



EQUITY GUIDE for Green Stormwater Infrastructure Practitioners



the **green** infrastructure
leadership exchange



Welcome

The Equity Guide for Green Stormwater Infrastructure Practitioners is a resource developed by and for green infrastructure program managers representing local public sector stormwater management organizations across the United States and Canada. It offers an action and evaluation roadmap that defines:

1. our industry's shared long-term equity goals,
2. best practices that will move the needle, and
3. sample metrics that help us track progress toward those goals over time.

It also offers a variety of tools to support practitioners in customizing community-informed equity work plans and evaluation plans to local contexts.



ACKNOWLEDGEMENTS

Thank You



This guide would not have been possible without the committed support of the following.

GREEN INFRASTRUCTURE LEADERSHIP EXCHANGE | Project Manager

Green Infrastructure Leadership Exchange (the Exchange) strives to accelerate the affordable and equitable implementation of green stormwater infrastructure throughout North America by supporting peer learning, innovation, and collaboration among cities, counties, and local public sector stormwater management organizations. The Exchange is a highly connected peer learning network that offers a platform for practitioners to share experiences, circulate ideas, and solve problems together toward finding more sustainable water infrastructure solutions. The Exchange is a project of the Global Philanthropy Partnership. For more, visit giexchange.org.

GREENPRINT PARTNERS | Lead Author

Greenprint Partners (WBE, B-Corp) is a green stormwater infrastructure project development and consulting firm. Greenprint collaborates with water management leaders nationwide to deliver equitable, community-driven, multi-benefit green infrastructure on public and private property. Greenprint's team of urban planners, engineers, landscape designers, community organizers, and finance professionals are on a mission to get the most good out of green infrastructure. For more, visit greenprintpartners.com.

Statements and views expressed in this guide are solely those of the authors and do not imply endorsement by the Global Philanthropy Partnership.

Project Team

Beatrice Ohene-Okae, Washington D.C. Department of Energy & Environment | **Project Lead**
Stephanie Chiorean, Philadelphia Water Department
Wendy de Hoog, City of Vancouver
Meghan Hazer, City of Baltimore
Sarah Kristi Lone, City of Vancouver
Irene Ogata, City of Tucson
Julie Owens, City of Atlanta
Liz Svekla, Philadelphia Water Department
Paula Conolly, Green Infrastructure Leadership Exchange
Kasey Armstrong, Green Infrastructure Leadership Exchange

Dedicated Reviewers

Stephanie Chiorean, Philadelphia Water Department
Sarah Kristi Lone, City of Vancouver
Brian Mickelson, Seattle Public Utilities
Lisa Sasso, Milwaukee Metropolitan Sewerage District

ACKNOWLEDGEMENTS

Thank You



SPECIAL THANKS

Contributors

Abigail Langston, PolicyLink and The National Equity Atlas

Jen McGraw and Drew Williams-Clark, Center for Neighborhood Technology (CNT)

Interview and Focus Group Participants

Public Sector Stormwater Management Organizations and Consultants: Atlanta Watershed Management Department, Baltimore Department of Public Works, City of Vancouver, Jacobs Engineering Group, King County, Metropolitan Planning Council, Metropolitan St. Louis Sewer District, Philadelphia Water Department, Seattle Public Utilities, The Nature Conservancy, and Washington DC Department of Energy and Environment.

Community-Based Organization Focus Groups

- Baltimore: China Boak Terrell, American Communities Trust; Leanna Wetmore, Watershed Partnership of Baltimore
- Chicago: Anna Wolf, Drew Williams-Clark, Jen McGraw, Marcella Bondie Keenan, Center for Neighborhood Technology; James Patchett, Thomas Price
- Milwaukee: Aaron Saeugling, Milwaukee Water Works; Joe Fitzgerald, Milwaukee Water Commons
- Seattle: Ruben Bertoni, Environmental Coalition of South Seattle
- Tucson: Adam Schwartz, Primavera Foundation; Flor Sandoval, Tucson Water Rebate Program
- Vancouver, BC Focus Group: Carmen Rosen, Still Moon Arts; Celia Brauer, False Creek Watershed; Deborah Carlson, West Coast Environmental Law; Deborah Harford, Simon Fraser; Shahira Sakiyama



08 **Introduction**

12 **Part 1: Setting the Stage**

[How Green Infrastructure Can Advance Equity](#)

[The Roles We Play in Advancing Equity](#)

[How to Approach Evaluation](#)

23 **Part 2: Using this Guide**

31 **Part 3: The Seven Equity Goals**

34 **Goal 1: Internal Readiness**

[The Goal, Why This Matters, and Long-Term Goals](#)

[Best Practices](#)

[Evaluation Roadmap](#)

[Bright Spots](#)

[Further Reading + Resources](#)

43 **Goal 2: Centering Community**

[The Goal, Why This Matters, and Long-Term Goals](#)

[Best Practices](#)

[Evaluation Roadmap](#)

[Bright Spots](#)

[Further Reading + Resources](#)

54 **Goal 3: Siting + Investment**

[The Goal, Why This Matters, and Long-Term Goals](#)

[Best Practices](#)

[Evaluation Roadmap](#)

[Bright Spot](#)

[Further Reading + Resources](#)



60 **Goal 4: Benefits-Driven Project Development**

[The Goal, Why This Matters, and Long-Term Goals](#)

[Best Practices](#)

[Evaluation Roadmap](#)

[Bright Spot](#)

[Further Reading + Resources](#)

68 **Goal 5: Economic Stability**

[The Goal, Why This Matters, and Long-Term Goals](#)

[Best Practices](#)

[Evaluation Roadmap](#)

[Bright Spots](#)

[Further Reading + Resources](#)

76 **Goal 6: Preventing Displacement**

[The Goal, Why This Matters, and Long-Term Goals](#)

[Best Practices](#)

[Evaluation Roadmap](#)

[Bright Spots](#)

[Further Reading + Resources](#)

85 **Goal 7: Programs + Policy**

[The Goal, Why This Matters, and Long-Term Goals](#)

[Best Practices](#)

[Evaluation Roadmap](#)

[Bright Spots](#)

[Further Reading + Resources](#)



93 **Appendices**

[Appendix A: Equity Statement of Purpose](#)

[Appendix B: The State of Equity Practice in Public Sector Green Infrastructure](#)

[Appendix C: Definitions - Fostering a Shared Language](#)

[Appendix D: Literature Review + Community Interviews](#)

[Appendix E: Centering Community Workbook](#)

[Appendix F: Decision-Making Checklist for Program Managers](#)

[Appendix G: Decision-Making Checklist for Organizational Leaders](#)

[Appendix H: Long-Term Equity Indicators](#)

[Appendix I: Metrics Spreadsheet](#)

[Appendix J: Retrospective Project Assessment](#)

[Appendix K: The Seven Equity Goals Visual](#)

[Appendix L: Choosing Goals Self-Assessment](#)

[Appendix M: Choosing Goals Self-Assessment Workshop Agenda](#)



The Equity Guide for Green Stormwater Infrastructure Practitioners is a resource developed by and for green infrastructure program managers representing local public sector stormwater management organizations across the United States and Canada. It offers an action and evaluation roadmap that defines: our industry's shared long-term equity goals, best practices that will move the needle, and sample metrics that help us track progress toward those goals over time. It also offers a variety of tools to support practitioners in customizing community-informed equity work plans and evaluation plans to local contexts.

This Guide was developed for the Green Infrastructure Leadership Exchange (the Exchange), a membership organization that represents more than 60 of our fellow public sector stormwater management organizations across North America. One of the Exchange's member-led initiatives is to create resources that support equity advancement. This long-term focus has led to several outputs that grow the industry's equity toolkit.

- In 2020, the Exchange's Equity Learning Circle undertook a Collaborative Grant project that explored the question "what is the relationship between equity and green infrastructure?". The resulting **Equity Statement of Purpose** ([Appendix A](#)) defines the types of equity that green infrastructure can seek to advance and serves as a foundation and inspiration for the network. It offered a definition of equity as "The state in which one's race, economic status, zip code, and other forms of personal and community identities do not define one's privilege or oppression", and illuminated four types of equity that tie closely to green infrastructure planning and development: spatial equity, identity equity, process equity, and power equity, all of which are presented in [Appendix C: Definitions: Fostering a Shared Language](#) with additional definitions of equity.
- In 2021, the Equity Statement of Purpose led to the development of **The State of Equity Practice in Public Sector Green Stormwater Infrastructure** ([Appendix B](#)) that evaluated opportunities and barriers to advancing equity in green infrastructure. The report found that public sector entities across the United States are recognizing the potential for green infrastructure to deliver beyond water quality and quantity outcomes. Green infrastructure is increasingly seen as an approach that, if intentionally co-designed and monitored to do so, can also contribute to equity outcomes in communities. However, key barriers like staff time will require a concerted investment of resources to overcome. The report found that investing in capacity building and leadership development, supporting practitioner networking opportunities, expanding innovative funding partnerships, and supporting continued investment in equity research are key opportunities to pursue.
- In 2022, these findings led to publication of this **Equity Guide for Green Infrastructure Practitioners** to help actualize the recommendations from the practitioner community. The Guide directly advances the recommendations of the *State of Equity Report* by building staff capacity, enriching the community of practice, and contributing to research and socialization of findings.



Intended Audience and Scale for the Guide

ORGANIZATIONAL AUDIENCE

Local public sector stormwater management organizations that the Exchange serves.

INDIVIDUAL AUDIENCE

Green infrastructure program managers and their supporting teams.

This Guide recognizes that program managers do not have jurisdiction to holistically address every goal, but they can nonetheless set the wheels in motion for best practices that are out of their purview.

PROGRAM SCALE

Enclosed recommendations are intended to be used at the green infrastructure program scale, defined as the collection of projects, policies, and initiatives that a stormwater management organization undertakes to implement green infrastructure.

This Guide recognizes that green infrastructure programs vary greatly because of different drivers, regulatory environments, goals, budgets, and timelines. This guide provides a flexible framework so that communities can customize their equity approach based on their specific circumstances; the recommendations seek to be comprehensive and because of that, they cannot serve as a 'one size fits all' approach.

Author's note: Throughout this document, the use of pronouns "we" and "our" refers to the group of individual stormwater management organization program managers across North America who are collectively seeking to advance equity through our green infrastructure policies, programs, and projects. We are a community of practice, never alone in this important work.



As a community of practice, we intend to use this Guide to:

Ground Ourselves in Research. The project team reviewed and summarized guidance from 80 published sources, spanning peer-reviewed literature and published plans and tools produced by practitioners and national organizations like the US Water Alliance. The project team also interviewed 64 people across 10 teams of green infrastructure practitioners and 11 clusters of community leaders in Seattle/King County, Chicago, Baltimore, Tucson, Milwaukee, Atlanta, Vancouver, DC, Buffalo, St. Louis, San Francisco, and Philadelphia. The resulting *Literature Review + Community Interview Summary* grounds the Guide in best practices, bright spots, and case studies from across North America.

Guide Resources

- Literature Review + Community Interview Summary ([Appendix D](#))
- Best Practices (Goals 1-7)
- Bright Spots (Goals 1-7)

Create a Shared Language. The Guide reaffirms our shared definitions of equity and offers context on the ways green infrastructure can advance equity. It organizes the wealth of research into seven foundational equity goals that can be advanced through best practices and measured through the associated evaluation roadmap. Key equity concepts are clearly and concisely defined throughout to advance our shared language.

Guide Resources

- How Green Infrastructure can Advance Equity ([Part 1](#))
- The Roles We Play in Advancing Equity ([Part 1](#))
- The Seven Equity Goals ([Part 3](#))
- Definitions: Fostering a Shared Language ([Appendix C](#))

Turn Insight into Action. The project team distilled insight gained from research into actionable tools that help stormwater management organization practitioners create a customized plan for advancing equity at our own individual pace and from our own individual context.

Guide Resources

- Choosing Goals Self-Assessment ([Appendices L and M](#))
- Charting a Course ([Part 2](#))
- Centering Community Workbook ([Appendix E](#))
- Decision-Making Checklist for Program Managers ([Appendix F](#))
- Decision-Making Checklist for Organizational Leaders ([Appendix G](#))



Measure Impact Consistently. The project team leveraged best practice models from the impact evaluation world, organizing metrics through a “logic model” framework and crafting indicators that are SMART (Specific, Measurable, Achievable, Relevant and Time-Bound). Next, the project team consulted with The National Equity Atlas to help contextualize green infrastructure indicators within accepted measures for advancing equity across all sectors. The proposed metrics and data collection guidance offer insight at the project, program, policy, and organizational levels. They collectively help us understand and assess the extent to which we are considering equity in our green infrastructure work.

Guide Resources

- How to Approach Evaluation ([Part 1](#))
- Evaluation Roadmaps (Goals 1-7)
- Long-Term Equity Indicators ([Appendix H](#))
- Metrics Spreadsheet ([Appendix I](#))
- Retrospective Project Assessment ([Appendix J](#))

Grow our Community of Practice. The process of contributing and implementing recommendations supports the community of practice created by the Exchange’s Equity Learning Circle. It offers a shared language, shared ways of thinking, and moves us toward a shared industry benchmark (a core effort of the Exchange’s [State of Equity Practice in Public Sector Green Infrastructure](#) report). This community of practice also supports the Exchange’s dedication to facilitating peer learning as individual local public sector stormwater management organizations work together to implementing these practices.

PART 1

SETTING THE STAGE

How Green
Infrastructure Can
Advance Equity

The Roles We Play in
Advancing Equity

How to Approach
Evaluation





Green infrastructure can be a powerful lever for advancing equity.

The growth in the use of green infrastructure for stormwater management in the U.S. offers tremendous potential to contribute to a more equitable future in which one's race, economic status, zip code, and other personal and community identities do not predict one's quality of life. Through the use of nature-based and nature-mimicking solutions to manage stormwater where it falls, a green infrastructure approach to stormwater management often changes the visible, physical environment. When thoughtfully designed, it can simultaneously reduce residents' exposure to harm (such as polluted water, localized flooding, severe heat, poor air quality, and blight that invites crime and communicates worthlessness) and increase their opportunities to thrive (through visible investments that communicate worth and increased access to naturalized spaces that support health). It is an approach that—when developed with community as the co-authors and co-builders—can elevate the power communities have to shape their own future and build their economic vitality. However, pursuing green infrastructure without community at the center can lead to missed opportunities, displacement, and repeating infrastructure mistakes of the past that deepen inequities.

The causes of inequity are many, multi-layered, and deeply entrenched. It is not possible for green infrastructure practitioners to solve inequity on our own, but it is possible for us to make intentional and meaningful contributions to progress. Well-designed and deliberately managed green infrastructure programs can make direct contributions to equity in the following concrete ways:

1. Expand nature in communities. Nature, in the form of usable or visible green space creates myriad benefits that we all need, such as cleaner air, soil and water, improved mental and physical health, and improved public safety and community relationships. Green infrastructure practitioners can bring desired high quality vegetation, habitat, and biodiversity into those that need it most.

2. Increase resilience to climate hazards. Low-income communities and communities of color are disproportionately impacted by increased flooding, drought, water pollution, extreme heat, and poor air quality, all of which are accelerating. Well-designed green infrastructure that reflects strong community involvement can help mitigate these conditions.

3. Improve properties. Public and private property within neighborhoods that experience deep inequities are more likely to be underinvested and in need of repair. Green infrastructure investments create opportunities to improve properties by adding landscaping and catalyzing or supporting the replacement or repair of streetscapes, parking areas, and abandoned playgrounds.

4. Invest in economic stability. Infrastructure development and maintenance create jobs that can be directed to local workers and owners. Projects can also be sited and designed to support struggling economic corridors and stabilize property values in shrinking communities.



5. Create spaces that facilitate community cohesion. Green infrastructure investments can lead to the creation of meaningful public and cultural spaces that help anchor and strengthen the community.

6. Increase community participation and power. Every opportunity to invite community members to the table in making decisions about their future is an opportunity to build equity. The process to develop and implement green infrastructure projects can serve as a vehicle to increase underengaged community stakeholders' access to—and influence over—decision-making and hone their skills in asserting needs and aspirations. Inclusive public outreach and engagement for green infrastructure investments can be a particularly effective means of building community ownership, especially for those projects with visible benefits to the built environment.

7. Build trust and acknowledge past harms. The belief that our voices matter, that our country and our neighborhoods are being shaped with us and our needs in mind, is a fundamental part of a state of equity. That belief only comes when decision-makers are willing to hear and acknowledge both the mistakes and intentional harms that have led to our current state of inequity. As practitioners, we have an opportunity to chart a different and more equitable path, and build trust by authentically believing that the voices of people who have historically been silenced matter, and inviting them into the process of co-creating the green infrastructure projects that will shape their neighborhoods.

There are barriers that will make our work challenging. We'll be more likely to succeed if we anticipate them. We are starting from where we are, as that's the only place from which we can start. From this place, we face barriers within ourselves and the society that has shaped us, within the communities we belong to and support, and within the institutions and political environments that we inhabit.

Personally, we must wrestle with our own internalized biases. We can do so without shame or blame, but with a willingness to honestly see them, name them, and commit to changing them. The good news is that there are resources available: from excellent books and films, to accessible online communities, to friends and colleagues (though we must take care not to make those who have been marginalized also responsible for our education).

Institutionally, we must navigate our limited resources, constrained budgetary environments and already overwrought staff workloads. If we have leadership that is committed to equity, working through these constraints will be easier, but many of us also face a lack of support from leadership.

Externally, we confront the mistrust that communities hold for those in positions of public and private power, and the realities of community members' lived experiences. Many are tired of the decades of broken trust, of developments that claimed to serve their interests but only served to displace them and cater to others who would come to take their place.



Pursuing equity is a collective responsibility, one that we ALL have a long road ahead to fulfill.

As a society, we are staring down the daunting task of overcoming and reversing hundreds of years of inequitable practices and attitudes. As practitioners who are deeply and authentically committed to changing the future for the better, we want to “get it right”, but in this case, that requires climbing a mountain that we can only now see on the distant horizon. We are just setting out through the foothills, the load we’re carrying is heavy, and we don’t fully know what the journey ahead will require of us. The guidance provided here will need to be refined and improved as we journey together, testing out the gear we brought with us and fashioning new tools along the way that are more effective and powerful.

The contributions that we as green infrastructure practitioners can make to equity don’t come anywhere close to the totality of what needs to be done. Achieving equity is a shared responsibility that will require bold leadership from every level of government, every sector of society, and every individual holding ourselves accountable for dismantling the beliefs, behaviors, and systems that have created and sustain our current state.

Green infrastructure practitioners can seek to maximize our contributions with the resources we have, and also to collaborate and coordinate with others within and across our institutions. Equity has now become a widely shared priority, spurring serious planning efforts at every level of government and private sector leadership. In most cases, these efforts are still too fresh for deep alignments across organizations and sectors to have emerged. Ideally, our goals and action plans would be in dialogue with one another and green infrastructure practitioners would be able to look to organization- and city-wide guidance and shared evaluation frameworks to help ensure we’re all moving in the same direction. Some excellent examples of that are emerging, such as the work of the City of Seattle, profiled in a bright spot.

Whatever level of alignment our individual communities have achieved so far, this Guide encourages us to simultaneously lead from where we are, and foster deeper convergence around equity goals.



While the Guide is written explicitly for and by green infrastructure program managers, equitable green infrastructure development requires alignment, coordination, and collaboration with three groups

1. **Internal Advocates: Build consistent levels of internal commitment to equity among leaders and workers at the public sector stormwater management organization.** The Government Alliance on Racial Equity (GARE) underscores the importance of building internal buy-in among leadership and staff in [Racial Equity: Getting to Results](#) to achieve and sustain institutional transformation. Leadership buy-in is critical to avoid the staff burnout that comes with spearheading institution changes without the necessary resources and support. Staff-wide buy-in is critical to coordinate successful on-the-ground delivery of changes. Part of this alignment process may include forming, activating, and sustaining a Racial Equity Core Team, a powerful ingredient for success in implementing organizational changes according to GARE ([Racial Equity Core Teams](#)). For additional guidance on this topic, see the Internal Readiness goal.
2. **Implementation Teams: Foster deep alignment among green infrastructure implementation teams.** Most green infrastructure programs and projects bring together a core team of stormwater management organization staff; third-party consultants and developers who are responsible for sourcing, managing, and delivering projects; and a broad range of property owners and property managers that host the infrastructure. After the stormwater management organization has successfully created internal alignment that shapes equitable policies, programs, and project guidelines, it's critical to gain alignment among green infrastructure implementation teams. To the extent that project delivery supports it, each of these core players can and should a) be aligned on equity as a top priority, b) clearly understand their role in advancing equity, c) clearly understand the best practices they can use to advance equity, and d) deliver effectively on these values to drive concrete equity value through the green infrastructure program/project lifecycle.
3. **External Stakeholders: Engage a broader set of stakeholders to maximize community benefits.** Equitable green infrastructure cannot be delivered by a siloed organization because green infrastructure offers many neighborhood quality of life benefits that residents, businesses, and their political representatives care deeply about: climate resilience, flooding management, access to green space and tree canopy, traffic safety, and more. Therefore, a broad group of stakeholders should be involved in envisioning green infrastructure and holding us accountable to delivering on that vision to the extent practicable. We need to invest in understanding our stakeholders, from elected officials, to community-based organizations, to philanthropic partners, and more, in order to engage productively with each group. The tables on the following pages identify key roles, their potential motivators and responsibilities, the levers they have at their disposal, and how they can be most effectively engaged. The tables draw on content from GARE publications, the Georgetown Climate Center [Equitable Adaptation Legal and Policy Toolkit](#), and the broader Literature Review and Community Interviews conducted.

SETTING THE STAGE

The Roles We Play in Advancing Equity



Group 2: Implementation Teams

ROLES	MOTIVATORS + RESPONSIBILITIES	LEVERS	ENGAGEMENT
Consultants and Project Developers	Offer professional services to support various aspects of green infrastructure planning and delivery	Offering technical expertise, support services, and added capacity to enable programs and projects to achieve objectives	<p>Invite private sector partners along on the stormwater management organization's Internal Readiness journey to build their capacity and commitment to equitable practices</p> <p>Hold all private sector partners accountable to equity principles and practices prioritized for implementation</p> <p>Align incentives around the equitable outcomes desired</p>
Private Property Owners (e.g., commercial, institutional, and residential)	Cost effective landscape management, landscaping that supports site uses, curb appeal, property damage risk reduction	Offering spaces for green infrastructure installations	<p>Develop program models that overcome barriers to equitable participation</p> <p>Encourage property owners to consider designs that offer the public visual and/or physical access to the green infrastructure</p> <p>Encourage property owners to consider designs that maximize quality-of-life outcomes for their surrounding community</p> <p>Encourage property owners to engage their broader community in planning, design, and celebration</p>
Public Property Managers (e.g., Department of Transportation, Public School Districts, Park Districts, etc.)	<p>Cost effective landscape management, landscaping that supports site uses, curb appeal, property damage risk reduction</p> <p>Utilize public funds responsibly and equitably</p>	Offering spaces for green infrastructure installations	<p>Develop program models that overcome barriers to equitable participation</p> <p>Encourage property owners to consider designs that offer the public visual and/or physical access to the green infrastructure</p> <p>Encourage property owners to consider designs that maximize quality-of-life outcomes for their surrounding community</p> <p>Encourage property owners to engage their broader community in planning, design, and celebration</p>

SETTING THE STAGE

The Roles We Play in Advancing Equity



Group 3: External Stakeholders

ROLES	MOTIVATORS + RESPONSIBILITIES	LEVERS	ENGAGEMENT
Jurisdictional Agencies, Departments, and Elected Leaders			
Jurisdictional Agencies and Departments	Serve the public by meeting their individual agency/departmental mandates cost effectively and equitably	Designing, budgeting for, and implementing policies, programs, and projects related to their individual mandates	<p>Look for common ground where policies, programs, and projects can support one another in ways that increase equity (e.g., siting green infrastructure on public affordable housing properties)</p> <p>Build relationships with counterparts at other departments and agencies and look for opportunities to collaborate</p>
Elected Officials	<p>Understand constituent opinions so that they can be reflected in decision-making</p> <p>Understand key issues to ensure informed decision-making</p> <p>Make good decisions to retain public office</p>	<p>Directing and voting on agency priorities, work plans, and budgets</p> <p>Using public platform to provide political commentary, which shapes public opinion</p> <p>Individually engaging with voters to help shape public opinion</p>	<p>Provide high-level information in a way that resonates and is accessible</p> <p>Touch base at key points throughout project or program design and implementation</p> <p>Bring influential stakeholder groups to elected officials as needed to ensure diverse perspectives are heard</p>
Community Stakeholders			
Residents / General Public	<p>Protect and enhance neighborhood quality of life</p> <p>Mitigate climate threats, such as flooding, damage from extreme weather, and heat, to private property</p>	<p>Voting for elected officials who reflect their priorities and beliefs</p> <p>Voting to pass referenda that support green infrastructure programs</p> <p>Vocalizing their support or opposition</p>	<p>Share information and gain input via stormwater management organization- and CBO-hosted meetings. Ensure that content is accessible and relates to the audience</p> <p>Communicate information and opportunities using a variety of means, including mailers, online, flyering, etc.</p>

SETTING THE STAGE

The Roles We Play in Advancing Equity



ROLES	MOTIVATORS + RESPONSIBILITIES	LEVERS	ENGAGEMENT
Community Stakeholders (continued)			
Community-Based Organizations	<p>Understand and advocate for resident opinions and concerns</p> <p>Build trusting relationships with community</p>	<p>Mobilizing residents to take action that will influence decision-makers</p> <p>Directing resources and opportunities to residents</p>	<p>Build relationships with CBOs as key partners and compensate them for time and expertise</p> <p>Attend meetings to simply be present and listen</p> <p>Equip CBOs with information to disseminate to residents. When possible, seek cooperation of CBOs to solicit input from residents on key initiatives</p> <p>Consider working with CBOs to help site green infrastructure</p>
Community Leaders	<p>Understand and advocate for resident opinions and concerns</p> <p>Build trusting relationships with community</p>	<p>Lifting up stakeholders and organizations best suited to inform stormwater management organization processes</p> <p>Mobilizing residents to take action that will influence decision-makers</p> <p>Directing resources and opportunities to residents</p>	<p>Build relationships with community leaders as key partners and compensate them for time and expertise</p> <p>Equip community leaders with information to disseminate to residents</p> <p>Consult community leaders to know which organizations and community members should be involved in green infrastructure planning and implementation.</p>
Local Community Businesses	<p>Offer products and services to the community, which often includes managing a local workforce and serving local residents and businesses</p>	<p>Providing needed products and services for green infrastructure projects</p> <p>Acting as a bridge to channel stormwater investments into local communities through their workforce</p>	<p>Invest in local community businesses (especially BIPoC-owned businesses)</p> <p>Seek opportunities to site green infrastructure on their properties.</p> <p>Direct program and project dollars toward community businesses when procuring needed products and services.</p>

SETTING THE STAGE

The Roles We Play in Advancing Equity



ROLES	MOTIVATORS + RESPONSIBILITIES	LEVERS	ENGAGEMENT
Other Roles			
Local Subject Matter Experts	Offer specialized consulting services	Offering local expertise on a variety of topics (e.g., equitable development, displacement prevention, multicultural outreach, workforce development, housing affordability, health-related co-benefits, etc.) addressed in the Guide	<p>At key points in policy, program, and project delivery, consider consulting with a subject-matter expert who can help bridge knowledge gaps and expand our capacity to build more equitable green infrastructure solutions.</p> <p>Experts can refute or ensure the viability of proposed projects based on the likelihood that the ideas can achieve the intended outcomes</p>
Facilitators	Offer professional expertise in meeting facilitation, including developing meeting agendas and leading and moderating discussions, and providing a record of the process	Effectively creating communication channels at points where a diversity of perspectives are coming together	At key points in policy, program, and project delivery, consider retaining a professional facilitator to help participants navigate the process of coming together around a common goal
Philanthropy	<p>Leverage several capital types (e.g., grants, PRI, MRI) to achieve investment and mission/impact goals</p> <p>Identify opportunities to pool their resources with other sources (e.g., match funds) to amplify impact</p>	Offer bridging/matching financial resources to support specific elements of a green infrastructure program or project	<p>Understand the landscape of local and national philanthropies with ties to green infrastructure and build relationships with program officers</p> <p>Identify opportunities to submit funding proposals (and build capacity for local CBOs to submit funding proposals) that resource community engagement, place-making, and other efforts that enhance the equitable delivery of green infrastructure.</p>



How to Approach Evaluation

This Guide is packed with recommended best practices for how we can proactively advance equity through our work and these best practices are paired with suggested approaches and metrics for evaluating progress and impact. The Guide offers a coherent and idealized set of metrics (sourced from the literature review and practitioner and community interviews) in order to advance a consistent approach to naming what matters, measuring our collective progress, and having a shared language with which to dialogue and learn together.

The Guide is intended to prompt coordinated reflection, planning, and customized application of these ideas for our individual organizations and communities. Let's commit to proactively communicating with each other about what we're wrestling with, how we ultimately choose to move forward, and what does and doesn't work for our teams. We will get better together.

Implementing with all of these goals and metrics in mind is likely to feel overwhelming, whether we work in a large agency with sophisticated data collection and analytical capabilities or a small agency with very little of this capacity. Many of us are just beginning to get our team's heads around some or all of the practices and securing the resources needed to implement them. And, each of our plans and associated metrics have to be customized to our individual organizations and the communities we serve. It helps to approach evaluation and metrics with resolve, patience, and transparency to our stakeholders about our capacity and that progress may take time to be reflected in the numbers.

Here are some tips for how to approach setting up an evaluation plan:

- **Use the suggested metrics to catalyze conversations that clarify our goals.** See metrics first as a tool for creating clarity on our goals, seeing clearly how we're doing against those goals, and spurring learning and team and community alignment in pursuit of doing better. Seen in this light, the metrics should not be taken verbatim, but should provoke clarifying conversations: How would we translate this into our work? Is this the most meaningful indicator of our success in the near-term, mid-term, long-term? We will find that debating the metrics leads to more clearly articulating not only the metrics that matter, but the goals and strategies that achieve them.
- **Bring our communities along to help prioritize and refine the goals, strategies, and metrics that matter most.** As we engage the conversations above, we center community in them right away to ensure that we're building around true community priorities. We need to get clear first on how our team understands the rationale and approach for defining metrics so that we can be clear in articulating our purpose and make good use of community members' time, but we should not seek to define our goals and metrics in advance. We come to these conversations with questions



rather than answers and with the confidence that our transparency and authenticity will build trust (yes, this opens the door to risks too, but the opportunity to do better by the community and to build trust along the way is too valuable to pass up).

- **Not all of the metrics will be appropriate for our organization immediately.** The recommended metrics represent a comprehensive approach to evaluation. Most organizations will need to adopt a scaled back and staged approach to evaluation, selecting a reduced set of goals, strategies, and associated metrics that we can be successful with and then grow over time.
- **It's not all about the numbers.** There's danger in focusing too exclusively on the numbers as our signals of progress. They are intended to be indicators that help signal concretely whether our efforts are working, but the full spirit of achieving equity can't be feasibly captured in the numbers alone. We need to interpret numbers in conversation, surface intuition, and anecdotes about the general direction of change - we may actually be doing better than the numbers indicate, or they may gloss over deep challenges that are holding us back. Bring in *qualitative* data as well - e.g., interviews/focus groups, internal team meetings, and anecdotes of experiences with the community. Also, leverage *process* evaluation approaches to foster a culture of learning and continuous improvement. Consider questions like: Did we write the action plan? Did we implement what we committed to? Why or why not? Did we debrief as a team after key community meetings to extract lessons learned and real-time course corrections? What did we learn from the deliverable we just finished?
- **It's better to have a little data that we'll use than a lot of data that we won't.** Resist the temptation to get *all* the data. Perfection is not the point and is likely to create burn out and stand in the way of progress. Prioritize collecting data on a small number of the most meaningful and feasible metrics and seeing the full process through of refining those metrics with key stakeholders, collecting quality data that is likely to give real insight, analyzing those data (and disaggregating it to see below the surface), and dialoguing about the results (what does the data actually tell us?) with internal and community stakeholders, and determining appropriate actions that enshrine the lessons the analysis has to teach us in our future path.
- **Gathering data is hard. Develop a feasible plan upfront.** Determining the right source for data is a feat of its own. In developing an evaluation plan, get detailed about what data we will need to have that effectively represents the meaning behind the metric and how we will be able to gather that data. Consider a) what data we already collect; b) what data another agency/department already collects; c) data we'll need to create new mechanisms to collect. These different approaches to data collection require different levels of effort. Aim to select data sets and collection methods that are both as meaningful as possible in expressing the impact we're measuring and as easy as possible to collect and analyze.



PART 2

USING THIS GUIDE

Charting a Course





USING THE GUIDE

Establish Phases: Plan, Do, Check, Act

The recommended process for using the Guide to chart a course to implement each Goal follows a Plan, Do, Check, Act model. This model is widely used in program and project management settings because the cycle of **Phases** encourages continuous, incremental improvement over time. Each green infrastructure program cycle offers the opportunity to create a revised plan, implement the plan, measure success, and apply learnings to help inform a refined plan for future years.

The standard Plan, Do, Check, Act framework forms the outermost ring of the Guide's graphic.



Follow a Recommended Process

Within each Phase of the Plan, Do, Check, Act model is a recommended **Process**. The following pages offer step-by-step guidance on a recommended process to advance each goal and link directly to the Guide Resources that support the process. Throughout, there are prompts for specific actions to take and deliverables to generate.

The headlines of this process form the middle ring.



Use the Resources Developed to Support Each Phase

This Guide offers many individual **Resources** that support our teams in implementing the recommended Process within each Phase.

The relevant Guide resources for each Phase form the innermost ring.

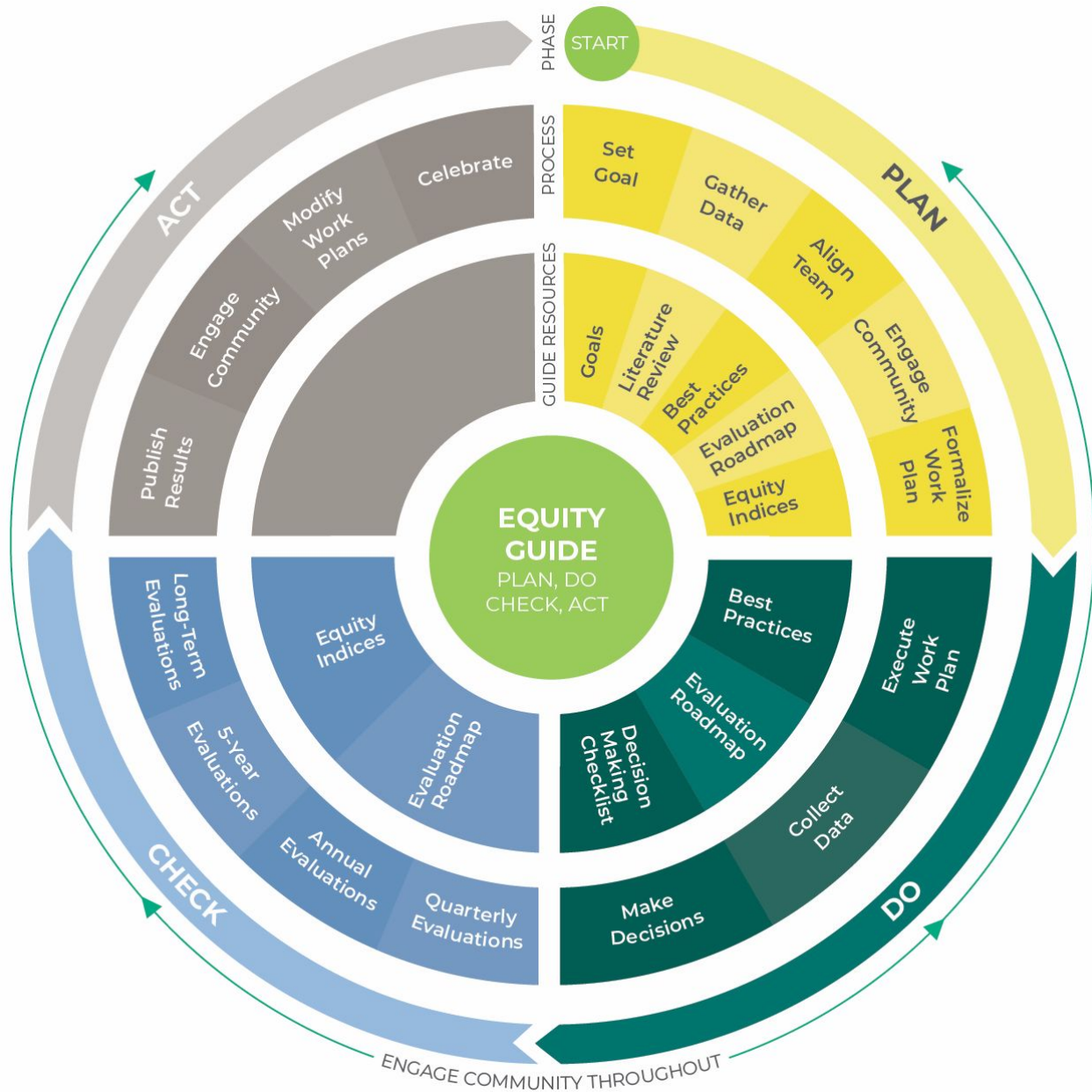


USING THIS GUIDE

Charting a Course



Bringing the **Phase**, **Process**, and **Resources** rings together results in the following graphic which can help visualize how to apply the contents of this Guide to chart a team-wide path to advance each equity goal. As shown in this graphic community engagement should be a *consistent* part of the process throughout every Phase.





Launch the “Plan” phase leading up to the next annual green infrastructure program strategic planning and budgeting cycle. Begin by setting the goal, gathering data, aligning the team, and engaging community so that an Equity Work Plan and Measurement Plan can be adopted within the next planning cycle.

PROCESS

Set Goal

- Engage community stakeholders in the process of prioritizing which equity goal(s) and action(s) we will make measurable progress toward.
- Engage other agencies, departments, and review long term plans to seek areas of alignment that help prioritize equity goal(s).
- Using the community input, broader jurisdictional plans, and an internal assessment of capabilities, select the goal(s) and action(s) within the Equity Guide we will advance and facilitate an internal alignment process. See [Choosing Goals Self-Assessment](#) to help select Goals.

Gather Data

- Review the corresponding section(s) of the **Literature Review** ([Appendix D](#)) to get grounded in research and best practices.
- Review the selected Goal’s corresponding **Equity Guide Section**:
 - **Best Practices.** Investigate the following: What’s already being done relative to these recommended best practices within our department, within our jurisdiction, and within our communities? What new/existing resources will we need to mobilize to successfully initiate these best practices, or expand on current efforts underway? What new best practices are feasible to implement? Which of those will have the biggest impact on equity outcomes?
 - **Metrics and Near-term Outputs:** Is the data needed to measure these suggested metrics currently available to us? Is it available and accessible through another agency or organization? Do new processes or tools needs to be mobilized to enable this data collection? Note: in many cases, meaningful measurement will require new data sources and methods.



PROCESS (continued)

Gather Data (continued)

- Access corresponding data sets from national or local equity indices (e.g., **The Equity Atlas** - See [Appendix H](#) for more details) and consider leading a workshop to discuss that data and its implications for the chosen goal.

Align Internal Team

- Align our team around the selected goal(s), action(s), and data collected to build internal support.

Engage Community

- Gather community stakeholder input on the Equity Work Plan and Measurement Plan, including input on what an effective plan to advance each selected goal should include, and how success should be measured.

Formalize Equity Work Plan

- Build a Work Plan grounded in the **Best Practices** section of the Guide and community input collected. Vet the Work Plan with our team and leaders and create alignment.
- Create an Evaluation Plan to track our success delivering the Work Plan. First, review the *How to Approach Evaluation* section of the Guide, then use the **Near-Term Outputs** in the Guide and community input as a base to create customized near-term outputs to be accomplished. Finally, use the Suggested **Metrics** in the Guide and community input as a base to create customized metrics that will measure mid-term progress over time.
- Assign roles. Decide which team members will be accountable to delivering each element of the Work Plan collecting data to track Near-Term Outputs and Metrics in the Evaluation Plan.
- Establish a budget. Work with leadership to assign budget and staff time to execute the Work Plan and Evaluation Plan.



Most of a typical year will be spent in the “Do” phase where the green infrastructure program team implements the Work Plan established in the “Plan” phase and collects the data required to track performance using the Evaluation Plan.

PROCESS

Execute Equity Work Plan

- As each green infrastructure policy, program, and/or project unfolds, regularly refer to the Work Plan to guide implementation of our team’s selected best practices.
- Host regular check-ins with the team to help hold each other accountable to assigned actions.

Collect Data

- Collect data to track performance as outlined in our Evaluation Plan (e.g., internal data tracking, citizen science initiatives, or others). Many of the suggested methodologies for tracking metrics call for surveys that can be consolidated into larger survey instruments.
- Where appropriate and possible, disaggregate data by race and other prioritized equity factors to help surface areas where specific identities are being marginalized.

Make Decisions

- Use the **Decision-Making Checklist** (see [Decision-Making Checklist for Program Managers](#) and [Decision-Making Checklist for Organizational Leaders](#)) to navigate decisions that emerge along the way.



The “Check” phase happens at regular intervals throughout the year to support mid-stream course correction and at annual, mid-term, and long-term intervals to measure progress over time.

CHECK

Quarterly Evaluations

- Select the reporting rhythm that works best for our organization (e.g., quarterly).
- Review our near-term outputs progress with management.

Annual Evaluations

- Review annual progress against the Evaluation Plan.
- Consider publishing a public version of the annual evaluation and engage community with the report contents (e.g., through a workshop) where success is celebrated, challenges are acknowledged, and feedback is received that could enable us to build trust/relationships, and course correct, if needed.

5-Year Evaluations

- Capture a snapshot of Equity Indicators data from national or local equity indices and benchmark the data against previous years.
- Host a discussion with internal and external stakeholders to reflect on changes in data and ways green infrastructure may be contributing to data shifts.

Long-Team Evaluations

- Implement long-term evaluations that correspond to our long-range plans.
- Consider publishing a public version of long-term evaluations and actively engage community with the report contents (e.g., through a workshop) where success is celebrated, challenges are acknowledged, and feedback is received that could enable us to build trust/relationships, and course correct, if needed.



The “Act” phase focuses the green infrastructure program team on reflection and modification of Work Plans. This is both an internal team process, and also a community- engaged process of understanding what went well, where challenges occurred, and how the next “Plan” phase can build on success and reflect lessons learned.

PROCESS

Publish Results

- At the conclusion of the first Work Plan period, if a public report based on the annual evaluation was not already published, develop a digestible report that highlights the outcomes, including Bright Spots (specific success stories that inspire further action and build support), challenges, and ideas for improvement in the next Work Plan.
- Ensure the report will be available over time.

Engage Community

- Host community workshop(s) to gather feedback.

Modify Work Plans

- Modify our team's work plan based on community input.

Celebrate Results

- Celebrate and publicize successes to build community trust. Acknowledge areas with room for improvement to improve transparency.

*Bolded items are resources within the Equity Guide, including resources developed for the Green Infrastructure Leadership Exchange Equity Working Group and third party resources introduced to the Equity Working Group in 2022.



PART 3

THE SEVEN EQUITY GOALS

Internal Readiness

Centering Community

Siting + Investment

Benefits-Driven Project Development

Economic Stability

Preventing Displacement

Programs + Policies



The Seven Equity Goals

Each of the seven goals reflects an area of our practice that can impact equity. We begin by choosing the goal(s) that make the most sense given where we're at (See [Choosing Goals Self Assessment](#), then build on incremental successes over time. Within each goal, we have best practices, metrics, and data collection suggestions that can be integrated into our efforts at a pace that allows for sustained organizational change and meaningful community participation in the process.

-
- | | | |
|---|-------------------------------------|--|
| 1 | Internal Readiness | Our team understands equity and we are committed and equipped to advance it through our work. |
| 2 | Centering Community | Community members are essential partners and participants in all green infrastructure planning and development. |
| 3 | Siting + Investment | Our project selection approach and investment levels proactively consider potential to advance equity. |
| 4 | Benefits-Driven Project Development | Our green infrastructure projects are designed, constructed, and maintained to provide lasting community benefit. |
| 5 | Economic Stability | Our green infrastructure procurement, employment, and workforce development practices build economic stability and wealth for underinvested communities. |
| 6 | Preventing Displacement | Displacement risk is proactively addressed in all of our green infrastructure programs, policies, and projects. |
| 7 | Programs + Policies | Our green infrastructure policies and program design, management, and reporting structures proactively elevate and drive transparency around equity. |
-





Each Goals Section within the Guide includes the following subsections:

LONG-TERM GOALS. These long-term goals reflect the highest-level intersections between racial equity and green infrastructure. They are not specific to green infrastructure, but best practices aim to influence these over the long-term. They are drawn from the Exchange's *Equity Statement of Purpose* and the National Equity Atlas, as well as from research into documented co-benefits delivered by green infrastructure. Achieving the stated long-term goals will not be possible without buy-in and action across the organization, but program managers can work toward equity advancements that are within their control and hope to catalyze institutional change through their actions. These long-term goals should inform the data we collect as we deliver programs. We can consider accessing and analyzing this publicly available data every few years to assess change, but should bear in mind that (at best) the data can point to correlation, not causation. Read more in [Appendix H: Long Term Equity Indicators](#).

BEST PRACTICES + NEAR-TERM OUTPUTS. The best practices are drawn from the input of the Literature Review, Practitioner Interviews, and Community Interviews ([Appendix D](#)), and framed from the perspective of a green infrastructure program manager whenever possible. The qualitative and quantitative *near-term* outputs measure our success at adopting the best practices that are likely to move the needle on equitable green infrastructure. These near-term outputs are examples and should be vetted with internal staff and community stakeholders to assess data accessibility and relevance to shared goals before we formally adopt and invest in data collection and reporting tools. We can consider assessing progress at regular intervals, such as at annual performance evaluations. The frequency will vary depending on our organizational priorities and operational scale.

EVALUATION ROADMAP. Evaluation and measurement represent a significant investment in time and resources, so we should only measure what truly matters. Through this Guide, we have at our disposal a range of suggested *mid-term* metrics that pinpoint the most substantial indicators of mid-term progress toward more equitable green infrastructure. However, not every stormwater management organization will have the resources and support to implement each metric, so we should prioritize the ones that matter most to our stakeholders and support transparent reporting. Each mid-term metric is accompanied by the rationale for its inclusion, and suggestions of how to collect data. In some cases, the mid-term metrics encompass activities that are outside of a program manager's purview, understanding that advancing and achieving the overarching goals is a collective effort. We may consider collecting and analyzing data annually or every few years to assess change over time.

BRIGHT SPOTS. Each section includes at least one bright spot that demonstrates how one of our fellow stormwater management organizations navigated a shift toward more equitable practices, or implemented a measurement technique. These are intended to inspire and encourage us to replicate each others' successes. The term "bright spots" and the benefits of highlighting them are described further in *The Power of Positive Deviance: How Unlikely Innovators Solve the World's Toughest Problems*.



GOAL 1

INTERNAL READINESS



INTERNAL READINESS GOAL

Our team understands equity and we are committed and equipped to advance it through our work.

Why This Matters

Institutionalizing equitable practices is impossible without a shared team commitment and capabilities to collectively evolve internal culture, policies, and practices.

Long-Term Goal

Staff at all levels of our organization are committed to owning past harms and charting the course to a more equitable future. We fully understand Identity Equity root causes and effects; and we use that knowledge to shape more equitable policies, programs, and projects that advance Spatial Equity, Process Equity, and Power Equity.



INTERNAL READINESS

Best Practices + Near-Term Outputs



Best Practices

Articulate commitment. Encourage leadership to articulate and model a clear commitment to supporting the team's internal¹ work to understand and develop capabilities and commitments for advancing equity. In consultation with department heads and program managers, human resources or other appropriate department(s) should assess the need for and invest in training that supports our team in gaining critical but challenging equity practitioner skills (e.g., holding space for communities to acknowledge current and past harms).

Create safe spaces for honest dialogue. Create safe spaces for our team members to learn about equity and dialogue honestly about it conceptually, professionally, and personally, and encourage agency-wide creation of safe spaces at all levels. Support the creation of affinity groups, which can be an essential resource for those with marginalized identities as organizations are going through equity processes, providing a safe space for those who need it to reflect and strategize on how to communicate issues/thoughts to others in the organization.

Create an action plan. Facilitate a collective internal¹ process to assess past performance related to equity for our program and create and adopt a shared action plan for improving the internal readiness of our team. Implement the plan with key reflection points for our team and individual staff development. Communicate our principles and commitments publicly and with other agencies and departments.

Support the creation of a Diversity, Equity and Inclusion plan. Support human resources and others as appropriate in the development and implementation of a Diversity, Equity, and Inclusion plan to hire and retain an internal¹ workforce that reflects the diversity of the communities we serve, at all levels of positional seniority and compensation.

Track Near-Term Outputs

- ❑ An assessment of past performance and subsequent ambitious, but feasible, action plan for improving internal readiness to center equity in our team's work has been written with staff input and buy-in and its principles have been communicated externally.
- ❑ Affinity groups to represent those with marginalized identities have been endorsed and created as needed to support staff.
- ❑ The internal readiness action plan is being implemented according to schedule and updated as a living document.
- ❑ We created staff KPIs² that correspond to each equity goal when our department launched efforts in that area.
- ❑ A Diversity, Equity, and Inclusion plan was adopted to help our internal¹ workforce reflect the diversity of communities that we serve, at all levels of positional seniority and compensation.



Measure What Matters	Suggested Metric	Data Collection Guidelines
<p>How fluent is our team in equity?</p> <p>Understanding the equity goals of our organization, best practices in applying equity to green infrastructure, and the current and past harms in our community are critical first steps. Measuring the commitment of elected officials and all levels of staff to equity will inform the change management strategies needed to achieve buy-in.</p>	<p>Percent of our management and green infrastructure-relevant staff who demonstrate fluency in and commitment to advancing racial equity and addressing past harms.</p>	<p>Survey Consider an annual staff survey asking team members to rate themselves and our team on level of fluency in and commitment to advancing racial equity.</p> <p><i>*Consider using the Coalition of Communities of Color's Tool for Organizational Self-Assessment Related to Racial Equity.</i></p>
<p>Are we giving equity initiatives the resources they need to succeed?</p> <p>Successfully applying the tools in this equity guide requires protected time to learn, assimilate, and grow as an individual and team, and ultimately change internal¹ processes and track and report the results.</p>	<p>Percent of management and green infrastructure-relevant staff who report they are appropriately resourced to pursue racial equity through their work.</p>	<p>Survey Consider an annual staff survey asking team members to describe resources that are most effective at enabling them to pursue equity work, and what resources our team still needs to meet equity goals. Use insights to update budgets and work plans.</p> <p><i>*Ask about tools, training, and time - a key barrier. (State of Equity Report)</i></p>
<p>Is our team meeting our equity goals?</p> <p>Understanding how many of our team's equity KPIs² are being met or exceeded is a clear topline measure of our equity performance at each moment in time, and over time.</p>	<p>Percent of equity performance KPIs² that all levels of staff meet or exceed.</p>	<p>Customize our team's equity KPIs² based on the suggested Metrics and Outputs for each goal. Track performance across the team, then identify the percentage of KPIs² our team met or exceeded. Refine our Action Plan based on results.</p>
<p>How well does our team represent our community?</p> <p>The representativeness of our team tasked with stewarding public dollars for green infrastructure <i>will</i> impact our success in achieving equitable outcomes. One of the most fundamental ways we can ensure underrepresented groups have a seat at the table is to employ staff that represent these groups.</p>	<p>Percent and number of staff by race, ethnicity and responsibility level as compared to service area (agency-wide).</p>	<p>Desk Review³ Document the percentage of each race/ethnicity represented in each level of staff and compare it to trends in our service area. Discuss why groups are under or overrepresented and work with HR to create an action plan to diversify hiring and shepherd advancement of underrepresented groups.</p>



INTERNAL READINESS

Seattle Public Utilities Bright Spot

“The City of Seattle and Seattle Public Utilities (SPU) are committed to addressing the legacy of systemic racism and injustice in municipal governance. Institutionalized discrimination has led to racialized policy decisions that continue to impact communities of color and low-income communities in significant ways.

SPU’s drainage and wastewater investments in environmental protection and preservation have not benefited all communities equally. Specifically, communities of color and low-income communities have not been able to reap equal benefits from investments in their communities.

These communities experience disproportionate burdens from environmental hazards that can lead to poor health outcomes and many lack access to health-promoting resources. This has caused communities of color and low-income communities to be the most vulnerable to climate change impacts.

Shape Our Water will confront these disparities head-on by prioritizing equitable community health and well-being in planning the next 50 years of drainage and wastewater investments. SPU will center racial equity and the voices of those most harmed by environmental injustice and climate change.”

Excerpt from the Shape Our Water Community Vision



INTERNAL READINESS

Seattle Public Utilities Bright Spot (continued)

Seattle established a citywide effort to end institutional racism in City government, and to achieve racial equity across their community (the “Race and Social Justice Initiative”). This initiative generated a Racial Equity Toolkit for use by all agencies within the City to align their teams around racial equity knowledge and strategies.

To better apply the Toolkit, the agency’s Environmental Justice and Service Equity (EJSE) team works with Seattle Public Utilities (SPU) to realize the goals of the City’s Race and Social Justice Initiative and support SPU in delivering racially inclusive and equitable services. As part of this effort, EJSE stands up several Branch Equity Teams (BET). These teams undergo learning and training, identify opportunities to apply the Racial Equity Toolkit, and develop branch-specific work plans reportable to EJSE. Teams seek to involve staff from across the whole organization and are supported by Deputy Directors who act as Executive Sponsors, providing important backing from leadership. By applying a community-organizing approach to city governance and setting branch-specific goals and work plans, this model helps to effectively ‘move the needle’ towards equity within SPU and provides a path for equity work that is ‘closer to home,’ as goals and work plans become immediately relevant to individual workplaces within the utility.

For SPU’s Drainage and Wastewater line of business, this work has led to a very different 50-year plan for Seattle’s water resilience. The “[Shape Our Water](#)” plan clearly acknowledges the reality and root causes of racial inequity and commits SPU to centering racial equity and the voices of those most harmed by environmental injustice and climate change. Critically, it was co-created by community members, through two years of engagement focused on understanding the community’s vision and goals.

SPU will center racial equity and the voices of those most harmed by environmental injustice and climate change.

A vertical photograph of the Milwaukee skyline is positioned on the left side of the page. It shows various buildings, including a prominent one with a flag on top, and a sailboat with a white sail on the water in the foreground. The image is partially obscured by a dark teal background that covers the right two-thirds of the page.

INTERNAL READINESS

MMSD Bright Spot

The Milwaukee Metropolitan Sewerage District's diversity, equity, inclusion and anti-racism (DEIAR) focus was built out of the organization's leadership concerns regarding the alignment of MMSD's mission, the communities being served, and the diversity of the employees serving those communities. The organization's leadership team determined that to improve the way they support their communities and employees, they needed to invest in building a strong DEIAR culture. Kevin Shafer, the District's Executive Director, opened up his door to employees for one-on-one open conversations on what diversity, equity and inclusion looked like at the District; following those discussions a consultant was brought in to assess and evaluate the District's strong points and areas of needed improvement in the organization's culture. Through documents and data reviews, focus groups, personal interviews, and a web-based survey distributed to 226 District employees, a plan of action was formed to address the areas of concerns regarding the organization's diverse culture.

MMSD's leadership team determined that to improve the way they support their communities and employees, they needed to invest in building a strong DEIAR culture.



INTERNAL READINESS

MMSD Bright Spot (continued)

The survey results proved to be the most beneficial key to start the DEIAR process at the District. Feedback such as employees wanting more education around topics related to DEIAR, the need for advanced training for leadership to address the hard conversations related to DEIAR, holding all employees accountable for changing their behaviors in relation to DEIAR goals and values, and creating a more transparent environment around decision making. Employees also wanted to see more efforts focused on the recruitment of diverse candidates and expand opportunities for advancement to current diverse talent. The DEIAR Council was formed in June 2021 and meets bi-weekly to address the concerns of all employees, implement the recommendations from the consultant and define the District's DEI mission, vision, goals and objectives. The Council is also working with the organization's leadership team to develop a business case and DEIAR strategy that aligns with the District's overall strategy for 2022-2024. Completed activities in 2021 include the development of a DEIAR mission statement, Women's Equality Day clothing drive, Hispanic Heritage Month District celebration, and internal DEIAR portal.

Planned activities for 2022 include: Introduction of a formally defined DEI business case, vision and strategy for the organization; District-wide required DEIAR annual training sessions, required leadership level DEIAR training, ongoing capacity and awareness building activities, and placement of DEIAR goals in annual performance reviews; external community outreach; and development of affinity groups.



FURTHER READING + RESOURCES

See “Internal workplace policies and practices” header within Employment section of *Equity in Green Infrastructure Literature Review and Interview Insights Report* ([Appendix D](#)) for more guidance.

ENDNOTES

¹ **Internal staff:** Local public sector stormwater management organization staff including general management, senior leadership, finance, procurement, planning, design and engineering, and green infrastructure team members who can influence both the decision-making and implementation of green infrastructure programs and projects.

² **Key performance indicators (KPIs):** A measurement of critical metrics that signal progress towards an intended result. KPIs evaluate how far an individual or team has advanced towards successfully achieving a goal. They must be set and determined by the unique management structure of the organization.

³ **Desk Review:** A research and evaluation process that involves collecting and examining already existing and accessible data, such as internal records, published reports, and information in newspapers, magazines, and on the internet.



GOAL 2

CENTERING
COMMUNITY



CENTERING COMMUNITY GOAL

Community members are essential partners and participants in all green infrastructure planning and development.

Why This Matters

Inequity has arisen from exclusion of specific communities in decision-making. The act of inclusion on its own moves us in the direction of equity. Community members who are experiencing (or have historically experienced) inequity are the foremost experts on what needs to change so we can deliver solutions that best meet their needs.

Long-Term Goals

Process Equity increases as more community members gain equal access to government leaders, are consistently engaged, and have overcome barriers that limit engagement. Power Equity increases as all community members share influence and control over resources, problem definition, and solution making. And all community members' expertise is valued in our organizational processes.





Best Practices

Listen first. Be present in communities without asking for anything and listen. Make space for owning past harms.

Develop community collaboration strategy. Pitch, develop, and maintain a community collaboration strategy that combines historical input with refreshed input and review. Design project approaches and budgets to incorporate input from community voices who are compensated and credited for their time and expertise, and are demographically representative of the service area. Accommodate the engagement needs of marginalized groups. Strive to create accessible, relevant, and engaging meeting content and agency deliverables.

Engage upfront. Engage community stakeholders¹ as essential partners in the **upfront** planning, budgeting, and design of as many green infrastructure program plans, policies, and projects as possible, including the original establishment of the green infrastructure program. Share knowledge about green infrastructure and its community benefits.

Track Near-Term Outputs

- ❑ We are tracking the number of meaningful green infrastructure staff engagements with the community that were dedicated to simply being present and listening.
- ❑ Our team has received any training needed to be able to make space for owning past harms.
- ❑ A community collaboration strategy covering program, policy, and project development has been integrated into existing plans, with input and buy-in from our staff and community members, and is regularly updated with refreshed input from representative community voices for each focus geography.
- ❑ The community collaboration strategy is being implemented according to schedule and regularly refreshed.
- ❑ The percent of program budget allocated to community engagement is sufficient to support the community collaboration strategy and to resource community members for their partnership roles.
- ❑ The percent of staff or resourced community leadership time that is dedicated to community engagement is sufficient to support the community collaboration strategy.
- ❑ We are tracking the percent and total number of community stakeholders¹ engaged who represent impacted and underrepresented groups; we are disaggregating the data by race and other prioritized equity factors.⁴
- ❑ We are tracking the percent of stakeholders¹, disaggregated by race and other prioritized equity factors⁴, who report that they were meaningfully engaged in the creation of the plans, policies, and projects and that their priorities were reflected in the final product (or they understood why they weren't).
- ❑ We are tracking the percent of *program and policy planning* processes for which the majority of stakeholders¹, across all race and other prioritized equity factors², report that they were meaningfully engaged as essential partners and participants and publicly acknowledged for their contributions.



Best Practices

Track Near-Term Outputs

(continued)

- ❑ Community-centered green infrastructure plans and policies are completed, published, and made accessible to stakeholders.¹
- ❑ We are tracking the percent of *project planning and design processes* for which the majority of stakeholders¹, across all race and other prioritized equity factors², report that they were meaningfully engaged as essential partners and participants and publicly acknowledged for their contributions.

Engage throughout.

Engage community stakeholders¹ as essential and informed partners **throughout** each program and project lifecycle. Build trust and manage change through consistent engagement and communication. Build capacity for stakeholders¹ to engage more effectively over time, and give public credit to stakeholders¹ for the value they contributed.

- ❑ Full-lifecycle community engagement plans are written for our programs and projects, with input and buy-in from our staff and community members, and are implemented and adapted as needed. Our plans specify the ideal composition and prioritization of stakeholders¹, considering how to ensure deep engagement with those who are most directly impacted and demographically representative of the population served. Our plans specify capacity-building needs, actions, and output measures needed to support stakeholders¹ to engage effectively.
- ❑ The majority of our planned community engagement touchpoints are completed for each program and project.
- ❑ We are tracking the number and percent of engaged stakeholders¹ in populations likely to be impacted by the program or project, disaggregated by tiers of impact (e.g. direct high impact, direct low impact, indirect high impact, indirect low impact), race and other prioritized equity factors², and level of engagement, over the life of the program or project.
- ❑ We are tracking the percent of stakeholders¹, disaggregated by race and other prioritized equity factors⁴, who report their priorities are reflected in each program or project (or they understood why they weren't).
- ❑ We are tracking the percent of stakeholders¹ who report they were satisfied with the methods, frequency, and quality of engagement for each program or project.
- ❑ Community organizations engaged in the development of each project and program are tracked, reported on publicly, and reviewed regularly to inform strategic adjustments to ensure growing representation in who is at the table.
- ❑ The total dollar value and percent of community engagement program and project budget invested in community-based organizations, businesses, and individual community members from the impacted community is increasing.



Measure What Matters	Suggested Metric	Data Collection Guidance
<p>Are we improving community engagement for those that have been historically disengaged?</p> <p>We need to assess whether deep community engagement is being planned for, resourced, and executed in a way that puts representative community stakeholders¹ in the driver's seat.</p>	<p>Cumulative trends from quantitative³ and qualitative⁴ outputs on pages 25-26 across all programs and projects show improvement in community engagement, especially for highly impacted and disadvantaged populations.</p>	<p>Survey The recommended outputs on the following page lend themselves to a mix of staff and participant surveys. Consider pulling data into quarterly or annual dashboards with simple visual indicators (e.g., green, yellow, and red lights) to show the cumulative trends over time.</p>
<p>Are we reflecting disadvantaged communities' priorities in our programs, policies, and projects?</p> <p>Community stakeholders¹ are the best judge of whether their input ultimately shaped our organization's initiatives, so we need to ask <i>them</i> whether we are accepting and integrating input appropriately.</p>	<p>Percent of stakeholders¹, disaggregated by race and other prioritized equity factors², who report that our green infrastructure programs, policies, and projects reflect community priorities to the extent feasible.⁵</p>	<p>Survey Consider including a likert scale⁶ question such as "To what extent does [insert initiative] reflect your priorities?" on a survey distributed to all community stakeholders¹ associated with a given program, policy, or project following the roll-out.</p>
<p>Do the communities we engage feel we value their participation?</p> <p>In order to build trust, community members need to feel that their participation and engagement are valued.</p>	<p>Percent of stakeholders¹, disaggregated by race and other prioritized equity factors², who believe our organization values community participation and engagement.</p>	<p>Survey Consider including a likert scale⁶ question such as "To what extent do you feel your participation was valued by your local public sector stormwater management organization in [insert initiative]" on a survey distributed to all stakeholders¹ associated with a given program, policy, or project following the roll-out.</p>
<p>Are we gaining trust?</p> <p>Tracking changes in trust levels over time will help demonstrate whether efforts to center community are generating results, or stalling out and need new energy or initiatives.</p>	<p>Percent of stakeholders¹, disaggregated by race and other prioritized equity factors², who report they have a trusting relationship with us.</p>	<p>Survey Consider asking this question on an annual survey of all community members impacted by our green infrastructure initiatives.</p>



CENTERING COMMUNITY

Seattle Public Utilities Bright Spot

Shape Our Water, Seattle Public Utilities' (SPU) 50-year strategic plan, aims to be a “catalyst to do things differently” (Shape Our Water). The plan seeks to confront and respond to past harms, particularly systemic racism and injustice, and “shift how projects and programs are designed by moving toward a collaborative planning process that includes communities and cross-sector partners.” This shift began with the making of the Shape Our Water vision itself. To develop the plan, SPU engaged a community team of co-creators who designed and hosted community engagement activities, distilled community values to inform the plan’s goals, and helped develop a community vision for Shape Our Water. Over the course of two years, “community engagement activities were co-created with a variety of community members who shared their expertise in social and environmental justice, public health, storytelling, and sustainability. Shape Our Water prioritized engagement with historically underrepresented Black, Indigenous, and People of Color (BIPOC) groups and worked to incorporate and elevate voices from youth, artists, grassroots organizers, and representatives from community groups.”

Due to the Covid-19 pandemic, the team had to think creatively about how to approach engagement differently. Engagement activities included an informational booklet introducing drainage and wastewater basics, three-part virtual gatherings with national and local thought leaders, lived-experience water stories told by BIPOC community partners and an intergenerational focus group, interactive walking tour maps, a two-day convening with public, private, and nonprofit professionals, and project website that includes opportunities for community input. Activities such as the online informational booklet and virtual tours were done in part because they were what could still be conducted safely. The pandemic also meant that SPU and the community design team had to engage with community based organizations differently. Rather than attending in-person events, they instead gathered community water stories. This ultimately allowed SPU to engage in a way that centered listening first. In the end, the team was able to act nimbly in the face of change and find innovative solutions that still allowed for close, community centered partnership throughout the planning process. As a result, Shape Our Water’s vision and strategic goals are deeply informed by and co-created with the community despite uncertain times. By engaging with many different individuals and community organizations as essential partners upfront, the Shape Our Water vision is a plan by and for those who it impacts most.



CENTERING COMMUNITY

King County Bright Spot

Throughout 2020 and 2021, King County, WA worked with Pyramid Communications, a local consulting firm, to develop a community outreach and engagement strategy designed to better understand White Center/North Highline residents' perspectives and values related to green infrastructure in their community. The goal was to gather key findings from the research process, recommendations for future green infrastructure projects in the White Center/North Highline community, and a path forward for continued engagement.

From September 2020 – May 2021, the team conducted:

1. Preliminary interviews with six key community leaders and stakeholders.
2. A community-wide survey, translated into the four most commonly spoken languages in White Center/North Highline, in addition to English, resulting in 148 total responses.
3. Focus groups, consisting of 13 White Center/North Highline residents who participated in the community-wide survey.

The team began by conducting a series of interviews with key community stakeholders and leaders to obtain an overview of community challenges and priorities within White Center and North Highline. They learned that housing, economic development, and community health were all top priorities. Building on the findings from the interviews, they then fielded an online survey in March 2021 to better define community interest in green infrastructure specifically, and how this work could benefit the community at large. The survey was sent electronically to community members identified through the preliminary interviews, the Department of Local Services, and a post on the White Center Now blog.

Based on survey results, the team then facilitated two focus groups consisting primarily of homeowners in the White Center/North Highline community to further refine and narrow the types and locations of green infrastructure projects the community would most like to see moving forward. All participants were paid for their time and contributions through gift cards that were distributed by Pyramid Communications.

While all participants in this engagement effort shared a great deal of information, King County notes that responses may not fully represent the views of the broader community. Participants for both the survey and the focus groups self-selected and were predominantly white, English speaking homeowners. Efforts were made to reach a demographically diverse set of participants with help from the interview participants, though some methods (e.g., door-to-door interviews) to capture diverse opinions were hampered by COVID-19 restrictions. Nevertheless, this effort presents many lessons learned in engaging community in the upfront planning process.



CENTERING COMMUNITY

Atlanta Bright Spot

Building trusted, authentic partnerships with community is work and takes time. This is clearly illustrated by the decades-long relationship cultivated between Atlanta's Department of Watershed Management (DWM) and community group, the [West Atlanta Watershed Alliance \(WAWA\)](#). Since 1996, WAWA has been a community advocate, championing solutions to environmental justice issues that also preserve and restore West Atlanta's natural amenities. Over the years they have pushed DWM to adopt low impact development/green stormwater infrastructure practices and think about how parks and green space can serve as a mechanism for improving water quality while retaining their position as community amenities.

Over the years, DWM has had to put in the work of showing up to meetings, listening, and responding openly and honestly to complaints to work through the ups and downs of their relationship together. However, after nearly a decade, they have now gotten to a place where DWM has been able to begin to authentically shift some of the leadership to the community.

WAWA has played a critical role in this shift. They have been able to intercede in utility-community relationships to create opportunities for innovation and dialogue, helping to reduce frustration and anxiety around community meetings and communication for both DWM and community members. For example, WAWA led a citizen science effort to collect water quality data and then supported community members to act as informal scientists and, in their own voice, share the evidence they discovered with city officials. This resulted in more productive conversations between community and public officials - a critical piece in, over time, moving DWM to adopt a new role that expands traditional services to include holistic water quality management, environmental stewardship, and stakeholder engagement.



CENTERING COMMUNITY

Atlanta Bright Spot (continued)

More recently, WAWA has been closely involved as a collaborator in efforts by DWM to center equity and better engage the community. For example, WAWA supported the creation of DWM's [Water Equity Roadmap](#). A project through the US Water Alliance, Atlanta was one of 7 utilities across the country exploring and examining how cities were working with community groups to evaluate water services deployment through an equity lens. Participating utilities and community groups each developed their own Equity Roadmaps, describing challenges they faced and priorities and solutions to overcome them. In addition to the Equity Roadmap, WAWA has also been involved in a new initiative launched by DWM called the Green Infrastructure (GI) Design Challenge. This initiative identifies sites with potential for stormwater management and requests engineering and landscape architecture firms to develop creative solutions. Firms are required to engage the community - including having at least one representative from the community on their team - to develop a conceptual solution for one of the selected sites. WAWA was a community partner on two of the Design Challenge projects in Atlanta's West side. In late 2021, DWM and WAWA partnered together to lead a public meeting touring a historic stream walk. Led by WAWA, the tour started at one of DWM's stormwater ponds with green infrastructure and followed the historic stream channel all the way to the location of one of the new GI Design Challenge projects. This moment was a major milestone for the department, representing an authentic shift of leadership that was the result of decades of relationship and trust building.

Over the years, this partnership has benefited both the community and DWM by having someone they can count on to provide additional opportunities and resources as well as new channels of communication and as many community touch points as possible. By working closely together on a number of different projects, the two groups have developed mutual respect for each other and a close partnership.



FURTHER READING + RESOURCES

See “Community Representation, Ownership, and Engagement” in the *Equity in Green Infrastructure Literature Review and Interview Insights Report* ([Appendix D](#)) for more guidance.

ENDNOTES

¹ **Stakeholders:** A party with a vested interest in a green infrastructure program or project. For the purposes of evaluation, stakeholders may include:

1. Individuals directly engaged in green infrastructure program or project. This set is most likely to provide useful information on whether activities taken are having their intended effect because these people have been directly impacted by our work. However, this likely requires a more consistent system for tracking contact information and touchpoints/type of engagement with stakeholders as well as that we direct communication to solicit feedback.
2. Pre-existing stakeholder set that is already being tracked and communicated with by our local public sector stormwater management organization. May be as large as an entire ratepayer body and will depend on what internal infrastructure has been established. These people may have less direct involvement in our green infrastructure work and therefore the outcomes will be more diluted.
3. General public. May be engaged with a public survey.

² **Other prioritized equity factors:** The additional identity and income equity factors such as race, ethnicity, sexual orientation, gender, disability, and age that are connected to inequities in health, wealth, life expectancy and other well-being outcomes.

³ **Quantitative:** A measurement relating to size or amount represented with numeric variable data. Should be considered alongside qualitative (see below) aspects for evaluation at each stage, asking “How well was the best practice implemented and the quality of both the end result and path to get there?”

⁴ **Qualitative:** An assessment of characteristic, features, or quality. Should be considered alongside quantitative (see above) aspects for evaluation at each stage, asking “How well was the best practice implemented and the quality of both the end result and path to get there?”

⁵ **Extent Feasible:** The degree to which an action, initiative, policy, or program can be implemented, depending on specific stormwater management organization context. Must be further defined and vetted by individual stormwater management organizations to make highly detailed, context-informed decisions.



ENDNOTES

⁶ **Likert Scale:** A type of rating scale question that uses a 5 or 7-point scale that ranges from one extreme attitude to another and typically includes a moderate or neutral option in the middle. Sometimes referred to as a satisfaction scale, Likert scales are reliable ways to measure opinions, perceptions, and behaviors and produce more granular feedback. A 5-point scale asking respondents to rate a statement such as “To what extent does [insert initiative] reflect your priorities?” may include the following options: Not at all, Very Little, Neutral, Somewhat, and To a Great Extent.



GOAL 3

SITING +
INVESTMENT



SITING + INVESTMENT GOAL

Our project selection approach and investment levels proactively consider potential to advance equity.

Why This Matters

One of the most powerful ways of advancing equity is through direct investment in communities experiencing inequity.

Long-Term Goals

Spatial Equity increases as communities facing multiple forms of systemic vulnerability and environmental injustice are prioritized. The impacts of more high quality green space in these communities helps close gaps in related Equity Atlas Indicators (educational attainment, disconnected youth, life expectancy, air pollution, and neighborhood poverty); access to clean, well managed water; exposure to climate risks (flooding, drought, and heat); and access to quality of life benefits (mental and physical health, recreation space, community cohesion, safety, traffic calming, and more).





Best Practices

Site green infrastructure with an equity lens.

Propose to site green infrastructure in areas with the greatest potential to advance equity (e.g., preventing future inequities due to climate risks and hazards). Co-create the project siting approach with substantive BIPOC-representing community partners. Collaborate with leadership to set explicit goals for the percent of our investments in high equity value communities¹ and advocate for making the data and decisions transparent to the public.

Budget to optimize equity

benefits. Develop project budget levels and funding decisions that take into account the potential equity improvement value of a project and the resources needed to realize that potential.

Track Near-Term Outputs

- ❑ We have developed a methodology (e.g., spatial planning tool), with input and vetting from representative community stakeholders² and used in planning processes to enable analysis of project site opportunities through an equity improvement lens. The tool integrates regulatory, technical, and physical parameters with community input on the factors that matter most; incorporates data on risk and hazards (such as climate-change-adjusted storm intensity) in the decision process; and examines the impacts of not taking action.
 - ❑ We are tracking the percent of our total projects are sited in high equity value communities,¹ disaggregated by racial majority and other prioritized equity factors.³
 - ❑ Our siting and investment approach and underlying data layers are made transparent and understandable to the public.
 - ❑ We are tracking the percentage of our projects selected for investment that were prioritized by community stakeholders² and that respond to community priorities.
-
- ❑ We are tracking the percent of initial project budgets that explicitly account for resources needed to optimize equity impacts.
 - ❑ We are tracking the percent of high equity value projects that are funded for implementation, and the average gap between the ideal budget and allocated budget.



Measure What Matters	Suggested Metric	Data Collection Guidance
<p>Are we intentionally siting green infrastructure in the communities that need it most?</p> <p>Historically, lower income communities and communities of color have been left behind in green infrastructure development, despite the fact that these communities are often sited in lower lying, flood prone areas.</p>	<p>Number and percent of our projects sited in high equity value communities.¹</p>	<p>Desk Review⁴ Collect and analyze the following data for each project and run an analysis to determine trends in the number of projects, and dollars invested in high equity value communities.¹</p> <ul style="list-style-type: none"> • Percent people of color within a one mile radius • Percent low income within a one mile radius • Income qualified census tract (yes/no)
<p>Do we know how much it costs to deliver equitable projects?</p> <p>Green infrastructure projects serving high equity value communities¹ require a different set of resources, project guidelines, and partnerships to be successful. It's important to understand these differences to ensure our agency is adequately resourcing these projects to deliver successful results.</p>	<p>Level of departmental fluency in the funding levels needed to realize the equity potential of projects, including long-term maintenance and stewardship.</p> <p>Percentage of overall project investment directed into projects serving high equity value communities year over year.</p>	<p>Facilitated Discussion Host a post-mortem after each project serving a high equity value community¹ to uncover and document areas of success, failures, and opportunities to refine our project playbook.</p> <p>Desk Review⁴ Track the costs associated with successful projects serving high equity value communities,¹ and reflect these costs in future budget requests to ensure our programs are sufficiently resourced.</p>
<p>Are we reflecting stakeholders² priorities in our project selection and investment decisions?</p> <p>Community stakeholders² are the best judge of whether their priorities ultimately shaped our project selection and investment decisions.</p>	<p>Percent of stakeholders,² disaggregated by race and other prioritized equity factors³, who report their priorities are reflected in our project selection and investment decisions (or they understood why they weren't).</p>	<p>Survey Share a list of projects selected/investment decisions with a brief description of the community priorities that shaped the decision and ask all involved community stakeholders² to what extent their priorities are reflected in those decisions.</p>



SITING + INVESTMENT

Upstream Pittsburgh Bright Spot

Upstream Pittsburgh, a watershed-focused non-profit in the Pittsburgh area, developed the [Nine Mile Run Equity Study](#) as a tool to identify the most vulnerable areas in their watershed where environmental injustices and social inequities are occurring. In taking a people-first approach to watershed planning, Upstream is using this tool to analyze these problems from a spatial perspective, allowing them to make data-driven decisions on where to invest their resources for building green infrastructure. The Study was created using GIS to build out a complex suitability analysis based on over 40 different data layers contained within four categories: public health, social vulnerability, environmental equity, and the urban landscape. Raw data values for each category were analyzed individually and reclassified on a scale of 1 to 5. After ranking each data set, a weighted overlay was created for each category, indicating which areas were the most vulnerable based on multiple datasets. These categories were analyzed to create both an Equity Index and Environmental Justice Index, which fed into the final product, the GSI Suitability Index. Upstream was able to utilize another mapping tool, a custom-built Watershed Hydrology Tool, that breaks the watershed down into smaller sheds based on stormwater infrastructure and water flow. Using the GSI Suitability Index and the Watershed Hydrology Tool, Upstream identified 10 areas in their watershed to focus efforts on building green infrastructure.

The Study was created using GIS to build out a complex suitability analysis based on over 40 different data layers contained within four categories: public health, social vulnerability, environmental equity, and the urban landscape.



FURTHER READING + RESOURCES

See “Planning, Siting, and Investment” in the *Equity in Green Infrastructure Literature Review and Interview Insights Report* ([Appendix D](#)) for more guidance.

ENDNOTES

¹ **High equity value communities:** Communities that are currently marked by significant inequities and for whom reducing those inequities has the potential to unlock significant additional thriving (health, wealth, happiness, and contribution to society). These communities are often geographically concentrated and equity strategies can leverage change by focusing investments in these geographic areas.

² **Stakeholders:** A party with a vested interest in a green infrastructure program or project. For the purposes of evaluation, stakeholders may include:

1. Individuals directly engaged in green infrastructure program or project. This set is most likely to provide useful information on whether activities taken are having their intended effect because these people have been directly impacted by our work. However, this likely requires a more consistent system for tracking contact information and touchpoints/type of engagement with stakeholders as well as that we direct communication to solicit feedback.
2. Pre-existing stakeholder set that is already being tracked and communicated with by our local public sector stormwater management organization. May be as large as an entire ratepayer body and will depend on what internal infrastructure has been established. These people may have less direct involvement in our green infrastructure work and therefore the outcomes will be more diluted.
3. General public. May be engaged with a public survey.

³ **Other prioritized equity factors:** The additional identify and income equity factors such as race, ethnicity, sexual orientation, gender, disability, and age that are connected to inequities in health, wealth, life expectancy and other well-being outcomes.

⁴ **Desk Review:** A research and evaluation process that involves collecting and examining already existing and accessible data, such as internal records, published reports, and information in newspapers, magazines, and on the internet.



GOAL 4

BENEFITS-
DRIVEN
PROJECT
DEVELOPMENT



BENEFITS-DRIVEN PROJECT DEVELOPMENT GOAL

Our green infrastructure projects are designed, constructed, and maintained to provide lasting community benefit.

Why This Matters

Different types of green infrastructure contribute to different social and environmental co-benefits. Design can have significant economic, cultural, and displacement impacts.

Long-Term Goals

Identity Equity increases as communities traditionally given marginalized identities are provided direct access to projects that positively affect their communities. The impacts of benefit-rich green space in these communities helps close gaps in related Equity Atlas Indicators (educational attainment, life expectancy, air pollution, and neighborhood poverty); access to clean, well managed water; exposure to climate risks (flooding, drought, and heat); and access to quality of life benefits (mental and physical health, recreation space, community cohesion, safety, traffic calming, and more).





Best Practices

Track Near-Term Outputs

Center community. Ensure that community members are centered as essential partners and participants in the design and development of all green infrastructure projects. Support events that celebrate project completion to build a sense of community pride and ownership. Project celebrations should include elevation and recognition of community member contributions.

- ❑ See project level indicators in "Centering Community" module above.

Refine design standards. Refine and apply technical design standards to articulate and prioritize design choices that advance equity, such as using surface and vegetative approaches where possible, leveraging culturally appropriate and displacement sensitive design, and matching design choices to the maintenance capacity of likely stewards.

- ❑ Design standards are updated to reflect culturally-appropriate, higher equity design choices.
- ❑ We are tracking the number and percent of projects integrate culturally-appropriate, higher equity-value design choices in final design.

Deliver on priorities. Ensure that construction quality delivers on the benefits and priorities that were agreed on in dialogue with impacted community stakeholders.¹

- ❑ We are tracking the percent of stakeholders,¹ disaggregated by race and other prioritized equity factors,² who report that their priorities and hoped-for level of quality were reflected in the built product or they understood why they weren't.

Minimize and communicate disruptions. Minimize and communicate anticipated construction-related disruptions in a way that builds trust and relationships with our impacted community members.

- ❑ We are tracking the percent of stakeholders¹ who report they were satisfied with the methods, frequency, and quality of engagement during the construction phase for each project.

Plan and budget for maintenance upfront. Develop a plan and budget for maintenance early in the design phase for each project to ensure that design decisions reflect the reality of available resources and that maintenance requirements match the capacity and competence of the intended maintenance stewards.

- ❑ A maintenance plan and budget are consistently developed during the design phase for our projects.
- ❑ We are tracking the percent of individual maintenance stewards who demonstrate financial capacity and competence for required maintenance activities.



Best Practices

Continued.

Create a guide. Develop and provide a guide to community with information for identifying, reporting, and receiving service to resolve reported problems. Provide clear response times and publicly report on accountability metrics, including response time and frequency of maintenance.

Track Near-Term Outputs

- ❑ We are tracking the percent of maintenance budgets secured in advance of maintenance phase, disaggregated by percent of budget burden that is placed on the community vs. met by the stormwater management organization or other funding source.
- ❑ We are tracking the percent of essential maintenance activities are completed on schedule.
- ❑ We are tracking the percent of maintenance/repair requests are completed within the committed time frame.
- ❑ An accountability metric data for maintenance and repair responsiveness is publicly reported.



Measure What Matters	Suggested Metric	Data Collection Guidance
<p>Do our projects offer quality-of-life improvements that matter to the community?</p> <p>Together, the near-term outputs on the previous pages assess whether projects are being designed, constructed, and maintained in ways to maximize community quality of life, particularly for the communities with the most to gain.</p>	<p>Cumulative trends from output measures across all projects show improvement in community engagement, design, construction, and maintenance especially for highly impacted and disadvantaged populations.</p>	<p>Surveys, Facilitated Discussion, and Desk Review⁴ The outputs on the following pages will require a mix of staff and participant surveys. The data collected could be assembled into quarterly or annual dashboards with a simple visual indicator (e.g., green, yellow, and red lights) to show the team cumulative trends, and how they change over time.</p>
<p>Are we maximizing co-benefits in disadvantaged communities?</p> <p>Maximizing community benefits prioritized by representative stakeholders¹ in disadvantaged communities directs our investments in a way that counteracts inequities.</p>	<p>Projects' collective co-benefit value increases over time, contributing positively to improved health and social determinants of health outcomes and quality of life for members of disadvantaged communities.</p>	<p>Survey Ask community stakeholders¹ which co-benefits were achieved and to rate the value of each co-benefit achieved through the project. Tabulate the results numerically and score each project on its total benefit value.</p>
<p>Does our team have skills and capacity to deliver equitable projects?</p> <p>Managers need to know whether our staff have the training and support to understand and apply benefits-driven project development practices consistently where warranted.</p>	<p>Level of staff fluency in and commitment to equitable practices for project design, construction, and maintenance.</p>	<p>Survey Consider asking a likert scale³ question on an annual staff survey, such as, "To what extent do you feel well-versed in project development methods to maximize community benefits?"</p>
<p>Are we reflecting community priorities in our projects?</p> <p>Community stakeholders¹ are the best judge of whether their priorities ultimately shaped projects.</p>	<p>Percent of stakeholders,¹ disaggregated by race and other prioritized equity factors,² who report that our green infrastructure projects reflect community priorities to the extent feasible.⁵</p>	<p>Survey Share a description of the project with a brief description of the community priorities that shaped its development and ask all involved community stakeholders¹ to what extent their priorities are reflected in the outcome.</p>



Measure What Matters	Suggested Metric	Data Collection Guidance
<p>Are we creating demand for green infrastructure by delivering community benefits?</p> <p>If green infrastructure is improving quality of life in a way that stakeholders¹ see and value, they are likely to support continued investment.</p>	<p>Percent of stakeholders,¹ disaggregated by race and other prioritized equity factors,² who indicate that they value and support our continued investment in green infrastructure.</p>	<p>Survey Consider asking a likert scale³ question such as “To what extent do you want to see more green infrastructure built in your neighborhood?” on a survey distributed to all community stakeholders¹ associated with a given project.</p>
<p>Are we showing our community stakeholders¹ their engagement is valued?</p> <p>In order to build trust, community members need to feel that their participation and engagement are valued by us. By disaggregating data, we uncover any disparities in the responses that may point to a group(s) who do not feel valued.</p>	<p>Percent of stakeholders,¹ disaggregated by race and other prioritized equity factors,² who believe we value their participation and engagement.</p>	<p>Survey Consider including a likert scale³ question such as “To what extent do you feel your participation was valued by the stormwater management organization in [insert initiative]” on a survey distributed to all community stakeholders¹ associated with a given project.</p>
<p>Are we earning community trust?</p> <p>Tracking changes in trust levels over time will help demonstrate whether our efforts to maximize community benefits are generating results, or stalling out and need new energy or initiatives.</p>	<p>Percent of stakeholders,¹ disaggregated by race and other prioritized equity factors,² who report they have a trusting relationship with us.</p>	<p>Survey Consider asking a likert question such as “To what extent do you trust the stormwater management organization?” on a survey of all community members involved in a given project.</p>
<p>Are we being responsive to community complaints?</p> <p>In order to build trust, community members need to feel that their concerns will be effectively addressed in a timely manner. By disaggregating data, we uncover any disparities in the responses that may point to a group(s) who does not feel valued.</p>	<p>Percent of stakeholders,¹ disaggregated by race and other prioritized equity factors,² who believe if they report a problem to us, it will be resolved in a timely fashion.</p>	<p>Survey Consider including a likert question such as “To what extent do you feel that if you reported a problem it would be resolved in a timely manner?” on an survey of all community stakeholders¹ involved in a given project.</p>



BENEFITS-DRIVEN DEVELOPMENT

PROJECT

San Francisco Public Utilities Commission Bright Spot

Excerpt from the *State of Equity Practice in Public Sector Green Infrastructure Report*:

“The San Francisco Public Utility Commission (SFPUC) Green Infrastructure Grant Program Guidebook includes a list of equity co-benefits which must be achieved (at least 2) in order to be eligible for the grant program. Co-benefits ranging from locating in an Environmental Justice Area, granting public access, and educational opportunities were all included with descriptions of how each may be achieved with different BMPs. This ensures that the design of projects have equity goals embedded in the process, with equity goals stated at the outset and present throughout the grant process. The guidebook also provides a step-by-step guide of how to apply and navigate the process to increase accessibility and lessen barriers to applications.”

SFPUC’s Green Infrastructure Grant Program Guidebook includes a list of equity co-benefits which must be achieved (at least 2) in order to be eligible for the grant program.



FURTHER READING + RESOURCES

See “Project Design, Construction, and Maintenance” in the *Equity in Green Infrastructure Literature Review and Interview Insights Report* ([Appendix D](#)) for more guidance.

ENDNOTES

¹ **Stakeholders:** A party with a vested interest in a green infrastructure program or project. For the purposes of evaluation, stakeholders may include:

1. Individuals directly engaged in green infrastructure program or project. This set is most likely to provide useful information on whether activities taken are having their intended effect because these people have been directly impacted by our work. However, this likely requires a more consistent system for tracking contact information and touchpoints/type of engagement with stakeholders as well as that we direct communication to solicit feedback.
2. Pre-existing stakeholder set that is already being tracked and communicated with by our local public sector stormwater management organization. May be as large as an entire ratepayer body and will depend on what internal infrastructure has been established. These people may have less direct involvement in our green infrastructure work and therefore the outcomes will be more diluted.
3. General public. May be engaged with a public survey.

² **Other prioritized equity factors:** The additional identify and income equity factors such as race, ethnicity, sexual orientation, gender, disability, and age that are connected to inequities in health, wealth, life expectancy and other well-being outcomes.

³ **Likert Scale:** A type of rating scale question that uses a 5 or 7-point scale that ranges from one extreme attitude to another and typically includes a moderate or neutral option in the middle. Sometimes referred to as a satisfaction scale, Likert scales are reliable ways to measure opinions, perceptions, and behaviors and produce more granular feedback. A 5-point scale asking respondents to rate a statement such as “To what extent does [insert initiative] reflect your priorities?” may include the following options: Not at all, Very Little, Neutral, Somewhat, and To a Great Extent.

⁴ **Desk Review:** A research and evaluation process that involves collecting and examining already existing and accessible data, such as internal records, published reports, and information in newspapers, magazines, and on the internet.

⁵ **Extent Feasible:** The degree to which an action, initiative, policy, or program can be implemented, depending on specific stormwater management organization context. Must be further defined and vetted by individual stormwater management organization to make highly detailed, context-informed decisions.

GOAL 5

ECONOMIC STABILITY



ECONOMIC STABILITY GOAL

Our green infrastructure procurement, employment, and workforce development practices build economic stability and wealth for underinvested communities.

Why This Matters

Green infrastructure involves significant investment in a local workforce and assets, and is especially accessible to new workers through job training and other workforce development strategies.

Long-Term Goals

Identity Equity increases as communities traditionally given marginalized identities directly benefit from contracting, hiring, and workforce development activities. The impacts of economic investment in these communities helps close gaps in related Equity Atlas Indicators (median wages, poverty, unemployment, job and wage growth, and disconnected youth); access to green infrastructure jobs and training; access to clean, well managed water; exposure to climate risks (flooding, drought, and heat); and access to quality of life benefits.





Best Practices

Create an action plan. Support leadership efforts to create an action plan to eliminate barriers for SWMBE firms, CBOs, local and hyper-local hiring¹ and sourcing and support low capacity firms in meeting qualification requirements.

Assess current purchases. Work with leadership to assess the current percent of departmental supply purchases that source from local firms; support leadership in developing and implementing an action plan to increase the percentage.

Create workforce development program. Conceptualize and pitch a green infrastructure workforce development program to leadership. Collaborate to integrate the workforce program approach into overarching agency workforce programs if possible. Begin with a clear understanding of existing community assets, like educational institutions and trade organizations, and barriers that prevent disadvantaged populations from accessing employment. Identify recruitment and program models that are most effective at overcoming barriers. Through program and project budgeting, ensure that sufficient resources are dedicated to recruit for, run, and evaluate the program.

Track Near-Term Outputs

- ❑ A procurement barrier elimination plan that provides support for low-capacity firms to meet qualification requirements is developed and is being implemented according to schedule.
- ❑ We are tracking the percent of contract dollars awarded to SWMBEs, CBOs, and local and hyper-local firms (break down numbers by race/ethnicity, gender, and localness of business owners).
- ❑ We are tracking the growth in SWMBE contract values and how many SWMBE firms move from subconsultant to prime roles.

- ❑ A local supply purchasing action plan is developed and being implemented according to schedule.
- ❑ We are tracking the percent of supply purchase dollars spent locally.

- ❑ Our workforce development program design is based on a formally documented analysis of community assets and the barriers that prevent disadvantaged populations from accessing employment in the water sector, and best practice for overcoming those barriers.
- ❑ We are tracking the number enrolled in and percent who successfully completed mentorship or training, disaggregated by race/ethnicity, localness of residence, gender, age, education and employment status.
- ❑ We are tracking the percent of participants who rate training experience as highly valuable.
- ❑ We are tracking the percent of participants who demonstrate satisfactory and high levels of competence upon completion.
- ❑ We are tracking the percent of participants who are hired for a full time, high quality job² in this field within one (1) year of completion have a living wage.
- ❑ We are tracking long-term post-program employment success and measures of personal wealth growth (salary, savings, mobility).



Measure What Matters	Suggested Metric	Data Collection Guidance
<p>Does our team have the skills and internal³ support to build wealth in disadvantaged communities?</p> <p>Managers across the agency need to know whether our team has the training and support to understand and apply best practices in equitable procurement, hiring, and workforce development.</p>	<p>Percent of our team with improved fluency in equitable procurement, hiring, and workforce development practices, as appropriate for their roles.</p>	<p>Survey Consider asking a series of likert scale⁴ questions on an annual team survey, such as, “To what extent do you feel you have the training to apply best practices in... equitable procurement? Equitable hiring? Equitable workforce development?” and “How consistently are we applying best practices in... equitable procurement? Equitable hiring? Equitable workforce development?”</p>
<p>Are we supporting a new green collar workforce that uplifts local, representative community members?</p> <p>Our investments have the power to create local green collar jobs, and we need to ensure that these jobs are uplifting local, representative community stakeholders.</p>	<p>Percent of our workforce training or mentorship program graduates that are employed in high quality jobs² (see definition) two to five years out, with increasing wages and wealth.</p>	<p>Survey Attempt to check in with workforce training program graduates annually for at least five years post training through an interview or survey to ask whether they are employed in a high quality job, and ask if they are willing and able to disclose their approximate wages and benefits. Track this data over time to assess trends.</p>
<p>Are we proactively purchasing products and services from businesses that reflect our local community?</p> <p>As team members at a local public sector stormwater management organization, we are part of an economic engine, directing perhaps millions of dollars of investment into contracts, consulting, and procurements. These dollars have the power to uplift local, diverse communities.</p>	<p>Percent of investments (via contracting, consulting, and procurement) that benefit the diversity of communities we serve, proportionate to our jurisdiction's demographics.</p>	<p>Desk Review⁵ Work with internal financial and contracting teams to complete an annual analysis of the racial/ethnic, gender, and geographic makeup of recipients of contract dollars for our program's services and products.</p>



Measure What Matters

Suggested Metric

Data Collection Guidance

Does our internal team³ reflect the community we serve?

The representativeness of our team members tasked with stewarding public dollars for green infrastructure will impact our success in achieving equitable outcomes. One of the most fundamental ways to have underrepresented groups at the table is for us to employ staff that represent these groups.

Percent of each race/ethnicity represented in each level of internal and contracted staff, and qualitative assessment of whether we (and our contractors) are model employers advancing racial equity, with workforces that reflect the diversity of communities we serve, at all levels of positional seniority and compensation.

Desk Review⁵ | Encourage human resources to document the percentage of each race/ethnicity represented in each level of staff. Plot these percentages by race/ethnicity and compare it to the general population in our service area. Convene a group to discuss why given racial/ethnic groups are under or overrepresented.



ECONOMIC STABILITY

Louisville MSD Bright Spot

The Louisville Metropolitan Sewer District (MSD) launched a Local Labor Preference Program in 2010 that requires contractors to commit to a percent of local hires for any project above \$5M and ensures that more of the infrastructure dollars remain in the community for the benefit of the local economy. In 2018, MSD published a Disparity Study that took a hard and honest look at disparities in prime contractor and subcontractor procurement. As a result of the findings, they were able to change legislation in order to set mandatory race and gender goals, formalized a Community Benefits Program, and implemented a Small Local Business Enterprise Program. Their Supplier Diversity MBE/WBE Program now sets minimum goals of 18% African-American, 2% Asian Indian American, and 15% Caucasian Female procurement for projects with construction value above \$150K. They provide a 10% Bid Discount for projects in the \$30K-\$500K range. This applies a 10% discount, to apply for evaluation purposes only, on the bids submitted by eligible M/WBE firms that bid as a prime. The Community Benefits Program requires that prime contractors on projects above \$2M commit to providing a related community benefit as part of their services. Examples include a virtual engineering career panel workshop, school playground and fence upgrades, meals for students, and new homes and community gardens built for residents.

Louisville MSD sets minimum goals of 18% African-American, 2% Asian Indian American, and 15% Caucasian Female procurement for projects with construction value above \$150k.



ECONOMIC STABILITY

PowerCorpsPHL Bright Spot

Launched in September 2013, [PowerCorpsPHL](#) is designed to support environmental stewardship initiatives and further the City of Philadelphia's youth violence prevention and workforce development priorities. As an AmeriCorps workforce development initiative operated by EducationWorks, PowerCorpsPHL engages out-of-school or out-of-work 18- to 30-year-olds in an immersive, paid 4- to 24-month program that results in connection to living wage jobs in energy, green infrastructure, and community-based careers.

Working closely with the Philadelphia Water Department (PWD) and industry partners in the public and private sector, PowerCorpsPHL co-creates opportunities for young people to gain in-demand, career-focused skills while receiving individualized supports and completing much needed GSI maintenance for the public. Specifically, PowerCorpsPHL's **GSI Academy** trains young people to perform green infrastructure maintenance and provides pre-apprenticeship training for skilled trades within water operations. This partnership has yielded 70% of PWD's apprenticeship spots being sourced from PowerCorpsPHL talent for high-need positions identified by the water utility.

In their eight years of operations, PowerCorpsPHL has engaged over 800 young people and provided over 800,000 service hours to the city's park system and green infrastructure. Over 90% of graduates transition into employment with starting wages ranging from \$13-\$20/hr. Additionally, they recruit young people most impacted by the city's gun violence and lack of opportunities. Returning citizens in the program have an 8% one-year post-program recidivism rate compared to the citywide average of 45%.

This partnership has yielded 70% of PWD's apprenticeship spots being sourced from PowerCorpsPHL talent for high-need positions identified by the water utility.



FURTHER READING + RESOURCES

See “Employment” in the *Equity in Green Infrastructure Literature Review and Interview Insights Report* ([Appendix D](#)) for more guidance.

ENDNOTES

¹ **Local and hyper-local hiring:** A goal or requirement to hire people who live close (within an X mile radius) to the place of work.

² **High quality job:** According to an article by Emma K. Tsui published in the *American Journal of Public Health*, a high quality job “should involve (1) a combination of earnings per hour and hours of work that results in annual earnings above the poverty level; (2) work patterns that are steady throughout the year and that do not require “patching” or holding more than one job simultaneously; (3) the provision of benefits such as health insurance, paid vacation, paid sick leave, a pension, and ongoing paid training opportunities; and (4) work that participants find satisfying.” Additionally, such jobs should be connected to further professional advancement.

³ **Internal staff:** Local public sector stormwater management organization staff including general management, senior leadership, finance, procurement, planning, design and engineering, and green infrastructure team members who can influence both the decision-making and implementation of green infrastructure programs and projects.

⁴ **Likert Scale:** A type of rating scale question that uses a 5 or 7-point scale that ranges from one extreme attitude to another and typically includes a moderate or neutral option in the middle. Sometimes referred to as a satisfaction scale, Likert scales are reliable ways to measure opinions, perceptions, and behaviors and produce more granular feedback. A 5-point scale asking respondents to rate a statement such as “To what extent does [insert initiative] reflect your priorities?” may include the following options: Not at all, Very Little, Neutral, Somewhat, and To a Great Extent.

⁵ **Desk Review:** A research and evaluation process that involves collecting and examining already existing and accessible data, such as internal records, published reports, and information in newspapers, magazines, and on the internet.

GOAL 6

PREVENTING DISPLACEMENT

Rain Gardens at Work

What is a Rain Garden?
A rain garden is a shallow depression in the ground that allows rainwater to infiltrate the soil. Rain gardens are designed to collect and absorb runoff from roofs, parking lots, and other impervious surfaces. They help reduce flooding, improve water quality, and provide habitat for native plants and animals.

How do Rain Gardens Work?
Rain gardens are designed to collect and absorb runoff from roofs, parking lots, and other impervious surfaces. They help reduce flooding, improve water quality, and provide habitat for native plants and animals.

Benefits of Rain Gardens
• Reduces flooding
• Improves water quality
• Provides habitat
• Reduces stormwater runoff

Legend
★ Learning Station
■ Stormwater

GREENPRINT COMMUNITIES
GREENPRINT PARTNERS
project clear
wastewater + stormwater



PREVENTING DISPLACEMENT GOAL

Displacement risk is proactively addressed in all of our green infrastructure programs, policies, and projects.

Why This Matters

Low income communities and communities of color deserve to benefit from green infrastructure without fear of being displaced by its installation or resulting property value increases. It is important to recognize that this is an emerging field and green infrastructure is one of many factors that can contribute to displacement. The levels of (and contributors to) displacement risk and perceived displacement risk vary widely between communities. For these reasons and more, consultation with experts and community stakeholders is highly recommended.

Long-Term Goals

Spatial Equity increases as communities facing multiple forms of systemic vulnerability and environmental injustice are prioritized. The impacts of more high quality green space in these communities helps close gaps in related Equity Atlas Indicators (home ownership and rent burden rates); access to green infrastructure workforce training and jobs; and exposure to climate risks (flood, drought, and heat).





Best Practices

Center community in developing solutions. For each project where displacement is a real or perceived risk, proactively engage in dialogue with the impacted community about how to mitigate this risk as it relates to green infrastructure, include anti-displacement experts (e.g. affordable housing) in the conversation, and identify implementable strategies. Include the larger picture of stressors and hazards contributing to displacement (e.g. extreme flooding, green infrastructure development policies, other large-scale public investments in the area, population or housing cost increases in nearby neighborhoods, high energy and water bills, large renter population, property tax increases, historic disinvestment, and substandard housing conditions).

Create a plan. Develop an anti-displacement plan for neighborhoods impacted by the program/project with guidance from displacement experts, considering ways the program or project can better serve the existing community and avoid contributing to their displacement. Be transparent about the likely impacts of a program, policy, or project upfront (e.g. property values will likely increase, stormwater management organization bills will go up) and make changes in response to increase community opportunities and mitigate harm.

Evaluate. Develop and implement an approach to evaluating the extent to which a green infrastructure project or portfolio of projects may have contributed to displacement.

Collaborate. Recognizing that combatting displacement requires collective action, collaborate with others to facilitate multi-agency conversations about the role that policy across local government agencies plays. Catalyze alignment for collective action and ongoing partnerships where possible.

Track Near-Term Outputs

- ❑ We are tracking the percent of stakeholders¹ living within the impacted community who provide input that is ultimately reflected in our program and project plans (refer to goal 2 on centering community) and in each anti-displacement plan.
- ❑ We are tracking the percentage of our programs and projects with real or perceived displacement risk that are accompanied by an anti-displacement plan that has been written with input and buy-in from anti-displacement experts, impacted community members, and staff.
- ❑ We are tracking the percentage of strategies identified in the anti-displacement plans that are being implemented.
- ❑ We are tracking the percentage of our programs and projects that are evaluated—qualitatively² or quantitatively³—post-implementation for their likely contribution to displacement.
- ❑ Multi-agency strategies are initiated and implemented to combat green displacement.



Measure What Matters

Suggested Metric

Data Collection Guidance

Are we being proactive about preventing displacement?

Community perception that displacement risk is being overlooked is a strong indicator of whether we've done enough to partner with community to prevent displacement.

Percent of stakeholders,¹ disaggregated by race and other prioritized equity factors,⁴ who report that they believe our local stormwater management organization is taking proactive steps to mitigate the likelihood of displacement resulting from green infrastructure projects.

Survey | Consider asking a likert scale⁵ question before and after each project and comparing the results, such as: "To what extent do you feel [insert program / project] may contribute to displacement within your community?"

Are we earning community trust?

Perceived or real displacement risk can erode trust (or sustain lack of trust). Understanding trust levels is a strong barometer of whether displacement has been prevented in partnership with communities.

Percent of stakeholders,¹ disaggregated by race and other prioritized equity factors,⁴ who report they have a trusting relationship with our local stormwater management organization.

Survey | Consider asking a likert scale⁵ question at the end of the initiative such as: "To what extent do you have a trusting relationship with your local stormwater management organization?"

Were our anti-displacement efforts successful?

It's important to look at the completed project and ask whether it contributed to displacement, and spark reflection about lessons learned that can inform future improvements.

We should also seek to understand if our green infrastructure investments are *stabilizing* neighborhoods (reducing population loss, violence and crime, and disinvestment). This can further build trust, and proactively counteract the impacts of past harms by the local stormwater management organization.

Percent of post-project impact assessments that indicate that the displacement was minimal and that counteractive activities undertaken by the program supported neighborhood and population stability.

If this is not possible, then percent of stakeholders,¹ disaggregated by race and other prioritized equity factors,⁴ who report that they believe each project or program either did not contribute to displacement or actively protected against future displacement and that counteractive activities undertaken by the project or program supported neighborhood and population stability.

Desk Review⁶ or Survey | Work with local displacement experts to develop a consistent, simple methodology to assess whether green infrastructure initiatives contributed to displacement. If this is not possible, survey stakeholders¹ with the following questions: "To what extent do you feel [insert program / project] contributed in displacement within your community?" and "To what extent do you feel [insert program / project] actively protected against future displacement within your community?"



Measure What Matters

Suggested Metric

Data Collection Guidance

Is our team fluent in anti-displacement strategies? Are we working across silos to prevent displacement?

Managers need to know whether our staff have the training and support to understand and apply anti-displacement practices consistently.

Additionally, displacement is impacted by many factors beyond our control, so preventing displacement requires a coordinated approach with other city entities, such as the planning department, community/economic development department, and/or housing authority. CBOs working toward anti-displacement strategies may also be in a strong position to advise us.

Percent of our management and green infrastructure program staff who report improved fluency with and application of effective anti-displacement practices, policies, and multi-agency collaborations.

Survey | Consider asking a likert scale⁵ question on an annual team survey, such as, “To what extent do you feel well-versed in anti-displacement practices and policies?” and “To what extent are anti-displacement practices applied by our team?”



PREVENTING DISPLACEMENT

11th Street Bridge Park Bright Spot

Excerpt from the *State of Equity Practice in Public Sector Green Infrastructure Report*:

“The 11th Street Bridge Park project is Washington, D.C.’s first elevated public park, positioned over the Anacostia River. A green infrastructure partnership between Ward 8 non-profit Building Bridges Across the River and the District Department of Transportation, the project received early community pushback on the grounds of potential gentrification-related impacts. In response, project managers invested significant resources in developing equity focused development strategies alongside community leaders. This included setting up community land trusts, safeguarding affordable housing investments, providing skills training and jobs for local residents, and investing in local small businesses (Cartier, 2021).”

Project managers invested significant resources in developing equity focused development strategies alongside community leaders.



PREVENTING DISPLACEMENT

Atlanta Bright Spot

In 2011, Atlanta implemented a large-scale GI project in the Historic Old 4th Ward Park as an alternative to a grey infrastructure solution to address combined system capacity challenges and localized stormwater flooding issues. The solution saved \$14M over the grey alternative, resolved local community flooding and created \$475M in economic development value. However, at the same time, the project catalyzed higher taxes, resulting in significant gentrification and displacement for local low- and moderate-income residents in the area. The Atlanta team realized that they hadn't proactively considered and acted on ways to protect the community from displacement. The City took this lesson to heart and in the next project, they worked with Invest Atlanta, the City's economic development authority, to create tax relief on impacted property values, invested in repairs to people's homes, and required robust community partnerships throughout.

The Atlanta team realized that they hadn't proactively considered and acted on ways to protect the community from displacement. The City took this lesson to heart and in the next project, they worked with Invest Atlanta to create tax relief, invest in repair, and require robust community partnerships throughout.



FURTHER READING + RESOURCES

See “Addressing Gentrification and Displacement Risks” in the *Equity in Green Infrastructure Literature Review and Interview Insights Report* ([Appendix D](#)) for more guidance.

ENDNOTES

¹ **Stakeholders:** A party with a vested interest in a green infrastructure program or project. For the purposes of evaluation, stakeholders may include:

1. Individuals directly engaged in green infrastructure program or project. This set is most likely to provide useful information on whether activities taken are having their intended effect because these people have been directly impacted by our work. However, this likely requires a more consistent system for tracking contact information and touchpoints/type of engagement with stakeholders as well as that we direct communication to solicit feedback.
2. Pre-existing stakeholder set that is already being tracked and communicated with by our local public sector stormwater management organization. May be as large as an entire ratepayer body and will depend on what internal infrastructure has been established. These people may have less direct involvement in our green infrastructure work and therefore the outcomes will be more diluted.
3. General public. May be engaged with a public survey.

² **Qualitative:** An assessment of characteristic, features, or quality. Should be considered alongside quantitative (see below) aspects for evaluation at each stage, asking “How well was the best practice implemented and the quality of both the end result and path to get there?”

³ **Quantitative:** A measurement relating to size or amount represented with numeric variable data. Should be considered alongside qualitative (see above) aspects for evaluation at each stage, asking “How well was the best practice implemented and the quality of both the end result and path to get there?”

⁴ **Other prioritized equity factors:** The additional identify and income equity factors such as race, ethnicity, sexual orientation, gender, disability, and age that are connected to inequities in health, wealth, life expectancy and other well-being outcomes.

⁵ **Likert Scale:** A type of rating scale question that uses a 5 or 7-point scale that ranges from one extreme attitude to another and typically includes a moderate or neutral option in the middle. Sometimes referred to as a satisfaction scale, Likert scales are reliable ways to measure opinions, perceptions, and behaviors and produce more granular feedback. A 5-point scale asking respondents to rate a statement such as “To what extent does [insert initiative] reflect your priorities?” may include the following options: Not at all, Very Little, Neutral, Somewhat, and To a Great Extent.



ENDNOTES

⁶ **Desk Review:** A research and evaluation process that involves collecting and examining already existing and accessible data, such as internal records, published reports, and information in newspapers, magazines, and on the internet.



GOAL 7

PROGRAMS + POLICIES



PROGRAMS* + POLICIES GOAL

Our green infrastructure policies and individual program designs, management, and reporting structures proactively elevate and drive transparency around equity.

*In this context, “programs” refers to the individual programs (e.g., incentive offerings, grant-based initiatives, education programs, regulatory measures, etc.) that collectively make up our broader green infrastructure program.

Why This Matters

Equity planning should be built into our program design and policies upfront to avoid uphill battles of retrofitting an existing program to become more equitable.

Long-Term Goals

Our policies and programs are increasingly informed by advanced knowledge of Identity Equity causes and effects and, as a result, we proactively advance Spatial Equity, Process Equity, and Power Equity.





Best Practices

Create an equity policy. Encourage leadership to develop or refine an Equity Policy that can inform updates to individual programs and policies across the organization. The Policy should lay out the general goals and commitments we will make from an equity perspective and the metrics we will track transparently.

Select high equity value programs and policies. Develop and implement a tool or method for assessing, assigning, and comparing the potential equity value of program and policy model options and apply it to drive more equity-centered selection of program and policy models.

Build equity into program design. Leverage the strategies recommended here to build equity planning into program design upfront to avoid the uphill battle of retrofitting an existing program to become equitable. Where warranted, retrofit existing programs to become more equitable.

Create a public reporting plan. Develop and implement a public reporting plan that shares program and project results, with explicit transparency on equity performance including activities undertaken to proactively advance equity, results to date, and work yet to be done. Facilitate meaningful community response (accolades, questions, and ideas) to public reports and recognize their contributions in ways they value. Analyze feedback, develop a response plan, take action where possible, and report resolutions to stakeholders².

Track Near-Term Outputs

❑ A overarching Equity Policy has been developed in collaboration with our community and adopted.

❑ An approach has been developed for comparatively assessing the potential equity value of various program model and policy model options.

❑ Our program and policy model selection processes consistently use a comparative potential equity value assessment in determining the final choice.

❑ We are tracking the number of our existing programs and policies and associated budgets that have been assessed to improve their potential equity value.

❑ We are tracking the percent of our existing programs and policies and associated budgets that have been refined to improve their potential equity value.

❑ We are tracking the percent of our new program and policy planning processes that explicitly consider and integrate strategies and budgets for elevating equity.

❑ We are tracking the percent of our relevant public reports that include data on equity performance.

❑ Stakeholders² provided feedback on our plan, with disaggregated data by neighborhood, race, and other prioritized equity factors.¹

❑ We recorded all actionable responses and communicated them to our team.

❑ We acted upon actionable feedback items and reported the results back to stakeholders.²



Measure What Matters	Suggested Metric	Data Collection Guidance
<p>Are our programs set up to incentivize equitable outcomes?</p> <p>Some traditional program structures are inequitable by design because they require a baseline of resources or power that precludes participation from disadvantaged communities.</p>	<p>Green infrastructure program models are adopted, designed, and/or refined, and implemented based on their ability to advance Identity, Spatial, Process, and Power Equity.</p>	<p>Facilitated Review Process Convene a review committee (that includes community stakeholders²) to review all programs currently underway or being planned and rigorously analyze the equity (or lack thereof) in the program structure.</p>
<p>Do our programs have adequate funding to integrate best practices in equity?</p> <p>Programs structured to serve hard-to-reach audiences need different and often higher resources to be successful.</p>	<p>Percent of green infrastructure programs that are adequately funded to achieve desired results.</p>	<p>Facilitated Discussion Conduct a post-mortem on each program year to identify areas where lack of resources, time, or expertise caused an equitable program to fall short of goals and hold a facilitated discussion on ways to more appropriately resource the program.</p>
<p>Do our policies support or hinder equity?</p> <p>Policies and laws can hinder equity initiatives described throughout this Guide.</p>	<p>Percent of policies adopted, designed, and/or refined based on their ability to advance Identity, Spatial, Process, and Power Equity.</p>	<p>Expert Review Commission an expert legal review of laws and policies that hinder our team's ability to execute initiatives described in this Guide. Work with legal experts, local leaders, and stakeholders² to discuss opportunities to change rules or work around them.</p>
<p>Do community stakeholders² believe our program is equitable?</p> <p>Representative community stakeholders² are the best judge of whether the structure of a given program enabled equity. By disaggregating data, we uncover any disparities the responses that may point to a group(s) being left behind the process.</p>	<p>Percent of stakeholders², disaggregated by race and other prioritized equity factors,¹ who report our green infrastructure program design and management effectively advance equity.</p>	<p>Survey Consider including a likert scale³ question such as "To what extent does the design of [insert program] effectively advance equity?" at the end of every project within a program to collect ongoing input.</p>



Measure What Matters

Suggested Metric

Data Collection Guidance

Are we being transparent about the equity of our green infrastructure initiatives?

Representative community stakeholders² are the best judge of whether our public reports give adequate transparency around equity to build trust and enable community stakeholders² to hold us accountable. By disaggregating data, we uncover any disparities in the responses that may point to a group(s) being left behind the process.

Percent of stakeholders,² disaggregated by race and other prioritized equity factors,¹ who report that our public reports drive transparency around equity.

Survey | Consider including a likert scale³ question such as “To what extent does the [insert report] clearly and transparently communicate the equity outcomes of our program?”



PROGRAMS + POLICIES

New School Urban Systems Lab + Cary Institute of Ecosystem Studies Bright Spot

A project of The New School Urban Systems Lab and Cary Institute of Ecosystem Studies, "[Is Green Infrastructure a Universal Good?](#)", assessed the equity of Green Infrastructure planning across the country. The project team chose 20 different-sized U.S. cities at various stages of adoption of green infrastructure, and examined what types of current planning efforts addressed 'green infrastructure.' Their search yielded 122 plans of many types, ranging from dedicated stormwater plans to comprehensive and sustainability plans. The team analyzed how the relationship between green infrastructure and equity was conceptualized, including how green infrastructure was intended to change distributions of urban hazards, the value of urban space, and labor opportunities. The team also examined the procedural equity of planning processes themselves, including how plans were created, and their stated intentions to involve impacted communities in design, implementation, and evaluation of green infrastructure. Each of these equity domains was scored on a scale of zero (missing) to four (ideal). While a high-level example, the project's plan evaluations identify factors to consider for embedding equity within green infrastructure plans, programs, and projects, and demonstrate one approach for evaluating equity in green infrastructure planning.

The project's plan evaluations identify factors to consider for embedding equity within green infrastructure plans, programs, and projects, and demonstrate one approach for evaluating equity in green infrastructure planning.



PROGRAMS + POLICIES

OakDOT Bright Spot

Launched in April 2020 as part of the city's COVID-19 response, the City of Oakland's Slow Streets Program was created to provide safe physical activity and alleviate overcrowding in parks and on trails by discouraging traffic on certain local streets. The program installed "soft closure" barriers to support the use of streets for walking, wheelchair rolling, jogging, and biking. Within a few months of Slow Streets being implemented, OakDOT took steps to critically evaluate how the program was or was not meeting the community's needs across the city. Special attention was paid to the realities of Oakland's inequitable distribution of resources and opportunities and the disproportionate impacts of COVID-19 on the City's Latinx and Black communities. In their evaluation, OakDOT sought to not only stabilize the program for the duration of the pandemic, but also to gain insights that could inform post-pandemic planning to advance safe, livable streets and a more equitable Oakland.

To evaluate the program, OakDOT sent out surveys (available in English, Spanish, Chinese, and Vietnamese) to residents in Slow Street corridors to solicit feedback on the installations. The [surveys results](#) disaggregated responses by geographic location, race and ethnicity, household income, gender, disability, and age and made these data publicly available. OakDOT also hosted weekly-to-monthly meetings with community leaders from high priority neighborhoods that were under-resourced and they were less likely to hear feedback from. OakDOT compensated participants for their time and contributions to these meetings. Based on this community feedback, a second phase of the program called Essential Places was then launched. In this phase, intersection improvements were installed at 21 locations to improve safe access to essential services such as grocery stores, health clinics, food distribution locations, and COVID-19 test sites in order to better meet the priorities identified by community. The Oakland Department of Transportation (OakDOT) also partnered with a local artist to install 4 barricade planters and culturally-relevant signage to address concerns that the barriers installed were unsightly and confusing. Additionally, modifications were made to the installations in some locations based on context-specific feedback. For example, OakDOT installed more durable barricades with Slow Street specific signage and flex points along the Brookdale Ave Slow Street Corridor and made adjustments to major cross streets by moving the barricades back into the street and adding signage on the adjacent streets leading up to the Slow Street. By evaluating the program and transparently reporting results disaggregated by race and other priority equity factors, the City of Oakland was able to facilitate meaningful community response, analyze feedback with an equity lens, develop an appropriate plan of action, and act accordingly to improve the program.



FURTHER READING + RESOURCES

See “Program Design” and “Evaluation” in the *Equity in Green Infrastructure Literature Review and Interview Insights Report* ([Appendix D](#)) for more guidance.

ENDNOTES

¹ **Other prioritized equity factors:** The additional identify and income equity factors such as race, ethnicity, sexual orientation, gender, disability, and age that are connected to inequities in health, wealth, life expectancy and other well-being outcomes.

² **Stakeholders:** A party with a vested interest in a green infrastructure program or project. For the purposes of evaluation, stakeholders may include:

1. Individuals directly engaged in green infrastructure program or project. This set is most likely to provide useful information on whether activities taken are having their intended effect because these people have been directly impacted by our work. However, this likely requires a more consistent system for tracking contact information and touchpoints/type of engagement with stakeholders as well as that we direct communication to solicit feedback.
2. Pre-existing stakeholder set that is already being tracked and communicated with by our local public sector stormwater management organization. May be as large as an entire ratepayer body and will depend on what internal infrastructure has been established. These people may have less direct involvement in our green infrastructure work and therefore the outcomes will be more diluted.
3. General public. May be engaged with a public survey.

³ **Likert Scale:** A type of rating scale question that uses a 5 or 7-point scale that ranges from one extreme attitude to another and typically includes a moderate or neutral option in the middle. Sometimes referred to as a satisfaction scale, Likert scales are reliable ways to measure opinions, perceptions, and behaviors and produce more granular feedback. A 5-point scale asking respondents to rate a statement such as “To what extent does [insert initiative] reflect your priorities?” may include the following options: Not at all, Very Little, Neutral, Somewhat, and To a Great Extent.

APPENDICES



APPENDIX A

Equity Statement of Purpose



The Equity Statement of purpose is available for download online at: <https://bit.ly/EquitySOPurpose>.

APPENDIX B

State of Equity Practice in Public Sector Green Infrastructure



The *State of Equity Practice in Public Sector Green Stormwater Infrastructure* report is available for download online at: <https://bit.ly/StateofEquity>.



The following definitions seek to add clarity to words or phrases used throughout this guide.

Green stormwater infrastructure: *Note: Throughout this Guide, the authors have shortened the phrase “Green Stormwater Infrastructure” to “Green Infrastructure” for ease of reading. In either case, these phrases refer specifically to: “The range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspire stormwater and reduce flows to sewer systems or to surface waters.” (State of Equity Practice in Public Sector Green Infrastructure Report)*

Green infrastructure: *Note: Though references to “green infrastructure” in this guide refer primarily to “green stormwater infrastructure”, the author has provided the following definition of the broader concept of green infrastructure, which is “A system of interconnected ecosystems, ecological-technological hybrids, and built infrastructures providing social, environmental, and technological functions and benefits. As a planning concept, green infrastructure brings attention to how urban ecosystems and built infrastructures function in relation to each other to achieve socially negotiated goals. This concept has emerged out of traditions of landscape conservation and design, often informing regional conservation strategies, as well as efforts to make stormwater systems more sustainable.” (giequity.org)*

Equity: *Rather than anchoring this Guide on a fixed definition of equity, we offer a range of definitions with alternative framings that may help in different contexts, as well as definitions of various dimensions of equity.*

- “The state in which one’s race, economic status, zip code, and other forms of personal and community identities do not define one’s privilege or oppression.” (*Equity Statement of Purpose*)
- “Fairness in process and outcomes, including the allocation of resources based upon need. The factors and processes that determine Equity are dynamic and may change over space and time, as new circumstances (i.e. climate change) and understandings arise.” (giequity.org)
- The state in which, regardless of identity, all are free from oppression and have equal access to—and are sufficiently supported to fully participate in—rights, resources, and opportunities.

Spatial equity: Describes where communities are/have been underinvested or disinvested and where communities are experiencing multiple forms of systemic vulnerability and environmental injustice related to housing, poverty, access to transportation, food, pollution, and/or environmental burdens.

Identity equity: Describes the multitude of ways individuals hold racial, gender, ability, age, economic status, and other identities. For green infrastructure in particular, this asks practitioners to consider the trends around access to green infrastructure and green infrastructure investment for communities, given the identities they hold. It explicitly asks whether communities who are traditionally given marginalized identities (Black, Indigenous, and People of Color, People with Disabilities, Age, LGBTQIA2+, etc.) are



included and provided access to projects directly affecting their communities and whether communities who suffer vulnerabilities due to multiple forms of systemic marginalization are centered and included. *Many of the suggested metrics and near-term outputs in this Guide call for us to disaggregate data by race and other prioritized equity factors to help surface areas where specific identities are being marginalized.*

Process equity: Describes the degree of access various communities have to public decision-making. It asks who has access to government leaders; who is consistently engaged or not; and what different kinds of barriers are present for communities that limit engagement, such as access to information, engagement platforms, language accessibility, time, and child care.

Power equity: Describes who has influence and control over resources and considers whether the profiles of these influencers align (or do not align) with who is most marginalized from the benefits. It asks whether power over resources, problem-definition, and solution-making is shared. It also invites us to ask who is being considered the “expert” and whether that group can be expanded to be more inclusive.

Extent feasible: The degree to which an action, initiative, policy, or program can be implemented, depending on local stormwater management organization context. Must be further defined and vetted by individual stormwater management organization to make highly detailed, context-informed decisions.

High equity value communities: Communities that are currently marked by significant inequities and for whom reducing those inequities has the potential to unlock significant additional thriving (health, wealth, happiness, and contribution to society). These communities are often geographically concentrated and equity strategies can leverage change by focusing investments in these geographic areas.

High quality job: According to an article by Emma K. Tsui published in the American Journal of Public Health, a high quality job “should involve (1) a combination of earnings per hour and hours of work that results in annual earnings above the poverty level; (2) work patterns that are steady throughout the year and that do not require “patching” or holding more than one job simultaneously; (3) the provision of benefits such as health insurance, paid vacation, paid sick leave, a pension, and ongoing paid training opportunities; and (4) work that participants find satisfying.” Additionally, such jobs should be connected to further professional advancement.

Internal staff: Stormwater management organization staff including general management, senior leadership, finance, procurement, planning, design and engineering, and green infrastructure team members who can influence both the decision-making and implementation of green infrastructure programs and projects.



Key performance indicators (KPIs): A measurement of critical metrics that signal progress towards an intended result. KPIs evaluate how far an individual or team has advanced towards successfully achieving a goal. They must be set and determined by the unique management structure of the organization.

Local hiring: A goal or requirement to hire people who live close (e.g., within a five mile radius) to the place of work.

Meaningful engagement: Determined by the engaged stakeholders themselves, the degree to which these stakeholders felt they were engaged by the stormwater management organization in ways that empowered them as essential, decision-making partners in the design and development of a green infrastructure project or program. May be assessed using a Likert scale question asking the degree to which respondents agree or disagree with the following statement: “I felt meaningfully engaged by the stormwater management organization in the design and development of this green infrastructure project/program.”

Other prioritized equity factors: The additional identity and income equity factors such as race, ethnicity, sexual orientation, gender, disability, and age that are connected to inequities in health, wealth, life expectancy, and other well-being outcomes.

Stakeholders: A party with a vested interest in a green infrastructure program or project. For the purposes of evaluation, stakeholders may include:

1. Individuals directly engaged in a green infrastructure program or project. A set of local, representative individuals who live, work, and/or play where the green infrastructure will be installed is most likely to provide useful information on whether engagement activities are having their intended effect. However, this requires additional resources, including a system for tracking stakeholder contact information, touchpoints, and type of engagement, as well as that we conduct the required targeted outreach to solicit feedback.
2. Pre-existing stakeholder set that is already being tracked and communicated with by our local public sector stormwater management organization. May be as large as an entire ratepayer body and will depend on what internal infrastructure has been established. These people may have less direct involvement in our green infrastructure work and therefore the outcomes will be more diluted.
3. General public. May be engaged with a public survey.

Qualitative: An assessment of characteristics, features, or quality. Should be considered alongside quantitative (see below) aspects for evaluation at each stage, asking “How well was the best practice implemented and the quality of both the end result and path to get there?”



Quantitative: A measurement relating to size or amount represented with numeric variable data. Should be considered alongside qualitative (see above) aspects for evaluation at each stage, asking “How well was the best practice implemented and the quality of both the end result and path to get there?”

Asset-Mapping: A strength based approach to community development, asset mapping refers to the systematic process of identifying and cataloging key strengths and resources in a community, including important institutions, individuals, associations, and private, public, and community-based organizations.

Desk Review: A research and evaluation process that involves collecting and examining already existing and accessible data, such as internal records, published reports, and information in newspapers, magazines, and on the internet.

APPENDIX D

Literature Review + Community Interviews



The full *Literature Review + Community Interviews Summary* is available for download online at:

<https://bit.ly/EquityGILitReview>.



CENTERING COMMUNITY WORKBOOK



USING THE EQUITY GUIDE TO CENTER COMMUNITY

Establish Phases: Plan, Do, Check, Act

The recommended process for using the Guide to chart a course to Center Community follows a Plan, Do, Check, Act model. This model is widely used in program and project management settings because the cycle of **Phases** encourages continuous, incremental improvement over time. Each green infrastructure program cycle offers the opportunity to create a revised Centering Community plan, implement the plan, measure success, and apply learnings to help inform a refined plan for future years.

The standard Plan, Do, Check, Act framework forms the outermost ring of the Guide's graphic.



Follow a Recommended Process

Within each Phase of the Plan, Do, Check, Act model is a recommended **Process**. The following pages offer step-by-step guidance on a recommended process to advance the Centering Community goal and link directly to the Guide Resources that support the process. Throughout, there are prompts for specific actions to take and deliverables to generate.

The headlines of this process form the middle ring.



Use the Resources Developed to Support Each Phase

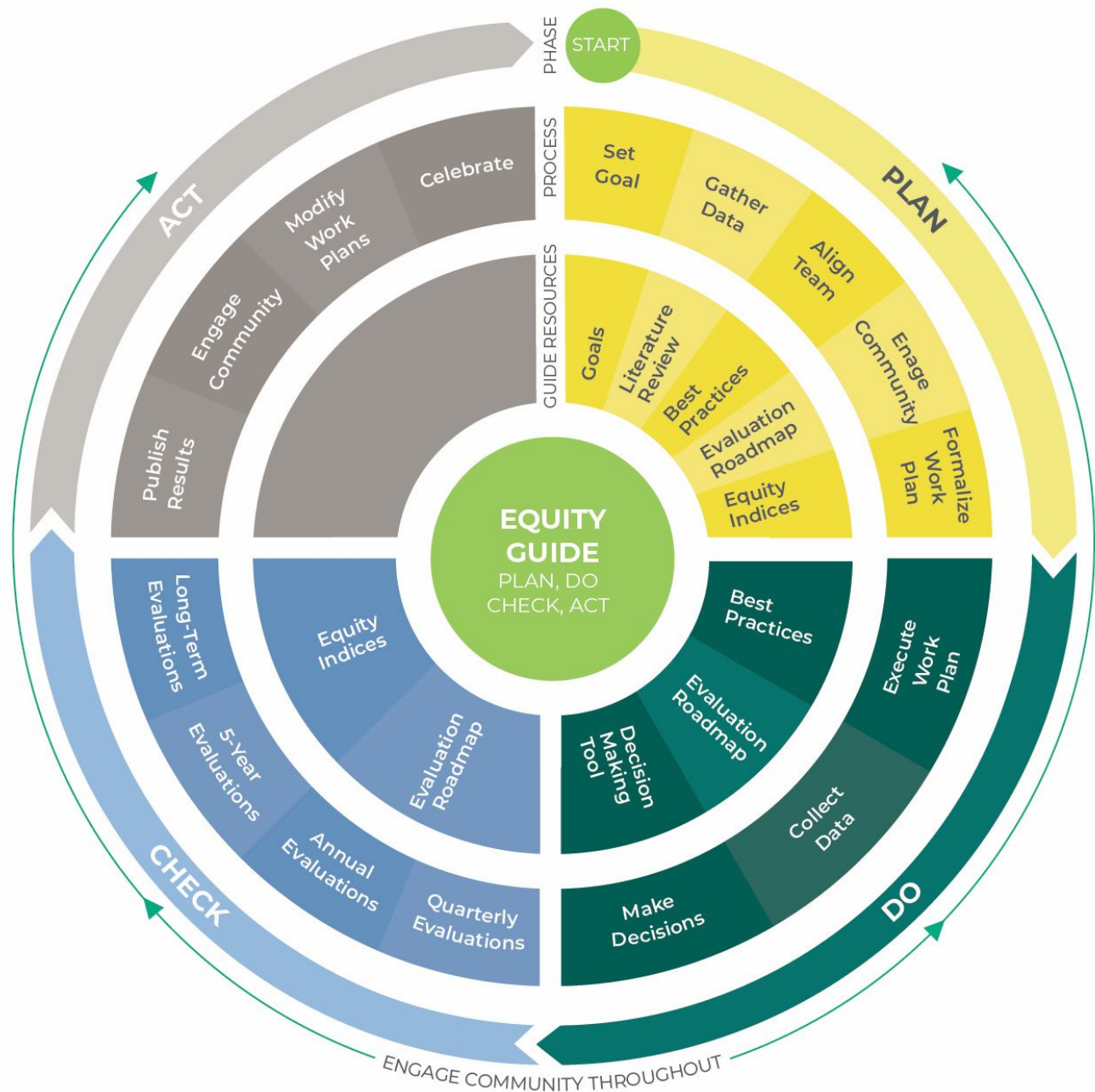
This Guide offers many individual **Resources** that support our teams in implementing the recommended Process within each Phase.

The relevant Guide resources for each Phase form the innermost ring.





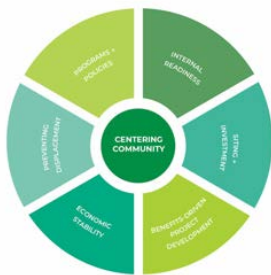
Bringing the **Phase**, **Process**, and **Resources** rings together results in the following graphic which can help visualize how to apply the contents of this Guide to chart a team-wide path to advance the Centering Community goal. As shown in this graphic, community engagement should be a *consistent* part of the process throughout every Phase.





Launch the “Plan” phase leading up to the next annual green infrastructure program strategic planning and budgeting cycle. Begin by affirming readiness to take on the Centering Community goal, gathering data, aligning the team, and engaging community.

Gather Guide Resources



GOALS + CHOOSING GOALS TOOL



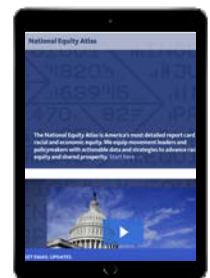
LITERATURE REVIEW



BEST PRACTICES



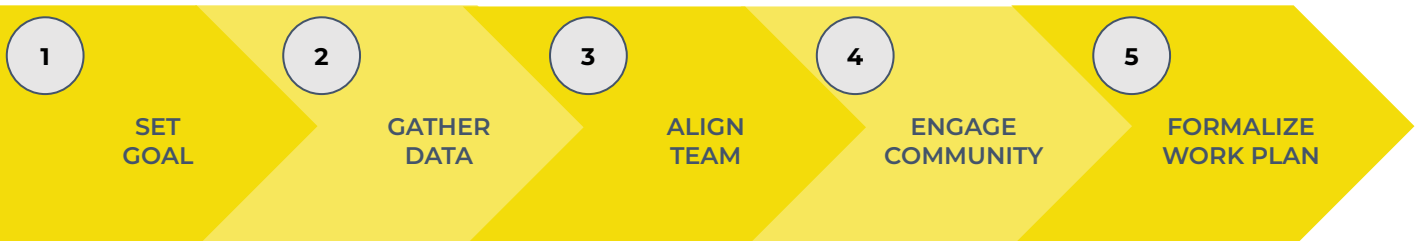
EVALUATION ROADMAP



EQUITY INDICES

Review the Process

ENGAGE COMMUNITY



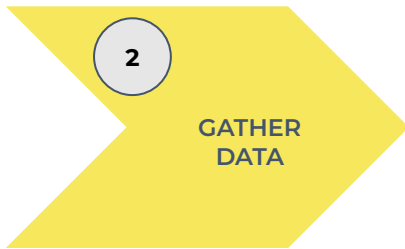


RECOMMENDED PROCESS

1. Review the 'Centering Communities' tab of the [Excel-based 'Choosing Goals Self-Assessment'](#) to begin to assess our department's readiness and capabilities to advance Centering Community goal.
2. Engage community stakeholders in the process of assessing the importance of prioritizing measurable progress toward the Centering Community goal.
 - a. Stakeholders we will engage, and specific community groups and/or community leaders we could partner with to engage the community:
 - b. Process for engaging stakeholders:
3. Engage other agencies, departments, and review long term plans to seek areas of alignment around the Centering Community goal.
 - a. Other agencies and departments we will engage:
 - b. Process for engaging other agencies and departments:
 - c. Long-term plans we will review:
 - d. Process for reviewing and assessing alignment from long-range plans:

OUTCOME

Using the community input, broader jurisdictional plans, and an internal assessment of capabilities, affirm the choice to prioritize the Centering Community goal and facilitate an internal alignment process.



RESOURCES



LITERATURE REVIEW



CENTERING COMMUNITY



EQUITY INDICES

RECOMMENDED PROCESS

1. First, complete a detailed review of the Centering Community content in the Literature Review and Equity Guide.
2. Once our core team has a full understanding of the scope and details of the Centering Community content, ask ourselves what's already being done, what resources are needed, what's feasible, and what will have biggest impact. Consider using the Centering Community tab of the ['Choosing Goals Self Assessment' Excel-based spreadsheet](#) to complete this detailed assessment.
3. Also take some time now to complete a high-level assessment of how our team will approach data collection to track performance against these suggested metrics.
 - a. First, review the Centering Community Near Term Outputs in the Guide. Highlight any our team could realistically begin collecting data for in the coming year.
 - b. Next, review the Centering Community Suggested Metrics and Data Collection Guidance in the Guide. Highlight any our team could realistically begin collecting data for in the coming year. Jot down some initial notes about how our team could begin collecting the data.
4. Ensure our team has a strong working knowledge of the diversity of communities within our jurisdiction, as well as the current and/or past inequities they face. Consult national (The National Equity Atlas) or local equity indices for baseline data about our jurisdiction.

OUTCOMES

We have a strong working knowledge of the Centering Community best practices, evaluation recommendations and have taken stock of how our current department's practices, resources, and capabilities relate.

We have looked at data related to 'Centering Community' for our community using The National Equity Atlas or other local sources.

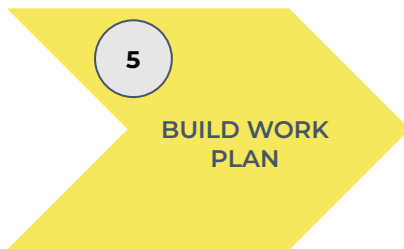


RECOMMENDED PROCESS

1. Next, start the process of fostering alignment around the Centering Community goal across the full team that delivers green infrastructure policies, programs, and projects within this jurisdiction. To develop an approach to alignment, consider the following questions:
 - a. Who will we need to engage *within* our team to build support for Centering Community?
 - b. Who will we need to engage *outside* our team to build support for Centering Community?
 - c. Who will be our strongest allies? How can we empower them to build support?
 - d. What will be our biggest barriers? How can we overcome them?
 - e. What data do we need to share to create alignment?
 - f. Based on our answers to the above, what is our plan to create alignment and internal support for Centering Community?

OUTCOME

Complete an internal alignment process to build internal support for Centering Community.



RESOURCE



BEST PRACTICES

RECOMMENDED PROCESS

Check off each of the following to-do's as they are completed.

- Build a **Centering Community Work Plan** that's grounded in the Best Practices section of the Guide and community input collected.
- Vet the Centering Community Work Plan with our team and leaders and create alignment.
- Create a **Centering Community Evaluation Plan** to track our success delivering the Work Plan. First, review the *How to Approach Evaluation* section of the Guide, then use the Near-Term Outputs in the Guide and community input as a base to create customized near-term outputs to be accomplished. Finally, use the Suggested Metrics in the Guide and community input as a base to create customized metrics that will measure mid-term progress over time.
- Assign roles. Decide which team members will be accountable to delivering each element of the Work Plan collecting data to track near-term outputs and metrics in the Centering Community Evaluation Plan.
- Establish a budget. Work with leadership to assign budget and staff time to execute the Centering Community Work Plan and Evaluation Plan.

OUTCOMES

We have developed and secured approval of a work plan based on the Best Practices in the Centering Community section of the Guide and local community input. We know who is responsible for the action items in the work plan and we know how we will measure success.



Most of a typical year will be spent in the “Do” phase where the green infrastructure program team implements the Work Plan established in the “Plan” phase and collects the data required to track performance using the Evaluation Plan.

Gather Guide Resources



BEST PRACTICES



EVALUATION ROADMAP



DECISION-MAKING CHECKLIST

Review the Process

ENGAGE COMMUNITY

1

EXECUTE WORK PLAN

2

COLLECT DATA

3

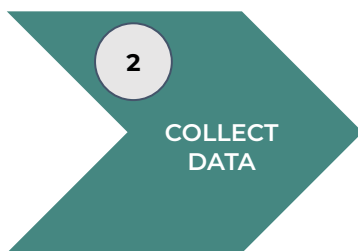
MAKE DECISIONS



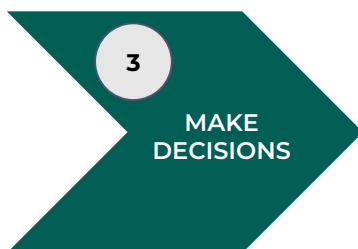
RESOURCES



BEST PRACTICES



EVALUATION ROADMAP



DECISION-MAKING CHECKLIST

RECOMMENDED PROCESS

1. As each green infrastructure policy, program, and/or project unfolds, regularly refer to the Centering Community Work Plan to guide implementation of our team's selected best practices.
2. Host regular check-ins with the team to help hold each other accountable to assigned actions.
 - a. We are committed to meeting _____ (insert frequency) to support each other and help hold each other accountable to the Centering Community Work Plan.
1. Collect data to track performance as outlined in our Centering Community Evaluation Plan (e.g., internal data tracking, citizen science initiatives, or others.)
2. Where appropriate, disaggregate data by race and other prioritized equity factors to help surface areas where specific identities are being marginalized.
 - a. We will disaggregate data by the following prioritized equity factors significance to our jurisdiction:
1. Use the Decision-Making Checklists for Program Managers and Organizational Leaders to navigate real-time decisions that emerge along the way.

OUTCOMES

Our actions and decisions in the course of program delivery reflect our Work Plan and we are collecting relevant data to successfully complete our Evaluation Plan.



The “Check” phase happens at regular intervals throughout the year to support mid-stream course correction and at annual, mid-term, and long-term intervals to measure progress over time.

Gather Guide Resources



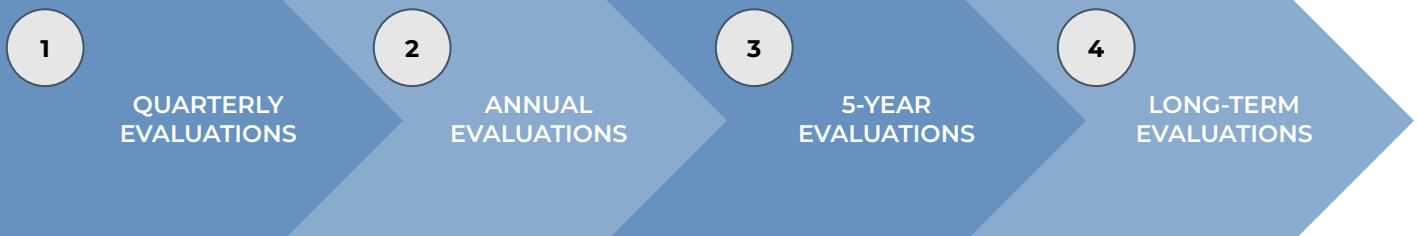
EVALUATION ROADMAP



EQUITY INDICES

Review the Process

ENGAGE COMMUNITY





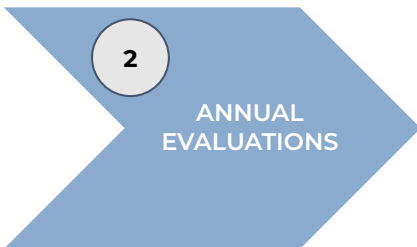
RESOURCES

RECOMMENDED PROCESS



EVALUATION ROADMAP

1. Select the reporting rhythm that works best for our organization.
 - a. We will meet to review our progress against the Evaluation Plan _____ times in the coming year.



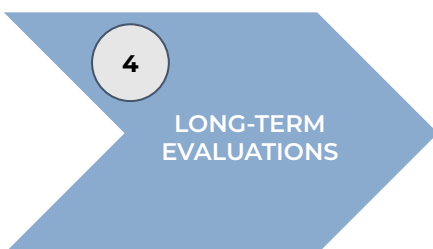
EVALUATION ROADMAP

1. Review annual progress against the Evaluation Plan.
2. Consider publishing a public version of the annual evaluation and engage community with the report contents.



EQUITY INDICES

1. Capture a snapshot of Equity Indicators data from national or local equity indices and benchmark against previous years.
2. Host a discussion with internal and external stakeholders to reflect on changes in data and ways green infrastructure may be contributing to data shifts.



EVALUATION ROADMAP

1. Implement long-term Centering Community evaluations that correspond to the timeline for our long-range plans.
2. Consider publishing a public version of long-term evaluations and actively engage community with the report contents.



The “Act” phase focuses the green infrastructure program team on reflection and modification of Work Plans. This is both an internal team process, and also a community-engaged process of understanding what went well, where challenges occurred, and how the next “Plan” phase can build on success and reflect lessons learned.

Review the Process

ENGAGE COMMUNITY





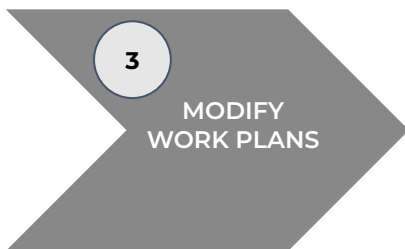
RECOMMENDED PROCESS



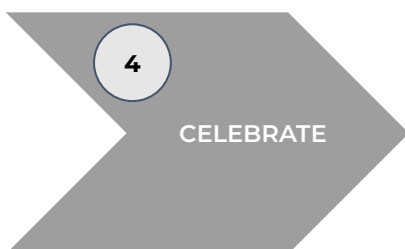
1. At the conclusion of the first Work Plan period, publish a digestible report that highlights the ways that community was centered, including Bright Spots (specific success stories that inspire further action and build support), challenges, and ideas for improvement in the next Work Plan.
2. Ensure the report will be available over time.



1. Host community workshop(s) to gather feedback.
 - a. Community stakeholders we will invite, and specific community groups and/or community leaders we could partner with to engage the community:



1. Modify Centering Community Work Plan based on community input from workshop(s).
 - a. Key lessons learned that will inform updates:



1. Celebrate and publicize successes to build community trust. Acknowledge areas with room for improvement to improve transparency.
 - a. How we will encourage celebration with community:
 - b. How we will publicize Bright Spots:

OUTCOMES

Our new Community Centering Work Plan reflects the previous years' lived experience as well as community insight; Team members and stakeholders are energized by the previous years' Centering Community bright spots.



Internal Readiness

- Is there any specific training, or resource, or time/budgetary allowance that will help me achieve my equity goals? If so, discuss this with management.

Centering Community

- Am I following a community engagement plan that reflects input from community stakeholders?
- Is my community engagement budget and time allocation sufficient?
- Have I engaged community stakeholders as essential partners in the upfront planning for the program or project?
- Do I have the resources and support to engage community throughout the full lifecycle?

Siting and Investment

- Was the community engaged in siting decisions/prioritization?
- Do I understand the potential equity gains and have those been used to evaluate the site and resource the project/program?

Benefits-Driven Project Development

- Has community co-designed the green infrastructure?
- Have I followed technical/design standards that advance equity?
- Is the construction plan and budget going to be able to deliver on the community priorities?
- Is the maintenance appropriately resourced to ensure the BMP remains an equitable asset?

Economic Stability

- Have I maximized opportunities for local/SWMBE firms who can realistically build wealth in the community served to provide any contracted services?
- What workforce development activities could be integrated into the program/project?

Preventing Displacement

- Is there real or perceived displacement risk for the project/program?
- Have I engaged a displacement expert to help me understand the risks and potential mitigation strategies? Have I asked them to participate in a community dialogue?
- Have I engaged the community in a dialogue about displacement risk mitigation strategies?
- Have I developed a displacement prevention plan for the project/program?

Programs and Policy

- Can the community easily access information about the equity efforts and outcomes of our policies and programs?



Internal Readiness

- What training, resource, or time/budgetary allowance have I provided to my team to help them achieve their equity goals?

Centering Community

- Has my team established a community engagement plan that reflects input from community stakeholders? Are we holding ourselves accountable to execute the plan?
- Does my team have a sufficient community engagement budget and time allocation?
- Has my team engaged community stakeholders as essential partners in the upfront planning for the program or project?
- Have I provided the resources and support needed to engage community throughout the full lifecycle?

Siting and Investment

- Are we measuring and holding ourselves accountable to engage the community in siting decisions/prioritization?
- Does my team have a clear and consistent method to evaluate the potential equity gains and have those been used to evaluate the site and resource the project/program?

Benefits-Driven Project Development

- Does my team have a clear and consistent method for ensuring community co-designed the green infrastructure?
- Is my team held accountable to apply technical/design standards that advance equity? Are these standards kept up to date based on our advancing understanding of how to enhance equity?
- Does my team report that the construction plan and budget are going to be able to deliver on the community priorities? Does my team feel safe to ask for more resources when needed to complete a project equitably?
- Does my team have a clear and consistent method for ensuring maintenance is appropriately resourced to ensure the BMP remains an equitable asset?

Economic Stability

- Does my team have a clear and consistent method for prioritizing opportunities for local/SWMBE firms (who can realistically build wealth in the community served) to provide any contracted services?
- What workforce development activities could be integrated into the program/project?



Preventing Displacement

- Does my team have a clear and consistent method for determining if there is real or perceived displacement risk for the project/program?
- Has my team engaged a displacement expert to help us understand the risks and potential mitigation strategies? Have we asked them to participate in a community dialogue?
- Is my team being held accountable to engage community stakeholders in a dialogue about displacement risk mitigation strategies?
- Has my team established a displacement prevention plan for the project/program?

Programs and Policy

- Does my team have clear and consistent standards for ensuring that community can easily access information?



The indicators we recommend focusing on for **Long-Term Stretch Goals** are presented in the table on the following page and draw from several sources.

The National Equity Atlas. The [Equity Atlas](#) is America's most detailed report card on racial and economic equity. It equips movement leaders and policymakers with actionable data and strategies to advance racial equity and shared prosperity. While it is impossible to show causal relationships between specific racial equity indicators on the Atlas and individual green infrastructure interventions, there are strong correlations between the best practices prompted in each goal of this Guide and long-term changes in racial equity indicators. Exchange members are encouraged to schedule a city-specific workshop with Greenprint Partners and The National Equity Atlas to dig into racial equity indicators in our individual cities and wrestle as a team with the questions and ideation they prompt. To schedule a workshop, contact Greenprint's Director of Equitable Planning, Kristin Ihnchak, at kristinihnchak@greenprintpartners.com.

Research into Co-Benefits of Green Infrastructure. A large and growing body of research shows causal links between high quality green spaces in neighborhoods and community quality of life benefits. The co-benefits of vegetative green infrastructure can include a broad variety of benefits from mental wellbeing and physical health, community pride and cohesion, increased pedestrian and public safety, access to jobs, and many more.

APPENDIX H

Long-Term Equity Indicators



GOAL	EQUITY ATLAS INDICATORS <i>Local data available throughout US</i>	OTHER INDICATORS <i>Local availability of data will vary</i>
Siting + Investment	<ul style="list-style-type: none"> • Educational Attainment • Disconnected Youth • Life Expectancy • Air Pollution • Neighborhood Poverty 	<ul style="list-style-type: none"> • Water Quality, Supply, and Management • Climate Risks (Flood, Drought, Heat Exposure) • Quality of Life Benefits Realized by Nature in Communities (Mental and Physical Health, Recreation Space, Community Cohesion, Safety, Traffic Calming, and More)
Preventing Displacement	<ul style="list-style-type: none"> • Home Ownership • Rent Burden • Percent People of Color 	<ul style="list-style-type: none"> • Access to Green Infrastructure Workforce Training and Jobs • Climate Risks (Flood, Drought, Heat Exposure)
Benefits-Driven Project Development	<ul style="list-style-type: none"> • Educational Attainment • Life Expectancy • Air Pollution • Neighborhood Poverty 	<ul style="list-style-type: none"> • Water Quality, Supply, and Management • Climate Risks (Flood, Drought, Heat Exposure) • Quality of Life Benefits Realized by Nature in Communities (Mental and Physical Health, Recreation Space, Community Cohesion, Safety, Traffic Calming, and More)
Economic Stability	<ul style="list-style-type: none"> • Median Wages • Poverty • Unemployment • Job and Wage Growth • Disconnected Youth • Racial Equity in Income 	<ul style="list-style-type: none"> • Water Quality, Supply, and Management • Climate Risks (Flood, Drought, Heat Exposure) • Access to Green Infrastructure Workforce Training and Jobs • Quality of Life Benefits Realized by Nature in Communities (Mental and Physical Health, Recreation Space, Community Cohesion, Safety, Traffic Calming, and More)

APPENDIX I

Metrics Spreadsheet



The metrics spreadsheet is available for download online at: <https://bit.ly/EquityMetrics>.



The Retrospective Project Assessment tool is a great place to start the next chapter of equity work. This tool enables teams to come together to review completed work and ground the next phase of work in insights from areas where we're already succeeding or need additional effort and innovation. The tool accomplishes this by facilitating team-wide discussions that integrate qualitative and quantitative data, community input, and appreciative inquiry to reflect on completed projects. ***Ultimately, the goal is to identify bright spots from the efforts that our team can build from rather than to focus energies on perceived failures. Team members who enter each Retrospective Project Assessment cycle with a commitment to celebrate wins together are more likely to sustain (and grow) momentum for the equity journey ahead.***

The desired outcomes of the assessment are:

1. Bright spot examples from our work that we can use to build momentum for expanding our equity commitment.
2. Action items the team is interested in pursuing to further advance equity in future projects with an accompanying rationale for why these are important that is grounded in work and investments that have already been made.
3. A list of additional support the team needs to advance our internal readiness.

The outcome of this assessment is NOT intended to include:

1. A specific project equity score.
2. A laundry list of failed efforts.

Included in this tool are the following resources:

1. [Sample Community Stakeholder Pre-Survey](#). This collects data that broadens our view on the outcomes of our project-level equity efforts. It ground-truths our findings by elevating the perspectives of frontline communities who are the foremost experts on what needs to change so we can deliver solutions that best meet community needs.
2. [Discussion pre-work recommendations](#). The recommended pre-work ensures that all participants will come to the meeting with important details about the neighborhood served, the project, and the equity efforts and outcomes readily at hand, and with brains warmed up for the task ahead. It also shortens the path to creating a compelling case study shortly after the discussion.
3. [Equity Assessment Discussion](#). This section offers suggestions for planning discussion logistics, roles within the discussion, and a suggested agenda.
4. [Discussion Facilitation Guide Workbooks](#). The workbook allows participants to efficiently progress through a reflective process and identify key outcomes that shape a case study and inform future equity efforts.
5. [Post-Discussion Reflection](#). This guided reflection helps Participants look inward within our departments and identify the places where Internal Readiness can be enhanced based on lessons learned from the project or group of projects.

**Community Stakeholder Pre-Survey (Optional)**

While we may choose to hold this discussion internally with the project team to help create a safe space for unfiltered reflection, it is still important to broaden perspectives by asking the affected stakeholders about their experience. If a Community Stakeholder Pre-Survey is pursued, consider ways to compensate respondents for their time and effort (e.g., gift cards, food, transportation vouchers or child care support). Administer the survey early enough to leave time to collate responses into an easy-to-read report that participants will read in advance of the discussion. In the survey introduction, offer a brief description of the project (or group of proximate projects) including their location, design features, the project team, and a brief narrative of the process, then ask the following:

Please rate your agreement with these statements from 1 (“Strongly Disagree”) to 5 (“Strongly Agree”).

1. I was very involved in shaping this project.
2. I feel that my participation throughout the project was valued.
3. I have a trusting relationship with the project team.
4. *Offer a statement of the community priorities elevated and used to shape the project design.*
 - a. These project priorities reflect what I think is most important.
5. *Provide the following two (2) statements for each benefit.*
 - a. *[insert benefit]* was achieved through the project.
 - b. *[insert benefit]* positively impacts my community.
6. Based on my experience of this project, I want to see more green infrastructure built in my neighborhood.
7. *Offer a brief description of the economic stability efforts and benefits associated with the project(s).*
 - a. The project resulted in desirable local training and/or apprenticeship opportunities.
 - b. Training and/or apprenticeship opportunities were communicated within my community.
 - c. The project resulted in desirable local job opportunities.
 - d. Job opportunities were communicated within my community.
 - e. The project resulted in opportunities for local businesses.
 - f. Opportunities for local businesses were communicated within my community.
8. I am concerned that the project (group of projects) may decrease housing affordability within my community.
9. Please add any other comments on this project.



Discussion Pre-Work Recommendations

Neighborhood context. Before the facilitated discussion occurs, take time to assemble information about the neighborhood where the project (or group of projects) is located. Create a brief neighborhood profile that helps the discussion group understand the equity issues at play in the community where the project is sited, by answering the core question: “What do we know about who this community is, and who its unique sub-communities are?”

Neighborhood Profile

Identity

(e.g., racial, ethnic, and cultural make-up)

Livelihood

(e.g., employment, income, and wealth)

Assets

(e.g., institutions, network, motivations, values, and achievements)

Challenges

(e.g., inequities, resource gaps, risks, past and current harms experienced by neighborhood)

Plans

(e.g., priorities and plans that the community has identified for itself)

Identify any areas where the group needs to supplement perspectives with hard data and community interviews; the table on the following page provides guidance on where to source additional data that may be useful.

APPENDIX J

Retrospective Project Assessment



DATA	SOURCE	DETAILED NOTES
<p>Demographics:</p> <ul style="list-style-type: none"> • Percent people of color within a one mile radius, disaggregated by describing predominant subcommunities • Percent low income within a one mile radius • Income qualified census tract? (yes/no) 	<p>EPA EJ Screening and Mapping Tool</p> <p>The National Equity Atlas</p> <p>HUD User</p>	
<p>Local data related to:</p> <ul style="list-style-type: none"> • Water quality, supply, and management • Climate risks (flood, drought, heat exposure) • Mental and physical health levels, access to recreation space, community cohesion levels, public safety levels, access to traffic calming • Access to green infrastructure workforce training and jobs 	<p>Local data sources</p>	
<p>National Equity Atlas Data such as:</p> <ul style="list-style-type: none"> • Educational attainment • Disconnected youth • Life expectancy • Air pollution • Neighborhood poverty • Home ownership • Rent burden • Median wages • Unemployment • Job and wage growth • Racial equity in income 	<p>The National Equity Atlas</p>	



Goals Pre-Reflection. Five of the goals from the Guide can be used to directly assess project-level success. They are shown in the accompanying Equity Assessment Workbooks. For each, invite every discussion participant to fill out as much information as possible in the first two columns. Encourage each member of the project team who will attend the discussion to complete this pre-reflection process so that brains are warmed up, and there is time to track down any missing information that will support a productive discussion.

Equity Assessment Discussion

Discussion logistics.

- **Timing.** Set aside a minimum of two hours for the discussion and know that if the group has substantive discussions about each of the five highlighted goals, more time will be needed.
- **Location.** Select a location or virtual setting where everyone can sit face to face and feel comfortable. If possible, choose a neutral space where power dynamics are less likely to be at play, influencing individuals' comfort with being candid.
- **Attendees.** Decide who will be invited to the discussion based on 1) who will be able to bring insight and experience related to the prompts in the pre-work above and 2) who would benefit from attending this discussion as part of their learning process and/or to build support and political will for equity initiatives. If feasible, consider inviting several community stakeholders to participate in the discussion, too, to add their real-time insight.
- **Focus.** Use a shared point of focus for recording insights throughout the conversation (e.g., wall post-its, white board or virtual collaboration platform). Minimize distractions by asking attendees to limit extraneous technology use during the meeting; have materials in print outs if possible.
- **Materials.** Ahead of the meeting, distribute the results of the community survey, a narrative of the neighborhood context (see above), and a copy each Workbook with a request that everyone come to the meeting having filled out the first two columns to the best of their ability to help focus the discussion.

Discussion roles. Depending on the number of people involved, individuals may have more than one role.

- **Facilitator.** Select one individual to be the facilitator. Their job is to create safe space for each topic to be thoroughly discussed, help elevate the voices of all participants, and help keep the group focused on the goals of the meeting. They can also help keep time, or request that another participant help manage time.
- **Scribe:** Select a strong writer to act as scribe, capturing and synthesizing content discussed in the meeting into a draft case study that elevates bright spots.
- **Bright spots probe:** Select one individual to be responsible for ensuring that the group identifies and builds consensus about bright spots.



Discussion roles. (continued)

- Community voices probe: Select one individual to be responsible for identifying emerging assumptions that need to be ground-truthed through community perspective.
- Internal readiness probe: Select one individual to be responsible for ensuring that that group identifies and builds consensus about areas to invest in the internal readiness goal (e.g., such as through training or skill-building).
- Project improvement probe: Select one individual to be responsible for ensuring that that group identifies and builds consensus about areas where the project team can improve equity practices in upcoming projects.



DISCUSSION AGENDA

Opening

(10 minutes)

- Create a safe space and offer ground-rules for productive engagement that acknowledge that we are all on a learning journey individually and collectively. *There are many published resources on creating a “safe” and/or “brave” space that can be explored, but at a minimum, encourage participants not to shame ourselves or one another for making mistakes or being open about things we don't know, or mindset shifts we haven't yet made. Ask participants to commit to bringing the “whole self” to this discussion, recognizing the value of our lived experiences, formal education and professional practice.*
- Lay out key goals for the discussion and desired outcomes.
- Go around the room and ask everyone to state a goal they have for the meeting, and how they are committing to supporting their colleagues in this discussion and maintaining the safe space.

Context Setting

(20 minutes)

- Meeting facilitator verbally summarizes the results of the neighborhood context, inviting clarifying questions from the group.
- Ask the project manager to describe the project(s) in 10 minutes or less, inviting clarifying questions or other salient details from those involved.

Scribe writes a summary of the pre-existing conditions and project overview, creating the opening of the internal case study.

Equity Assessment

(1-2.5 hours)

Plan to spend about 30 minutes per goal:

1. Facilitator introduces the goal and then guides the group to discuss each best practice in turn.
2. Facilitator introduced each best practice and asks the group to share efforts and outcomes (drawing on pre-work).
3. Facilitator brings in related insights from community survey results (if available).
4. Facilitator asks the group to continue to build on insights until everyone who has something to contribute has been heard.
5. Bright spots probe looks for bright spots to highlight.
6. Community voices probe calls out emerging assumptions that need to be ground-truthed through community perspective.
7. Project improvement probe looks for opportunities to increase success building from lessons of past projects.
8. Internal readiness probe looks for opportunities to learn from experience to build on internal readiness.

Scribe writes a summary of the equity best practices that were implemented and what was achieved as a result, including weaving in community responses wherever possible.

APPENDIX J

Retrospective Project Assessment



CENTERING COMMUNITY WORKBOOK			
Pre-Work		Discussion Session	
<i>Check off the best practices that were used.</i>	<i>Jot down how the team approached the checked-off best practices</i>	<i>Jot down notes about any outcomes of the best practice</i>	<i>Jot down any related insight from the community survey</i>
<input type="checkbox"/> Be present in communities without asking for anything and listen. <input type="checkbox"/> Make space for owning past harms.			
<input type="checkbox"/> Surface historical input. <input type="checkbox"/> Source fresh input. <input type="checkbox"/> Incorporate input from community voices that are demographically representative of the project neighborhood. <input type="checkbox"/> Compensate and credit community stakeholders for their time and expertise. <input type="checkbox"/> Accommodate the engagement needs of marginalized groups. <input type="checkbox"/> Strive to create accessible, relevant, and engaging meeting content and agency deliverables.			
<input type="checkbox"/> Engage representative community stakeholders in the upfront planning (e.g., project selection, siting decisions, budgeting, initial concept) for the project or group of projects. <input type="checkbox"/> Share knowledge about green infrastructure and its community benefits.			



CENTERING COMMUNITY WORKBOOK

Pre-Work		Discussion Session	
<i>Check off the best practices that were used.</i>	<i>Jot down how the team approached the checked-off best practices</i>	<i>Jot down notes about any outcomes of the best practice</i>	<i>Jot down any related insight from the community survey</i>
<ul style="list-style-type: none"> <input type="checkbox"/> Engage representative community stakeholders at key points throughout the full project lifecycle (e.g., providing meaningful design, construction, and maintenance input) for the project or group of projects. <input type="checkbox"/> Maintain consistent engagement and communication throughout the project. <input type="checkbox"/> Build capacity for stakeholders to engage more effectively over the course of the project. <input type="checkbox"/> Publicly credit to stakeholders for the value they contributed. 			

Best practices implemented and results, including community responses where possible.

Bright spots.

Future project improvement ideas.

Meeting follow ups (e.g., insights, lessons learned, or resources and training the team would like to pursue).

APPENDIX J

Retrospective Project Assessment



SITING + INVESTMENT WORKBOOK

Pre-Work		Discussion Session	
<i>Check off the best practices that were used.</i>	<i>Jot down how the team approached the checked-off best practices</i>	<i>Jot down notes about any outcomes of the best practice</i>	<i>Jot down any related insight from the community survey</i>
<input type="checkbox"/> Site green infrastructure projects in areas with the greatest potential to advance equity. <input type="checkbox"/> Co-create the project siting approach with substantive BIPOC-representing community partners and ensure the final siting decision reflects stakeholder priorities. <input type="checkbox"/> Make the data and decisions about siting transparent to the public.			
<input type="checkbox"/> Ensure the project is sufficiently resourced to realize the equity potential of the project.			

Best practices implemented and results, including community responses where possible.

Bright spots.

Future project improvement ideas.

Meeting follow ups (e.g., insights, lessons learned, or resources and training the team would like to pursue).



BENEFITS-DRIVEN PROJECT DEVELOPMENT WORKBOOK

Pre-Work		Discussion Session	
<i>Check off the best practices that were used.</i>	<i>Jot down how the team approached the checked-off best practices</i>	<i>Jot down notes about any outcomes of the best practice</i>	<i>Jot down any related insight from the community survey</i>
<ul style="list-style-type: none"> <input type="checkbox"/> Centered community members as essential partners and participants in the design and development of the project. <input type="checkbox"/> Support events that celebrate project completion to build a sense of community pride and ownership, and recognize community contributions. 			
<ul style="list-style-type: none"> <input type="checkbox"/> Prioritize design choices that advance equity. <input type="checkbox"/> Use surface and vegetative approaches where possible. <input type="checkbox"/> Use culturally appropriate and displacement sensitive design. <input type="checkbox"/> Match design choices to the maintenance capacity of likely stewards. 			
<ul style="list-style-type: none"> <input type="checkbox"/> Ensure that construction quality delivers on the benefits and priorities that were agreed on in dialogue with impacted community stakeholders. 			



BENEFITS-DRIVEN PROJECT DEVELOPMENT WORKBOOK

Pre-Work		Discussion Session	
<i>Check off the best practices that were used.</i>	<i>Jot down how the team approached the checked-off best practices</i>	<i>Jot down notes about any outcomes of the best practice</i>	<i>Jot down any related insight from the community survey</i>
<input type="checkbox"/> Minimize and communicate anticipated construction-related disruptions in a way that builds trust and relationships with our impacted community members.			
<input type="checkbox"/> Develop a plan and budget for maintenance early in the design phase to ensure that design decisions reflect the reality of available resources. <input type="checkbox"/> Ensure maintenance requirements match the capacity and competence of the intended maintenance stewards.			

Best practices implemented and results, including community responses where possible.

Bright spots.

Future project improvement ideas.

Meeting follow ups (e.g., insights, lessons learned, or resources and training the team would like to pursue).



ECONOMIC STABILITY WORKBOOK

Pre-Work		Discussion Session	
<i>Check off the best practices that were used.</i>	<i>Jot down how the team approached the checked-off best practices</i>	<i>Jot down notes about any outcomes of the best practice</i>	<i>Jot down any related insight from the community survey</i>
<input type="checkbox"/> Build capacity for disadvantaged local businesses and workers to win project-related contracts.			
<input type="checkbox"/> Build capacity for disadvantaged local businesses to supply project materials.			
<input type="checkbox"/> Connect the project to local workforce development programs (e.g., apprenticeships) <input type="checkbox"/> Ensure project budget can support any related costs for recruitment, management, and evaluation of workforce development efforts.			

Best practices implemented and results, including community responses where possible.

Bright spots.

Future project improvement ideas.

Meeting follow ups (e.g., insights, lessons learned, or resources and training the team would like to pursue).



PREVENTING DISPLACEMENT WORKBOOK			
Pre-Work		Discussion Session	
<i>Check off the best practices that were used.</i>	<i>Jot down how the team approached the checked-off best practices</i>	<i>Jot down notes about any outcomes of the best practice</i>	<i>Jot down any related insight from the community survey</i>
<ul style="list-style-type: none"> <input type="checkbox"/> Host a project-level community dialogue about any displacement concerns. <input type="checkbox"/> Connect with and invite local anti-displacement experts (e.g. affordable housing) to the conversation. <input type="checkbox"/> Prepare for community conversations by understanding the many factors that contribute to displacement. 			
<ul style="list-style-type: none"> <input type="checkbox"/> Develop an anti-displacement plan for the project with guidance from displacement experts. <input type="checkbox"/> Surface the potential displacement impacts of the project upfront and identify changes that will mitigate harm. 			
<ul style="list-style-type: none"> <input type="checkbox"/> Develop and implement a method to evaluate the project's contribution to displacement. 			



PREVENTING DISPLACEMENT WORKBOOK

Pre-Work		Discussion Session	
<i>Check off the best practices that were used.</i>	<i>Jot down how the team approached the checked-off best practices</i>	<i>Jot down notes about any outcomes of the best practice</i>	<i>Jot down any related insight from the community survey</i>
<input type="checkbox"/> Work across silos to catalyze collective action and ongoing partnerships to prevent displacement associated with the project.			

Best practices implemented and results, including community responses where possible.

Bright spots.

Future project improvement ideas.

Meeting follow ups (e.g., insights, lessons learned, or resources and training the team would like to pursue).



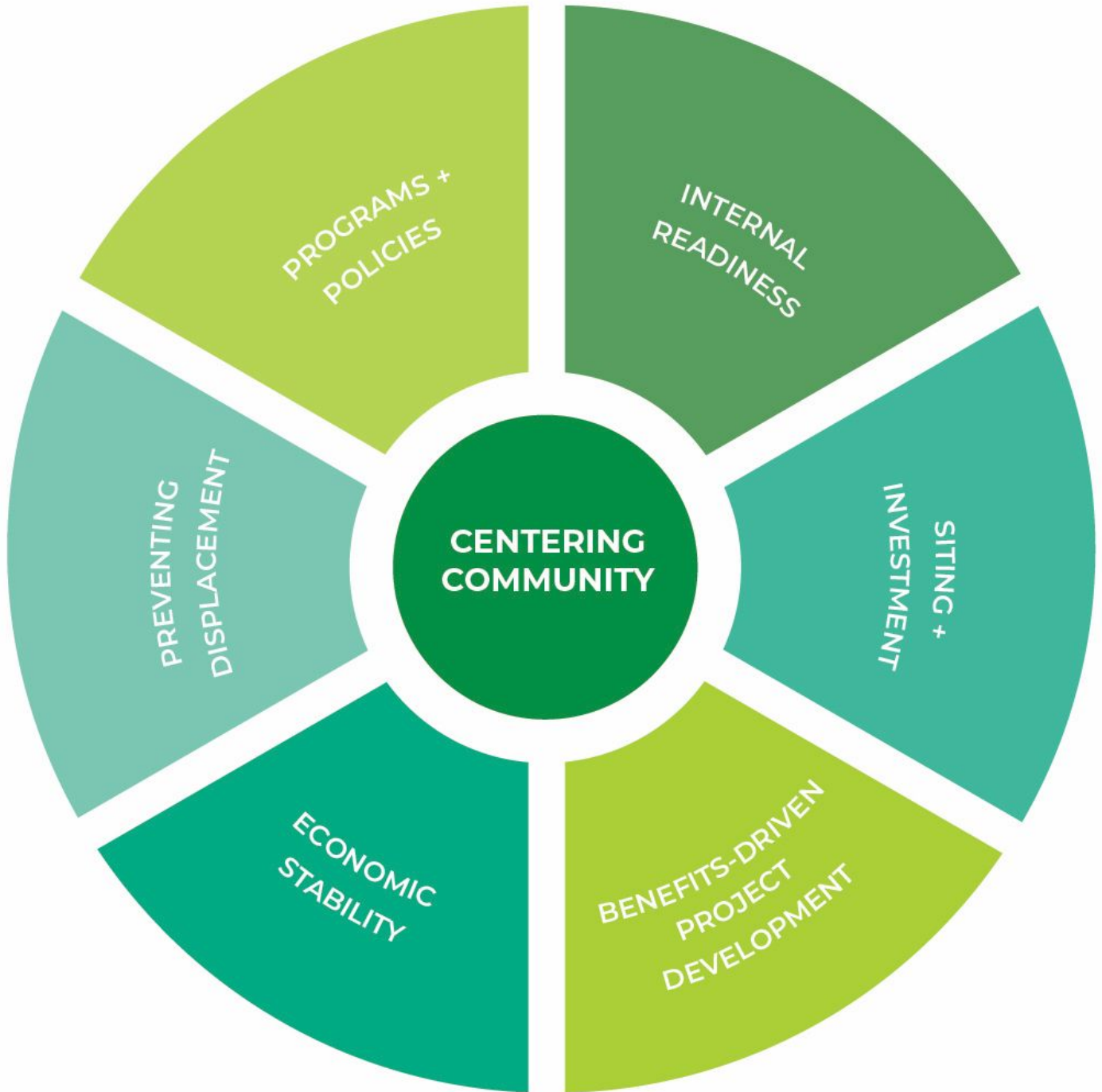
Post-Discussion Reflection

Shortly after the discussion (e.g., within 1-2 days while the content is fresh), schedule a follow up conversation with as many attendees as possible to reflect together on the Internal Readiness goal. After the in-depth discussion, the team will be well prepared to reflect on ways they can support each other in advancing internal capacity and knowledge needed to push equity initiatives further.

Suggested questions for the facilitator to ask the group include:

1. What did we learn as a team?
2. Where do we want to apply learnings?
3. What successes will we celebrate?
4. Who were the champions of equity in this project (group of projects)?
5. If we want to improve, who else do we need to get on board?
6. How can we use the bright spots and action items that came out of today's discussion to help advance their support?

Draft a brief summary memo with action steps by goal area to carry forward for future projects.





Tackling all of the goals, best practices, and potential actions included in this Guide will take multiple years of sustained effort. All of us are at a different place in our journey toward achieving equitable, community-driven implementation of green infrastructure. As such, we will each require unique approaches to effectively advance equity within our organizations and service areas. It is critical that we both continue to build off of existing efforts, initiatives, and successes to reach the full potential of those activities, and also take on new areas that can increase the magnitude of equity outcomes. To aid in prioritizing equity efforts, this section provides an assessment tool to help gauge where the organization and department currently stands in addressing the goals and best practices included in the Guide. It also includes a facilitation guide for how to use the tool to prioritize goals, best practices, and actions for moving forward.

How to Use the Tool

The [spreadsheet-based tool](#) is in an open source format that can be downloaded, saved locally, and modified any way that is helpful given specific organizational context and goals. The Guide's goals, best practices, and (embedded or implied) actions are included for reference in the spreadsheet but should be modified to reflect organizational goals, best practices, and planned, ongoing, and completed activities. The purpose of the tool is to catalog equity-related activities and prompt discussion on key gaps and potential new areas of focus. This spreadsheet can be used as an initial assessment of equity efforts, and built upon regularly (quarterly or bi-annually recommended) to track progress.

The following steps are recommended to use the tool. See the "internal readiness example" tab of the tool for a mock-up of how a program manager might complete one area of the assessment.

1. **Calibrate the Tool.** Review the best practices and actions listed in each tab of the spreadsheet and modify, add, or delete content as needed for the specific context. If certain best practices or actions are not feasible at this time due to staffing or budgetary constraints, lack of political support, lack of agency leadership support, etc., note that in the Priority level column and explain why in the Notes column for future reference. It may be helpful to use a different color (such as gray) to shade out the completion rows for those best practices and actions to indicate that they're off the table.
2. **Assess Actions.** For all feasible actions, shade boxes to indicate the department or organization's current ballpark completion level: 0% (not yet started), 25% (initial tasks begun), 50% (halfway completed), 75% (most tasks completed), 100% (complete). Include any notes on status in the Notes column. This will offer a snapshot of what efforts are already in process, what has not yet begun, and what is complete. Do not be discouraged if there are many tasks that have not yet begun; this tool is meant to help us chart the course ahead.



3. **Assess Best Practices.** Based on the overall completion of actions, estimate how complete each best practice is. Shade boxes to indicate the ballpark completion level: 0% (not yet started), 25% (initial tasks begun), 50% (halfway completed), 75% (most tasks completed), 100% (complete). Treat this as a subjective estimate that will provide an at-a-glance understanding of the status of each best practice. For example, if there are four actions within a best practice, and two are 50% complete but are relatively easy, one that is moderately difficult is 25% complete, and the most difficult and complex action has not yet begun, the overall best practice completion could be assessed at 25% given that there is still substantial work to be done on the more difficult activities.
4. **Workshop Prep.** To refine the initial assessment, consider hosting a workshop within the department and others as needed. Prior to the session, provide each workshop participant with a copy of the draft assessment and set aside two hours to review it and complete the priority level and need columns with individual ratings (low, medium, high) for each best practice and action. Ask that each participant's completed tool be submitted to the workshop lead prior to the workshop so trends and areas of divergence and consensus for priorities can be identified. (If preferred, the workshop can instead feature dot-voting on post-it pads or posters—or a Google Jamboard, if virtual—to indicate individual ratings for priority level and need.)
5. **Facilitate Workshop.** The purpose of the workshop is to come to consensus on priority goals, best practices, and actions to pursue in the near term. The participants may also identify collaborative tasks to embark on through joint action with other departments or agency leadership. The workshop lead should budget a generous amount of time for the conversation to ensure that all perspectives have a chance to be heard.

See [Appendix M](#) for a sample agenda for a Choosing Goals Self Assessment Workshop.



DISCUSSION AGENDA

Opening	<ul style="list-style-type: none"> • Ice breaker • Establish a safe space and ground rules
Tool Calibration	<ul style="list-style-type: none"> • Review comments, additions, or corrections that were made to calibrate the tool based on each participant's completed form. • Provide high-level summary of results from individual completed forms.
Equity Priorities Consensus Building	<p>During the discussion, a scribe should note consensus lead, priority, and need ratings in the master version of the tool. Other key considerations include level of impact, level of effort, difficulty level, and presence of forward momentum (is this already in motion, or would we be starting a new process or project?).</p> <ul style="list-style-type: none"> • Identify and discuss goals where substantial progress has been made already, as well as those that have not yet begun to be addressed. Consider whether to choose one goal within which all efforts should be focused, or distribute efforts across a number of priority goal areas • Discuss areas of consensus on priority best practices and actions • Discuss areas of divergence on priority best practices and actions • Open call to discuss any other areas participants feel are important that have not yet been discussed
Summarize Priorities	<p>Review list of consensus high priority goals, best practices, and actions.</p>
Next Steps	<p>Ensure that each prioritized best practice and/or action has a lead assigned to follow up.</p> <p>Consider asking the following questions in weighing which goals, best practices, and actions to advance first:</p> <ul style="list-style-type: none"> • Community priorities. Which goals does the community, particularly disinvested neighborhoods and communities of color, surface as top priorities? If we don't know, how can we find out? • Internal conditions. Do we have the resources necessary (including alignment of all levels of staff, staff bandwidth, staff expertise, budget, and internal readiness) to take on this goal, best practice, or action? How does this align with other efforts, programs, or projects underway at our agency? What other steps are needed to create the right conditions to tackle this? • Organizational support. Does our agency or department rate this goal, best practice, or action as a top priority? Do our organization's plans and leadership support pursuit of this goal and/or action? Would this task require action or collaboration outside the purview of the green infrastructure team?

(continued on next page)



DISCUSSION AGENDA

Next Steps

- **Level of impact.** Would any goal areas be most advantageous to our organization or community to tackle first? For example, is creating internal readiness to take on equity work, or repairing trust with community, foundational to success in other areas? Is it most important to have quick wins and low-hanging fruit or fundamental, systemic change, or strive for a balance of both? Which goals, best practices, and actions will have the greatest impact on advancing equity and building community trust in our service area?
- **Take Action.** Following the workshop, circulate a revised master tool that reflects the workshop outcomes and consensus lead, priority level, and needs for each item. Assigned staff should create an action plan for each best practice via the plan-check-do-act process outlined in the Guide. Follow up for more information or research, as well as collaboration with other departments, may be needed for some best practices and actions prior to creating an action plan.