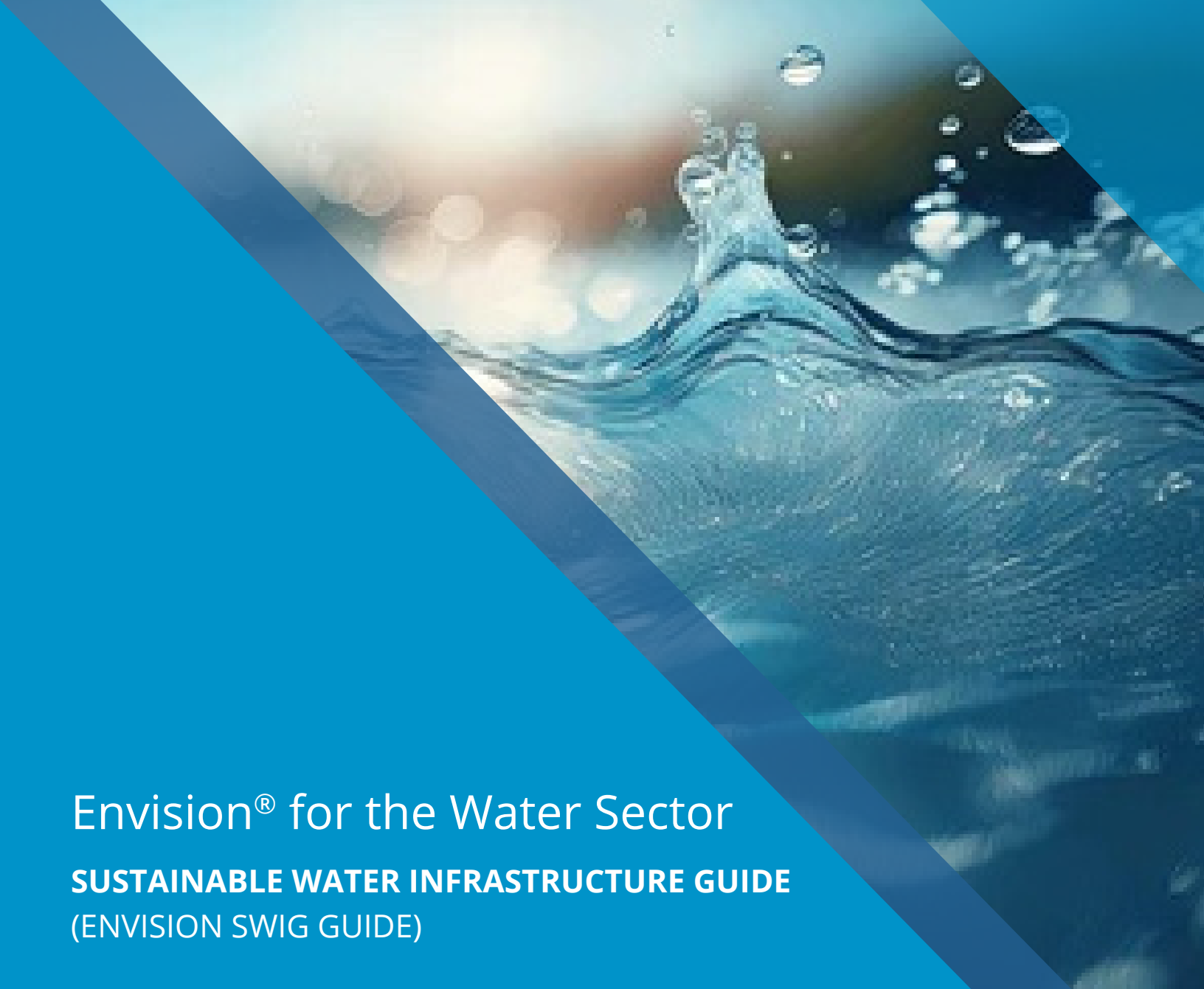




Envision® for the Water Sector

SUSTAINABLE WATER INFRASTRUCTURE GUIDE

(ENVISION SWIG GUIDE)

ENVISION

THE BLUEPRINT FOR SUSTAINABLE INFRASTRUCTURE



Institute for
Sustainable
Infrastructure



ENVISION™

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Purpose of this Document

Water infrastructure systems are among the most critical—and increasingly stressed—assets supporting modern communities. Aging infrastructure, climate variability, regulatory complexity, and growing demand are placing unprecedented pressure on drinking water, wastewater, and stormwater systems. At the same time, utilities and project teams are being asked to deliver solutions that are not only reliable and cost-effective, but also sustainable, resilient, and equitable.

The Envision Sustainable Infrastructure Framework provides a structured, flexible approach to help meet these expectations. While Envision applies broadly across infrastructure sectors, water projects present unique opportunities to advance sustainability outcomes due to their direct connection to natural systems, public health, and resource management.

This guide was developed to:

- Support water utilities, agencies, and project teams in applying Envision to water infrastructure
- Provide practical strategies tailored to drinking water, wastewater, stormwater, and integrated water systems
- Highlight opportunities to align Envision with existing regulatory, planning, and operational frameworks
- Demonstrate how Envision can enhance project outcomes and organizational performance

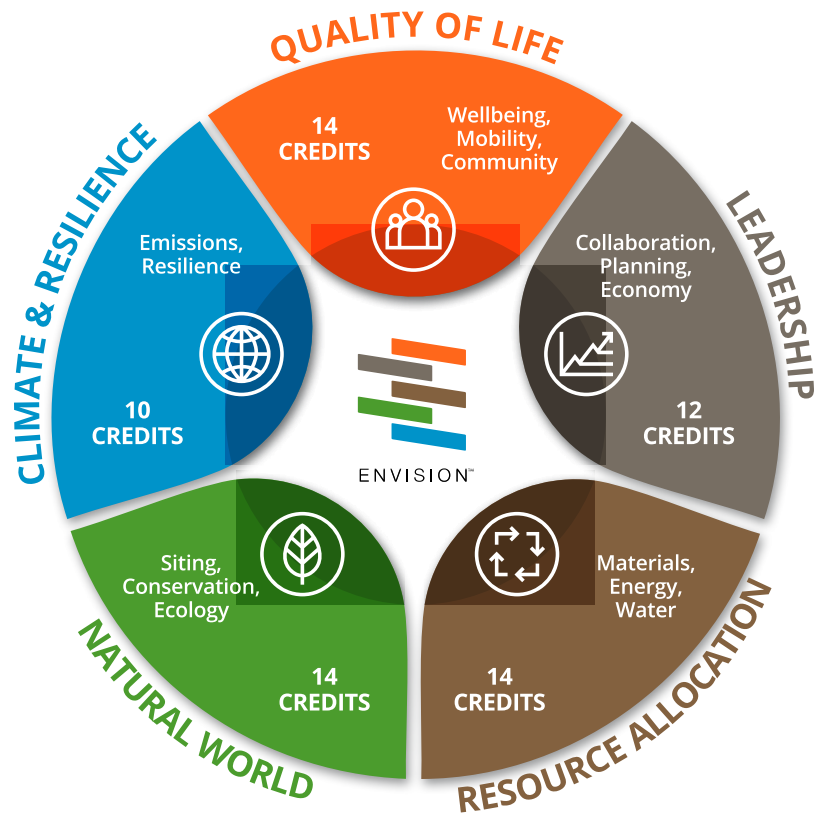
This document is intended to supplement the Envision Guidance Manual (v3) and other ISI resources by offering sector-specific insights and applications.



Overview of Envision

Envision is a holistic sustainability framework and rating system that guides and assesses the sustainability and resilience of all types of infrastructure, including water-related projects. It is a comprehensive tool, developed to assist municipalities, agencies, consultants, contractors, and operators, in co-creating and delivering public and private infrastructure. Envision categories and sustainability indicators (called 'credits') align with issues that water infrastructure and water infrastructure owners face.

Envision uses a peer-reviewed scorecard to assess infrastructure projects, enabling the evaluation of their impacts and benefits across 64 sustainability credits within five overarching categories. Within each credit, there are up to five Levels of Achievement with associated points and criteria recognizing advancements in sustainability: Improved, Enhanced, Superior, Conserving, and Restorative.



Envision Helps Address Water Sector Issues

- Aging Infrastructure
- Climate Change/Resiliency
- Community Expectations
- Water Availability/Access to Water
- Emergency Preparedness
- Water Quality
- Water Reuse
- Increasing Regulations
- Water/Energy Nexus
- Social Justice and Equity
- Multi-Benefit Infrastructure
- Low-Impact Development



Why Use Envision for Water Infrastructure?

Water infrastructure is uniquely positioned at the intersection of environmental systems, public health, and economic development. As a result, water projects present significant opportunities to deliver multi-benefit outcomes when sustainability is considered holistically.

Envision is uniquely advantageous for water-related projects given the complexity and variety of water infrastructure projects such as water treatment and distribution, wastewater collection and treatment, capture/storage, stormwater management, flood control, nutrient management, and environmental restoration. Envision is a tool that can be used to promote the development of high-performing, efficient, and resilient infrastructure, and is a means by which water-related projects can demonstrate their contributions to local, regional, and global sustainability.

[View Envision & the Water Sector Executive Brief](#)

Envision-verified projects have many opportunities to share their sustainability story with support from ISI. These include co-development of case studies and press releases, potential to be featured in ISI webinars and other materials, and invitations to present at ISI's annual virtual conference.

TELLING A SUSTAINABILITY STORY

- Envision **provides enhanced transparency and credibility** for your projects and their sustainability outcomes through third-party auditing and verification.
- Envision provides a **holistic approach** for addressing a wide range of social, economic, and environmental indicators to promote community wellbeing and cohesion.
- Envision can help the project team set goals that account for and align with community goals, **increase sustainability performance**, and illustrate strong sustainability commitments.
- Envision provides **guidance for managing and enhancing stakeholder engagement**, equity, and workforce development, which leads to increased support for infrastructure investments.
- Envision can support **compliance** with sustainability and resiliency policies, ordinances, regulations, and plans across all levels of government.

STREAMLINED MANAGEMENT AND COLLABORATION

- Envision **charts a clear sustainability vision** for all members of the project team throughout project planning, design, construction, and operation.
- Envision provides a **common language for collaboration** and clear communication to improve stakeholder engagement and support the full project team.
- Envision guides project teams to **consider a range of opportunities** to improve project efficiency, encouraging performance improvement and incentivizing higher achievement in project sustainability beyond minimum requirements.
- Envision helps to establish a **collaborative environment that encourages contributions** from all team members to create infrastructure that provides community, environmental, and resilience benefits.

TYPES OF WATER PROJECTS USING ENVISION

Drinking Water

- Water treatment plants
- Reservoirs and tanks
- Pump stations
- Transmission mains

Wastewater

- Treatment plants
- Biosolids facilities
- Interceptors
- Nutrient recovery systems

Stormwater

- Green infrastructure
- Flood control systems
- Detention and retention systems
- Watershed restoration

Integrated Water Infrastructure

- Reuse systems
- Desalination
- Stormwater capture
- Aquifer recharge

FLEXIBILITY, PERFORMANCE, AND RESILIENCE

- Envision **guides decision-making**, helping teams identify potential **trade-offs** within a complex mix of objective, subjective, quantifiable, and qualitative criteria; identify and align **priorities** against a common scale; and guide **discussions** at both project and system-wide levels to arrive at the best choice.
- Envision can **support existing sustainability performance goals, design standards, guidelines**, and/or other rating systems to streamline sustainability efforts, data collection, and reporting, such as performance improvements, cost savings, economic benefits, renewable energy goals, transition to net zero.
- Envision provides for **long-term operational efficiencies and cost savings** by emphasizing long-term durability and performance to promote a long, useful project life while minimizing maintenance and replacement costs.
- Envision **emphasizes resiliency and risk reduction**—against climate change and other hazards—to support the long-term viability of civil infrastructure projects.

INTEGRATED WATER MANAGEMENT AND THE WATER-ENERGY NEXUS

Water and energy systems are deeply interconnected. Energy is required to extract, treat, and distribute water, while water is essential for energy production. Decisions made in water infrastructure planning can significantly influence energy consumption, greenhouse gas emissions, and operational costs.

Envision helps project teams identify and implement strategies that optimize this relationship, including:

- Reducing energy intensity in treatment and conveyance systems.
- Incorporating renewable energy and resource recovery.
- Designing systems that minimize lifecycle energy demand.

IMPROVED DECISION-MAKING

Water projects often involve large capital investments and long asset lifespans. Envision supports better decision-making by encouraging teams to:

- Evaluate alternatives holistically.
- Consider lifecycle costs and benefits.
- Engage stakeholders early and meaningfully.

This ensures that projects are not only delivered efficiently, but also aligned with long-term community and environmental goals.

DEMONSTRATING VALUE AND BUILDING TRUST

Utilities are increasingly expected to demonstrate accountability and transparency. Envision provides a credible, third-party-verified framework to:

- Communicate sustainability achievements.
- Support ESG and regulatory reporting.
- Build confidence among stakeholders and ratepayers.

Water-Energy Nexus

The Water Perspective: Where Energy Is Embedded

From a water infrastructure standpoint, energy is present at every stage:

1. Water Supply and Conveyance

- Pumping groundwater or transporting surface water (often over long distances or significant elevation changes)
- Desalination (one of the most energy-intensive processes)

2. Treatment

- Drinking water treatment (filtration, disinfection)
- Wastewater treatment (aeration alone can account for ~50–60% of plant energy use)

3. Distribution and Collection

- Pressurized systems require continuous pumping
- Leakage = wasted water and wasted embedded energy

4. End Use

- Heating water in buildings is often the largest energy component in the entire cycle

Key takeaway:

Reducing water demand or improving efficiency doesn't just save water—it directly reduces energy consumption and associated emissions.

Optimizing water systems is quietly one of the most effective climate strategies available.

The nexus begins before the system is even turned on. Planning, design, and construction choices shape the long-term water and energy trajectory of the project.

WHY THIS MATTERS NOW

- Water utilities are often among the **largest municipal energy users**.
- Energy costs can represent **25–40% of operating budgets** for utilities.
- Climate pressures (drought, extreme heat) are increasing both water demand and energy intensity.

HOW ENVISION CAN HELP

- Early project decisions can lock in or avoid resource intensity.
- Material and construction practices influence both water and energy footprints simultaneously.
- Lifecycle thinking is essential to fully capture nexus benefits.

Water-Energy Nexus – Connecting the Water-Energy Nexus to Envision

The water-energy nexus is fundamentally about co-optimization of two resource systems. In Envision v3, this relationship is most clearly expressed through the Resource Allocation, Natural World, and Climate and Resilience categories—supported by planning and lifecycle thinking in Leadership.

RESOURCE ALLOCATION (RA): THE CORE NEXUS

The water-energy nexus in Envision v3 spans both operational and construction phases, reinforcing that resource interdependencies exist across the full project lifecycle.

Operational Nexus: RA2 ↔ RA3

- **RA2.1 Reduce Operational Energy Consumption**
 - Water systems (treatment, pumping, distribution) are often the largest drivers of operational energy use.
 - Improving water efficiency can equal a direct reduction in energy demand.
- **RA2.3 Use Renewable Energy**

Opportunities within water systems include:

 - Biogas recovery from wastewater treatment
 - In-conduit hydropower
 - Solar-powered pumping systems
- **RA2.4 Commission and Monitor Energy Systems**

Aligns with water system optimization—smart controls reduce both energy and water losses.
- **RA3.1 Preserve Water Resources**

Avoids shifting to more energy-intensive supply options (e.g., deep groundwater, desalination).
- **RA3.2 Reduce Operational Water Consumption**

Reduces:

 - Treatment energy
 - Pumping energy
 - Embedded lifecycle energy
- **RA3.4 Monitor Water Systems**

Leak detection and system monitoring **prevent loss of both water and embedded energy.**



KEY INSIGHT – RA2 and RA3 credits operationalize the water-energy nexus: Energy efficiency depends on water efficiency, and vice versa.

Construction-Phase Nexus: RA2 ↔ RA3

- **RA2.2 Reduce Construction Energy Consumption**

Construction activities (materials production, transport, equipment use) carry significant energy demands—often tied to water use (e.g., concrete production, dust control, dewatering).
- **RA3.3 Reduce Construction Water Consumption**

Construction water use (dust suppression, compaction, material processing) has an embedded energy footprint tied to sourcing, treatment, and delivery.



KEY INSIGHT – The water-energy nexus in Envision v3 spans the full lifecycle: Construction decisions (RA2.2, RA3.3) influence embedded resource use, while operational decisions (RA2.1, RA3.2) determine long-term system efficiency.

Water-Energy Nexus – *Connecting the Water-Energy Nexus to Envision*

NATURAL WORLD (NW): REDUCING ENERGY THROUGH NATURAL SYSTEMS

Nature-based solutions reduce reliance on energy-intensive infrastructure.

- **NW2.2 Manage Stormwater**
Green infrastructure reduces pumping requirements and treatment energy demand
- **NW2.4 Protect Surface and Groundwater Quality**
Better source water quality lowers treatment energy needs.
- **NW3.2 Enhance Wetland and Surface Water Functions**
Natural systems perform filtration and storage without energy inputs.
- **NW3.3 Maintain Floodplain Functions**
Reduces need for engineered flood control systems (often energy-intensive).



KEY INSIGHT – Natural systems act as “*passive infrastructure*”—delivering water services with near-zero energy input.

CLIMATE AND RESILIENCE (CR): EMISSIONS + SYSTEM INTERDEPENDENCE

The nexus becomes critical when considering emissions and risk.

- **CR1.2 Reduce Greenhouse Gas Emissions**
Energy savings from water efficiency directly reduce emissions.
- **CR2.2 Assess Climate Change Vulnerability**
Water and energy systems are co-dependent risks:
 - Drought → impacts power generation
 - Power outages → disrupt water supply
- **CR2.5 Maximize Resilience**
Strategies include:
 - Decentralized water systems
 - Water reuse
 - Reduced dependence on energy-intensive supply chains
- **CR2.6 Improve Infrastructure Integration**
Explicitly encourages cross-system coordination—this is the nexus in action.



KEY INSIGHT – The water-energy nexus is not just efficiency—it's a shared vulnerability and resilience challenge.



Water-Energy Nexus – Connecting the Water-Energy Nexus to Envision

LEADERSHIP (LD): PLANNING FOR NEXUS OPTIMIZATION

Where nexus thinking becomes intentional.

- **LD2.1 Establish a Sustainability Management Plan**
Integrates water and energy goals into a unified strategy.
- **LD2.3 Plan for Long-Term Monitoring and Maintenance**
Ensures continued optimization of both systems over time.
- **LD3.3 Conduct a Life-Cycle Economic Evaluation**
Captures:
 - Long-term energy costs of water decisions
 - Financial benefits of efficiency



KEY INSIGHT – Without lifecycle planning, the nexus is invisible in decision-making.

QUALITY OF LIFE (QL): INDIRECT BUT IMPORTANT

- **QL1.2 Enhance Public Health and Safety**
Reliable water and energy systems are essential services for stable communities.
- **QL1.6 Minimize Construction Impacts**
Efficient construction reduces both water and energy use

BRINGING IT TOGETHER

Instead of treating water and energy as separate systems, Envision encourages integrated decision-making across the full project lifecycle.



Application of Envision Water Projects

Fundamentally, Envision is about supporting improved sustainability performance through better choices and decision-making in infrastructure development.

Sign Up for a free
ISI Account

Creating an account is free and easy, and gives you access to many sustainability and Envision resources.

Learn about
the ENV SP Credential

The ENV SP credential is the perfect way to advance your professional journey while contributing to a more sustainable future.

Learn about
ISI Membership

ISI membership opens the door to additional educational resources, networking opportunities, and reduced fees.

Learn about
ISI Presentations

ISI is happy to present for webinars, industry groups, lunch-and-learns, etc.

Envision can provide several benefits to water projects including, but not limited to, assessing and verifying specific projects. The framework can be used for educational purposes, programmatic approaches to integrating sustainability into capital planning and projects, criteria for design guidelines, master planning, and more. Fundamentally, Envision is about supporting improved sustainability performance through better choices and decision-making in infrastructure development. To that end, Envision supports not just “doing the project right,” but also “doing the right project.” Educating leadership, staff, and contractors on the principles and intent of Envision will support better sustainability management of all water-related development over the long term in addition to singular projects.

This section addresses the variety of ways that Envision can be used to enhance sustainability and resilience of water-related infrastructure. **In all cases, users should set up a free account/login on the ISI website, which will allow them to link to various additional resources**, including the Envision Guidance Manual (v3), the Envision Checklist (v3), example project submittals, and more. All Envision references are provided at the end of this document, along with a [complete list of Envision-verified water-related projects at the time of publication](#).

SUSTAINABILITY COMMITMENT, LEADERSHIP, AND EDUCATION

Since 2012, the ISI community has been focusing on industry adoption of Envision, and in equipping infrastructure professionals to use the framework. Individuals who complete ISI's Envision training program and pass the exam earn the **Envision Sustainability Professional (ENV SP)** professional credential, signaling their understanding of the principles of sustainability using the Envision framework. Training staff and other stakeholders involved in projects can empower agencies and organizations to achieve better outcomes. As water agencies, utilities, and municipalities re-evaluate their current methodologies and concentrate on long-term positive impacts, they can enhance human health, protect the environment, and bolster local and regional economies.

Often, given the scale of operations and the multitude of priorities that municipalities and water agencies are juggling, it can be challenging to get leadership, staff, and stakeholders on the same page regarding their sustainability commitments and ambitions. ISI continues to develop tools for educating and creating awareness for both top-down and bottom-up “buy-in” around sustainability.

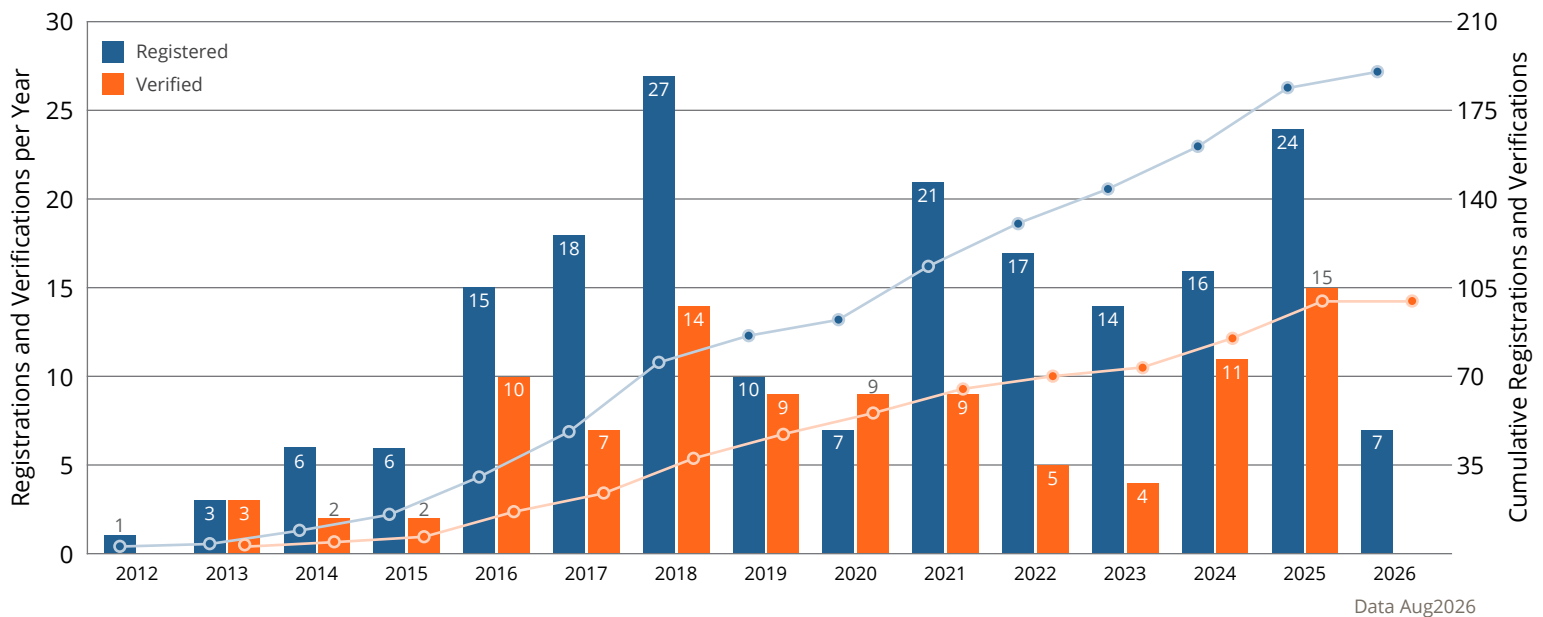
Holding Envision ‘lunch-and-learns,’ workshops, and training sessions can further engage and educate staff, consultants, and other stakeholders. These activities can support the goal of a comprehensive and consistent approach to integrating sustainability and resilience into project conception, design, construction, and maintenance.

USE OF ENVISION ON WATER-RELATED PROJECTS

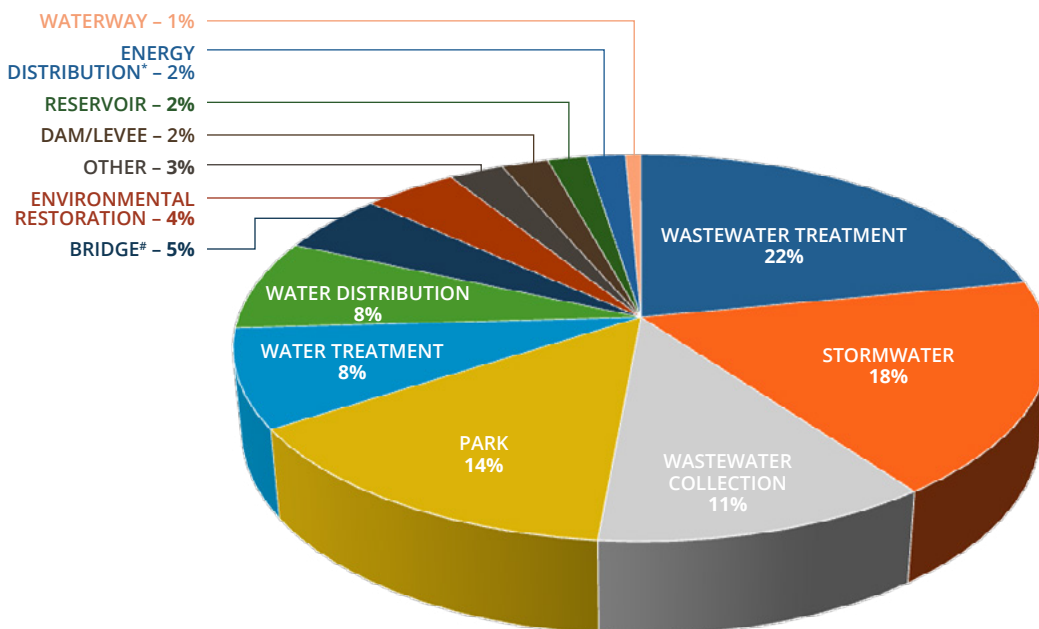
Delivering clean drinking water, managing wastewater, and controlling stormwater are foundational to healthy and prosperous communities. Continued investment in water infrastructure not only ensures reliable access but also supports emergency preparedness, sustainability, water reuse, regulatory compliance, the water-energy nexus, and social equity.

The graph below depicts water-related project registrations and verification since Envision's launch in 2012. The first seven projects verified the Envision framework were all water projects

Water-Related Projects
Registration and Verification Growth



Envision Water-Related Projects By Type



Projects are increasingly leveraging Envision to enhance sustainability performance and tackle critical water sector challenges, including infrastructure resilience, climate adaptation, community expectations, water availability, and social justice considerations.

This is evident across a variety of project types, as shown in the graph at the left.

Data Aug2026

* Energy distribution projects at water or wastewater facilities

In-water bridge projects

PLANNING AND CAPITAL IMPROVEMENT PROGRAMS

[View Envision
Credit Navigator](#)

Access the Envision Checklist (v3) in your free ISI account—located under ‘Resources’ on your account dashboard.

While the Envision framework focuses on infrastructure projects, it can also support master planning and alternative analyses through its guidance and associated resources. For example, Envision can be consulted when reviewing development alternatives to determine the option that best meets agency and facility requirements, while considering stakeholder needs and environmental priorities. Envision can likewise inform Integrated Water Resource Plans, Capital Improvement Programs (CIP), watershed plans, flood resilience planning, and may even unveil opportunities to phase projects strategically to maximize material reuse, achieve cost efficiencies, and align engagement and outreach efforts. The **Envision Checklist (v3)** and **Envision Credit Navigator Tool** are helpful reference for such activities, and the Envision Guidance Manual provides additional context and detailed criteria to factor into such analyses.

Increasingly, water agencies and departments are using the Envision framework on a broad scale, e.g., applying Envision to multiple projects identified in a master plan, facility plan, and/or CIP. Some agencies and municipalities have adopted Envision by setting a policy that requires all infrastructure projects, or all projects of a certain size or type, to be developed using Envision. This approach can be valuable in several ways:

- Empowering project owners to maximize efficiencies, including cost efficiency.
- Enabling robust and continued education of both internal staff and consultants/ contractors on the planning, design and construction practices that should be implemented on all of the agency's projects.

- Providing consistency and transparency of expectations for how capital improvement is carried out at a facility.
- Capitalizing on city, facility, and improvement project synergies to focus effort where Envision can make the most impact at the project level.

In addition, a city- or agency-wide approach enables the establishment of policies, standards, and requirements that apply across projects. As a result, documentation prepared for an Envision assessment can be leveraged across multiple credits and/or projects.

Many public agencies are establishing criteria for sustainability achievements, or policies regarding use Envision use.

ISI's Policy Map highlights policies, regulations, design guidelines and other documents that require, incentivize, or encourage the use of Envision in infrastructure projects at various government levels.

[View Policy Map](#)

INTEGRATING ENVISION INTO DESIGN STANDARDS, GUIDELINES, AND SPECIFICATIONS

Increasingly, municipalities and agencies are integrating Envision into their design standards and guidelines, as requirements or incentives. Some have incorporated the intent, guidance, and specific credit references into these documents or even into their specifications, e.g., incorporating Envision-aligned construction and demolition waste management requirements and tracking into their standard specifications. Specific examples are discussed below.

City of Kansas City Ordinance No. 150537, Sec3-70. Green and Sustainable Procurement Policy 2015

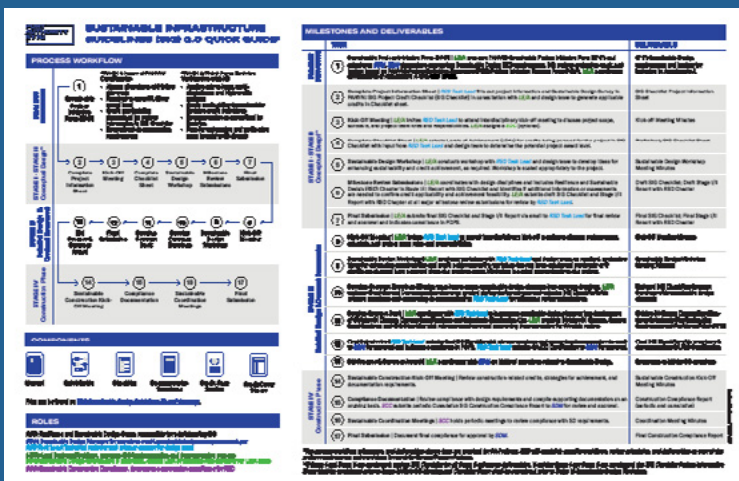
Kansas City Ordinance No. 150537, Section 3-70, Green and Sustainable Procurement Policy, states that it is the policy of the City to use, when practical, green and sustainable goods, supplies, materials, equipment, and services that are fiscally responsible, reduce resource consumption and waste, and promote human health and well-being. The document outlines that when preparing City solicitations with estimated cost above specified thresholds, the City manager, department directors, and the manager of procurement services shall evaluate whether to incorporate Envision in solicitations related to the design and construction of infrastructure. In addition, when applicable, bids and proposal evaluations should consider a bidder or proposer's submittal using Envision.

Port Authority of New York and New Jersey (PANYNJ)

The PANYNJ's Resilient and Sustainable Design (RSD) group administers four sets of design guidelines for all Port Authority capital projects as well as for most tenant projects. These include:

- Sustainable Building Guidelines (2017)
- Sustainable Infrastructure Guidelines (2022)
- Climate Resilience Design Guidelines (2018)
- Green Infrastructure Design Manual (2022)

View PANYNJ Engineering Documents – Resilient and Sustainable Design



PANYNJ Sustainable Infrastructure Guidelines (SIG) 2.0 Quick Guide

PANYNJ's Sustainable Infrastructure Guidelines include a custom Envision approach for the Port Authority's unique approach. Projects can follow a track for internal Port Authority certification or a formal third-party Envision verification with ISI. The Guidelines and supporting resources include a manual, quick guide, checklist, documentation templates, credit case studies, and credit cover sheets.



City of St. Petersburg, Florida, Ordinance No. 359-H – Sustainability & Resiliency of City Facilities 2020

In 2019, the City of St. Petersburg, Florida, updated its Division 5 ordinance on Sustainability and Resiliency of City Facilities, adding Envision verification requirements for qualifying City infrastructure projects. Requirements to meet the objective of Envision Gold for new qualified city infrastructure projects include appointing a qualified person to serve as the Envision facilitator and administrator, providing documentation related to achieving Envision Gold-level verification, and using Envision.

ALIGNING ENVISION WITH THE REGULATORY LANDSCAPE

Water projects are heavily regulated. In the United States, examples of this regulation include the Clean Water Act, Safe Drinking Water Act, National Pollutant Discharge Elimination System (NPDES) program permits, and state environmental review processes. In Canada, examples of regulations include the Guidelines for Canadian Drinking Water Quality (GCDWQ), Wastewater Systems Effluent Regulations, and the Canada Water Act.

Water-related projects are also often subject to environmental regulations. In the United States, this includes the National Environmental Policy Act (NEPA) or equivalent state and local requirements—such as the California Environmental Quality Act (CEQA) and the New York City Environmental Quality Review (CEQR). In Canada, this includes Canadian Environmental Protection Act (CEPA), 1999. While these regulations are specific to geographies, the underlying approach—structured environmental review, alternatives analysis, and public engagement—is widely reflected in infrastructure planning and approval processes around the world.

Many countries and multilateral institutions require similar forms of environmental and social review, often through Environmental Impact Assessments (EIAs), Strategic Environmental Assessments (SEAs), or comparable documentation tied to permitting and funding approvals. Although terminology and regulatory structures vary, the core components are familiar:

- Defining purpose and need
- Evaluating alternatives
- Assessing environmental and community impacts
- Identifying mitigation measures
- Documenting decisions and engaging stakeholders

These parallels create a clear opportunity for transferability.

Applying an Integrated Approach

Practitioners working across jurisdictions can apply the similar principles by looking at how existing environmental review documentation aligns with sustainability frameworks like Envision. Environmental impact studies, planning reports, and permitting documentation often contain the same foundational information needed to demonstrate sustainability performance.

Leveraging Existing Documentation

Just as NEPA documentation can support Envision verification, EIA or equivalent materials can be used to:

- Establish baseline conditions
- Document alternatives and trade-offs
- Capture stakeholder input
- Support mitigation and monitoring strategies

The goal is not to replicate analysis, but to reuse and extend it.

Creating Continuity Beyond Approval

A common challenge across jurisdictions is that environmental review processes conclude at the point of approval. The analyses are completed, but not always carried forward into design, construction, and operations.

Applying a sustainability framework provides a mechanism to connect these phases—ensuring that commitments made during review translate into measurable outcomes over time.

Adapting to Local Requirements

Each country or funding body has its own regulatory expectations, level of rigor, and documentation standards. The integration approach should be adapted accordingly:

- In more prescriptive systems, focus on aligning documentation structure and terminology
- In more flexible systems, use sustainability frameworks to introduce consistency and fill gaps

Completing an environmental study will not necessarily fulfill the criteria and documentation requirements for a given Envision credit, but may point favorably in that direction. As a reference, the table below shows how different NEPA environmental impact categories potentially line up with Envision credit categories.

● Direct alignment ○ Indirect alignment

NEPA ENVIRONMENTAL IMPACT CATEGORY	RELEVANT ENVISION CATEGORIES				
	QUALITY OF LIFE	LEADERSHIP	RESOURCE ALLOCATION	NATURAL WORLD	CLIMATE AND RESILIENCE
Air Quality	○		○		●
Biological Resources	○		○	●	
Climate		○	●		●
Coastal Resources				●	●
Section 4(f)	●				
Farmlands	○			●	
Hazardous Materials, Solid Waste, and Pollution Prevention	○	○	●	●	○
Historical, Architectural, Archaeological, and Cultural Resources	●				
Land Use	●	○		●	○
Natural Resources, Raw Materials, and Energy		●	●	○	○
Noise and Noise-Compatible Land Use	●				
Socioeconomics	●	●		○	●
Environmental Justice	●	●			
Public Health and Safety	●			○	●
Visual Quality and Aesthetics	●	○		○	
Water Resources			●	●	○

ENVISION AND OTHER SUSTAINABILITY RATING SYSTEMS AND FRAMEWORKS

View ISI's Sustainability Rating and Certification Systems Comparison

View ISI's Envision and LEED High-Level Comparison

There are many sustainability tools, resources, and rating systems available, for example: Leadership in Energy and Environmental Design (LEED) is intended for designing, constructing, and maintaining sustainable buildings. **LEED** also maintains versions for Cities and Communities, and Neighborhood Development, and manages the Sustainable Sites Initiative.

The Building Research Establishment Environmental Assessment Method (BREEAM) is a globally recognized certification system that evaluates the environmental performance of buildings. BREEAM also maintains **BREEAM Infrastructure**, an evidence-based sustainability assessment, rating and awards scheme for civil engineering, infrastructure, landscaping and public realm projects.

The **IS Rating Scheme** (IS) is a comprehensive rating system used in Australia and New Zealand for evaluating economic, social and environmental performance of infrastructure across the planning, design, construction and operational phases of infrastructure assets.

In addition to the specific roles these rating systems play, many can work together to contribute to similar goals. For example, rating systems can help with a municipality or agency work toward commitments like reducing greenhouse gas emissions (GHGs) and establishing effective engagement with stakeholders. Furthermore, many of the rating systems offer alignment with key priorities, such as climate change and conserving natural resources, that can strengthen an organization's overall pursuit and achievement of sustainability goals. Water-related projects could use Envision in conjunction with other rating systems.

One Water / Integrated Water Management

One Water / Integrated Water Management (IWM), developed by the [US Water Alliance](#), is a holistic approach that views all water—drinking water, wastewater, stormwater, groundwater, and natural systems—as part of a single, interconnected resource. Rather than managing these systems in silos, One Water emphasizes coordination across sectors, scales, and stakeholders to optimize outcomes such as water reliability, ecosystem health, energy efficiency, and community resilience. It encourages strategies like water reuse, green infrastructure, watershed-based planning, and multi-benefit projects that deliver environmental, social, and economic value simultaneously.

This philosophy aligns closely with the Envision framework, which is designed to promote integrated, systems-level thinking across infrastructure planning, design, and delivery. Envision's structure reinforces One Water principles through credits that reward cross-disciplinary collaboration (Leadership), efficient use and recovery of resources like water and energy (Resource Allocation), protection and restoration of natural systems (Natural World), and proactive planning for climate risks and long-term resilience (Climate & Resilience). Both frameworks prioritize early-stage decision-making, stakeholder engagement, and lifecycle performance—key enablers of successful integrated water strategies.

The synergy between One Water and Envision is particularly powerful at the project level. While One Water provides the **vision and philosophy** for integrated water management, Envision offers a **practical, credit-based framework** to implement, measure, and verify those outcomes. For example, a stormwater capture project that supports groundwater recharge, reduces flooding, and enhances habitat can simultaneously advance One Water goals and achieve high levels of performance across multiple Envision credits. Together, they help utilities and project teams move beyond single-purpose solutions toward multi-benefit infrastructure that is more resilient, efficient, and aligned with community needs—essentially turning “good ideas” into demonstrable, high-performing projects.

Effective Utility Management

[Effective Utility Management](#) (EUM), developed by the U.S. Environmental Protection Agency (EPA) in collaboration with the [American Water Works Association](#) (AWWA) and several other water-sector associations and utility leaders, is a framework developed for water and wastewater utilities to support high-performing, sustainable, and resilient operations. It is built around a set of core management principles and a defined set of attributes—such as product quality, financial viability, infrastructure stability, community sustainability, and operational resilience—that help utilities evaluate performance and continuously improve. EUM focuses on aligning day-to-day operations, long-term planning, and organizational culture to deliver reliable service while balancing environmental, economic, and social priorities. It is widely used as a management and benchmarking tool to guide strategic planning, asset management, and performance tracking.

This approach aligns closely with the Envision Sustainable Infrastructure Framework (v3), which emphasizes lifecycle thinking, stakeholder engagement, and long-term value creation at the project level. Many EUM attributes map naturally to Envision categories: for example, infrastructure stability and operational resilience align with

Climate & Resilience credits; financial viability and leadership development align with Leadership; and community sustainability and customer satisfaction align with Quality of Life. Both frameworks encourage proactive planning, risk management, and transparency, reinforcing the importance of making informed, forward-looking decisions that extend beyond immediate project needs.

The synergy between EUM and Envision is especially strong when linking utility-level management goals with project-level delivery. EUM provides the organizational strategy and performance framework, while Envision translates those priorities into actionable project criteria and measurable outcomes. For instance, a utility prioritizing asset management and lifecycle cost optimization under EUM can use Envision credits to guide design decisions that reduce maintenance needs, improve durability, and enhance resilience. Similarly, EUM's focus on stakeholder understanding and engagement is operationalized through Envision's structured approach to community involvement. Together, they create a powerful feedback loop—where utility goals shape project decisions, and high-performing projects, in turn, advance broader utility performance—resulting in more consistent, transparent, and sustainable infrastructure delivery.

The **Ten Attributes of Effectively Managed Water Sector Utilities** provide a clear set of reference points to help utilities maintain a balanced focus on important operational areas. These attributes align well with Envision categories and credits.

EUM Attribute	Quality of Life	Leadership	Resource Allocation	Natural World	Climate and Resilience
1. Product Quality	●	●		●	
2. Customer Satisfaction	●	●			●
3. Employee and Leadership Development		●			
4. Operational Optimization	●	●	●		●
5. Financial Viability		●	●		●
6. Infrastructure Strategy and Performance		●	●	●	●
7. Enterprise Resiliency		●	●		●
8. Water Resource Sustainability	●	●	●	●	●
9. Community Sustainability	●	●	●	●	●
10. Stakeholder Understanding and Support	●	●			●



CASE STUDY: Bull Run Filtration Facility

Water Treatment | Oregon, USA | Envision Platinum 2025

PROJECT OVERVIEW

The Bull Run Filtration Facility is a major drinking water infrastructure investment designed to enhance water quality, public health protection, and long-term system resilience for nearly one million people across the Portland region. The facility will treat up to 135 million gallons per day, with future expansion capability to 220 million gallons per day. The project was developed to address regulatory requirements, improve treatment reliability, and strengthen resilience to natural hazards and water quality disruptions.

ENVISION IN ACTION

The project demonstrates how Envision can support integrated decision-making across public health, watershed protection, community engagement, resilience, and ecosystem restoration. A sustainability-based alternatives evaluation framework helped guide key project decisions, ensuring long-term environmental and community benefits.

SUSTAINABILITY HIGHLIGHTS

- Implements a zero-liquid-discharge approach by recycling process water back into the treatment system.
- Increases resilience to wildfire, landslide, extreme weather, and other turbidity events that can affect source water quality.
- Uses gravity-fed conveyance from the Bull Run Watershed, reducing long-term energy requirements.
- Incorporates habitat restoration and invasive species management to improve ecological conditions.
- Includes community workforce development programs, apprenticeships, and MWDBE participation initiatives.



CASE STUDY: H.L. Mooney Advanced Water Reclamation Facility-Wide Improvements

Wastewater Treatment | Virginia, USA | Envision Silver 2025

PROJECT OVERVIEW

The H.L. Mooney Advanced Water Reclamation Facility-Wide Improvements Project modernizes critical wastewater infrastructure serving more than 380,000 residents and businesses. The project includes upgrades to treatment processes, electrical systems, odor control, flow metering, disinfection, and resiliency improvements that will support long-term regulatory compliance and operational performance.

ENVISION IN ACTION

The project illustrates how Envision can be integrated into a large capital improvement effort to align infrastructure renewal with sustainability objectives, stakeholder coordination, resilience planning, and long-term operational performance.

SUSTAINABILITY HIGHLIGHTS

- Improves treatment performance and supports watershed protection through high-quality effluent production.
- Enhances monitoring and operational efficiency through expanded real-time water quality and flow monitoring systems.
- Integrates sustainability goals into project management through a formal Sustainability Management Plan.
- Improves resilience through modernization of aging infrastructure and adaptation to future climate conditions.
- Supports safe facility access, emergency response preparedness, and public education opportunities.

[View Online](#)

CASE STUDY: Sunol Valley Water Treatment Plant Ozoneation Project

Water Treatment | California, USA | Envision Silver 2025

PROJECT OVERVIEW

The Sunol Valley Water Treatment Plant Ozoneation Project introduces advanced ozonation treatment to improve drinking water quality and reliability for approximately 2.7 million Bay Area customers. The system was selected as a long-term response to increasing taste and odor events associated with algal blooms and climate-driven water quality challenges.

ENVISION IN ACTION

The project demonstrates how sustainability frameworks can support utilities in addressing emerging water quality challenges while simultaneously advancing energy performance, climate resilience, operational reliability, and community value.

SUSTAINABILITY HIGHLIGHTS

- Improves drinking water quality by reducing taste and odor compounds.
- Supports climate adaptation by addressing increasing algal growth associated with drought conditions.
- Meets at least 95% of operational energy needs through renewable energy sources.
- Enhances system monitoring through advanced water treatment controls and performance tracking.
- Improves infrastructure integration through connection to regional SCADA systems and backup power enhancements.



CASE STUDY: Replacement of Casa Loma Siphon Barrel No. 1

Water Distribution | California, USA | Envision Silver 2025

PROJECT OVERVIEW

This project replaced a vulnerable section of a major regional water transmission pipeline serving nearly 19 million people throughout Southern California. Located along an active fault zone, the original pipeline experienced recurring damage due to seismic activity and land subsidence. The replacement introduces a highly resilient pipeline system designed to withstand future ground movement and earthquakes.

ENVISION IN ACTION

The project showcases how Envision can support resilient infrastructure investment by encouraging interdisciplinary collaboration, risk-informed decision making, lifecycle planning, and innovative engineering solutions that protect critical community assets.

SUSTAINABILITY HIGHLIGHTS

- Replaced vulnerable infrastructure with one of the world's largest earthquake-resistant ductile iron pipe systems.
- Supports long-term regional water reliability and resilience.
- Uses continuous monitoring to detect settlement and infrastructure movement.
- Minimized service interruptions by scheduling construction during planned shutdown periods.
- Established a model for future resilient water infrastructure upgrades across the region.

[View Online](#)

CASE STUDY: Guichon Creek Restoration Project

Environmental Restoration / Waterway | British Columbia, Canada | Envision Platinum 2025

PROJECT OVERVIEW

Originally initiated to address a sinkhole caused by a failing culvert, the Guichon Creek Restoration Project transformed an infrastructure challenge into an opportunity to restore natural systems, improve campus amenities, and strengthen climate resilience. The project daylighted a previously buried section of creek, restoring ecological functions while enhancing community access to nature.

ENVISION IN ACTION

The project provides an excellent example of nature-based infrastructure, demonstrating how restoration projects can simultaneously address infrastructure risk, resilience, habitat enhancement, stormwater management, and community quality of life.

SUSTAINABILITY HIGHLIGHTS

- Restores a previously culverted stream and associated riparian habitat.
- Incorporates a fish ladder to improve aquatic habitat connectivity.
- Improves stormwater management and prepares for future climate conditions and 100-year storm events.
- Expands educational opportunities through BCIT's Living Labs program.
- Eliminates future sinkhole risks while creating new campus green space and community amenities.

Assessing and Verifying Water-Related Projects

Pursuing Envision verification helps validate the quality of sustainability strategies, provides confidence to owners and stakeholders, and offers project teams valuable feedback.

Envision is widely used to assess and verify infrastructure projects through a third-party review process. Verification provides:

- Independent validation of sustainability performance
- Recognition at multiple award levels
- Opportunities to share project success stories

Early integration of Envision—ideally during planning—can significantly improve outcomes and reduce costs.

Water infrastructure projects use the Envision Guidance Manual to identify and implement strategies to optimize the sustainability and resilience of a capital improvement project or significant upgrade/ retrofit project.

ADDITIONAL RESOURCES

View Guide to Envision Verification for Applicants

View Envision Credit Navigator

The **Guide to Envision Verification for Applicants**, is intended to further support Envision users, though not intended to duplicate or replace the Guidance Manual. It contains important information for applicants (users) of the Envision framework, including current policies, procedures, submission tips, and pricing. To access this resource, you need a free ISI account. The guide is located on the ISI account dashboard, under Resources > Verification Resources.

Envision Credit Navigator is intended to help owners and project teams understand at what stage of project development they might look at criteria within Envision credits to maximize opportunities to increase sustainable performance.

ENVISION CREDIT NAVIGATOR

Full RoadmapInitiation / Project FeasibilityPlanning / ProgrammingPreliminary DesignDesign Development / Construction DocumentsConstructionEnvironmentalStakeholder EngagementQuality of LifeLeadershipResource AllocationNatural WorldClimate & Resilience

Welcome to the Envision Credit Navigator Tool

The intent of this document is to help owners and project teams understand at what stage of project development they might look at criteria within Envision credits to maximize opportunities to increase sustainable performance.

Each Envision project takes its own path—much like a “choose your own adventure” story. Envision reflects that reality: each of its 64 credits requires thoughtful consideration of how it applies to the project and how it can add value to outcomes. While the framework is complex, it is also a powerful tool for guiding teams through the capital delivery process in ways that reduce risk, build consensus, and strengthen long-term performance.

This mapping effort serves as an “atlas” of potential routes, illustrating how credits and criteria may be introduced, revisited, and integrated across project phases. Beginning in project initiation and feasibility, Envision helps identify community values, align with policies and funding priorities, and support early stakeholder engagement—laying the groundwork for smoother approvals and clearer project justification. Lifecycle cost considerations introduced at this stage also provide a lens for reducing financial risk and optimizing investment decisions.

In **planning and programming**, Envision supports defining project goals, prioritizing investments, and comparing alternatives—reinforcing its central principle of not only building the project right, but building the right project. As projects advance into **preliminary design**, the framework encourages conversations about topics that might otherwise be overlooked, ensuring early commitments are revisited and validated as designs evolve. During design development and construction documentation, sustainability objectives are woven directly into plans and specifications, reducing the likelihood of costly redesigns or missed opportunities. Finally, during construction, Envision provides a structure for ensuring delivery stays aligned with the project’s goals, strengthening accountability and performance.

Environmental considerations and stakeholder engagement are cross-cutting topics that span phases and influence numerous credits. Related credits are both noted with icons (see “Navigating the Navigator”) and highlighted in their own sections of the tool.

This tool makes the process more transparent by showing where credits may come into play, which criteria need sustained attention, and how project components fit together. Ultimately, while each project team defines its own path by selecting relevant credits and levels of achievement, the navigator highlights opportunities, critical decision windows, and the progression of Envision criteria—helping teams capture benefits early, minimize risks, and maximize project value.

Note that the criteria information most often uses terms like *review*, *assess*, *consider*, *plan for*, *document*, etc., to provide flexible guidance for project teams in starting and substantiating conversations and activities that happen as the project progresses.

Navigating the Navigator

The Capital Delivery Process is broken out into the following phases:

- Initiation / Project Feasibility
- Planning / Programming
- Preliminary Design
- Design Development / Construction Documents
- Construction

Page 2 shows a mapping of where each credit could be considered throughout the capital delivery process. The first instance of the credit is shown with a dark background and subsequent instances of credit with light background, as shown below:

QL2.3 Improve Access & Wayfinding

QL2.3 Improve Access & Wayfinding

Each phase has a dedicated page that shows related credits with details on which criteria and activities might be beneficial during that phase.

Following the phases, there are pages that show how each credit progresses through all the phases.

Navigation is provided at the top of each page to move from section to section and back to the overview.

The credits are also categorized to show the following:

- Credit has a **stakeholder engagement** component.
- Information related to the content of the credit may be included in an **environmental assessment** or similar document.
- Credit has a **construction-related** component.

KEY POINTS

- It is beneficial to begin using Envision early in the process.
- There are criteria that could become irrelevant once the project progresses to later stages of development.
- There are credits that have dependencies – one thing needs to be done in an earlier phase so something can be done in a later phase.
- Credits used for assessments during planning and preliminary design also often have design components or construction-related guidance that may need to be incorporated into construction documents.



Tools & Resources

The first step to accessing ISI and Envision is to create a free ISI account at www.instituteforsustainableinfrastructure.com

Instructions for creating an account can be found under Resources > Creating an Account.

[View Resource](#)

ISI Membership

ISI Membership gives you direct access to the enriched opportunities, resources, and opportunities for collaboration, as well as resources for understanding and project verification.

[Learn about ISI Membership](#)

Envision Sustainability Professionals

ENSP support the Envision framework. The ENSP credential equips professionals with the knowledge, skills, and experience to successfully implement and verify infrastructure projects more sustainably, resiliently, and equitably.

[Become an ENSP](#)



The Envision Guidance Manual

The Envision Guidance Manual is the primary reference for project teams and the official reference for project assessment. It describes the Envision framework in detail and provides best practices for performance and planning goals.

To access this resource, you need a free ISI account. The guide is located on the ISI account dashboard, under Resources > Envision.

The Envision Pre-Programmed Checklist

The Envision Pre-Programmed Checklist is intended to support project teams in implementing Envision early in the pre-design and planning phases. It provides a series of questions to help project teams understand the project's sustainability and the Envision framework into project objectives.

✓ Covers best practices for assessing project sustainability goals, implementing Envision throughout the project lifecycle, and managing the project's sustainability goals.

✓ Offers practical advice and examples of how to integrate Envision into project planning and design.

To access this resource, you need a free ISI account. The guide is located on the ISI account dashboard, under Resources > Envision.

The Guide to Procuring Sustainable Infrastructure Services

This guide is intended to help project teams understand the sustainability of infrastructure projects. It provides a series of questions to help project teams understand the project's sustainability and the Envision framework into project objectives.

✓ Provides best practices for assessing project sustainability goals, implementing Envision throughout the project lifecycle, and managing the project's sustainability goals.

✓ Offers practical advice and examples of how to integrate Envision into project planning and design.

To access this resource, you need a free ISI account. The guide is located on the ISI account dashboard, under Resources > Procurement Resources.

The Envision Supplier Directory

The Envision Supplier Directory provides an opportunity for suppliers to highlight their sustainable materials and services for an infrastructure project. It provides a resource for project teams looking to identify materials, products, services, and technologies that can help solve specific sustainability challenges.

To access this resource, you need a free ISI account. The guide is located on the ISI account dashboard, under Resources > Procurement Resources.

[Visit the Supplier Directory](#)

The Applicants Course

The Applicants Course is a free online training tool that provides a clear look at Envision project verification, providing participants with an in-depth understanding of the tools, resources, and systems available to support a design team's Envision goals.

It is led by ISI certification specialists and new project teams who already have their ENSP credential and are preparing to support an application for project verification.

The course is offered quarterly, and new project teams should ENSP or credential requirements. You need to log in to your ISI account to register.

[View the Applicants Course](#)

The Guide to Envision Verification

The Guide to Envision Verification is a document that provides information for applicants (users) of the Envision Sustainable Infrastructure framework, including current policies, procedures, submission tips, and pricing.

To access this resource, you need a free ISI account. The guide is located on the ISI account dashboard, under Resources > Verification Resources.

The Envision Verification Submission Process

The Envision Verification Submission Process document provides an overview of the process, outlining step-by-step guidance for applicants to understand the project, Envision verification.

To access this resource, you need a free ISI account. The guide is located on the ISI account dashboard, under Resources > Verification Resources.

YOUR ISI ACCOUNT: ENVISION APPLICANT RESOURCES

Resources

▼ ENVISION

- Envision Guidance Manual (v3) 10.36 MB 
- Envision Marco de Infraestructura Sostenible v3 3.99 MB 
- Manuel de référence Envision v3 9.34 MB 
- Envision Checklist (v3) 0.4 MB 
- Lista de verificación Envision (v3) 0.4 MB 
- Grille d'évaluation d'Envision (v3) 0.72 MB 

➤ ENVISION V2 (LEGACY)

▼ MEMBERSHIP RESOURCES

- Membership Brochure 3.64 MB 

▼ CREDENTIALING RESOURCES

- Credential Maintenance Guide for ENV SPs 0.24 MB 

▼ POLICIES

- Privacy Policy 0.53 MB 
- ISI Policies 0.37 MB 
- ISI Policies - Previous Version Comparison 0.45 MB 

▼ VERIFICATION RESOURCES

- Verification Submittal Quality Assurance Checklist 0.1 MB 
- Guide to Envision Verification for Applicants 1.44 MB 
- Credit Amendments (v3) 0.75 MB 
- Envision Example Coversheets (v3) 0.37 MB 
- Envision Coversheets (v3) 5.97 MB 
- Hojas de presentación Envision (v3) 6.04 MB 
- Envision v3 Fiches descriptives de crédit 7.13 MB 
- Envision v3 Credit Calculators-RA2.x Energy 0.09 MB 
- README_Example Envision Project Submission: Berryessa Transit Center 1.02 MB 
- Envision Verification Submission Process 1.94 MB 

▼ PROCUREMENT RESOURCES

- Guide to Procuring Sustainable Infrastructure Services 6.63 MB 

The above resources are available to Envision users, and shown in the dashboard of users' accounts, but ISI also offers other services to support project teams with Envision, including:

- The **Programmatic Approach** can offer cost savings and other benefits for agencies that have multi-phase projects or several projects slated for verification.
- The **Envision Verification Applicants Course** (check the Applicants Course page for the most up-to-date courses).
- Complimentary and **advanced review** of two Envision credit submittals outside of the verification process.
- **Preliminary Assessments** for specific projects where ISI and the project team review the project scope, boundary, project description, Envision Checklist (v3), and more.

[View Programmatic Approach Webpage](#)

Programmatic Approach

The Programmatic Approach to Envision verification **supports owners delivering multiple projects** by streamlining processes and promoting consistency across submissions. Designed for both project teams and third-party verifiers, this approach improves efficiency in application development and review.

Participating owners commit to submitting two or more projects and implementing strategies that align content, structure, and overall quality across all applications. This coordinated approach enables teams to leverage shared resources and practices, while providing verifiers with clear, consistent materials.

Applicants Course

The Applicants Course is a live virtual training that **offers a closer look at Envision project verification**, providing participants with an in-depth understanding of the tools, resources and systems available to support a successful Envision verification process. It is led by ISI verification specialists and designed for individuals who already have their ENV SP credential and are preparing to support an application for project verification. The course is offered quarterly, and participation fulfills five elective hours toward ENV SP credential maintenance. You need to log in to your ISI account to register.

ISI Credit Evaluations

After a project is registered to pursue verification, ISI offers a complimentary **review of two Envision credit submittals**—outside of the verification process. This can be coordinated through your ISI point of contact.

Preliminary Assessments

ISI offers Preliminary Assessments as an option for Envision users, a service that is particularly beneficial for those new to Envision. The purpose of these assessments is to **review the project scope, boundary, description, Envision Checklist (v3)** that has been completed by the project team, via a series of web-based meetings. The web-based meetings provide the opportunity to:

Review the evaluation criteria and documentation requirements contained in the Envision Guidance Manual to help the project team ascertain potential Levels of Achievement for each credit.

Discuss documentation requirements to support the project team's desired levels of achievement for Envision credits.

- Review key concepts and considerations for each credit in the Envision system and point out typical “pain points” so the project team can avoid these and other common pitfalls.
- Identify any credits that may be deemed Not Applicable to the project.
- Discuss technical challenges and limitations and address questions.
- Facilitate discussion and dialogue amongst members of the project team.
- Discuss programmatic/high-level documentation requirements (e.g., organizational policies, plans, and assessments) and project-specific documentation requirements.

Typically, these assessments involve seven web-based meetings including a kick-off call. The project team is provided with workshop recordings and copies of the presentations.

[View Applicants Course Webpage](#)

ENVISION PATHWAYS

Projects intending to pursue verification will need to follow one of two Verification Pathways as shown below:

Pathway A: Design + Post-Construction: >95% Design



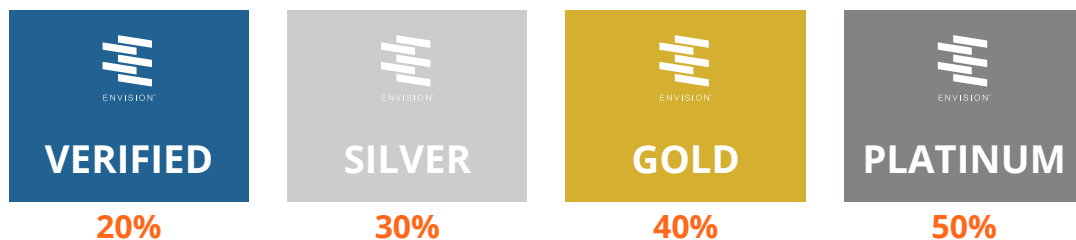
Pathway B: Post-Construction: >95% Construction



View Guide to
Envision Verification
for Applicants

Refer to the **Guide to Envision Verification for Applicants** for additional information regarding the pathways. To receive recognition, projects must achieve a minimum percentage of the total applicable Envision points.

Projects can be recognized at four verification levels (percent of applicable points earned):



Access the **Guide to Procuring Sustainable Infrastructure Services** in your free ISI account—located under 'Resources' on your account dashboard.

The project team must include an ENV SP to guide the process. Ensuring that multiple members of the design team are familiar with Envision will further facilitate a successful process.

For infrastructure projects, one way that agencies and municipalities can integrate Envision is during procurement. Incorporating Envision into Requests for Proposals/Qualifications (RFPs/RFQs) can help ensure that prospective consultants prioritize sustainability in a consistent way throughout project planning, environmental reviews, design phases, and construction. ISI's **Guide to Procuring Sustainable Infrastructure Services** is designed to assist project owners in procuring Envision-related services to support the sustainability of infrastructure projects.

- Provides guidance on integrating sustainability and the Envision framework into projects of all types.
- Covers best practices for assembling qualified sustainability teams, implementing Envision throughout the project lifecycle, and managing the verification process.
- Offers practical advice and example procurement language to use when seeking services.

COST OF ENVISION VERIFICATION

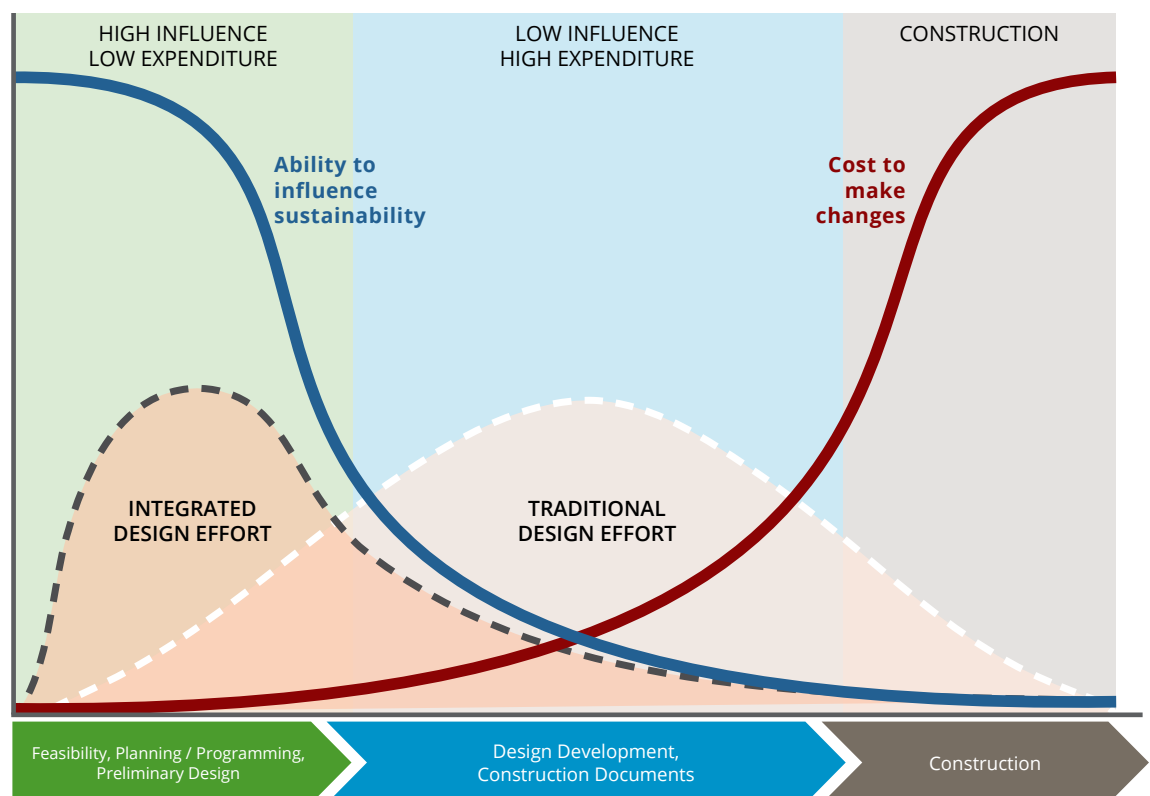
[View Verification Fees Webpage](#)

For projects pursuing Envision verification, there is a flat registration fee of \$2,000 USD plus a variable verification fee based on total project cost as described on the [‘Verification Fees’ webpage](#). Time to prepare credit submittals for verification will depend on a number of factors, including the project scale/ scope, the existence of previously established sustainability requirements or supporting documentation, the consultant’s familiarity with the client’s programs/policies, experience using the Envision framework, and the timing of incorporating Envision.

The following guidance may help maintain reasonable costs:

- Initiate the process early in the project, ideally at the planning stage or ahead of 30 percent design development.
- If using a consultant, engage one with experience administering Envision on infrastructure projects, ideally on water-related projects.
- Make available relevant programs/policies/ documentation that will support the integration of sustainability and pursuit of verification.
- Communicate to the project team the importance of integrating sustainability and resilience into the project design and construction so this is not an add-on service.
- Develop tracking tools and documentation templates/examples for project team use.

The figure shows the cost to make changes to a project (e.g., to improve its sustainable performance) increases as the project timeline progresses. Therefore, using Envision early in the project timeline can help keep project costs reasonable without compromising sustainability goals.



[View Envision
Cost- Benefit
Survey Summary](#)

SURVEY INSIGHTS: THE COST & BENEFITS OF IMPLEMENTING ENVISION

In 2024, ISI undertook a comprehensive survey to better understand the real costs and benefits of applying the Envision framework on verified projects.

Survey results showed that sustainability does not inherently increase project costs, and that the verification process delivers clear value despite moderate time and effort requirements. Key takeaways included:

- **Sustainability doesn't have to increase project cost.** Implementation costs are manageable; mostly neutral or slight increase.
- **Verification provides clear value.** Users see very clear value and benefits from the process – recognition, improved outcomes, community trust.
- **There is a learning curve.** Efficiency improves significantly with experience.
- **Context Matters.** Owner's sustainability maturity shapes perceived costs and value.

Implementation Best Practices

- **Early Integration:** Apply Envision in initial planning and design phases to optimize impact.
- **Multidisciplinary Teams:** Involve diverse teams (designers, contractors, sustainability experts) early and continuously.
- **Effective Communication:** Clearly articulate sustainability goals to all stakeholders early.
- **Consistency and Standardization:** Make Envision principles a standard practice rather than a stand-alone effort.

Benefits of Envision Verification

- Recognizes and rewards sustainable achievements.
- Allows users to calibrate self-assessments through a third-party peer review process.
- Demonstrates to communities how the project addresses their needs and concerns.
- Provides confidences to rate-payers that funds are spent in their best interest.
- Motivates the project team.
- Provides a quality control/quality assurance measure.

Water Infrastructure Verification Insights

PROJECT BOUNDARY

Setting the boundary for the project is a consequential early step in verification that will shape which credits the project team elects to pursue. The Envision boundary may be unique from the facility property boundary but should cover all elements, areas, and activities related to the project. It is important to clearly define what is and is not included, and the boundary must be consistently applied across all credit submittals. For example, if a project includes the reconfiguration of an access road and the facility is installing a piece of art at the roadway entrance, the art piece cannot only be counted towards credits where it may be beneficial to do so, e.g., QL3.3 Enhance Public Views and Local Character. If it is included in the project boundary it must be consistently applied across all credits, so the materials used, the land used, and the planning and coordination involved in that element of the project must all be considered.

While Envision focuses on infrastructure projects, in some cases it may be appropriate or even necessary to include facilities within the Envision

boundary. For example, if a pump station project includes a new electrical vault building or another supporting facility, this should be incorporated into the Envision boundary. Again, all associated materials, land used, and planning and coordination involved with this component must be incorporated into the Envision submittal.

ISI does not dictate what project boundaries are appropriate for Envision verification; rather, ISI and its team of verifiers rely on the project team to clearly define the project boundary. A site map and project description must be included in the Envision submittal indicating the boundary and all project elements. Unlike some other rating systems, the project site does not have to be contiguous. For water-related projects with multiple components, it is particularly important to be clear, both in the Envision submittal and with the various project teams, about the delineation of and any overlaps in boundaries. The defined boundary can include components like off-site mitigation, watershed improvements, and reuse systems.

Water projects often involve interconnected systems, including treatment facilities, pipelines, and natural systems. Clearly defining project boundaries is essential to ensure consistency across all Envision credits.



COMMUNITY AND STAKEHOLDERS

Understanding community needs and issues, and stakeholder engagement are crucial aspects in the Envision framework. The terms community and stakeholders are included in many credits throughout the framework. As such, it is crucial for project teams to define the project's community and stakeholders for any Envision pursuit.

Water-related projects often define the community as the rate payers, regulatory agencies, environmental organizations, downstream communities, neighbors, and workers associated with operations. For Envision, community is defined in two ways:

- **Host Community:** The community in which the project is located.
- **Affected Community:** Any community that may experience positive or negative effects from the project's design, planning, construction, operation, or demolition. This may include communities beyond the host or benefited communities.

Stakeholder can have many definitions. For Envision, a stakeholder is a person, group, or organization that has a direct (primary) or indirect (secondary) stake in an organization because it can affect or be affected by the organization's actions, objectives, and/or policies. For water projects, these may include regulators, adjacent facilities, and community members impacted by the project's construction or operation, and more.



Effective engagement is critical to achieving successful outcomes.

APPLICABILITY OF ENVISION CREDITS AND COMMON CREDIT PURSUITS FOR WATER PROJECTS

Applicability

The Envision framework's inherent flexibility is invaluable for water-related project because they can cover a wide variety of infrastructure projects. Envision-verified water-related projects have included everything from small pump stations to stormwater parks, large wastewater treatment facilities to pipelines and reservoirs. Water agencies and departments often ask about the "applicability" of Envision credits in urban and rural settings. While Envision has a N/A option for credits, it is important for water infrastructure project teams to understand that although credits may not be appropriate to pursue or attainable for a given project, that does not mean they should be considered N/A within the framework.

Only whole credits can be deemed N/A, i.e., not one or more evaluation criteria included in the credit. The option within Envision should be reserved for cases where the credit's indicator does not exist for the project. Project teams should refer to the Applicability section of each credit in the Envision Guidance Manual if considering deeming a credit N/A.

The following reasons are not acceptable reasons to deem a credit N/A:

- The scope does not involve efforts that would be required to meet the credit's criteria.
- Achieving the criteria would be too expensive, difficult, or time-consuming.
- The strategies or actions that would fulfill the criteria are prohibited by local laws or regulations.
- The project owner does not have decision-making authority to pursue the associated strategies or actions.
- The credit does not reflect a stakeholder priority.

Based on ISI's experience, there are several credits that water infrastructure projects may incorrectly believe are Not Applicable.

For example:

QL1.4 Minimize Noise and Vibration

Water-related projects occasionally submit this credit as not applicable. This credit is applicable to all projects that have operational noise, including noise generated by activities induced by the project. It also is not eliminated by the existence of other noise conditions near the project.

QL2.2 Encourage Sustainable Transportation

Some types of water-related projects are staffed by only a small number of employees. If employees are on-site, this credit applies. Additionally, water-related projects often also include driveways, parking, and sidewalks that are considered transportation infrastructure, which makes this credit applicable.

QL3.4 Enhance Public Space and Amenities

This credit is not limited to added public spaces and cannot be deemed not applicable solely because the project does not address adjacent public space. Roads and sidewalks around water-related projects are shared public space that could result in this credit being applicable if they are part of the project boundary.

NW3.4 Control Invasive Species

This credit is applicable to many water-related projects. Invasive species include nonindigenous or non-native plants, wildlife, insects, and aquatic life that can adversely affect surrounding habitats. Projects must address IF invasive species exist on the project site prior to determining if this credit is not applicable.

Credit Analysis

ISI conducted an analysis of water-related projects that have earned an Envision verification to determine which credits are often deemed Not Applicable, which credits are most often not pursued, and which credits are commonly scored at the highest Levels of Achievement. Given the number of water-related projects that pursued Envision verification under the previous version of Envision (v2), reviewed projects included both those using Envision v2 and Envision v3.

Matrices on the following pages show a breakdown by credit for all water-related projects, as well as by several project types for both v2 and v3 projects.

The following information is related to v3 projects.

Not Applicable Credits

Credits within the Envision framework that may offer opportunities for water-related project teams to consider Not Applicable include:

- QL3.2 Preserve Historic and Cultural Resources
- NW1.1 Preserve Sites of High Ecological Value
- NW1.3 Preserve Prime Farmland
- NW2.1 Reclaim Brownfields

For these and/or any other credits to be accepted as Not Applicable, project teams must submit documentation explaining and demonstrating why the credit does not apply to the project.

Highly Scored Credits

While all 64 Envision credits should be reviewed for each project, project teams for water-related projects may find it helpful to understand which credits are commonly pursued at the highest Levels of Achievement. Based on ISI's analysis of Envision-verified water-related projects, the most common credits that earn the highest Level of Achievement are:

- QL1.3 Improve Construction Safety
- QL3.3 Enhance Views and Local Character
- LD1.1 Provide Effective Leadership and Commitment
- LD2.2 Plan for Sustainable Communities
- NW1.4 Preserve Undeveloped Land
- CR2.6 Improve Infrastructure Integration

Credits Not Pursued

Based on the analysis, a few credits emerged that are less frequently pursued by water-related projects.

- LD2.4 Plan for End of Life
- LD3.3 Conduct a Lifecycle Economic Evaluation
- RA1.1 Support Sustainable Procurement Practices
- RA2.3 Use Renewable Energy
- RA3.3 Reduce Construction Water Consumption
- CR1.1 Reduce Net Embodied Carbon
- CR1.2 Reduce Greenhouse Gas Emissions

Envision Credit Name (v3)	ALL WATER-RELATED	WASTEWATER TREATMENT	WASTEWATER COLLECTION	WATER TREATMENT	STORMWATER	OTHER
QL1.1 Improve community quality of life						
QL1.2 Enhance Public Health and Safety		✓		✓	✓	
QL1.3 Improve Construction Safety	✓	✓	✓	✓		
QL1.4 Minimize Noise and Vibration					✓	
QL1.5 Minimize Light Pollution		✓		✓		⊖
QL1.6 Minimize Construction Impacts						
QL2.1 Improve Community Mobility and Access			⊖			⊖
QL2.2 Encourage Sustainable Transportation			⊖			⊖
QL2.3 Improve Access and Wayfinding						
QL3.1 Advance Equity and Social Justice		✗				
QL3.2 Preserve Historic and Cultural Resources	⊖	⊖	⊖	⊖	⊖	⊖
QL3.3 Enhance Views and Local Character	✓	✓	✓	✓	✓	✓
QL3.4 Enhance Public Space and Amenities					✓	✓
LD1.1 Provide effective leadership and commitment	✓	✓ -100%	✓	✓ -100%		
LD1.2 Foster Collaboration and Teamwork		✓ -100%	✓ -100%	✓ -100%		✓
LD1.3 Provide for Stakeholder Involvement	✓				✓	
LD1.4 Pursue Byproduct Synergies			✗			
LD2.1 Establish a Sustainability Management Plan		✓		✓		
LD2.2 Plan for Sustainable Communities	✓	✓	✓	✓	✓ -100%	✓
LD2.3 Plan for Long-Term Monitoring and Maintenance						
LD2.4 Plan for End of Life	✗	✗		✗	✗	✗
LD3.1 Stimulate Economic Prosperity and Development					✗	✗
LD3.2 Develop Local Skills and Capabilities						
LD3.3 Conduct a Lifecycle Economic Evaluation	✗		✗	✗	✗	✗
RA1.1 Support Sustainable Procurement Practices	✗	✗	✓	✗		
RA1.2 Use Recycled Materials				✗		
RA1.3 Reduce operational waste			⊖	✗		⊖
RA1.4 Reduce construction waste			✓			
RA1.5 Balance Earthwork On Site				✗	✗	
RA2.1 Reduce Operational Energy Consumption		✗	✗	✗		✗
RA2.2 Reduce Construction Energy Consumption				✗		
RA2.3 Use Renewable Energy	✗	✗	✗	✗		
RA2.4 Commission and Monitor Energy Systems			✗			
RA3.1 Preserve Water Resources		✓		✓		✗
RA3.2 Reduce Operational Water Consumption						⊖
RA3.3 Reduce Construction Water Consumption	✗		✗			✗
RA3.4 Monitor Water Systems		✓		✓	✗	✗
NW1.1 Preserve Sites of High Ecological Value	⊖	⊖		⊖		⊖
NW1.2 Provide Wetland and Surface Water Buffers			⊖			
NW1.3 Preserve Prime Farmland	⊖		⊖		⊖ -100%	⊖
NW1.4 Preserve Undeveloped Land	✓	✓	✓	✓		✓
NW2.1 Reclaim Brownfields	⊖	⊖	⊖ -100%	⊖	⊖	⊖
NW2.2 Manage Stormwater				✗	✗	✗
NW2.3 Reduce Pesticide and Fertilizer Impacts						
NW2.4 Protect Surface and Groundwater Quality			✗			
NW3.1 Enhance Functional Habitats			✗			
NW3.2 Enhance Wetland and Surface Water Functions						
NW3.3 Maintain Floodplain Functions		⊖		⊖		
NW3.4 Control Invasive Species						
NW3.5 Protect Soil Health						
CR1.1 Reduce Net Embodied Carbon	✗	✗	✗	✗	✗	✗
CR1.2 Reduce Greenhouse Gas Emissions	✗	✗	✗	✗	✗	
CR1.3 Reduce Air Pollutant Emissions			✗			
CR2.1 Avoid Unsuitable Development						
CR2.2 Assess Climate Change Vulnerability			✓			
CR2.3 Evaluate Risk and Resilience						
CR2.4 Establish Resilience Goals and Strategies						
CR2.5 Maximize Resilience						
CR2.6 Improve Infrastructure Integration	✓	✓		✓	✓	

Envision Credit Name (v2)	ALL	WASTEWATER TREATMENT	STORMWATER	PARK	WATER TREATMENT	WASTEWATER COLLECTION	OTHER
QL1.1 Improve community quality of life	✓	✓	✓	✓	✓	✓	✓
QL1.2 Stimulate sustainable growth and development							
QL1.3 Develop local skills and capabilities							
QL2.1 Enhance public health and safety	⊖		⊖	⊖		⊖	⊖
QL2.2 Minimize noise and vibration							✓
QL2.3 Minimize light pollution				✓			
QL2.4 Improve community mobility and access							
QL2.5 Encourage alternative modes of transportation						⊖	
QL2.6 Improve site accessibility, safety and wayfinding			✓	✓			
QL3.1 Preserve historic and cultural resources	⊖	⊖	⊖		⊖	⊖	
QL3.2 Preserve views and local character							
QL3.3 Enhance public space			✓	✓			✓
LD1.1 Provide effective leadership and commitment	✓	✓	✓	✓		✓	✓
LD1.2 Establish a sustainability management system						✓	
LD1.3 Foster collaboration and teamwork							
LD1.4 Provide for stakeholder involvement			✓	✓			✓
LD2.1 Pursue by-product synergy opportunities			⊗	⊗			
LD2.2 Improve infrastructure integration			✓	✓			✓
LD3.1 Plan for long-term monitoring and maintenance	✓	✓	✓	✓		✓	✓
LD3.2 Address conflicting regulations and policies							
LD3.3 Extend useful life							
RA1.1 Reduce net embodied energy	⊗	⊗	⊗	⊗	⊗		⊗
RA1.2 Support sustainable procurement practices							
RA1.3 Use recycled materials							
RA1.4 Use regional materials						✓	
RA1.5 Divert waste from landfills							
RA1.6 Reduce excavated materials taken off site			⊗		✓		
RA1.7 Provide for deconstruction and recycling					⊗		
RA2.1 Reduce energy consumption							
RA2.2 Use renewable energy			⊗	⊗			⊗
RA2.3 Commission and monitor energy systems							
RA3.1 Protect fresh water availability		✓	✓				
RA3.2 Reduce potable water consumption							
RA3.3 Monitor water system					✓		
NW1.1 Preserve prime habitat	⊖	⊖	⊖			⊖	
NW1.2 Protect wetlands and surface water							
NW1.3 Preserve prime farmland	⊖	⊖	⊖	⊖	⊖	⊖	⊖
NW1.4 Avoid adverse geology						⊖	
NW1.5 Preserve floodplain functions			⊖				
NW1.6 Avoid unsuitable development on steep slopes	⊖	⊖	⊖	⊖		⊖	⊖
NW1.7 Preserve greenfields	✓	✓	✓	✓	✓	✓	✓
NW2.1 Manage stormwater			✓	✓	✓		
NW2.2 Reduce pesticide and fertilizer impacts			✓			✓	
NW2.3 Prevent surface and groundwater contamination			✓	✓			
NW3.1 Preserve species biodiversity			✓				
NW3.2 Control invasive species				✓			
NW3.3 Restore disturbed soils	✓	✓		✓	✓	✓	✓
NW3.4 Maintain wetland and surface water functions							
CR1.1 Reduce greenhouse gas emissions	⊗	⊗	⊗	⊗	⊗		⊗
CR1.2 Reduce air pollutant emissions				⊗	⊗	⊗	
CR2.1 Assess climate threat	✓	✓	✓	✓		✓	✓
CR2.2 Avoid traps and vulnerabilities							
CR2.3 Prepare for long-term adaptability	✓	✓	✓	✓	✓	✓	✓
CR2.4 Prepare for short-term hazards	✓	✓				✓	✓
CR2.5 Manage heat islands effects							

PENDING CREDITS

Water infrastructure project teams pursuing Envision verification Pathway A: Design + Post-Construction have the ability to mark credits as “pending.” This gives project teams the ability to receive their Envision verification following design as opposed to waiting until construction is complete. Credits are marked as pending if some of the documentation necessary to demonstrate achievement will only be available or complete at the post-construction review stage. The pending status is generally reserved for credits, or criteria within credits, where the project team will be making use of construction or contractor-related documentation. The following credits are likely to be considered pending during the design phase reviews in Pathway A: Design + Post-Construction (not intended to be an exhaustive list):

- QL1.3 Improve Construction Safety
- QL1.6 Minimize Construction Impacts
- RA1.1 Support Sustainable Procurement Practices
- RA1.2 Use Recycled Materials
- RA1.4 Reduce Construction Waste
- RA1.5 Balance Earthwork On Site
- RA2.2 Reduce Construction Energy Consumption
- RA3.3 Reduce Construction Water Consumption

When it is not possible to provide the full documentation necessary to demonstrate achievement of the credit criteria until after construction completion, the project team must do the following during the design review stage:

- Mark the credit as “pending.”
- Select a Level of Achievement.
- Provide documentation that credit requirements will be met during construction (e.g., submit relevant construction specifications, targets, and policies).
- Identify and explain any additional documentation that will be available and provided in the post-construction review to demonstrate achievement.

As an example, many agencies have developed their own sustainable construction goals within their specifications accompanied by construction tracking templates to be used on all agency projects; these documents would be used as pending documentation for credits such as RA1.1, RA1.2, RA1.4, and RA1.5. The completed tracking forms would then be included in the final post-construction review submittal.

CATEGORY- AND CREDIT-SPECIFIC INSIGHTS



Quality of Life (QL)

There are several water infrastructure-specific conditions that can affect the pursuit of QL credits. Water-related infrastructure projects support public health, flood risk reduction, recreational water access, environmental justice, and much more, by providing community flood protection, improving drinking water quality and reliability, and reducing sewer overflows.

While the following is not an exhaustive list, these items may support municipalities and agencies pursuing Envision for water-related infrastructure:

- **Safety and security** – Many requirements and procedures that public agencies and municipalities have in place can contribute to Envision credits. A higher Level of Achievement may be reached by incorporating an expanded set of considerations into Construction Safety and Phasing Plans (CSPPs) and other standard documents.
- **Noise** – Operational noise is one of many environmental aspects that can be assessed under NEPA or as part of an environmental assessment. Water-related projects, specifically treatment plants and pump stations, tend to be highly aware of operational noise issues. One common pitfall, however, is that these assessments may not consider vibration; QL1.4 specifically calls for minimizing noise and vibration. Expanding the noise assessment to consider vibration can help bolster the Envision pursuit while benefiting surrounding communities and stakeholders.
- **Views and public space/amenities** – It would be a mistake to automatically consider these elements as irrelevant to certain water-related projects. Even for gated projects, it is important to consider the view of neighbors and pedestrians from roads/walkways and neighboring buildings. Water-related projects often consider public space/amenities, including components like expanding adjacent existing pedestrian walking paths, providing greenspace, or presenting educational opportunities even if the project itself is a secure location.
- **Construction Impacts** – All project types, should consider the impacts the project could have on the surrounding community and stakeholders during construction. Project teams should consider how to minimize noise, vibration, and light pollution during construction, as well as measures to promote public safety, access, and mobility.



Leadership (LD)

The Leadership category significantly differentiates Envision from other rating systems. It promotes collaboration, engagement, and strategic decision-making to maximize sustainable outcomes.

Water-related infrastructure projects should consider how the project can leverage cross-agency coordination, collaboration with watershed partnerships, public engagement, and integrated water planning.

The amount and type of outreach and engagement vary greatly depending on the type of water-related project. Some projects require limited engagement to comply with regulations. However, such activities are opportunities to demonstrate the value of the project (e.g., economic impact or improved water quality) and to showcase the sustainable approach undertaken, potentially helping agencies and/or municipalities build or strengthen relationships with their host communities. Project teams should review Envision credits as early as possible in the project (ideally at the planning stage) to avoid missed opportunities and inform the design and construction process.

Credit **LD1.3 Provide for Stakeholder Involvement** focuses on establishing a sound and meaningful stakeholder engagement plan, beginning with stakeholder identification and prioritization. Building a strong stakeholder engagement plan will assist the project team with many Envision credits as stakeholder engagement is a common theme throughout Envision and this credit provides guidance on how to approach stakeholder engagement, develop an effective plan, and implement it.

Stakeholder engagement is referenced in numerous other credits and may be relevant depending on the pursued Level of Achievement. The table below shows just a few examples of stakeholder engagement explicitly referenced in other Envision credits.



Envision Credits with Stakeholder Engagement Reference(s)

Credit	Stakeholder engagement-related criteria	Stakeholder reference and/or definition
QL1.1 Improve community quality of life	(D) The affected communities are meaningfully engaged in identifying how the project supports community needs and/or goals. (F) Community satisfaction is demonstrated by feedback from the stakeholder engagement process verifying actions taken in criteria A, B, C, and D.	– Community stakeholders – Key stakeholders – Community leaders, and/or decision makers
QL1.4 Minimize Noise and Vibration	(D) The stakeholder engagement process demonstrates community awareness of targets (i.e. criterion C), mitigation strategies (i.e. criterion B), and noise impacts (i.e. criterion A).	– Community awareness of targets, mitigation strategies, and noise impacts – Engage impacted stakeholders
QL1.6 Minimize Construction Impacts	(A) The project team implements a construction management plan or policies to address the temporary inconveniences associated with construction. The plan or policies are informed by stakeholder engagement . (F) The construction management plan or policies include robust feedback mechanisms and performance monitoring and reporting for construction impacts.	– Public – Impacted stakeholders
QL2.1 Improve Community Mobility and Access	(B) The project team obtains input from the community and key stakeholders (e.g., public officials and operators of adjacent facilities, amenities, or transportation hubs) regarding improved access .	– Community – Key stakeholders (e.g., public officials and operators of adjacent facilities, amenities, or transportation hubs)
QL3.1 Advance Equity and Social Justice	(A) Stakeholder engagement is conducted early and informed by the historic context of equity, social justice, and environmental justice . When projects impact, or potentially impact, indigenous communities, specific attention is given to developing a relationship of respect and mutual understanding that supports the autonomy, authority, and rights of these communities. (D) Based on the assessment of social impacts, the project addresses or mitigates social impacts. Mitigation strategies are informed by stakeholder consultation and participation.	– Informed by the historic context of equity, social justice, and environmental justice – Communities – Sovereign peoples
QL3.2 Preserve Historic and Cultural Resources	(A) The project team works with the community and required regulatory and resource agencies to identify historic and cultural resources in and around the project site. (D) Stakeholders of the historic/cultural resources are consulted early in the project's development and contribute to developing a sensitive design approach.	– Community – Stakeholders of the historic/ cultural resources
QL3.3 Enhance Views and Local Character	(B) Specific design features preserve or enhance views and local character, and are informed by the stakeholder consultation process . (E) Community feedback from the stakeholder engagement process verifies actions taken in criteria A, B, and C. (F) The project restores previously lost or degraded views or community features OR enhances the community by creating new features of local character. Actions are supported through the stakeholder engagement process .	– Community – Local stakeholders

Envision Credits with Stakeholder Engagement Reference(s) (continued)

Credit	Stakeholder engagement-related criteria	Stakeholder reference and/or definition
QL3.4 Enhance Public Space and Amenities	(B) The stakeholder engagement process specifically includes issues of public space and amenities. (C) The project team can demonstrate stakeholder support for aspects of the project related to public space/amenities.	– Public
LD1.3 Provide for Stakeholder Involvement	(A) To what extent has the project team undertaken a stakeholder mapping exercise to determine stakeholders? (B) To what extent has the project team analyzed, planned, and executed the engagement for key project stakeholders? (C) Was a lead member of the project team directly involved with stakeholder groups to understand their needs? (D) To what extent has stakeholder engagement feedback been incorporated into project plans, design, and/or decision making? (E) Has the project team sought feedback from stakeholders as to their satisfaction with the engagement process and the resulting decisions that were made based on their input? (F) Has the project engaged one or more stakeholders as partners?	– Project stakeholders may include local communities, customers, employees, governments and regulators, nongovernmental organizations (NGOs), etc. – For this credit, stakeholders are categorized as primary or secondary. Primary stakeholders are individuals or groups directly impacted by the project, and secondary stakeholders are individuals or groups indirectly affected by the project. – Stakeholder groups – Public – Key stakeholders
LD2.4 Plan for End of Life	(E) The project team demonstrates proactive stakeholder engagement in end-of-life planning and can demonstrate that the community understands the full life-cycle costs and benefits of the project.	– Infrastructure operators – Key stakeholders – General public / community
LD3.2 Develop Local Skills and Capabilities	(B) The project team works with, or is informed by, community and local/state workforce development agencies to assess local employment and educational needs. Training programs target these gaps to improve local capacity. Skills are transferable beyond the end of the project.	– Community and local/state workforce development agencies
CR2.3 Evaluate Risk and Resilience	(F) The project team conducts the risk evaluation with the owner and a diverse and integrated team of key stakeholders.	– Key stakeholders – Stakeholders represent a diverse set of perspectives appropriate to the scope of the project
CR2.4 Establish Resilience Goals and Strategies	(C) The project team engages the owner and key stakeholders in developing or reviewing resilience goals and strategies.	– Key stakeholders (operators, contractors, interdependent facilities, or community stakeholders) – Stakeholders represented a diverse set of perspectives appropriate to the scope of the project



When a stakeholder engagement plan is developed early in the project, the project team has the opportunity to align stakeholder engagement to and integrate in the overall project process. This can ensure that collecting input on topics like project goals, cultural resources, and construction impacts completed, as well as getting feedback on stakeholder satisfaction with the engagement process and the resulting decisions.

A helpful technique many projects use to engage stakeholders is to hold sustainable design workshops at the outset of the project to identify the project's priorities, challenges, and opportunities and to prioritize strategies that offer sustainability and resilience benefits. An example agenda for a sustainable design workshop is provided below.

User Tip:

Use this opportunity to think broadly about the project. What are you trying to achieve? Can things be done differently to reduce waste, increase efficiencies, and accommodate stakeholder needs? Are you designing based on historical conditions without considering the changing climate, shifts in customer expectations or habits, and new technologies? Asking such questions early on will help determine the right project before setting off on the design.

A typical agenda for the Port Authority of New York and New Jersey (PANYNJ) Sustainable Design Workshop includes the following topics:

- Confirm project evaluation track and associated requirements.
- Review Sustainable Design Survey responses and confirm applicable credits (See Section 5.1).
- Evaluate target level of achievement (LOA) for applicable credits.
- Discuss additional credits to be included and target LOA.
- Identify strategies for key credits.
- Identify required documentation.
- Identify person(s) responsible for key strategies and/or documentation.
- Confirm schedule for completion of action items.

The example agenda shown above for a Sustainable Design Workshop, included in the PANYNJ Sustainable Infrastructure Guidelines V2.1 (2026). This can be accessed at: www.panynj.gov/content/dam/port-authority/pdfs/-available-engineering-documents/ENG-GUI-SustainableInfrastructureGuidelines.pdf – Section 5.4, p. 16.

The following are additional considerations that can support water-related projects in achieving Leadership credits:

- **Sustainability Management Plan (SMP)** – An existing agency or municipality SMP may be relevant to this credit if the project team can document how the high-level SMP is being applied to the project. An existing Environmental Management System (EMS) may be applied in a similar way.
- **Economy credits** – Water-related projects often play a major role in economic development, tourism, and the creation of local jobs. LD3.1 Stimulate Economic Prosperity and Development and LD3.2 Develop Local Skills and Capabilities allow project teams to “take credit” for these outcomes while promoting additional outreach to expand the workforce and address gaps that currently or may exist in the future. Many established agency or municipality programs, including skill development and local/diverse business requirements may be considered to support these credits.

External Resource: The U.S. General Services Administration has a high-performance building clearinghouse, which includes additional guidance on **Integrative design strategies**. This can be accessed at: www.gsa.gov/governmentwide-initiatives/federal-highperformance-buildings/highperformance-building-clearinghouse.



Resource Allocation (RA)

The Resource Allocation credits cover topics that are commonly associated with sustainable development such as waste management, water conservation, energy reduction, and the use of recycled materials.

This is where the water-energy nexus goes from concept to application. Credits in the Resource Allocation category are the technical core of the water-energy nexus, looking at:

- Energy efficiency in treatment and conveyance
- Embedded energy in water supply choices
- Resource recovery (biogas, heat, nutrients)
- Process efficiency and performance optimization

Water projects offer significant opportunities to optimize resource use, including energy efficiency, renewable energy, water reuse, biosolids resource recovery, and reduced chemical use.

Water-Energy Nexus

Energy consumption is often one of the largest operational costs for water utilities. Envision encourages:

- Energy-efficient treatment and pumping
- Renewable energy integration
- Resource recovery (e.g., biogas, heat)

Water Efficiency and Reuse

- Reducing potable water demand
- Implementing reuse systems
- Minimizing losses and leaks

Water-related projects could consider:

- **Use of recycled materials** – Successful projects set goals for recycled content and intentionally select project materials with significant recycled content included, specifically focused on materials used at the largest quantities. This includes specifying a process to collect data and calculate the percentage of recycled content through construction, working with manufacturers to document the percentage of recycled content in products, and including contractor requirements that outline responsibilities for meeting recycled content goals and documenting during construction.
- **Waste management** – The diversity of water-related project types makes it difficult to identify any singular solution to operational waste management. Some projects only have a small staff and produce limited operational waste. For these projects, the project team could consider waste produced by project maintenance. Projects that have a public-facing or recreational component may have opportunities to align practices with agency or municipal programs and provide space for recycling and/or composting receptacles/ infrastructure.
- **Energy consumption/production** – Water-related projects, especially treatment projects can be very energy intensive. Project teams can pay special attention to selecting or specifying energy-efficient equipment, as well as energy monitoring to ensure efficiency over the life of the project.
- **See also the credit calculators** available for the energy credits under “Verification Resources” within the ISI portal (see figure Envision Applicant Resources).



Natural World (NW)

Water infrastructure projects are inherently connected to natural systems. Whether sourcing water, managing stormwater, or discharging treated effluent, these projects interact directly with ecosystems, watersheds, and ecological processes. As a result, the Natural World category within the Envision framework presents significant opportunities for water projects to not only minimize harm, but actively restore and enhance environmental conditions.

Key Areas of Impact

Water-related projects can influence a wide range of natural systems, including:

- **Surface waters and groundwater systems**
– Projects may alter hydrology, flow regimes, recharge rates, and water quality. Even small changes in flow timing or volume can have downstream ecological impacts.
- **Watershed and floodplain functions**
– Infrastructure can disrupt or restore natural flood storage, sediment transport, and infiltration processes. Maintaining or reconnecting floodplains can reduce flood risk while improving ecosystem health.
- **Wetlands and riparian corridors** – These areas provide critical ecosystem services, including filtration, habitat, and erosion control. Water projects often present opportunities to protect or enhance these sensitive environments.
- **Habitat and biodiversity** – Linear infrastructure (e.g., pipelines) and treatment facilities can fragment habitats, while stormwater and restoration projects can create or improve them. Supporting native species and ecological connectivity is a key consideration.
- **Soil health and land use** – Construction activities can degrade soils, increase erosion, and impact vegetation. Conversely, thoughtful design can restore soils and improve long-term site function.

Alignment with Envision Credits (v3)

Water projects are particularly well-positioned to pursue credits related to:

- Preserving or restoring natural hydrology and water systems
- Enhancing habitat and biodiversity
- Managing invasive species
- Protecting soil and minimizing erosion
- Maintaining floodplain functions

Because many water projects already require environmental analysis and permitting, project teams can often leverage existing studies and documentation to support these credits—provided sustainability goals are integrated early in the process.

Design Considerations

To maximize Natural World outcomes, project teams should:

- Engage environmental specialists early to identify constraints and opportunities
- Assess baseline ecological conditions and define measurable goals
- Use the mitigation hierarchy to prioritize avoidance, minimization, abatement, and offsetting
- Incorporate adaptive management strategies to respond to changing conditions
- Coordinate with regulatory and conservation initiatives to align efforts



NW Opportunities for Water Projects

Unlike some infrastructure sectors, water projects frequently have the ability to deliver net-positive environmental outcomes. Project teams can consider:

Nature-Based Solutions and Green Infrastructure

- Bioswales, rain gardens, and constructed wetlands
- Stream daylighting and restoration
- Permeable surfaces and infiltration systems

These approaches can manage stormwater while improving habitat, water quality, and community aesthetics.

Habitat Restoration and Enhancement

- Re-establishing native vegetation
- Enhancing aquatic and riparian habitats
- Creating pollinator-friendly landscapes

Even highly engineered facilities can incorporate habitat features into site design.

Watershed-Based Design

- Evaluating impacts beyond the immediate project boundary
- Aligning with regional watershed goals and plans
- Coordinating with upstream and downstream stakeholders

This broader perspective supports more effective and sustainable outcomes.

Floodplain and Hydrologic Function Preservation

- Avoiding development in sensitive flood-prone areas where feasible
- Designing to maintain or mimic natural flow regimes
- Incorporating flood storage and attenuation features

These strategies enhance both ecological and community resilience.

Minimizing Disturbance and Restoring Sites

- Reducing construction footprints
- Protecting existing vegetation and soils
- Restoring disturbed areas to pre-project or improved conditions

Early planning is critical to avoid unnecessary impacts.



The Natural World category challenges project teams to rethink the relationship between infrastructure and the environment. For water infrastructure, this often means shifting from a mindset of impact mitigation to one of ecosystem integration and enhancement.

When approached strategically, water projects can:

- Improve watershed health
- Increase biodiversity
- Strengthen climate resilience
- Deliver visible community benefits

In doing so, they demonstrate that infrastructure can function not just as a service system, but as an active contributor to the natural environment.



Climate and Resilience (CR)

Envision's Climate and Resilience credits provide valuable guidance related to:

1. Reducing emissions (mitigating climate change and addressing local air quality)
2. Identifying, assessing, preparing for, and adapting to climate-related and other risks and hazards

Given that water-related facilities are both highly climate sensitive and critical to community resilience, the Envision framework can be beneficial for both water system and project-specific planning. Project teams should consider topics like drought resilience, flood resilience, sea level rise adaptation, infrastructure redundancy, and energy resilience.

This category looks at the future-proofing side of the water-energy nexus, including:

- Energy reliability for critical water systems
- Climate-driven energy demand (e.g., drought = more pumping/treatment)
- Backup power and redundancy
- Emissions reduction (carbon intensity of water systems)

Emissions-Related Envision Credits

For water-related projects subject to environmental (e.g., NEPA) or air quality standards, **CR1.2 Reduce Greenhouse Gas Emissions** and **CR1.3 Reduce Air Pollutant Emissions** require similar considerations of a project's impacts on climate and local air quality. However, these credits call for actions to reduce these impacts even if mitigation is not required by local or federal regulations. As agencies and municipalities are increasingly looking for ways to reduce its GHG emissions, identifying and implementing measures to reduce operational emissions through the planning and design of major infrastructure projects are key steps to achieving measurable outcomes. Such measures may include optimizing operations, reducing truck traffic, and upgrading energy and water management systems to reduce waste and better detect leaks/faults, etc. These measures may help agencies and municipalities achieve commitments outside of the project's Envision pursuit such as those made by agencies participating reporting to [The Climate Registry's Water-Energy Nexus \(WEN\) Registry](#).

CR1.1 Reduce Net Embodied Carbon, which looks at the emissions associated with the production, transportation, replacement, re-pair, and refurbishment of materials on the project, may be a newer concept to agencies and municipalities. However, ISI has seen projects successfully navigate this sustainability challenge by including the use of low-carbon concretes, in-situ carbon dioxide mineralization in concrete production, and use of recycled steel piping to reduce overall embodied carbon. Given the scale of water-related infrastructure projects and the volumes of materials used, this credit is important to consider early on in project planning.



Resilience-Related Envision Credits

While each credit in the Envision framework must be prepared as a stand-alone submittal for verification—with its own coversheet and supporting documentation—the CR2.2–CR2.5 credit series is best examined as a group, as each credit builds upon the previous one.

For example, **CR2.2 Assess Climate Change Vulnerability** requires a comprehensive climate change vulnerability assessment for the project. This assessment can be considered an important subcomponent for the broader multi-hazard risk and resilience evaluation that is required for **CR2.3 Evaluate Risk and Resilience**. For CR2.3, the project team must look at both acute shocks (e.g., hurricanes, heat waves, health epidemics, terrorism, the possibility of infrastructure failure/collapse, etc.) and chronic stressors (e.g., aging population, growing population, sea level rise, global warming, increased pollution/contamination over time, overtaxed/inefficient infrastructure, etc.). Climate change factors into many of these shocks and stressors, hence the importance of looking at

the two credits together. Likewise, **CR2.3 Evaluate Risk and Resilience** forms the foundation for credit **CR2.4 Establish Resilience Goals and Strategies**. Then **CR2.5 Maximize Resilience** implements the goals and strategies identified in CR2.4.

The verification team will review these credits as a collective. If relevant risks are identified in one credit, but then overlooked in another, or if the resilience goals and strategies or mitigation plans for the project do not align with the identified risks and vulnerabilities, this will raise red flags for the verification team and point to inadequacies in any climate and resilience plans for the project.

For water-related infrastructure projects, reviewing these credits in conjunction with existing emergency plans, risk management systems, facility plans, regional water plans, climate action plans, etc., may provide opportunities to integrate a broader set of previously unconsidered risks and hazards into project planning and operations.

Water infrastructure is highly vulnerable to climate risks. Key strategies include:

- Assessing climate-related risks (drought, flooding)
- Designing for adaptability and redundancy
- Reducing greenhouse gas emissions



DOCUMENTATION STRATEGIES

Clear documentation for an Envision project submittal is critical to an efficient and accurate review and verification process. This can be time-consuming for the project team if not planned for and organized in a consistent and streamlined approach.

View Guide to
Envision Verification
for Applicants

The **Guide to Envision Verification for Applicants** provides directions for preparing credit submittals: the credit coversheets and supporting documentation. The following are a few examples of this guidance to remember when preparing credit submittals.

- Cover sheets are required for each credit submittal. Use the coversheet narrative to describe how the project is meeting the credit requirements for each Level of Achievement.
- Be specific and clear when referencing documents in the coversheet (bold or underline the references) and include page numbers directing the verifiers to relevant information in the documentation.
- Highlight and/or annotate relevant information within the supporting documentation.
- Be sure to review Envision Credit Amendments (found at the end of the Envision Guidance Manual) for any credits being pursued, as these may provide further clarity on documentation requirements.
- If a credit is “Pending,” provide clear descriptions of what documentation will be provided for the post-construction review and how this documentation will demonstrate achievement.
- Maintain centralized sustainability documentation. Reference these resources within the tracking sheet.
- Document as you go. Do not wait until late in the project to assemble required documentation. It will be more difficult to track this down later.
- Have a team member do a quality control check on the submittal by reviewing the coversheets and references prior to submittal.
- If a credit is “Pending,” provide existing supporting documentation to show how the pending documentation will demonstrate achievement during the post-construction review (for example, contractor specifications, requirements within bid documents, etc.).

Some agencies and municipalities express concern about sharing sensitive documents. All documentation is only viewed by the verifier and ISI, but if there are still concerns, the following options are available:

- The following are some additional documentation tips and tricks that may be beneficial to water-related projects:
- Begin planning for documentation early. Include a discussion around documentation requirements and procedures during the project kick-off.
 - Align documentation with design milestones
 - Utilize a tracking sheet that lists credits, planned Level of Achievement to be pursued, responsible team member, and documentation that will be required.
 - Leverage existing regulator studies
 - The project owner can mark documentation as confidential as another level of assurance that the materials are sensitive.
 - The project owner or project team can redact compromising information or limit pages submitted to relevant summaries.
 - The project owner can submit an executive summary and provide a comprehensive description of the relevant information within the coversheet.
 - Verifiers can be asked to sign Non-Disclosure Agreements (NDAs), if needed.

Where's the Current Heading?

The water sector is constantly facing new challenges and leveraging emerging opportunities. The Envision framework is an invaluable tool for advancing sustainability and resilience for water-related project development, planning, design, construction, and operations and maintenance planning across a wide range of infrastructure types.

To maximize its value, expand accessibility to new users, and address existing challenges, an Envision Public Sector Forum was launched in September 2025. This Forum (led by practitioners with ISI participation) brings together public agency representatives currently using or planning to use the Envision framework. If interested in joining, fill out the form on the **Envision Public Sector Forum** page.

In addition to the Forum, ISI intends to continue discussions with agencies, associations, and organizations focused on sustainability and resilience to align efforts where sensible.

ISI is always seeking ways to better support Envision users via new services and resources (many of which are discussed in this guide), additional promotion of Envision-verified projects, and expansive educational offerings, including the ISI Annual Conference held virtually in the fourth quarter each year. To stay up to date on all activities, **subscribe to ISI's newsletter**.

[View Envision
Public Sector
Forum Page](#)

[Subscribe to ISI's
monthly newsletter](#)



References

ISI RESOURCES

- **Envision and the Water Sector Executive Brief**
<https://sustainableinfrastructure.org/document/09-envision-for-the-water-sector-executive-brief/>
- **Create a free ISI account**
<https://v4.sustainableinfrastructure.org/register>
- **Envision Guidance Manual (v3)***
- **Information on becoming a member of ISI**
<https://sustainableinfrastructure.org/membership/become-a-member/>
- **Information on becoming an ENV SP**
<https://sustainableinfrastructure.org/credentialing/envision-sustainability-professional-env-sp/>
- **Information on ISI Speakers and Presentations**
<https://sustainableinfrastructure.org/request-a-speaker/>
- **Envision Checklist (v3)***
- **Envision Credit Navigator**
<https://sustainableinfrastructure.org/document/envision-credit-navigator/>
- **ISI Sustainability Rating Comparison**
<https://sustainableinfrastructure.org/document/08-sustainability-rating-and-certification-systems-comparison-2/>
- **ISI Envision-LEED Comparison**
<https://sustainableinfrastructure.org/wp-content/uploads/2025/04/20250430-Envisionv3-LEEDv5-Credit-Comparison.pdf>
- **Guide to Envision Verification for Applicants**
<https://sustainableinfrastructure.org/document/envision-applicants-guide/>
- **Applicants Course**
<https://sustainableinfrastructure.org/project-verification/applicants-course/>
- **Programmatic Approach Webpage**
<https://sustainableinfrastructure.org/project-verification/programmatic-approach/>
- **Guide to Procuring Sustainable Infrastructure Services***
- **Envision Cost-Benefits Survey Summary**
<https://sustainableinfrastructure.org/document/envision-cost-benefit-survey-summary/>
- **Envision Public Sector Forum**
<https://sustainableinfrastructure.org/about-isi/envision-public-sector-forum/>
- **Subscribe to ISI's Newsletter**
<https://mailchi.mp/sustainableinfrastructure/news>

* Access these resources in your free ISI account—located under 'Resources' on your account dashboard.



References

OTHER RESOURCES

- **City of Kansas City Ordinance No. 150537, Sec3-70. Green and Sustainable Procurement Policy 2015**
https://library.municode.com/mo/kansas_city/ordinances/code_of_ordinances?nodeId=748322
- **PANYNJ Engineering Documents – Resilient and Sustainable Design**
<https://www.panynj.gov/port-authority/en/business-opportunities/engineering-available-documents.html>
 - Sustainable Building Guidelines (2017)
 - Sustainable Infrastructure Guidelines (2022)
 - Sustainable Infrastructure Guidelines (SIG) 2.0 Quick Guide
 - Climate Resilience Design Guidelines (2018)
 - Green Infrastructure Design Manual (2022)
- **NEPA resources**
<https://www.epa.gov/nepa>
- **California Environmental Quality Act**
<https://oag.ca.gov/environment/ceqa>
- **US Water Alliance**
<https://uswateralliance.org/>
- **Effective Utility Management (EUM) on U.S. Environmental Protection Agency (EPA)**
<https://www.epa.gov/sustainable-water-infrastructure/effective-water-utility-management-practices>
- **American Water Works Association (AWWA) EUM Program**
<https://www.awwa.org/programs/effective-utility-management-program/>
- **“Integrative design strategies” - U.S. General Services Administration High-performance Building Clearinghouse**
<https://www.gsa.gov/governmentwide-initiatives/federal-highperformance-buildings/highperformance-building-clearinghouse>
- **The Climate Registry Water-Energy Nexus (WEN) Registry**
<https://theclimateregistry.org/registries-resources/water-energy-nexus/>

ACRONYMS

ACEC – American Council of Engineering Companies
APWA – American Public Works Association
ASCE – American Society of Civil Engineers
AWWA – American Water Works Association
BREEAM – Building Research Establishment Environmental Assessment Method
CEPA – Canadian Environmental Protection Act
CEQA – California Environmental Quality Act
CEQR – New York City Environmental Quality Review
CIP – Capital Improvement Programs
CR – Climate and Resilience
CSPPs – Construction Safety and Phasing Plans
EA – Environmental Assessment
EIS – Environmental Impact Statement
EMS – Environmental Management System
ENV SP – Envision Sustainability Professional
EPA – U.S. Environmental Protection Agency
EUM – Effective Utility Management
GCDWQ – Guidelines for Canadian Drinking Water Quality
GHG – greenhouse gas emissions
IS – IS Rating Scheme
IWM – Integrated Water Management
LD – Leadership
LEED – Leadership in Energy and Environmental Design
NDA – Non-Disclosure Agreement
NEPA – National Environmental Policy Act
NGO – Nongovernmental Organizations
NPDES – National Pollutant Discharge Elimination System
NW – Natural World
PANYNJ – Port Authority of New York and New Jersey
QL – Quality of Life
RA – Resource Allocation
RFPs/RFQs – Requests for Proposals/Qualifications
RSD – Resilient and Sustainable Design
SIG – Sustainable Infrastructure Guidelines
SMP – Sustainability Management Plan
WEN – Water-Energy Nexus

Envision-Verified Water-Related Projects – v2

Project Name	Owner	Project Type	Location	Verification Level	Year Verified
William Jack Hernandez Sport Fish Hatchery	Alaska Division of Fish and Game, Sport Fish Division	Environmental Restoration, Other	Anchorage, Alaska, USA	Gold	2013
Snow Creek Stream Environment Zone Restoration Project	Placer County Department of Public Works, Tahoe Engineering Division	Environmental Restoration, Park	Placer County, California, USA	Platinum	2013
South Los Angeles Wetland Park	City of Los Angeles	Stormwater, Park	Los Angeles, California, USA	Platinum	2014
Sun Valley Watershed Multi-Benefit Project	County of Los Angeles Department of Public Works	Stormwater, Road	Los Angeles, California, USA	Platinum	2014
TRWD's Line J, Section 1 Pipeline	Tarrant Regional Water District (TRWD)	Water Distribution	Fort Worth, Texas, USA	Silver	2014
Grand Bend Area Wastewater Treatment Facility	The Municipalities of Lambton Shores and South Huron	Wastewater Treatment, Park	Lambton Shores, Ontario, CAN	Platinum	2015
26th Ward WWTP	New York Department of Environmental Protection (NYC DEP)	Wastewater Treatment	New York, New York, USA	Silver	2015
Nashville Metropolitan Government West Park Equalization Facility, Phase II	City of Nashville	Wastewater Collection, Park	Nashville, Tennessee, USA	Platinum	2016
Ridgewood View Reservoir and Pump Station	Tualatin Valley Water District	Water Distribution, Park	Portland, Oregon, USA	Gold	2016
Historic Fourth Ward Park	City of Atlanta Department of Watershed Management	Park, Stormwater	Atlanta, Georgia, USA	Gold	2016
Integrated Pipeline Project	Tarrant Regional Water District (TRWD)	Water Distribution	Dallas, Texas, USA	Platinum	2016
Middle Blue River Green Infrastructure Project	Kansas City Water Services Department	Stormwater	Kansas City, Missouri, USA	Platinum	2016
Hardeeville Water Reclamation Facility Expansion	Beaufort-Jasper Water & Sewer Authority	Wastewater Treatment	Hardeeville, South Carolina, USA	Verified	2016
Ohio River Bridges - East End Crossing	Indiana Department of Transportation (INDOT)	Bridge, Road	Jeffersonville, Indiana, USA	Platinum	2016
Nutrient Management Facility	AlexRenew	Wastewater Treatment	Alexandria, Virginia, USA	Platinum	2016
Sheldon Avenue	New York City Department of Design and Construction (NYC DDC)	Stormwater, Road	New York, New York, USA	Silver	2017
City of Boynton Beach Ion Exchange Resin Plant & East WTP Improvements	City of Boynton Beach	Water Treatment	Boynton Beach, Florida, USA	Verified	2017
Greenough Greenway	Department of Conservation and Recreation of the Commonwealth of Massachusetts	Road, Trail	Watertown, Massachusetts, USA	Verified	2017
Implementation of Water Source Geothermal System	Metro Nashville Airport Authority (MNAA)	Airport	Nashville, Tennessee, USA	Silver	2017
City of Dixon Wastewater Treatment Facility Improvements	City of Dixon	Wastewater Treatment	Dixon, California, USA	Silver	2017
Marshview Park - Phase 1	City of Virginia Beach	Park	Virginia Beach, Virginia, USA	Silver	2017
Seneca WTP Upgrades	City of Seneca, Light and Water	Water Treatment	Seneca, South Carolina, USA	Silver	2017
Walnut PS Building Upgrade	City of Santa Ana	Water Distribution	Santa Ana, California, USA	Verified	2017
Verde WTP Facilities Demolition	City of Phoenix	Park, Water Treatment	Fort McDowell, Arizona, USA	Platinum	2017
Atlanta Water Supply Program ("The Quarry" or "Bellwood Quarry")	City of Atlanta Department of Watershed Management	Reservoir, Park	Atlanta, Georgia, USA	Silver	2017
NEORS - Southerly Plant	Northeast Ohio Regional Sewer District	Wastewater Treatment	Cleveland, Ohio, USA	Silver	2018
Blower Foul Air Clean-up System	City of Los Angeles Bureau of Engineering	Wastewater Treatment	Los Angeles, California, USA	Silver	2018
Madison Metropolitan Sewerage District Pumping Station 15	Madison Metropolitan Sewerage District	Wastewater Collection	Madison, Wisconsin, USA	Gold	2018

Envision-Verified Water-Related Projects – v2 (continued)

Project Name	Owner	Project Type	Location	Verification Level	Year Verified
Davis Wastewater Treatment Plant Secondary and Tertiary Improvements	City of Davis	Wastewater Treatment	Davis, California, USA	Silver	2018
Digester Gas Utilization Project at Hyperion Water Reclamation Plant	City of Los Angeles Bureau of Engineering	Energy Generation, Water Treatment	Los Angeles, California, USA	Platinum	2018
TIWRP - Advanced Water Purification Facility	City of Los Angeles Bureau of Engineering	Wastewater Treatment	Los Angeles, California, USA	Platinum	2018
Georgetown Wet Weather Treatment Station (WWTS)	King County Wastewater Treatment Division	Stormwater	Seattle, Washington, USA	Platinum	2018
Hope Mills Dam	Town of Hope Mills	Dam/Levee	Hope Mills, North Carolina, USA	Verified	2019
Martinez IV Wastewater Treatment Plant	San Antonio River Authority	Wastewater Treatment	Saint Hedwig, Texas, USA	Silver	2019
Fairfax Disinfection Improvements	Fairfax County	Wastewater Treatment	Lorton, Virginia, USA	Gold	2019
Argo Drain	City of Los Angeles	Stormwater	Los Angeles, California, USA	Silver	2019
Cedar River Flood Control System at NewBo/ Sinclair Neighborhood	City of Cedar Rapids	Dam/Levee	Cedar Rapids, Iowa, USA	Verified	2019
Naples Bay Restoration and Water Quality Improvements at the Cove	City of Naples	Environmental Restoration	Naples, Florida, USA	Silver	2019
Power Distribution Improvements at Bowery Bay WWTP	New York Department of Environmental Protection (NYC DEP)	Wastewater Treatment	Queens, New York, USA	Silver	2019
Vivion Transmission Main - Chouteau to Brighton	Kansas City Water Services Department	Water Distribution	Kansas City, Missouri, USA	Verified	2019
Bayonne Bridge Navigational Clearance Program	Port Authority of New York and New Jersey (PANYNJ)	Bridge	New York / New Jersey, New Jersey, USA	Silver	2019
Santa Monica Clean Beaches Project	City of Santa Monica	Stormwater	Santa Monica, California, USA	Gold	2019
SFPUC Southeast Treatment Plant Headworks Project	San Francisco Public Utilities Commission	Wastewater Treatment	San Francisco, California, USA	Gold	2019
Huntington Levee	Fairfax County	Stormwater, Waterway	Fairfax County, Virginia, USA	Verified	2019
Southport Levee Improvement Project	City of West Sacramento, West Sacramento Area Flood Control Agency	Dam/Levee	West Sacramento, California, USA	Platinum	2020
Albion Riverside Park Project	City of Los Angeles	Park, Stormwater	Los Angeles, California, USA	Gold	2020
Replacement of Esopus Creek and Rte. 28A Railroad Bridges	New York Department of Environmental Protection (NYC DEP)	Rail, Bridge	Boiceville, New York, USA	Gold	2020
Buffalo Sewer Authority - Willert Park Green Infrastructure	Buffalo Sewer Authority	Stormwater, Park	Buffalo, New Mexico, USA	Verified	2020
Reconstruction of 235th Street Pumping Station	New York Department of Environmental Protection (NYC DEP)	Wastewater Collection, Stormwater	Bronx, New York, USA	Gold	2020
Denver Water Northwater Treatment Plant	Denver Water	Water Treatment	Golden, Colorado, USA	Gold	2020
Little Patuxent Water Reclamation Plant Biosolids Processing Facilities Improvements	Howard County	Wastewater Treatment	Savage, Maryland, USA	Silver	2021
Water Treatment Plant Residuals Management Facility	City of Red Deer	Water Treatment	Red Deer, Alberta, CAN	Verified	2021
Westminster BDCWWTF Solids Dewatering and Campus Wide Improvements	City of Westminster	Wastewater Treatment	Westminster, Colorado, USA	Verified	2021
LIFE15 ENV/IT/000391 - Marina Plan Plus	Trevi Spa	Seaport	Cesena, Forli-Cesena, Italy	Silver	2021
Oxford Retention Basin Multiuse Enhancement Project	County of Los Angeles Department of Public Works	Stormwater, Park	Los Angeles, California, USA	Platinum	2021

Envision-Verified Water-Related Projects – v2 (continued)

Project Name	Owner	Project Type	Location	Verification Level	Year Verified
Eltingville Pumping Station Upgrades	New York Department of Environmental Protection (NYC DEP)	Wastewater Collection	Staten Island, New York, USA	Gold	2021
Sunset/Heathfield Pump Station and Forcemain Upgrade	King County Wastewater Treatment Division	Wastewater Collection	Bellevue, Washington, USA	Silver	2021
Gordie Howe International Bridge	Windsor Detroit Bridge Authority	Bridge	Windsor, Ontario, CAN	Platinum	2021
Biosolids Digester Facilities	San Francisco Public Utilities Commission	Solid Waste	San Francisco, California, USA	Platinum	2022
Ship Canal Water Quality Project	Seattle Public Utilities	Stormwater	Seattle, Washington, USA	Platinum	2022
Long Beach Municipal Urban Stormwater Treatment	City of Long Beach	Stormwater, Water Treatment	Long Beach, California, USA	Platinum	2022
Saco River Water Treatment Plant	Maine Water	Water Treatment	Biddeford, Maine, USA	Silver	2022
Cocoplum 1 Pump Stations Force Main Upgrades	City of Coral Gables	Wastewater Collection	Coral Gables, Florida, USA	Verified	2022
Throgs Neck Wastewater Pumping Station	New York City Department of Environmental Protection (NYCDEP)	Wastewater Collection	New York City, New York, USA	Silver	2024
Hannah Street Wastewater Pumping Station Upgrade	New York City Department of Environmental Protection (NYCDEP)	Wastewater Treatment	Staten Island, New York, USA	Gold	2025
Cambridge Crossing	DivcoWest	Park	Cambridge, Massachusetts, USA	Gold	2026



William Jack Hernandez Sport Fish Hatchery, Anchorage, AK, USA, Envision Gold 2013



South LA Wetland Park, Los Angeles, CA, USA, Envision Platinum 2014



Middle Blue River Green Infrastructure Project, Kansas City, MO, USA, Envision Platinum 2016



Grand Bend Area Wastewater Treatment Facility, Lambton Shores, Ontario, CAN, Envision Platinum 2015



Seneca Water Treatment Plant Improvements, Seneca, SC, USA, Envision Silver 2017



Hope Mills Dam, Hope Mills, NC, USA, Envision Bronze 2019



Northeast Ohio Regional Sewer District (NEORS) Southerly Wastewater Treatment Plant, Cleveland, OH, USA, Envision Silver 2018

Envision-Verified Water-Related Projects – v3

Project Name	Owner	Project Type	Location	Verification Level	Year Verified
Starlight Park - Phase II	New York Department of Design and Construction	Environmental Restoration, Bridge	Bronx, New York, USA	Gold	2021
Borden Avenue Pump Station Upgrade	New York Department of Environmental Protection (NYC DEP)	Stormwater, CSO	New York, New York, USA	Gold	2021
Hunts Point Wastewater Treatment Plant New Anaerobic Digester Facilities	New York Department of Environmental Protection (NYC DEP)	Wastewater Treatment	New York, New York, USA	Gold	2021
Clearwell 9 Replacement Project	City of Evanston	Water Distribution	Evanston, Illinois, USA	Verified	2022
Victory Boulevard Pump Station Rehabilitation	New York City Department of Environmental Protection	Wastewater Collection	New York, New York, USA	Silver	2022
NYCDDC East Side Coastal Resiliency	New York Department of Design and Construction	Park, Resiliency	New York, New York, USA	Gold	2022
Holland Area WRF Anaerobic Digestion	Holland Board of Public Works	Wastewater Treatment, Solid Waste	Holland, Michigan, USA	Gold	2023
Broad Channel Phase II	New York City Department of Design and Construction	Stormwater, Road	Broad Channel, New York, USA	Verified	2023
Fairview Cove Marine Container Examination Facility	Halifax Port Authority	Port	Halifax, Nova Scotia, CAN	Verified	2023
Lower Manhattan Coastal Resilience - The Battery	New York City Parks/NYCEDC	Park, Stormwater	New York, New York, USA	Platinum	2024
City of Santa Monica Sustainable Water Infrastructure Project	City of Santa Monica	Water Treatment, Wastewater Treatment	Santa Monica, California, USA	Platinum	2024
NE 16th Street & Jefferson Avenue NE Stormwater Green Streets Project	City of Renton	Stormwater, Road	Renton, Washington, USA	Verified	2024
Eastern Regional Infrastructure Project	Gwinnett County	Wastewater Collection, Trail	Gwinnett County, Georgia, USA	Silver	2024
Northwest Water Reclamation Facility Improvements Project	City of St. Petersburg	Wastewater Treatment, Wastewater Collection	St. Petersburg, Florida, USA	Verified	2024
Tallman Island Headworks Improvements	New York City Department of Environmental Protection (NYCDEP)	Wastewater Treatment	New York City, New York, USA	Silver	2024
Tallman Island Power Distribution Improvement Project	New York City Department of Environmental Protection (NYCDEP)	Energy Distribution	New York City, New York, USA	Verified	2024
Treasure Island Water Resource Recovery Facility	San Francisco Public Utilities Commission	Wastewater Treatment	San Francisco, California, USA	Platinum	2024
Reconstruction of Primary Tanks at Wards Island WRRF	New York City Department of Environmental Protection (NYCDEP)	Water Treatment	New York City, New York, USA	Verified	2024
Bee Ridge Water Reclamation Facility Expansion and Conversion to Advanced Wastewater Treatment	Sarasota County Public Utilities	Wastewater Treatment	Sarasota County, Florida, USA	Gold	2025
Chlorination Upgrades and Structural Slab Rehabilitation at Hunts Point WRRF	New York City Department of Environmental Protection (NYCDEP)	Wastewater Treatment	Bronx, New York, USA	Silver	2025
City of Sarasota’s Lift Station 87	City of Sarasota	Wastewater Collection, Recreational	Sarasota , Florida, USA	Silver	2025
Reconstruction of Power Distribution at Wards Island WRRF	New York City Department of Environmental Protection (NYCDEP)	Wastewater Treatment, Energy Distribution	New York City, New York, USA	Verified	2025
Replacement of Baptist Church Road Bridge (CRO-530)	New York City Department of Environmental Protection (NYCDEP)	Bridge, Reservoir	Yorktown, New York, USA	Silver	2025

Envision-Verified Water-Related Projects – v3 (continued)

Project Name	Owner	Project Type	Location	Verification Level	Year Verified
Mallard Creek WRF Phase 1	Charlotte Water	Wastewater Treatment	Charlotte, North Carolina, USA	Verified	2025
Replacement of Casa Loma Siphon Barrel No. 1	Metropolitan Water District of Southern California	Water Distribution	San Jacinto, California, USA	Silver	2025
Guichon Creek Restoration Project	British Columbia Institute of Technology (BCIT)	Waterway, Environmental Restoration	Burnaby, British Columbia, Canada	Platinum	2025
Upgrade of Mersereau Avenue, Mayflower Avenue, and Richmond Avenue Pump Stations	New York City Department of Environmental Protection (NYCDEP)	Wastewater Collection	Staten Island, New York, USA	Silver	2025
University Park Water Reclamation Facility Upgrades	Pennsylvania State University	Wastewater Treatment	State College, Pennsylvania, USA	Gold	2025
Sunol Valley Water Treatment Plant Ozonation Project	San Francisco Public Utilities Commission	Water Treatment	Sunol, California, USA	Silver	2025
Rehabilitation of the Potomac Interceptor Between MH-30 and MH-31	DC Water	Wastewater Collection	Great Falls, Virginia, USA	Silver	2025
H. L. Mooney Advanced Water Reclamation Facility-Wide Improvements	Prince William Water	Wastewater Treatment	Woodbridge, Virginia, USA	Silver	2025
Bull Run Filtration Facility	City of Portland Water Bureau	Water Treatment	Gresham, Oregon, USA	Platinum	2025



Hunts Point WWTP New Anaerobic Digester Facilities, New York, NY, USA, Envision Gold 2021



Clearwell 9 Replacement Project, Evanston, IL, USA, Envision Verified 2022



Holland Area Wastewater Reclamation Facility Anaerobic Digester Project, Holland, MI, USA, Envision Gold 2023



Eastern Regional Infrastructure Project, Gwinnett County, GA, USA, Envision Silver 2024



Bee Ridge Water Reclamation Facility, Sarasota County, FL, USA, Envision Gold 2025



Mallard Creek WRRF Phase 1, Charlotte, NC, USA, Envision Verified 2025



City of Sarasota's Lift Station 87, Sarasota, Florida, USA, Envision Silver 2025



The Institute for Sustainable Infrastructure is an education and research nonprofit (a 501c3) based in Washington DC. It was established in 2010 by the American Public Works Association (APWA), the American Society of Civil Engineers (ASCE), and the American Council of Engineering Companies (ACEC). Responding to the need for a comprehensive sustainability framework and rating system suitable for use in civil infrastructure development, ISI collaborated with the then Zofnass Program for Sustainable Infrastructure at the Harvard University Graduate School of Design to develop Envision.

Envision is a holistic sustainability framework and rating system that guides and assesses the sustainability and resilience of all types of infrastructure. It is a comprehensive tool created to assist agencies, municipalities, consultants, contractors, and operators, in planning, designing, and delivering more sustainable infrastructure projects. The Envision framework is a decision-making tool that allows project teams to evaluate projects across a broad range of sustainability indicators, or “credits,” that address environmental, social, and economic dimensions of sustainability to encourage systemic change. At its core, Envision is about supporting higher performance through better choices in infrastructure development.

For more information, visit sustainableinfrastructure.org/

Contact: info@sustainableinfrastructure.org