) Reasonable Growth. Describe the reasonable growth capacity that is necessary to meet needs during the planning period. Facilities proposed to be constructed to meet future growth needs should generally be supported by additional revenues. Consideration should be given to designing for phased capacity increases. Provide number of new customers committed to this project.

4) ALTERNATIVES CONSIDERED

This section should contain a description of the alternatives that were considered in planning a solution to meet the identified needs. Documentation of alternatives considered is often a Report weakness. Alternative approaches to ownership and management, system design (including resource efficient or green alternatives), and sharing of services, including various forms of partnerships, should be considered. In addition, the following alternatives should be considered, if practicable: building new centralized facilities, optimizing the current facilities (no construction), developing centrally managed decentralized systems, including small cluster or individual systems, and developing an optimum combination of centralized and decentralized systems. Alternatives should be consistent with those considered in the NEPA, or state equivalent, environmental review. Technically infeasible alternatives that were considered should be mentioned briefly along with an explanation of why they are infeasible, but do not require full analysis. For each technically feasible alternative, the description should include the following information:

- a) Description. Describe the facilities associated with every technically feasible alternative. Describe source, conveyance, treatment, storage and distribution

facilities for each alternative. A feasible system may include a combination of centralized and decentralized (on-site or cluster) facilities.

- b) Design Criteria. State the design parameters used for evaluation purposes. These parameters should comply with federal, state, and agency design policies and regulatory requirements.
- c) Map. Provide a schematic layout map to scale and a process diagram if applicable. If applicable, include future expansion of the facility.
- d) Environmental Impacts. Provide information about how the specific alternative may impact the environment. Describe only those unique direct and indirect impacts on floodplains, wetlands, other important land resources, endangered species, historical and archaeological properties, etc., as they relate to each specific alternative evaluated. Include generation and management of residuals and wastes.
- e) Land Requirements. Identify sites and easements required. Further specify whether these properties are currently owned, to be acquired, leased, or have access agreements.
- f) Potential Construction Problems. Discuss concerns such as subsurface rock, high water table, limited access, existing resource or site impairment, or other conditions which may affect cost of construction or operation of facility.
- g) Sustainability Considerations. Sustainable utility management practices include environmental, social, and economic benefits that aid in creating a resilient utility.
 - i) Water and Energy Efficiency. Discuss water reuse, water efficiency, water conservation, energy efficient design (i.e. reduction in electrical demand), and/or renewable generation of energy, and/or minimization of carbon footprint, if applicable to the alternative. Alternatively, discuss the water and energy usage for this option as compared to other alternatives.
 - ii) Green Infrastructure. Discuss aspects of project that preserve or mimic natural processes to manage stormwater, if applicable to the alternative. Address management of runoff volume and peak flows through infiltration, evapotranspiration, and/or harvest and use, if applicable.
 - iii) Other. Discuss any other aspects of sustainability (such as resiliency or operational simplicity) that are incorporated into the alternative, if applicable.
- h) Cost Estimates. Provide cost estimates for each alternative, including a breakdown of the following costs associated with the project: construction, non-construction, and annual O&M costs. A construction contingency should be included as a non-construction cost. Cost estimates should be included with the descriptions of each technically feasible alternative. O&M costs should include a rough breakdown by O&M category (see example below) and not just a value for each alternative. Information from other sources, such as the recipient's accountant or other known technical service providers, can be incorporated to assist in the development of this section. The cost derived will be used in the life cycle cost analysis described in Section 5 a.

Example O&M Cost Estimate	
Personnel (i.e. Salary, Benefits, Payroll Tax, Insurance, Training)	
Administrative Costs (e.g. office supplies, printing, etc.)	
Water Purchase or Waste Treatment Costs	
Insurance	
Energy Cost (Fuel and/or Electrical)	
Process Chemical	
Monitoring & Testing	
Short Lived Asset Maintenance/Replacement*	
Professional Services	
Residuals Disposal	
Miscellaneous	
Total	

* See Appendix A for example list

5) SELECTION OF AN ALTERNATIVE

Selection of an alternative is the process by which data from the previous section, “Alternatives Considered” is analyzed in a systematic manner to identify a recommended alternative. The analysis should include consideration of both life cycle costs and non-monetary factors (i.e. triple bottom line analysis: financial, social, and environmental). If water reuse or conservation, energy efficient design, and/or renewable generation of energy components are included in the proposal provide an explanation of their cost effectiveness in this section.

- a) Life Cycle Cost Analysis. A life cycle present worth cost analysis (an engineering economics technique to evaluate present and future costs for comparison of alternatives) should be completed to compare the technically feasible alternatives. Do not leave out alternatives because of anticipated costs; let the life cycle cost analysis show whether an alternative may have an acceptable cost. This analysis should meet the following requirements and should be repeated for each technically feasible alternative. Several analyses may be required if the project has different aspects, such as one analysis for different types of collection systems and another for different types of treatment.
 1. The analysis should convert all costs to present day dollars;
 2. The planning period to be used is recommended to be 20 years, but may be any period determined reasonable by the engineer and concurred on by the state or federal agency;
 3. The discount rate to be used should be the “real” discount rate taken from Appendix C of OMB circular A-94 and found at (www.whitehouse.gov/omb/circulars/a094/a94_appx-c.html);
 4. The total capital cost (construction plus non-construction costs) should be included;

5. Annual O&M costs should be converted to present day dollars using a uniform series present worth (USPW) calculation;
6. The salvage value of the constructed project should be estimated using the anticipated life expectancy of the constructed items using straight line depreciation calculated at the end of the planning period and converted to present day dollars;
7. The present worth of the salvage value should be subtracted from the present worth costs;
8. The net present value (NPV) is then calculated for each technically feasible alternative as the sum of the capital cost (C) plus the present worth of the uniform series of annual O&M (USPW (O&M)) costs minus the single payment present worth of the salvage value (SPPW(S)):

$$NPV = C + USPW (O\&M) - SPPW (S)$$

9. A table showing the capital cost, annual O&M cost, salvage value, present worth of each of these values, and the NPV should be developed for state or federal agency review. All factors (major and minor components), discount rates, and planning periods used should be shown within the table;
10. Short lived asset costs (See Appendix A for examples) should also be included in the life cycle cost analysis if determined appropriate by the consulting engineer or agency. Life cycles of short lived assets should be tailored to the facilities being constructed and be based on generally accepted design life. Different features in the system may have varied life cycles.

- b) Non-Monetary Factors. Non-monetary factors, including social and environmental aspects (e.g. sustainability considerations, operator training requirements, permit issues, community objections, reduction of greenhouse gas emissions, wetland relocation) should also be considered in determining which alternative is recommended and may be factored into the calculations.

6) PROPOSED PROJECT (RECOMMENDED ALTERNATIVE)

The engineer should include a recommendation for which alternative(s) should be implemented. This section should contain a fully developed description of the proposed project based on the preliminary description under the evaluation of alternatives. Include a schematic for any treatment processes, a layout of the system, and a location map of the proposed facilities. At least the following information should be included as applicable to the specific project:

- a) Preliminary Project Design.

- i) Drinking Water:

Water Supply. Include requirements for quality and quantity. Describe recommended source, including site and allocation allowed.

Treatment. Describe process in detail (including whether adding, replacing, or rehabilitating a process) and identify location of plant and site of any process discharges. Identify capacity of treatment plant (i.e. Maximum Daily Demand).

Storage. Identify size, type and location.

Pumping Stations. Identify size, type, location and any special power requirements. For rehabilitation projects, include description of components upgraded.

Distribution Layout. Identify general location of new pipe, replacement, or rehabilitation: lengths, sizes and key components.

ii) Wastewater/Reuse:

Collection System/Reclaimed Water System Layout. Identify general location of new pipe, replacement or rehabilitation: lengths, sizes, and key components.

Pumping Stations. Identify size, type, site location, and any special power requirements. For rehabilitation projects, include description of components upgraded.

Storage. Identify size, type, location and frequency of operation.

Treatment. Describe process in detail (including whether adding, replacing, or rehabilitating a process) and identify location of any treatment units and site of any discharges (end use for reclaimed water). Identify capacity of treatment plant (i.e. Average Daily Flow).

iii) Solid Waste:

Collection. Describe process in detail and identify quantities of material (in both volume and weight), length of transport, location and type of transfer facilities, and any special handling requirements.

Storage. If any, describe capacity, type, and site location.

Processing. If any, describe capacity, type, and site location.

Disposal. Describe process in detail and identify permit requirements, quantities of material, recycling processes, location of plant, and site of any process discharges.

iv) Stormwater:

Collection System Layout. Identify general location of new pipe, replacement or rehabilitation: lengths, sizes, and key components.

Pumping Stations. Identify size, type, location, and any special power requirements.

Treatment. Describe treatment process in detail. Identify location of treatment facilities and process discharges. Capacity of treatment process should also be addressed.

Storage. Identify size, type, location and frequency of operation.

Disposal. Describe type of disposal facilities and location.

Green Infrastructure. Provide the following information for green infrastructure alternatives:

- Control Measures Selected. Identify types of control measures selected (e.g., vegetated areas, planter boxes, permeable pavement, rainwater cisterns).
- Layout: Identify placement of green infrastructure control measures, flow paths, and drainage area for each control measure.
- Sizing: Identify surface area and water storage volume for each green infrastructure control measure. Where applicable, soil infiltration rate, evapotranspiration rate, and use rate (for rainwater harvesting) should also be addressed.
- Overflow: Describe overflow structures and locations for conveyance of larger precipitation events.

- b) Project Schedule. Identify proposed dates for submittal and anticipated approval of all required documents, land and easement acquisition, permit applications, advertisement for bids, loan closing, contract award, initiation of construction, substantial completion, final completion, and initiation of operation.
- c) Permit Requirements. Identify any construction, discharge and capacity permits that will/may be required as a result of the project.
- d) Sustainability Considerations (if applicable).
 - i) Water and Energy Efficiency. Describe aspects of the proposed project addressing water reuse, water efficiency, and water conservation, energy efficient design, and/or renewable generation of energy, if incorporated into the selected alternative.
 - ii) Green Infrastructure. Describe aspects of project that preserve or mimic natural processes to manage stormwater, if applicable to the selected alternative. Address management of runoff volume and peak flows through infiltration, evapotranspiration, and/or harvest and use, if applicable.
 - iii) Other. Describe other aspects of sustainability (such as resiliency or operational simplicity) that are incorporated into the selected alternative, if incorporated into the selected alternative.
- e) Total Project Cost Estimate (Engineer's Opinion of Probable Cost). Provide an itemized estimate of the project cost based on the stated period of construction. Include construction, land and right-of-ways, legal, engineering, construction program management, funds administration, interest, equipment, construction contingency, refinancing, and other costs associated with the proposed project. The construction subtotal should be separated out from the non-construction costs. The non-construction subtotal should be included and added to the

construction subtotal to establish the total project cost. An appropriate construction contingency should be added as part of the non-construction subtotal. For projects containing both water and waste disposal systems, provide a separate cost estimate for each system as well as a grand total. If applicable, the cost estimate should be itemized to reflect cost sharing including apportionment between funding sources. The engineer may rely on the owner for estimates of cost for items other than construction, equipment, and engineering.

- f) Annual Operating Budget. Provide itemized annual operating budget information. The owner has primary responsibility for the annual operating budget, however, there are other parties that may provide technical assistance. This information will be used to evaluate the financial capacity of the system. The engineer will incorporate information from the owner's accountant and other known technical service providers.
- i) Income. Provide information about all sources of income for the system including a proposed rate schedule. Project income realistically for existing and proposed new users separately, based on existing user billings, water treatment contracts, and other sources of income. In the absence of historic data or other reliable information, for budget purposes, base water use on 100 gallons per capita per day. Water use per residential connection may then be calculated based on the most recent U.S. Census, American Community Survey, or other data for the state or county of the average household size. When large agricultural or commercial users are projected, the Report should identify those users and include facts to substantiate such projections and evaluate the impact of such users on the economic viability of the project.
- ii) Annual O&M Costs. Provide an itemized list by expense category and project costs realistically. Provide projected costs for operating the system as improved. In the absence of other reliable data, base on actual costs of other existing facilities of similar size and complexity. Include facts in the Report to substantiate O&M cost estimates. Include personnel costs, administrative costs, water purchase or treatment costs, accounting and auditing fees, legal fees, interest, utilities, energy costs, insurance, annual repairs and maintenance, monitoring and testing, supplies, chemicals, residuals disposal, office supplies, printing, professional services, and miscellaneous as applicable. Any income from renewable energy generation which is sold back to the electric utility should also be included, if applicable. If applicable, note the operator grade needed.
- iii) Debt Repayments. Describe existing and proposed financing with the estimated amount of annual debt repayments from all sources. All estimates of funding should be based on loans, not grants.
- iv) Reserves. Describe the existing and proposed loan obligation reserve requirements for the following:
- Debt Service Reserve – For specific debt service reserve requirements consult with individual funding sources. If General Obligation bonds are proposed to be used as loan security, this section may be omitted, but this should be clearly stated if it is the case.

Short-Lived Asset Reserve – A table of short lived assets should be included for the system (See Appendix A for examples). The table should include the asset, the expected year of replacement, and the anticipated cost of each. Prepare a recommended annual reserve deposit to fund replacement of short-lived assets, such as pumps, paint, and small equipment. Short-lived assets include those items not covered under O&M, however, this does not include facilities such as a water tank or treatment facility replacement that are usually funded with long-term capital financing.

7. CONCLUSIONS AND RECOMMENDATIONS

Provide any additional findings and recommendations that should be considered in development of the project. This may include recommendations for special studies, highlighting of the need for special coordination, a recommended plan of action to expedite project development, and any other necessary considerations.

Appendix A: Example List of Short-Lived Asset Infrastructure

Estimated Repair, Rehab, Replacement Expenses by Item within up to 20 Years from Installation)	
Drinking Water Utilities	Wastewater Utilities
Source Related Pumps Pump Controls Pump Motors Telemetry Intake/ Well screens Water Level Sensors Pressure Transducers	Treatment Related Pump Pump Controls Pump Motors Chemical feed pumps Membrane Filters Fibers Field & Process Instrumentation Equipment UV lamps Centrifuges Aeration blowers Aeration diffusers and nozzles Trickling filters, RBCs, etc. Belt presses & driers Sludge Collecting and Dewatering Equipment Level Sensors Pressure Transducers Pump Controls Back-up power generator Chemical Leak Detection Equipment Flow meters SCADA Systems
Treatment Related Chemical feed pumps Altitude Valves Valve Actuators Field & Process Instrumentation Equipment Granular filter media Air compressors & control units Pumps Pump Motors Pump Controls Water Level Sensors Pressure Transducers Sludge Collection & Dewatering UV Lamps Membranes Back-up power generators Chemical Leak Detection Equipment Flow meters SCADA Systems	Collection System Related Pump Pump Controls Pump Motors Trash racks/bar screens Sewer line rodding equipment Air compressors Vaults, lids, and access hatches Security devices and fencing Alarms & Telemetry Chemical Leak Detection Equipment
Distribution System Related Residential and Small Commercial Meters Meter boxes Hydrants & Blow offs Pressure reducing valves Cross connection control devices Altitude valves Alarms & Telemetry Vaults, lids, and access hatches Security devices and fencing Storage reservoir painting/patching	

Environmental Resource Information - Reference Guide in Support of Site Selection and Macro-Corridor Studies

This section should provide a listing of important land uses or features as well as environmental and cultural resources within the state that have been designated by federal and state agencies as deserving of some form of protection, conservation, or other designated level of consideration. Other resource areas or topics can be added at state's discretion, and some resource areas identified may not be applicable to all states (e.g., coastal resources for interior states). The listing below is alphabetical, for easy reference. Where applicable, the ERD/NRMG should include one or more of the following types of information for a given resource area:

- Governing statutes, regulations and executive orders;
- Agency jurisdiction and contact information/websites (Federal State, Local agencies having jurisdictions or special expertise that should be contacted for assistance).
- Information Sources (brief description of where to obtain additional information regarding resource (or resource location)).

[Certain sections below would not necessarily be applicable to transmission line siting (e.g., air quality), but have been retained assuming this stand-alone guide serves as a possible resource for both the Power Plant Site Selection and Macro-Corridor Exhibits. Content to be tailored further as needed based on RD input.]

A. Air Quality

Topics may include both outdoor and indoor air quality (See also Section X for selected indoor air pollutants and associated health concerns), as needed and appropriate to a given state.

Governing Statutes and Regulations:

The legal authority for efforts to improve air quality and to lessen human exposure to polluted air stems principally from the Clean Air Act of 1970, as amended 1971, 1977 and 1990. The Clean Air Act is a comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants.

States may have stronger air pollution laws but must at least satisfy minimum federal standards, such as prohibiting development that will cause air quality to deteriorate below standards, and mandating cleanup measures where violations are registered.

States to identify State Air Quality Standards and Applicable City/County Ordinances

Agency Jurisdiction:

The primary air quality standards are set by the EPA. However, State and local air pollution agencies take the lead in carrying out the Clean Air Act. Each state is required to prepare and submit a State Implementation Plan (SIP) that describes how the state will meet the primary and secondary NAAQS, and generally provides for implementation, maintenance and enforcement of the standards (through the State Division of Air Quality or equivalent). EPA's Tribal Authority Rule gives Tribes the ability to develop air quality management programs, write rules to reduce air pollution and implement and enforce their rules on their reservation.

Contact information for EPA Regional offices is found in Section 6.0.

For more information on State and territorial air pollution control agencies, visit:

www.4cleanair.org.

For more information on tribal air pollution control agencies, visit

www.epa.gov/air/tribal or www.ntaatribalair.org

Resource Information or Location:

Under the General Conformity Rule, federal agencies must work with state, tribal and local governments in nonattainment or maintenance areas to ensure that federal actions conform to the initiatives established in their applicable state or tribal implementation plans, i.e., to ensure that emissions from their actions will not exceed emission budgets established in the state implementation plan (SIP), tribal implementation plan (TIP) or federal implementation plan (FIP) or not otherwise interfere with the state's ability to attain and maintain the NAAQS. Only direct or indirect emissions originating in a nonattainment or maintenance area need to be analyzed for conformity with the applicable implementation plan. Areas of the country where air pollution levels persistently exceed the NAAQS may be designated nonattainment.

The Clean Air Act contains provisions for prevention of significant deterioration of air quality. Each State should identify Class I and Class II locations as well as areas of "non-attainment" for particular pollutants. These are potential areas of concern with respect to RD project impacts.

Each State will need to contact the Air Pollution Control office located nearest to the project area.

RD staff instruction in Part 1970.1105 (Subpart O) includes additional information relating to air quality.

Additional Information Sources (EPA):

US EPA air quality operating permits (<http://www.epa.gov/oar/oaqps/permits>)

US EPA air quality planning and standards
(<http://www.epa.gov/oar/oaqps/emission.html>)

Attainment/Nonattainment areas (The Green Book: Nonattainment Areas for Criteria Pollutants): <http://www.epa.gov/air/oaqps/greenbk/index.html>)

USEPA Air Quality Datasets, including maps [access to air pollution data]
(<http://www.epa.gov/air/data/>)

To find out more about air quality in your state, visit: <http://www.epa.gov/air/where.html>. This site provides links to regional air information as well as to state and local air pollution agencies.

B. Biological Resources

Governing Statutes and Regulations:

Biological resources of concern could include threatened and endangered species, critical habitat and essential fish habitat, migratory birds and invasive species. Additional topics could also include other protected species (e.g., species of concern) or recreationally important fish and wildlife, as appropriate to a given state. Information relating compliance with the Endangered Species Act is provided in Part 1970.1000 (Subpart N).

Endangered Species Act of 1973, as amended (16 USC 1531)

USDA Departmental Regulations 9500-004 states Agency policies with respect to the management of fish and wildlife and their habitats and prescribes specific actions for implementation of those policies.

Marine Mammal Protection Act

Magnuson-Stevens Fishery Conservation and Management Act (MSA), relating to Essential Fish Habitat

Agency Jurisdiction:

RD official must review a proposed action prior to approval to determine whether or not listed, or proposed for listing, species may be affected. Section 7(a)(2) of the ESA requires RD to

consult with the US Fish and Wildlife Service and/or the National Marine Fisheries Service (NMFS) for any actions that may affect listed species. In addition, federal agencies are required to comply with MSA, specifically the Essential Fish Habitat provisions, when applicable.

State Department of Fish and Wildlife or equivalent also includes a listing of state protected species that are considered priorities for conservation and management within the state, and priority habitat. Priority species require protective measures for their perpetuation due to their population status, sensitivity to habitat alteration, and/or recreational, commercial or tribal importance. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element.

State also typically maintains a listing of federally protected species. Data may be compiled at various levels, depending on the state: state, county, watershed, USGS Quad. Another good resource for state-protected species and habitat is a given State's Natural Heritage Program/Database that typically includes natural area and rare species information, usually at the county level. Finally, some states maintain a database of actual sighting locations of certain species (e.g., bald eagle nesting sites).

Refer also to applicable city or county comprehensive plans regarding resource inventories and locations.

Resource Information or Location:

RD staff instruction in Part 1970.1000 (Subpart N) includes additional information relating to compliance with the Endangered Species Act.

US Fish and Wildlife Service: <http://www.fws.gov>

USFWS Endangered Species: <http://www.fws.gov/endangered/>

Includes link to federally listed species in a given state or county and identification of critical habitat

Links to USFWS Regional Offices: <http://www.fws.gov/endangered/regions/index.html>

Links to USFWS State Offices: <http://www.fws.gov/offices/>

NOAA Fisheries Service/National Marine Fisheries Service: <http://www.nmfs.noaa.gov/> (with links to NOAA Fisheries regions)

NOAA Fisheries Office of Protected Resources: <http://www.nmfs.noaa.gov/pr/>

Works to conserve, protect and recover species under ESA and the Marine Mammal Protection Act (mostly marine and anadromous species)

Links to protected species: <http://www.nmfs.noaa.gov/pr/species/>

NOAA Habitat Conservation: <http://www.habitat.noaa.gov/protection/index.html>

Essential Fish Habitat: <http://www.habitat.noaa.gov/protection/efh/index.html>

EFH Regional Contacts:

<http://www.habitat.noaa.gov/protection/efh/regionalcontacts.html>

EFH Mapper: <http://www.habitat.noaa.gov/protection/efh/habitatmapper.html>

C. Coastal Resources

Governing Statutes and Regulations:

The Coastal Zone Management Act of 1972 is intended to protect both freshwater and marine coastal areas from environmental degradation. It applies to all lands on the boundary of any ocean or arm thereof, and the Great Lakes.

The Coastal Barrier Resources Act and the Coastal Barrier Improvement Act only apply to selected geographic areas designated as "Coastal Barrier Resources System Units. At present, such units have been established and delineated along the coasts of the Atlantic Ocean, Gulf of Mexico and the Great Lakes. Proposed units have been identified but not designated along the coasts of the Pacific Ocean.

States to identify other relevant statutes and regulations.

Agency Jurisdiction:

The CZMA is administered by the National Oceanic and Atmospheric Administration (NOAA), but allows states to assume the primary role in managing these areas. States prepare a Coastal Zone Management Program document that describes the State's coastal resources and how these resources are managed; and leaves day-to-day management decisions at the state level.

Federal: US Department of Commerce
NOAA, Office of Ocean and Coastal Resource Management
Coastal Zone Management Program
1315 East-West Highway
Silver Springs, MD 20910
(301) 713-3155

<http://www.noaa.gov/coasts.html>

<http://coastalmanagement.noaa.gov/>

Link to State Coastal Management Program:

<http://coastalmanagement.noaa.gov/mystate/>

NOAA in your State and Territory (links to state offices):

<http://www.legislative.noaa.gov/NIYS/>

Resource Information or Location:

- Coastal States to specify width of coastal zone within its border, if applicable since zone width may vary among States.
- Coastal States to identify Coastal Barrier Resource System Units.
- Coastal States to identify any other protected coastal areas, such as National Marine Sanctuary Areas.

All proposals that are within coastal zone management areas must obtain a “consistency determination” to show they are consistent with the enforceable policies of a coastal state’s or territory’s federally approved coastal management program.

RD staff instruction in Part 1970.1107 (Coastal Barriers) and 1970.1108 (Coastal Zones), Subpart O, includes additional information relating to coastal areas.

Additional Information Sources (NOAA and USFWS):

Information on National Marine Sanctuaries (NOAA): <http://sanctuaries.noaa.gov/>

CBRS Information (US FWS):

http://www.fws.gov/habitatconservation/coastal_barrier.htm)

Coastal Barrier Resource Maps (US FWS):

<http://www.fws.gov/cep/cbrtable.html>

D. Environmental Justice

Governing Statutes and Regulations

Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Environmental Justice evaluations are a factor to be considered when performing NEPA environmental impact analyses in advance of RD proposed funding.

Agency Jurisdiction:

The Executive Order charges all federal agencies with making the achievement of environmental justice part of its mission by “identifying and addressing as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.” The EO established the Interagency Working Group on environmental justice, which is made up of 12 federal agencies and chaired by EPA.

Resource Information or Location

RD staff instruction in Part 1970.200 (Subpart E) includes additional information relating to environmental justice.

Applicants must include an analysis of the potential impact of a proposal, or any part thereof, that may pose disproportionately high and adverse human health or environmental effects to minority and low-income populations. The environmental justice analysis in the ER should determine if the proposal will be located in a minority or low-income community and, if so,

analyze if the location of the proposal will have, or be perceived to have, disproportionately high adverse human health or environmental effects to the community. If the proposal will have no disproportionate effects, this should be stated. If the proposal is to be located in a minority or low-income community and will have, or may be perceived to have, disproportionately high or adverse human health or environmental effects to the community, the analysis must include a description of the efforts made to include minority and low-income populations into the NEPA process. These efforts may include public notices and special outreach efforts aimed at these populations. When it is determined that there is no practicable alternative to locating a proposal in a minority or low-income community and if there will be disproportionately high human health or environmental effects, the analysis must include a discussion of the mitigation measures evaluated that would off-set or minimize these effects. Applicants should consult with the Rural Development Civil Rights Coordinator to discuss any state-specific issues.

Additional Information Sources, US Census Bureau and EPA:

Minority and low-income (below poverty line) data can be found, by state and county, from the US Census Bureau (Department of Commerce), home page at: www.census.gov or

State and County Quickfacts: <http://quickfacts.census.gov>.

EPA also provides an environmental justice mapper tool (EJView) at:

<http://www.epa.gov/environmentaljustice/mapping.html> or

<http://epamap14.epa.gov/ejmap/entry.html>

EJView: Formerly known as the Environmental Justice Geographic Assessment Tool, EJView is a mapping tool that allows users to create maps and generate detailed reports based on the geographic areas and data sets they choose. It includes data from the multiple factors that may affect human and environmental health within a community or region. Other personnel resources include: RD Civil Rights Coordinators; civil rights organizations; local elected officials/agencies; minority business and trade groups; civic organizations; tribal officials; religious groups and churches; and senior citizen groups.

E. Floodplains

Governing Statutes/Regulations:

Projects shall be examined for conformance to Executive Order 11988, Floodplain Management and Departmental Regulation 9500-3, Land Use Policy. USDA RD has specific policies regarding

building in a floodplain. A determination of whether the project will cause changes in the natural values and functions of the floodplains is required. A copy of the floodplain map with the location of project identified. FEMA Form 81-93, "Standard Flood Hazard Determination."

[From Washington NRMG: **Rural Development policy is not to approve or fund any proposals that, as a result of identifiable impacts, direct or indirect, would lead to or accommodate either the conversion of these land uses or encroach upon them. Rural Development further recognizes that there are practical alternatives to floodplain development in all but the most unusual circumstances.**]

- State would add other applicable Federal state or local statutes/regulations (e.g., National Insurance Flood Reform Act (NIFRA) of 1994).
- Also, refer to applicable city or county comprehensive Flood Hazard Management plans, Flood Hazard Prevention Ordinances, Shoreline Master Plans, and Critical Areas Ordinances.

Agency Jurisdiction: Federal Emergency Management Agency (FEMA) and State Floodplain Managers (note that FEMA has delegated management floodplains and flood hazards to the State). Secondary agencies and potential sources of information include NRCS, US Corps of Engineers, and local agencies.

State would provide state-specific contact information for applicable agencies (Federal, State and local, e.g., FEMA regional contact, US Army Corps of Engineers, if applicable).

Resource Information or Location:

RD staff instruction in Part 1970 (Subpart F) includes additional information relating to floodplains.

Federal Emergency Management Agency: www.fema.gov.

Links to FEMA regional offices: <http://www.fema.gov/about/structure.shtm> or <http://www.fema.gov/about/regions/index.shtm>

Additional Floodplain Information Sources:

Flood Insurance Rate Maps (FIRM) issued by the Federal Emergency Management Agency (FEMA) show the boundary of 100-year and 500-year flood plains. On-line copies of all flood plain maps are now available on the FEMA Web Site at

<http://store.msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1> or by clicking on The FEMA Map Store link found at <http://www.fema.gov/hazard/flood/info.shtm>. [Note from Washington state: currently Internet Explorer 5.0 or higher, or Netscape Navigator 6.2.0 or higher must be used in order to print map documents].

FEMA maps can be ordered by calling 1-800-358-9616, and are available at the state/regional FEMA office listed above. Rural Development Service Centers also have these maps available for review for their respective service areas.

NRCS Soil Survey maps - These maps contain soil units that are classified as “alluvial” soils. These soil units are associated with soils that develop in floodplains and represent the best available information if FEMA maps are not available. In addition, soil surveys provide general data indicating the soil unit’s frequency for flooding - <http://websoilsurvey.nrcs.usda.gov/app/>

U.S. Army Corps of Engineers (USACE) may have floodplain information in the absence of FEMA maps; assessment of floodplain impacts and identification of permits required. Contact the local USACE District Office to inquire; see also <http://www.usace.army.mil/howdoi/civilmap.htm>

F. Formally Classified Lands

- 1) Wild and Scenic Rivers
- 2) National Natural Landmarks, Sites, and Monuments
- 3) National Parks, Monuments, Trails and Sites
- 4) Wilderness Areas

Depending on how many formerly classified lands the state has and how much information a state might include, these could be retained within one section (with subparts) or broken out into separate sections for easier user reference. Summary information for selected federally classified lands is provided below as a guide to completing this section. State should expand the information, as appropriate, to encompass the formally classified lands within its borders.

RD staff instruction in Part 1970.1111 and 1970.1118 (Subpart O) contain information relating to national parks and other formally recognized lands (national trails), and wild and scenic rivers, respectively [Note that these sections are currently only placeholders with no info provided except for an introductory paragraph for wild and scenic rivers; the information will presumably be provided before issuance].

Wild and Scenic Rivers: Projects shall be examined for conformance to the Wild and Scenic Rivers Act of 1968 which is designed to protect and serve outstanding free flowing rivers streams and their shore environs. Rural Development shall not provide financial assistance or approve any project that would have a direct or adverse effect on the value for which a river has been included in the National Wild and Scenic River System, identified as a potential addition to the national system, or identified in the Nationwide Inventory prepared by the National Park Service (NPS). RD activities located within ¼ mile of a designated or a potential addition to the National Wild and Scenic River System must be reviewed for direct and indirect impacts. Each river is administered by either a federal or state agency. Designated segments need not include the entire river and may include tributaries. Agency jurisdiction would depend on what lands the wild and scenic river was found on; federal agency jurisdiction could include the National Park Service (responsible for 38 rivers under the Wild and Scenic Rivers Act) US Forest Service, or the Bureau of Land Management (BLM). Federally designated wild and scenic rivers are identified at: <http://www.nps.gov/rivers>.

[State would identify specific wild and scenic rivers found in their state and include information as to their location.](#)

National Landmarks: The National Natural Landmarks (NNL) Program was established under the authority of the Historic Sites Act of 1935. The purpose of the program is to identify and encourage the preservation of nationally significant examples of the full range of ecological and geological features that constitute the nation's heritage. It is administered by the National Park Service (<http://www.nps.gov>). RD shall not authorize, fund or carry out any proposal or project that will likely jeopardize the unique values and benefits of these areas. The Bureau of Land Management designates Outstanding Natural Areas, Research Natural Areas, and/or Areas of Critical Environmental Concern which are comparable in value and program intent to National Natural Landmarks. For BLM lands, consult with the appropriate BLM District or State Office. Useful websites include <http://www.nps.gov/nnl> with links to the National Registry of Natural Landmarks (also found at: <http://www.nature.nps.gov/nnl/pdf/RevisedRegistryJune2009.pdf>)

States would identify specific national natural landmarks and any protected state landmarks in their state and information relating to location.

National Park System. There are numerous designations within the National Park System. The names were created in the Congressional legislation authorizing the sites or by the president, who proclaims "national monuments" under the Antiquities Act of 1966. They include landmarks, structures or other objects of historic or scientific interest situated on lands owned or controlled by the government. In 1970, Congress elaborated on the 1916 National Park Service Organic Act, saying all units of the system have equal legal standing in a national

system. Federal agency jurisdiction is the National Park Service. In addition to National Parks, the units include: include National Preserves, National Historic Sites, National Historic Parks, National Memorials, National Battlefields, National Cemetery, National Seashores, National Recreation Areas, National Wild and Scenic Rivers (see also Wild and Scenic Rivers), National Parkways, and National Trails. To locate units within the National Park System, by state, go to: <http://www.nps.gov/findapark/index.htm>

State would identify specific national park units found within their state and information on their location.

Wilderness Areas: Wilderness areas are areas of undeveloped Federal land which are protected and managed to preserve their natural conditions. These areas are established as part of the National Wilderness Preservation System. The Wilderness Act of 1964, P.L.88-577, was ratified to protect particularly environmentally pristine areas of the US under Federal ownership and management practices. Wilderness areas are generally larger than 5000 acres. Potential RD projects near or adjacent to National Wilderness Areas merit special evaluation because of the types of resources they contain which are covered by other significant Federal directives. RD policy is not to approve or fund any proposals that would lead to or accommodate either the conversion of these land uses or encroachment upon them. Consult with the US Department of Agriculture, Forest Service (www.fs.fed.us) and the US Department of Interior, Bureau of Land Management (www.blm.gov), National Park Service (www.nps.gov), or Fish and Wildlife Service (www.fws.gov) – who administer wilderness areas – as appropriate for impacts to National Wilderness Areas within their jurisdictions.

States to identify national wilderness areas within their boundaries. Wilderness areas can be located at <http://www.wilderness.net>. The wilderness.net website allows users to search by name and location (state). For each wilderness area identified, the website provides information on size, location, general description, as well as providing links to fact sheets, area management, wilderness laws, contact information (specific to that wilderness area), a map and the specific wilderness area website. Wilderness.net is a website formed in 1996 through a collaborative partnership between the College of Forestry and Conservation's Wilderness Institute at the University of Montana, the Arthur Carhart National Wilderness Training Center, and the Aldo Leopold Wilderness Research Institute.

National Wildlife Refuge. National Wildlife Refuges are administered by the US FWS. The mission of the National Wildlife Refuge System is to manage a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife and plant resources and their habitat. The Refuge System maintains the biological integrity, diversity, and environmental health of these natural resources. In addition to conserving

wildlife, the Refuge System also manages six wildlife-dependent recreational uses, including hunting, fishing, wildlife observation, photography, environmental education and interpretation. Protected wilderness (see Wilderness Areas above) make up 20 percent of the refuge lands; and the Refuge System also includes 37 wetland management districts. More information on the National Wildlife Refuge System can be found at:

<http://www.fws.gov/refuges/index.html> which also includes a search tool to find a Refuge, by state or zip code.

G. Historic Resources

RD staff instruction in Part 1970.400 (Subpart H) includes additional information relating to the protection of historic and cultural resources.

Governing Statutes and Regulations:

See Part 1970.400 for a full listing of relevant Federal statutes and regulations. The key ones include: National Historic Preservation Act (NHPA) of 1977, as amended; and the Advisory Council on Historic Preservation implementing regulations at 36 CFR Part 800 (Section 106 consultation)

Agency Jurisdiction:

At the earliest stages of consideration of an application or as part of the environmental review process, RD will identify any properties that are listed on, or may be eligible for listing in, the National Register of Historic Places that are located within the project's area of potential effect. Consultations will be undertaken with the State Historic Preservation Officer (SHPO)/Tribal Historic Preservation Officer (THPO) and the Advisory Council on Historic Preservation (ACHP), in order to determine the most appropriate course of action for protecting such identified properties or mitigating potential adverse impacts on them.

The 1992 NHPA Amendments allow federally recognized Indian tribes to take on more formal responsibility for the preservation of significant historic properties on tribal lands. Tribes can assume any or all of the functions of a SHPO with respect to tribal land. The decision to participate or not in the program rests with the tribe.

SHPO:

Links to SHPO websites: <http://www.nps.gov/history/nr/shpolist.htm>

National Conference of SHPOs, with links to individual SHPOs:

<http://www.ncshpo.org/find/index.htm>

THPO:

National Association of THPOs:

<http://www.nathpo.org/mainpage.html>

Links to THPOs: <http://www.nathpo.org/map.html>

Additional information on tribes is available from the Bureau of Indian Affairs
(<http://www.bia.gov>)

States to add state regulations and information pertaining to listings on the State Register of Historic Places; and information relating to state or local historical or archaeological societies

Resource Information or Location:

Advisory Council on Historic Preservation: <http://www.achp.gov>

National Historic Preservation Program: <http://www.achp.gov/nhpp.html>

To determine locations, check the National Register of Historic Places, which can be accessed through the National Park Service website: <http://www.cr.nps.gov/nr> (or <http://www.nps.gov/history/nr/>; or www.nationalregisterofhistoricplaces.com) or consult with the SHPO or appropriate THPO.

US DOI, National Park Service: <http://www.nps.gov>

Contacts in Historic Preservation Program: <http://www.achp.gov.nps.html>

Consult NPS regional office of given state

H. Land Use (Important/Prime Farmland, Rangeland, Forestland)

RD staff instruction in Parts 1970.1109, Important Farmland, and 1970.1110, Land Use (Subpart O) include additional information relating to these resources.

Governing Statutes and Regulations:

Projects should be examined for conformance to the Farmland Protection Policy Act and Departmental Regulation 9500-3, Land Use Policy. Projects that create conversion of important farmlands will be denied unless no practicable alternative exists. When it is determined that there will be an effect, public notification and solicitation for comments is required. RD will also avoid the unwarranted conversion of prime forestland and prime rangeland. Definitions of farmland and timberland are found in USDA DR 9500-3 and include prime farmland/timberland, unique farmland/timberland, and additional farmland/timberland of statewide importance.

Agency Jurisdiction:

Consult with the NRCS for soil designation, land capability classifications, soil survey maps, and determinations of “Important Farmland.”

Consult with the USDA Forest Service, Bureau of Land Management or National Park Service for assistance in determining if forestland is prime, unique or of statewide importance on land under their respective jurisdictions. Consult with the USDA Natural Resources Conservation Service for assistance on state-owned, local or privately-owned forestlands, and on rangeland. Consult the NRCS for assistance in identifying “prime rangeland.” Consult with other federal and state agencies for assistance on rangeland under their jurisdiction.

Natural Resources Conservation Service:

<http://www.nrcs.usda.gov/>

<http://www.nrcs.usda.gov/contact/> (contact information)

<http://www.nrcs.usda.gov/about/directory/specialists.html#StateOff>

(state contact information)

Forest Service:

<http://www.fs.fed.us/> (includes a link to finding forests by state)

<http://www.fs.fed.us/contactus/regions.shtml> [links to regional offices and contact information]

Bureau of Land Management:

<http://www.blm.gov/wo/st/en.html> (with map link to State office contact information)

National Park Service:

<http://www.nps.gov/index.htm> (with link to find a park by state)

Resource Information or Location:

Natural Resources Conservation Service:

<http://www.nrcs.usda.gov/about/directory/specialists.html>

(technical and program area specialists)

NRCS Soil survey maps: <http://websoilsurvey.nrcs.usda.gov/app/>

Maps/tables on prime farmland:

<http://www.nrcs.usda.gov/technical/NRI/maps/prime.html>

State or local extension offices for prime farmland information/maps within the state or county.

Local USDA Service Centers: <http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>

USDA Forest Service

Find Forest (by state): http://www.fs.fed.us/recreation/map/state_list.shtml

I. Noise

RD staff instruction in Part 1970.1113 (Subpart O) includes additional information relating to noise.

Governing Statutes and Regulations:

Subpart B on Noise Abatement and Control to Part 51 of Title 24, Code of Federal Regulations

US Department of Housing and Urban Development: *Noise Abatement Regulations*.

There are two types of unwanted sound which are potentially associated with RD funded activities: occupational noise created by loud machinery (e.g., during construction), and community noise created by external sources such as highways, railroads and airports. Noise evaluations are a factor to be considered when performing NEPA environmental impact analysis in advance of RD proposed funding.

Agency Jurisdiction:

No federal agency has any jurisdiction over noise. It's usually a state issue.

Resource Information or Location:

Maximum recommended noise thresholds have been developed in unison by several federal agencies including HUD and US Department of Transportation.

Website link to State and local planning or environmental agencies, through the Noise Pollution Clearinghouse:

<http://www.nonoise.org/lawlib/cities/cities.htm>

The most current noise assessment methodology is contained in the “Noise Guidebook” published by the US HUD, Office of Community and Development.

Noise Assessment Guidelines

Noise Guidebook:

<http://www.hud.gov/offices/cpd/environment/training/guidebooks/noise/>

Noise Assessment Guidelines (Chapter 5 of the Noise Guidebook):

<http://www.hud.gov/utilities/intercept.cfm?/offices/cpd/environment/training/guidebooks/noise/chapter5.pdf>

Other useful HUD Links: <http://www.hudnoise.com/>

Noise Abatement and Control:

<http://www.hud.gov/offices/cpd/environment/review/noise.cfm>

Contact Information for gathering noise data with respect to transportation related noise sources:

Federal Highway Administration (traffic noise):

<http://www.fhwa.dot.gov/environment/noise/index.htm>

State DOT should also be able to provide data on Annual Average Daily Traffic (traffic counts) for selected routes.

US EPA Noise Issues:

<http://www.epa.gov/history/topics/noise/index.htm>

Federal Aviation Administration

http://www.faa.gov/about/office_org/headquarters_offices/aep/aircraft_noise/

Can also contact local airport operations center/control tower or military operations center within the area of impact.

Railroad: Contact engineering department of relevant railway system in area of impact.

J. Recreational Resources

This category encompasses relevant recreational resources to a given state, including but not necessarily limited to, state and local parks, trails, fisheries, forests and wildlife areas, scientific and natural areas, and scenic areas. RD should consult with state and local recreational organization(s) to determine appropriate protection or ways to mitigate potential adverse impacts. Recreational resources should be considered when performing NEPA environmental impact analyses in advance of RD proposed funding.

Agency Jurisdiction: State Parks and Recreation Agency or equivalent

Note: Depending on the state and the value of this information, recreational resources may not warrant a separate section of the ERD/NRMG. It could be combined into Section H (land use), Section P (Other Factors) or Section Q (relevant to protected state resources); or removed entirely as appropriate.

K. Socioeconomics

Part of the USDA, Rural Development's mission is to support sound development of rural communities and provide economic opportunities for farm and rural residents. This mission may significantly affect the socio-economic make-up of the area to be served. Applicants should, in conjunction with an analysis of existing land uses and any projected land use changes caused by the proposal, be aware of and be prepared to discuss any potential changes to an area's socio-economic make-up.

Socioeconomics are a factor to be considered when performing NEPA environmental impact analyses in advance of RD proposed funding. An analysis of socioeconomic effects typically considers changes in the following areas as appropriate: income, local economy, taxes, employment, housing, community services (fire, police, medical, utilities – water supply, waste), and education/schools.

Agency Jurisdiction: Not applicable, however, the US Census Bureau is the leading source of data on the nation's population and economy, and compiles data that would be used in evaluating socioeconomic impacts in an RD NEPA document.

Resource Information or Location:

U.S. Census Bureau (U.S. Department of Commerce), home page at <http://www.census.gov>

State Census Data Centers (<http://www.census.gov/sdc/>); links to individual states at <http://www.census.gov/sdc/network.html>

US Census Bureau geographic programs/information, including maps and mapping resources: <http://www.census.gov/geo/www/index.html>

L. Hazardous Substances (Materials and Waste) [possible placeholder]

Depending on the types of issues within a given state, this topic could be expanded to include radioactive waste, underground storage tanks, radon, lead paint, asbestos, meth labs, and other factors.

RD staff instruction found in Part 1970 Subpart J relating to Environmental Risk Management [confirm final citation], provides guidance to Agency personnel with appropriate actions to take in instances where the presence of hazardous materials, hazardous wastes, and petroleum products is known or suspected. Subpart J also addresses other special topics including underground storage tanks, brownfield sites, and methamphetamine laboratories (including cleanup of meth labs). Summary information, mainly relating to the potential concern associated with the substance and a website link for more information, is provided for hazardous wastes and three additional topics below that are not covered in Subpart J: radon, lead paint and asbestos.

Federal and state laws governing hazardous wastes and substances are extremely complex. Major federal statutes include:

- Resource Conservation and Recovery Act (RCRA) of 1976 and amendments of 1980 and 1984 (Hazardous and Solid Waste Amendments of 1984)
- Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA)
- Superfund Amendments and Reauthorization Act of 1986
- Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA)
- Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)
- Toxic Substance Control Act (TSCA)

Agencies with jurisdiction include EPA, depending on the activity, but the majority of these concerns likely would be addressed by the state or local environmental or public health agency.

Resource Information or Location:

EPA
State Environmental Coordinator
State Environmental Agency (or equivalent)
State Fire Marshall

In general, RD officials should be familiar with the federal and state laws pertaining to hazardous substances and wastes. Rural Development staff are responsible for identifying inventory properties that contain or may contain hazardous wastes/substances contained on the Hazardous Waste and Substance Lists.

EPA Wastes/Hazardous Materials

Wastes: <http://www.epa.gov/ebtpages/wastes.html>

Hazardous Wastes: <http://www.epa.gov/ebtpages/wasthazardouswaste.html>

Toxic Substances: <http://www.epa.gov/oppt/>

Radon: Radon gas is a chemically inert, odorless, colorless and tasteless naturally-occurring radioactive element found in soils and rocks that make up the earth's crust. In certain parts of the country, a major source of radon gas in the home is the soil beneath and surrounding the residence. Common entry routes are through the pores and cracks in concrete slabs and concrete blocks; joints, loose fitting pipes, sump pits and flood drains. The following EPA website is a good source of information on radon: <http://www.epa.gov/iaq/radon/index.html>.

RD officials should be familiar with the existence of radon gas, known radon gas presence in their areas of responsibility, and the methods available to prevent radon gas entry into homes and facilities.

Lead: Lead is a natural metal found in the environment; it is toxic and young children are most susceptible to its toxic effects. Lead base paint is the most common source of lead poisoning for children in the nation. RD requires a certain amount of investigation for the presence of lead hazards; proper disclosure of such hazards in the transfer of REO properties; and actual remediation in some instances. The three main categories of hazard include lead from lead base paint products used prior to January 1978, lead in drinking water from materials used in the water systems; and lead waste products, such as discarded batteries and lead base paint containers. RD Instruction 1924-A, Exhibit H Prohibition of Lead Base Pain contains RD requirements. The Lead-Based Paint Compliance Key is provided as a step-by-step guide for identifying actions the Agency

must take to achieve full compliance with the new LBP regulations in all affected programs. It is available on the RD Intranet site at:

http://teamrd.usda.gov/rd/rhs/PSS/Lead_Paint/lead_based-paint_key.htm

The EPA, HUD, and Consumer Product Safety Commission have jointly produced a LBP awareness pamphlet entitled *Protect Your Family From Lead in Your Home*. This pamphlet is a good source of information of LBP hazards found in the home and is available, along with other useful information, online at the EPA web-site:

<http://www.epa.gov/lead/pubs/leadinfo.htm#checking>

The pamphlet is also available at HUD's Healthy Homes and Lead Hazard Control web-site at: <http://www.hud.gov/offices/lead/>

Asbestos: Asbestos (used heavily in the past in many construction activities) is recognized as an immediate health hazard when in a "friable" condition, that is, crumbly and easily released into the atmosphere. Friable asbestos should be abated in accordance with EPA guidelines and work performed by the a state certified asbestos abatement contractor as part of any Rural Development loan making or property disposition action. The following web-sites also contain useful information on asbestos:

<http://www.epa.gov/asbestos/>

The Consumer Product Safety Commission booklet ***Asbestos in the Home*** (CPSC Document # 453) is available at:

<http://www.cpsc.gov/cpscpub/pubs/453.html>

M. Transportation [not in original outline but in Bulletin 1794]

Information concerning transportation may be required if the proposal includes construction of highway crossings or elevated water storage facilities, especially if adjacent to an airport (including airport clearance or accident zones), road, railroad, and navigable waterway. Permits may be required from the applicable agencies prior to construction.

Links to State transportation agencies may be found at:

<http://www.fhwa.dot.gov/webstate.htm>

Resource Information:

US DOT, Federal Highway Administration

<http://www.fhwa.dot.gov/>
<http://www.fhwa.dot.gov/environment/index.htm>

USDOT, Federal Aviation Administration (including links to FAA Field and Regional Offices
http://www.faa.gov/about/office_org/

Regarding military facilities, contact the FAA or DOD facilities Public Affairs Office

N. Water Quality and Supply, Sole Source Aquifer

Governing Statutes and Regulations:

RD staff instruction in Part 1970.1117 (Subpart O) includes additional information relating to water quality.

Projects having withdrawals and/or effluent discharges shall be examined for conformance with the Clean Water Act, the Safe Drinking Water Act and the Federal Water Pollution Control Act. Potential water quality issues include discharges from wastewater treatment or solid waste facilities, surface or ground water appropriations for potable water treatment facilities; ground water protection programs – sole source aquifers and recharge areas; and water quality degradation from temporary construction activities. Water quality changes can impact other environmental resources such as wetlands, aquatic species, etc., and reach beyond the immediate project area. Additional topics that may be of concern for a given project may include impacts to public waters, well disclosures, and water appropriations/rights.

Section 1424(e) of the Safe Drinking Water Act of 1974 authorizes EPA to designate an aquifer for special protection if it is the sole or principal drinking water resource for an area and if its contamination would create a significant hazard to public health. The designation protects an area's groundwater resource by requiring EPA to review certain proposed projects within the designated area. All proposed projects receiving federal funds are subject to review to ensure that they do not endanger the water source.

As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however,

industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. In most cases, the NPDES permit program is administered by authorized states.

Agency Jurisdiction:

US EPA or authorized state agency.

EPA: <http://www.epa.gov>

EPA Office of Water: <http://water.epa.gov/>

Resource Information or Location:

EPA, Ground Water and Drinking Water: <http://water.epa.gov/drink/>

Sole Source Aquifer Protection Program:

<http://cfpub.epa.gov/safewater/sourcewater/sourcewater.cfm?action=SSA>

or

<http://water.epa.gov/infrastructure/drinkingwater/sourcewater/protection/solesource/aquifer.cfm>

Includes links to EPA regional contacts and more information on the 73 existing designated SSAs.

EPA Office of Wastewater Management: <http://water.epa.gov/aboutow/owm/index.cfm>

NPDES permitting: <http://cfpub.epa.gov/npdes/index.cfm> or

<http://www.epa.gov/owm/npdes.htm>

In most cases the NPDES program is implemented by authorized states. State program status can be found at: <http://cfpub.epa.gov/npdes/statestats.cfm>

Can also access <http://cfpub.epa.gov/npdes/stateinfo.cfm> for regional and state contact information for NPDES program.

Section 404 dredge and fill permits and permits for Section 10 Rivers and harbors Act: EPA

<http://cfpub.epa.gov/npdes/index.cfm>

- to access regional and state contact information for NPDES program

O. Wetlands

RD staff instruction in Part 1970.300 (Subpart G) includes additional information relating to wetlands.

Governing Statutes/Regulations:

Project shall be examined for conformance to Executive Order 11990, Protection of Wetlands and Department Regulation 9500-3, Land Use Policy. A determination of whether the project will cause changes in natural values and functions of the wetlands is required. RD will not provide financial assistance or provide project approval if wetland conversion is involved. The only exception is there exists a demonstrated significant need for the project and there are no practicable alternative actions or sites, and then conversion must be minimized and mitigated.

Agency Jurisdiction:

The US Army Corps of Engineers has regulatory authority over Waters of the US, including wetlands and should be consulted regarding Section 404 (of the Clean Water Act) permitting. Permits are required for placement of any structure within the mean high watermark of navigable waterways and placement of dredged or fill material within the mean high water mark and adjacent wetlands and tributaries of all waters of the U.S.

U.S. Army Corps of Engineers;

<http://www.usace.army.mil/>

<http://www.usace.army.mil/Pages/default.aspx>

Initial contact should be through the local Corps district, as listed at

www.usace.army.mil/about/Pages/Locations.aspx [enter state and will take user to appropriate Corps District's regulatory website].

Resource Information or Location:

Wetlands may be dispersed throughout a state and are typically associated with lakes, rivers, streams, and coastal areas. Two thirds of the US currently lack regulatory programs that comprehensive address wetlands and isolated wetlands in particular. Of the states that do have regulatory programs, statutes and regulations addressing wetlands and other isolated waters vary substantially. For more information on state wetland programs, visit:

<http://aswm.org/swp/index.htm>

Permit Information:

http://www.usace.army.mil/CECW/Pages/cecwo_reg.aspx

http://www.usace.army.mil/CECW/Pages/reg_permit.aspx [includes links to Corps guidance relating to wetlands jurisdictional determinations]

http://www.usace.army.mil/CECW/Pages/reg_supp.aspx [links to regional supplements to Corps Wetlands Delineation Manual]

<http://www.usace.army.mil/howdoi/civilmap.htm>

For wetlands on agricultural property, consult with the State Conservationist, NRCS.

The following agencies can provide additional assistance in locating and analyzing wetland:

NRCS Soil survey maps: <http://websoilsurvey.nrcs.usda.gov/app/>

NRCS hydric soils lists: <http://soils.usda.gov/use/hudric/>

US Fish and Wildlife Service: <http://www.fws.gov/wetlands>

The US Fish and Wildlife Service has an ongoing nationwide effort to identify, classify and map wetlands. The agency has developed a series of topical maps to show wetlands and deepwater habitats. This geospatial information is used by Federal, State and local agencies, academic institutions and private industry for management, research, policy development, education and planning activities. These National Wetland Inventory (NWI) maps are produced at a 1:24,000 scale on the same indexing system as used by USGS topographical maps. Hard copy National Wetland Inventory Maps may be ordered (for those that have been digitized) through US Fish and Wildlife Service: <http://www.fws.gov/wetlands>. Maps should be free to RD Offices and at a small nominal cost to applicants and consultants.

In addition, digital wetlands data may be downloaded and viewed through several methods. Wetlands mapper websites include:

<http://www.fws.gov/wetlands/Data/Mapper.html>

<http://www.fws.gov/wetlands/data/> (geospatial wetlands digital data)

http://www.fws.gov/wetlands/_documents/gData/WetlandsMapperInstructionsManual.pdf [Wetlands Mapper Documentation and Instructions Manual, August 2010]