



# Funding Brief

GREEN INFRASTRUCTURE, CLIMATE RESILIENCE, & HEALTH EQUITY POLICY AGENDA

MAY 2022

## Inadequate and Inflexible Funding Mechanisms Limit Green Infrastructure

The greatest barrier to the advancement of green infrastructure (GI) is inadequate funding. Far more funding is available for traditional gray infrastructure than for green infrastructure. While there are several state-level funding sources dedicated to GI, such as the [Green Infrastructure, Urban and Community Forestry](#), and [Urban Greening](#) grant programs, the available funding is woefully inadequate to meet the state's need to meaningfully integrate GI into relevant new and upgrade infrastructure projects. By one estimate, the City of Los Angeles alone would need \$20 billion to complete street-by-street GI retrofits.<sup>1</sup>

Insufficient funding is further aggravated by restrictions on available funding streams – particularly for stormwater management – that deprioritize, impede, or even prohibit GI projects. A report from the Public Policy Institute estimated that California's stormwater funding needs were in the range of \$1 to \$1.5 billion across the state, but actual resources were approximately \$500 to \$800 million.<sup>2</sup> One of the major barriers to increasing funding for GI within stormwater management is Prop 218 (1996), which mandates a two-thirds vote for increasing property-related fees. Rates for water utilities and wastewater treatment were exempted from this threshold requirement, while stormwater was not, which has significantly hindered local funding for stormwater management.

Another major barrier to increasing the use of GI throughout the state is a lack of ongoing funding for

operations and maintenance (O&M) in the majority of available funding streams, despite the need to maintain raingardens and bioswales, urban trees and forests, and parks. While the majority of federal and state grants and loans only fund initial capital investments, local revenue streams such as tax revenue and utility fees can provide a sustainable source of funding for O&M.<sup>3</sup>

Additionally, there are often challenges in braiding and blending funding to develop and implement multi-benefit projects, disincentivizing stakeholders from collaborating to invest funds in GI. Utilizing funding from different sources offers the potential to integrate the goals of multiple agencies into various projects and thus expand the total funding available to each individual agency through implementation of multi-benefit projects. However, different local and regional agencies have different mandates, funding streams, and timelines, which complicates effective integration of funding resources into GI project planning and development.<sup>4,5</sup>

## Increase Diverse Funding Mechanisms for Green Infrastructure

To expand and normalize use of GI, the state must begin to increase dedicated and sustained funding streams, including the Green Infrastructure, Urban Greening, and Urban and Community Forestry grant programs. Local governments also need to identify and implement strategies to establish sustained local funding for GI, including for stormwater management projects, parks and open spaces, tree canopy and urban forests, permeable pavements and other GI elements. Additionally, government entities and

regulatory bodies can pass policies and establish regulations that support the sustainability of GI projects, including classifying the O&M costs of GI as essential to the infrastructure, and collaborating with various local agencies to optimize the economic and social benefits of GI projects. When crafting policies and funding programs related to GI, it is essential to consider support for co-creation with the community, assessment of the long-term benefits and impacts, as well as ongoing O&M costs.

### Cross-Cutting Funding Priorities

There are a number of factors and elements that need to be considered across all funding streams, regardless of scope or level, including local, state, federal, and private funding. The following recommendations have been elevated as priority areas to integrate across all GI funding streams and projects.

- **Fund Operations & Maintenance Costs - GI** requires regular and ongoing O&M funds beyond initial capital investments (which are often lower than initial gray infrastructure costs). A [2015 EPA report](#) found that 40% of GI projects funded by the Clean Water State Revolving Fund did not have a dedicated source of funding for maintenance and operations.<sup>6</sup> Based on interviews, even fewer GI projects supported by other funding streams have dedicated O&M funding. Recommendations to boost O&M resources include:
  - > Authorize ongoing use of funds for O&M costs in all green infrastructure funding streams.
  - > Capitalize O&M costs during GI development. State and local governments can pass policies to classify O&M costs of GI as essential to the infrastructure, therefore allowing initial capital investments to be used for ongoing O&M costs for a set period of time, to be followed by an additional sustained funding source and integrated into agency operations, such as parks and public works.
  - > Establish local, sustainable funding streams that can be used for ongoing O&M, such as local tax revenues and stormwater utility fees (see below for more details).

- **Adopt Strategies to Increase Braiding and Blending of Funding** federal, state, local and private funding sources to increase resources for and implementation of GI.
  - > Municipalities should consider establishing a [Joint Benefits Authority \(JBA\)](#). A JBA is very similar to a joint powers authority, but focuses on establishing an entity to lead the “*funding/financing, design, and construction of projects to realize shared benefits for all parties involved in the JBA.*”<sup>7</sup> Given the cross-cutting nature of GI, establishing a JBA to identify and pursue funding sources would be advantageous. A JBA can also minimize redundant processes across departments, streamline funding applications, project planning and design, and improve coordinated community engagement for GI projects.
    - The City of San Francisco plans to use a JBA to advance the Islais Creek Southeast Adaptation Strategy, which includes stormwater management, transportation infrastructure, conservation of coastal and creek areas, etc. The city identified the establishment of a JBA as a key strategy to identify funding resources and pursue them in a holistic approach as opposed to a project-to-project basis, which puts different agencies and projects in competition instead of collaboration. The JBA would have “*jurisdictional authority over all identified projects and the entire district,*” creating a coordinated approach to blend and braid funding, a single set of priorities and design guidelines and increased opportunities for shared project benefits.<sup>8</sup>
  - > The Office of Planning and Research’s proposed Green Infrastructure Workgroup should provide technical assistance and support for local jurisdictions that may lack capacity and familiarity with obtaining state or [federal funding for GI projects](#), or are unfamiliar with blending funding to support GI.



## Invest in Local Workforce Development – Quality Jobs in Green Infrastructure

**Green infrastructure programs and projects present a diverse set of career opportunities across the state, including urban forestry, stormwater engineering, parks maintenance, and wetlands restoration, among many others.**

The California Workforce Development Board, labor groups, unions, and community-based organizations should prioritize funding and workforce development programs focused on green infrastructure skills and careers. Local workforce development (LWD) programs developed in conjunction with GI provide a critical strategy to provide high-road, family-sustaining, dignified jobs for local workers, including youth and career training. LWD programs should be viewed as a long-term strategy for a just transition<sup>9</sup> to an inclusive green, regenerative economy, especially for environmental justice communities that have been disproportionately impacted by pollution burden and climate change.

The California Workforce Development Board (CWDB) should explicitly integrate GI-related careers across its workforce initiatives, including the High Road Training Partnership, High Road Construction Careers, the Workforce Accelerator Fund, Regional CA, and the Prison to Employment programs.<sup>10</sup> Furthermore, the CWDB should provide funding to increase training for and job placement in GI-related industries and public agencies, such as landscaping businesses, and parks and public works departments.

Local agencies funding and implementing GI projects should integrate local hiring policies and collaborate closely with LWD programs to build local economies.

- **GI projects should be required to include project labor agreements (e.g., local hiring practices) and community benefit agreements.**<sup>11</sup>
- **GI projects should include priority training and hiring within communities disproportionately impacted by inequities, environmental and climate justice communities, and Black, Indigenous, and other communities of color (BIPOC).**
  - In Washington D.C., [DC Clean Water](#) established an ongoing worker training program in alignment with its GI stormwater management projects. The program focuses on recruiting those who are unemployed living in the communities in which the GI projects are being implemented. The workforce program includes training on building, inspecting, and maintaining GI, as well as a certification program that can be used to access other career opportunities.
- **GI projects should collaborate with state funded Earn and Learn Workforce Development Programs, including the High Road Training Partnerships initiative to maximize opportunities to support sustained local workforce development, especially in related industries that extend beyond the life of the project, including forestry, nature-based stormwater engineering, parks operations, etc.**
- **In alignment with the California 30x30 Initiative, LWD Programs associated with GI projects can be used to advance land stewardship opportunities within parks, open spaces, and natural lands for members of federally recognized tribes, Indigenous communities, and communities with historic and cultural ties to the land.**



### Local Funding Strategies

Local governments should integrate authorizing language for prioritization and use of GI in existing and new local funding mechanisms. Additionally, implementers of existing local funds, such as parks departments and districts, water districts, and school districts need to integrate authorizing language regarding the prioritization of GI based on community priorities into existing program, project, and funding guidelines. Local funding mechanisms may include parcel taxes, sales taxes, bonds, developer fees, or stormwater utility fees. For additional information on regulatory mechanisms to increase the use of GI in existing programs, see the [Regulations Brief](#).

- **Leverage Local Funding Programs, Projects, & Government Operations for Green Infrastructure** – Local and regional agencies should identify opportunities to leverage existing funding and projects to increase opportunities to develop and implement GI projects. GI should be integrated into municipal planning processes and government operations, existing funding streams, programs, and projects, including local and regional parks, street services, public works, schools, and transportation projects. There are numerous regular projects and expenditures occurring at the local level that should include the prioritization of GI. Embedding GI features into existing local agency expenditures and plans reduces the cost of planning for and developing new GI.
  - > Local and Regional Parks Departments should integrate prioritization of GI features into all relevant park improvements or new park development.

- > School Districts should integrate GI features in any schoolyard improvements, with the goal of transitioning school yards to green community schoolyards with permeable surfaces and vegetated features. (See [Coordination Brief](#) for more information).
- > Public Works, Sanitation, and Street Services agencies should integrate GI into all relevant repaving and street projects. Local agencies and departments can implement this practice through cross-agency agreements or the passage of local ordinances.
  - The City of Ventura passed a [Green Streets Policy](#) that requires the City to earmark 20% of the street paving fund to incorporation of green street elements into repaving projects on a citywide basis.<sup>12</sup>
  - The County of Los Angeles passed a comprehensive Green Building Program (2008) supported by three ordinances “1) *Green Building Ordinance*, 2) *Drought-Tolerant Landscaping Ordinance*, and 3) *Low Impact Development Ordinance*,” which, among other strategies, has integrated GI into other projects’ funding streams.<sup>13</sup> For example, the Bureau of Street Services and the Bureau of Sanitation collaborate to install GI infrastructure on street projects. See [Green Infrastructure for Los Angeles: Addressing Urban Runoff and Water Supply Through Low Impact Development](#).



- **Pass New Local Taxes for Green Infrastructure**

- Local government officials and agencies can pass new local taxes to fund GI projects.

- > Los Angeles County voters approved four transformative tax measures, including parcel taxes on impermeable surfaces and sales taxes, for Stormwater Management (W), housing and services for homeless residents (H), parks (A), and transportation infrastructure (M): more commonly

known as WHAM. The tax measures are expected to generate over \$1.6 billion a year. The **WHAM initiative** aims to fund multi-benefit approaches that include employing best management practices for air and water quality, developing neighborhoods to enhance climate resilience, and incorporating anti-displacement measures in communities that are the sites for designated projects.



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- **The Board of Supervisors endorsed 10x10, a community driven process in the WHAM Taskforce's work plan to identify implementable projects in each of the county's five supervisorial districts.**
- **The Liberty Hill Foundation and the UCLA Luskin Center for Innovation report on Overcoming the Obstacles to Integrated Infrastructure Investments in Los Angeles County issued the following short-term recommendations to support the achievement of 10x10:**
  - > *"The BOS should immediately direct the Chief Sustainability Officer (CSO) to identify at least one project in each supervisorial district that appears on both the 10x10 Initiative list of community driven projects and the agencies' list of potential collaborative projects. The Board should require the relevant funding agencies to collaborate to co-fund solutions and build he projects"*
  - > *"The CSO should assemble a multi-agency strike team to provide high-level technical assistance to the WHAM agencies to work through institutional barriers and bring necessary policy fixes to the BOS"*

- **Green Bonds** – Local jurisdictions should assess the feasibility of using Green Bonds to fund GI projects. Green Bonds are a capital-raising instrument for GI. When issuing green bonds, the capital generated is applied as an exclusively dedicated funding source for green solutions. When issuing a green bond, it is essential to secure a revenue source for bond repayment. As with other types of financing mechanisms, such as federal loans for stormwater management or GI, green bonds require a dedicated repayment mechanism or matching funds. A critical strategy to addressing this challenge is expanding the adoption of stormwater utility fees at the municipal level, which provide an ongoing revenue stream for capital expenses, O&M costs, and loan or bond repayment and fund matching. (See the Box below for more specific recommendations for stormwater management funding).
- > Prior to establishing a Green Bond Program, municipalities should develop a green capital investments plan to ensure that climate and environmental considerations are integrated throughout the capital planning process and not as an afterthought. Criteria related to the public health and equity impacts and benefits must also be considered in the assessment of a Green Bond Program. For more information, see the Milken Institute’s [Growing the US Green Bond Market: Lab 2](#).
- > In 2014 New York City developed a [Green Bond Program](#) through which critical climate adaptation and resilience projects could be funded. Proceeds from the Green Bonds were combined with other financing to fund more than \$436 million worth of water quality and infrastructure projects.

## Dedicated Stormwater Management Funding – Essential for Green Infrastructure Advancement

A major barrier to increasing the broad use of green infrastructure, and GI for stormwater management, is the insufficient funding at the local and state level for stormwater management overall. Currently, municipal stormwater programs and projects are funded through a variety of local, state, and federal grants, loans, or fees, and are generally not sufficient to meet regulatory requirements. While there are many different sources of available funds, the California State Water Resources Control Board (SWRCB) has reported that the available funds are inadequate and new, sustained funding sources are necessary to meet the stormwater management needs of California’s municipalities. According to a SWRCB report, “a 2017 U.S. EPA survey of municipal stormwater program managers and staff across California found that stormwater programs are currently financed primarily through means other than dedicated stormwater fees (16%). These non-dedicated and alternative fund sources consist of general funds (41%), local fees (23%), grants (15%), and other (6%). The survey also found that respondents anticipated funding strategies in the next year to consist primarily of grants (61%), followed by other local fees (11%), stormwater fees (6%), loans (4%), general fund (4%), and other (10%).” There are numerous strategies, particularly at the state and local levels to increase dedicated, sustained funding for stormwater management, with priority for GI projects.

- **Establish Sustained Stormwater Management Funding through legislative action, and incorporate requirements for prioritization of multi-benefit projects with GI wherever feasible.**
- **Establish Stormwater Utility Fees – Municipalities and local government agencies can establish stormwater utility fees, which provide a dedicated funding mechanism for stormwater management, and should prioritize green infrastructure strategies. These fees are modeled after other utility fees such as water, sewer, or electric. In order to more effectively and widely implement local stormwater utility fees, stormwater management must be afforded the same exemption status under Prop 218 as water, sewer, and**

solid waste have been afforded.<sup>14</sup> **SB 231**, signed into law in 2017, clarifies the Prop 218 language to include stormwater in the definition of “sewer,” and provides a way forward for municipalities to more easily adopt or increase stormwater utility fees. However, **SB 231** remains contentious and has yet to be tested in courts, but does present an avenue to address this challenge.

- > Numerous jurisdictions in California have established stormwater utility fees. For example, the city of Burlingame in San Mateo County passed a stormwater utility fee in 2009 through a ballot measure. The city of Santa Monica, in Los Angeles County, established a stormwater utility fee through a special tax in 2006.<sup>15</sup>
- > For more information, see the California Stormwater Quality Association’s [Creating a Stormwater Utility](#) guidance.
- **Establish Developer Impact Fees - Municipalities and local government agencies can establish developer impact fees to fund GI projects based on community priorities. This process is already allowed under AB 1600, contained in Section 66000 of the California Government Code.**
  - > The town of [Moraga](#) and the city of [Chico](#) have both implemented developer impact fees to support GI projects as a multi-benefit strategy for stormwater management.
- **Municipalities Should Establish Equitable Stormwater Volume Credit Trading Program - Municipalities, with support from local agencies and community-based partners, should assess the feasibility and impact of establishing an Equitable Stormwater Volume Credit Trading Program. Stormwater volume credit trading programs give certain developers the option to meet post-construction stormwater requirements via an offsite option. Stormwater Credit Trading Programs can provide residents with the opportunity to identify community-preferred GI projects that can act as “credit sellers” in the program. Municipalities can design these programs to ensure that credit generation is occurring in areas that will receive the most benefit from a GI stormwater management project (e.g., stormwater volume credits should be preferentially generated in a community with limited access to community greenspace, poor air quality, or UHI effect, or aging infrastructure).**
  - > The [City of Anaheim](#) is developing a stormwater credit program to manage stormwater, remove pollutants, and recharge groundwater more effectively.
  - > For more information, see Natural Resources Defense Council’s [How To: Stormwater Credit Trading Programs](#) American Rivers’ [Establishing a Stormwater Volume Credit Trading Program](#).



## State Funding Strategies

- **Provide Technical Assistance for Funding** - The Office of Planning and Research proposed Green Infrastructure Workgroup should provide technical assistance and support for local jurisdictions that may lack capacity and familiarity with obtaining state or [federal funding for GI projects](#), or are unfamiliar with blending funding to support GI.
- **Increase Existing State Funding** - Increase the amount and sustainability of existing State level funding sources for GI and stormwater management, which are insufficient to meet the need of municipalities across California. For example, a report by the California State Water Resources Control Board (SWRCB) found that requested amounts for the Stormwater Grant Program “typically *far exceeded available funds...approximately 60% of the grant applicants received funding*”
  - > Increase funding for the Natural Resources Agency’s [Green Infrastructure](#) and [Urban Greening](#) grant programs, and CalFire’s [Urban and Community Forestry](#) grant program to expand offerings of multi-year funding allocations needed for GI projects.
    - State grant programs for GI should be mandated to allocate a minimum percentage of funds in communities disproportionately impacted by health inequities, climate impacts, and park access inequities.
  - > Leverage CalTrans funding to prioritize GI implementation. Currently, Caltrans Complete Streets includes “planning that reduces greenhouse gas emissions, pollution, preserves open space, and incorporates green infrastructure” as a priority area, which is an important priority, but does not necessarily significantly increase the use of GI in transportation projects. Therefore, CalTrans should be required to adopt a policy that green infrastructure be required in all planning and design of new projects, as they did with Complete Streets features.<sup>17</sup>
  - > Integrate prioritization of GI into affordable housing development, including prioritization of GI in the Strategic Growth Council’s [Affordable Housing and Sustainable Communities Program](#), which currently includes urban greening as a priority in its guidelines, but does not include specific reference to GI within housing or transit/transportation priorities.
    - > The State should include and prioritize GI in CA Clean Water Act Program, supporting local governments to increase implementation of GI in local projects.
- **Establish New State Funding Mechanisms for Green Infrastructure**
  - > Legislators should reintroduce a climate resilience bond, with explicit incorporation and allocation of funds for GI as stormwater management, as well as parks, urban tree canopy, and other nature-based solutions, aligned with California’s 30x30 Initiative. The bond should include requirements to assess the implementation of GI, including standards and benchmarks to track progress towards defined goals for GI expansion. Green infrastructure should be elevated as an essential strategy to equitably increase community climate resilience, including improvement of population health outcomes.
    - In 2020, two bills were introduced that would have established climate resilience bonds. SB 45 (Portantino) passed the Senate Committee on Natural Resources and Water on a 7-2 vote in favor. The bill would have placed a \$5.5 billion General Obligation Bond on the ballot. Similarly, AB 1500 (E. Garcia) would have placed a \$6.7 billion bond measure on the ballot. Both bills included reference to the implementation of green infrastructure to address stormwater management, mitigate extreme heat, and reduce wildfire risk, and AB 1500 included a \$725 million allocation for “investments in parks, urban green infrastructure, and community forestry projects.”<sup>18</sup> However, neither bill included requirements to establish goals and/or standards to assess the implementation of GI.





> The Strategic Growth Council, in coordination with other relevant state agencies, should assess the feasibility of land banking<sup>19</sup> for GI in communities disproportionately impacted by health inequities, climate impacts, and minimal access to community greenspace. A land bank is a local or state government entity that acquires vacant, abandoned, deteriorated and tax delinquent properties and is focused on neighborhood stabilization and equitable community development outcomes. As of 2022, 17 states had land bank enabling statutes; California is not among them.<sup>20</sup> Land banks may serve as an important financial strategy to increase GI, particularly parks and community greenspace, as land banks can provide lots and open space at a much lower cost to community entities than the cost of purchasing land from land owners and/or developers. Land banks provide a mechanism to preserve limited available land for community benefit as opposed to private development.

- For more information, see: [County Health Rankings - Land Banking](#), [HUD Exchange Land Banking Toolkit](#), and [Land Banking: Models from Across the Country](#).
- [Genesee County Land Bank Authority](#) and [Cuyahoga County Land Revitalization Corporation](#) has acquired land that could be used for public greenspace, urban agriculture and/or stormwater management.

### Federal Funding Strategies

- **Increase Use of Federal Funding for Green Infrastructure** – funding for GI should be increased in federal funding programs that currently fund water infrastructure, stormwater management, transportation, and related programs. Funding



for GI should also be included in federal funding programs that focus on parks, housing, and community development in order to maximize the public health and equity benefits of GI.

- > The State should evaluate the feasibility of incorporating GI requirements and/or incentives into all relevant federal funding that flows through the state to state agencies directly or to local and regional agencies.
- > The State should ensure that all new infrastructure dollars coming to the state from the Infrastructure Investment and Jobs Act (IIJA) prioritize and require green infrastructure wherever possible. Over 90% of the \$1.2 trillion IIJA dollars will flow through state and local governments, presenting an unprecedented opportunity to direct funding to GI, particularly in communities disproportionately impacted by pollution burdens, climate impacts, and health inequities.
- > The State should integrate the prioritized and/or required use of GI in federal funding streams that flow through the State, including:
  - Federal water quality funding, including the US EPA’s Nonpoint Source Program and the Urban Waters Small Grants Program.
  - Disaster preparedness and rebuilding funds, as it relates to flood mitigation, housing and community rehabilitation, and other climate change impact adaptation and resilience efforts. Require that GI be prioritized in disaster preparedness and rebuilding funds, including funds provided by Federal Emergency Management Agency (FEMA) through the State as well as the Community Development Block Grant – Disaster Recovery Program.<sup>21</sup>
  - Housing and community development programs, such as the US Department of Housing and Urban Development (HUD) Community Development Block Grant as an important strategy to build local economics and create high-road, family-sustaining jobs. Integrating GI in federal funding programs that have not traditionally funded GI will increase the visibility and impact of GI as a strategy to advance community climate resilience, public health, and equity.
- > The Office of Planning and Research proposed Green Infrastructure Workgroup should offer training and resources for state agencies and

municipalities/counties on available federal funding opportunities, and in reviewing grant applications in order to assist applicants in identifying federal sources of funding to complement State and local funding. For an extensive list of federal funding opportunities for GI, see [EPA's Green Infrastructure Funding Opportunities](#).

### Private Funding Strategies

- **Establish Incentives and Fees to Increase Private Funding in Green Infrastructure**

- Governments can establish green infrastructure incentive programs for private and commercial property owners to increase private funding for GI projects. GI elements for private homes or properties may include green roofs, bioswales, and eco-friendly rain capture, among many other strategies. Local government agencies, leaders, local businesses, community partners, and other stakeholders should integrate enhanced incentive programs to improve and increase tree canopies, parks, green spaces, and other GI in historically underinvested and disproportionately impacted communities.

> **Establish Financial Incentives** - including rebates, installation financing, and grants, for private property owners to integrate GI upgrades to their home or property, which may include green roofs, bioswales, rainwater capture, etc.

- *Best Practices*

- **Green Roof Tax Abatement** - New York State implemented a one-time tax abatement for properties that have green roofs. The tax abatement is equal to \$4.50 per square foot of green roof space. The benefit is capped at whichever is less: \$100,000 or the amount of property taxes due for the building that tax year.
- **Stormwater Rebates for Residents and Businesses** – the City of Palo Alto established a stormwater rebate program for residents and businesses that install rain barrels, cisterns, rain gardens, and pervious pavements.
- **Rainscapes Rewards Rebate Program** – Montgomery County (Maryland) Department of Environmental Protection issues rebates to residential property owners up to \$7500 to install rain gardens, conservation landscapes, green roofs, water harvesting, and permeable pavements.



- **Cool Roofs Rebates** – the Los Angeles County Department of Water and Power established a cool roofs rebate program to offset the requirement of installing cool roofs on any new or refurbished homes. The rebates are designed to help offset the cost of installing a cool roof relative to a conventional roof.
- **Stormwater Credit Program** – The City of Philadelphia established a stormwater credits program for non-residential, condominium, and multi-family residential customers to reduce their stormwater charge by managing stormwater onsite through implementation of GI such as natural open space or impervious area reduction.
- **Stormwater Fee Discount** – If a municipality has a stormwater fee in place based on impervious surface in a development project, and the developer decreases the amount of impervious area and the projected volume of runoff discharged from the property, the municipality can reduce the fee paid by the developer.
- For more information, see [UCLA's Luskin Center for Innovation's Incentivizing Private Property Green Infrastructure: Recommendations for Los Angeles County](#).

> **Establish Development Incentives** - including expedited permitting and zoning upgrades to developers who have integrated GI into their plans.

- *Best Practices*

- **Zoning Code Bonuses** – The City of Chicago instituted a zoning ordinance that issues a building code award Floor-Area-Ratio bonus for green roofs that cover more than 50 percent

of the roof area. This bonus allows developers to build more square footage on the same plot, therefore increasing the financial benefit for the developer and increasing green roofs across the city at very minimal cost to the municipality.

- For more information, see EPA's [Managing Wet Weather with Green Infrastructure – Municipal Handbook – Incentive Mechanisms](#).
- > **Establish Development Fees** – municipalities can establish or increase developer fees to fund GI.
  - In 2016 the [City of Los Angeles](#) revised its Quimby ordinance in order to increase park fees on residential development to keep pace with modern real estate prices, as well as establish geographically flexible spending to ensure that funding is allocated equitably to the communities with the lowest park access and quality. The updated ordinance was also expanded to include apartment buildings which were formerly exempt from paying park fees.<sup>22</sup>

- **Embed Equity into Incentives & Requirements**

- > Ensure existing incentives (e.g., credits, rebates) do not contribute to inequities in communities.
  - For example, developers should not be allowed open space credits for rooftop gardens that are not accessible to the public and surrounding communities.
- > Provide enhanced financial incentives for GI projects in communities disproportionately impacted by inequities, including lack of tree canopy, parks, access to green space, and climate-related impacts, such as urban heat island effect, high flood risk, risk of combined sewer overflow, etc.
- > Incentive programs should be supported by robust communication and technical assistance as needed to ensure high utilization, especially in areas with high proportions of individual and private landowners.



Communities, conservationists, and other stakeholders recognize the critical importance of natural systems in climate change mitigation and resilience – in the face of wildfires, floods, and extreme heat, vegetated areas, wetlands, and other ecosystems can help reduce risk and protect communities from the impacts of climate change. The insurance system is uplifting the importance of insuring these natural ecosystems as a form of disaster risk reduction and community protection. This may be a promising strategy to further protect nature-based solutions and green infrastructure in both urban, peri-urban, and rural settings.

For more information, see the [California Department of Insurance's Protecting Communities, Preserving Nature, and Building Resiliency](#).

• **Innovative Community Investment Strategies**

- Include funding for GI in innovative community investment strategies from public and private health insurance and healthcare systems as a part of investing in the social and environmental drivers of health. There are many non-traditional and emerging financing strategies being implemented across the United States that can supplement the resources available from more traditional government sources. This includes strategies like blending funding with sources from other sectors such as healthcare and community development, creating structured funds, exploring anchor institution strategies, and partnering with community development financing institutions and other sectors to leverage funding sources. The Public Health Alliance has created a comprehensive research report outlining these innovative community investment strategies, which provides more information on best practices and recommendations for greater implementation and inclusion of LHDs in these investment efforts. Examples applicable to GI might include:

- > Incorporating GI recommendations into Community Health Needs Assessments performed by non-profit hospitals.
- > Spending community benefit dollars on GI projects within hospital service areas. Community benefit funding could include increased investments in the social and environmental drivers of health, including GI projects that increase access to green space, improve air quality, and build community cohesion.

- > Creating dedicated, structured funds for community investments that include GI as eligible for funding.
- > Integrating GI into anchor institution strategies, whereby hospitals invest in GI as part of community development efforts.
- > Fund GI as part of affordable housing and wrap-around services that are part of community development financing institution investments.
- > Develop public-private partnerships between government agencies, health systems and other institutions.
- > Exploring potential opportunities from CalAIM and other State efforts to reform the Medi-Cal and Medicare systems to increase investments in the social drivers of health.
- > See the Public Health Alliance’s [Research Report on Innovative Community Investment Strategies](#) for more specific strategies.

See the full [Green Infrastructure, Climate Resilience, & Health Equity Policy Agenda](#) for more information.

<ol style="list-style-type: none"> <li>1. <a href="https://deeply.thenewhumanitarian.org/water/articles/2016/12/08/the-race-to-turn-stormwater-from-gray-to-green">https://deeply.thenewhumanitarian.org/water/articles/2016/12/08/the-race-to-turn-stormwater-from-gray-to-green</a></li> <li>2. <a href="https://ppic.org/publication/paying-for-water-in-california/">Ppic.org/publication/paying-for-water-in-california/</a></li> <li>3. <a href="https://www.epa.gov/G3/operation-and-maintenance-considerations-green-infrastructure#:~:text=Sources%20of%20funding%20typically%20pursued,maintenance%20of%20green%20infrastructure%20practices.">https://www.epa.gov/G3/operation-and-maintenance-considerations-green-infrastructure#:~:text=Sources%20of%20funding%20typically%20pursued,maintenance%20of%20green%20infrastructure%20practices.</a></li> <li>4. <a href="https://www.epa.gov/sites/default/files/2018-04/documents/storm_smart_cities_508_final_document_3_26_18.pdf">https://www.epa.gov/sites/default/files/2018-04/documents/storm_smart_cities_508_final_document_3_26_18.pdf</a></li> <li>5. <a href="https://stormwater.wef.org/2015/12/real-cost-green-infrastructure/#:~:text=Construction%20on%20the%20green%20infrastructure,other%20cost%20of%20implementation%20programs.">https://stormwater.wef.org/2015/12/real-cost-green-infrastructure/#:~:text=Construction%20on%20the%20green%20infrastructure,other%20cost%20of%20implementation%20programs.</a></li> <li>6. <a href="https://www.epa.gov/sites/default/files/2015-04/documents/green_infrastructure-om_report.pdf">https://www.epa.gov/sites/default/files/2015-04/documents/green_infrastructure-om_report.pdf</a></li> <li>7. <a href="https://default.sfplanning.org/Citywide/Islands/IslandsCreek_ImplementationFinancing_August2021.pdf">https://default.sfplanning.org/Citywide/Islands/IslandsCreek_ImplementationFinancing_August2021.pdf</a></li> <li>8. <a href="https://default.sfplanning.org/Citywide/Islands/IslandsCreek_ImplementationFinancing_August2021.pdf">https://default.sfplanning.org/Citywide/Islands/IslandsCreek_ImplementationFinancing_August2021.pdf</a></li> <li>9. Just Transition is a vision-led, unifying and place-based set of principles, processes, and practices that build economic and political power to shift from an extractive economy to a regenerative economy – The Climate Justice Alliance</li> <li>10. <a href="https://cwdb.ca.gov/">https://cwdb.ca.gov/</a></li> <li>11. <a href="https://incubator.org/wp-content/uploads/LACI-GREEN-JOBS-REPORT.pdf">https://incubator.org/wp-content/uploads/LACI-GREEN-JOBS-REPORT.pdf</a></li> </ol>	<ol style="list-style-type: none"> <li>12. <a href="https://www.waterboards.ca.gov/water_issues/programs/climate/docs/resources/la_green_infrastructure.pdf">https://www.waterboards.ca.gov/water_issues/programs/climate/docs/resources/la_green_infrastructure.pdf</a></li> <li>13. <a href="https://www.waterboards.ca.gov/water_issues/programs/climate/docs/resources/la_green_infrastructure.pdf">https://www.waterboards.ca.gov/water_issues/programs/climate/docs/resources/la_green_infrastructure.pdf</a></li> <li>14. <a href="https://www.casqa.org/resources/funding-resources/creating-stormwater-utility">https://www.casqa.org/resources/funding-resources/creating-stormwater-utility</a></li> <li>15. <a href="https://www.casqa.org/sites/default/files/downloads/sw_program_rates_master_list_allprogramsbycounty_20190903.pdf">https://www.casqa.org/sites/default/files/downloads/sw_program_rates_master_list_allprogramsbycounty_20190903.pdf</a></li> <li>16. <a href="https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/f0020348_complete-streets-elements-toolbox-a11y.pdf">https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/f0020348_complete-streets-elements-toolbox-a11y.pdf</a></li> <li>17. <a href="https://dot.ca.gov/news-releases/news-release-2021-039">https://dot.ca.gov/news-releases/news-release-2021-039</a></li> <li>18. <a href="https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1500">leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1500</a></li> <li>19. Land Banks acquire, hold, manage, and develop problem properties such as vacant lots, abandoned buildings, or foreclosures and transition them to productive uses such as affordable housing developments. Community-focused commercial buildings, community gardens, or green spaces.</li> <li>20. <a href="https://communityprogress.org/resources/land-banks/national-land-bank-map/">https://communityprogress.org/resources/land-banks/national-land-bank-map/</a></li> <li>21. <a href="https://www.georgetownclimate.org/adaptation/toolkits/green-infrastructure-toolkit/federal-funding.html">https://www.georgetownclimate.org/adaptation/toolkits/green-infrastructure-toolkit/federal-funding.html</a></li> <li>22. <a href="https://latimes.com/local/lanow/la-me-ln-developer-park-fees-10260907-snap-story.html">latimes.com/local/lanow/la-me-ln-developer-park-fees-10260907-snap-story.html</a></li> </ol>
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