

# US-Mexico Border Water Infrastructure Program

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## *Standard Operating Procedures*

**May 2011**

These operating procedures have been developed as a tool for all partner organizations to improve and facilitate the US-Mexico Border Water Infrastructure Program implementation. This document combines existing EPA guidelines and program requirements and CONAGUA program norms with applicable BECC/NADB internal procedures.

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## Introduction

Since 1995, the US Environmental Protection Agency's (EPA) US-Mexico Border Water Infrastructure Program has funded drinking water and wastewater infrastructure projects in both the US and Mexico. Through a joint investment partnership with CONAGUA, the Mexican<sup>1</sup> government provides matching funds for projects located in Mexico. Under the program, the EPA funds, through cooperative agreement grants, the Border Environment Cooperation Commission (BECC) to administer the Project Development and Assistance Program (PDAP) and the North American Development Bank (NADB) to administer the Border Environment Infrastructure Fund (BEIF). EPA works in close partnership with these organizations to ensure the successful implementation of the program. Other key players in program implementation are federal, state, and local agencies on both sides of the border.

As a binational program that funds projects in both the US and Mexico, effective coordination with--and collaboration among--all organizations is critical. Partner organizations are responsible for performing key tasks as projects are selected for funding, planned and designed, and ultimately constructed.

In addition to applicable EPA and CONAGUA authorities and regulations, EPA issues guidance defining program-specific requirements and EPA's grantee partners' roles and responsibilities. Examples of these guidance documents include the annual Grant Guidance, the Project Development Assistance Program (PDAP) Guidelines, and the Border Environment Infrastructure Fund (BEIF) Guidelines. Also, the BECC/NADB Board approved in 2008 "Procedures for the NADB/BECC Project Cycle," which provides procedural guidance for activities related specifically to the NADB/BECC process. As part of an active program-improvement effort, EPA and CONAGUA, in coordination with BECC and NADB, identified the need for a single document that will serve as a road map for all partners' interactions while carrying out their existing organizational responsibilities.

The resulting "US-Mexico Border Water Infrastructure Program Standard Operating Procedures" combines existing EPA guidelines and program requirements and CONAGUA program norms with applicable BECC/NADB internal procedures. The document uses the framework of existing authorities and resources to delineate the program partners' intersection of responsibilities. The document also includes enhanced coordination and information-sharing practices that all partners have agreed will improve the program's performance.

These operating procedures have been developed as a tool for all partner organizations to improve and facilitate program implementation. To further support program coordination, the document identifies important milestones in the project life cycle for key decision making and information sharing.

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<sup>1</sup> Program coordination between EPA and CONAGUA for Mexican-side projects was an outcome of the La Paz Agreement of 1983 and was further defined in a side agreement to NAFTA in 1993 and the International Boundary and Water Commission's Minute 304, signed in 2000. Where roles and responsibilities are defined in the document, tasks that are specific to Mexico will be identified by (MX) and tasks that are specific to the US will be identified by (US). Unless otherwise noted, CONAGUA's roles and responsibilities identified in this document refer specifically to projects located in Mexico.

The document is organized into five chapters, each representing distinct project life-cycle phases, as follows:

- Chapter 1: Prioritization Process and Project Selection
- Chapter 2: Preliminary Engineering, Environmental Review, and Final Design
- Chapter 3: Financial Analysis, Deal Sheet, and Certification
- Chapter 4: Funding, Procurement, Construction, and Reporting
- Chapter 5: Certified Project Close-out

Overall, the document is intended to be used in the day-to-day program implementation to enhance partner coordination and collaboration and streamline requests for information. The “US-Mexico Border Water Infrastructure Program Standard Operating Procedures ” delineate, but do not supersede, any existing program policies and guidelines including, but not limited to, the ones mentioned above. This document will be revised periodically to reflect any policy changes and/or enhanced program-implementation practices.

# Chapter 1. Prioritization Process and Project Selection

## Overview

EPA uses a risk-based prioritization process to identify and select projects with the most critical public health and environmental needs for program funding assistance. The process allows the program to target limited funding to projects with the highest benefit in terms of public health and environmental risk, cost-effectiveness, institutional capacity, and sustainability. EPA, with BECC assistance, conducts the prioritization process every two years, unless otherwise warranted.

Prior to the prioritization process, EPA works with the BECC to develop a prioritization methodology and detailed schedule that identifies key tasks, milestones, and outcomes. It is through the prioritization process that the program solicits applications that are then evaluated and ranked. During prioritization, EPA consults with BECC, NADB, and CONAGUA for an initial indication of project feasibility. The process concludes with projects selected for EPA funding.

Critical milestones for this phase include:

- Completion of prioritization methodology
- Outreach and public workshops
- Evaluation and ranking of project applications resulting in a ranked project list
- Generation of fundable projects list

## Process – Key Milestones, Partner Roles, and Responsibilities

The prioritization process has four phases: development of the prioritization methodology, project application, project evaluation, and final project selection. During all phases there is coordination with program partners. The process generally takes 8 – 11 months to complete.

### Prioritization Methodology (2 -3 months)

The methodology is based on an evaluation of projects by category and with respect to their impact in addressing the most urgent public health and environmental needs.<sup>2</sup> Upon determination of category placement, projects are ranked within each category based on various objective financial and technical conditions.

- Develop prioritization methodology.
  - EPA, in consultation with the BECC, reviews the previous prioritization methodology to identify necessary modifications.
  - EPA coordinates with program partners.

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<sup>2</sup> Category 1 = projects that address an immediate human health impact; Category 2 = projects that address a less-immediate human health impact or an immediate environmental impact; Category 3 = projects that address a risk to human health or the environment.

- CONAGUA, BECC, and NADB review and provide input to EPA on revisions to the methodology.
  - EPA modifies prioritization methodology.
  - BECC/EPA provides states with an advance courtesy copy of the methodology.
- Final prioritization methodology document.
  - BECC, in coordination with EPA, prepares final prioritization methodology document.

### **Project Application (1-2 months from finalization of methodology)**

Based on the changes made to the methodology, EPA/BECC updates the project applications and instruction booklets. BECC takes the lead on drafting workshop presentations and scheduling and promoting the workshops to ensure that the public is fully informed of the upcoming funding opportunity.

- Develop solicitation package and make solicitation announcement to the public, potential project sponsors, and US/MX Federal and State partners.
  - BECC, in coordination with EPA, develops a communication plan and outreach strategy.
  - BECC publishes pre-solicitation announcement.
  - BECC, in coordination with EPA, finalizes and distributes the solicitation package.
- Conduct Regional Workshops.
  - BECC, in coordination with EPA and CONAGUA, prepares workshop presentations and manages workshop logistics.
  - EPA/BECC coordinates with NADB and CONAGUA and other Federal and State partners for workshop participation.

### **Project Evaluation (4-5 months from application deadline)**

Upon receipt of the project applications, EPA and BECC establish both a category placement and ranking position for each project in accordance with the pre-developed prioritization methodology. From this, the BECC drafts a prioritized project list. A final prioritization list is generated after consultation with program partners and other stakeholders.

- Application review and evaluation.
  - BECC sends list of project applications to CONAGUA and NADB.
  - BECC reviews applications for completeness and eligibility.
  - EPA/BECC evaluates applications for preliminary category placement.
  - EPA/BECC identifies project scope and information gaps needed to support category placement for each project.
  - BECC conducts document verification and field visits in coordination with EPA to confirm category placement and project/ranking information.
  - EPA/BECC starts to develop project summaries.
- Category placement and project ranking.
  - EPA/BECC finalizes category placement for projects.
  - EPA/BECC ranks projects within the categories that are most likely to be funded.

- BECC generates draft prioritized projects list and project summaries for ranked projects and sends them to EPA.
  - Project summaries typically include the project description, availability of existing studies, pending project development tasks, potential challenges, and applicable stakeholders.
- Consultation on prioritization list
  - EPA sends draft prioritization list and project summaries to CONAGUA, NADB, and States for consultation on projects that are most likely to be funded.
    - CONAGUA provides letter to EPA, indicating intent to support projects. (MX)
    - EPA consults with US state agencies and other funding partners to discuss their participation in project development and construction of high-priority projects. (US)
    - NADB provides comments on project sponsor covenant compliance history and identifies potential issues, if any.
  - BECC completes preliminary stage of Rapid Assessment Process (RAP) for high-ranking projects on draft prioritization list.
    - The preliminary RAP includes a project summary, an evaluation of project readiness, and a list of project-development tasks needed for completing the financial package and achieving certification.
  - EPA/BECC finalizes prioritization list.

### **Final Project Selection (1 month from final prioritization list)**

EPA takes into account the interest expressed by funding partners, each project's readiness to proceed, and the amount of funds available for project development and determines which projects will be selected for project-development assistance. Once the fundable list is completed, BECC drafts notification letters and publishes both the complete prioritized and funded project lists.

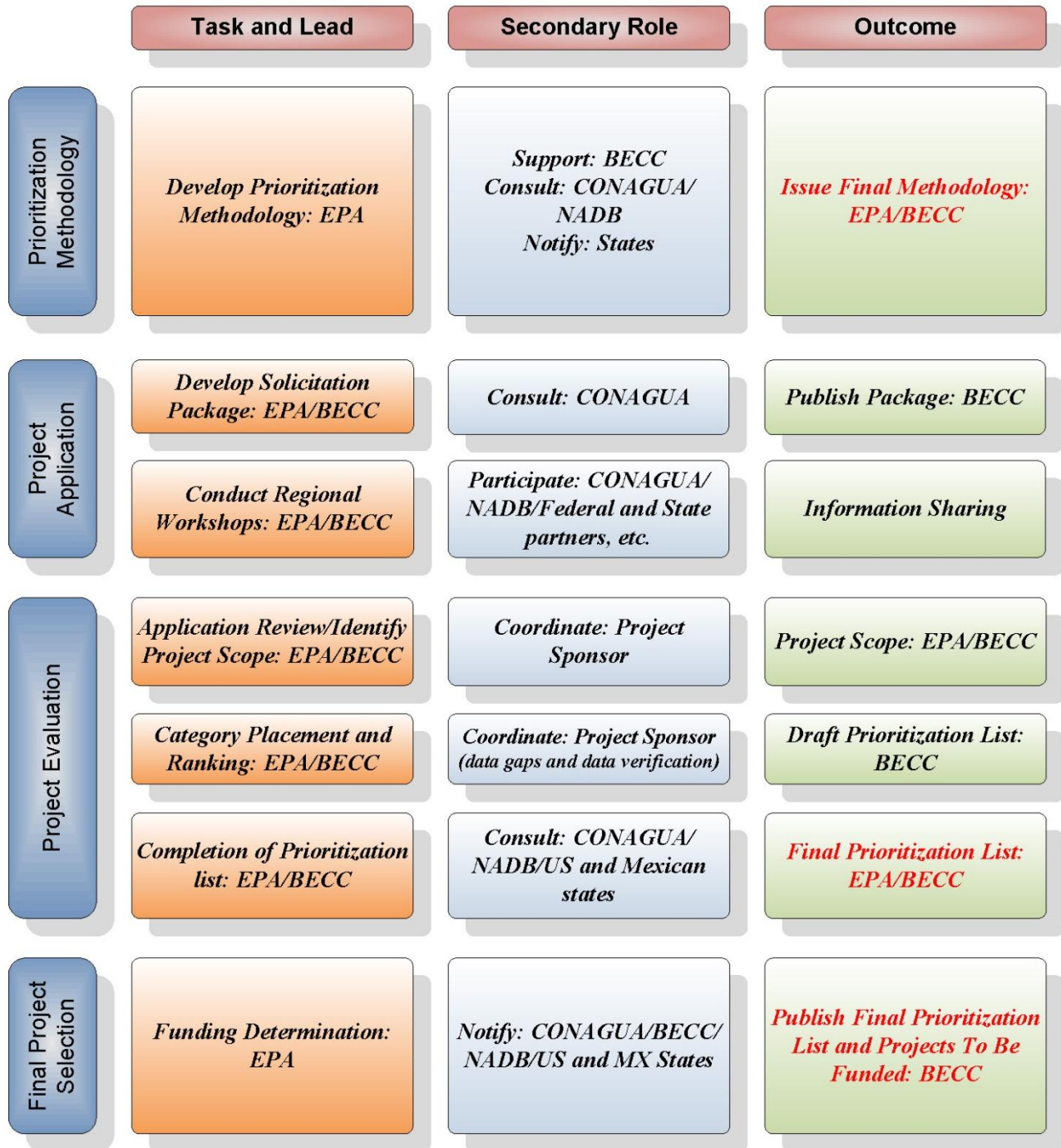
- Generate fundable projects list and notify applicants.
  - EPA identifies fundable projects based on available resources and develops fundable projects list.
  - EPA shares fundable projects list with CONAGUA, BECC, and NADB.
  - BECC/EPA prepares and distributes formal notification letters to all applicants (selected or not) with copies to CONAGUA, NADB, and other relevant stakeholders.
    - Notification for selected projects should include a project summary, draft project-development tasks and schedule, and kickoff meeting date.
  - BECC/EPA informs Federal and State partners in writing of the prioritization process results.
  - BECC publishes final prioritization list and list of projects selected for funding on its Web site.

## Summary of Key Milestones and Decision Points

- Prioritization Methodology Document.
- Final Prioritization List.
  - Decision Point 1:
    - CONAGUA provides letter of support: project moves forward.
    - CONAGUA does not provide letter of support: project does not move forward.
  - Decision Point 2:
    - Project is ready to proceed and in the fundable range: project moves forward.
    - Project is not ready to proceed and/or not in the fundable range: project does not move forward.
- Publish Fundable Projects list.



Figure 1: Prioritization Process and Project Selection



Note: The texts in red indicates key project milestones

## Chapter 2. Preliminary Engineering, Environmental Review, and Final Design

### Overview

Once EPA has selected a project to receive funding, BECC identifies and implements the tasks necessary to develop the project through planning and design. The required activities will be based on the level of project development, but BECC typically contracts for a Preliminary Engineering Report (PER) and an environmental information document (EID) in support of project development and then final design. The BECC works closely with the project sponsor and receives regular feedback from EPA, CONAGUA, and NADB. At the same time, the NADB gathers the necessary financial documentation and develops a preliminary financial analysis. The preliminary engineering phase, environmental review, and preliminary financial analysis are conducted concurrently and completed before initiating the final design.

General coordination and reporting occurs throughout project planning, design, and construction. During the preliminary engineering, environmental review, and final design processes, BECC provides quarterly progress and accounting reports to EPA. Further, BECC, NADB, EPA, and CONAGUA participate in quarterly project meetings. These joint meetings continue through construction close-out. The total time frame for completion of preliminary engineering, environmental review, and final design is approximately 2 years.

Critical outcomes for those phases are:

- Preliminary Engineering Report (PER)
- Environmental Review (US and Mexico)
- Final Design and associated Engineer's Construction Cost Estimate

### Process – Key Milestones, Partner Roles and Responsibilities

The process description below is organized into the following sections: project initiation; preliminary engineering, environmental review, and preliminary financial analysis; and final design.

#### Project Initiation (2-3 months from letter of notification)

During the project initiation phase, the key information needed to start and manage the project is gathered. The BECC convenes a kickoff meeting with the project sponsor and explains the conditions and requirements, both technical and financial, that the sponsor must undertake to successfully complete project development in a timely manner.

#### *Project Initiation*

- BECC completes the Rapid Assessment Process (RAP).
  - During the RAP, the BECC identifies all activities that must be completed prior to certification and develops a schedule to ensure their timely completion. This

- includes activities associated with the PER, environmental review, public participation, final design, and preparation of pertinent certification documents.
- The RAP also considers pretreatment program status and steps needed to develop and/or implement a pretreatment program.
    - BECC ensures that prior to certification, a plan for instituting pretreatment activities has been developed. The plan is implemented following signing of the sub-grant agreement and throughout the construction and operational performance periods.
  - BECC develops an expanded project summary and a project schedule through certification.
  - BECC concludes the RAP by sharing the project summary and schedules with all partners.
  - BECC organizes a project initiation (kickoff) meeting with the project sponsor. NADB, EPA, and CONAGUA participation is recommended but optional.
    - NADB submits to the project sponsor a list of documents that are required to conduct the preliminary financial analysis.

### **Preliminary Engineering, Environmental Review, and Preliminary Financial Analysis (concurrent; 10–12 months total)**

To expedite the project-development process, the BECC procures in the technical services for the preliminary engineering report and then the environmental information document. A preliminary financial analysis performed by the NADB is another key activity that is completed in parallel and helps direct financial planning for the project. All three activities must be completed before the final design phase can begin.

### **Scope of Work and Procurement of Services for Preliminary Engineering and Environmental Review Processes (3 months from conclusion of the RAP)**

- BECC develops a Scope of Work (SOW) and procures services for PER, EID, and other technical studies, as needed.
- EPA, CONAGUA, and NADB review and provide comments on SOW.
- EPA approves use of PDAP funds for PER and EID deliverables.
- BECC signs technical services agreement and issues notice to proceed.

### **Preliminary Engineering (6–8 months from notice to proceed)**

- BECC works with the consultant to develop and complete the PER and coordinates with EPA, CONAGUA, NADB, the project sponsor, and other relevant stakeholders.
- BECC works with the project sponsor and consultant to revise the report based on the comments received. BECC coordinates with EPA, CONAGUA, and NADB to resolve any issues.
- BECC ensures consideration of green building guidelines.
- BECC verifies with the project sponsor that all land ownership and required easements are secure.
- Following EPA approval and that of other funders as needed, the PER is final.

### **Environmental Review (7–9 months; begins 3 months after notice to proceed)**

- Completion of the Environmental Information Document (EID) and associated reports
  - The consultant, in coordination with the project sponsor, BECC, and EPA, collects, develops, and analyzes the information needed to assess environmental effects. The consultant also will assess crosscutters and will identify required mitigation.
    - EPA facilitates informal and formal consultation with State Historic Preservation Officers (SHPOs) and US Fish and Wildlife Service (USFWS).
    - EPA consults with US States and Tribes.
- Issue US environmental review findings.
  - Using the EID as its basis, EPA prepares a draft EA and FONSI.
  - EPA publishes the draft EA and FONSI for 30-day public review.<sup>3</sup>
  - EPA responds to comments, finalizes the EA, and issues signed FONSI (or other decision, as appropriate).
  - EPA shares signed FONSI with BECC for files, and US environmental clearance is completed.
- First public meeting
  - BECC facilitates the first public meeting with the community to describe the technical aspects of a project located in the US and communicates the results of the environmental review.
- Issue Mexican environmental review findings.
  - BECC coordinates with the appropriate Mexican State Environmental Agency or the Secretariat of Environment and Natural Resources (SEMARNAT) to complete the Mexican Environmental Review (MIA).
  - CONAGUA/BECC shares the MIA resolution with EPA, and Mexican environmental clearance is completed.

### **Preliminary Financial Analysis (concurrent with the Preliminary Engineering and Environmental Review Processes)**

- NADB completes preliminary financial analysis to determine the sponsor's ability to incur debt.
- Once the preliminary financial analysis is complete, NADB works with those communities seeking financial assistance from NADB and EPA to identify financial weaknesses and seeks to remedy them prior to certification.

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<sup>3</sup> In most cases, an Environmental Assessment (EA)/Finding of No Significant Impact (FONSI) satisfies NEPA requirements for BEIF projects. In cases where a Categorical Exclusion (CatEx) suffices or an Environmental Impact Statement (EIS) is necessary, the process is amended accordingly.

## Final Design (7–9 months from completion of environmental review)

Final design begins after the PER and environmental reviews demonstrate that the project is feasible and meets all environmental requirements, and the BECC verifies with the project sponsor that all land ownership and required easements are secure. Final design includes the preparation of final construction plans and detailed specifications for the performance of construction work. The BECC works with the project sponsor to help secure the necessary final design match funding. Prior to awarding BEIF funds for construction, both the environmental assessment and clearance and final design must be completed.

- BECC coordinates with the project sponsor and other funding partners to secure required 50% of final design costs.
- BECC oversees the procurement and delivery of the final design SOW.
  - BECC develops final design SOW in coordination with project sponsor.
  - BECC ensures incorporation of green building guidelines.
  - BECC ensures that all final designs, even those procured with funding other than PDAP, are complete and include a geotechnical report and surveys.
  - BECC shares SOW with NADB for concurrence and CONAGUA (MX) and EPA for optional review and concurrence.
  - BECC procures final design unless it is procured by the project sponsor
  - BECC and NADB review and comment on the 30, 60, 90, and 100% design drafts. EPA and CONAGUA have the option to review and comment.
  - BECC finalizes the Value Engineering (VE) SOW and procures and oversees the VE at 60% design if total project cost exceeds \$10M.
    - NADB participates in VE workshop and provides input.
    - BECC provides the VE outcome to NADB, EPA, CONAGUA (MX), and other US funding agencies (US) for review.
  - BECC sends 100% final design to EPA, NADB, CONAGUA (MX), and other US funding agencies (US).
- CONAGUA reviews for compliance all required permits within its jurisdiction and approves as appropriate.
- NADB Technical Services reviews the final design, construction and O&M costs, and implementation schedule and forwards them to the NADB Project Development Department.
  - The final design construction costs will include the cost of construction supervision<sup>4</sup> by an independent, competitively-procured construction supervision team for the entire certified project. A project sponsor who wants an exemption from this provision for some or all Mexican-funded construction contracts must notify CONAGUA, EPA, and NADB prior to completion of the Financial Plan during Deal Sheet development. Such a request will be reflected in the final design construction costs, financial plan, and draft deal sheet (see Chapter 3), which are subject to EPA approval.

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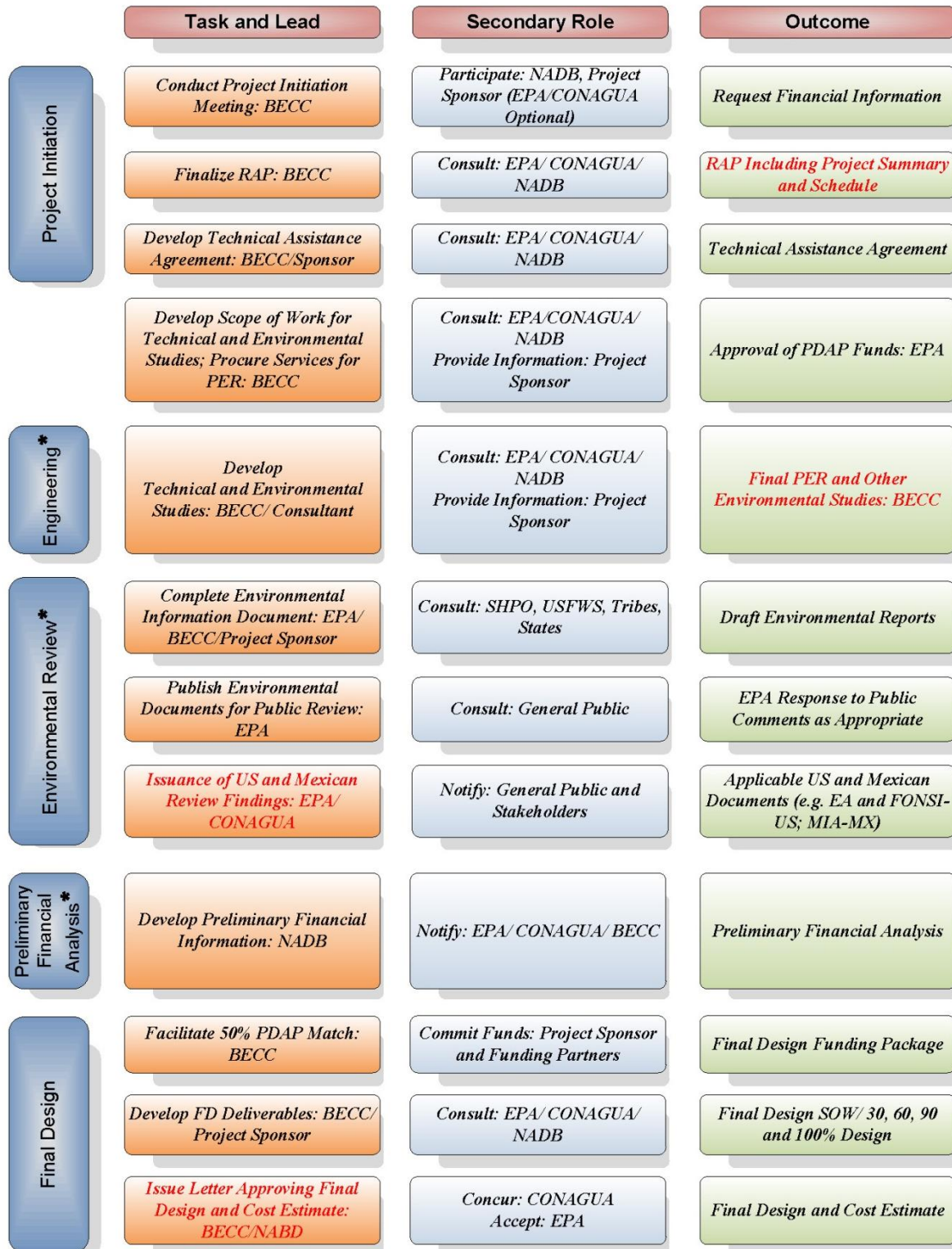
<sup>4</sup> Construction Supervision (also referred to as Construction Management or “CM”) means the day-to-day, on-site monitoring, management, and oversight of the construction contractor(s) and includes materials testing, review of change order requests, and quality control of construction to ensure agreement with approved final design plans and specifications among many other tasks.

- If BECC/NADB and CONAGUA do not agree on final design project costs, the BECC will initiate discussions with NADB and CONAGUA for reconciliation. BECC/NADB advises EPA of any issues.
- BECC and NADB send EPA (US and MX projects) and CONAGUA (MX) a joint letter approving the final design and costs. The letter includes a cost estimate breakout and summary of comments and their resolution.
- EPA approves the final design and associated cost estimate.

### **Summary of Key Milestones and Decision Points**

- Rapid Assessment Process.
- PER and US/MEXICO Environmental Review findings and clearance.
  - Decision Point:
    - BECC determines project is feasible: project proceeds.
    - Project not feasible: BECC consults with EPA.
- BECC/NADB issues joint letter approving the final design and cost estimate.

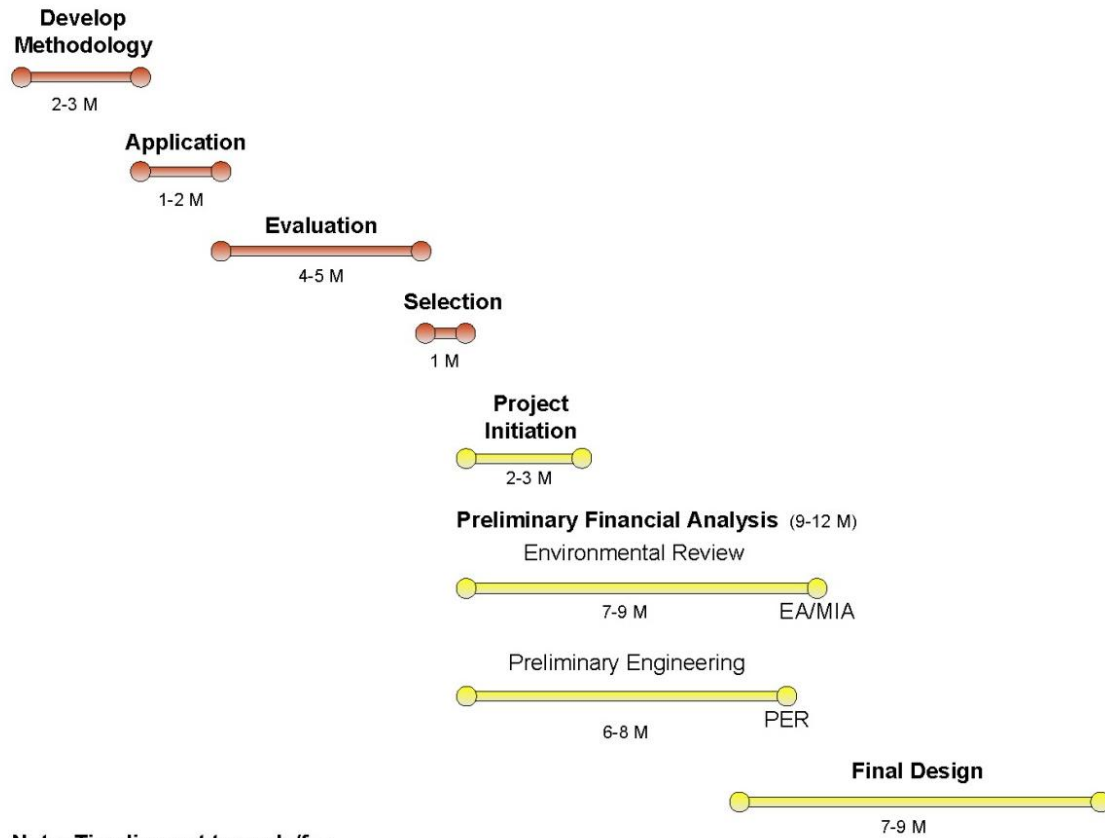
Figure 2: Engineering, Environmental Review and Final Design



\* These activities occur simultaneously

Note: Texts in red indicates key project milestones

**Figure 3: Prioritization and Project Development Timeline**



**Note: Timeline not to scale/for illustration purposes only**



## Chapter 3. Financial Analysis, Deal Sheet and Certification

### Overview

Once the final design is complete, the NADB conducts a financial analysis and develops a financial plan, and EPA awards BEIF funds to the NADB for the project. NADB in coordination with EPA develops a draft financing structure that CONAGUA concurs on for Mexican projects and that the NADB incorporates into a deal sheet for EPA approval. Once EPA approves the deal sheet, NADB initiates the development of a draft sub-grant agreement and BECC completes the public participation process. At the same time, BECC develops, in coordination with NADB, a certification package for the BECC/NADB Board of Directors' approval.

These activities are conducted in parallel and in consultation with EPA and CONAGUA, as appropriate. This is a critical period in the project life cycle, requiring extensive coordination and open communication to ensure that all information is accurate, consistent, and shared in a timely fashion. This phase concludes when the BECC/NADB Board of Directors certifies the project. The total time frame for completion of the financial analysis through certification is six months after final design is complete.

Critical milestones for this phase include:

- Financial Plan
- Deal sheet and EPA's approval letter
- Draft sub-grant agreement
- Public participation
- Project certification

### Process – Key Milestones, Partner Roles and Responsibilities

The process description below is organized into sections on financial analysis, the deal sheet, draft sub-grant agreement, and project certification.

#### Financial Analysis (concludes prior to deal sheet approval)

The financial analysis results in a proposed financial plan for constructing the project. During the analysis, the NADB identifies the project sponsor's maximum debt capacity and works with them to access all other possible funding sources. The NADB then determines the amount of BEIF grant necessary to make a project affordable and to complete the financial plan. The NADB coordinates with CONAGUA for Mexican projects and ensures that match requirements are met. The specific activities and key requirements included in the financial analysis are described below:

- NADB completes collection and compilation of financial information provided by the project sponsor.

- Financial information includes--but is not limited to--an affordability analysis, the preceding 5 years' audited financial statements, rate structure and history, number of accounts, W/WW consumption, physical and commercial efficiencies, Capital Investment Program for next 5 years, utility budget, current and projected debt service by series, and other funding sources' commitments to fund the project.
- Development of Financial Plan.
  - Using final design project costs and project sponsor financial information, NADB works with the project sponsor to complete a financial plan, including a loan component as required by EPA.<sup>5</sup>
    - A project sponsor who wants an exemption for Mexican-funded construction contract(s) from the provision for independent, competitively-procured construction supervision (see page 11) must notify CONAGUA, EPA and NADB prior to completion of the financial plan.
    - If the NADB's preliminary financial analysis (see Chapter 2) indicates that the community cannot afford any reasonable amount of loan, NADB consults with EPA.
    - EPA may waive the loan requirement based on NADB's recommendation.<sup>6</sup>
    - BECC and CONAGUA support development of the financial plan, as appropriate.
  - NADB ensures that the project has maximum affordable funding from other sources and that EPA funding is necessary to fulfill its financial plan.
    - NADB supports the project sponsor's coordination with other financial partners, such as other federal, state and local entities involved in infrastructure planning.
    - NADB determines that other funds necessary to complete construction of the project have been identified and that documentation is or will be available to confirm the commitment of those funds from all other funding entities, including the project sponsor.
      - CONAGUA is the liaison with responsibility to coordinate Mexico's financial participation on the part of the federal government, state, municipality, or operating organization, as appropriate.<sup>7</sup>
    - NADB determines BEIF grant assistance based on the amount of loan the community can afford as well as the availability of grants from other sources.
      - Consistent with the NADB's mandate to assist communities in the transition to projects partially financed with debt supported by user fees, eligibility for and use of BEIF Transition Assistance (to ease communities' adjustments to higher user fees) should precede BEIF Construction Assistance for US projects.

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<sup>5</sup> NADB may recommend BEIF assistance for eligible design/build projects based on best available cost estimates.

<sup>6</sup> EPA guidance on loan waivers can be found in the current BEIF Guidelines.

<sup>7</sup> CONAGUA's responsibility is established in the International Boundary and Water Commission's "Minute 304: Program of Joint Contributions for Drinking Water Supply and Wastewater Infrastructure Projects for Communities in the United States-Mexico Border Area."

- NADB coordinates with the project sponsor, when applicable, to begin to secure legal documents for the loan agreement at the earliest opportunity.
- NADB completes the financial analysis.
- After NADB completes its financial analysis, NADB sends the project financing structure to EPA for review and concurrence.

### Deal Sheet (up to 8 weeks from the delivery of final design costs to EPA’s approval letter to NADB)

The project deal sheet is a critical milestone between the EPA and the NADB. Through this document, EPA approves the use of BEIF funds for a project up to a certain amount and specifies how these funds should be used, including both the EPA’s and NADB’s terms and conditions for the assistance.

#### Deal Sheet Development

- Initial Input (completed by the end of 100% Final Design).
  - NADB Technical Services Department provides NADB Projects Development Department with an itemized breakout of construction, supervision, and contingency costs.
    - Contingency costs will not be included for project components that are funded by Mexico.
    - Construction supervision will be included for all certified project contracts unless the project sponsor has notified CONAGUA, EPA, and NADB of its intention to exempt certain Mexican-funded contract(s) from this provision. In such cases, the proposed alternative approach for construction supervision for Mexican construction contract(s) will be clearly identified, including associated funding.
    - NADB Technical Services also provides 10-year O&M projection costs, O&M and replacement and repair reserves for the project, and a draft construction schedule.<sup>8</sup>
  - BECC begins drafting a certification document<sup>9</sup> and provides Chapter 1 “General Project Information” to the NADB for use in the deal sheet.
- Draft deal sheet (approximate duration - 4 weeks).
  - NADB determines the dollar/peso exchange rate that is included in the proposed financing structure based on *Banco de México’s* “FIX” exchange rate, which is published at the *Diario Oficial de la Federación* and corresponds to a date during the week that the financial analysis is completed (prior to sending it to EPA). If the *Banco de México’s* “FIX” exchange rate is not available, NADB will use Bloomberg as an alternate source. NADB will footnote the source and date of the dollar/peso exchange rate in the deal sheet.<sup>10</sup>

<sup>8</sup> For Mexican projects, the project sponsor delivers a draft construction schedule to the NADB, following consultation with CONAGUA.

<sup>9</sup> The certification document includes the following six chapters: Chapter 1 - General project information; Chapter 2 - Human health and environmental information; Chapter 3 - Technical feasibility statement; Chapter 4 - Financial feasibility; Chapter 5 - Public participation documentation; and Chapter 6 - Sustainable development.

<sup>10</sup> Since NADB maintains its accounting records in US dollars, reimbursement for expenditures associated with projects in Mexico necessarily involves the US dollar / MX peso exchange rate. For the purpose of reimbursement of actual expenditures

- EPA and NADB agree on a financing structure that considers construction, contingencies and construction supervision. EPA will review any proposed alternative construction supervision approach for Mexican Construction contract(s) and may agree, disagree, or condition its approval of the resulting Financial Plan.
- NADB develops and submits to EPA a draft project deal sheet that includes an agreed financing structure.
  - The deal sheet contains--but is not limited to--a project summary with description of the project and other information needed to define the project and its expected outcome; a review of project eligibility; and a financial review that details all project funding information, how it was derived, and the financial impact to the community. The deal sheet also includes the initial terms and conditions of the BEIF grant and other closing conditions.<sup>11</sup>
  - In parallel, NADB submits to CONAGUA, via e-mail, the financing structure proposed for the project, including match credit records, when applicable.
    - If NADB receives comments from CONAGUA on the proposed financing structure, NADB notifies EPA.
    - EPA discusses with CONAGUA the issue at hand and the two agencies reach agreement on a project funding package.

### *Deal Sheet Approval*

- BECC provides the draft certification document to EPA, NADB, and CONAGUA for review and comment prior to the incorporation of key project data into the deal sheet.
  - Program partners ensure consistency across the following documents: environmental reviews, the deal sheet, and the certification document.
- EPA approves the draft deal sheet within 2 weeks after NADB submits it to EPA. For Mexican projects, EPA will not approve the deal sheet unless CONAGUA has concurred with the financing structure.
  - NADB provides a copy of the deal sheet to CONAGUA for information purposes.
- The NADB Funding Committee reviews and approves the BEIF funding for the project within 1 week after EPA approves the draft deal sheet.
- EPA provides deal sheet approval letter to NADB within one week of EPA's receipt of the final deal sheet from the NADB.
  - EPA's letter approves up to a specified amount of BEIF financial assistance for the project, subject to certain terms and conditions proposed by NADB and EPA (and in the case of Mexican projects, in consultation with CONAGUA).
  - EPA copies BECC on the deal sheet approval letter.
- NADB provides Chapter 4 - "Financial Feasibility" of the certification document to BECC.

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of funds during and following construction, the actual exchange rate on the day of each NADB transaction releasing funds will be used for repayment and tracking of actual project costs.

<sup>11</sup> For more details, refer to the current EPA BEIF Guidelines.

- BECC finalizes the draft certification document, pending completion of Chapter 5 - “Public Participation.”

**Initiation of the Draft Sub-Grant Agreement (up to 1 month following issuance of EPA’s deal sheet approval letter and concurrent with the 30-day public review of the certification package)**

The BEIF sub-grant agreement sets forth the NADB’s financial BEIF commitment with the project sponsor pursuant to the terms and conditions contained in the approved deal sheet and EPA’s approval letter. NADB provides EPA with the draft sub-grant agreement within 30 days of the date on the Deal Sheet approval letter for review.

- NADB begins developing the draft sub-grant agreement.
  - The draft sub-grant agreement includes an affirmation of the eligibility of the project to receive BEIF funds, the specific amount of funds approved for that project, and conditions on the use of such funds. Other components of the draft sub-grant agreement are:
    - General project sponsor and project information.
    - Project financial information.
    - Terms and conditions for the BEIF grant, including those relating to pretreatment and O&M.
    - Construction and Transition Assistance information.
    - Project construction and disbursement schedules provided by sponsor.
      - Prior to certification, NADB Technical Services will work with the project sponsor to develop a detailed construction schedule including: construction and construction supervision contracts, construction milestones to completion; projected disbursements; benefited population; number of new DW and WW connections; and potential issues that may impact project progress. The schedule, which will be amended as contracts are signed, will be provided to EPA for approval and will be included in the sub-grant agreement.
      - Any instance when independent, competitively procured construction supervision for the entire certified project is not being implemented will be clearly indicated and the proposed alternative approach explained.
    - Reserves requirements/conditions.
    - Financial and operational information reports.
    - Procurement policies.
    - Disbursement policies and procedures.
    - Construction Supervision Model Terms and Reference
    - Cost Effectiveness Principles & Sustainable Building Practices.

**Project Certification (up to 12 weeks)**

BECC/NADB Board project certification is a critical milestone that must occur before a project can receive BEIF grant funding and NADB loans. The BECC works with the NADB to develop

the project-certification package. The package contains all pertinent information required by the Board to make a certification determination.

### **Public Participation (up to 8 weeks<sup>12</sup>)**

- Final public meeting (should occur within 30 days after deal sheet approval and prior to the start of the 30-day certification document public-comment period)
  - BECC works with the project sponsor to schedule and publish a notice announcing the final public meeting.
  - BECC, with NADB participation, supports the project sponsor in conducting the final public meeting and develops the Public Participation Final Report.
    - BECC incorporates any required modification to address comments received during the final public meeting.
- BECC publishes the draft project certification document on its Web site, opening the formal 30-day public-comment period.
- BECC finalizes the project-certification document.
  - BECC incorporates any required modifications to address comments received during the 30-day public comment period.
    - BECC coordinates with EPA, NADB, and CONAGUA, as appropriate, on any modifications to the certification document.

### **Project Certification Package (completed 5 days after public-comment period ends)**

- BECC/NADB develops a project certification package that includes:
  - Project-certification document.
  - BECC/NADB Design Results Measurement Matrix.
  - BECC General Manager's Report.
  - NADB Financing (Loan) Proposal, if the financial structure includes an NADB loan.

### **Project Certification Approval (4 weeks after completion of the 30-day public-comment period)**

- BECC/NADB submits the project certification package to the BECC/NADB Board of Directors for review and approval immediately after public comments, if any, have been incorporated into the certification document.
- Board reviews the project-certification package.
- Board considers certification and financing approval and then issues a decision via board meeting or electronic vote.

### **Summary of Key Milestones and Decision Points**

- Financial Plan.
- Financing Structure.
  - Decision Point:

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<sup>12</sup> For BEIF funded projects only.

- EPA and NADB agree on a proposed financing structure.
  - CONAGUA agrees with the proposed financing structure: incorporate financing structure into the deal sheet.
  - CONAGUA provides comments on the financing structure: NADB notifies EPA.
    - EPA and CONAGUA reach an agreement on the financing structure.
    - NADB revises the financing structure, if appropriate.
- Deal Sheet.
  - Decision Point:
    - CONAGUA provides a letter of Mexican commitment: draft deal sheet moves through approval process.
    - CONAGUA does not provide letter of Mexican commitment: draft deal sheet does not move through the approval process.
- EPA's Deal Sheet approval letter.
- Certification Package.
  - Decision Point:
    - Joint BECC/NADB Board certifies project: project moves to construction phase.
    - Joint BECC/NADB Board does not certify the project: project not eligible for EPA BEIF or NADB funding in the absence of Board certification.

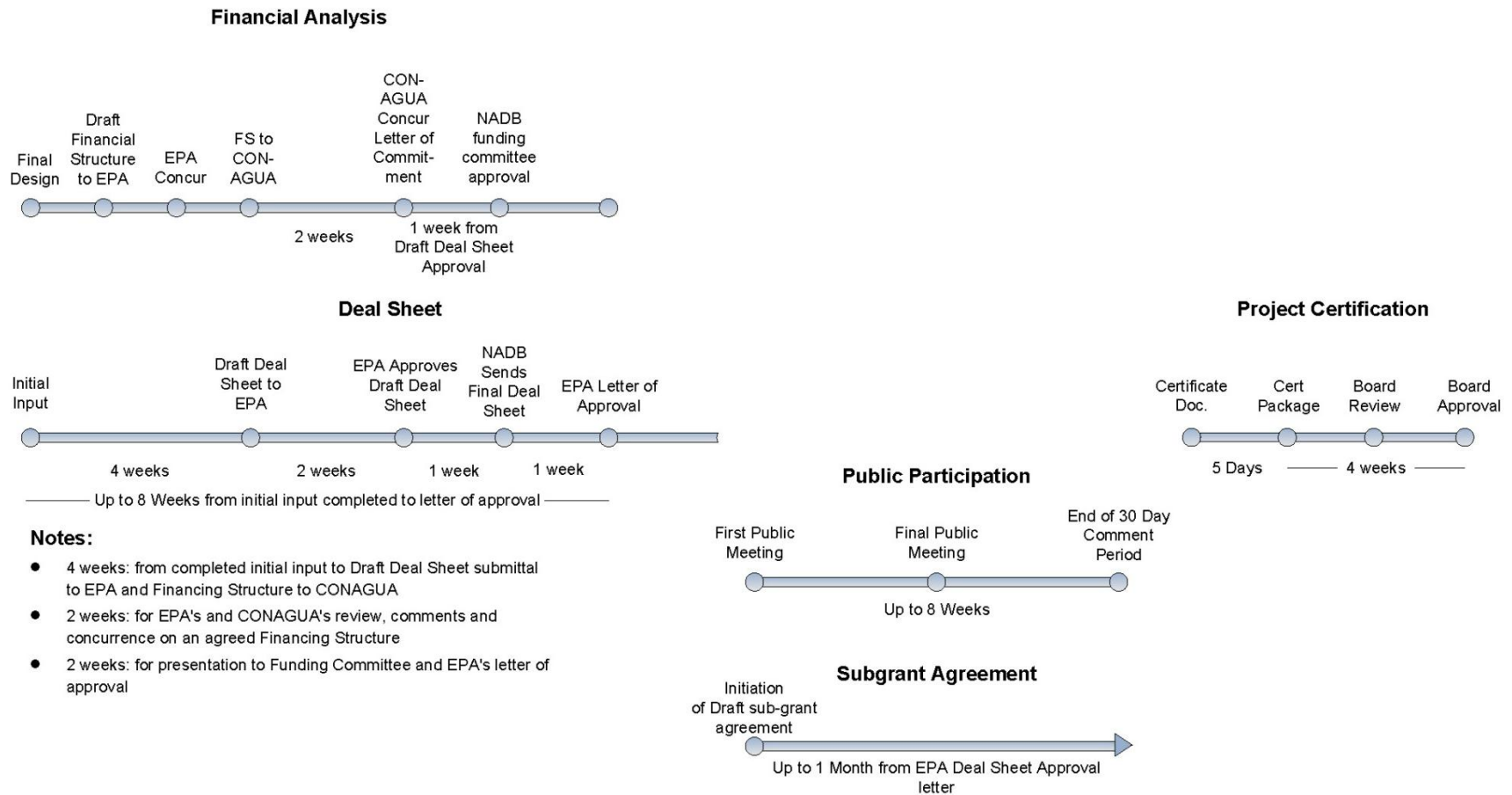
Figure 4: Financial Analysis, Deal Sheet, Draft Sub-Grant Agreement and Certification

	Task and Lead	Secondary Role	Outcome
Financial Analysis	Conduct Financial Analysis: NADB	Consult: EPA	Financial Plan
Deal Sheet	Develop Financing Structure: NADB	Consult: EPA Concur: EPA/CONAGUA (MX)	Financing Structure—Deal Sheet uses and sources of funds table. CONAGUA's Letter of Commitment
	Finalize Deal Sheet: NADB	Consult: EPA	EPA Letter of Approval
	Complete Financing Feasibility: NADB	Notify: BECC	Certification Document Chapter 4
Draft Sub-grant Agreement	Initiate Draft Sub-grant Agreement: NADB	Consult: EPA	Draft Sub-grant Agreement
Certification	Coordinate Public Participation: BECC/ Project Sponsor	Participate: General Public/ Support: NADB/EPA	Public Meeting(s)
	Finalize Project Certification Document: BECC	Consult: EPA/CONAGUA/ NADB	Certification Document Publication for 30-day Comment Period: Final Project Certification Document
	Finalize Project Certification Package: BECC/NADB	Consult: EPA	BECC/NADB Board of Directors Approval

Note: The texts in red indicate key project milestones



**Figure 5: Project Development to Certification Transition Timeline**



**Notes:**

- 4 weeks: from completed initial input to Draft Deal Sheet submittal to EPA and Financing Structure to CONAGUA
- 2 weeks: for EPA's and CONAGUA's review, comments and concurrence on an agreed Financing Structure
- 2 weeks: for presentation to Funding Committee and EPA's letter of approval

**Note: Timeline not to scale/for illustration purposes only**

## Chapter 4. Funding, Procurement, Construction, and Reporting

### Overview

The certified project relies on a number of sources to fund the construction phase. These sources include the US EPA's BEIF, CONAGUA's federal grant programs, loans, and other federal, state and local funding sources in both the US and Mexico. To accommodate funding schedules and grant requirements, the certified project may be portioned into discrete project components that are contracted using a single source of funding or funding from a group of sources with overlapping regulations.

The NADB is responsible for project management, financial and construction oversight, and reporting for the entire project following project certification. NADB's responsibilities include tracking and oversight of project implementation, providing monthly reports to EPA, and ensuring compliance with the construction schedule through completion. For those project components funded solely by Mexico, CONAGUA and the Executor<sup>13</sup> of the Mexican federal grant will provide separate project management, oversight, and reporting (see section on Mexican Funding, this chapter). The NADB also will report to EPA on all components as specified in the BEIF cooperative agreement. During this phase, BECC provides support to NADB, EPA, and CONAGUA, as necessary.

This phase concludes when NADB determines that the entire certified project has been completed in accordance with the project's final drawings, plans, and specifications, and the project is operable for the purposes for which it was constructed. Construction completion is formalized when the NADB submits the project-completion certificate as part of the project close-out process (see Chapter 5). The total timeframe for this phase is up to three years, beginning at project certification and ending when the entire certified project has completed construction.

Critical milestones for this phase include:

- Completion of BEIF sub-grant agreement
- Issuance of *Anexo Técnico*<sup>14</sup>
- Procurement of BEIF and Mexican-funded construction contracts
- Monthly, quarterly, and annual reporting

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<sup>13</sup> The Executor often is the State Water Agency.

<sup>14</sup> The *Anexo Técnico* is an official document that is signed by CONAGUA and the Executor, the entity responsible for project implementation. It is signed each year and confirms the annual availability of Mexican funds for project construction.

## Process – Key Milestones, Partner Roles, and Responsibilities

The process description below is organized into sections on funding, construction bid evaluation, construction administration oversight, BEIF management, and associated reporting activities.

### Funding

As mentioned previously, the certified project relies on multiple sources to fund construction. The BEIF is intended to be the funding of last resort, which completes the funding package once all other sources have been exhausted. The approved deal sheet describes all of these sources and their uses. The BEIF sub-grant agreement is the vehicle that the NADB uses to award BEIF funds to the project sponsor for project construction and also identifies other sources of project funding. These funding sources include US and Mexican federal, state, and local sources. Mexican federal grant funding for the same project is identified annually in the *Anexo Técnico*. For Mexican projects, Mexico is required to provide a funding match equal to 100% of the amount of the BEIF sub-grant in the form of grants from federal, state, or local governmental entities. Debt financing and funding from non-governmental sources may not be used to match the amount of the BEIF sub-grant.

### BEIF Sub-Grant Agreement

The BEIF sub-grant agreement sets forth the NADB's financial commitment of funds for that project pursuant to the terms and conditions contained in the deal sheet and EPA's approval letter. As mentioned in Chapter 3, NADB provides EPA with the draft sub-grant agreement for review within 30 days of the date on the Deal Sheet approval letter.

- NADB Project Development Department, in coordination with EPA, completes the draft sub-grant agreement, as described in Chapter 3. Prior to certification, the sponsor will have provided the NADB with a preliminary construction and disbursement schedule. Any instance when independent, competitively-procured construction supervision for the entire certified project is not being implemented will be clearly identified and the proposed alternative approach explained. NADB ensures that the construction and disbursement schedule does not exceed a time frame of three years from the date of project certification.
- NADB delivers the sub-grant agreement to the sponsor for review and signature.
- NADB consults with EPA regarding any negotiated changes to the sub-grant agreement.
  - NADB informs EPA of any unresolved negotiation issues.
  - EPA joins NADB in negotiating with the sponsor to resolve the outstanding issues.
- The sponsor and NADB sign the sub-grant agreement, which represents the NADB's commitment to provide BEIF funding to the sponsor. Subsequently, the sponsor can sign BEIF-funded contracts for the specified project, subject to the terms and conditions detailed in the agreement.
- NADB sends a copy of the signed sub-grant agreement to EPA and CONAGUA.

### *Mexican Federal Grant Programs Funding*

The regulations governing CONAGUA's Federal Programs<sup>15</sup> establish that projects to be financed and constructed by Mexico are listed in a document called the *Anexo Técnico*. This document is signed yearly by the Executor and CONAGUA's State representative. The document is completed sometime between early February and the last working day of March. Project procurement can initiate as soon as the document is complete but no later than the last working day of July. The last day for signing contracts is the 31<sup>st</sup> of December, and the last day for completion of the construction work is three months later, the last working day of March the following year.

- Once the *Anexo Técnico* is signed by the Executor and CONAGUA, the Executor takes over responsibility for all aspects of project implementation, including the review of bid documents for contracts and supervision, and oversight and control of the construction work.
- CONAGUA ensures that all parties are kept informed of the status and content of the anticipated *Anexo Técnico*.
- CONAGUA coordinates with state water agencies to ensure that border program priorities are understood and that all funding commitments for specific border projects are realized.
- CONAGUA shares with NADB, EPA, and BECC the annual *Anexo Técnico*, following its publication.
  - CONAGUA informs the NADB, EPA, and BECC of any ensuing modifications to the *Anexo Técnico*.
  - CONAGUA provides the NADB notice of any funding deficiencies from any Mexican funding source during the life of the project.

### *Match Credit*

Due to differences in the BEIF and Mexican grant funding cycles, it is sometimes advantageous to utilize available Mexican funds before a project has been formally certified by the BECC/NADB Board. Contracts procured using approved match credit funding may become part of the certified project. In order to ensure consistency and quality, all contracts receiving match credit must comply with all of the conditions for contract procurement and oversight as those contracts funded after certification.

- Match credit is allowable for projects only in cases in which EPA has received and approved a request from CONAGUA prior to the initiation of construction.
- The allowable match credit is limited to funds used to pay for costs related to construction and competitively procured supervision of the specified contract(s).
- Match credit contributions may come from CONAGUA, state, or local grant funds but not from debt financing or funds from non-governmental sources.
- Mexican-funded project components that are contracted prior to BECC/NADB certification must meet EPA's BEIF program criteria and requirements; must conform

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<sup>15</sup> Regulations of CONAGUA's APAZU, PROSSAPYS, and PRODDER Federal Programs are typically published every year in the *Diario Oficial de la Federación* and can be found at CONAGUA's Web site.

with the specifications of the BEIF-supported project, including design parameters, functional and operational compatibility; should implement appropriate sustainable building practices; and must not affect EPA's ability to fully comply with its environmental statutes and regulations. If based on the EPA environmental assessment, the project is modified such that the match credit contracted component is no longer considered part of the project, then the costs associated with this infrastructure component will not be credited as match for the BEIF grant.

- The NADB will keep an accounting of project costs, applicable conversion rates, and the final match credit amount after final contract amounts and actual construction costs have been validated in accordance with the *Acta de Finiquito*.<sup>16</sup>

## Construction Bid Solicitation Evaluation

### BEIF

Following signature of the sub-grant agreement, the project sponsor takes responsibility for the procurement process for BEIF contracts, with assistance and oversight provided by NADB. Through a "no-objection" review, NADB ensures fair, open, and competitive contract procurement. Project contracts funded with BEIF funds must comply with NADB's Procurement Policies and Procedures. The NADB process for procurement of contracts includes--but is not limited to--the following steps:

- The project sponsor develops draft bid documents.
- NADB reviews all bid documents for completeness and compliance with the NADB procurement process.
- The project sponsor finalizes bid documents for each anticipated contract.
  - NADB reviews the bid documents and issues a "No Objection to Bid."
- The project sponsor:
  - Publishes a General Procurement Notice;
  - Advertises for bids in accordance with the NADB procurement process and guidelines;
  - Reviews and tabulates the bids; and
  - Completes the bid evaluation and submits it to NADB for review.
- NADB reviews the evaluation and provides its no-objection notice to announce the winner and execute the contract.
- Davis-Bacon Act rules do not apply to USBEIF-funded contracts unless US State Revolving Fund (SRF) funds are part of the certified project financial plan. If the project's U.S. State Revolving Fund (SRF) funding was executed after October 30, 2009, the NADB must ensure compliance with the Davis-Bacon Act rules for all contracts for that certified project, including BEIF and other contracts not funded with SRF funds..
- For all certified project contracts, the NADB ensures that all covenants, including technical and financial as specified in the sub-grant agreement are met.and applicable

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<sup>16</sup> The *Acta de Finiquito* is a financial and technical certification that the project has been completed as specified. It signals the end of the contractual agreement between the Executor and the contractor.

requirements, including sustainable infrastructure provisions<sup>17</sup>, are contained in the bid documents.

### **Mexican Funding**

All project contracts that are funded with Mexican Federal resources or their match must adhere to regulations established in the *Ley de Obras Publicas y Servicios Relacionados con las Mismas* (LOPSRM). The regulations establish norms for the procurement process, contracts, contracting process (award), and construction of the projects. CONAGUA will provide assistance and oversight over the Mexican-funded contracts in accordance with Mexican requirements. The Executor is responsible for all aspects of project implementation, including the review of bid documents for contracts and procurement oversight, as follows:

- The Executor can use one of three options to procure services/contract the project: public bid<sup>18</sup>, invitation to at least 3 persons, or direct award (sole source).
- In the case of public bid, which can be bid nationally or internationally, the Executor publishes the *Convocatoria Pública* (Procurement Notice) in the *Diario Oficial de la Federación*, and also in local newspapers, as appropriate.
- Following publication of the *Convocatoria Pública*, bidders deliver their proposals in a closed envelope for public opening. For national bids, the bidders have at least 15 business days to deliver their proposals; for international bids, the bidders have at least 20 business days.
- The Executor evaluates the proposals and awards the contract to the proposal that complies with the criteria established in the *Convocatoria Pública* for legal, technical, and economic conditions.
- The use of Mexican Federal Resources is governed by federal legislation and is subject to control actions, monitoring, and evaluation by federal agencies.
- CONAGUA may participate in the actions involved in the execution of Federal Funding Programs (APAZU, etc.), when requested by the water service provider.

### **Construction Supervision of Certified Project Construction Contracts**

- A single, comprehensive, independent, and competitively procured construction supervision team will be responsible for overall construction management of the total certified project, including project sponsor's representation, on-site day-to-day construction monitoring, quality assurance testing, payment request review, and change order management. Funding for the construction supervision team can be shared by the BEIF and the project sponsor or, if this creates legal complications, paid for in total by the BEIF.
- Where a single construction supervision contract for all certified project components is not possible, multiple competitively procured contracts may be used as necessary to ensure comprehensive construction supervision.

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<sup>17</sup> The Sustainable Infrastructure (SI) covenant requires that SI guidelines be considered for all contracts and that the contractor report which suggestions were incorporated and which were not and why. Although the contractors and consultants have the option to incorporate SI provisions or not, they are required to report in detail on the review the decisions made and the basis for including or excluding SI elements.

<sup>18</sup> Public bid is the option that the Executor most commonly uses to procure services.

- In cases of separate construction supervision teams, the scopes of work of the teams should be coordinated to ensure that project construction supervision is consistent across project contracts. Standardized reporting requirements could be specified in all construction supervision contracts and required for all certified project components as a condition of the BEIF sub-grant agreement.

### Construction Oversight<sup>19</sup>

As the entity responsible for overall project oversight, the NADB will ensure that the certified project progresses in compliance with the construction and disbursement schedule through completion. The construction schedule should be aggressive and expedite construction completion in the shortest amount of time possible. The NADB will place on a corrective action schedule those projects that fail to contract 100% of all funding sources within 2 years of certification.<sup>20</sup> Further, EPA will consider withdrawing its letter of funding approval if BEIF disbursements have not been initiated within 2 years of the deal sheet approval letter. Further details regarding construction oversight are described below:

- NADB, CONAGUA (and/or the Mexican contracts' Executor), and all other appropriate parties attend a pre-construction meeting scheduled by the project sponsor.
- NADB provides project oversight, including periodic field visits and construction meetings, for all components of the certified project.
  - NADB submits site-visit reports to EPA after conducting field visits/construction meetings to confirm progress on project components.
- NADB ensures that a project construction sign, listing EPA (name and logo) as the funding agency, is visible at the project site.
- NADB reviews and formally approves change orders to the BEIF components of the project.
  - NADB reviews change orders and contract modifications to evaluate compliance with the original project certification.
  - NADB notifies BECC, EPA, and CONAGUA of any major change orders.
  - CONAGUA notifies NADB, BECC, and EPA of any major change orders to Mexican-funded contracts.
    - Major change orders are project modifications that could change a component cost that will result in project costs exceeding available funds or affect the anticipated environmental outcome (i.e., number of new connections/hook-ups).
- NADB notifies EPA immediately and ceases disbursements in the event that any project component, condition, or change order is in conflict with the findings of the project's environmental assessment.

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<sup>19</sup> Construction oversight is conducted by funders, sponsors, and relevant state and federal agencies and is distinguished from construction supervision, which requires daily on-site review and monitoring of construction activities. Construction oversight is more typically performed periodically from a distance and to varying degrees, based on the role of the agency in the project, but includes tracking of general project status, spending, resolution of problems, and compliance with applicable regulations and often includes regular periodic site visits.

<sup>20</sup> See Fiscal Policy for the US-Mexico Border Program, June 2007.

- NADB Technical Services reviews the construction progress of all contracts with respect to the construction schedule and promptly identifies and resolves project delays. Construction schedules are updated to reflect actual progress and the percentage of project completion determined based on the reporting requirements specified in the BEIF sub-grant agreement.
- NADB conducts inspections to ensure that the project sponsors, the construction supervision team, and the construction contractors are fulfilling their respective responsibilities.
- For contracts funded through Mexican federal grant programs, the project Executor is charged by the federal government to provide oversight, reporting, and control of the construction work in accordance with the LOPSRM, as described above. However, because NADB is required by EPA to perform oversight and reporting for the whole certified project, including those components contracted and managed by the project executor, its liberty to do so will be guaranteed by a condition of the sub-grant agreement.
  - CONAGUA's regional office personnel visit the construction sites periodically and perform technical and regulatory supervision of the construction work.
- Coordination and project information sharing, including status and on-site visit reports between the oversight organizations, should be facilitated.

### BEIF Management

In addition to providing oversight for the entire certified project, the NADB is responsible for tracking and facilitating accounting and funding verification and for ensuring accurate and timely reporting. As the BEIF program administrator, NADB makes every effort to meet project-completion timelines and EPA disbursement objectives. Specific activities associated with managing the BEIF are listed below:

- NADB conducts all necessary project audits, inspections, and certifications through a construction consultant or other qualified agent to ensure proper construction monitoring and management and proper disbursement of construction funds.
- NADB notifies EPA and CONAGUA of any need to change the distribution of approved funds among authorized uses.
  - NADB obtains EPA approval before authorizing the change.
- Upon receiving a reimbursement request from the project sponsor, NADB reviews the request for compliance with NADB procedures and issues reimbursement.
- EPA may redirect funding from projects that are experiencing construction delays.
  - NADB, on behalf of the project sponsor, may request a construction period extension or waiver of redirection of BEIF funds for projects experiencing construction delays.
- EPA retains the authority to make a final determination regarding the bypass or premature close-out of any project.



## Reporting

Throughout the funding, procurement, construction, and project close-out (discussed fully in Chapter 5) phases, the NADB provides EPA with a series of monthly, quarterly, and annual reports that facilitate the tracking of construction activities, disbursement amounts, and project milestones. The reports and their contents are described in more detail below:

- Monthly Reports.
  - NADB provides EPA regional offices with a monthly project tracking report (monthly BEIF report), due fifteen days after the end of the monthly reporting period. The BEIF report includes dates of the deal sheets, letters of approval, sub-grant agreements, and project completions. The report also includes disbursement amounts of the BEIF and other participants' funding including CONAGUA's match.
  - NADB provides to EPA copies of the project construction status calendars updated from site-visit reports prepared by staff and/or contractors. NADB will provide site-visit reports as visits are conducted by NADB staff.
- Quarterly Reports.
  - NADB submits to the appropriate EPA regional office quarterly project progress reports that include the following:
    - Inspections conducted by the NADB (or its agents) and findings.
    - Percentage construction completion.
    - Change orders issued/approved, with dollar amounts.
    - Problems, issues, delays to the approved construction schedule.
    - Status of project milestones:
      - Deal sheets
      - Approval letter
      - Sub-grant agreement
      - Construction contracts
      - Construction milestones
      - Disbursement milestones
  - NADB also provides quarterly narrative reports to EPA regional offices describing the status of project sponsors' compliance with BEIF programmatic grant conditions.
    - The report describes the corrective actions being taken in cases of non-compliance.
    - NADB submits these reports directly to the applicable EPA regional office.
    - NADB provides to EPA regions a quarterly executive management report with a high level summary of project status, potential project delays, and upcoming milestones. At the end of each quarter, NADB provides EPA with a quarterly water and wastewater connections report for projects completed in that quarter. At a minimum, this report includes the following columns: Project Name, State Located, Total Projected Water Connections, Total Projected Wastewater Connections, Total Projected Benefited Population, Population Benefited by New Water Connections,

Population Benefited by New Wastewater Connections, Actual Water Connections Constructed this Quarter, Actual Wastewater Connections Constructed this Quarter, Cumulative Total Water Connections, Cumulative Total Wastewater Connections, and Actual Population Benefited by Project.

- Annual Reports.
  - NADB submits to the EPA regions an annual BEIF Report within 90 days after the close of the NADB's fiscal year. This annual report focuses solely on the BEIF program and addresses financial and performance accomplishments based on the approved work plan.
  - NADB provides the EPA regions with a copy of its annual report to the BECC/NADB Board of Directors within 30 days following the Board's approval.
    - The annual report statements are prepared in accordance with the accounting principles used by the NADB in its own operations and are presented together with an opinion issued by the independent firm of public accountants that prepares the Bank's audited financial statements.
    - The report includes a statement of assets and liabilities of the BEIF and each account; a statement of cumulative receipts and expenditures for the BEIF and each account, and a statement of the origin and use of resources of the BEIF and each account, with such explanatory notes as may be pertinent; and information on the progress and results of the projects, programs, and other operations of the BEIF and each account.
    - The accountant's fees associated with the BEIF portion of these audited financial statements may be charged to the BEIF.

## Key Decision Points

- BEIF sub-grant agreement.
  - Decision point: NADB informs EPA of negotiated changes to the sub-grant agreement.
    - Unresolved negotiation issues are resolved by NADB in consultation with EPA.
- Procurement of BEIF and Mexican construction contracts.
  - Decision point: contracts are not in place for 100% of all funding sources within 2 years following certification.
    - NADB places project on a corrective action schedule.
  - Decision point: BEIF disbursements have not been initiated within 2 years of deal sheet approval.
    - EPA will consider withdrawing its letter of funding approval.
- Construction oversight and BEIF management.
  - Decision point: change orders in conflict with NEPA findings.
    - NADB notifies EPA and ceases disbursement.
  - Decision point: project is not likely to complete construction in 3 years.
    - EPA may grant a construction period extension or may choose to redirect funds to another project.

**Figure 6: Funding, Procurement, Construction, and Reporting**

	Task and Lead	Secondary Role	Outcome
Funding	<i>Complete <b>BEIF Sub-grant Agreement</b>: NADB</i>	<i>Concur: EPA Inform: CONAGUA, BECC</i>	<i>BEIF Funding Commitment</i>
	<i>Issue <b>Anexo Técnico</b>: CONAGUA</i>	<i>Coordinate: Executor, State Water Agencies Notify: EPA, NADB, BECC</i>	<i>Mexican Annual Funding Commitment</i>
Procurement	<i>Procure BEIF Contracts: Project Sponsor</i>	<i>Consult: NADB</i>	<i>No-Objection Review/ <b>Contract Award</b></i>
	<i>Procure Mexican Contracts: Executor</i>	<i>Coordinate: CONAGUA</i>	<i><b>Contract Award</b></i>
Construction	<i>Oversee Construction Administration: NADB, Project Sponsor</i>	<i>Notify: EPA and CONAGUA</i>	<i><b>Monthly, Quarterly and Annual Reports</b></i>

Note: The texts in red indicate key project milestones

## Chapter 5. Certified Project Close-out

### Overview

Construction is complete when the construction contracts for all components of the certified project have been completed. This is formalized when the NADB approves the Project Completion Certificate (PCC) prepared by the project sponsor or its representative, stating that construction activities for the entire certified project have been completed. From this point forward, the project sponsor assumes responsibility for long-term operation and maintenance of the project.

Construction completion marks the beginning of the one-year period of operational performance review. The purpose of the review is to ensure that the project is operational and meets the established performance standards. If the project has not met the established performance standards, NADB, in coordination with the project sponsor, submits to EPA a corrective action plan. The project sponsor is responsible for implementing any identified corrective actions. During the operational performance review period, NADB completes the financial close-out of the project.

Concurrently, the BECC begins the close-out process, which concludes with the development of a close-out report evaluating the certified project's success in meeting its intended public health and environmental objectives and confirming, if appropriate, that all project-related facilities were constructed and are operating in compliance with the applicable requirements. The time frame for completing project close-out is 18 months from construction completion of the certified project.

Critical milestones for this phase include:

- Project Completion Certification
- Financial Close-out and Documentation
- One-Year Operational Certification
- Project Close-out Report

### Process – Key Milestones, Partner Roles, and Responsibilities

The certified project close-out process description below is organized into sections on construction completion documentation, financial close-out, one-year operational performance certification, and the project close-out report.

#### Certified Project Close-out

##### *Construction Completion Documentation (Up to 30 days after construction completion)*

- NADB notifies EPA, CONAGUA, and BECC when construction of the entire certified project is complete and ready to enter the close-out phase.
  - The sponsor submits a Project Completion Certificate to the NADB, documenting that construction activities for the entire certified project have been completed in

accordance with the project's final drawings, plans, and specifications, and the project is acceptable and operable for the purposes for which it was designed and constructed.

- NADB reviews, validates, and approves the PCC and then forwards copies of it to EPA, CONAGUA, and BECC.
- NADB reports to EPA the total number of household connections and the population that benefits by the project.

#### *Financial Close-out (within one year of construction completion of the entire project)*

- NADB gathers all certified project contract documents, including (as applicable): Final Payment Request; Engineer's Certification; owner's acceptance; and, for Mexican projects, the *Acta de Entrega - Recepción*<sup>21</sup> and *Actas de Finiquito*<sup>22</sup>.
  - As each construction contract is completed:
    - The Mexican project sponsor delivers to NADB a final accounting of all Mexican-funded contracts.
    - The US project sponsor delivers to NADB a final accounting of all non-BEIF funded contracts (e.g., USDA, TWDB, etc.).
- Upon NADB's receipt and confirmation of the PCC from the project sponsor or sponsor representative and the contract close-out documents mentioned above, the NADB releases retainage on the BEIF-funded contracts.
- NADB prepares and delivers to EPA a financial close-out report.
  - NADB organizes a final project accounting spreadsheet with the following information:
    - Each contract listed separately, identifying the project component(s) built with each contract.
    - For each contract, initial and final dollar amounts, sources of funding, dates of disbursements, and a breakout of contingency costs (including applicable exchange rates for projects in Mexico).
    - All change orders and source of funds used for payments.
    - Final BEIF accounting with recommendations for deobligation of remaining funds.
    - Actual sources and uses of funds (Update Table I.2 from the Deal Sheet).
    - For projects in Mexico: confirmation of the Mexican match.
      - NADB consults with EPA and CONAGUA to ensure that it has a full accounting of match credit.

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<sup>21</sup> The *Acta de Entrega - Recepción* is a legal document that is signed by the Executor and the local water utility. The completed document confirms that all work is complete as specified in the contract.

<sup>22</sup> The *Acta de Finiquito* is a financial and technical certification that the project has been completed as specified. It signals the end of the contractual agreement between the Executor and the contractor.

### *One-Year Operational Close-out Certification (14 months after construction completion)*

- On the one-year anniversary of the initiation of project operation, the NADB provides EPA, CONAGUA, and BECC with a certification prepared by the project sponsor, confirming that the project continues to meet the established performance standards.
- If EPA and/or NADB determine that the project does not meet performance standards at any point during the one-year operational period, the NADB, in coordination with the project sponsor, develops and submits a corrective action plan and schedule to EPA in a timely manner.
  - The project sponsor is responsible for implementing any identified corrective actions.
  - Unless otherwise approved by EPA, the corrective actions necessary to bring the project into compliance with the performance standards should not be funded with BEIF.
  - Upon the project sponsor's successful implementation of the corrective action plan, the project sponsor provides NADB with a confirmation that the project meets the established performance standards.
  - The NADB reviews, validates, and approves the confirmation and then submits it to EPA and CONAGUA for Mexican projects.

### *Close-out Report (18 months following construction completion)*

- BECC initiates the close-out process in coordination with the project sponsor as the project approaches construction completion.
  - BECC requests information and documents from the project sponsor, NADB, CONAGUA, and EPA that are necessary for the close-out report.
- BECC develops a certified project close-out report that confirms that the project has met its intended public health and environmental outcomes and that all project-related facilities were constructed and are operating in compliance with relevant regulations.
  - The close-out report summarizes all aspects of the certified project from project selection through project development, design, construction, and operation. It includes a description of any notable deviations from project expectations, the lessons learned, and recommendations for consideration in the development of future projects. The report includes, as available, but is not limited to:
    - A project background, including a description of the certified project and its intended outputs/outcomes. The project background may also take advantage of hindsight to consider the appropriateness of the project to the problem it was designed to address.
    - Project baseline data, including design, construction contractor and manager names and addresses, dates of various milestones, water quality pre- and post-project metrics, indicators of public health and environmental health impacts (e.g., projections and results of population benefited, new service connections, etc.).
    - A project implementation summary, including a description of the certified project, a review of 'as built' drawings and comparison with final designs, identification of the project's sustainable development principles,

- change orders, and other construction issues (e.g., delays and contract disputes).
- An evaluation of project implementation and project costs compared to development and construction schedules and associated budgets.
  - Utility performance data, including billing efficiencies; an assessment of equipment, operational and maintenance data; the operation manual; staffing and training; energy consumption; fate of byproducts; and corrective actions needed and taken to improve utility performance.
  - Identification of implementation issues, including failures to meet performance parameters, how these issues were resolved and what actions were or will be taken to mitigate them, unresolved issues, and additional needs.
  - A conclusion, including observations related to project development, construction, and operation, as well as a section on lessons learned.
- BECC coordinates site visits with the project sponsor to effectively evaluate those items described above.
  - BECC provides EPA and NADB (and CONAGUA for projects located in Mexico) with a copy of the draft certified project close-out report for review and comment, as appropriate.
  - BECC incorporates comments, finalizes report, and provides a final report to EPA for all projects, and to CONAGUA for projects located in Mexico.

### Key Decision Points

- One-year operational close-out certification.
  - Decision point: EPA and/or NADB determine that the project does not meet the established performance standards.
    - NADB develops and submits a corrective action plan in coordination with the project sponsor.
    - Project sponsor implements corrective action plan and provides NADB with a confirmation that the project meets the established performance standards.
    - NADB reviews, validates, and approves the confirmation.
    - NADB sends confirmation to EPA and CONAGUA (for Mexican projects).

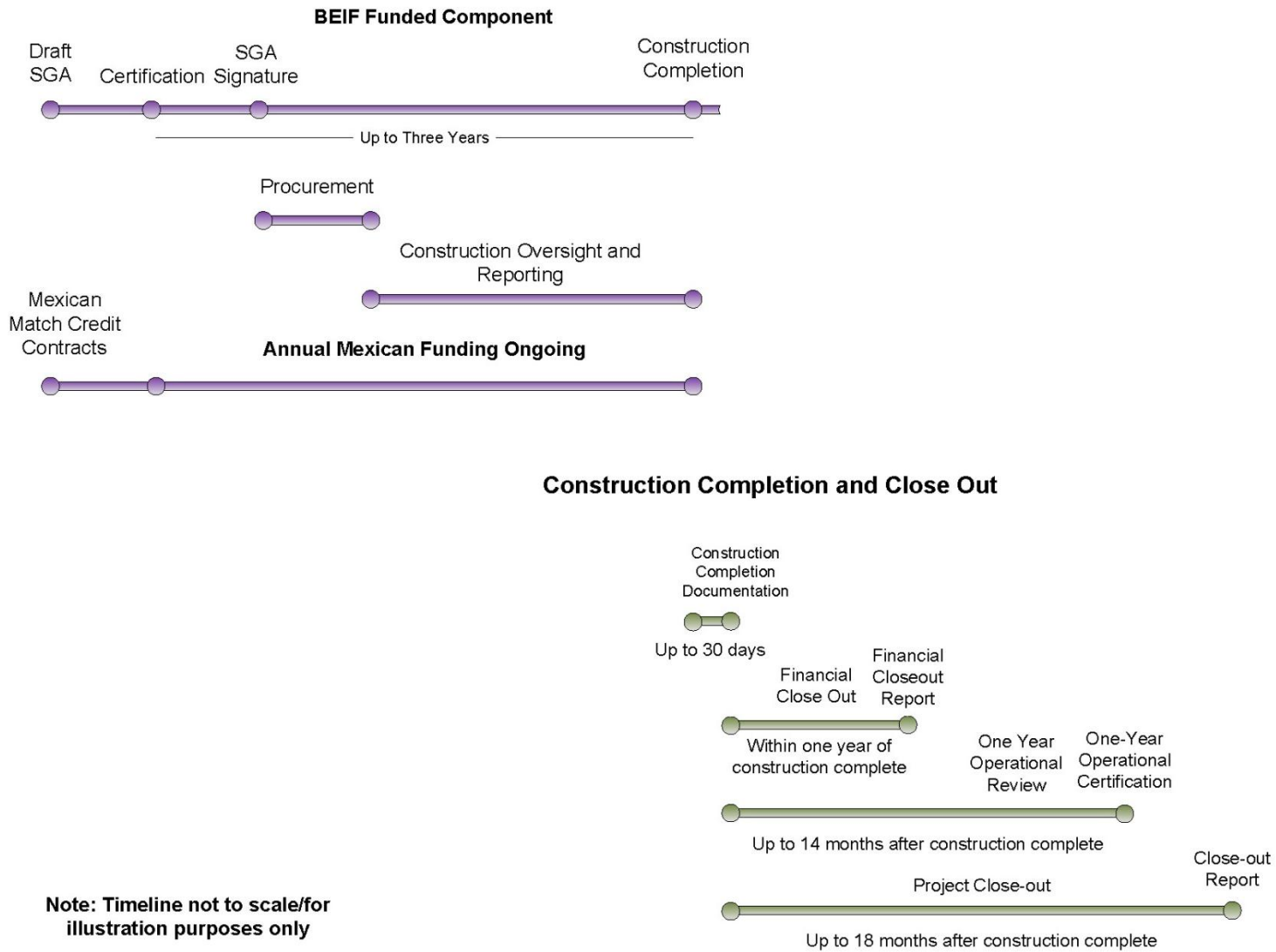
**Figure 7: Certified Project Completion and Close-out**

	Task and Lead	Secondary Role	Outcome
Construction Completion Documentation	<i>Compile Construction Completion Documentation: Project Sponsor/ NADB</i>	<i>Notify: EPA/CONAGUA/ BECC</i>	<i>Construction Completion Certification</i>
Financial Close-out	<i>Conduct Financial Close-out: NADB</i>	<i>Accept: EPA</i>	<i>Financial Close-out Report</i>
One Year-Operational Close-out Certification	<i>Issue Operational Close-out Certification: Project Sponsor/ NADB</i>	<i>Provide Information: EPA/ CONAGUA/BECC</i>	<i>Operational Close-out Certificate</i>
Close-out Report	<i>Develop Project Close-out Report: BECC</i>	<i>Coordinate: EPA/ CONAGUA/NADB/Project Sponsor Accept: EPA</i>	<i>Project Close-out Report</i>

Note: The texts in red indicate key project milestones



**Figure 8: Project Implementation and Close-out Timeline**



## Appendix A. List of Acronyms

BECC - Border Environment Cooperation Commission

BEIF - Border Environment Infrastructure Fund

CatEx - Categorical Exclusion

CONAGUA - Mexico's National Water Commission

EA - Environmental Assessment

EID - Environmental Information Document

EIS - Environmental Impact Statement

EPA - Environmental Protection Agency

FD - Final Design

FONSI - Finding of No Significant Impact

LOPSRM - *Ley de Obras Publicas y Servicios Relacionados con las Mismas*

MIA - Mexican Environmental Review

MX - Mexico

NADB - North American Development Bank

NEPA - National Environmental Policy Act

PCC - Project Completion Certificate

PDAP - Project Development Assistance Program

PER - Preliminary Engineering Report

RAP - Rapid Assessment Process

SEMARNAT - Mexican State Environmental Agency or the Secretariat of Environment and Natural Resources

SGA - Sub-Grant Agreement

SHPOs - State Historic Preservation Officers

SOW - Scope of Work

SRF - State Revolving Fund

US - United States

USFWS - US Fish and Wildlife Service

VE - Value Engineering