

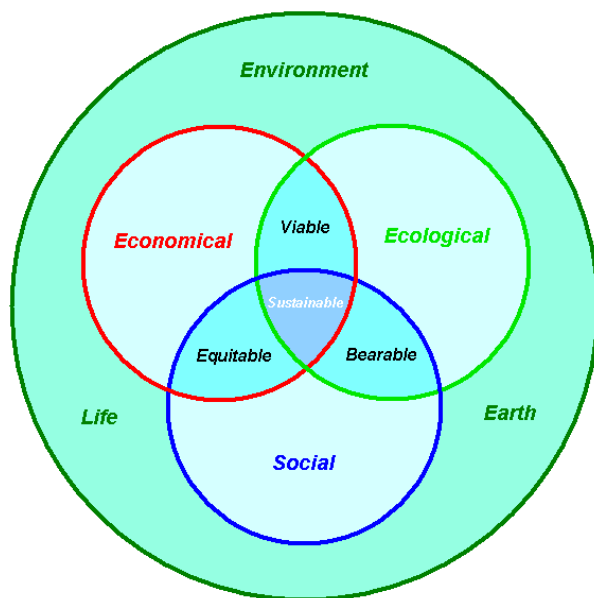
# Envision Sustainability Professional

## WHAT IS ENVISION?

Envision is a joint collaboration between Harvard University and the Institute for Sustainable Infrastructure (ISI). ISI is a not-for-profit that serves as a hub for several education and research organizations. Envision helps individuals and corporations play important roles in creating sustainable infrastructure and provides the following.

- *A holistic sustainability rating system for all types and sizes of infrastructure.*
- *Guide for making more informed decisions about the sustainability of projects.*
- *Framework of criteria & performance objectives to help project teams identify sustainable approaches during planning, design, construction, and operation.*
- *Optional 3<sup>rd</sup>-Party verification and award for recognizing project achievements.*

ISI's goal is to help owners, communities, constructors, designers, and others create cost effective, more resource-efficient and adaptable long-term infrastructure investments.



## WHERE DOES ENVISION APPLY?

- *Covers the roads, bridges, pipelines, railways, airports, dams, levees, landfills, water treatment systems, and other civil infrastructure.*
- *Primarily for the U.S. and Canada, Envision benefits and criteria are now being applied internationally.*
- *Used by infrastructure owners, design teams, community groups, environmental organizations, constructors, regulators and policy makers.*

## ENVISION SUSTAINABILITY PROFESSIONAL (ENV SPs)

ENV SPs are credentialed practitioners trained by the ISI in the use of the Envision rating system.

- *An in-depth planning guide and rating system to improve the sustainability aspects of infrastructure projects. There are 64 sustainability criteria, called credits, arranged in five (5) categories that address major impact areas.*
  - *QUALITY OF LIFE (13)*
  - *LEADERSHIP (11)*
  - *RESOURCE ALLOCATION (15)*
  - *NATURAL WORLD (14)*
  - *RISK & RESILIENCE (11)*
- *ENV SPs work to guide the project team to achieve higher levels of sustainability and to document project sustainability accomplishments.*
- *An ENV SP must be involved in a project for it to be eligible for an Envision award.*

SPEC Services, Inc. has been in support of the program development and has two credentialed (2) ENV SPs with three (3) working on training. A draft of the latest Guidance Manual can be downloaded here (<http://bit.ly/2l6R8nJ>). SPEC hopes to help develop ways to apply this program to the projects we perform.



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## CREDIT LEVELS OF ACHIEVEMENT

Envision credits define multiple levels of achievement in order to better evaluate performance and encourage incremental project improvement.

1. *Improved – Performance that is above conventional.*
2. *Enhanced – Sustainable performance that adheres to Envision principles.*
3. *Superior – Sustainable performance that is noteworthy.*
4. *Conserving – Performance that has achieved essentially zero impact.*
5. *Restorative – Performance that restores natural or social systems.*

### Innovation Points

Envision provides innovation points for projects that advance sustainable infrastructure practices or show exceptional performance beyond expectations.

## EXAMPLE PROJECTS

Envision began rating projects in 2013 and a complete list of registered projects can be found on their website: <https://sustainableinfrastructure.org/envision/project-awards/>

A great example project is a conversion of an old industrial yard in South Central LA to a wetlands and park. The project received a Platinum Level Award from ISI: <http://sustainableinfrastructure.org/envision/project-awards/south-la-wetland-park/>

A local ongoing project more related to the type of work that SPEC performs is the Santa Ana Walnut Pump Station Building Upgrade. The project received a Bronze Award from ISI: <https://sustainableinfrastructure.org/envision/project-awards/walnut-pump-station-building-upgrades/>

The first European project to seek Envision verification is at the Istanbul New Airport. You can read more about it here: (<https://sustainableinfrastructure.org/istanbuls-new-airport-first/>)

## LEARN MORE & CREATE A FREE ACCOUNT

To learn more about ISI and the Envision rating system you can visit ISI's website:

<https://sustainableinfrastructure.org/>

Creating an account is free and you can read many of the materials free, without having earned the ENV SP credential. Register here:

<https://sustainableinfrastructure.org/portal/register>

If you're interested in becoming an Envision SP, please speak with your immediate manager.

## SPEC PROJECT EXAMPLE

SPEC conceived a method of completely eliminating the use of water as a coolant in a gas treatment process for Santa Clara Valley Gas Plant (SCVGP). Normally, field gas (or casing gas) is pre-cooled using cooling water prior to being dehydrated. At SCVGP, the existing refrigeration unit contained excess capacity since it was sized for larger gas flows. As fields mature, typically the field gas (or casing gas) flowrate lowers, thereby resulting in an existing cooling system with excess capacity.

In normal refrigeration loops, hot refrigerant (which is still cooler than the fluid being cooled) is pre-cooled by the cold refrigerant prior to returning to the coolant cycle. Since the refrigeration loop had excess capacity, SPEC suggested the hot refrigerant be used to pre-cool the inlet gas by rerouting the refrigerant, thereby eliminating the water cooling. Water cooling uses water, electrical energy (fans, pumps, controls, etc.), and maintenance.

By understanding the system plan and recognizing a simple piping modification, SPEC eliminated the use of a particular system (water cooling), saving energy, natural resources (water) and continued maintenance.

IT'S THE SMALL THINGS DAILY THAT  
MAKE THE MOST DIFFERENCE