

BUSINESS PLAN INSTRUCTIONS

Who is required to prepare a Business Plan?

Pennsylvania (PA) Code Chapter § 109.503, the Safe Drinking Water Regulation, requires all new community water systems (CWSs), applying for a construction permit from the Pennsylvania Department of Environmental Protection (DEP), to prepare a Business Plan and submit it to DEP as part of the permit application.

Why is a Business Plan important for a new water system?

It is necessary to identify the risks that exist with the proposed system and provide assurances that the system will be capable of meeting drinking water requirements and of providing a safe and adequate supply of water for current and projected demand, before making a significant investment in a new system. It is important that before a new system begins operation that the owners have determined their intentions, approach, and likelihood of success. The Business Plan is a methodical approach to address these issues.

Who may prepare a Business Plan?

The Business Plan can be prepared by any individual familiar with the service area, any related existing systems, and the system's finances. The proposed system's owner or operator would be a likely candidate to develop the plan. Often, the system's engineer, financial advisor, or other consultant will be given the assignment of preparing the Business Plan. Sometimes, county or regional planning, or development agencies will prepare the plan or provide assistance in its preparation. However, regardless of who prepares the plan, responsibility for its validity, and ultimate implementation, remains with the system owner. It is critical that the owner play a role in the Business Plan development, including involvement in all assumptions, understanding how all cost estimates were developed, and identifying and understanding the various risks involved.

Business Plan Development

The first step is to discuss the proposed Business Plan scope with the DEP regional Safe Drinking Water engineer during a Planning Consultation meeting. This is typically held simultaneously with the Planning Consultation Meeting required for potential PENNVEST applicants or during a permit preapplication meeting. If the proposed system is to be an investor-owned system under the jurisdiction of the Public Utility Commission (PUC), PUC staff should also be contacted at this time. The purpose of this meeting is to ensure that the proposed permit application is reasonable and addresses the area's water supply over time before significant time and money is invested. The Business Plan will be a key component in supporting the designs and conclusions the applicant and its engineer will present at the preapplication meeting. The applicant should be prepared to discuss the following as it relates to the creation of the Business Plan.

- The existing conditions and identification of problems in the affected area and neighboring communities.
- Projected water use for the proposed project area. Are there existing and/or proposed meters and/or fire hydrants?
- Identify the land use and water use patterns of the proposed service area. Who are the major commercial, industrial, and institutional water users? What is the density of land use? What is the timing for future development and impact on water demand?
- A description of all nearby water systems, including location, service areas, primary facilities, system capabilities, and contact person and phone number.
- An identification of the proposed current and future service areas of the proposed system and that of neighboring water systems. It would be helpful to bring a map to the meeting if available.
- Prefeasibility assessment to identify and screen alternative solutions. Business Plan and project

implementation schedules.

- Business Plan formats, requirements, and procedures.
- Institutional alternatives, including internal structure.

Advice given by the DEP Regional Safe Drinking Water engineering staff at the Planning Consultation Meeting and/or the Preapplication Engineering Conference is not official approval by DEP. However, discussing the issues with DEP (and PUC where appropriate) in the preliminary stages may save time in the permit application review, and may save money by not expending resources unnecessarily. Two copies of the final Business Plan must accompany the final permit application. Click [DEP Regional Office contact information](#) to determine which office to contact based on and the counties served in the state.

Business Plan Format

DEP has developed a Business Plan format to capture the required information. Systems applying to DEP for a new CWS permit should utilize this format. The format has three basic components:

Facility Plan - including an assessment of the current and foreseeable water supply needs of the area, a description of alternatives considered (including both construction and operating costs) and the rationale for the approach selected.

Management Plan - including documentation that the applicant has the legal right and authority to construct, operate and maintain the system, a management and administrative plan, and an operation and maintenance plan.

Financial Plan - projections and assurances that the system's revenues and cash flow will be sufficient for meeting the costs of construction, operation, and maintenance for at least five years from initiation of operations. In addition, technical guidance tools are provided to assist systems determine their financial health and ensure revenue and costs projections are based on sound financial assumptions.

Each of the three components has subparts. The next section describes these components and their subparts in more detail. In some cases, existing documents can be incorporated by reference to reduce duplication of effort. Some additional documents are to be included with the plan as supplements.

A spreadsheet is provided containing templates to include in the Business Plan. The templates can be modified as needed to reflect the elements of the proposed system. However, all the same basic information should be provided. The more detailed the information is, the less likely that follow-up questions will be necessary.

Applicants should provide additional justification or documentation for the assumptions used in completing schedules and preparing entries for the Business Plan. In addition, prepared worksheets or calculations used to develop the business plan should be attached as supplemental documentation. Please use narratives to describe how assumptions were made and what factors were considered. The better projections are supported; the less time will be required during the review process. All assumptions need to be reasonable. There will be some margin for error if more adverse assumptions are used. The plan should provide the system's owner and operator, DEP, local officials, and customers with assurance that the proposed system is strong enough to remain viable even if some of the assumptions and targets are not met. The purpose of preparing a Business Plan is to help the applicant develop a drinking water system that will remain viable indefinitely. The better the basis for decisions, the better the prospect for future success.

The three sections work together to provide a picture of the long-term viability of the system and provide assurance that the proposed project is well thought out and has a reasonable chance for ongoing success. Each of the three components are described in more detail below. **Attachment A of this document includes a Business Plan Checklist that systems may complete, sign, and submit with their Business Plan to document all areas have been addressed and included as part of the Business Plan.**

FACILITY PLAN

The purpose of the Facility Plan is to assure that the project has been appropriately planned. It should be demonstrated that the proposed system addresses the drinking water needs of the service area, and that it is the most appropriate alternative reasonably available. To do that, a Business Plan needs to address several issues. First, what are the needs of the area? What alternatives are available to meet these needs? What rationale was used to determine that the proposed alternative is the best long-term approach? What exactly is the proposed alternative, and what is its true cost to build, operate, and maintain? To address these issues, the Facility Plan should consist of two subsections: Potential System Requirements and Alternative Identification and Evaluation.

A. POTENTIAL SYSTEM REQUIREMENTS

An Engineer's Report is prepared as part of the Safe Drinking Water Permit Application process (described in the Public Water Supply Manual). Much of the information that needs to be included in the Business Plan, especially as it relates to potential system requirements, will be already included in this existing report. It is important to assure that the Business Plan covers all the facilities that will be constructed as part of the proposed system. At a minimum, this subsection should address:

- 1. A list of all municipalities to be served by the proposed system, and identification of the county in which the system will be located.**
- 2. Projected population information for the service area (based on information from local planning agencies).**
- 3. Land use information, including type (e.g. low density residential, high density residential, commercial, industrial, institutional), density, and timing for future development. Please also include information on other planning activities in the proposed service area.**
- 4. A description of all nearby public drinking water systems and any attempts to obtain service, including location, service areas, primary facilities, system capabilities, hydraulic profile, and contact person and phone number. This information may be available in a plan prepared for the service area county under the auspices of the County Water Supply Planning and Wellhead Protection Grant Program.**
- 5. Identification (on a map) of current proposed and future service areas, and that of neighboring water systems. Also, provide an explanation of how the boundaries are determined, including legal and regulatory issues such as PUC jurisdiction, capability (available source and system hydraulics), and desire to extend service.**
- 6. Comprehensive information on the projected number of customers and demand by customer type for years 1-5, 7, 10, 12, 15, and 20. Facility Plan Form 1 may be used for this purpose (see Business Plan Template Tab Facility A6).**
- 7. A timeline for construction of the system and commencement of operations, clearly specifying any proposed phasing or possible future extensions, including number of customers and average daily production in each year until the year of final build out.**

The Business Plan helps identify information not normally covered in the Engineer's Report. Answers to the first seven of the Potential Systems Requirements subsections will demonstrate what the level of need is now and, more importantly, in the future for both the proposed service area and neighboring areas. This is a key ingredient for projected rate revenue calculations and pro forma financial statements that are part of the Financial Plan. The information also is needed to demonstrate that the proposed project is appropriately sized. In addition, this provides basic information that can help determine if the alternative of connecting to, or becoming part of, a nearby system warrants further consideration. What is considered as a "nearby public

water supply system” may be based on topographic issues as well as distance. This definition should be discussed with the DEP regional water engineer, and they will provide input as to what alternatives should be considered.

- 8. A description of the required facilities not covered by the Safe Drinking Water permit application, such as distribution system, metering, garage and operation facilities, trucks and other vehicles, administrative facilities and equipment, etc. Please provide this information in enough detail so that the basis for cost estimate is clear (i.e. diameter of pipe, linear feet, borings, etc.).**
- 9. A description of the proposed emergency service capabilities including details of the Uninterrupted System Service Plan (USSP).**

Items 8 and 9 are simply meant to assure that the Business Plan includes all facilities that will be needed, regardless of whether they are covered by the Safe Drinking Water Permit application or not.

B. ALTERNATIVE IDENTIFICATION AND EVALUATION

The second part of the Facility Plan is alternative identification and evaluation. The alternatives to be evaluated should be reviewed with the DEP regional water project engineer, and PUC staff as appropriate. The Facility Plan checklist includes a series of steps that will provide a financial rationale for evaluation of the alternatives. This should be done for all Business Plans. The evaluation of alternatives may also include technical, managerial, operational, and local decision-making rationale in the evaluation of alternatives. If the selected alternative does not appear appropriate based on the financial rationale alone, describe in detail the rationale used to select the proposed alternative.

Also, if a regional solution is selected, such as consolidating with an existing system, becoming a consecutive water system, etc., a detailed explanation of the rationale for creating a separate system should be provided. However, if the selected alternative is a regional approach that is also the most cost-effective alternative, less detail would be necessary for the other rationale(s) used.

Alternative Identification includes:

- 1. A description of available alternatives, including construction of a completely new system, construction of a distribution system with supply coming from another system, and extension of another system to serve the proposed area. Include institutional alternatives, such as incorporating the proposed area into an existing system, creating a separate rate district within an existing system, satellite management, contract operations and/or management, etc. Please be sure to address regional approaches with all systems identified in Item 4 of Potential System Requirements. If, after discussion with the DEP regional water project engineer, some alternatives did not warrant further consideration, describe those alternatives, and provide a brief explanation of your reasoning.**

For the first item in the ALTERNATIVE IDENTIFICATION Section of the Business Plan, you should attempt to list as many available alternatives as possible. Be creative, including institutional alternatives as well as physical alternatives. These institutional alternatives could include consolidation with another system (even if not physically part of that existing system), satellite management, contract management, a circuit rider, etc. These would be the alternatives discussed with DEP at the Planning Consultation Meeting. If some of the alternatives are not worth pursuing, then identify those alternatives and provide a brief reason why they do not warrant further consideration. An example might be that the distance and topography are such that physical interconnection is several times more costly than constructing a new system. Alternatively, it may be that there is no sufficient source to support an independent system, and thus interconnection with an existing neighboring system is the only remaining option.

It should be clear and obvious from the narrative why an alternative has been abandoned, and what assumptions and information were used to reach that decision.

Throughout the rest of the Business Plan, only provide information on those alternatives you and the regional water project engineer agree are worth pursuing. In some rare cases this will result in only one alternative on which to provide detail. In most cases, no more than two or three alternatives will need to be evaluated in detail.

- 2. A description of the physical components that comprise the various alternatives. Include both operational and administrative facilities. Also include a cost estimate for each major item of construction. Not all items will be common to all alternatives. Business Plan Template, Tab Facility B2 may be used to provide this information.**

The second item concerns physical components of the alternatives. A standard engineer's cost estimate may be substituted for Business Plan Template, Tab Facility B2. If another format is used, be sure it is both detailed enough to support the estimate, but concise enough for comprehension. Items should be grouped into major categories. If you use Business Plan Template, Tab Facility B2, please be aware that not all construction items will be common to all alternatives. For example, treatment facilities may be a cost item in one alternative, while a transmission line is in the other alternative. Sometimes similar but not equal items will be in different alternatives. For example, if the one alternative is to become a consecutive system, a transmission line may be in the cost estimate for that alternative. Even if an independent source is the basis for another alternative, it may also contain a transmission line for emergency or drought purposes, but the size of the transmission line, and thus the resulting cost may be lower than in the other alternative. Please be sure that all cost estimates have a solid quantitative basis, and that assumptions are conservative. Your plan should have enough flexibility to provide assurance of viability even if adverse assumptions are used.

- 3. A summary of the expected Engineering costs associated with each alternative including such costs as planning, pre-design, design, bidding, etc. Business Plan Template, Tab Facility B3 details the information to be provided and may be used for this purpose.**

The purpose of the third item is to allow DEP to assess the reasonableness of the Architectural/Engineering Fees cost item estimate. Occasionally, comparing engineering cost estimates from one project to another can be challenging, since the definition of what is included in engineering services can vary. The purpose of Business Plan Template, Tab Facility B3 is to use relatively standard definitions to show what is included in developing the engineering cost estimate. If your engineering contract includes non-engineering services or services not directly related to the construction of the proposed alternative, do not include those costs in this estimate. For example, a user rate study would not be included in this section.

- 4. Construction cost estimates for each alternative described in Item 1, above. Business Plan Template, Tab Facility B4 may be used to provide this information.**

Business Plan Template, Tab Facility B4 provides a format to summarize the construction budget estimates of the various alternatives. However, additional documentation can also be provided in narrative form, or in the form of supporting worksheets. Since DEP will be reviewing the cost estimates for reasonableness, any information you can provide to show how the budget estimate was developed would be helpful. This is especially important in those areas where you are estimating costs significantly higher or lower than customary. For example, if there is a reason why contingency for a given alternative should be more than 10% of construction, you would want to provide an explanation. It is possible that previous experience has shown unusual subsurface conditions in the project area, and the proposed alternative requires a lot of excavation.

If an alternative includes acquisition of capacity or a capital contribution to another system to construct capacity, please provide the basis for the estimate and include, if available, draft or executed agreements with the other party or parties.

Interest during construction should be expressed as net interest cost that is minus any interest earnings that are anticipated.

The cost of obtaining financing should be included in the category of Financial Accounting Cost. However, the amount borrowed to establish a debt service reserve fund or other long-term asset should not be included

since this is not a net outlay of cash.

5. Operating cost estimates for each alternative described in Item 1 above. Business Plan Template, Tab Facility B5 may be used to provide this information.

The Business Plan Template, Tab Facility B5 allows for a summary presentation of projected O&M costs. Supporting worksheets or narrative explaining how the estimate was developed will be helpful. Documentation of the "Purchased Water Costs" item is important. The documentation should include support for any unaccounted-for water assumption used. The cost of water should also be documented with something in writing from the potential seller, preferably a draft or executed purchase agreement.

In calculating the monitoring budget estimate, be sure to consider any increasing monitoring requirements that may be in place by the time the proposed alternative begins operation or in the future.

If services are provided by another fund and reimbursed through an interfund transfer, do not forget to show the actual costs on this form.

6. Information on any connection fees, tap in fees, betterment assessments, availability charges, or other special assessments that would be used to help fund construction under any of the alternatives presented. Business Plan Template, Tab Facility B6 summarizes the type of information to be provided regarding special assessments. This information should be provided for each alternative.

7. A list of the projected funding sources for construction components of each alternative. If developer contributions are available, include an explanation of how the amount of the contribution was developed, and provide a copy of the agreement (original if available, otherwise draft) with the developer. For any borrowing, please indicate the interest rate and term of the loan or note (see Business Plan Template, Tab Facility B7 for example). Be certain to distinguish for which of the cited alternatives funding is available.

Items 6 and 7 identify funding options and their related costs. This information will demonstrate how much outside funding is needed.

Special fees and other funding sources may vary based on the alternative. Please provide an estimate of each for each alternative.

8. An identification of the recommended alternative.

9. Description of cost comparison analysis, including method used, assumptions, and calculations.

10. Description of other rationale(s) used, including factors considered, assumptions made, sources of information used, and weight of each rationale.

For Items 8, 9, and 10, the applicant should identify the alternative they wish to pursue and provide the rationale for that decision. One reason that should always be considered is financial.

The applicant should provide a comparison of construction and operation and maintenance costs for the first year of operation, a present worth or net present worth analysis, life cycle cost analysis, or other financial analysis comparing the true costs of the alternatives over time. Please be sure to provide all the assumptions and calculations used in the analysis. Please be aware that others may be reviewing or using your Business Plan. The more detail as to how your analysis was organized and conducted, the quicker and more effective will be the review.

In addition to a comparison of costs, you may also include technical, managerial, operational, and local decision-making rationale to support your selection of a particular alternative. If you do not select the alternative that would appear appropriate based on the financial rationale alone, make sure you describe in detail the rationale used to select the proposed alternative. You should explain which rationale was used, what

factors were considered, what assumptions were made, provide the source of any information, and how you weighted this rationale as compared to the financial analysis. The more empirical and quantitative the analyses, the easier it will be for others to understand.

Also remember that if you do not select a regional solution, such as consolidating with an existing system, becoming a subsequent supplier, etc., it is critical that you explain in detail the rationale for creating a separate system. Generally, larger systems have proven to be more viable over time and have had less environmental enforcement actions. If you are selecting a regional approach that is the most cost-effective alternative, it is not as important that the business plan contain as much detail on the other rationale(s) used.

Once the proposed alternative is identified, the rest of the Business Plan relates only to that one alternative.

MANGAEMENT PLAN

The purpose of the Management Plan is to provide assurances that both the ability and commitment to provide for effective management and operation of the proposed system are in place. The Management Plan consists of four sections, one where ownership and legal authority to operate the system is documented, one which outlines the management and administrative plan, one which describes operation and maintenance, and one which provides assurance from system ownership that the Management Plan will be implemented by capable individuals or organizations. You may incorporate by reference the Operation and Maintenance Plan developed under the Guidance of Part V of the Public Water Supply Manual. This material does not need to be duplicated within the Business Plan.

A. OWNERSHIP

- 1. Identification of the type of organization who owns or will own the drinking water system. If current ownership will change in the future, please describe, including the proposed timeframe for the change of ownership. Ownership categories include: Municipality, Municipal Authority, Private Individual (Sole Proprietorship), Partnership, or Investor (Corporation, LLC, etc.) Business Plan Template, Tab Management A1 may be used to provide this information.**
- 2. If ownership category is MUNICIPALITY, be certain to address questions 2a-c, below:**
 - 2a. Identify the type of municipality. Municipality types include:**

County	City	Borough	Other: _____
First Class Township		Second Class Township Municipality	
 - 2b. If the municipality operates under a home rule charter, provide a description of the charter. Also please provide the name of the incorporated municipality and the county in which it is located.**
 - 2c. If the municipal owner has any inter-municipal agreements relating to the provision of drinking water with other municipalities, include the name of the municipalities and the counties in which they are located. Also attach copies of any inter-municipal agreements.**
 - 2d. Describe the extent to which the municipality provides direct bill service to customers in any municipality not a part of the proposed water system. If such service is provided, identify the municipalities and the counties in which they are located.**
- 3. If ownership category is MUNICIPAL AUTHORITY, be certain to address questions 3a-e, below:**
 - 3a. Provide the name and county of each incorporating municipality.**

- 3b. Describe the extent to which the authority provides direct bill service to customers in any municipality not a part of the authority. If such service is provided, identify the municipalities and the counties in which they are located.**
- 3c. If the municipal authority has any agreement relating to the provision of drinking water with any other municipality or authority, please provide a list of their names and copies of the agreements.**
- 3d. If the authority leases the system back to its incorporating municipality for operations, please provide a copy of the lease or agreement, and indicate who is responsible for establishing rates and tariffs.**
- 3e. Provide a copy of the charter documents and by-laws of the authority.**
- 4. If ownership category is a PRIVATE INDIVIDUAL (SOLE PROPRIETORSHIP), provide the name, address, and phone number of the individual who owns the system.**
- 5. If ownership category is a PARTNERSHIP, name the general partner and list all other partners. Also provide a copy of the partnership agreement system.**
- 6. If ownership category is a CORPORATION, please address items 6a-f, below.**
- 6a. Is the corporation Closely Held, Publicly Traded, or a Wholly Owned Subsidiary?**
- 6b. List the officers of the corporation, as well as the major shareholders (see Business Plan Template, Tab Management B 1-5 for an example of required information).**
- 6c. If the corporation is owned by a parent company, describe the ownership of the parent, including related companies.**
- 6d. Is the corporation for profit or not for profit?**
- 6e. Provide a copy of the corporate charter and by-laws.**
- 6f. Information on initial capital structure.**
- 7. If ownership category is an ASSOCIATION, address items 7a-c, below:**
- 7a. Is the association Closely Held, Publicly Traded, or a Wholly Owned Subsidiary?**
- 7b. Note whether the association is managed by the members or by a contract management organization. If by contract, please identify the contractor and provide a copy of the contract.**
- 7c. Provide a copy of the charter documents and by-laws of the association.**

The purpose of the first section of the Management Plan is to document that the applicant has the legal right and authority to take all measures necessary for the construction, operation, and maintenance of the system. Please provide copies of any documents that clearly set forth the applicant's control and authority for the system. Please be sure to disclose any encumbrances, trust indentures, bankruptcy decrees, legal orders or proceedings, or other items that may affect or limit the applicant's control over the system. Please be sure to identify if the applicant, owner(s), officers, parent, or affiliated organization currently owns or operates any other public water systems.

Please be sure to disclose if the ownership of the system is expected to change once the system is completed. For example, a municipality may own the drinking water system during planning and construction, with the intent to transfer ownership to an authority once the project is operational. Likewise, a builder or developer may own the system during planning and construction, with the intent to transfer ownership to a homeowners' association or separate corporation once the project is operational. If this is the case, the Management Plan

should clearly spell out who is the current owner, who will be the ultimate owner, the history and abilities of both, and what steps have been taken to ensure that the receiving owner will be able to properly manage, operate and maintain the system. You may want to consider the effect of PUC regulation when considering what form or ownership to select

Items 2 through 7 each deal with a different type of ownership. Each applicant should identify and respond to the one question that relates to the appropriate ownership category.

Non-governmental applicants should disclose any affiliated interests with developers of the area to be served by the applicant, including a full explanation of any co-mingling of funds. If an Affiliated Interest Agreement has been prepared for the PUC, a copy should be included in the Business Plan.

Corporations should provide detailed information regarding their initial capital structure, including authorized capital stock and indebtedness, number of shares by category to be issued and outstanding, privileges of each category issued, and the purpose of issue of stock and indebtedness.

If the applicant is a wholly owned subsidiary, please provide all requested ownership information for the parent as well as the subsidiary.

8. Identify any other public drinking water systems currently owned or operated by the applicant, owner(s), parent organization or affiliated organization

Item 8 shows if there are any other public drinking water systems with common or affiliated ownership.

B. MANGAEMENT AND ADMINISTRATIVE STRUCTURE

There are two purposes of the Management and Administrative Plan. First is to catalogue the resources that will be needed to manage and administer the system, to support budget cost estimates. The second purpose is to provide assurances that the applicant has in place an organization and people capable of managing the system and responding to unforeseen circumstances.

The model standard tariff supplied by the PUC can serve as an example of the issues that need to be addressed as part of the plan. While the model tariff has the most relevance for systems under the jurisdiction of the PUC, it can provide ideas and input for any system.

This portion of the plan should include a description of the organization that will be put in place, and the people that will execute the plan. Budget estimates do not necessarily have to be provided by position but can be provided by category. However, the more detail that is supplied, the better support there is for budget estimates. The Business Plan Template, Tabs B 1-5 and B 8-9 and be used to complete these items.

- 1. A copy of the organization chart and/or table.**
- 2. Whether or not job descriptions and/or job manuals have been prepared. If so, please describe.**
- 3. Identification of the certified operator(s), including certificate number, type, and class. If contracting a certified operator please refer the following guidance for assistance**
<http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=1427928&DocName=SMALL%20WATER%20SYSYTEM%20RESOURCE%3A%20CONTRACTING%20A%20CERTIFIED%20WATER%20OPERATOR.PDF%20%20%3Cspan%20style%3D%22color%3Agreen%3B%22%3E%3C%2Fspan%3E%20%3Cspan%20style%3D%22color%3Ablue%3B%22%3E%3C%2Fspan%3E%20%2F8%2F2021>
- 4. The number of employees projected to run the system including operations, administration, and management. Please identify projected employees by number, type, and designate as full or part time. Also provide a budget estimate of the salary and benefits for each position.**
- 5. Water system management experience of key personnel and affiliated organizations, including**

experience in other states.

6. Copies of any financial management policies and standards already developed.
7. Copies of the system's general rules and standards, including connection policies, extension policies, standard specifications, records management plan, emergency response plan, and drought response plan.
8. A description of any outside services anticipated to be used. How will the selection be made? If there are already contracts for outside services, please identify the providers and attach a copy of any agreements.
9. Estimates (by category) of the amount to be expended on outside services for the first full year of regular operations. (See Business Plan Template, Tab Management B for an example.) Outside services include the following:
LEGAL ENGINEERING MONITORING AND LAB WORK ACCOUNTING
BILLING AND COLLECTING FINANCIAL ADVISOR
OTHER SERVICES

C. OPERATIONS AND MAINTENANCE PLAN

Please provide a copy of the Operation and Maintenance Plan as prepared under Part V of the DEP Public Water Supply Manual. Be sure to use sufficient detail to support the budget estimate for Operations and Maintenance in the facilities and fiscal plans. Please also supply a copy of the Emergency Response Plan.

Again, the purpose of this section is to provide details that support the budget estimates for Operation and Maintenance, and to provide assurance that the applicant has in place a mechanism and structure to properly operate and maintain the system. It is not necessary to create a new document as part of the Business Plan. A copy of the Operation and Maintenance Plan prepared under Part V of the Public Water Supply Manual can be provided. Please be sure to use sufficient detail to support the budget estimate for Operations and Maintenance. Feel free to add an addendum or other additional information on Operation and Maintenance to the Business Plan if you believe it to be appropriate.

D. ASSURANCES

Assurances that the commitments and resources needed for proper operation and maintenance of the system are available. Include organization and individual qualifications and experience.

These are the assurances from the applicant that the commitments and resources needed for proper operation and management of the system will be carried out. Examples of the types of assurances that should be provided include, but are not limited to, the following:

- Documentation of the past water industry experience of the applicant, and affiliated organizations.
- Credentials of management and operations personnel.
- Cooperative Agreements with other systems or agencies.
- Management or service contracts along with the credentials of the contractor.

FINANCIAL PLAN

The Financial Plan is the third and final component of a comprehensive Business Plan. The Financial Plan consists of intended rate revenue projections and pro forma financial statements for a period of at least five years, and a narrative description of assurances that the proposed system will be able to meet its financial obligations and be able to maintain its viability. The pro forma statements should show a positive trend over the five-year period.

The purpose of the Financial Plan is to assure that the system has the financial ability to support the project and operate for at least five years. In preparing your Financial Plan, you should be moderately conservative. Be sure to plan for rate coverage (the generation of revenues above that necessary to cover expenses) and the establishment of reserve funds, even if not directly required by the capital provider. Coverage has proven to be a key indicator of the future viability of small drinking water systems. Please be aware that DEP will be reviewing your assumptions and estimates and will be conducting sensitivity testing on your projections. Your Business Plan should be strong enough to remain viable even under adverse changes in the operating environment.

1. Projected rate revenue for both residential and commercial/industrial customers (see Business Plan Template, Tab Financial 1 for an example of the requested information).

The Total Projected Rate Revenue can be calculated in several ways. If you are using Equivalent Dwelling Units (EDUs) or a flat rate for all customers, it is not necessary to separate revenues by Residential versus Commercial/industrial. If you are using Business Plan Template, Tab Financial 1, please include in the Commercial/Industrial category any institutional or other large users that might skew the Average Annual Residential User Rate.

The projected rate revenue information is important for two reasons. First, without adequate revenue, the system will eventually not be capable of self-support. The system needs sufficient revenue to cover operating and non-operating expenses, capital improvements, replacements, and emergencies. If there is not sufficient revenue to cover current expenses and fund reserve funds, it is likely that at some point the system will face an emergency or need for new or updated equipment that it cannot meet without an extraordinary rate increase or outside assistance.

The second reason this information is important is to provide assurance that the projected user rates are reasonable and have a likelihood of being collectible. The rates also need to have some elasticity in case unforeseen events require an increase in revenue for the system. Research has shown that the strongest systems have rates that are neither too high nor too low.

2. Pro forma income, expense, and cash flow statement for at least five years. Business Plan Template, Tab Financial 2 is an example of a consolidated pro forma income, expense, and cash flow statement for five years of system operation. You may either use this form directly or provide the same information in your own format whichever is simplest.

3. Pro forma balance sheet summary for at least five years. Business Plan Template, Tab Financial 3 is a sample five-year balance sheet summary. Again, you may use this form or provide the same information on a separate sheet, but all the same information should be provided.

The purpose of the pro forma financial statements is to show projections of the finances of the proposed system over the next five years. The statements should provide assurances that income will exceed expenses to such a degree as to allow for the creation and funding of reserve funds and for funding emergencies and equipment replacement. At a minimum, there should be positive cash flow every year, net income for most years, and positive equity. The pro forma statements will also allow many of the traditional financial analyses to be conducted on the proposed system including but not limited to determining the debt to equity ratio, the coverage ratio, the quick liquidity, etc. and will also allow comparison with the indicators and benchmarks for small drinking water systems developed by DEP (for further explanation of financial benchmarking please refer to <https://efc.sog.unc.edu/resource/financial-health-checkup-water-utilities>). Projecting this information for at

least five years will allow someone reviewing the plan to see trends and patterns.

The level of detail requested will allow for anyone reviewing the plan to understand the basis for the assumptions used in your pro forma financial statements. Please be sure to explain how the cost and income estimates were developed and attach any narrative or worksheets that show the calculations. Please provide an explanation for any unusual estimates. If possible, please provide a range of estimates for some of the items most difficult to project. Also, please indicate how conservative or aggressive you believe your estimates to be.

If your projections show changes from year to year that are caused by more than inflation, please be sure to explain your assumption(s) for the variance.

The Income, Expense, and Cash Flow Statement format provided combines the elements of the traditional income and expense statement with that of the traditional cash flow statement into a single form. This eliminates duplication. If, however, you do not use the provided form, please be sure to include both traditional statements for at least five years.

In the provided Income, Expense, and Cash Flow Statement, the terms Extraordinary Income and Extraordinary Expenses refer to cash flow items not normally on an income statement. These are generally non-recurring events and capital adjustments to cash flow rather than normal accrual-based income or expenses.

You do not have to use all the categories provided. However, the more detail that is provided, the less likely it is that follow-up questions will be required. Please specify and explain any "Other" entries. For any items not already covered in the Facilities Plan, please include an explanation or supporting worksheets describing how the estimates were developed.

4. Identification of any appropriate financial assurances, including those being offered to capital providers

For this section, please describe any assurances you feel appropriate that are available to provide comfort for the future viability of the system. Possible assurances should be provided and are not limited to, but include the following:

- A significant coverage ratio.
- Reserve funds, including debt service, emergency, and replacement funds.
- Escrow fund(s).
- A letter of credit.
- Guarantees from parent or affiliated organizations, possibly supported by an escrow fund or letter of credit.
- Evidence that the potential customers are fully informed of the costs and benefits and support the plan.
- Ordinance requiring disconnection of existing wells if the proposed new system is to replace existing private drinking water wells.
- Mandatory tap in ordinance.
- The pledge of another asset.
- Appointment of a trustee, etc.

Some of these assurances may be those offered to capital providers. Some may be in addition to any loan collateral.

This completes the information needed to prepare a comprehensive and effective Business Plan. If you have given thought to the questions raised during the process, and used reasonable assumptions, you should now have a strong basis on which to make decisions regarding the supply of public drinking water in your community. Please remember the importance of contacting DEP early in the process. The two meetings with the DEP regional Safe Drinking Water engineer may be the most important steps to preparing a strong Business Plan. DEP looks forward to working with you to develop the best and most viable system for supplying drinking water. DEP firmly believes that the Business Plan will result in public drinking water systems which will have fewer problems for everyone, including the owners, operators, consumers, regulators, and funding providers.

DRAFT

Attachment A

BUSINESS PLAN CHECKLIST

The following checklist should be completed, signed by a representative of the water system, and submitted with the Business Plan. This will be a check for the water supplier that all the needed information has been included in each of the three sections (Facility, Management, Financial) of the Business Plan.

In addition to the information provided in the Engineer's Report, the following information should be produced as part of the Business Plan. If any of the required information is already included in the Engineer's Report, please cite page and paragraph numbers for incorporation.

FACILITIES PLAN

A. POTENTIAL SYSTEM REQUIREMENTS

The first section of the Facilities Plan should provide information on the service area and anticipated demand for the planned system. It should provide the following information as well as any additional information deemed to be of interest to the assessment of service area and demand:

- 1. A list of all municipalities (including the county) to be served by the proposed system
- 2. Projected population information for the service area
- 3. Land use information
- 4. A description of all nearby drinking water supply systems and any attempts to obtain service
- 5. Map containing the current proposed and future service areas and that of neighboring water systems.
- 6. Comprehensive information on the projected number of customers and demand by customer type for Years 1 through 5 as well as Years 7, 10, 12, 15, and 20.
- 7. A timeline for construction of the system and commencement of operations.
- 8. A description of the required facilities not covered by the Water Supply permit application.
- 9. A description of the proposed emergency service capabilities.

B. ALTERNATIVE IDENTIFICATION AND EVALUATION

This section of the Facilities Plan serves to provide information on the selection of the proposed system from among feasible alternatives. This section should provide the following information, as well as any additional information related to the selection of the proposed system:

- 1. A description of available alternatives
- 2. A description of the physical components that comprise the various alternatives and a cost estimate for each major item of construction.
- 3. A summary of the expected Engineering costs associated with each alternative.
- 4. Construction cost estimates for each alternative described in Item 1, above.
- 5. Operating cost estimates for each alternative described in Item 1, above.
- 6. Information on any connection fees, tap in fees, betterment assessments, availability charges, or other special assessments that would be used to help fund construction under any of the alternatives presented.

- 7. A list of the projected funding sources for construction components of each alternative.
- 8. An identification of the recommended alternative.
- 9. Description of cost comparison analysis, including method used, assumptions, and calculations.
- 10. Description of other rationale(s) used, including factors considered, assumptions made, sources of information used, and weight of each rationale.

MANAGEMENT PLAN

A. OWNERSHIP

This section of the Management Plan is meant to address issues of system ownership. A complete Management Plan must include the following ownership-related information:

- 1. Identification of the type of organization, which owns or will own the drinking water system. If current ownership will change in the future, please describe, including the proposed timeframe for the change of ownership.
- 2. If ownership category is MUNICIPALITY, be certain to identify the type of municipality, provide a description of the home rule charter (if applicable) along with the name of the incorporated municipality and the county, include copies and information on any inter-municipal agreements relating to drinking water, and include information on the municipality's direct bill service to customers in any municipality not part of the water system.
- 3. If ownership category is MUNICIPAL AUTHORITY, be certain to include the name and county of each incorporating municipality, describe the extent to which the authority provides direct bill service to customers in any municipality not a part of the authority, provide copies of any agreements relating to the provision of drinking water with any other municipality or authority, leases or agreements indicating who is responsible for establishing rates and tariffs, and charter documents and by-laws of the authority.
- 4. If ownership category is a SOLE PROPRIETORSHIP, provide the name, address, and phone number of the individual who owns the system.
- 5. If ownership category is a PARTNERSHIP, name the general partner and list all other partners. Also provide a copy of the partnership agreement system.
- 6. If ownership category is a CORPORATION, describe if the corporation Closely Held, Publicly Traded, or a Wholly Owned Subsidiary, list the officers and major shareholders of the corporation, include a description of ownership by a parent company, is the corporation for profit or non-profit, provide a copy of the corporate charter and by-laws, and information on initial capital structure .
- 7. If ownership category is an ASSOCIATION, is the association Closely Held, Publicly Traded, or a Wholly Owned Subsidiary, note whether the association is managed by the members or by a contract management organization, and include copies of contractor contracts, charter documents and by-laws of the association.
- 8. Identify any other public drinking water systems currently owned or operated by the applicant, owner(s), parent organization or affiliated organization.

B. MANAGEMENT AND ADMINISTRATIVE STRUCTURE

This section of the Management Plan should identify the intended management structure and staffing requirements of the proposed system. The Plan should include the following information, in addition to any other relevant materials related to organizational structure:

- 1. A copy of the organization chart and/or table.

- 2. Information on preparation of job descriptions and/or job manuals.
- 3. Identification of the certified operator(s), including certificate number, type, and class.
- 4. The number of employees projected to run the system.
- 5. Water system management experience of key personnel and affiliated organizations
- 6. Copies of any financial management policies and standards already developed.
- 7. Copies of the system's general rules and standards, including connection policies, extension policies, standard specifications, records management plan, emergency response plan, and drought response plan.
- 8. A description of any outside services anticipated to be used. Please identify the providers and attach a copy of any agreements.
- 9. Estimates of the amount to be expended on outside services for the first full year of regular operations.

C. OPERATION AND MAINTENANCE PLAN

- Please provide a copy of the Operation and Maintenance Plan as prepared under Part V of the DEP Public Water Supply Manual. Be sure to use sufficient detail to support the budget estimate for Operations and Maintenance in the facilities and fiscal plans.

D. ASSURANCES

- Assurances that the commitments and resources needed for proper operation and maintenance of the system are available. Include organization and individual qualifications and experience.

FINANCIAL PLAN

The Financial Plan is the third and final component of a comprehensive Business Plan. The Facilities Plan provides a preliminary estimate of capital and operating expenses. The Financial Plan should be built from that base and include the following components:

- Demonstration of revenue sufficiency.
- Demonstration of adequate capitalization.
- Assurances that the Financial Plan will provide sufficient financial resources to ensure ongoing viability.

In addition to the Engineer's Report that outlines the full costs of the system (also see Facilities Plan), the Financial Plan must include a summary of intended system rate revenue and pro forma financial statements for a period of at least five years. Following is a brief checklist of the required information:

- 1. Projected rate revenue for both residential and commercial/ industrial customers.
- 2. Pro forma income, expense and cash flow statement for at least five years.
- 3. Pro forma balance sheet summary for at least five years.
- 4. Identification of any appropriate financial assurances, including those being offered to capital providers.

Water System Representative Signature:

_____ Date: _____

DEP Reviewer Signature:

_____ Date: _____