

**IUP 2022
ATTACHMENT III
CHECK LIST CAPACITY DEVELOPMENT PROGRAM
NEW DRINKING WATER SYSTEM CAPACITY ASSURANCE PLAN
AUGUST 1999; Revd. April 2004, March 2008, May 2014, June 2019,
Nov 2022 Asset Management Promotion**

**COMMONWEALTH OF PUERTO RICO
DEPARTMENT OF HEALTH**

CHECK LIST

**CAPACITY DEVELOPMENT PROGRAM
NEW DRINKING WATER SYSTEM CAPACITY ASSURANCE PLAN**

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I. INTRODUCTION

Under the SDWA a system Capacity is defined as the ability to plan for, achieve and maintain compliance with applicable drinking water standards. The Capacity Development Program consolidates three basic components of drinking water systems that are essential for the effective operation of the systems: Technical, Financial and Managerial components.

Since 2018 there have been changes in the SDWA through America's Water Infrastructure Act (AWIA) that drinking water programs are required to "consider and include as appropriate asset management" into their state capacity development strategies. As required this Department is revising its Capacity Development Strategy to include "a description of how asset management will be promoted by the Department of Health in Puerto Rico's drinking water systems for them to establish asset management plans that include best practices for asset management and to provide such technical assistance to these public water systems in training operators or other relevant and appropriate persons in implementing such asset management plans".

II. FEDERAL STATUTORY AUTHORITY FOR CAPACITY DEVELOPMENT

Statutory Authority for Capacity Development is provided under Section 1420 (a) of the SDWA: "State Authority for New Systems" and Section 1452: State Revolving Loan Fund (DWSRF). That is, the State will be entitled to receive funds under the Drinking Water State Revolving Fund (DWSRF) if it has the legal authority or other means for ensuring that New Community Water Systems (CWS) and New Non-Transient Non-Community Water Systems (NTNCWS) demonstrate adequate technical, managerial and financial capacity¹.

The Commonwealth of Puerto Rico, Department of Health's Capacity Development Program/New Drinking Water System Capacity Assurance Plan, will *first* address compliance with Section 1420 (a) under which a State must develop a program to ensure that all new community water systems² and non-transient non-community water systems demonstrate the

¹Section 1452 (a)(1)(G)(I): NEW SYSTEM CAPACITY – Beginning in fiscal year 1999 the Administrator shall withhold 20 % of each capitalization grant made pursuant to this section to a State unless the State has met the requirements of Section 1420 (a) (relating to capacity development).

² New systems include both CWS or NTNCWSs being newly constructed as well as systems which do not currently meet the definition of a Public Water System (PWS) but which expand their infrastructure and thereby grown to become CWS or NTNCWSs. Systems not currently PWS and which add additional users and thereby become CWSs or NTNCWSs without constructing any additional infrastructure are not "new systems" for purposes of section 1420 (a) of the SDWA as amended.

technical, managerial and financial capacity to comply with all National Primary Drinking Water Regulations (NPDWR's) in effect, or likely to be in effect on the date of operations³. In other words, demonstrate its legal authority or other means to do such. A *second* expectation was to develop and implement a strategy to assist those Public Water Systems (PWS) in acquiring and maintaining technical, managerial and financial capacity. Now state drinking water programs through AWIA there is a *third* action required: to “consider and include as appropriate asset management” into their state capacity development strategies. If we look into the law, AWIA amended Section 1420 subsections (c)(2) and(c)(3) of the Safe Drinking Water Act (SDWA) and now the states have to provide “a description of how the state will, as appropriate-(i) encourage development by public water systems of asset management plans that include best practices for asset management; and (ii) assist, including through the provision of technical assistance, public water systems in training operators or other relevant and appropriate persons in implementing such asset management plans.

III. CAPACITY DEVELOPMENT PROVISION APPLICATION

The new systems provision applies to all new Community Water systems (CWS's)⁴ and all new Non-Transient Non-Community Water Systems (NTNCWS's)⁵ according to Section 1420 (a). This third action applies to all PWSs but there is a “flexibility” thus the state can determine which systems they will focus on. DOH will focus and will direct its exertions in this process mainly towards those small system that are the ones in more need of assistance to reach capacity in its three areas and thus their compliance with the SDWA. DOH will not disregard the other systems either, and these will also be addressed in the promotion process.

IV. LEGAL AUTHORITY

³ Section 1420(a): STATE AUTHORITY FOR NEW SYSTEMS – A State shall receive only 80% of the allotment that the State is otherwise entitled to receive under Section 1452 (related to State Loan Funds) unless the State has obtained the Legal Authority or other means to ensure that all new communities water systems and new Non-Transient, Non-Community Water Systems commencing operations after October 1, 1999, demonstrate technical, managerial and financial capacity with respect to each national primary drinking water regulations in effects, or likely to be in effect, on the date of commencement of operations.

⁴ A CWS is a “public water system, which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents”. (40 CFR 141.2).

⁵ A NTNCWS is “a public water system that is not a community water system and that regularly serves at least 25 of the same persons over 6 months per year”. (40 CFR 141.2).

The Puerto Rico Department of Health (PRDOH) is the agency with the primary responsibility of watching over the health of the people of Puerto Rico, to protect the purity of the drinking water in the Commonwealth of Puerto Rico, to achieve and maintain compliance with National Drinking Water Regulations. This responsibility and authority is granted by Act No. 5 of July 21, 1977 as amended (the Act).

V. LEGAL FOUNDATION ESTABLISHING A STRUCTURED DRINKING WATER TREATMENT PROJECT REVIEW FOR ASSESSING AND ENSURING TECHNICAL, MANAGERIAL AND FINANCIAL CAPACITY

1. Lead Agency for DWSRF⁶

As stated earlier, Act No. 5 of July 21, 1977, as amended on December 26, 1997 by Act No. 193 (the Act) as well as Act No. 32 of July 7, 1997 established the DWSRF as an enduring and viable fund. The Commonwealth agreed through an Operating Agreement that the DWSRF shall be maintained and is available for providing financial assistance as authorized and limited by the Act. This legislation created the DWSRF and authorized DOH to administer the DWSRF as well as any DWSRF related programs such as the Capacity Development, Source Water Assessment and Operators Certification.

For the Commonwealth of Puerto Rico and in accordance with the **original** Memorandum of Understanding (MOU) for DWSRF activities, there are five Agencies coordinating the establishment and development of the DWSRF. These agencies are the Puerto Rico Department of Health (PRDOH), the Puerto Rico Infrastructure Financing Authority (PRIFA), the Puerto Rico Aqueduct and Sewer Authority (PRASA), the Puerto Rico Environmental Quality Board (PREQB) and the Government Development Bank for Puerto Rico (GDB). As of today, a total of three OAs and MOUs have been signed being the latest one of September 2018. Because certain agencies have been consolidated or are in the process of being consolidated, currently only three agencies are part of the MOU. These are Puerto Rico Department of Health (PRDOH), the Puerto Rico Infrastructure Financing Authority (PRIFA), and Puerto Rico Fiscal Agency and Financial Advisory Authority (FAFAA).

We have to mention that in FY 2016 Puerto Rico's financial situation was so critical and in such distress that certain government operations changed dramatically: the GDB

⁶ Not necessarily presented in an empowerment order

or the bank of the government of Puerto Rico and froze all its assets and cash movement was subject to the local law “the Moratorium Ac” and filed for bankruptcy. As a result, there was the enactment of the federal law PROMESA where a fiscal oversight and management board was established to recover the financial stability of the island. The SRF’s were no exception, and they were seriously impacted because the monies of the Programs were deposited in the GDB. The corresponding operating agreements of the programs were revised due to the fact that the GDB, based on the issuance of local laws was replaced by the establishment of a new institution created: the Puerto Rico Fiscal Agency and Financial Advisory Authority (PRFAFAA) that came to substitute the GDB. Thus, new operating agreements had to be established where the GDB was eliminated and substituted by PRFAFAA.

2. Agency with Primary Public Health responsibility⁷

There are several Laws and Regulations that confer DOH the power and authority to execute the activities stated in the SDWA and thus in the Memorandum of Understanding for the DWSRF projects. The Act established the "Public Policy to be executed in the Commonwealth as to protect the purity of the Drinking Water in the Commonwealth and Conservation of the Environmental and other Natural Resources". It also authorizes the Secretary of Health to promulgate Regulations, establish penalties and other purposes.

As a fundamental area for PRDOH the Act provides the power and authority to manage the public health matters. DOH is granted the authority to immediately restrain any person or institution from engaging in any activity, which is endangering or causing damage to the public health (control point).

3. Agency with the Primacy for Public Water Systems⁸

DOH is structured to address any concern related to Drinking Water Systems. The Public Water Supervision Program (PWSS) under the Secretariat for Environmental Health is the most concerned area of the Department that will undertake the review process for all projects including DWSRF projects. During the review process: 1) The proponent submits to DOH document for

⁷ Not necessarily presented in an empowerment order

⁸ Not necessarily presented in an empowerment order.

evaluation or review, 2) Technical and Engineering reviews are performed within the PWSS program and 3) The DWSRF Program Division evaluates.

VI. CONTROL POINTS

A control point is a crux in a new system's development at which a State (or other unit of government) can exercise its authority to ensure the demonstration of a new system capacity. A control point or sets of control points taken together must allow for review of the entire scope of the proposed new system development.

Previously control points have been mentioned in the discussion of Part IV (the Legal Authority) and Part V. Following, specific control points will be discussed. In the new systems development process, a statutory authority requires demonstration of technical, managerial and financial capacity at one or more control points. In the PRDOH review process there are currently three endorsements (that are used as control points) that must be granted before a new system can operate:

- a development endorsement (preliminary)
- a construction endorsement
- an operating endorsement

The primary control points for ensuring that new systems demonstrate capacity will be the development and construction endorsements. These are required through the standard operating procedures of the Plan Review Section of DOH and are required or included with the submittal of an engineering Report and a Business Plan. The Engineering Report will be used by DOH to assess the Technical capacity and the Business Plan will be used to assess Financial and Managerial capacity.

VI. CAPACITY ASSESSMENT CRITERIA AND SCREENING PROCESS TO ASSESS THE TECHNICAL, MANAGERIAL AND FINANCIAL CAPACITY OF ANY SYSTEM

Evaluation criteria as well as requirements that must be complied with by the systems have been established in order to receive DOH's endorsements for the different stages or phases in the development process.

1. **Criteria**

A. New Systems

1. Demonstrate that the system to be constructed will comply with by supplying the change in water demand that may arise if there is an increase in population without undertaking modifications within the first five years (5) of the operation. The most recent U.S. regional census may be used for estimating the increase.
2. Submit, request and comply with the endorsements of the Department of Health for the development /construction and operation of a PWS as detailed and stated in the Manual “REQUISITOS DEL DEPARTAMENTO DE SALUD PARA OTORGAR ENDOSOS A PROYECTOS RELACIONADOS CON ACUEDUCTOS PUBLICOS” (“REQUIREMENTS OF THE DEPARTMENT OF HEALTH FOR AWARDED ENDORSEMENT TO PROJECTS RELATED TO DRINKING WATER SYSTEMS”) as well as any other requirements established in the Act and the Regulations and under the PWSS program and the DWSRF Program.
3. Comply with the permits and endorsements of the Government agencies that are concerned or regulate the construction and /operation of the system:
 - (a) Department of Natural Resources (DNR), Regulations and Permits Administration (RPA), Puerto Rico Environmental Quality Board (PREQB), Puerto Rico Department of Health (DOH) Office of Permits’ Management (Oficina de Gerencia de Perrmisos, (OGPe)) and others.
4. Present evidence or demonstrate that the entity that will be administering the system is incorporated through the Puerto Rico Department of State.
5. Must provide a legal document (enforceable) where all duties and responsibilities of all the members of the entity in charge of undertaking the operation, maintenance and administration of the PWSS **are stated and**

whose main purpose is the compliance with the Regulation “For Protecting the Purity of the Drinking Water of Puerto Rico” and the DWSRF Program or any other regulations.

6. The entity in charge of the administration, the operation and function of the system will have no less than the following positions occupied:

- Administration: President, Vice President, Treasurer, Secretary, and one person with knowledge on Drinking Water Regulations Compliance Operation and Maintenance.
- Operators (Certified in accordance with the Puerto Rico Examining Board for certifying operator) and DWSRF/Operator Certification Program.

7. Submit a document including Initial Construction Cost and an Estimate of Operation and Maintenance Cost expected for next five (5) years.

- Include within the Operation and Maintenance Budget Expense for all sampling required, a fund for emergency situation, repairs (pipe, pumps, etc.), technical services expenses (plumbers, electrician, engineers, well driller, mechanic, administrative personnel, counselors, certified public accountants, etc.), loan repayments and all necessary expenses for the operation of the system in compliance with the regulations. Asset management Plans establishment and discussion is strongly recommended to be considered and presented.
- Include a mechanism demonstrating how all costs will be covered i.e. water rate charge estimated or fixed rate, etc., considering assets identification is strongly recommended to be used in this determination.

8. Prepare and submit a copy of the Operation/ Maintenance Manual to be use by the Operator of the System to be constructed, including a proposed/preliminary asset management plan.

Number 4 thru 7 (4, 5, 6, 7) above refers to the Business Plan. Number 1, 2, 3 and 8 above refers to the Engineering Report.

4. Screening Process/Minimum Standard to be Sufficed

The following is a screening process used to assess the technical, managerial, and financial capacity of any DWSRF project sponsor.

A. Technical Capacity

Technical Capacity refers to the adequacy, operation and maintenance of a water system's infrastructure. The Engineering Report will be used by DOH to assess the Technical Capacity.

B. Managerial Capacity

Managerial Capacity refers to the personnel expertise required to administer the overall water system operations. The requirements for Managerial capacity review have been spread across the Business Plan.

C. Financial Capacity

Financial capacity refers to the ability to acquire, generate and manage enough monetary resources to a project sponsor for its water system to support the cost of operating, maintaining, and improving the water system and achieve and maintain compliance with the SDWA requirements. Additional information required by PRIFA/GDB and/or DOH must be included on the Business Plan. The water systems project sponsor's meets the standards for adequate financial capacity if the Business Plan has been revised and approved by DOH and PRFAFAA/PRIFA where applicable.

5. Project Capacity Evaluation Process

Within the Plans Review Section all documents (technical and engineering) related to DWSRF facilities as well any Commonwealth Project are reviewed and endorsed. Project reviewed or evaluation is carried for the stages of planning or development through an

engineering report, which will include spread across data of the Business Plan. Design, Construction and Operation are also evaluated through plans and specifications and information provided in the Business Plan.

Note:

Revised on April 2004 for minor corrections such as: (1) change PASS and PAWS for PWSS and (2) presentation issues (spaces and continuity of the sections-pages 5 and 6, and letter size-pages 2 to 7.)

DOH REVIEW PROCESS – CHECK LIST

Endorsements that must be granted before a new system can operate:

- I. Development endorsement
- II. Construction endorsement
- III. Operating endorsement

___I. Development Endorsement

___A. *Development process (planning) preliminary endorsements*

Proponent must submit the following documents before the preliminary endorsement is granted.

___1. Engineering Report (Preliminary)

___a. Project Planning Area

Area to be served

- Problem definition
- Location (maps, photograph, sketches)

___b. Existing Facilities

- Conditions facilities (including focusing on key assets for consideration in asset management plan)

- History

- Location Map (may be identified on project planning area maps)

___c. Population Projections

- Present Population
- Future Population

___d. Water Demand and Needs

- Present Demand
- Future Demand

___e. Evaluation of Alternatives

- Description
- Maps
- Cost Estimates
- Land Requirements (Acquisition or Rights of Way)
- Construction Problems
- Source of Supply

- Storage
- Distribution systems
- Pressure

____f. Propose Alternative

____g. Preliminary Cost Estimate

____h. Conclusion and Recommendations

____i. Infrastructure Replacement Plan (asset management identification and plan use is strongly recommended for information discussion and presentation)

- Estimated replacement date for all equipment, given the life span provided in the system description (identification of key assets is strongly recommended)
- Estimated equipment replacement costs (must also be included as a line item in the project budget) (identification of key assets is strongly recommended)
- Source of funding for equipment replacement.

____j. Operation Replacement Plan (Operation & Maintenance (O&M))

The proper operation and maintenance manual of Water Facilities is essential to ensure that a 20 year design life/useful life. An Operation & Maintenance Manual is necessary to achieve the design life and is an essential component of the plan of operation. (Asset management identification and plan use is strongly recommended for information discussion and presentation). The content of the manual should be in accordance with the Commonwealth and Federal and Operator Certification Program and DWSRF Requirements and it should include or be at least as follows:

- An overview of the operations plan (asset management plan consideration is also recommended)
 - Names, responsibilities, qualifications, and training of operating personnel
 - A description of routine operation and maintenance procedures for source meters, pumping plants, treatment works, and disinfection

- Complaint response procedures
- Water quality violation response procedures (particularly for microbial contaminants)
- Raw water analysis
- Water quality monitoring plan for water sources, the treated water and distribution system. This plan, updated annually, should define the water quality constituents; specific the sample, location, frequency, and next sample date; and identify the laboratory conducting the analysis. The costs of implementing the plan should be identified and included as a line item in the projected budget.
- A description of record keeping and reporting procedures, including a description of all required records.

____k. Operator Training Plan: To stay current with new requirements, new technologies, and new hazards, all water system operators should be adequately trained, and the system should have a program to provide for continuing education. Adequate training and continuing education are essential components of assuring a safe and potable water supply to customers. This plan should be in accordance with the Commonwealth and Federal Operator Certification Program.

____ l. Operator Certification with the appropriate classification.

____ m. Comprehensive Performance Evaluation (CPE).

____2. Environmental Assessment/Archeological Report

DOH evaluates and comments the documents. If the document is complete, DOH notifies the proponent of the approval of the planning document or Preliminary Engineering Report.

____B. Engineering Report (Final) – is submitted to DOH for final evaluation.

Discussion of asset management plans are strongly recommended for inclusion as part of the Final ER.

II. Construction Endorsement

With an approved planning document or Engineering Report and a Development Endorsement, the proponent submits to DOH, the project’s design and required technical data as well as the Business Plan.

____A. *Business Plan and financial information, including, but not limited to the following, shall be evaluated:*

____1. Financial statements or annual audit reports for the previous three years and interim financial statements not to exceed sixty (60) days old.

____2. Current and proposed rate schedules, as applicable; or if rate schedules are unavailable, then documents indicating the project sponsor's access to credit for operations and contingencies to demonstrate the project sponsor's capability to obtain credit and/or repay debt. (Key Assets identification and management plan establishment is strongly recommended for use in rates determination.)

____3. A summary of any pending litigation regarding current or proposed rates.

____4. Federal and state income tax returns of the projects sponsor for the previous 3 years.

____5. Current operating budget and a projected budget, for a five-year period including debt service on the loan and any rate schedule adjustments (Key Assets identification and management plan establishment is strongly recommended for use in rates determination.):

____a. Projected revenue and expenditures. First year to be prepared on a monthly basis. (shall include all assumptions for projected figures). Total annual percentage of budgetary increases, annual percentage increases to meet loan repayment and other non-loan project costs, and time when it shall take effect should be identified and included.

____b. Cash flow projections. First year to be prepared on a monthly basis.

____c. Plans for rate increases.

____d. Capital Improvement Program and Financing Sources.

____e. Pro forma balance sheet.

____f. Detail of long term debts, including existing and any to be incurred as a source of financing. (shall include name of creditor, balance, terms and collateral)

____6. In the case of Municipality, it must have the legal margin available to request financing, as provided by the Municipal Financing Act, as amended or any other law or regulation on municipal financing, and payment capacity or, in the case of Municipal revenue bonds, a feasibility

study developed by a competent entity with the expertise in the industry in which the Municipality plans to enter with the project.

- ___7. Composition of customer base.
- ___8. Consumer Complaint Records within the previous 5 years.
- ___9. Documents that demonstrate ownership accountability/and evidence of the community's incorporation.
- ___10. Evidence of the compliance and/or the corresponding endorsement of other Commonwealth Agencies concerned with the construction process of water systems.
- ___11. Legal document specifying and assuring the compliance of the System with the SDWA Regulation including mechanisms for user charge fee or process.

___B. *Design (Plan and Specifications)*

The DOH has adopted the "Rules and Regulations for the Design Standards of the Puerto Rico Aqueduct and Sewer Authority (PRASA)" Standards for Water Systems During the process the following is conducted and evaluated:

- Plans & Specifications review, soil studies and cost estimates, mitigation measures and the Business Plan
- Design meetings, if necessary
- Other agencies endorsements applicable

After the approval of the Design and Business Plan, Construction Endorsement is granted.

___III. **Operating Endorsement**

___A. *Business Plan* – complete and approved.

___B. *Final Inspection* – major deficiencies noted during this final inspection must be resolved prior to release of final Operating Endorsement, which is subject to the final inspection acceptance and the Build Plans completion.