

Greenprint Key Questions

These are key questions for practitioners to ask when they are considering and developing a greenprint. The content is intended to guide practitioners through the most important elements of designing a successful greenprint.

GOALS: What are the goals of the greenprint and the greenprint process?

There are two types of goals involved in a greenprint: (1) process goals; and (2) resource/benefit goals. The table below shows examples of these two types of goals.

Process goals need to be established as early as possible in order to design an appropriate approach. For example, if a goal of the process is to develop cross-sector partnerships, then engagement needs to be designed with that in mind. If the primary goal of the process is to promote the value of natural infrastructure to community members, then final products of the process need to be developed with a focus on those communications goals. If the primary goal is to identify and reduce exposure to climate risks, it will be important to engage the community members most impacted (or at least partners who work with frontline communities).

Resource/benefit goals (or values/themes) are specific to the particular types of resources and benefits that will be mapped and assessed. Ideally, these goals should be established through engagement. However, the goals of the overall process may dictate that a clear subset of resource and benefit goals will be most relevant.

Process Goals	Resource/Benefit Goals (Values/Themes)
<ul style="list-style-type: none"> ● Promote balanced growth by enabling multi-benefit planning ● Direct conservation or green infrastructure investments ● Create an inventory of existing land use conditions ● Promote the value of conservation and natural infrastructure to decision makers or the public ● Expand/democratize access to data ● Develop cross-sector partnerships and collaborations ● Reduce barriers to participating in planning with a focus on equity ● Expand youth engagement in decision-making ● Create a shared vision and foundation for future collaborative work ● Set the stage for policies or public funding 	<ul style="list-style-type: none"> ● Protect water quality or water supply ● Preserve working lands (farms, ranches, forests) ● Protect wildlife habitat connectivity ● Protect biodiversity ● Store carbon to mitigate the impacts of climate change ● Protect climate refugees to help species adapt to climate change ● Protect cultural resources and Indigenous connections to the land ● Expand access to nature and outdoor recreation ● Protect opportunities for fishing, hunting, and foraging ● Expand access to healthy food ● Reduce exposure to environmental risks like flooding or extreme heat ● Protect vulnerable coastal areas ● Protect and restore ecosystem services ● Identify and reduce climate risks

What area will be included?

Determining the geographic boundaries of the greenprint is an important aspect of establishing overall goals. Sometimes the boundaries are very clear, for example when the purpose of the greenprint is to help with county-wide open space planning. It is important to make sure that greenprint boundaries make sense politically as well as ecologically and that the area represented is relevant to users and decision-makers. Greenprints may cover large regions, but if an area is too large there may not be clear partner or user groups for effective implementation. Here are a few questions to ask when determining the geographic boundaries of a greenprint:

- Does the boundary include the service areas of all the key partners?
- Does the boundary include the areas that are most relevant to the political decision makers who would control how aspects of the greenprint are implemented?
- Is the area so small that bringing together cross-sector partners for a greenprint process would be excessive?
- Is the area so large that there may not be a clear partner group or user groups for effective implementation?
- If the area crosses administrative boundaries, bringing together groups that may not be aligned, what are the implications for engagement and implementation?
- Does the boundary make sense ecologically? Is it defined by nature-based boundaries like watersheds, waterways, or eco-regions?

ENGAGEMENT: Who will use the greenprint? Who will make key decisions? Who else needs to be engaged?

Identifying users, decision-makers, and other partners is critical to designing a successful greenprint and process. Generally decisions about process design will be made by a small group of core partners. Decisions about data to include or exclude from the greenprint may be made by a small team of technical experts or by a wider group. Sometimes resource/benefit goals may be prioritized or weighted by a larger partner group through voting or consensus-based deliberation.

Users	Decision-makers	Other Partners
<ul style="list-style-type: none"> • Who are the target users for the greenprint? • What decisions do users need to make and how will the greenprint support them in making those decisions? • Who should be involved in design? • How will users be engaged in different aspects of the process and implementation? 	<ul style="list-style-type: none"> • How will project leadership and partner groups be organized? • Who will have the power to make decisions about which aspects of greenprint development? • What will the process be for reaching consensus if consensus is necessary? • What will represent an adequate level of agreement? 	<ul style="list-style-type: none"> • Whose perspectives should inform the greenprint? Who needs to understand and be supportive of the greenprint? • What are barriers to participation? • Does engagement need to be equity-driven? • What engagement approaches will be used?

Possible users and partners include the groups below, among many others. Often users are practitioners from planning and infrastructure agencies or conservation organizations. Depending on what the final greenprint products are, other partners may be able to adopt recommendations or conduct their own analyses using greenprint tools.

- Local governments and planners
- Conservation organizations
- Public infrastructure agencies (water, transportation, energy)
- Natural resources agencies
- Farmers and ranchers, farmworkers and farm families
- Environmental justice groups and other local NGOs
- Public health sector/ health agencies
- Funders
- Tribal groups and Indigenous communities
- Developers
- Elected officials
- Infrastructure and environmental planning consultants

What approaches will be used to engage users and other partners?

Engagement strategies range from interviews or meetings with a select group of key partners to equity-driven engagement using multiple approaches (and major investment of time and capacity) to reduce barriers to participation for underrepresented and marginalized community members. Possible outreach approaches include:

- Meetings: closed advisory group meetings, focused meetings with technical experts, open community meetings, webinars
- One-on-one conversations between new audiences and trusted partners
- Interviews, focus groups
- Online or paper surveys, telephone polling, texting-based polling
- Speak-outs and intercept surveys (going to where community members are rather than having them come to you)
- Youth-focused engagement, arts-focused engagement, health-focused engagement
- Community science or data gathering
- Web-mapping platforms

See “Resources” tab for more detail information about approaches for engagement.

SCIENCE AND DATA: What data will be incorporated? How will goals/themes be represented by data?

Determining the data that will be included is a key part of the greenprint process. Data should be incorporated that represents the most important resource and benefit goals (examples above under “What are the goals of the greenprint?”). For example, if one of the resource goals is preserving important farmland, the greenprint would likely include soil data from the USDA identifying prime farmland. Greenprints also need to include important contextual information including things like political or watershed boundaries. Including demographic data from the US

Census or health data from CDC PLACES can help identify equity concerns related to either access to conservation benefits or exposure to environmental risks.

It is important to understand partner expectations related to data transparency as well. In some cases, one of the goals of the greenprint process may be to democratize access to data. In other cases, land trusts may want to use a greenprint for parcel-level evaluation and may want to keep that information private in order to not raise concerns for landowners or affect real estate values. It may be important to keep data about cultural sites or sensitive habitat private as well.

Data incorporated into a greenprint should be both analytically useful and should represent the best available science.

Analytically Useful

- Up-to-date (for some resources data may not change, so older is fine)
- Useful resolution (time and space) for decision-making
- Provide practical information for planning
- Cover the entire study area so data is useful for comparison (possible rare exceptions)
- Datasets that aggregate multiple important data sources in ways that reflect project goals
- Use fewer, higher-quality datasets to avoid “muddy” analysis
- Publicly available (or feasible to access and share)

Best Available Science

- Recommended by experts
- Trusted by partners
- Preferably peer-reviewed, used in research
- Used in other plans
- Used by funders

FORM: What will the greenprint look like?

The final key question is what form the greenprint will take. The core partners (hopefully with input from users and other advisors) will need to determine what final form will best:

1. Achieve the goals of the process
2. Identify ways to meet the resource/benefit goals
3. Communicate the most important information from the data incorporated
4. Support users with decision-making and implementation
5. Meet the critical needs of the broader group of partners

The form of a final greenprint can range from a static map or set of recommendations to an interactive decision-support tool that supports customizable queries, reports, or scenario building. Greenprints can focus on describing existing resources without prioritization, they can incorporate value judgments and weighting from partners and advisors, or they can outline prescriptive implementation steps. Greenprints can be [StoryMaps](#) that are focused largely on public outreach or education. They can also be online hubs that are primarily focused on data sharing among technical experts.

Final greenprint may include one or many of the following elements:

- Report describing resources, context, challenges and opportunities
- Collaboratively developed shared language (for example: vision statement, guiding principles, key definitions)
- Recommendations for implementation
- Static map/s
- Web-based map/s
- Online data sharing
- Interactive decision-support tool
- Tool incorporating custom weighting and prioritization
- Tool incorporating pre-set partner priorities
- Tool for modeling future scenarios

CAPACITY: What resources are necessary for developing the greenprint?

The greenprint process and the final greenprint will be impacted by the resources available. This means looking at the overall funding and capacity (time and expertise) that will be required. In particular, deeper, more extensive community engagement and development of more sophisticated decision-support tools will significantly increase both cost and capacity requirements.

There are several key questions to ask related to process design and capacity:

- Are the necessary partners invested in the process? Do relationships already exist that will support the greenprint process or do those relationships need to be developed?
- To what degree is robust partner or public engagement necessary to ensure that the process and product are successful? Are there partners whose participation would need to be supported financially?
- How much staff time, technical expertise, and external funding would be required to create the ideal greenprint?
- Are external consultants and contractors needed to support developing the greenprint, including support for engagement, technical analysis, mapping, or tool design?
- What funding is available? (Many greenprints are funded through a mix of public and private sources, often including municipal contracts; local, state, and federal grants; and philanthropic grants.)
- What needs to be scaled back to reflect the realistic capacity and funding?

How will the greenprint be managed after it is developed?

It is important to address as early in the greenprint process as possible how the greenprint will be managed after it is developed. Key questions include:

- If the greenprint involves an online tool or data hub, where will that be hosted and who will be responsible for updating data (and at what intervals)? Will there be longer-term funding available to support maintenance and updates?
- Is there a person, organization, or group of partners that is responsible for advocating for and tracking how the greenprint is used/implemented? Is there a system in place for

assessing the success of the greenprint and adapting how it is being used? Will there be longer-term funding available to support ongoing collaboration, tracking, and assessment of implementation?

- Will the greenprint be integrated into the planning or decision-making of specific organizations or public agencies? If so, what does that mean for how the greenprint needs to be managed in the longer term?
- Can the greenprint itself be used to help leverage additional public or private funding for implementation? If so, who will lead efforts to make this happen?