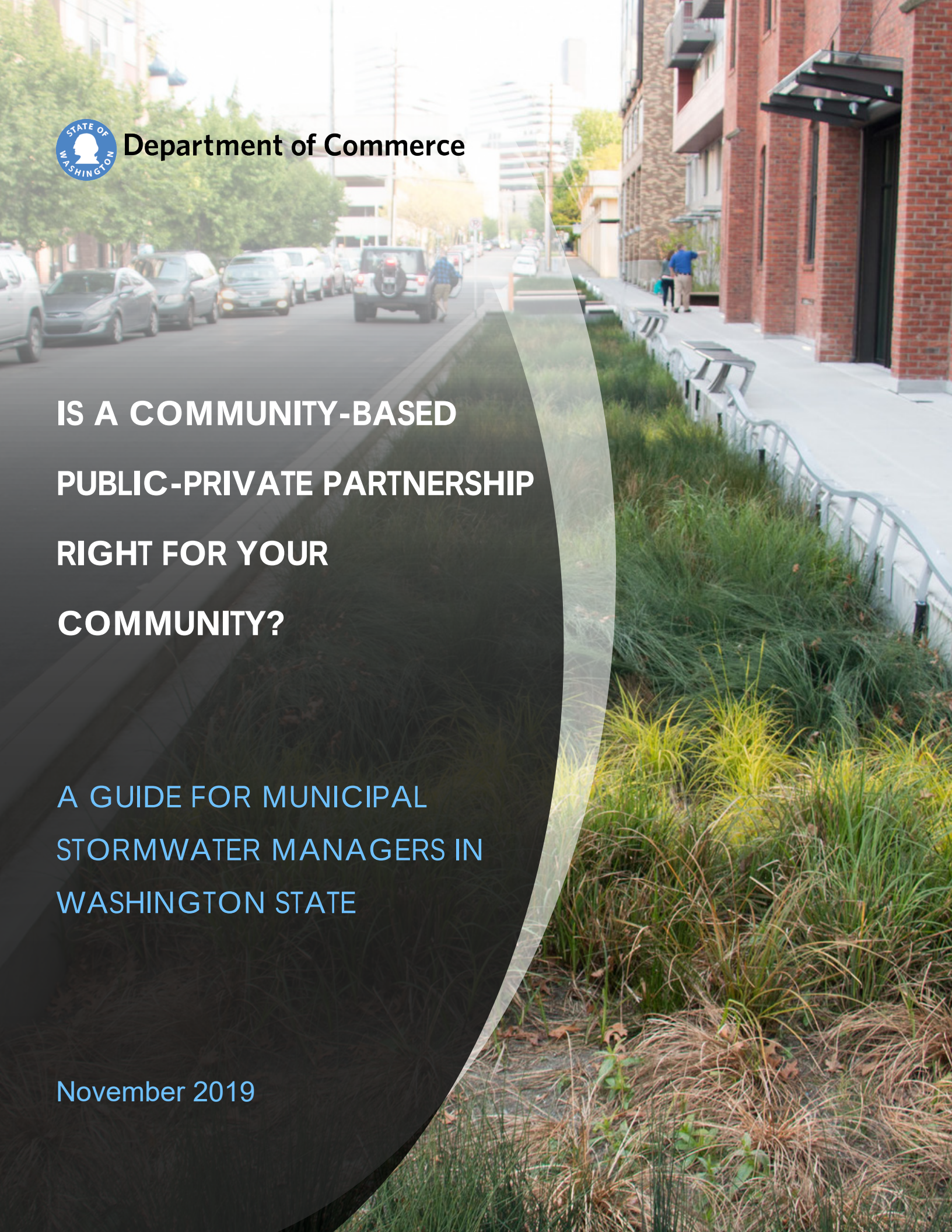

Department of Commerce

IS A COMMUNITY-BASED PUBLIC-PRIVATE PARTNERSHIP RIGHT FOR YOUR COMMUNITY?

A GUIDE FOR MUNICIPAL STORMWATER MANAGERS IN WASHINGTON STATE

November 2019

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SECTION I. IS A CBP3 RIGHT FOR YOUR COMMUNITY?

In 2018, the Washington State Department of Commerce demonstrated the strong potential for community-based public-private partnerships (CBP3s) to meet the needs of several types of stormwater permittees across Washington. The Washington State Stormwater Community-Based Public-Private Partnership Feasibility Assessment[1] described this potential, along with how state and local agencies across the United States are using CBP3s to overcome the challenges of financing, implementing, and maintaining green infrastructure to achieve water quality and other community goals. CBP3s hold the potential to capitalize on the strengths of public and private-sector participants by unlocking financial resources, reducing the risks of project failure, expediting project delivery, and providing cost savings. Further, CBP3s can address environmental justice concerns and efficiently provide a range of co-benefits, from job creation to new recreation opportunities.

Guidebook Purpose and Audience

The purpose of this guidebook is to facilitate local governments in Washington state to design and implement CBP3s and performance-based contracts to more effectively achieve stormwater and community objectives. This guidebook is intended for municipal staff considering whether to pursue and champion a CBP3 for their municipality, specifically within Phase I municipal separate storm sewer system (MS4) permittees and most suited Phase II permittees. Components of this guidebook can also provide guidance to those involved in project finance, procurement, construction, and maintenance, as well as other interested stakeholders such as elected officials and local community advocates. Specifically, this guidebook describes what a CBP3 is, whether a CBP3 might be right for a specific community, different program design elements to consider, and how to effectively engage key stakeholders.

This guidebook is not necessarily intended to be read in a linear fashion, like a typical book. Instead, use linked references throughout the document to go directly to sections of interest to get more detailed guidance and examples.

Terminology

Throughout this guidebook, the term "municipality" is used to describe the public partner in a CBP3 arrangement. However, CBP3s could also be designed and led by a public utility, joint powers authority (JPA), multiple co-permittees under an MS4 permit, special purpose district, or other types of governmental entities.

What is a community-based public-private partnership?

Public-private partnerships (P3s) come in many shapes and sizes. P3s are a relatively common way for the public and private sector to collaboratively deliver and maintain infrastructure projects. Stormwater P3 arrangements can vary greatly, ranging from a municipality installing green infrastructure on private land, to design-build contracting for a project on public land, to a single contract to deliver and maintain a multi-year program that achieves Municipal Separate Storm Sewer System (MS4) permit requirements.

This guidebook focuses on *community-based* public-private partnerships (CBP3s) as an innovative P3 model. A CBP3 is a form of alternative delivery in which a government agency and private entity partner seek to improve both water quality and quality of life for a community[2] through the proliferation of green infrastructure projects. A CBP3 is intended to achieve community benefits beyond stormwater improvements and permit compliance. Community benefits are achieved through the green infrastructure itself, as well as through the approach to the project or program implementation.

A CBP3 can vary significantly by scope, size, and contractual arrangement based on your project's complexity, community's goals, private sector's interests, cost advantage, and risk tolerance. This guidebook categorizes a CBP3 as any project or program that, at a minimum,

- creates a partnership between a municipality and a private entity;
- measures benefits beyond stormwater that are valuable to the community; and
- develops green stormwater infrastructure.

CBP3s can realize contracting efficiencies and attract qualified private partners by either 1) bundling multiple phases of design, implementation, and operation and maintenance for a single project or 2) bundling multiple projects under one programmatic contract. Individual roles among partners vary; however, a private partner is always involved with delivering or operating the projects in some way. A CBP3 may be implemented to deliver a single project, several projects or an entire stormwater program.

CBP3 arrangements should always include **performance-based contracts** (performance contracts) with payment terms that are contingent on demonstrated outcomes (see the textbox below). Performance contracts can be used to support large, programmatic CBP3s as well as smaller, single project CBP3s that avoid programmatic complexity. In fact, performance contracts are more likely to be applicable to many different municipalities and project types than a programmatic CBP3. For more information, see the Pay for Performance Toolkit[3].

Performance-Based Contracting

Performance-based contracts (or simply performance contracts) condition payments based on defined performance outcomes that reflect the quality of the project delivered. Performance contracts are an important element of CBP3 projects or programs, but they can also be used outside a CBP3 arrangement.

Paying for verified outcomes creates financial incentives for project implementers to determine the most cost-effective ways to achieve and maintain project benefits, while reducing the risk of funding underperforming infrastructure. Performance contracts create opportunities for private partners to profit if project benefits are cost-effectively achieved. Three key components differentiate performance contract terms from activity-based payment terms:

1. **Performance measures** combined with a consistent, repeatable method to quantify performance (e.g., volume retention, load reduction, impervious acres treated).
2. **Verification processes** that define how to access performance.
3. **Payment terms** based on outcomes that are linked to performance and verification processes.

Benefits of a CBP3

A CBP3 creates a true partnership to solve common stormwater management challenges while creating additional environmental, community, and economic benefits (Figure 1).

Figure 1. The potential for CBP3 implementation to address common stormwater management challenges.

Overcoming Real & Perceived Barriers

Any municipality motivated to change from the status quo will face initial barriers. Figure 2 shows common barriers to implementing a CBP3, along with potential solutions to help address these barriers.

Common Barriers	Potential Solutions
Our municipal staff are concerned about losing control of each project phase.	➢ Benefit from the private sector's flexibility and innovation while still maintaining appropriate project oversight and governance. ➢ Clearly define key project milestones, checkpoints, and the governance structure in contracts.
Prevailing wages, design criteria, or other constraints prevent us from contracting to a private party.	➢ Satisfy state and local laws and ensure projects will contribute to municipal priorities by incorporating hiring, payment, and project requirements into the procurement and contract terms.
We are concerned that using public dollars on private property can cause negative stakeholder perception.	➢ Analyze and communicate the beneficial opportunities that would not otherwise be possible without using private lands. ➢ Pay the private partner for outcomes to insulate the municipality from negotiations with private landowners.
Our contractors are typically selected based on lowest bid procurement.	➢ Select contractors by using best value procurement that includes both cost and other selection criteria such as quality, experience, goal alignment, and more.
Private financing is more expensive than public debt.	➢ A CBP3 does not have to include private financing. If private financing is beneficial, ensure the difference in financing costs is outweighed by lower project delivery costs and by avoiding the time and cost required to issue debt with a Value for Money analysis.
Developing and negotiating a CBP3 contract is complex and costly.	➢ Develop a transparent framework with a governance structure that establishes a common purpose with the private sector. ➢ Offset the cost to develop a CBP3 structure with savings from bundling multiple projects or phases under a single contract. ➢ Ask for advice from experienced municipalities and legal experts.
Some of our staff are concerned that private partners are only interested in generating profits.	➢ Use a payment structure with incentive payments that are paid only after outcomes are achieved. ➢ Ensure the private party is responsible for delivering outcomes at a higher value for money than would be traditionally achieved.
Our current capital or project needs don't seem to justify a large CBP3.	➢ Create meaningful scale by bundling projects and phases. ➢ Consider developing small CBP3s with performance contracts before investing in a larger programmatic CBP3.
Our stormwater projects have not historically delivered community and economic benefits.	➢ Partner with local advocates to target important community issues, while elevating the multiple values of green infrastructure. ➢ Select performance metrics focused on community and economic benefits to anchor the payment terms.

Figure 2. Potential solutions to common CBP3 barriers.

Determining if a CBP3 is the Right Fit

Each municipality is unique. Implementing a CBP3 may not be the best approach for every stormwater project or every municipality. Some of the key factors for success are listed below and are reflected in Figure 3. Links to specific CBP3 design elements detailed in Section II are also provided, where applicable.

- **Political leadership and community support**. Community benefits are a critical component of CBP3s; they enable stormwater projects to generate additional value from limited resources. Benefits must be defined and communicated externally through ongoing outreach – to public officials, residents, unions, and other stakeholders. Political leadership can bolster internal and external support for the CBP3.
- **Motivation for change**. Your municipality must have the desire to shift from the status quo to pursue a CBP3. This motivation can stem from inefficiencies in the traditional approach or from the emergence of new environmental, community or economic needs. When the need for a CBP3 is financially driven, a Value-for-Money Analysis can help demonstrate cost savings from a CBP3 arrangement. Answering 'yes' to any of the following questions could inspire motivation for change (see Figure 3).
    - *Have you recently done projects with big change orders that went over budget/out of schedule?*
    - *Does your project require technical expertise beyond your municipality's in-house capabilities?*
    - *Once the construction of your project is completed, will the cost of maintenance be significant and depend on the quality of construction?*
    - *Is your stormwater budget smaller than the required funding to achieve compliance?*
    - *Does your municipality have limits on your borrowing capacity, or is the time it takes to secure public financing too long?*
- **Legal authority.** There must not be any clear legal barriers to using a CBP3 contracting approach. Competitive bidding, lowest bid, and prevailing wage requirements should not be considered barriers to implementing a CBP3, as CBP3s are often implemented in accordance with these procurement rules.
- **Measurable outcomes**. Performance measures and verification protocols must be defined to measure the CBP3 project or program's performance. Intended outcomes must be measurable to leverage the efficiencies enabled by performance contracting and maximize the environmental and community benefits.
- **Experienced potential partners**. Programmatic CBP3s require a knowledgeable, trustworthy partner who possesses the capabilities needed to effectively deliver multiple projects. If your municipality does not yet have this type of established partnership, consider starting with a smaller-scale CBP3 project with performance contracting before investing in a larger, programmatic CBP3.
- **Meaningful implementation scale.** There is not necessarily a monetary threshold that justifies a CBP3. However, the larger the CBP3 scale, the more opportunity you will have for cost efficiencies and the more attractive it will be to private partners. While programmatic CBP3s are often large, smaller CBP3s are possible through performance contracting.

Figure 3 provides a decision tree to help you understand the type of contracting model that might be the best fit for your municipality and community, based on unique contextual factors. For example, if your community does not have a sustained revenue source or meaningful project implementation scale, consider project-level performance contracts as opposed to a programmatic CBP3 arrangement.

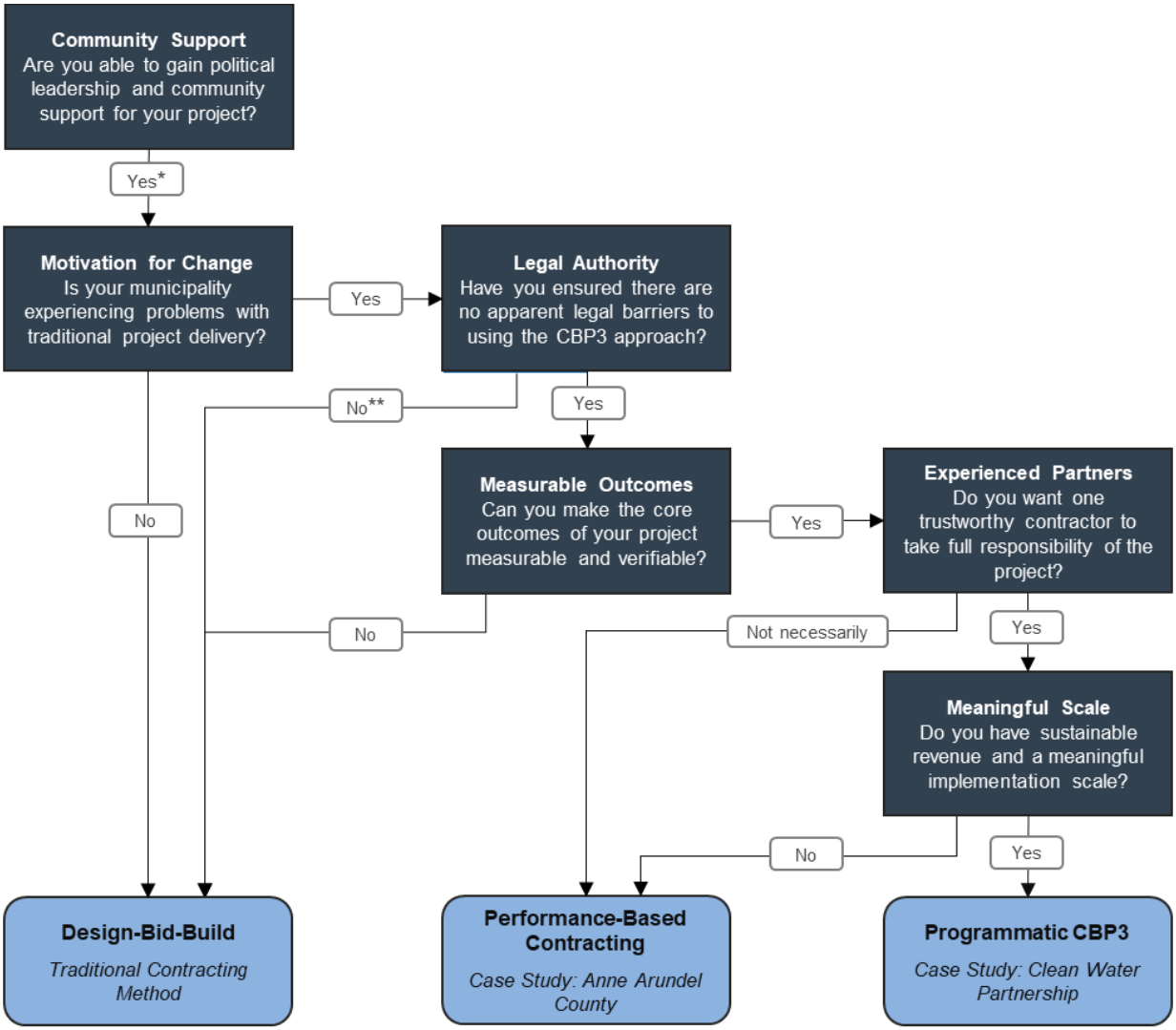


Figure 3. Flowchart demonstrating the enabling conditions for performance contracting for a small, single-project CBP3 compared to for a larger, programmatic CBP3. The referenced case studies can be found in Appendix B.

If a programmatic CBP3 or performance contract for green infrastructure seems like it could be beneficial to your community, the following sections can provide further assistance.

Section II. **Designing a CBP3**. Identifies the typical process and design elements of developing a CBP3. This section provides recommendations on how to best address your community's needs and leverage learning from other successful CBP3 programs.

Section III. **Building Support for Your CBP3**. Describes the importance of strategic stakeholder engagement and provides strategies to build support for your project.

Section IV. **Getting Started.** If a CBP3 seems right for you, this section provides checklists for designing the products you need to move forward.

SECTION II. DESIGNING A CBP3

The process of designing a CBP3 may vary significantly from one municipality to another. Recognizing that variability, this section provides a proposed CBP3 development process and set of common design elements to help you explore, design, and implement a CBP3 that is right for your community.

Design Process

Typically, CBP3s follow the steps outlined in Figure 4. Using a deliberate, phased approach will help you develop a CBP3 with broad support and reduces the likelihood that a critical constraint emerges after you have invested significant effort. CBP3 development can be a non-linear process, so activities may occur in a different order or need to be revisited over time.

STEP	OVERVIEW	KEY ACTIVITIES
1 EXPLORE OPPORTUNITIES & CONSTRAINTS	Identify your program's goals, explore approaches, and identify potential barriers. This phase is primarily internal, however, input from other municipal departments may be beneficial. Seek advice from experienced experts.	• Identify potential stormwater and community project goals • Explore potential contracting models, scope, and roles • Identify existing and potential funding sources • Evaluate and communicate the financial value with a financial analysis • Identify legal authorities and procurement laws that enable a CBP3; must be incorporated, or must be revised • Identify key stakeholders and develop an engagement plan • *Consider* exploring governance and financing models
2 BUILD SUPPORT & REFINE MODEL	CBP3s require the support and cooperation of stakeholders who may influence or benefit from the partnership. Stakeholders can either enable or impede the process from moving forward.	• Gather input from staff, experienced municipalities, consultants, and attorneys • Document legal authorities including regulatory drivers, governance, procurement rules, and financing • Secure short- and long-term funding sources • Engage stakeholders to increase awareness and support • *Consider* potential performance measures • *Consider* ideal partner qualifications and contracting model • *Consider* utilizing private financing
3 SELECT PRIVATE PARTNER & MODEL	A CBP3 differs from traditional arrangements in that the private party acts as a partner rather than a contract manager. There are many CBP3 models to consider, and the best fit for each partnership will vary substantially.	• Issue an RFI, RFQ, or RFP that clearly defines expectations • Determine each party's roles and the best fit model • Develop implementation agreement(s) with payment terms and clear, reproducible performance measures • Establish the approach to governance and adaptive management • Communicate partner and model selection to stakeholders • If desired, pursue private financing • *Consider* performance-based contracting • *Consider* a limited scope pilot with the private partner
4 IMPLEMENTATION & IMPROVEMENT	Implementation is not the end of the project. Continually achieve project goals with consistent monitoring, reporting, and adaptive management.	• Monitor outcomes with performance measures and adaptively manage to maximize benefits • Report milestone achievements to stakeholders and encourage input • Continue to cultivate support with ongoing outreach • *Consider* contracting a third party for monitoring • *Consider* implementing a public reporting database

Figure 4. Generalized process for developing a CBP3. Activities are linked to program design considerations below.

Design Elements

If your municipality is interested in developing a CBP3 for stormwater, you will need to consider many different program design elements. This section provides an overview of these primary design elements, along with descriptions, recommendations, considerations, and examples. The design elements included in this section are not intended to be a comprehensive list. However, they do represent common considerations and aspects of a CBP3 that are different from a typical stormwater contracting and procurement model.

Figure 5, below, provides a crosswalk of the four-step development process previously described to the design elements included in the remainder of this section. Specifically, this figure is designed to highlight the relative phases in the design process when each element is most relevant. Design elements in the figure are linked directly to subsections below.

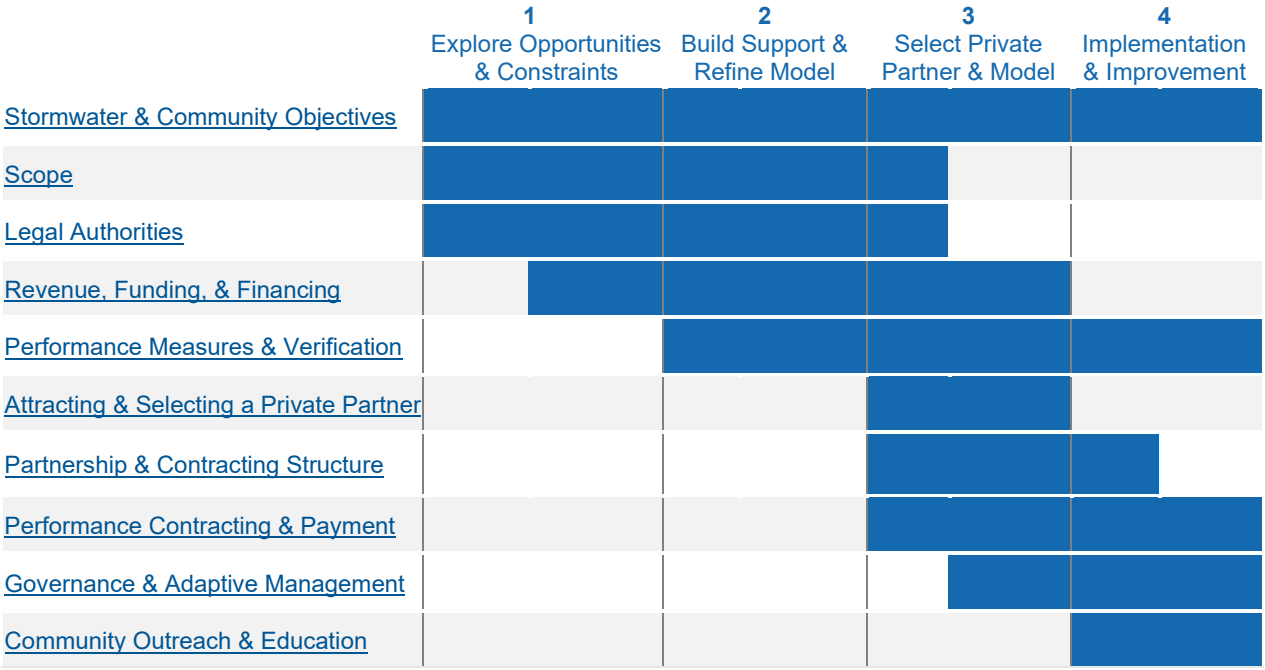


Figure 5. A Gantt chart demonstrating when the design elements described in this section will occur over the four-step development process. Click the element title to be directed to that section.

Across all design elements, your municipality should consider the following recommendations.

- **Learn from experience**. If you are interested in a CBP3, you should engage other experienced communities and capable private partners early in the exploration process. They can advise on lessons learned, pitfalls to avoid, and more. Examples and references are provided throughout this section, and a set of case studies is provided in Appendix B.
- **Consider and manage risk**. A key part of a CBP3 arrangement is risk sharing with a private partner. The relative amount of risk sharing is determined through the selected partnership structure, scope of the CBP3, contracting strategy, and more. Risk sharing is a concept that is relevant throughout the design process, so evaluate your municipality's risk tolerance early and consider throughout.

1 Stormwater and Community Objectives

CBP3s incorporate community and economic objectives beyond only stormwater improvements and permit compliance. After reviewing your community's goals, setting the right objectives for your project will help guide the scope of the CBP3 arrangement and inform specific design elements. Green stormwater infrastructure often provides multiple benefits, whether intentionally or not. These benefits can include community equity, traffic calming, new public spaces, and more. CBP3s go one step further by reflecting environmental and community goals as either requirements or financial incentives built directly into implementation contracts. These goals are reflected in performance measures that serve as the basis for contractor payments.

Key Stakeholders

When determining your stormwater and community objectives, be sure to engage the

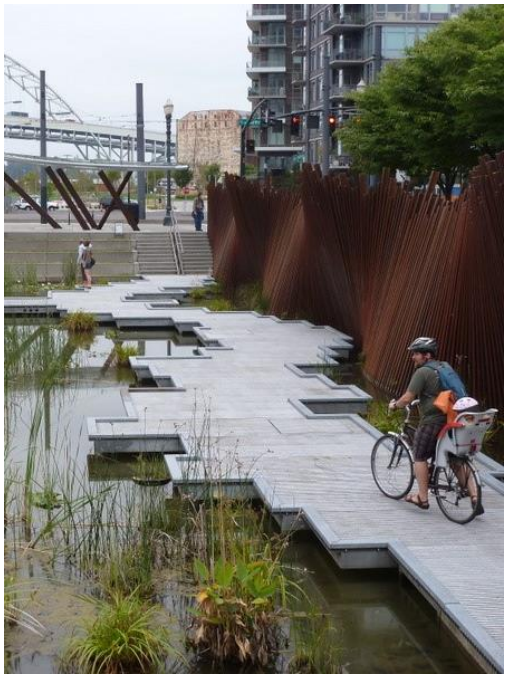
- ✓ **Director of Capital Projects**
- ✓ **Director of Public Works**
- ✓ **Local Advocates**
- ✓ **Construction Supervisor**
- ✓ **Maintenance Manager**

Options and Recommendations

The objectives for each CPB3 will vary significantly to reflect each community's needs. Ensure your CBP3's stormwater and community objectives are clearly defined, balanced, and meaningful to the local community. This is essential to guide successful design and implementation. Recognize that a CBP3 project or program will not address all your community's goals but can work toward a defined set of beneficial outcomes.

A CBP3 project's objectives can take many forms - including local job creation, training, targeted site selection, community engagement, and education. Objectives can reflect project goals related to the implementation of the CBP3 (e.g., job training, workforce development) or the desired outcomes from the CBP3 (e.g., improved public health, better conditions for underserved communities). CBP3s should include performance measures that help determine if the overall project or program is successful. This can include creating common objectives for multiple stakeholders who have a role in project implementation beyond the contracted private partner, such as schools and community groups. Common objectives help to increase transparency and create an incentive to maximize contributions to community goals from green infrastructure.

You may want to consider using a triple bottom line approach to ensure that a balanced set of community, environmental, and economic objectives guide your CBP3 project, including initial investment decisions and ongoing asset-management strategies.



Terminology

Throughout this guidebook, the phrase "triple bottom line" is used to describe a framework that considers social, environmental, and economic aspects.

Goals in the following categories should be considered.

Environmental objectives

- Primary environmental objectives should address meeting relevant MS4 and combined sewer overflow (CSO) requirements, including MS4 Phase I Structural Stormwater Controls Retrofit Incentive Points.
- Supplemental environmental objectives should address stormwater flow control, pollutant treatment, habitat creation, flood management, air quality, water supply, and aquifer protection.

Community and economic objectives

- Project implementation objectives should address goals during project delivery including job creation, job training, and cost savings.
- Green infrastructure objectives should address long-term goals for the project, including service equity, public health, safety, recreation opportunities, and environmental education.

Seattle Public Utilities

Seattle Public Utilities used a project evaluation framework titled Multiple Objective Decision Analysis, defined in its Integrated Plan[4], to objectively consider other environmental, social justice, and community benefits when evaluating and selecting projects. A similar method could be used to define balanced objectives for a CBP3. Criteria included:

- Performance risk
- Flexibility
- Relationship with other agencies
- Water quality
- Other positive environmental outcomes
- Construction impacts
- Community impacts
- Environmental/social justice
- Ease of operations and maintenance (O&M) and safety

Incorporating community benefits into a CBP3 increases the need for coordination among different municipal departments, which can pose an organizational challenge. Early stakeholder engagement is critical to demonstrate the value of the multiple objectives of the CBP3 to other municipal departments and the broader community. Project leads should:

- Engage with other municipal departments early to define integrated community and economic goals.
- Engage senior management and governing board members early to understand decision-maker and public needs and start building broad-based support.
- Conduct strategic outreach to specific communities impacted by potential projects to understand their needs, define relevant goals for the CBP3, and build local support.

Case Study: Clean Water Partnership

The community and economic development objectives of the Clean Water Partnership[5] include the following.

- Local & Minority Business Commitment: Use certified small, minority, and women-owned businesses for 30-40% of the total project scope.
- Schools: Educate Prince George's County students about the importance of sustainable stormwater management and environmental stewardship.
- Mentor Protégé: Develop the capacity of Mentor Protégé firms for green infrastructure projects and provide access to bid opportunities.
- Alternative Compliance: Allow tax-exempt, faith-based or other 501(c)(3) nonprofit organizations to qualify for a reduction of their Clean Water Act Fee by completing small retrofit projects on their properties.

2 Scope

The scope of a CBP3 will vary from community to community and should both reflect local needs and the strengths or limitations of your municipality. The scope of a CBP3 includes, but is not limited to, the following.

- Amount of water quality and community benefits
- Acreage targets
- Types of projects
- Geographic location of projects
- Land ownership types of projects
- Partners' roles
- Total project cost/expenditure

Key Stakeholders

When determining the scope of your project, engage the

- ✓ **Director of Capital Projects**
- ✓ **Director of Public Works**
- ✓ **Finance & Contracting Managers**
- ✓ **Legal Department**
- ✓ **Construction Supervisor**

Because stormwater CBP3 arrangements are nascent and the early examples are conducted on a large scale (e.g., the $100 million Clean Water Partnership arrangement), there can often be the perception among municipal staff that it is not worth the upfront investment to develop a CBP3 or that the scope of their work is not enough to attract capable private partners. However, there are no specific monetary or other thresholds that justify a CBP3. A CBP3 scope just needs to be sufficient to allow the private partner to manage its project delivery risk. For example, private property programs are often cheaper and easier to deliver than bioretention projects, so having a mix of project types spreads implementation risk. Bundling projects and delivery phases in the right ways is what is most important.

Options and Recommendations

Project Scale

The scope of a CBP3 has a considerable influence on the cost-effectiveness and time required to deliver project benefits. Typically, the larger the project, the more project phases are bundled, the longer the performance period lasts, or the higher the uncertainty whether projects will result in intended outcomes—the better suited a project is for a CBP3.

Early, programmatic CBP3s have worked well for stormwater programs in the $10 million-plus range for any number of projects over a three-plus year period[1]. This is a commonly used reference for the scale needed to justify a CBP3 arrangement. However, you could alternatively leverage performance contracts for a much smaller scope CBP3 project or program. CBP3s should be scaled to meet the specific risk tolerance for each municipality, as they can span a wide range of price points. For example, contractors may be able to respond to a smaller CBP3 solicitation if they are already doing other design-bid-build work with you by building implementation into a broader portfolio of stormwater projects and work.

The scope of a CBP3 can also address a variety of potential risks. For example, by bundling implementation and long-term maintenance, and leveraging performance-based contract terms and payments, you can dramatically reduce the risk of project failure relative to traditional design-bid-build contracts. Larger-scale CBP3 arrangements typically provide more flexibility for the private partners, which allows them to leverage economies of scale and innovate to drive down project costs.

Larger-scale CBP3 arrangements can be achieved by either bundling multiple stormwater projects or bundling multiple project phases on a single stormwater project.

- Bundling multiple projects helps to transfer implementation risk to the private partner because the private partner can diversify its risk across different projects, creating opportunities for cost efficiencies.

- Bundling multiple project phases, particularly project implementation and long-term maintenance, allows the private partner to accelerate project delivery by avoiding contracting delays. It also better aligns incentives to ensure design and construction reduce the risk of future project failure or high maintenance costs. See Appendix A for a summary of stormwater CBP3 models that illustrate typical ways to bundle project phases.

Land Types

Leveraging a CBP3 arrangement can expand the potential land types (e.g., private land, schools, parks) and access approaches (e.g., easement, lease/maintenance agreement) available for implementing stormwater projects, which can enable you to better meet environmental and community objectives while lowering project life-cycle costs. Private partners may be better suited than municipalities to partner with private landowners, by:

- Negotiating land purchase with greater speed and less process complexity than municipalities.
- Building maintenance requirements and costs into the CBP3 program, thus preventing maintenance from being pushed down to the property owner unexpectedly.
- Providing the property owner with additional maintenance and property condition improvements that result in landscaping savings and improved property beautification.
- Buffering property owners from direct liability to government regulators.

Other Considerations

When considering the right scope for your CBP3, your municipality should evaluate alternatives compared to traditional procurement using a Cost-Benefit Analysis or a Value-for-Money Analysis to understand the relative cost savings. A Value-for-Money Analysis can help you demonstrate the financial value of risk transfer, improved service delivery, reduced municipal administration effort, leveraging the private sector's strengths (access to private lands, ability to move quickly, flexibility, specialized expertise, etc.), and other P3 efficiencies over traditional procurement models. It is critical to fully account for traditional costs (e.g., all public staff time costs including benefits) when creating a comparison to traditional procurement. See the EPA's CBP3 Guide for Local Governments[12] for more information about Value-for-Money Analysis.

Your municipality should scope projects so that community benefits of the CBP3 arrangement clearly align with selected performance measures and are effectively communicated to external stakeholders and partners. Begin thinking about the various aspects of scope early in the design process. In fact, it will be challenging to get to a mutual decision to move forward with the CBP3 arrangement without scoping the project or program itself. Defining the number of projects and phases included will help stakeholders provide more useful feedback, inform potential capable private partners, and influence many other aspects of the design process.

Case Study: Clean Water Partnership

Term and scope of the Master Program Agreement (MPA)[6]:

- Initial Program Area: 2,000 acres of publicly owned impervious area within the County.
- Initial Term: three years.
- Expanded Program Area: If Corvias meets or exceeds the established program performance milestones, then they can extend to an additional 2,000 acres within the county.
- Renewal Term: If Corvias expands, then the contract term is extended by three years.

Term of the Master Maintenance Agreement (MMA), as outlined in the Legislative Approval[7]:

- Term: 30 years

3 Legal Authorities

There must not be any initial clear legal barriers to CBP3 implementation under federal, state, or local laws. It is important to engage with your legal staff early and consider contacting law firms that specialize in P3 arrangements. It is critical to understand the current legal authorities related to using different procurement methods, contracting with private partners to provide specific services, and fulfilling regulatory requirements. Local laws may be more restrictive than state or federal laws, so community-specific legal input is important.

Key Stakeholders

When ensuring legal authority, engage the

- ✓ **Legal Department**
- ✓ **Director of Capital Projects**
- ✓ **Director of Public Works**
- ✓ **Other Experienced Municipalities**

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Options and Recommendations

Washington state policy encourages the use of P3 contracting arrangements. For example, the Department of Ecology's Municipal Stormwater Permits Fact Sheet[8] (Section 6.5.12), which accompanies the National Pollutant Discharge Elimination System (NPDES) permits, suggests that "creative public-private partnerships" are one way to "significantly improve water quality in many urban receiving waters" and achieve water quality goals.

Procurement and Contracting Rules

It is important to know that the State of Washington primarily operates under Home Rule, as opposed to Dillon Rule. As such, cities have significant powers relevant to contracting via RCW 35A.11.020. Counties also have similar legislative authority, but in less broad terms (e.g. RCW 36.32.120). State and local agencies outside Washington that operate under the Dillon Rule have had difficulty executing alternative contracting arrangements. The procurement rules should not be considered barriers to implementing a CBP3, as CBP3s are often implemented in accordance with these rules.

The legal authority to use specific procurement and contract arrangements is based on the powers given to agencies by Washington state, as well as the legal authorities specifically denied to state and local agencies. Procurement and contracting rules are typically applied to a specific procurement method or contract structure, and not an overall P3 or CBP3 arrangement, as these are alternative delivery models. Therefore, it is important to evaluate legal authorities based on the specific procurement method (e.g., RFQ vs. RFP) and contract structure (e.g., design-build, general contractor, delegated contract, concessionaire, fixed firm price).

A CBP3 private implementation partner can be secured through a competitive bid process, and the private partner can secure a subcontractor using a similar process. As described in Attracting & Selecting a Private Partner, municipalities should leverage a best value procurement approach that can satisfy the common lowest bidder requirements.

Washington state law also includes "prevailing wages" (or union wage) **contracting rules** for public works projects, and municipalities often have collective bargaining agreements. However, you should not consider these contracting rules as barriers to implementing a CBP3. CBP3s should conform to any existing union agreements in place for installing and maintaining green infrastructure. Hiring and project requirements defined in the contract with the private partner can help ensure all state and local requirements are satisfied.

Washington Procurement Rules

Washington State law includes "competitive bidding", "lowest bidder", and "prevailing wages" **procurement rules** for public works projects.

- RCW 39.04 defines public works contracting requirements.
- RCW 39.04.280 contains exemptions to competitive bidding.
- RCW 39.04.015 requires awarding contracts to the lowest responsive bid.
- RCW 39.12.020 requires paying prevailing wages.

Process Considerations

CBP3s must comply with all local laws and mandates, which will vary from community to community. Several common issues are provided below.

- Some localities have **restrictions on design-build contracts**. However, project leads may be able to use alternative models, such as integrated design-bid-build or other alternative contracting structures. Explore options early and address them proactively.
- Some localities have **restrictions on allowable contract length** (e.g., three years, five years), and longer-term contracts may require special approval from city or county council. Project leads should emphasize the life cycle cost savings of green infrastructure, and the local community and economic development benefits of longer-term green infrastructure maintenance (e.g., low barriers to entry for small businesses, local workforce, and disadvantaged subcontractors to perform the work over years).

It is necessary to understand the legal pathway to procuring and contracting a CBP3; however, it may not be clear what legal authorities are necessary until after the CBP3 project scope is finalized. Thus, you should engage your procurement, contracting, and legal staff or contractors to explore authorities for specific proposals as they are defined, with an understanding that the CBP3 scope may change and additional research will be required. Similarly, as you evaluate legal authorities, the results may cause necessary changes to the proposed procurement and contracting approach, as well as the overall scope of the project. Importantly, CBP3s that are intended to achieve MS4 permit requirements must clearly integrate all permitting requirements to demonstrate compliance and thus should engage regulators early and often to build support, get feedback on specific proposals, and secure regulatory approval for the CBP3 approach.

Case Study: Clean Water Partnership

The Corvias MPA MMA Legislative Approval[7] documents Prince George's County's resolution for the approval of the public-private partnership contract that enabled the Clean Water Partnership. County council approval was required in Prince George's County; thus, this is a useful example of potential local legislative approval needed for a CBP3.

4 Revenue, Funding & Financing

Ongoing, predictable revenue sources for stormwater management are typically necessary to finance the initial capital costs of a CBP3 and guarantee long-term operations and maintenance costs. The type and magnitude of revenue or funding necessary depends on the scope and partnership roles of the CBP3. The magnitude of annual revenue also determines the amount that can be financed. Predictable annual revenue can be leveraged to secure up to 20 times as much financing[1], meaning that large CBP3s can be implemented with relatively smaller annual revenue levels. Smaller CBP3s are possible with performance-based contracting.

Key Stakeholders

When determining revenue, funding, and financing, engage the

- ✓ **Finance and Contracting Managers**
- ✓ **Director of Capital Projects**
- ✓ **Director of Public Works**
- ✓ **Legal Department**

Debt financing can also be a beneficial tool for implementing a CBP3 on desired timelines, especially if municipalities need to accelerate delivery to achieve regulatory objectives. The upfront capital improvement costs of green infrastructure may be significant and not aligned with the timing of the identified revenue and funding sources. Additionally, the timing of annual budget processes can constrain funding a CBP3. Public or private financing, or a combination of the two, are tools you should consider when developing a CBP3. Before pursuing debt financing, it is important to understand your credit ratings.

Options

Stormwater utility rates and general funds provide most of the funding and revenue used to support stormwater programs subject to National Pollutant Discharge Elimination System (NPDES) permitting requirements. However, there are other funding, revenue, and financing sources available for implementing stormwater management programs that you can consider when scoping a CBP3. In fact, combining multiple revenue, funding and financing sources, commonly referenced as "capital stacking", can enable larger and more multi-benefit stormwater projects that achieve cost-efficiencies from scale.[9]

Revenue

Ongoing, predictable revenue sources to fund or finance a CBP3 can include a variety of different fees, tax revenues, and special sales taxes. For Washington state specifically, the following revenue sources should be considered for supporting a CBP3 project or program. Revenue options are described in greater detail in the Washington State Legislature Joint Transportation Committee's Stormwater 101 Guide[9].

- **General Funds**. Unrestricted general fund money, established from ongoing property tax revenue, often funds stormwater management. However, the unrestricted nature of this funding increases the demand and competition for these resources among other municipal departments, making it less predictable and consistent from year to year.

Terminology

Throughout this Guidebook, the term "revenue" is used specifically for income that is both ongoing and not repaid (e.g., surface/stormwater utility rates).

The term "funding" is used for income that is from one-time sources (e.g., state appropriation funds or grant awards).

The term "financing" is any form of funding that requires repayment (e.g., municipal bonds or private partner capital invested in project implementation).

- **City Street or County Road Funds**. Road funds can provide funding for stormwater management, particularly in municipalities that leverage road departments for construction and maintenance of green infrastructure in the right of way.
- **Local Improvement Districts (LIDs)**. Funding arrangements where property owners who benefit from capital infrastructure improvements, as demonstrated by increased assessed valuation, share in the cost of the capital improvement. Although common for stormwater, it can be difficult to establish a clear linkage to demonstrate improvements unless on-site stormwater requirements are reduced.
- **Special Fees**. User fees charged to property owners within a municipality's service area to finance the cost of local stormwater programs and projects, in addition to regular service charges.
- **Capital Facilities Charges**. Under RCW 35.92.025, cities and towns are authorized to make one-time charges to property owners to connect to existing water and sewage systems. Designed to ensure property owners bear an equitable share of the capital cost of the total system. These fees are dependent on new development. Authorization is less straightforward for county stormwater utilities under RCW 36.89 or 36.94.

Funding

One-time funding sources to support the implementation of stormwater projects under a CBP3 could include grants, settlement awards, appropriated funds, and more. Instruments specific to Washington state include state and federally administered special grants and loans for stormwater projects. The following programs are described in greater detail in the Washington State Legislature Joint Transportation Committee's Stormwater 101 Guide[9].

- **Grants**. The Washington Department of Ecology administers the Water Quality Combined Funding Program,[10] which provides annual funding to improve and protect water quality throughout Washington. Total funding varies from year to year based on the state budget but typically ranges from $100 million to $200 million annually. Applications are accepted mid-August through mid-October each year. Eligible project types include wastewater, stormwater, nonpoint, and onsite sewage systems. Applicants submit a single application for funding from multiple water quality-focused grant and loan programs, some of which are listed below.
    - Clean Water Act Section 319 federal grants
    - Centennial Clean Water Program grants
    - Stormwater Financial Assistance Program grants
- **Public Works Trust Fund/ Public Works Assistance Account**. The Public Works Trust Fund is a revolving loan fund for local governments to access low-cost infrastructure financing. It is a nationally recognized loan program for local government infrastructure projects, such as drinking water, sanitary sewer, stormwater, and streets. It is funded by tax increases on local utilities, housing, and repayments of previous loans. Although the program has struggled with state budget challenges since 2009, as of June 2019, the Public Works Board is able to offer low-interest loans funded out of the Public Works Assistance Account[11].
- **Pooled Funding across Departments.** If there is a community, economic, or road development benefit, it may be possible to pool funding from multiple departments.

Financing

Traditional local government debt instruments (e.g., municipal bonds) can be useful, as well as other public financing instruments, including some that are currently proposed to facilitate the financing of green infrastructure. For example, U.S. Rep. Derek Kilmer (Port Angeles, WA-6) is sponsoring H.R.7041 to make green infrastructure a new category of tax-exempt Private Activity Bonds. Conventional debt instruments are described in more detail in the Washington State Legislature Joint Transportation Committee's Stormwater 101 Guide[8] and include the following:

- **Clean Water State Revolving Fund (CWSRF) loans.** CWSRF loans, a part of the Combined Water Quality Funding Program, provide municipalities with a permanent source of low-cost financing for a range of water quality infrastructure projects.
- **Revenue bonds**. The most common source of funds for the construction of major utility improvements. Revenue bonds are municipal bonds that finance income-producing projects and are secured by a specified revenue source.
- **General obligation bonds**. A municipal bond backed by the taxing power of the issuing jurisdiction, rather than revenue from a given project. May be subject to a public vote. The financing costs of general obligation bonds are lower than revenue bonds.
- **Bridge or short-term "interim" financing mechanisms**. Bond anticipation notes, which are short-term interest-bearing securities, can provide interim financing during construction, while not committing a municipality to a specific long-term financing approach.
- **Green bonds.** A green bond is a debt instrument that specifically funds environmental or sustainable initiatives. At its most basic, green bonds work by taking a loan from investors to develop an environmental project, then paying back the investors with interest. The Pay for Performance Toolkit[3] has more information regarding green bonds.
- **The Water Infrastructure Finance and Innovation Act (WIFIA).** WIFIA establishes a federal credit program that offers loans for water and wastewater infrastructure projects with low, fixed interest rates and flexible financial terms.

Additionally**, private financing** can be an attractive, cost-effective, and time-efficient alternative to public debt financing. It is beneficial to consider if public funding sources can be used to reduce the carried capital costs of private financing by supplying a portion of payments concurrent with private partner costs. In addition, if the private partner will be issuing debt to finance upfront costs, it may be possible for you to reduce its interest rate by showing commitments of stormwater utility fees and lobbying for state revolving fund (SRF) loan guarantees (according to the 2014 Amendments to the Water Resources Reform and Development Act).

Potential benefits of private financing include:

- Expedited project delivery and reduced administrative costs. The private sector may have direct access to capital or can typically secure financing faster than governments issue debt, which typically takes up to a year or more.
- Ability to fund portions of a project that are not permitted under restrictive government bond and rating covenants.
- Ability to take the debt obligation off municipalities, thereby maintaining municipal credit rating levels and protecting their capacity to issue new debt[12].
- Access to financing when alternative, lower-cost public financing is unavailable.
- Incentivizes delivering quality projects on time by putting the private partner at risk of debt repayments.

Private Financing

Private financing for projects can occur by the private partner constructing projects using private capital, which the private partner recovers over the life of the contract.

As a simple example, consider a programmatic CBP3 that involves the private partner constructing projects at a cost of $2 million in the first year of the contract and $500,000 for additional projects and maintenance in years 2 through 4 of the contract. The payment terms of the contract may be a flat $1 million per year payment for each of the five years, when performance milestones and outcomes are achieved. Under this arrangement the private partner finances early construction, breaks even approximately in year 3, and generates profits (assuming outcomes are achieved) in the final two years of the contract.

Recommendations and Considerations

Using a single, predictable revenue stream to fund a CBP3 is ideal and simple. However, this is often not possible, and additional revenue and funding sources become necessary. In CBP3 scoping and design, determine the portion of predictable revenue streams that are available, as well as any funding gaps that would need to be covered by additional revenue and funding sources. Department of Ecology and other grantors who are already supportive of P3 approaches may provide a good fit for complementary funding sources. When considering alternative financing approaches, consider evaluating alternative approaches using Cost-Benefit or Value-for-Money Analysis, as described in Scope.

Assessing the potential revenue, funding, and financing options available to implement a CBP3 early in the development process. However, understand that specific revenue and funding sources will not likely be secured until after the CBP3 scope is finalized. Discuss the need for public or private financing early but know that this, too, will be further informed by project scope and partnership structure as the CBP3 is developed. Lastly, consider that any project cost savings achieved through the CBP3 arrangement can reduce the need for securing additional revenue sources.

Case Study: Clean Water Partnership

As outlined in the Legislative Approval[7], available funding for Clean Water Partnership program costs includes the following.

- Bond proceeds from the sale of County Stormwater Revenue Bonds
- Existing funds in the county's Local Watershed Protection and Restoration FundPrivate financing sources generated through Corvias' resources, efforts, and capabilities
- Grant proceeds that may become available to the county

The Master Program Agreement[6] states that at any time if the county makes the request, then Corvias must provide a detailed proposal to obtain private financing. If the county decides to proceed with the private financing, then there will be negotiation on the terms and conditions, including the compensation to Corvias for arranging financing.

5 Performance Measures and Verification

Performance measures dictate how data is collected and built into a CBP3 partnership structure, payment terms, and governance process. Creating a set of clearly defined performance measures can allow you to maximize the project's outcomes by providing motivating performance targets and verifying project effectiveness. Performance measures and verification protocols set clear, transparent expectations around measuring the effectiveness of project implementation and long-term maintenance in achieving the intended outcomes.

Key Stakeholders

When determining your performance measures and verification process, engage the

- ✓ **Director of Capital Projects**
- ✓ **Director of Public Works**
- ✓ **Construction Supervisor**
- ✓ **Maintenance Manager**

Options and Recommendations

Developing the right set of performance measures can be a challenging process, but it is imperative to the project's success. Begin evaluating potential performance measures after drafting the program objectives and scope. However, they should not be finalized until they are used to assess historic or projected project implementation data. Consider this set of best practices to help develop a useful set of performance measures.

- **Define your expected and optimal program results**. Define your desired program results so you can select appropriate performance measures. Do this graphically using a conceptual model, rather than writing long narratives that may be difficult for decision-makers to understand.
- **Establish performance measure uses**. Focus your individual performance measures on their necessary use and avoid using them to answer unrelated questions.
- **Evaluate and select your performance measures**. Select a manageable set of performance measures that reflect your project's key goals or strategic priorities. Avoid establishing too many and overwhelming staff. Ideally, programs should select between three and 15 performance measures.
- **Document your performance measures and processes**. Describe what each performance measure represents, why it is valuable, and how it is measured. If consistency is essential, provide more detail or a standardized calculator. Avoid providing just a title and a vague description.
- **Design your reporting approach**. Use visual and narrative elements to tell a compelling story with your data. The reported performance measures should connect your program's actions to results. Knowing where, when, and how to maintain green infrastructure assets can be a challenge, so the reporting should support a clear process and communicate overall program success.

Washington State Department of Ecology

A reliable performance measure must be effective at identifying the most beneficial sites and informing the optimal design of green infrastructure. Some good examples of performance measures are shown in the Washington State Stormwater Control Transfer Program[13] and Department of Ecology's funding programs[14]. Both provide an understanding of the stormwater benefits of each green infrastructure project and can be consistently and cost-efficiently applied across multiple projects.

CBP3 performance measures should reflect the key project objectives. Performance measures should incorporate both the *quality* and the *quantity* of outcomes achieved—to the degree feasible, appropriate, and necessary to fulfill all compliance requirements. Some examples of performance measures include the following.

- Performance measures addressing **environmental objectives** can include acres retrofitted with green infrastructure, volume to sewage treatment, change in pollutant loads, carbon emissions, energy use, vegetation/tree cover, and more.
- Performance measures addressing **community and economic objectives** can include a percentage of work executed by local, small, and/or disadvantaged businesses, number of jobs created, cost savings, number of job trainings, number of educational outreach events, crime levels, and more.

You can also incorporate performance measures that directly reflect environmental, economic, and community outcomes into the payment terms of performance contracts. This ensures that payments to the private partner are contingent on the achievement of clearly defined outcomes aligned with set performance measures. This concept is further elaborated on in Performance Contracting and Payment Terms.

It is important to clearly define a method for the verification of outcomes. Phase I permittees are required to develop operations and management verification protocols and implement the inspection and enforcement of green infrastructure. These protocols suffice for use in performance-based long-term maintenance contracts; however, inspection methods often do not incorporate verifying the quality of function of the green infrastructure in a way that facilitates optimum design and maintenance. Verification protocols should reference performance measures that incorporate quality into project design and maintenance. Additionally, verification should occur not only upon completion of the construction phase but should be ongoing throughout the life of the project.

Consider a third party for the outcome verification to avoid bias from the public or private partners, especially if payment is contingent upon performance.

Lake Tahoe Crediting Program

In Lake Tahoe under the Lake Clarity Crediting Program, stormwater permittees are required to use rapid assessment methods (RAMs) to generate credits. RAMs verify the effectiveness of street sweeping and best management practices (BMPs) and take less than 15 minutes per site. They guide urban implementers through the process of defining expected conditions and ensuring conditions can be realistically maintained. Use of RAMs ensures efficiency of reviews, consistency, and comparability of results among all program participants.

Lastly, as discussed in Section III, buy-in and trust from local environmental and community groups is critical. The use of consistent performance measures allows for effective communication of the project's successes. Regular reporting increases transparency and stakeholder trust by demonstrating whether the project has reached targets and can also highlight areas needing improvement. An excellent example of this transparency is in the Clean Water Partnership's online dashboard[15].

Photo by Marcela Gara, Resource Media

Case Study: Clean Water Partnership

The table below illustrates the Clean Water Partnership's performance measures and key performance milestones as outlined in the Clean Water Partnership Master Program Agreement[6].

Table 1. The performance measures used by the Clean Water Partnership.

PROGRAM FOCUS	PERFORMANCE MEASURE	PERFORMANCE MILESTONES
Target Class and Local-Based Small Business Participation	Percentage of Target Class participation in the program and percentage of which is local-based small businesses	▪ Year 1 – At least 30% (at least 50% Local-Based Small Business) ▪ Year 2 – At least 35% (at least 50% Local-Based Small Business) ▪ Year 3 – At least 40% (at least 50% Local-Based Small Business)
County Resident Participation	Percentage of the total man-hours of employment that are filled by county residents	▪ Year 1 – At least 15% ▪ Year 2 – At least 30% ▪ Year 3 – At least 51%
Mentor Development Program and Incubator Program	Number of new mentor/protégé relationships each year.	▪ Each year develop new mentor/protégé relationships with at least two new companies in the county
Construction Schedules Met	Percentage of completion of project on scheduled date	▪ Projects completed by scheduled date
Impervious Acres Retrofitted	Percentage of acres identified for each project that are retrofitted to obtain the necessary credits	▪ Meet the metrics related to retrofit credits
Completion within Budget	Project price at completion	▪ Complete each project for the applicable Maximum Project Price
Customer Service and Responsiveness	Scores from customer service and responsiveness surveys	▪ 3.5 points or more

6 Attracting & Selecting a Private Partner

Selecting the right private implementation partner is critical to the long-term success of any CBP3 program or project. Municipalities must both select a capable private partner for project delivery and ensure that the selection process fulfills all state and local procurement laws. Municipalities can benefit from early and frequent engagement with the private sector throughout the selection and project design process to collect insights and inform project scope and partnership structure. To invest, the private sector needs both a clear definition of the desired outcomes and a public agency funder ready to buy those outcomes through a contract.

Key Stakeholders

When working to attract and select your private partner, engage the

- ✓ **Director of Capital Projects**
- ✓ **Director of Public Works**
- ✓ **Construction Supervisor**
- ✓ **Maintenance Manager**

Options and Recommendations

Multi-Phased Procurement

Municipalities pursuing a CBP3 can benefit from a multi-phased procurement process for selecting private implementation partners. A multi-phased approach can leverage one of several different options in conjunction with a traditional Request for Proposals (RFP), including the following.

- **Request for Qualifications** (RFQ). A two-step process in which interested potential private partners express their qualification to submit responses to an RFP. Responses to an RFQ typically describe the company or individual's qualifications to perform a service or supply a product but generally do not include specific details or price proposals.
- **Request for Information** (RFI). An approach primarily used to gather information to help decide on next steps. An RFI solicitation is typically sent to a broad base of potential partners for the purpose of marketing and creating awareness around a new opportunity and soliciting feedback from potential partners to inform the project strategy. A project description should be included so the market information reflects the intended objectives, opportunities, constraints, funding, and governance risks.
- **Early Announcement with Open Door Policies**. A community issues a press release or other broad form of communication about a potential CBP3 procurement opportunity, then offers a window of time for potential contractors to discuss ideas in person. These pre-development meetings allow private partners to contribute ideas and information before RFQ/RFPs in a less structured way. However, this option has the potential to greatly increase the early workload for you if there is a significant community response or if early discussions are not well aligned.

Using a multi-phased procurement process allows municipalities with less experience implementing P3 arrangements to get advice and feedback from potential partners early in the scoping process. Giving private partners the chance to provide early input without committing to a contract can allow you to evaluate a range of options and suggestions for contract structure, procurement, financing, and operations. It also helps ensure that your contract ultimately reflects the requirements and potential benefits for your community as well as the private partner, so that it is truly a collaborative effort where both partners equally share in the risk and rewards. Lastly, this early and multi-phased engagement process not only improves the future RFP and implementation contract but also increases the likelihood of a high response rate from the private sector. A limited scope pilot with the selected partner could also provide a useful learning opportunity.

Be aware of potential conflict of interest concerns that could arise from engaging future RFP applicants, and ensure that private sector advice is always tempered with what is best for your municipality and community. Early contractor engagement also must not prevent subsequent contracting with an engaged private partner. It is critical to understand legal authorities related to procurement and evaluating procurement strategies early on. As mentioned in Legal Authorities, this guidance is not comprehensive and should not be relied on as an alternative to professional legal advice.

Alternative Procurement Models

It is important to not just evaluate private partners by their costs alone to ensure that they are both cost-competitive and can produce a range of project outcomes over a potentially long contract period. Therefore, you should steer away from the lowest bid procurement model, which relies on selecting the contractor that provides the lowest responsive price. Instead, pursue alternative procurement models. One such alternative is **best value procurement,** which is a procurement process in which price and other key factors, like quality, expertise, and desired environmental and community outcomes, can be considered in the evaluation and selection of contractors[29]. There are no legal barriers to using best value procurement in Washington state[1]. Using alternative procurement and bundling projects into a single contract enables relationships to form with private partners that have aligned goals, capabilities, and understanding.

Minimum Qualifications and Alignment

Other considerations for identifying and selecting the right private implementation partner include, but are not limited to:

- **Experience and Proven Track Record**. Private partners must demonstrate a history of developing and running long-term programs, creating performance-based outcomes, and experience with alternative delivery. The private partner's past performance can be verified with recommendations from previous partners.
- **Understanding and Level of Commitment to CBP3 Goals**. The selected private partner must understand what the CBP3 is trying to achieve and be committed to all your project's established community and stormwater objectives.
- **Flexibility and Ability to Innovate**. Private partners must be able to respond to changing circumstances, state or local policies, economic conditions, and more.
- **Technical Qualifications.** The selected private partner should represent a team of professionals with demonstrated technical capabilities to deliver the project. While knowledge of how to effectively install and maintain green infrastructure is critical, private partners can also bring on additional local expertise to ensure projects are sited and maintained correctly, installed using the right types of vegetation, etc.
- **Local Partnerships**. The private partners must align with project implementation or maintenance needs, including outreach capacity, reputation, and understanding of the local regulatory context.
- **Other Qualifications**. Private partners might need other qualifications specific to your municipality's individual needs and community priorities.

Best Practices for Attracting a Private Partner

If your municipality is developing performance contracts for a CBP3, consider the following recommendations to attract quality potential private partners.

- **Avoid cost disclosure requirements**. Requiring the private partner to disclose all line item costs, including profit, can create liabilities from exposing proprietary information and prevent high-quality partners from engaging on the project.
- **Be transparent about cost ceilings**. If there is a set amount that you are willing to pay, let the private partner know to set the right expectations for project implementation. While breaking funding into multiple, smaller awards does limit some of your risk, it can also prevent larger projects or projects that would benefit from bundling implementation phases.
- **Keep short-term financial requirements reasonable**. While it is certainly reasonable to require the private partner to maintain liability and some level of assurances during construction, recognize that this can create a higher financial burden on early project implementation. This could drive up overall project costs, particularly if the implementation risk is low.
- **Match contract requirements to meet the project's cost structure**. Match contract requirements with the projects envisioned. For example, significant small or minority business set-aside requirements could be challenging if most of the project cost is associated with land acquisition or other costs that small or minority businesses cannot reasonably provide.
- **Scale risk to meet desired outcomes**. If you are prioritizing ambitious projects or testing innovative approaches, consider how much legal liability is appropriate for contractors to take on, particularly if there are known risks. Consider leveraging existing, trusted partners for these types of projects. Recognize that higher risks (and even unknown or undefined issues) create a substantial need for higher rewards in the form of fees or profits for the private partner.
- **Use financial incentives when possible**. Contract penalties for lack of performance are an option. However, it is often easier for the municipality to use funding incentives for efficient or effective outcome delivery rather than relying on clawback provisions for non-performance.

Case Study: Clean Water Partnership

Prince George's County stated the following evaluation criteria to rank the RFQ responses in its RFQ[16].

- Public/Private Partnership Experience (35%). P3 development experience, references, lessons learned, innovation history, corporate resume, and key individuals.
- Strategy/Approach (35%). Partnership approach, performance strategy, approach to negotiations and program agreement partnering, approach to managing risk, and team members, organization, key individuals, and other processes.
- Financial Capability (20%). Finance strategy and approach, financial strength and sustainability, demonstrated financial experience, financial statements, and insurance and security requirements.
- Socioeconomic Plan (10%). Company social benefits and success in providing opportunities for minority business enterprises.
- Minority Business Participation (*extra* 15%). A plan outlining utilization of proposed minority business enterprise contractors.

7 Partnership and Contracting Structure

The partnership structure is formalized through a contract with defined payment terms. Different partnership structures and payment terms are appropriate, depending on the type of P3 model (See Appendix A for a description of different P3 models), specifically depending on whether the private partner is involved in holding the long-term land agreement, construction, and maintenance.

Key Stakeholders

When establishing your partnership and contracting structure, engage the

- ✓ **Finance & Contracting Managers**
- ✓ **Director of Capital Projects**
- ✓ **Director of Public Works**
- ✓ **Legal Department**

Options and Recommendations

Partnership Structure

The legal form used to establish and implement a CBP3 defines the entities involved, their specific roles and responsibilities, and how risk will be shared. Many different partnership structures for a CBP3 exist and continue to emerge as each partnership responds to precise needs. It may be appropriate for the private partners to establish a special-purpose Limited Liability Corporation (LLC) to create a unique institution that holds the risk or to simply enter into a contract with the municipality.

When selecting a partnership structure, consider the scope of the project (land ownership, duration of maintenance provided by the private partner, etc.), state and local contracting authorities, project financing needs, planning and project review processes (see Governance), and payment terms.

The following are some possible partnership structures that can be implemented with or without the establishment of an institutional entity such as an LLC.

- **Traditional Services Agreement** – Contracts between the municipality and private partner define the specific services the private partner will deliver for public benefit and how those services will be compensated. There is not typically substantial risk or investment for the private partner. The municipality keeps ownership and is responsible for all other project phases not specified in the contract.
- **Legally Constructed Partnership** – Contracts between the municipality and private partner allocate responsibilities for delivering public services between the partners. This is different from a Traditional Services Agreement because responsibilities are shared between the municipality and private partner, who also share liability and accountability for project delivery.
- **Delegated Management Partnership** – A contract arrangement where the municipality delegates authority to the private partner to manage and deliver a project or service while keeping oversight authority. The private partner is primarily responsible for and bears the risk associated with project management and delivery. The contractual agreement outlines the municipality's and private partner's roles, as opposed to only the private partner's role in a traditional services agreement.
- **Co-Permittee Partnership** – The private partner becomes a co-permittee of the municipality under an NPDES permit and accepts implementation and compliance responsibilities and authority. The permit or contract defines the partners' responsibilities. Contracts define the payment terms.

Contract Structure

The contract structure will ensure mutual understanding of the project's goals and scope and define project funding and implementation. Contract structure, terms, and conditions must be diligently crafted because they determine the level of flexibility provided to the private partner. They also define how performance will be assessed and how under-performance will be addressed.

One or more contracts or implementation agreements may be used between the municipality and private partner. Multiple contracts may be appropriate when the private partner is involved in both project delivery phases and maintenance (See different P3 models in Appendix A). The Clean Water Partnership Case Study example at the end of this section illustrates a partnership using two contracts (Master Program Agreement and Master Maintenance Agreement). However, consider that your municipality may have unique preferences and restrictions around an ideal contracting structure.

Designing and constructing an effective green infrastructure project typically involves greater complexity and liability than maintaining the project. Therefore, it can be advantageous to create both a more complex construction and delivery contract that involves full risk transfer, as well as a simpler long-term maintenance contract. The two contracts should be closely linked. For example, developing maintenance plans should be a requirement of the construction or program contract. This is particularly true for municipalities where one department builds the capital projects, and another manages long-term maintenance. Each may want its own contract with the private partner to manage a specific aspect of the project.

Contracts should clearly define any potential issues that could arise and how they should be addressed, along with clear dispute resolution procedures (see Governance for more detail). When you are designing contract terms and conditions, consider the level of:

- **Flexibility necessary for the private partner** to streamline execution, accelerate delivery, and reduce costs.
- **Oversight and control necessary for your municipality** to provide input and monitor project execution while also minimizing costs and time delays for the private partner.
- **Execution risk transferred to the private partner** to ensure that the private partner is appropriately compensated financially for accepting that risk.

Case Study: Clean Water Partnership

- The Clean Water Partnership uses the delegated management partnership structure, using an LLC (Corvias Prince George's County Stormwater Partners LLC). The delegated partnership structure allows for the municipality (Prince George's County) to delegate the provision of public services to the private partner (Corvias) while enabling access to tax advantaged municipal bonds that reduced the cost of capital and limiting the liability of bond default for Corvias.
- The Clean Water Partnership uses two contacts to establish and implement the partnership: A Master Program Agreement[6] (MPA) and a Master Maintenance Agreement (MMA). The MPA defines Corvias' responsibilities for project implementation for the first three years, and the MMA defines maintenance for the following 30 years. Corvias serves as program manager in both the MPA and MMA. The agreements also include a description of the performance-based payment terms.

8 Performance Contracting & Payment Terms

Performance-based contracting (performance contracting) is an innovative approach that bases payment on a project successfully achieving intended outcomes, ensuring effective use of public dollars. This structure incentivizes the private partner to efficiently achieve and maintain project benefits.

Using the performance contracting approach, you can improve project outcomes, reduce your financial risk, and create the opportunity to do real adaptive management. Additionally, clearly demonstrating the environmental and community outcomes achieved can build public trust and create a compelling rationale for future funding requests.

Key Stakeholders

When establishing your approach to performance contracting, engage the

- ✓ **Finance & Contracting Managers**
- ✓ **Director of Capital Projects**
- ✓ **Director of Public Works**
- ✓ **Legal Department**

Pay for Performance Toolkit

The Pay for Performance Toolkit[3] can help enable conservation, water quality, and community sustainability programs to maximize outcomes. The toolkit is designed to help program managers understand the different performance strategies, contract development, and lessons learned from existing programs.

In addition to the toolkit website, the following affiliated documents can be useful to developing a performance contract for stormwater.

- Pay for Performance Strategies for Stormwater Management[17]
- Customizable Contract Terms and Solicitation Guidance[18]
- Lifecycle of Pay for Performance Contracts[19]
- Key Distinctions of Pay-for-Performance Contracts[20]

Options and Recommendations

Key Distinctions of Performance Contracts

Table 2, below, demonstrates some of the key differences between performance contracting and traditional agreements. See Section IV for checklists of the essential components to include in your performance contract.

Table 2. Key distinctions of contract elements in performance-based contracts compared to traditional agreements.

CONTRACT ELEMENTS	PERFORMANCE CONTRACTS	TRADITIONAL AGREEMENTS
Definition of Performance Outcomes	▪ Performance metrics ▪ Quantitative results	▪ Flexible metrics ▪ Narrative results
Payment Terms	▪ Outcome-based	▪ Action-based
Monitoring, Reporting, & Verification	▪ Monitoring & reporting ▪ Ongoing verification	▪ Monitoring ▪ One-time verification
Management Plan	▪ Binding ▪ Specific	▪ Non-binding ▪ Non-specific
Long-Term Stewardship	▪ Informs payment	▪ Lacks financial incentive
Remediation	▪ Basis for action	▪ Lacks incentive for action

Full Delivery in Anne Arundel County

Anne Arundel County released an RFP[21] in 2016 for the full delivery of water quality benefits. Because the county does not pay the implementers until after project completion, the applicant was required to state its financing plan to demonstrate it is able to handle the project implementation costs prior to receiving payment. Applicants also needed to propose a price per impervious acre treated and per pound of nitrogen, phosphorus, and sediment reduced.

Once an applicant is awarded the contract, there is a three-phase inspection and acceptance process.

- **Phase I. Initial Acceptance**. The county accepts the applicant's proposed plan.
- **Phase II. Substantial Completion Acceptance**. The county accepts the completed project after an inspection to verify the project was implemented in accordance with regulations.
- **Phase III. Maintenance Inspections**. The county annually inspects the project to ensure it is fulfilling its original intended function.

Payment is made in two phases.

- **Phase I.** An initial payment is made upon completion of Phase II. Maintenance costs for a two-year maintenance period are withheld.
- **Phase II.** The remainder of the contract funds are disbursed at the end of a two-year term if the results of the stormwater quality improvement projects are properly maintained.

Proposals received included stream restoration, stormwater facility retrofits, septic-to-sewer conversion, and reforestation. Cycle one treated approximately 188 acres for $3.8 million, and cycle two treated approximately 113 acres for $1.7 million. Implemented projects have shown a reduction in the cost per acre for several types of stormwater projects[31].

Payment Terms

The payment terms in a performance contract reference performance measures and milestones that reflect the quality of the outcomes delivered through the CBP3. Linking payment to verified performance outcomes creates financial incentives for the private partner to determine the most cost-effective ways to achieve and maintain project outcomes. Holding payment until project outcomes are verified reduces the risk of taxpayer dollars funding underperforming projects. However, providing some upfront project seed funding can help lower the barriers for smaller private partners who may lack access to financing.

Performance-based payment can allow your municipality to transfer meaningful risk (Figure 6) to the private partner, which liberates you to be less intensively involved in each project phase. This creates flexibility for the private partner, accelerates project delivery timelines, guarantees project outcomes, and reduces administrative costs for both you and the private partner. If your region is lacking experience with performance-based contracting, it may be necessary to start with a strategy that has more risk, such as partial pay for performance.

Unlike a toll road or sports arena, no one pays to use a stormwater capture or treatment project at the time of use. Thus, stormwater projects cannot benefit from point-of-use user fees, and "concessions" and "lease-like arrangements" used by transportation and water supply CBP3s. Therefore, performance-based payments for CBP3s fall along a spectrum from full delivery and partial pay for performance.

Figure 6. The public and private partners' relative risk in several partnership structures.

- **Full Delivery** contracts define a price-per-unit of performance delivered. Payment is held until after a project is fully delivered and outcomes are verified at the level specified in the contract. The private partner must finance project implementation. If the project fails to perform, the municipality does not pay. This strategy minimizes the municipality's risk while providing the private partner with a purchase contract it can use to secure capital to finance project implementation.
- **Partial Pay for Performance** contracts define payments linked to defined performance milestones throughout project execution. Only a portion of total payment is based on verified outcomes. This type of contract can include
    1) Guaranteeing a portion of the payment, with the remainder paid as an **incentive payment** for high performance.
    2) Paying a pre-defined amount but including a **clawback provision** requiring money to be paid back if performance is not achieved. This might require an insurance policy, bond, letter of credit or another financial assurance instrument.
    3) Paying a pre-defined amount and allowing the private partner to receive a portion of project cost savings achieved using a **shared savings payment**. This strategy can reduce the need to finance the full cost of the project and reduce the cost of capital for the private partner.

Case Study: Clean Water Partnership

Prince George's County encourages Corvias to meet performance goal with *incentive fees.* The incentive fees are based on the following criteria.

1) County-based participation goals
2) Minority and protected class business participation goals
3) County resident man hours and job participation requirements
4) Meeting specified dates, schedules, and timelines
5) Completing each budget book within budgeted cost.

If Corvias reaches the established performance goals, it earn incentive fees up to 5% of the actual project costs during the initial term and 4.25% during the renewal term, if eligible. More details are outlined in the Master Program Agreement[6].

9 Governance & Adaptive Management

A CBP3 differs from the traditional contracting arrangement in that the municipality is less deeply involved in the details and risks of project implementation. However, it is critical to keep appropriate oversight and governance authority. In a CBP3, the municipality becomes a project or program manager. This requires establishing a transparent governance framework that aligns the objectives of the municipality and private partner to ensure program success without the municipality's involvement in the details of every phase of each project.

Key Stakeholders

When establishing the strategy for governance and adaptive management, engage the

- ✓ **Director of Capital Projects**
- ✓ **Director of Public Works**
- ✓ **Construction Supervisor**
- ✓ **Maintenance Manager**
- ✓ **Finance and Contracting Managers**

The approach to governance and adaptive management should ensure the municipality has the appropriate control during project execution, can provide input when it is important to do so, and monitor project execution (Figure 7). Determining the appropriate amount of oversight is a balance—these processes must be crafted carefully so the municipality has an assurance of project success while still allowing flexibility and minimizing administrative costs.

Governance and adaptive management define decision-making processes, reporting requirements, and dispute resolution procedures. Contract terms and conditions should anticipate any issues that may arise in project delivery and maintenance and describe how they will be addressed. The governance framework must be designed as a true partnership that meets the needs of all partners involved.

Figure 7. A simplified stepwise process of programmatic adaptive management.

Options and Recommendations

The following are key elements of governance and adaptive management to incorporate into your CBP3 program. For each element, the specific roles, responsibilities and decision-making authority for the municipality and private partner should be clearly defined.

- **Annual planning process** – A planning process that is defined to establish program priorities. The planning process should identify each project to be developed in the next fiscal year, along with an accompanying budget for the year.
- **Adaptive management process** – A clear process that is defined to identify key findings from program implementation to date and adapt implementation strategies and guidelines as needed. Both partners should identify and share key findings. Hosting an annual meeting to review and adjust implementation strategies and guidelines can help ensure program improvement.
- **Project review process** – A project review process with critical checkpoints requiring sign-off by the municipality is important to ensure it can provide input when it is important to do so and have an assurance of project success. The project review process should replicate or align with existing internal project review processes as much as possible to create administrative efficiencies for the municipality.

- **Potential issue list and resolutions** – A thorough list of potential issues that may arise during program implementation, along with procedures for resolving issues as they arise, is incredibly important for reducing risk. This includes conditions for project failure and remediation options.
- **Reporting requirements** – Clearly defined reporting requirements are important to ensure the municipality has the information it needs to manage the program and inspire broad stakeholder confidence. Private partners need to clearly understand their reporting requirements early. Reporting should include cumulative reporting of project status, progress towards performance measures and milestones, and annual point-in-time reporting.
- **Conflict resolution procedures** – Clearly define procedures for resolving conflicts between the municipality and private partner. This will help to appropriately set expectations and quickly resolve conflicts.

Case Study: Clean Water Partnership

The Clean Water Partnership's Master Program Agreement[6] and Master Maintenance Agreement are written to allow Corvias the flexibility for adaptive management. Prince George's County and Corvias can make modifications without renegotiation as long as they are approved by the county's oversight committee and they do not alter the performance goals.

10 Community Outreach & Education

A CBP3 is a partnership between not only the municipality private partner, but also other stakeholders in the community such as residents, nonprofit organizations, non-governmental organizations (NGOs), schools, faith-based organizations, local businesses, and other municipalities. Cultivating this partnership requires transparency and timely communication on progress and future development. Outreach is an effective tool to communicate the CBP3's value and progress, build public support, address false perceptions, and to inform the CBP3 with the community's specific needs. Additionally, education programs are an excellent way to ensure the community benefits integral to a CBP3 are achieved.

Key Stakeholders

When establishing the strategy for community outreach and education, engage the

- ✓ **Director of Capital Projects**
- ✓ **Director of Public Works**
- ✓ **Local Advocates**

Options and Recommendations

Community engagement is a priority in CBP3s and must be incorporated into the project design. Outreach and education activities can include holding or participating in events, conducting workshops, holding school activities, providing internships, and creating marketing and educational materials.

Ensure key stakeholders are aware of outreach activities by making the relevant events, meetings, plans, marketing and educational materials, and reports widely available. Outreach and education should occur throughout the project's scope; however, early in project development is particularly beneficial because local stakeholders' priorities can valuably inform the project objectives and scope. Specifically foster the support of local environmental and community advocates with outreach activities to leverage their effective public communication and establish critical trust within the community.

Photo by Marcela Gara, Resource Media

Measuring the outcomes of the outreach and education efforts is imperative to understand progress, conduct adaptive management, and effectively communicate achievements to the public. Define clear performance measures to quantify the outcomes achieved. Financial incentives to the private partner are possible through performance-based contracting in which their payment is contingent on the performance measures that incorporate outreach and education (Table 3).

Table 3. Example outreach and education initiatives and associated potential performance measures.

OUTREACH/EDUCATION INITIATIVE	PERFORMANCE MEASURES
Events. Engage the community at established events or by hosting an event. Days already designated to celebrate the environment or community like Earth Day and World Water Day are valuable in conducting outreach and education.	# of events participated in # of events hosted # of attendees
Schools. Engage local schools with outreach and educational activities. Example initiatives include involving students in best management practice (BMP) construction and developing environmental curriculum.	# of students educated # of schools engaged Test results
Workshops. Hold capacity building workshops for the local workforce (i.e., stormwater management or business development) or other municipalities (i.e., CBP3 implementation or grant application assistance).	# of workshops # of people educated Scores on feedback surveys
Internships. Develop the local workforce by providing stormwater and business development internships or by funding local businesses to provide internships.	# of interns # of businesses Funding spent on internships
Marketing and Educational Materials. Develop informational materials to distribute publicly including annual reports, flyers, brochures, web pages, and more.	# of marketing products # of educational materials # of web page views

Case Study: Clean Water Partnership

As outlined in the Master Program Agreement[6] (MPA), the Clean Water Partnership (CWP) was designed with a focus on education and outreach to educate and engage schools, universities, and residents about stormwater management and green infrastructure. Their initiatives include the following.

- Community Outreach Program. The CWP ensures the community is continually updated on the program's status and the benefits achieved. They also educate the community on ways to perform their own stormwater retrofits and receive stormwater mitigation credits. One way they facilitate information exchange and coordinate activities is with a forum.
- Work Development Program. The CWP provides internships, scholarships, grants, and educational programs. As stated in the Year 3 Annual Report[22], by Year 3 the CWP succeeded in investing $500,000 in student internships.
- Minority Business Enterprise/Small Business Outreach and Inclusion Program. One of the goals of the CWP is to subcontract 40% of the work to local small business enterprises, minority-owned, woman-owned, and veteran or disabled service-owned business enterprises. This goal was surpassed in the first three years with 87% of subcontracting from the target class. To encourage awareness and participation, the MPA outlines requirements including to provide outreach events, tailor contracts and structures to recognize the qualifications of target class subcontractors, and host local small business job fairs.
- Mentor-Protégé Program. The MPA requires a Mentor-Protégé program in which CWP provides training to the county workforce in business planning, staffing, purchasing, and marketing. The Annual Report states they exceeded the goal of mentoring two businesses a year and reports holding capacity-building workshops such as Safety Program Development, Cash Management, and Erosion and Sediment Control.

Building internal and external stakeholder support for your CBP3 is critical to its ultimate adoption and success. This is achievable through strategic and ongoing stakeholder engagement. For any capital project, there is a set of key stakeholders who will derive specific benefits from the successful implementation of the project. These key stakeholders (or critical influencers) for a CBP3 are demonstrated in Figure 8 below.

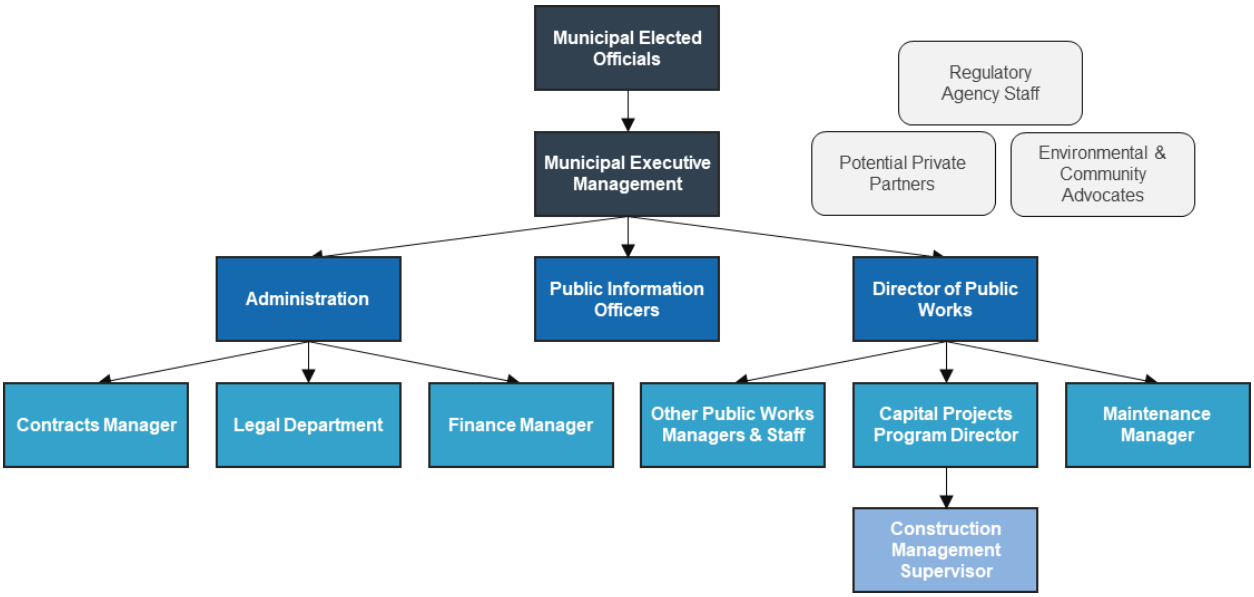

Figure 8. The key stakeholders who need to be engaged in the design and implementation of a CBP3 for a typical MS4 municipality.

The Importance of Stakeholder Engagement

A successful CBP3 will require one or more internal champions as well as a broad base of passive and active support. Active opposition from any one critical influencer can stop your CBP3 from moving forward. It is important to ensure all influencers understand envisioned benefits from their point of view and to proactively address their concerns. Leadership is needed both from a project lead and an executive sponsor who are committed and willing to pursue a new arrangement.

While municipal staff are typically critical influencers, it is you who should also engage external stakeholders. Early engagement with local stakeholders, such as community and environmental groups, helps to ensure your CBP3 design aligns with local needs and can help dispel any early negative public perception. See Community Outreach & Education for more information.

Lastly, your municipality must make an internal cultural shift from engaging the private entity as a *contractor* to a *partner*. Engage potential private partners early. A multi-phased selection process (see Attracting & Selecting a Private Partner) can help you gather information and incorporate recommendations before committing to a specific CBP3 strategy. Other municipalities experienced with stormwater P3 implementation can be an excellent resource when developing a CBP3. See Appendix B and Section II for relevant case studies and example documents that provide more information on best practices, lessons learned, pitfalls to avoid, and how to get started.

Engaging Critical Influencers

This section provides generalized descriptions of each critical influencer, describing their typical role, unique benefits from a CBP3, and potential questions and concerns you can anticipate. Key engagement points are shown in Figure 9 and throughout Section III. While stakeholder support is necessary for CBP3 success, engaging stakeholders is costly, time-consuming, and requires significant resources. Involve different influencers at an appropriate engagement level given their respective resources and desired level of commitment to the CBP3 program (see textbox below).

Terminology

Recognizing that not all stakeholders should be engaged in the same way, this Guidebook categorizes levels of engagement into three main categories, consistent with definitions from the International Association for Public Participation's Public Participation Spectrum[30] (Table 4).

Table 4. A description of the use of the three main categories of engagement in this Guidebook.

ENGAGEMENT LEVEL	GOAL	PROMISE
Inform	▪ To keep stakeholders informed. ▪ Provide balanced and objective one-way information to assist stakeholders in understanding the problem, alternatives, opportunities, or solutions.	*"We will keep you informed."*
Consult	▪ To acknowledge stakeholder concerns and input. ▪ Periodic two-way communication to obtain feedback on specific analysis, alternatives, or decisions.	*"We will keep you informed, listen to and acknowledge concerns, and get your feedback on specific decisions."*
Collaborate	▪ To ensure stakeholder concerns are addressed and stakeholders actively support the CBP3. ▪ Ongoing, two-way communication in each aspect of decision-making, including developing alternatives and identifying preferred solutions.	*"We will look to you for advice and innovation and incorporate your recommendations into decisions to the maximum extent possible"*

Key engagement points for critical influencers are shown in Figure 9 below. The list of critical influencers is not comprehensive but provides a starting point for engagement. Other stakeholders may be equally important, depending on your social and political context.

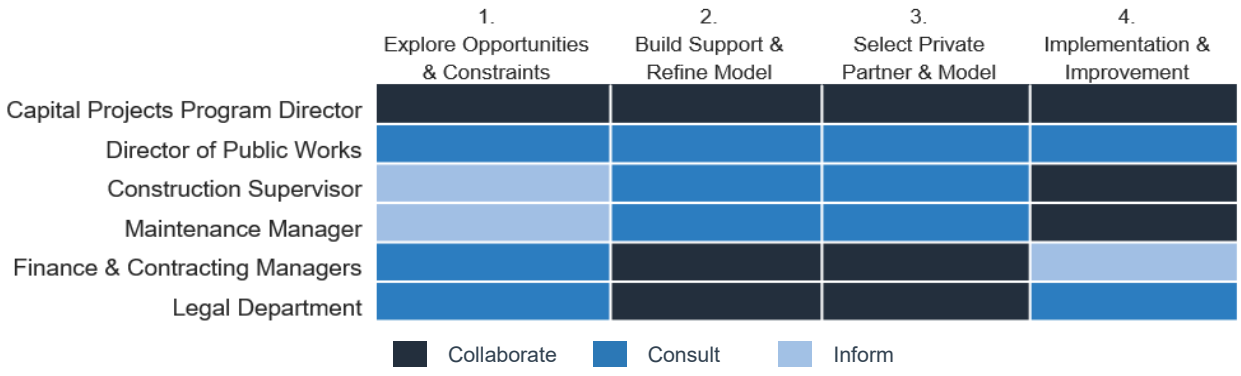

Figure 9. Key engagement points for critical influencers in the development of a CBP3.

1 Director of Capital Projects

Capital projects program directors are responsible for delivering projects that may or may not be identified within existing Capital Improvement Plans. Along with their staff, they shepherd projects through engineering design, permitting, construction, and commissioning. They typically use consultants to support individual project stages and may be responsible for several consulting contracts at a time. They must answer for complaints, delays, and cost overruns. Therefore, poorly defined projects coming from the other departments, staff shortages, and consultant change orders can cause problems for them. When a capital projects program director has a reliable team that can deliver on budget and on schedule, they can proudly showcase the portfolio of projects for elected officials, community members, and peers from other municipalities.

Potential Perspective on CBP3s

The capital projects program director may see a CBP3 as an opportunity to reduce the risk of cost-overruns while increasing the pace of project delivery, and to alleviate constraints resulting from staff shortages, gaps in expertise, or lack of innovation. If a private partner acts as a reliable member of the capital projects program team, they can provide value by bringing novel approaches that solve property conflicts and allow flexible staffing to deliver projects at the pace and scale needed.

If their current budget is diverted to a CBP3 and is perceived as threatening to current staff, the program director is likely to be resistant to a CBP3, especially if the current staff are capably delivering projects already. The program director may also think that a CBP3 would result in less control over project selection, design, and review.

Key Engagement Points

The capital projects program director, with the support of staff, is the most likely process champion to lead the CBP3 from concept to reality. They must be highly involved in each step of the process and must use their relationships, trust, goodwill, and influence to develop the CBP3.

Questions & Concerns to Anticipate

The **capital projects program director** will likely have the following questions.

- Will a CBP3 help us meet our permit targets?
- Can we prevent contractors from running up costs during design or construction?
- Will a CBP3 prevent project delays? Will projects have fatal flaws or costly complications?
- How will access to private land help me achieve more of my capital program goals?
- Will a CBP3 help me to overcome staff shortages, uncertain budgets, or burdensome grant requirements?

For more information to help answer these questions, refer to Performance-Based Contracting & Payment Terms, Governance & Adaptive Management, or Benefits of a CBP3.

2 Director of Public Works

The director of public works is responsible for planning, organizing, controlling, directing, and coordinating the public works operations. They manage multiple teams spanning transportation, facilities, drainage, and potentially many others. The director of public works manages budgets for capital improvements as well as operations and maintenance. They report directly to the municipal executive and may provide updates directly to elected officials. The director of public works relies on the capital projects program director and the maintenance manager to ensure projects are delivered and maintained without causing delays, cost overruns, or injuries. Coordination between the director of public works' multiple departments can be challenging, particularly in larger agencies.

Potential Perspective on CBP3s

The director of public works may see CBP3 as a mechanism to reduce the potential that allocated funds are either not spent in a timely manner or project budgets are significantly exceeded. The private partner may be able to stabilize costs across budget cycles and take on both project risk and some portion of political risk. Bundling multiple projects and project stages could reduce the number of time-consuming procurement processes. The CBP3 may improve project delivery and create local private sector jobs without increasing the number of long-term staff positions needed, which may be appealing to management and elected officials.

The potential for the private partner to identify innovative approaches that use private land and produce multiple benefits may be appealing or, otherwise, could seem like an unnecessary new risk. Additionally, long-term contracts that allow the private partner to finance upfront project costs can enable rapid, large-scale project implementation that your municipality may not be able to fund with annual budget allocations. However, the long-term payment terms may be perceived as a hindering liability. The director of public works is unlikely to support a CBP3 approach if it is likely to cause labor disputes by threatening jobs or upsetting staff.

Key Engagement Points

The director of public works and must actively support the move to develop a CBP3. They may be responsible for department coordination, and you should consult them at each step of the process.

Questions & Concerns to Anticipate

The **director of public works** will likely have the following questions.

- How do we ensure the CBP3 delivers projects that we can maintain?
- How can we make sure agreements with private landowners don't end up in court?
- How will a CBP3 arrangement affect staffing and avoid union conflicts?
- Will the private partner deliver benefits that serve multiple divisions within the Department of Public Works, and how will they work with other divisions to ensure multiple service delivery issues don't pile up within a neighborhood?

For more information to help answer these questions, refer to Governance & Adaptive Management, Legal Authorities, Partnership & Contracting Structure, Attracting & Selecting a Private Partner, and/or Stormwater & Community Objectives.

3 Construction Management Supervisor

The construction management supervisor is responsible for project implementation from the standpoint of safety, quality control, scheduling, contracts, project specifications, and customer relations.

Potential Perspective on CBP3s

It may provide substantial value to the construction team to create a structure in which the construction management supervisor has appropriate oversight of the private partner and access to innovative technologies and private lands. Liability for injury to municipal staff and other safety concerns are mitigated when construction is contracted to the private partner. The cost efficiencies enabled by a CBP3 may also be attractive, especially if your municipality has a history of cost overruns.

Initial resistance from the construction management supervisor may involve the perception that without appropriate oversight, contractors will deliver low-quality projects with little to no penalty. The perceived value of a CBP3 may be low if the construction team is capable of successfully delivering projects already.

Key Engagement Points

The construction management supervisor's support is important early in the CBP3 development process. It is imperative that the construction management supervisor trusts the private partner's capabilities, so involve them in the partner selection process. They must feel confident that a CBP3 project will not be an undue burden on staff time. Due to their prominent role in project construction and inspection, you should engage the construction management supervisor in ongoing project implementation.

Questions & Concerns to Anticipate

The **construction management supervisor** will likely have the following questions.

- What will my team's role be in project construction and inspection?
- How will we manage owner-directed changes?
- How can we implement a CBP3 in a way that resolves or avoids constraints and unforeseen issues?
- Will this new arrangement cause me to lose valued staff members or sacrifice control over my projects?
- What penalties will be in place if the contractor cuts corners on safety, does not meet design specifications, or otherwise does not meet our standards?
- How will a CBP3 reduce my risk of permit delays, unforeseen conflicts, on-site injuries, and/or cost over-runs?

For more information to help answer these questions, refer to Governance & Adaptive Management, Performance-Based Contracting & Payment Terms, and/or Benefits of a CBP3.

4 Maintenance Manager

The maintenance manager determines whether work complies with standards and identifies the scope of maintenance work required. Effective maintenance is critical in a CBP3 to ensure that projects create a lasting impact and are not a liability. The maintenance manager is a valuable resource, and his or her support is necessary.

Potential Perspective on CBP3s

In a CBP3, the private partner is often contracted for multiple project phases. This arrangement incentivizes projects to be designed and built in a way that optimizes maintenance; this can be attractive to the maintenance manager in comparison to the typical procurement process where roles are separated. Contracting for maintenance also reduces project liability and can significantly leverage municipal staff's time. However, if there are not constraints on staff's time, the maintenance manager may consider contracting a private partner for the staff's work as redundant or threatening.

Key Engagement Points

It is important to gain the maintenance manager's support regardless of whether the project's ongoing operations and maintenance are the responsibility of the municipal staff or the private partner. Engage them in partner selection to build confidence that the municipal staff's review time will not be excessively burdensome. If maintenance responsibilities remain with your municipality, the maintenance manager must trust that the private partner's project design will allow for effective ongoing maintenance. Engage the maintenance manager in the development of the contracting model to understand and influence the allocation of maintenance responsibilities. Directly address any concerns related to deferred maintenance and associated liabilities (e.g., flooding, public health, etc.).

Questions & Concerns to Anticipate

The **maintenance manager** will likely have the following questions.

- Will a CBP3 arrangement help me overcome staff limitations and tight budgets, or just result in losing valued staff members?
- What is the process for addressing unforeseen issues that complicate maintenance activities?
- How will we track maintenance needs?
- Can the private partner reduce our reporting and paperwork requirements?
- How can we leverage the private partner's expertise or access to specialized equipment?
- How will we handle negative perception if projects fail?

For more information to help answer these questions, refer to Governance & Adaptive Management, Performance-Based Contracting & Payment Terms, and/or Partnership & Contracting Structure.

5 Finance & Contracting Managers

Finance and contracting managers provide leadership and support through budgeting, financial risk management, contracting, grant management, purchasing, and accounting services. They are responsible for applying independent judgment and adopting contracting solutions that meet the municipality's needs. Therefore, they will likely have considerable influence on the selected CBP3 structure and help to identify and avoid liabilities.

Potential Perspective on CBP3s

Finance and contracting manager support will depend on individual willingness to explore a new arrangement. Some finance and contracting managers may want to avoid the uncertainty of introducing a new contracting arrangement. However, others may appreciate the value in offsetting the financial risk and contracting burden to a third party.

Key Engagement Points

It is important to engage finance and contracting managers early in the CBP3 design process to understand what is feasible and where constraints may arise. They play an imperative role early in the process by conducting the Value-for-Money Analysis to understand the potential cost savings of the proposed CBP3 and to capture the potential risks. They are critical advisors for selecting a private partner, developing the necessary contracts, choosing the correct partnership structure, and carefully developing and allocating project budgets.

Questions & Concerns to Anticipate

The **finance and contracting managers** will likely have the following questions.

- What is the value in a CBP3 compared to the way we usually do business? Do the rewards outweigh the risks?
- Are there examples or templates from other municipalities that have successfully implemented CBP3s?
- Do we have the legal authority to implement this type of arrangement?

For more information to help answer these questions, refer to Revenue, Funding, & Financing, Appendix B. Case Studies, and/or Legal Authorities.

6 Legal Department

Legal departments are involved in the development, implementation, and updating of a municipality's codes, contracts, and policies. When approached with a new arrangement, they provide legal opinions that protect the municipality.

Potential Perspective on CBP3s

Like the finance and contracting departments, support from the legal department depends on individual willingness to explore a new arrangement and on referential precedents. It is the legal department's responsibility to reduce legal exposure, so some members may be averse to the risk of implementing a new, locally unprecedented arrangement.

Key Engagement Points

It is critical to engage the legal department early in the CBP3 development process to understand the municipality's authority for alternative procurement and contracting arrangements and to ensure there are no clear barriers to a CBP3 arrangement. If internal staff time or expertise is a constraint, consultants with specific knowledge in P3 contracting can help inform the right type of CBP3 arrangement. Engage the legal department throughout procurement and contracting.

Questions & Concerns to Anticipate

The **legal department** will likely have the following questions.

- What is the value in a CBP3 compared to the way we usually do business? Do the rewards outweigh the risks?
- What precedents are there for this type of arrangement, in Washington or elsewhere?
- Are there examples or templates from other municipalities that have successfully implemented CBP3s?
- Who is responsible for permitting and agency approval?
- Who maintains long-term environmental liability? Specifically, what would happen if the private partner becomes insolvent?
- What do we currently know about our legal authority to implement a CBP3?
- Are there limitations on how the proposed funding can be used (e.g., budget line item restrictions, color of money, etc.)?

For more information to help answer these questions, refer to Benefits of a CBP3, Appendix B. Case Studies, Governance & Adaptive Management, and/or Legal Authorities.

7 Additional Stakeholders

There are many additional stakeholders who may be important to the CBP3 design and implementation process that will be specific to each municipality. The following are some examples. Figure 10, below, demonstrates their relative influence in each step of the process.

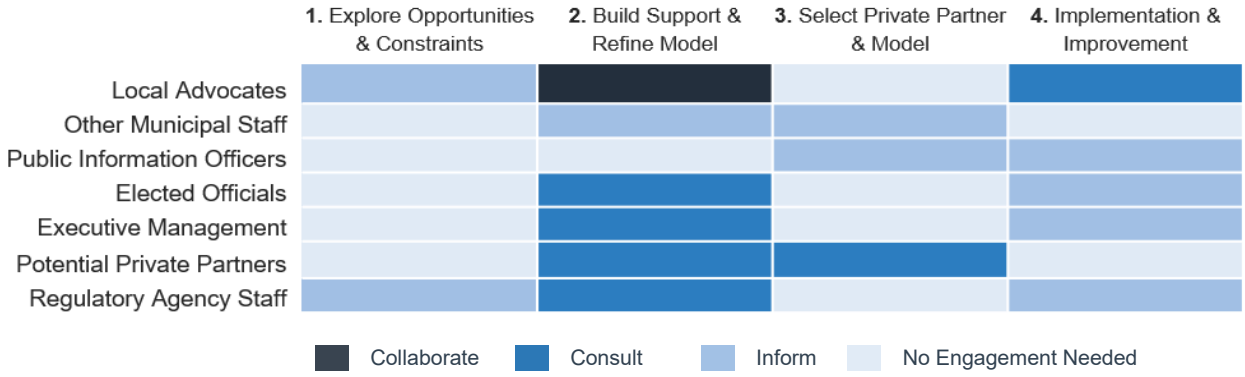

Figure 10. Key engagement points for potential stakeholders depending on the municipality.

Local Environmental and Community Advocates. Local advocates understand and educate the community on local issues and needs and advocate for legislative or other solutions. Engaged them during project design to ensure that goals and performance measures reflect the priorities of the community. Depending on the CBP3 arrangement and partners, local advocates can play a role in project implementation and operations, such as through community outreach and education.

Other Municipal Managers and Staff. A CBP3 can help achieve the goals of multiple municipal departments. Depending on the structure of each municipality, public works managers and staff at other departments, such as within economic and community development and transportation, may play a role in the implementation of a CBP3. Coordinating with other departments to integrate shared goals can build support and allow for pooling funding sources.

Public Information Officers. Public information officers coordinate marketing, public relations, and communication services to express the municipality's vision, goals, and policies. Relay the value and intended objectives of the CBP3 to public information officers early in the process to help build stakeholders' support. Additionally, leverage public information officers as a valuable source of information.

Elected Officials. Elected officials, such as city council members, oversee the development and implementation of policy and program initiatives. Depending on your municipality, the elected officials may be necessary sponsors. Their effective communication with the public can be an essential asset.

Executive Management. Executive management, such as city managers, assists in analyzing, planning, coordinating, and directing for policy and program initiatives. Executive management's support is necessary when setting the project's objectives.

Potential Private Sector Partners. Engage early with the private sector to efficiently leverage their expertise and understand what partnership structures are feasible considering local capabilities. Maintaining relationships with the private sector is integral to a CBP3.

Regulatory Agency Staff. Regulatory agency staff ensures compliance with regulatory requirements. If your CBP3 is designed to fulfill permit requirements, engage the staff from the Department of Ecology and any other relevant regulatory agencies early in the process and throughout the project lifecycle.

SECTION IV. GETTING STARTED

If a CBP3 seems right for your community, this Guidebook provides the information to start the exploration and design process—from defining the right objectives that align with environmental and community needs, to the detailed considerations around how to design your CBP3 with your private partner, to growing the necessary internal and external support.

A CBP3 cannot be successful without a capable and trustworthy private partner. As discussed in Attracting & Selecting a Private Partner, gathering information from prospective partners can be accomplished through a request for proposal (RFP) or request for qualifications (RFQ). Below is a checklist of essentials for your RFQ or RFP with linked references to sections of this Guidebook that provide more detail.

Essentials for an RFP or RFQ

- ☑ **Expectations for Scope.** Either state or request that bidders provide an estimate of the contract term and the expected outcomes generated from the project, the price per unit, and the resulting maximum contract sum. If this information is already decided, clearly state them in the RFQ to set clear expectations for the bidders. However, if there is flexibility, allowing the bidders to propose the scope can allow for greater projects.
- ☑ **Private Partner Obligations and Milestones.** Either state or request that bidders propose specific actions, milestones, and a timeline for completion during the design, construction, and/or maintenance periods. Design and construction milestones may be tied to either *actions* completed within the intended timeline, or *outcomes* achieved that reflect the performance measures tied to the project's stormwater and community goals. Milestones for the operations and maintenance period should focus on sustained outcomes. In some situations, leaving flexibility for the bidder to propose milestones based on their local knowledge of the project site can reveal insights that the public party may otherwise not be able to anticipate.
- ☑ **Monitoring and Verification Requirements.** State or request that bidders propose monitoring activities that will ensure that issues are addressed in a timely manner. Either state expectations for the types and frequency of monitoring activities or leave it to the bidder to propose these. Specify that projects are subject to verification throughout the contract term to ensure outcomes are generated and maintained. Projects should undergo an initial verification upon completion of the final project construction phase and ongoing verification throughout the contract term. If you are using performance contracting, the verification processes are particularly important because payment is dependent on the verified outcomes.
- ☑ **Tools.** Provide any tools that will be used to define the bidder's obligations. If there is an initial site screening tool, form, or methodology that can be used to make an initial estimate of the outcomes to be achieved from the project, provide it so bidders can provide accurate estimates.
- ☑ **Project Failure & Remediation Plans.** Specify what corrective actions will occur if project outcomes fall below a defined performance threshold. Lack of corrective action could mean future funding linked to the project may be reallocated to other projects, or specific penalties may apply.
- ☑ **Payment Terms.** Payment terms should balance the financial risk between the municipality and private partner. It is important to establish both short- and long-term funding sources, considering upfront costs as well as ongoing payments for continued performance. Either specify or request a proposal for the percentage of the payment that will be granted upon completion of the milestones. In the case of a performance contract, payment terms define the specific portion of payment tied to outcomes and create an incentive for the private partner to maximize outcomes while minimizing costs.
- ☑ **Project Description and Site Characteristics.** Request that the bidder provide basic information about the project and site characteristics. At a minimum, this should include the purpose of the project, a project description, the project site and acreage, and the current management practices.

Performance contracts are at the heart of any CBP3. Below is a checklist of essentials for performance contracts, from small-scale projects to large-scale programs. These terms set clear expectations to give the private partner enough confidence to take on risk and the municipality enough confidence that their goals will be achieved. These are non-traditional contracting terms; thus, early legal consultation is recommended to ensure alignment with existing contracting authorities. More guidance on performance contracts, including a contract template, can be found in the Pay for Performance Toolkit[3].

Essentials for a Performance Contract

- ☑ **Measurable Outcomes.** Performance contracts should clearly define consistent, quantifiable performance measures that appropriately reflect project goals. Performance measures define a set of desired environmental and community benefits that should be realized from the project, as well as a clear way to understand if those benefits are actually achieved. Performance measures can reflect implementation objectives (i.e. percentage of jobs locally sourced), outcome objectives (i.e. acres treated), post-construction success, and long-term maintenance success.
- ☑ **Financial Assurances.** Financial assurances are used to ensure the durability of the outcomes generated throughout the CBP3 project. These may vary substantially depending on the payment terms. These assurances can consist of contract terms, such as penalties for non-performance or specific payment terms, or financial instruments, such as endowment or stewardship funds, letters of credit, and contract surety bonds. Assurances ensure funds are available for the implementation and management of the project and to address potential non-performance.
- ☑ **Real Estate Assurances.** Contract terms should establish land protection and ownership requirements to ensure that the beneficial outcomes from the project are durable and protected over time. For example, does the land associated with the project need to be protected in perpetuity? If so, who owns the land? Is the same entity also responsible for the stormwater asset?
- ☑ **Outcome-Based Payment Terms.** At least some portion of payment to the private partner should be linked to achieving verified outcomes aligned with performance measures. Payment terms that define the specific portion of payment tied to outcomes create an incentive for the private partner to maximize outcomes while minimizing costs. Payment terms should balance the financial risk between the municipality and private partner. It is important to establish both short- and long-term funding sources, considering upfront costs as well as ongoing payments for continued performance.
- ☑ **Management Plans.** A binding project management plan that accompanies the contract should be used to document long-term management costs and payments linked to ongoing performance. The management plan establishes the minimum actions that will be taken throughout the contract term and additional actions that may be necessary to ensure outcomes are generated and maintained. The management plan should include the approach to governance and adaptive management to ensure appropriate oversight and the optimization of long-term outcomes. While the contract typically will not be amended unless there is a significant issue, the management plan is more easily amendable as a part of the adaptive management process.
- ☑ **Monitoring, Reporting, & Verification Requirements.** Monitoring is contractually required and used to determine payments or the need for remedial actions. It is critical for performance contracts to define how, when, and by whom performance is verified and reported. Verification should occur not only immediately after construction, but also throughout the length of the contract. When considering roles and methods for long-term monitoring, reporting and verification, consider a third party to prevent biases.
- ☑ **Long-Term Stewardship Responsibilities.** Roles and processes for ongoing operations and maintenance must be integrated as part of the performance contract, including the long-term payment schedule with specific responsibilities delegated to the private partner. In some situations, the long-term stewardship responsibilities may differ from the short-term. For example, if the land is publicly owned, an advantageous approach may be to grant the private partner short-term (i.e. ten years) maintenance responsibilities to ensure the project design is optimized for maintenance and then transfer the responsibility to the municipality for the long-term.
- ☑ **Project Failure & Remediation Plans.** Establish who is responsible for writing remediation plans and implementing corrective actions if the project outcomes fall below a defined threshold. Remediation plans should be approved by the municipality before any corrective actions occur. Lack of corrective action could mean future funding linked to the project may be reallocated to other projects, or specific penalties may apply.

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Appendix A. P3 Models

The roles and responsibilities of the municipality and private partner are primarily defined by the project phases contracted to the private partner (Figure 11). The roles for the municipality and the private partner described below reference a common set of project phases, planning, real estate, design, build and operations and maintenance, that are typical of stormwater projects[12,23]. This description is not exhaustive as many combinations exist beyond those detailed in this Guidebook. More information can be found in the Washington State Stormwater Community-Based Public-Private Partnership Feasibility Assessment [1].

<table>
<tr><th></th><th>Conventional Procurement</th><th>Design- Build</th><th>Design-Build-Operate & Maintain</th><th>Design-Build- Own-Operate & Maintain</th></tr>
<tr><td rowspan="2">Planning</td><td>Permitting; Goals/Targets</td><td>Permitting; Goals/Targets</td><td>Permitting; Goals/Targets</td><td>Permitting; Goals/Targets</td></tr>
<tr><td>Project Identification & Concept Design</td><td>Project Identification & Concept Design</td><td>Project Identification & Concept Design</td><td>Project Identification & Concept Design</td></tr>
<tr><td>Real Estate</td><td>Land Acquisition/Lease</td><td>Land Acquisition (if necessary)</td><td>Land Acquisition (if necessary)</td><td rowspan="5">Design-Build-Own-Operate & Maintain</td></tr>
<tr><td>Design</td><td>Engineering/ Design/ Construction Docs</td><td rowspan="4">Design-Build</td><td rowspan="4">Design-Build-Operate & Maintain</td></tr>
<tr><td rowspan="3">Build</td><td>Construction</td></tr>
<tr><td>Construction Oversight</td></tr>
<tr><td>Optimization/ Monitoring/ Reporting</td></tr>
<tr><td>O&M</td><td>Operations & Maintenance</td><td>Operations & Maintenance</td><td></td></tr>
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Figure 11. The municipality and private party's roles in conventional procurement compared to in several P3 models that can be used for a stormwater CBP3.

Design-Build

The design-build structure is particularly viable when publicly owned land is identified as an effective site to implement a stormwater project through a regional planning effort. Frequently, state and local agencies conduct multi-benefit planning efforts to identify how existing public lands can contribute to overall sustainability goals. The municipality contracts with a private partner to develop a project design and construct the project. The stormwater infrastructure may be able to be efficiently maintained by state and local agency staff, especially if the project is in a park or right-of-way that is already routinely maintained.

Municipality's Responsibilities: Site selection and ongoing operations and maintenance are the responsibility of the municipality. The municipality transfers the design and construction risk to the private partner who is responsible for building the project to meet project goals. Because the municipality selects the site, it is responsible for fully characterizing the site, including constraints that may affect the design or ability to construct the project. The private partner may have justification for seeking a contract modification if undisclosed factors significantly change project construction. Instead of relying exclusively on the lowest bid, the design-build selection is usually based on the "best value" bid using preliminary design documents. While the contracting effort and oversight required by the municipality are reduced compared to conventional procurement, the municipality should provide significant design review and construction oversight to ensure that the project is sufficiently practical to operate and maintain.

Private Partner's Responsibilities: The private partner brings both engineering and construction expertise to fulfill the responsibilities of designing a project that is buildable. The final project approval typically involves meeting rigorous construction inspections and may require the private partner to demonstrate the project is functioning to specifications. This may include maintaining the site for one to three years, conducting initial monitoring, reporting initial results, and using this initial performance feedback to optimize the project to meet performance specifications.

Design-Build-Operate & Maintain

The design-build-operate and maintain structure is viable when publicly owned land is identified as an effective site to implement a stormwater project and the public entity cannot efficiently maintain the site or desires to transfer the risk of maintenance to the private partner. Transferring the ongoing maintenance risk to the private partner may be particularly important if the project design includes innovative technologies that can result in unforeseen complications or require specific skills to maintain.

Another option within design-build-operate and maintain involves the private partner holding the responsibility for maintaining the site for a decade or more and the municipality assuming long-term maintenance. This structure includes the incentive for the private partner to design and construct the project for practical maintenance while enabling future flexibility to determine the most cost-effective strategy to maintain the project in the long-term.

Municipality's Responsibilities: The municipality completes site selection and site characterization. It also provides oversight of the design, construction, and maintenance to ensure the private partner is delivering the desired outcomes. However, the level of municipality engagement can be less than in other structures because the private partner is responsible for ensuring the project is practical to maintain and delivers ongoing performance. Instead of relying exclusively on the lowest bid, private partner selection usually is based on the "best value" bid using preliminary design documents.

Private Partner's Responsibilities: The private partner brings engineering and construction expertise and maintains the necessary local presence to maintain the project over time. The private partner monitors and reports project performance and ensures ongoing performance with effective maintenance.

Design-Build-Own-Operate & Maintain

As opposed to the previously discussed contract arrangements that involve publicly owned land, in the design-build-own-operate and maintain structure the private partner owns the land and stormwater infrastructure. Ownership in this context can be broadly defined to include arrangements where the private partner secures rights to access land owned by another private party but does not purchase the land outright.

The municipality should be granted access to the property to perform inspections as needed. However, ongoing maintenance is the responsibility of the private partner.

Municipality's Responsibilities: The municipality leads the regional planning, which includes identifying general areas within watersheds where projects are likely to be effective. Beyond general planning, however, the primary responsibility of the municipality is to ensure that the private partner delivers the stormwater and other community benefits.

Private Partner's Responsibilities: The private partner defines and delivers all aspects of the project from siting to design, construction and ongoing maintenance. The private partner monitors and reports project performance, optimizes the project to ensure the project is delivering intended outcomes, and maintains the project to ensure ongoing performance.

Conventional Procurement: Design-Bid-Build

The Design-Bid-Build structure is typical of conventional procurement approaches. The title emphasizes the competitive procurement step to select a contractor to costeffectively construct the project. This structure could require a unique procurement step to select an appropriate contractor for each project phase. Procurement steps can vary from developing a task order to a competitive bidding process.

Public Party's Responsibilities: Overall project delivery is the responsibility of the public party including cost, schedule and performance. Public staff may deliver certain project phases, but most phases are supported by private contractors. Typically, the public party develops a unique contract mechanism to gain private contractor support for each project phase, and a public staff person provides contract management. In addition, it is common for different departments within the public entity to manage planning, design, construction, and operations and maintenance. This can cause project delays and can result in disconnects that cause projects to under-perform.

Private Contractors' Responsibilities: The private contractor delivers the services contracted for one project phase and therefore holds minimal risk. Because the public party defines project assumptions and the services for each contract, private contractors can submit change orders when unforeseen factors arise that require services beyond the original scope. These can cause delays while negotiating and approving contract amendments and increase project costs.

Potential Alternative CBP3s

CBP3s enable flexibility and innovation. Thus, any combination of CBP3 contract arrangements and roles can be crafted to optimize risk sharing and efficiencies. The following is a brief description of alternative CBP3 contract arrangements that modify the arrangements above.

Include land acquisition and transfer with design-build. The California Department of Water Resources request for proposals for Delta Smelt Habitat requires the private partner to acquire land, design, and build a project. After meeting performance criteria, the land is transferred to the state of California, making the real estate acquisition part of the private partner responsibilities, but the ultimate land ownership with the municipality [24,25]. This is also a common transaction model that environmental nonprofit organizations use to purchase land for conservation and transfer ownership to a government agency.

Programmatic design-build-operate and maintain. Notable examples of programmatic CBP3 exist where the private partner holds the responsibility to deliver any number of projects necessary to meet an overall level of stormwater improvement. This involves the private partner identifying project locations, negotiating with private landowners, designing and building projects, and maintaining projects for at least some duration. The Clean Water Partnership CBP3 summarized in the case study in Appendix B is the most well-sited of these CBP3 contract arrangements.

Appendix B. Case Studies

Prince George's County Clean Water Partnership[5,26]

Purpose

The Clean Water Partnership (CWP) is a 30-year partnership between Prince George's County, Maryland and a private party (Corvias) to meet state and federal water quality requirements by improving stormwater infrastructure and the local economy through targeted disadvantaged subcontractor development and utilization.

Structure

The CWP increases project delivery efficiency through a design-build-operate and maintain CBP3 contract arrangement with performance-based payment terms.

The CWP provides community benefits by

- Using certified, small, minority and women-owned businesses for a minimum of 30-40 percent of the total project scope
- Managing a schools program designed specifically for the Prince George's County Public Schools District to educate students about the importance of sustainable stormwater management and environmental stewardship
- Mentoring and developing private companies for delivering green infrastructure projects and
- Managing an alternative compliance program to enable tax-exempt, faith-based or other nonprofit organizations to qualify for a reduction of their Clean Water Act Fee.

Results

Phase 1 project results included 2,000 acres of retrofit credits at $50,000/acre, 266 best management practices (BMPs) installed at 94 project sites, 87% target class utilization, 40% resident work hours, and a public-private property mix of 97% to 3%. Overall implementation time of projects was shortened due to innovations in project selection, permit approval reform, and extensive community/stakeholder outreach.

Resources

- Prince George's County RFQ for Urban Retrofit Program Public-Private Partnership[16]
- Clean Water Partnership Master Program Agreement[6]
- Clean Water Partnership Online Dashboard[15]

Anne Arundel County[21]

Purpose

In 2016, Anne Arundel County released a request for proposal (RFP) for full delivery of water quality benefits. The purpose is to satisfy the county's MS4 permit requirements (treatment of 20% of the untreated impervious area within the county), as well as the requirements of the Chesapeake Bay Total Maximum Daily Load (TMDL) and subsequent Maryland Phase II Watershed Improvement Plan. Projects implemented under this RFP must be eligible for water quality credits consistent with the Maryland Department of Environment standards. All mitigation, natural service, and water quality improvement credits must be assigned to the county.

Structure

This program uses the full delivery approach. Applicants must provide their proposed price per impervious acre treated, and price per pound of nitrogen, phosphorus, and sediment reduced. Because payments will not be made until the projects have been completed and delivered, the financing plan is necessary to show that the applicant can handle the project implementation costs up-front.

Once the applicant is awarded the contract, it goes through a three-phase inspection and acceptance process. Phase I serves to verify that the applicant's proposed plan has been accepted by the county and that the project will be accepted upon completion if implemented in accordance with state and local ordinance. Phase II, Substantial Completion Acceptance, is the phase in which the county inspects projects to determine if they have been implemented in accordance with state and local regulations and serves as the project completion acceptance. Lastly, Phase III, Maintenance Inspections, occurs once projects are completed. Each project is inspected during Phase III annually to ensure that it is fulfilling its original intended function.

Payment to the producers will be made in two phases. First, the county will make an initial payment upon completion of Phase II, assuming the county verifies that the results of the project align with what was proposed. At this point, the maintenance costs for a two-year maintenance period are withheld. The county will disburse the remainder of the contract funds to the producer at the end of a two-year term of Phase III, assuming the results and site of the stormwater quality improvement projects have been maintained.

Results

Proposals received included stream restoration, stormwater facility retrofits, septic-to-sewer conversion, and reforestation. Cycle one treated approximately 188 acres for $3.8 million, and cycle two treated approximately 113 acres for $1.7 million. Implemented projects have shown a reduction in the cost per acre for several types of stormwater projects[31].

Resources

- Anne Arundel County RFP for Full Delivery of Turnkey Water Quality Improvements[17]

Chester Stormwater Authority[27]

Purpose

The Stormwater Authority of the City of Chester, Penn. (CSWA) developed a CBP3 with a private partner (Corvias) to build and maintain up to $50 million in green stormwater infrastructure over 20 - 30 years on approximately 350 acres. The program seeks to address significant pollution and flooding issues, improve neighborhood quality of life, assist small, minority-owned businesses, and drive economic growth, including significant job creation and cost savings to capital improvement efforts in the region.

Structure

The CBP3 developed by CSWA uses the design-build-finance-operate and maintain approach to achieve triple bottom line benefits through a 30-year contract. U.S. EPA (Region 3 and Headquarters) is providing more than $150,000 in technical and planning assistance, and the Chester Water Authority (CWA) matched the EPA technical and planning assistance funds with a $50,000 grant. PENNVEST, Pennsylvania's infrastructure investment authority, has announced a $1 million planning/pre-construction grant to support the initial $11 million-$15 million of green street projects in Chester.

Results

The newly formed CSWA has 1) successfully established a stormwater utility fee based on impervious coverage by parcel, 2) established a comprehensive inlet cleaning and repair program of over 1,500 inlets across the city and 3) closed on $11 million of state revolving fund loans for the initial green infrastructure projects scheduled to break ground in early spring.

Resources

- RFQ/RFP for Establishing a CBP3 for the Stormwater Authority of the City of Chester, PA[28]