



GREEN
INFRASTRUCTURE
CONSORTIUM

SAN DIEGO
Integrated Regional
Water Management

Nature Based Solutions to save our planet

- **Background**
- **Urgency**
- **Hope**
- **Inspiration**
- **Collaboration**

Co-Founders:
Laurie Broedling
Vicki Estrada
Anton Endress

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Who is the San Diego Green Infrastructure Consortium (GIC)?

Our Purpose
To improve community and climate resilience by helping implement integrated green infrastructure projects, programs, and policies that make a significant, measurable impact, providing the expertise and orchestration needed to do so.

Enabling objectives:

- **Build capacity by building synergy** among individual efforts.
- **Inform key decision-makers** and influencers about the value of using green infrastructure.
- **Help implement specific projects, programs and policies** that systematically apply green infrastructure in urban environments, with particular attention to communities of concern. Integrate gray and green infrastructure where appropriate.
- **Ensure stakeholder involvement and ownership**



<https://www.greeninfrastructureconsortium.org/>

Background

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Urban green infrastructure falls in three **basic** types:

- (1) Living things;
- (2) Other natural elements such as water, air, soil;
- (3) Man-made infrastructure to support these elements.



Some (but not all) examples include:

- *Vegetation/Urban Forestry*
- *Animals*
- *Surfaces*
- *Diversions*
- *Fire prevention techniques*
- *Maps and eco-benefit*
- *Waste reduction*
- *Waste repurposing*
- *Energy efficiency*



Background

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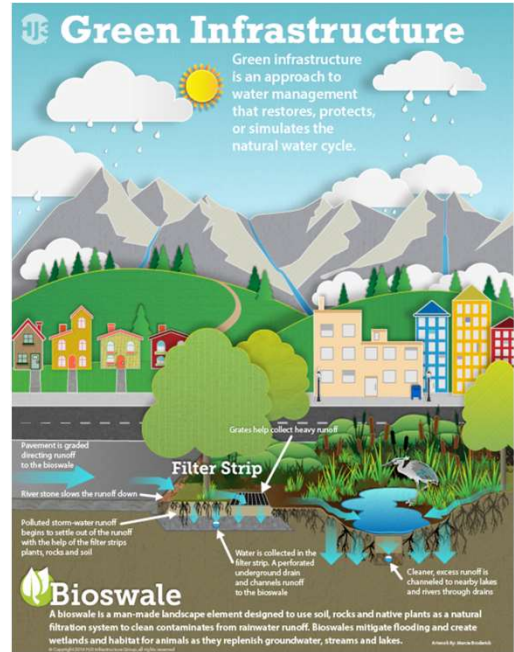


Background

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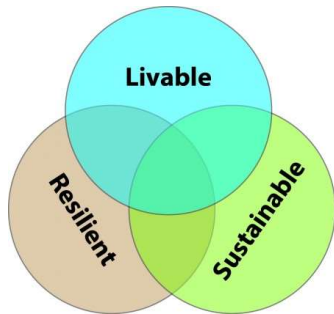
Urgency

Need: The degradation to the environment in which we live is happening faster than our best efforts to control and adapt to it. We need to make more efficient use of our investments to do so, including money, time, and expertise.

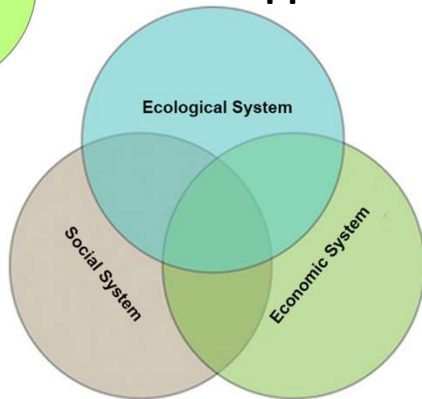


Urgency

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We are **in a race against time** to shape the San Diego region to be sustainable and resilient. A transformational approach is needed.



Community and Climate Resilience

Urgency

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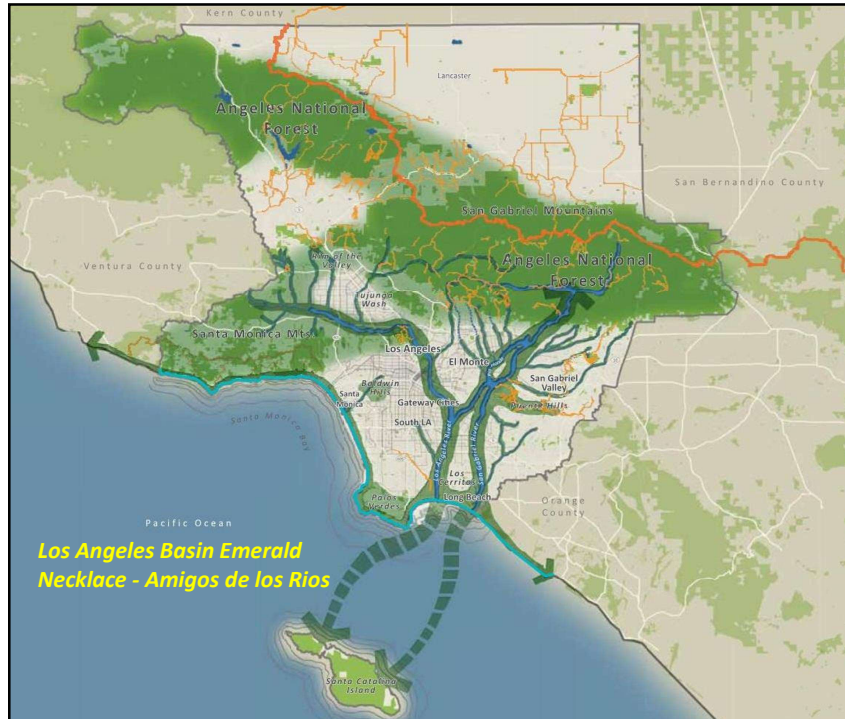
Hope

Solution: Integrated green infrastructure can create major improvements in community resilience through water and air quality and management, carbon sequestration, heat reduction, human health, fire prevention and safety, and more.

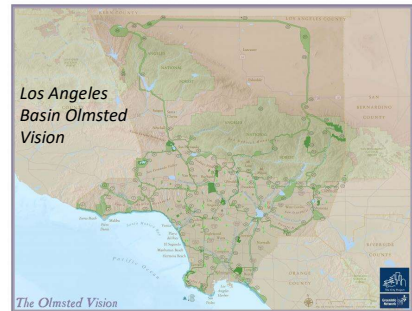


Hope

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We can apply the enhanced **Emerald Necklace model**, focusing initially on the Otay and San Dieguito Watersheds Climate in a way that helps IRWM achieve its plan's objectives. Our ACCR approach is an enhanced Emerald Necklace model for urbanized watersheds, meaning it includes simultaneously increasing ecological, social, and economic resilience - bringing human and natural systems into a sustainable balance. Put another way, our value-added solution is not just integrated green infrastructure (something other groups have to offer), it's the transformational model that enables its implementation in urbanized watersheds.



Hope

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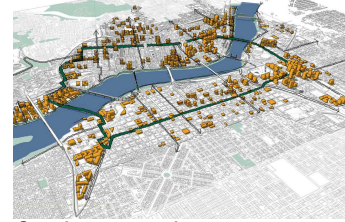
Best practice examples of successful application of integrated green infrastructure exist around the country.

Los Angeles Basin Emerald Necklace - Amigos de los Rios

<https://amigosdelosrios.org/the-emerald-necklace-vision-plan/>

<https://amigosdelosrios.org/emerald-necklace-coalition/>

<https://www.conservationfund.org/projects/an-emerald-necklace-for-los-angeles>

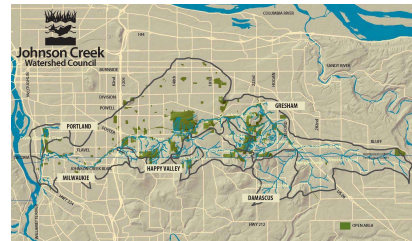


Portland Intertwine

<https://www.theintertwine.org/alliance/resources-and-reports>

Boston

<https://www.emeraldnecklace.org/>



Inspiration

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Action for Community and Climate Resilience

Download the report here:

<https://www.greeninfrastructureconsortium.org/projects.html>



Project funded by The San Diego Foundation to operationalize action through collaborative integrated projects emphasizing multiple green infrastructure solutions using a watershed model

- Emphasis on producing synergy.
- Building on existing plans, shovel-worthy projects, and existing programs such as climate action plans and stormwater management plans
- Emphasis on local stakeholder involvement.
- Benefits include improvements that are faster, better, cheaper, and produce more co-benefits.

Collaboration

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Successes from Applying the ACCR approach

- Positive feedback that a transformational approach is needed that builds synergy through integration and collaboration.
- Interest in applying the enhanced Emerald Necklace model.
- Preliminary coalitions built in Otay-West Watershed and San Dieguito West/Central Watershed to increase capacity and efficiency.
- On track to raise state resources for using the model to implement and plan specific projects in these watersheds.
- Applied the model, helping the City of San Diego successfully obtain a state grant to complete a phase of Beyer Park.



Western San Dieguito River



Beyer Community Park

Collaboration

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Collaboration



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Similarities between IRWM and GIC:

- Emphasize the need for integration
- Appreciate the need for more nature-based solutions.
- Understand the inter-related character of natural systems.
- Consider climate change as a factor in implementing improvements within urban watersheds

Differences:

- The IRWM's focus is on water, with recognition of need for co-benefits
- The GIC's focus is on holistic improvements that include ecological, sociological, and economic resilience.
- Also tackle the need to achieve a sustainable balance within in urban watersheds between human and natural systems.
- Applies the transformational ACCR model to achieve its objectives

Collaboration

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IRWM Goals



1. Improve the reliability and sustainability of regional water supplies.
2. Protect and enhance water quality.
3. Protect and enhance our watersheds and natural resources.
4. Enhance resiliency to climate change for local water resources.
5. Promote and support sustainable integrated water resource management.



Lower Otay Reservoir

Collaboration

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Climate Change Considerations

- Climate Resilience
- Climate Adaptation
- Mitigation (Climate)
- Mitigation (of disaster risk)
- Vulnerability



Collaboration

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San Diego IRWM Objectives	Statewide Priorities									
	Conservation as Way of Life	Regional Self-Reliance and Integrated Water Management	Co-Equal Goals for the Delta	Protect and Restore Important Ecosystems	Manage and Prepare for Dry Periods	Expand Water Storage Capacity and Improve Groundwater	Provide Safe Water for All Communities	Increase Flood Protection	Increase Operational and Regulatory Efficiency	Identify Sustainable and Integrated Financing Opportunities
Objective A: Encourage the development of integrated solutions to address water management issues and conflicts.	●	●	●	●	●	●	●	●	●	●
Objective B: Maximize stakeholder/community involvement and stewardship of water resources, emphasizing education and outreach.	●	○	○	○	○	○	○	○	○	○
Objective C: Effectively obtain, manage, and assess water resource data and information.	○	○	○	○	○	○	○	○	○	○
Objective D: Further scientific and technical foundation of water management.	○	○	○	○	○	○	○	○	○	○
Objective E: Develop and maintain a diverse mix of water resources, encouraging their efficient use and development of local water supplies.	●	●	●	○	●	●	●	○	●	○
Objective F: Construct, operate, and maintain a reliable and resilient infrastructure system.	○	●	○	○	●	●	●	●	●	○
Objective G: Enhance natural hydrologic processes to reduce the effects of hydromodification and encourage integrated flood management.	○	○	○	●	○	○	○	●	●	○
Objective H: Effectively reduce sources of pollutants and environmental stressors to protect and enhance human health, safety, and the environment.	○	○	○	●	○	○	○	○	●	○
Objective I: Protect, restore, and maintain habitat and open space.	○	○	○	●	○	○	○	○	○	○
Objective J: Advance water-based enriching experiences.	○	○	○	○	○	○	○	○	○	○

Examples of IRWM Plan objectives that the GIC can help with.

Objectives B, E and I

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Jointly participate in the two watershed multi-jurisdictional/multi-disciplinary coalitions we're currently building.

The purpose is to create integrated solutions for water management, all ecological resources, and social/economic resources

(a) Otay-West Watershed

(b) San Dieguito Watershed West and Central (Clusters 1 & 2)

- Maximize stakeholder and community involvement (B)
- Develop and maintain a diverse mix of water resources (E)
- Protect, restore, and maintain habitat and open space (I)

Collaboration

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Laurie Broedling - lbroedling@outlook.com
Vicki Estrada - vestrada@estradalandplan.com
Anton Endress - aendress10@gmail.com