

**DWSIRLF Loan Program
Facilities Plan Checklist**

Loan Recipient: _____

Project Name/No.: _____

Plan Title/Date: _____

Plan Author: _____

Project Manager: _____

Reviewed - Comments

Project Manager - Date

Engineering Coordinator - Date

Date Environmental Document Issued: _____ Date Cleared: _____

APPROVED

Engineering Coordinator - Date

This guidance checklist has been prepared in accordance with DWSIRLF Regulation III.A for preparation and review of a Facilities Plan that will meet all DWSIRLF requirements. Be reminded that DWSIRLF Regulation III.A(2) stipulates that, should an applicant desire to omit or modify a portion of the facilities plan as required by this guidance, Department approval is required prior to completion and submission of the facilities plan. Where referenced in this text, "MSDH/BPWS Design Criteria" means the most recent version of "Recommended Minimum Design Criteria for Community Public Water Supplies" from the Mississippi State Department of Health, Bureau of Public Water Supply.

Is the plan stamped by a Professional Engineer registered in Mississippi? [Re: DWSIRLF Reg. III.A.(1)] _____

I. Summary, Conclusions, and Recommendations (self explanatory)

If the plan submittal is simply an update to an existing plan, are portions of the old plan which are still valid referenced specifically?	
Are other relevant portions updated appropriately?	

II. Purpose and Need

The plan must give a general description of the need for the project in terms of the existing or potential water supply and/or public health problems (DWSIRLF priority categories) listed below:

A. Compliance with National Primary Drinking Water Standards (NPDWS).	
B. Only one well and no MSDH approved emergency tie-in to another system.	
C. Minimum pressure maintenance.	
D. Source water protection.	
E. Expansion or new system for unserved areas.	
F. Insufficient back-up supply.	
G. Facilities rehabilitation/replacement.	
H. Compliance with National Secondary Drinking Water Standards.	
I. Consolidation.	

The plan must include the loan recipient's most recent MSDH Capacity Assessment Form and the Inspection Report, as well as documentation of actions taken to address all deficiencies therein. Examples of such documentation include approved meeting minutes, contracts/invoices, qualified tank inspector's reports, etc. The loan recipient should contact the PM prior to planning in order to coordinate this effort.

If applicable, documentation of participation in MSDH short-term and long-term assistance programs and/or the Drinking Water Needs Survey (DWNS) should also be included.

III. Existing Situation

Note that this section applies to the planning area in general. For specific information on the facility site, see Section VII.

A. General Environment: The plan should describe the planning area in terms of the characteristics described below, including maps as needed.

1. Planning area location and boundaries (This should be established and concurred with by the Department staff prior to initiation of the facilities plan).	_____
2. Groundwater/surface water resources.	_____
3. Organizational context (one city, association, district, county only, city-county, intercity, etc.).	_____

Where any portion of the project is located outside the applicant's existing	
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boundaries, does the plan document that the applicant, and no other entity, has appropriate jurisdiction?	_____
If not, does the plan describe actions necessary to obtain such jurisdiction (e.g., annexation, petition for facility certification to be filed with the Public Service Commission, etc.)?	_____
4. The zip codes included within service area boundaries.	_____
5. Current population of entire service area.	_____

B. Existing Drinking Water Facilities: The plan must describe existing facilities and conditions (as compared to MSDH Design Criteria) within the planning area including:

1. Size, location, and type of facilities (include map). _____
2. For source water protection projects, a copy of the Source Water Assessment Protection Report (SWAPR) prepared by MDEQ/ Office of Pollution Control (OPC)/ Groundwater Assessment and Remediation Division (GARD)/ Program Support Branch (PSB)/Technical Support Section (TSS) which identifies the contaminants of concern and the source water protection area. If a SWAPR needs revision or does not exist for the area, the plan must include sufficient documentation of potential sources of contamination. In all cases, concurrence of the MDEQ/OPC/GARD/PSB/ TSS must be obtained. _____
3. The number of individual connections (including residences, industries, businesses and public buildings) currently experiencing the deficiencies that will be corrected by the planned improvements. Information (including hydraulic analyses, where necessary, or field data such as number of residences in currently unserved areas) to support the number of reported affected connections must be furnished in the Facilities Plan. _____
4. Current flow demand on existing facilities compared to their original hydraulic design capacity. The effect of industries, businesses, and public buildings must be included using MSDH /BPWS Design Criteria. _____

If the system is currently loaded at or above 75% of design capacity (based on the latest MSDH calculations) and the project will not increase such capacity, a satisfactory explanation must be included. Failure to do so may result in the Board not considering the project for funding.

5. Current pressure maintained in distribution system (average and at low pressure points during peak demand), from measurements or calculations.
For projects in the minimum pressure maintenance category, documentation of actual pressure problems must be included such as (1) time, date, location, and pressure reading data over a period of time; (2) names, locations, subject, and dates of complaints, or (3) other acceptable documentation. Hydraulic models may be considered, especially when submitted with other acceptable documentation. _____

6. Performance of treatment facilities in meeting NPDWS. _____

- 7. Location and description of Major Users (MU): A MU is one that uses 5% or more of the average capacity of the DWTP. See V.B and VIII.A. _____
- 8. Location of served versus unserved areas. _____
- 9. Amount of water loss due to leakage and location of any known distribution line leaks. The leakage rate should be measured/calculated, or at least estimated if possible. _____

IV. Future Environment

The plan must document that the "no action" alternative is unacceptable by describing the future environment without the project (low distribution line pressure, water supply problems, public health risks, etc.). _____

V. Development of Water Demand

Planning and design periods must be 20 years, unless justified otherwise in the facilities plan and approved by the Department. _____

A. Residential

1. Current and Future Population _____

For MSDH review, acceptable growth rate documentation must be included such as historical data from recognized sources, active meter installations, building permits, etc. Justification based on speculative growth and economic development should not be included; projects whose primary purpose is to stimulate or provide for growth/development are ineligible under federal guidelines.

2. Demand _____

Per connection demand and peaking factors must be consistent with the latest MSDH/BPWS Design Criteria, Table I and Appendix E.

B. Commercial/industrial/major users

Commercial/industrial/major users _____

Have letters of intent outlining demand projections been acquired from MU's (see III.B.7) and included in the plan? _____

For MSDH review, demand and peaking factors must be consistent with MSDH/BPWS Design Criteria, Table I and Appendix G

C. Design Demand _____

VI. Development of Alternatives

The plan must consider all reasonable, applicable alternatives listed below. A brief description of

each, including preliminary sizing information per MSDH/BPWS Design Criteria, must be included. A cost effective analysis is not required. Careful consideration should be given to the need for treatment along with well projects. If treatment is not planned for but determined necessary after construction of the test well, there are no guarantees that a variance to the DWSIRLF Regulations will be granted to increase scope and amount of the loan or that funds will be available for the increased costs, administrative fee, etc.

A. Consolidation: Where applicable, the plan must address consolidation of multiple smaller systems into one.	_____
B. Supply	_____
1. Wells	_____
2. Surface Waters	_____
C. Treatment	_____
1. Chlorination	_____
2. Fluoridation	_____
3. Corrosion Control a. pH Adjustment b. Aeration (natural or forced) c. Recarbonation	_____
4. Iron Removal	_____
5. Clarification a. Rapid Mix/Flocculation/Sedimentation b. Upflow Clarifier	_____
6. Filtration a. Gravity b. Pressure	_____
7. Sludge Handling	_____

D. Storage	
1. Hydropneumatic	

<p>2.Elevated/Standpipe/Reservoir</p> <p>Storage tank size should not exceed that allowed for credit toward design capacity per MSDH/BPWS Design Criteria. Excess storage may not be approved by the Board for funding.</p>	<p>_____</p>
<p>E. Distribution</p> <ol style="list-style-type: none"> 1. Mains 2. Booster Stations 3. Rehabilitation <ol style="list-style-type: none"> a. Replacement b. Point Repair c. Lining 	<p>_____</p>
<p>The funding of primarily developmental distribution lines is prohibited. If the project includes lines extending beyond existing buildings, does the plan recognize that they are ineligible?</p>	<p>_____</p>
<p>If upstream facilities are owned by an entity other than the applicant, is documentation of concurrence included (see VIII.A)?</p> <p>The plan must include:</p> <ol style="list-style-type: none"> a. When applicable, a hydraulic analysis unless already on file with MSDH and less than one year old. b. Confirmation that related, existing facilities will be adequate after addition of the proposed facilities. 	<p>_____</p>
<p>F. Other (e.g. laboratory, source water protection easements, etc.)</p>	<p>_____</p>
<p>Do any facilities appear to be overly complex, considering the size community?</p>	<p>_____</p>
<p>Has due consideration been given to treatment of sludge/supernatant waste streams?</p>	<p>_____</p>

VII. Selected Plan

Facilities included in the selected plan are as shown below. (Describe supply wells, treatment, storage, distribution rehabilitation, and any other facilities to be constructed as well as any existing

facilities to be abandoned / demolished):

Items of Work	Approximate Quantity / Size

Site specific information on the selected plan must include the following items.

A. General Information

1. Reason for selection.	_____
2. A planning area map showing the location of proposed facilities.	_____
Does it appear that any minority, low-income or other areas have been systematically excluded from receiving system improvements?	_____
Has the planning phase EPA Form 4700-4 been approved by the Program Support Officer?	_____
3. If the project includes facilities such as sludge handling, wastewater discharge, large quantity chlorine storage, etc. which may adversely affect public health or the environment (not including aesthetics), a determination of whether or not the facilities are located in a minority or low-income area and, if so, documentation that the siting of the facilities is nondiscriminatory. [Re: EO 12898, Environmental Justice]	_____
4. Brief description of the effect of the project on surface waters or aquifers.	_____
For supply projects, has the MDEQ/Office of Land and Water Resources (OLWR) permit application been submitted?	_____
Forwarded to OLWR/Permitting & Monitoring Division (PMD)?	_____
Comments resolved (if any)?	_____
For new distribution service, does the plan document that adequate wastewater facilities are (will be) provided?	_____
5. Where applicable, the sludge management system should be described in sufficient detail to determine feasibility.	_____
Will a Solid Waste Disposal Permit be required?	_____

Refer to the WPCRLF Wastewater Facilities Plan Checklist (PELF20), Section VI.B.3.b.	_____
Will an NPDES Permit be required? Refer to the WPCRLF Wastewater Facilities Plan Checklist (PELF20) for guidance on wasteload allocation and treatment requirements.	_____
6. Brief description of the nature (permanent or temporary), extent, and necessary mitigative measures of any other impacts, such as noise, dust, odor, erosion/siltation and removal of vegetation.	_____
7. The cost of the selected plan must be given in sufficient detail to separate eligible/ ineligible costs (Re: DWSIRLF Reg. Appendices A and B) and determine priority as shown in Section II. Note that land cost is eligible for consolidation and treatment (including production and storage) projects.	_____
Are all facilities eligible [Re:DWSIRLF Reg. Appendix A]?	_____
Do costs appear complete and reasonable?	_____

B. Special Environmental Considerations: The plan must specifically address the existence or nonexistence of any of the following environmentally sensitive areas and include a map showing the location. Alternative sites considered and any mitigative measures must be described in detail if any of these areas will be impacted directly or indirectly.

1. Archaeological/cultural sites, important plant/animal habitats, wetlands, navigable waterways, coastal zones, and wild and scenic rivers: Comment letters from applicable Intergovernmental Review (IGR) Agencies must be included. (Re: DWSIRLF Reg. Appendix K). _____

Will an archaeological/cultural resources survey be required? _____

Will a vegetative/wildlife survey be required? _____

If yes, and the Natural Heritage Program's review indicates an impact on existing/proposed threatened/endangered species or critical habitat, the U.S. Fish Wildlife Service (USFWS) must be notified and their concurrence obtained. _____

Will a Section 10 or 404 permit application be necessary? _____

If so, which? _____

If a 404 permit is required, the USFWS must be notified and their concurrence obtained. _____

Will a Department of Marine Resources permit application be necessary (coast projects only)? _____

Will a Wild and Scenic River be affected (projects in Wild/Scenic River basin only)? _____

Does the plan document any actions necessary to resolve IGR comments? _____

2. Important farmlands: A copy of the Farmland Conversion Impact Rating form should be included. This form is completed by the CB Project Manager in conjunction with the Natural Resources Conservation Service (NRCS). Information on this review and any actions taken to minimize impacts on prime or important farmlands should be included. _____

3. Floodplains. _____
Does the plan document whether or not the project is located in the 100-year flood hazard boundary?

If so, have alternative sites been considered and/or mitigative measures given in accordance with EO 11988? _____

VIII. Financial Analysis

The majority of the required financial information is included in the "Financial Capability Summary" (Attachment 1). The author may choose to complete the summary and incorporate it directly into the plan. Additional information should be added as necessary to include the following:

A. Where necessary, letters of intent/concurrence from interlocal entities and/or MU's (see III.B.6.) must be included in the plan. The plan must outline, as much as possible, the various responsibilities for operating and financing the facilities and include documentation of concurrence by affected interlocal entities. Note that any required interlocal agreements will be due with the loan application. _____

B. An explanation of how initial Non-DWSIRLF funded costs will be financed (See Attachment 1, Items No. 3 and 4) _____

Do all costs, interest rates, and other financial arrangements appear reasonable? Note that the DWSIRLF Loan repayment period may be up to 20 years. _____

If any of the existing debt is with the Rural Utilities Service (RUS, formerly Farmer's Home Administration), has RUS been notified of the estimated DWSIRLF loan amount and asked to verify the RUS repayment amount(s)? _____

Does RUS concur with the new loan? (Contact Bettye Oliver or Patricia McDowell with RUS Community Programs at 601-965-5460.) _____

C. An explanation of how user charges will be levied for OM&R, DWSIRLF Loan repayment, and any other loan or bond debt retirement. _____

Have sufficient funds been included for OM&R, loan repayment, and any other debt retirement? _____

Is the nonresidential share of costs proportional to nonresidential flows? _____

D. Average annual cost per household compared (as percentage) to the Median Household Income (MHI) (See Attachment 1, No. 8): Current MHI information

is contained in "The (latest year's edition) Sourcebook of Zip Code Demographics". Other credible sources are available and may be used. Also, adjustments to these sources, to more accurately reflect the MHI, may be made when justified. _____

Is the project high cost? _____

If so, have corrective actions been taken and documented? _____

IX. Public Participation

The following information is to be included in the plan regarding the public hearing for the project (see Attachment 2).

- A. Proof of publication of advertisement. _____
- B. Minutes, including public comments. _____
- C. Summary of how each comment was addressed. _____
- D. Plan revisions pursuant to comments. _____

Was public notice adequate?

Hearing must be advertised at least once 30 days prior to the hearing date in a local newspaper. _____

At the time of Facilities Plan review, has there been any significant change in the project site, treatment type, cost estimates, or user charge estimates as compared to that presented at the public hearing? If so, another hearing may be required. _____

FINANCIAL CAPABILITY SUMMARY

Loan Recipient _____ Date _____

Project Description _____

1. Estimated Construction Costs (See DWSIRLF Regs. Appendices A and B for allowable cost information.)

	<u>Total</u>	<u>Eligible</u>
Consolidation	\$ _____	\$ _____
Supply	\$ _____	\$ _____
Treatment	\$ _____	\$ _____
Storage	\$ _____	\$ _____
Distribution	\$ _____	\$ _____
Land Acquisitions	\$ _____	\$ _____
Planning & Design Phase Services	\$ _____	\$ _____
Construction Phase Services	\$ _____	\$ _____
Construction Contingency	\$ _____	\$ _____
Other(_____)	\$ _____	\$ _____
 Subtotal	 \$ _____	 \$ _____
 DWSIRLF Administrative Fee	 \$ _____	 \$ _____
 a. Total	 \$ _____	 \$ _____

2. Estimated Annual Operation, Maintenance and Replacement (OM&R) Costs

Labor	\$ _____	Miscellaneous	\$ _____
Utilities	\$ _____	a. Annual OM&R (new facilities)	\$ _____
Materials	\$ _____	b. Existing OM&R(carried over)	\$ _____
Outside Services	\$ _____	c. Total OM&R	\$ _____
Equipment Replacement	\$ _____		

3. Funding Sources

Total Construction Costs (from 1.a)	\$ _____
(-)DWSIRLF funding	\$ _____
(-) Grants	\$ _____
(-) Other Loans	\$ _____
(-) Bonds	\$ _____
(-) Other	\$ _____

4. Long-term Financing

Financing Method	Amount	Interest Rate	Term of Maturity	Annual Payment
DWSIRLF Loan	\$ _____	% _____	yrs (up to 20)	\$ _____
Other Loan	\$ _____	% _____	yrs _____	\$ _____
Bonds	\$ _____	% _____	yrs _____	\$ _____
Other	\$ _____	% _____	yrs _____	\$ _____

a. Total \$ _____

5. Total Estimated Annual Costs

Existing Debt Service	
RUS (formerly FmHA)	\$ _____
Other	\$ _____
New Facilities Debt Service (from 4.a)	\$ _____
Total Annual O.M.&R (from 2.c)	\$ _____
a. Total Annual Costs	\$ _____

6. User Charges

a. Existing Monthly Rates

Usage (1000 gal)	Class 1	Class 2	Class 3
First ____ (or flat fee)	\$ _____	\$ _____	\$ _____
_____ to _____	_____ \$/1000 gal	_____ \$/1000 gal	_____ \$/1000 gal
_____ to _____	_____ \$/1000 gal	_____ \$/1000 gal	_____ \$/1000 gal
Over _____	_____ \$/1000 gal	_____ \$/1000 gal	_____ \$/1000 gal

b. Proposed Monthly Rates (if increase is proposed)

Usage (1000 gal)	Class 1	Class 2	Class 3
First ____ (or flat fee)	\$ _____	\$ _____	\$ _____
_____ to _____	_____ \$/1000 gal	_____ \$/1000 gal	_____ \$/1000 gal
_____ to _____	_____ \$/1000 gal	_____ \$/1000 gal	_____ \$/1000 gal
Over _____	_____ \$/1000 gal	_____ \$/1000 gal	_____ \$/1000 gal

c. Proposed Revenue

<u>Avg. Use (1000 gal/mo)</u>	<u>Avg. Bill (\$/mo)</u>	<u>No. of Users</u>	<u>Revenue (\$/mo)</u>
Class 1	_____	_____	_____
Class 2	_____	_____	_____
Class 3	_____	_____	_____
Subtotal	_____	_____	_____
ANNUAL TOTAL (Revenue Subtotal x 12)			_____

7. Source of Funding for Annual Drinking Water Facilities Costs

User Charges (6.c TOTAL)	\$ _____
Property Taxes	\$ _____
Other ()	\$ _____
Connection Fees	\$ _____
Surcharges	\$ _____
Total (must exceed 5 TOTAL)	\$ _____

8. Annual Cost Per Household

Total Annual Costs (from 5.a)	\$ _____
Non-residential Share of Total	_____
Residential Share of Total	_____
Existing Households to be Served	_____
a. Average Annual Systemwide Cost Per Household	_____

9. High Cost Comparison

a. Annual cost per household (from 8.a)	_____
b. Median household income	_____
c. Percentage (a / b x 100)	_____
d. High cost threshold	1.5%
e. Is this a high cost project (Is 9.c greater than 9.d)?	_____

Public Participation
DWSIRLF Facilities Planning

Listed below are actions to be taken by a DWSIRLF loan applicant with regard to public participation in facilities planning.

1. The applicant is required to hold a public hearing when the facilities planning document has been finalized, but before it has been fully adopted.
2. The hearing must be advertised in an appropriate local newspaper at least 30 days prior to the hearing date. The applicant is also encouraged to notify local radio and television stations. The public notice should state the topics to be discussed at the hearing (see 3 below).
3. The following topics must be discussed at the public hearing:
 - a. Alternatives considered and facilities to be built
 - b. Where the facilities will be located
 - c. Why they are needed
 - d. How much they will cost
 - e. Estimated average user charges
 - f. Landowners/properties affected by acquisition of property, easements, and right-of-ways
 - g. Environmental impacts
4. If any project change is significant enough to require a FONSI amendment, a new public hearing will be required.
5. By the deadline established by the Priority System, the DWSIRLF Facilities Plan must contain the public hearing notice with proof of advertisement, the public hearing minutes, and any actions necessary to resolve adverse public comments.

The measures listed above should be discussed with the applicant and consultant at the pre-planning conference.