ATTACHMENTS

ATTACHMENT A

IDEQ Water Facility Plan Checklist

Drinking Water Outline and Checklist for Planning Document
Attachment ENG-01

Grant Recipient: _____ **Project:** _____

Consultant Engineer: _____ **Date:** _____

The Department of Environmental Quality (DEQ) requires that a planning document (e.g., a facility plan or preliminary engineering report) be prepared for projects that will receive state planning grant and state revolving fund loan funding for design and construction. This checklist is intended to assist grant recipients in the development of an approvable planning document and may also be used by DEQ staff as a review tool.

Y = Yes N = No NA = Not Applicable

A. INTRODUCTION			
Checklist Item	**Yes**	**No**	**NA**
1. Does the introduction include the following:	☐	☐	☐
a. A discussion of the purpose and need of the project and a brief description of the plan of study?	☐	☐	☐
b. A discussion of the report organization (table of contents, figures, and tables can be included)?	☐	☐	☐
c. A brief discussion of how the system owner has accepted project responsibility, including what the owner has obtained or can obtain for financial resources, technical qualifications, experience, organization, and adequate facilities to carry out the project according to the project schedule	☐	☐	☐
B. EXISTING CONDITIONS			
This section of the report should present a broad-brush explanation of the existing conditions for the proposed project area including maps, site plans, schematics, and tables, as needed:			
Checklist Item	**Yes**	**No**	**NA**
1. Boundaries of both the planning areas and the footprint of the actual project site are clearly identified	☐	☐	☐
2. Briefly describe existing environmental conditions in the planning area and proximity to the proposed project, including the following descriptions:	☐	☐	☐
a. Physiography, topography, geology, and soils	☐	☐	☐
b. Surface and ground water hydrology (quantity, quality, and uses)	☐	☐	☐
c. Fauna, flora, and natural communities	☐	☐	☐
d. Housing, industrial, and commercial development	☐	☐	☐
e. Cultural resources (historical and archaeological)	☐	☐	☐
f. Utility use	☐	☐	☐
g. Floodplains/wetlands	☐	☐	☐
h. Wild and scenic rivers	☐	☐	☐

i. Public health and water quality considerations	☐	☐	☐
j. Prime agricultural farmlands protection (include maps)	☐	☐	☐
k. Proximity to a sole source aquifer or stream flow source area	☐	☐	☐
l. Land use and development	☐	☐	☐
m. Precipitation, temperature, and prevailing winds	☐	☐	☐
n. Air quality and noise	☐	☐	☐
o. Energy production and consumption	☐	☐	☐
p. Socioeconomic profile of the affected community, including population statistics	☐	☐	☐
3. A complete description of the existing water system. Cover each of the following facilities, if applicable, including the physical condition of each:	☐	☐	☐
a. Source(s)	☐	☐	☐
b. Treatment system(s)	☐	☐	☐
c. For each source(s), describe any source storage and booster pumping stations	☐	☐	☐
d. Distribution system including:	☐	☐	☐
i. Water mains including system map	☐	☐	☐
ii. Distribution system storage reservoirs	☐	☐	☐
iii. Distribution system pumping stations	☐	☐	☐
iv. Explain how each pressure zone works including any problem with each and including computerized hydraulic analysis to demonstrate water pressure as required by IDAPA rules for the following conditions: • Peak hour demand • Maximum day demand including fire flow where provided	☐	☐	☐
v. Drinking water quality, including laboratory analyses for bacteria, chemicals, and radiation, especially as compared to maximum contaminant levels (use system's consumer confidence reports)	☐	☐	☐
e. Address pertinent operation and maintenance issues and concerns.	☐	☐	☐
f. An analysis of:	☐	☐	☐
i. Average daily demand	☐	☐	☐
ii. Maximum day demand	☐	☐	☐
iii. Peak hour demand	☐	☐	☐
g. Cross-connection control program.	☐	☐	☐
4. Any violations of the Safe Drinking Water Act and the Rules for Public Drinking Water Systems (IDAPA 58.01.08), including persistent customer complaints (unusual discharges, odor, etc.)	☐	☐	☐
5. List and status of defects or deficiencies and copy of last sanitary	☐	☐	☐

survey.			
6. Other appropriate information.	☐	☐	☐
C. FUTURE CONDITIONS			
The planning document should generally discuss the following topics relating to future conditions. (Use maps, site plans, figures, and tables as appropriate to complete this section.)			
Checklist Item	**Yes**	**No**	**NA**
1. Future growth for a 20-year population projection. Growth should be consistent with the most recent U.S. Census Bureau data or comparable source(s) of data. (Reference the source of information.)	☐	☐	☐
2. Forecast of demand (20-year period), including:	☐	☐	☐
a. Residential, commercial, and industrial	☐	☐	☐
b. Projected average day demand, maximum day demand, and peak hour demand.	☐	☐	☐
c. Adequacy of the water system fire flow capacity as determined by the local fire authority or by a licensed professional engineer in accordance with the International Fire Code as adopted by the State Fire Marshal.	☐	☐	☐
d. Expected reduction in water demand after metering.	☐	☐	☐
e. Appropriate rate structure.	☐	☐	☐
3. Analysis of user charges and operations and maintenance budget.	☐	☐	☐
4. Drinking water treatment facilities needed for a minimum 20-year period. (Note: a minimum 40-year period may be used for distribution and transmission systems per IDAPA 58.01.22.030.01.e.).	☐	☐	☐
5. Land use plans for the area served by existing and future drinking water facilities.	☐	☐	☐
D. DEVELOPMENT AND INITIAL SCREENING OF ALTERNATIVES			
The planning document should include the following topics related to the development and screening of alternatives:			
Checklist Item	**Yes**	**No**	**NA**
1. Description of problems/deficiencies with the existing wastewater system to be corrected by the project.	☐	☐	☐
2. Development of alternatives that incorporates the following:	☐	☐	☐
a. Discussion of reasonable alternatives to upgrade and/or construct new facilities.	☐	☐	☐
b. Discussion of the no-action alternative.	☐	☐	☐
c. Discussion of optimum operation of existing facilities.	☐	☐	☐
d. Discussion of regionalization, including regional management and physical consolidation of systems.	☐	☐	☐
3. Description of how isolated areas in and around the community will be served	☐	☐	☐
a. Will new wells, reservoirs, and distribution lines be needed for these areas?	☐	☐	☐

4. Description of how new sources can be developed	☐	☐	☐
5. Discussion of treatment requirements for new or upgraded facilities	☐	☐	☐
6. Discussion of storage requirements.	☐	☐	☐
7. Discussion of pumping requirements.	☐	☐	☐
8. Discussion of pressure maintenance.	☐	☐	☐
9. Description of any separate irrigation facilities.	☐	☐	☐
10. Discussion of pressure zones.	☐	☐	☐
11. Discussion of what, if any, changes occur to system classification and operator licensure for each alternative.	☐	☐	☐
12. Other (please describe):	☐	☐	☐

E. FINAL SCREENING OF PRINCIPAL ALTERNATIVES – TECHNICAL DRAFT

Final screening of alternatives is included in the technical draft planning document and submitted to DEQ reginal office for approval. The Technical Draft should include the following areas:

Checklist Item	**Yes**	**No**	**NA**
1. Evaluation of costs:	☐	☐	☐
a. Present worth analysis (i.e., total project costs over time discounted to current values as a lump sum).	☐	☐	☐
b. Capital costs and financing plan.	☐	☐	☐
c. Operations and maintenance costs	☐	☐	☐
d. Cost escalation factors for energy use	☐	☐	☐
e. Comparison of costs of alternatives	☐	☐	☐
2. Consideration of any impacts to water supply systems.	☐	☐	☐
3. Consideration of reliability of the supply source--should also consider standby power and redundancy criteria from the Idaho Rules for Public Drinking Water Systems.	☐	☐	☐
4. Discussion and comparison of principal alternatives by providing a broad-brush environmental analysis. A charted comparison is useful to accomplish this; see form DEQ Environmental Review Procedure for Projects Funded through the Drinking Water State Revolving Fund and Clean Water State Revolving Fund (CWSRF) Loan Programs for example table. This should build on the broad-spectrum environmental information generated from Item B.2 in this checklist.	☐	☐	☐
5. Justification and a detailed description of the recommended alternative.	☐	☐	☐

F. PUBLIC PARTICIPATION

The public participation is completed during the State Environmental Review Process (SERP) after the technical draft planning document has been approved for public comment by the region. (If the planning grant recipient has opted out of the SERP, then the following items do not apply.) Evaluation of public input, per 40 CFR Part 25, IDAPA 58.01.22, and SRF Customer Handbook will

be handled during the SERP and includes the following:			
Checklist Item	**Yes**	**No**	**NA**
1. Prior to beginning public participation efforts, DEQ has been contacted to set up SERP scoping meeting.	☐	☐	☐
2. Role that public participation has in the planning process.	☐	☐	☐
3. Demonstration that key public review activities (i.e., information and notification) were incorporated. If applicable, limited English proficiency compliance has been documented by the loan recipient. The public must be provided with no less than a 14-day public comment period (possibly longer depending on the nature of the project) and one public meeting conducted.	☐	☐	☐
4. Description of the public meeting held for this project.	☐	☐	☐
5. Adequate notice provided prior to public meetings.	☐	☐	☐
6. Documentation of public meeting being held for the community before particular alternative has been officially selected by the authorizing body (city council/district/board).	☐	☐	☐
G. RECOMMENDED ALTERNATIVE DESCRIPTION AND IMPLEMENTATION ARRANGEMENTS – FINAL PLANNING DOCUMENT			
This section should consist of those activities that normally follow selection of the best alternative. Once SERP and the public participation processes have been completed, a final planning document is submitted to DEQ regional office for review. Generally, the following information is included in the final planning document:			
Checklist Item	**Yes**	**No**	**NA**
1. For planning documents intended to satisfy requirements of a preliminary engineering report, requirements of IDAPA 58.01.08.503 are addressed for the recommended alternative, including but not limited to:	☐	☐	☐
a. Description of the major features	☐	☐	☐
b. Unit processes and sizes	☐	☐	☐
c. A schematic flow diagram for treatment	☐	☐	☐
d. Distribution length and sizes	☐	☐	☐
e. Proposed design criteria	☐	☐	☐
f. Design and construction completion schedule	☐	☐	☐
g. Maps, preliminary layouts, and site-specific plans	☐	☐	☐
2. Sustainability efforts (Green Project Reserve) including cost estimates, if required by grant agreement.	☐	☐	☐
3. Justification that the recommended alternative is the most cost-effective means of meeting applicable effluent, water quality, and public health requirements while recognizing environmental and other non-monetary considerations. If the most cost-effective and environmentally sound alternative was not recommended, explain, and give reasons.	☐	☐	☐

4. Total project cost estimates (capital, debt service, replacement, and O&M) for the recommended alternative, including monthly charges and added cost to the customer.	☐	☐	☐
5. Documentation of the availability of the most suitable land for the project and an appropriate means to secure rights to the land.	☐	☐	☐
6. Any of the following elements for implementation that are applicable should be included:	☐	☐	☐
a. Intermunicipal service agreements including adequate demonstration that each party has the necessary legal, institutional, and managerial resources to ensure the building, operation and maintenance of the project and that an agreement between agencies has been or will be executed prior to the loan application.	☐	☐	☐
b. Proposed financing methods	☐	☐	☐
c. Operations and maintenance requirements of selected alternative including a discussion about the O&M budget, staffing, training, laboratory requirements, special maintenance requirements, special operating requirements, residuals disposal, etc.	☐	☐	☐
d. Project schedule including specific actions to implement the selected alternative and to meet its objectives on schedule, and any dates in this schedule that correspond to compliance dates.	☐	☐	☐
e. Operator(s) licensed appropriately for type and class of system, according to IDAPA 58.01.08.	☐	☐	☐
f. Water rights and water quantity. Provide information on the status of current, and plan for future, water permits and licenses from the Idaho Department of Water Resources.	☐	☐	☐
7. Documentation of DEQ issued SERP environmental determination	☐	☐	☐
H. APPENDICIES			
Any of the following items that are applicable should be appended to the planning document:			
Checklist Item	**Yes**	**No**	**NA**
1. Relevant engineering data – Engineering calculations, opinion of costs, and supporting analysis	☐	☐	☐
2. Latest operations and maintenance budget, including user charges.	☐	☐	☐
3. Additional maps, charts, figures, and tables as needed.	☐	☐	☐
4. Reference documents consulted.	☐	☐	☐
5. If applicable, SERP documentation.	☐	☐	☐
I. NOTES FOR PLANNING DOCUMENTS FUNDED/PREPARED WITH A PLANNING GRANT			
Checklist Item	**Yes**	**No**	**NA**
1. Address the requirements of Idaho Rules for Public Drinking Water Systems, sections 501, 502, and 503.	☐	☐	☐
2. If DEQ has not yet accepted the existing cross connection control program, that will be reviewed during the loan process.	☐	☐	☐