



WSDOT INVEST Pilot

February 2014

What is INVEST?

The Federal Highway Administration (FHWA) developed the Infrastructure Voluntary Evaluation Sustainability Tool (INVEST) as a web-based collection of voluntary best practices and criteria transportation agencies can use to learn about sustainability and evaluate the sustainability of their own projects, plans, and programs. More information is available at the INVEST web site:

www.sustainablehighways.org

How is WSDOT involved with INVEST?

In March 2013, FHWA selected WSDOT to pilot test INVEST by evaluating three corridor plans and one project:

- SR 516 Corridor Planning Study.
- US 2 Corridor Planning Study.
- SR 520 Multimodal Corridor Planning Study.
- SR 520 Bridge Replacement and HOV Program - Unfunded Portion.

What were WSDOT's goals for the pilot?

- Evaluate the sustainability of WSDOT's corridor planning process to determine where to make improvements.
- Determine if and how INVEST could be used to improve sustainability and address public health at the project level.
- Provide FHWA with recommendations for improving INVEST.

How does INVEST work?

FHWA built INVEST around three modules with unique criteria: System Planning, Project Development, and Operations and Maintenance. Each criterion includes a goal, sustainability linkage, and scoring requirements.

Scorers answer a series of questions about agency practices from the scoring requirements section. INVEST awards points to sustainability efforts that go beyond standard practice or regulatory requirements. The final score is associated with achievement levels (platinum, gold, silver, and bronze).

How did WSDOT approach the pilot?

1. Scoring Preparation. Members of the scoring team evaluated one or more criteria by reviewing the plans or project and seeking input from internal and external experts. Scorers also suggested improvements to INVEST and to WSDOT business practices.
2. Scoring. System planning scorers discussed and determined a final score for each criterion in a workshop. The project lead assembled and summarized the project development scores.
3. Reporting. WSDOT prepared a report documenting the scoring process, lessons learned, and feedback on INVEST. The report also includes recommendations for improving sustainability practices for WSDOT planning and project development.

Questions?

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INVEST
ECONOMIC • SOCIAL • ENVIRONMENTAL

System Planning Criteria

- Integrated Planning (Includes Bonus):
 - Economic Development & Land Use
 - Natural Environment
 - Social
- Access & Affordability
- Safety Planning
- Multimodal Transportation & Public Health
- Freight and Goods Movement
- Travel Demand Management
- Air Quality
- Energy and Fuels
- Financial Sustainability
- Analysis Methods
- Systems Management & Operations
- Linking Asset Management & Planning
- Infrastructure Resiliency
- Linking Planning & NEPA

Project Development Criteria

- Economic Analysis
- Life-Cycle Cost Analysis
- Context Sensitive Project Delivery
- Highway & Traffic Safety
- Educational Outreach
- Tracking Environmental Commitments
- Habitat Restoration
- Stormwater
- Ecological Connectivity
- Pedestrian Access
- Bicycle Access
- Transit & HOV Access
- Freight Mobility
- ITS for System Operations
- Historical, Archaeological, & Cultural Preservation
- Scenic, Natural, or Recreational Qualities
- Energy Efficiency
- Site Vegetation
- Reduce and Reuse Materials
- Recycle Materials
- Earthwork Balance
- Long-Life Pavement Design
- Reduced Energy & Emissions in Pavement
- Contractor Warranty
- Construction Environmental Training
- Construction Equipment Emission Reduction
- Construction Noise Mitigation
- Construction Quality Control Plan
- Construction Waste Management

What were the results of WSDOT's INVEST pilot?

WSDOT sees planning as the immediate and most effective opportunity for incorporating broader sustainability considerations into agency practices. Therefore, WSDOT will integrate relevant planning recommendations from the System Planning module of INVEST into its practical planning and demand management guidelines, currently under development.

The Project Development module of INVEST, or a similar tool, may also have value at the project level. While WSDOT decided not to use the current form of INVEST for project development, with modification it could help engineers systematically identify and consider more sustainable practices.

How could INVEST be improved?

The INVEST System Planning criteria are generally applicable to corridor planning. However, because FHWA wrote the scoring requirements for an agency level planning program, some had limited applicability to corridor plans. WSDOT recommends FHWA consider modifying INVEST to apply to corridor level planning. While agency level planning can set the stage for sustainability, corridor planning is a key venue for making sustainable decisions.

WSDOT found the INVEST project development criteria are generally consistent with WSDOT sustainability goals. However, the scoring requirements for each criterion lacked flexibility to consider project context and agency best practices. WSDOT recommends FHWA modify scoring requirements to consider more diverse project types and environments and tailor INVEST to agency-specific content and development processes.

WSDOT Feedback to FHWA on INVEST

Project Development

- **Overall.** INVEST has the potential to be a useful tool, but the current version cannot be recommended for WSDOT without modifications.
- **Flexibility and Context.** Scoring requirements should consider more diverse project types and environments. INVEST should be tailored to agency-specific content and development processes.
- **Evaluation Process and Timing.** INVEST can frame project expectations about sustainability at the outset of a project and help inform project range of alternatives.
- **Format.** INVEST presents a useful procedural framework for informing and supporting project level decision making. The checklist format is easy to use and clearly presents scoring requirements.
- **Scale of Project.** INVEST could be improved by adding a menu of more sustainable choices for smaller projects.
- **Public Health.** With some modifications, INVEST could provide a bridge between NEPA and Health Impact Assessments by identifying stakeholder concerns early in the project development process.

Planning

- **Applicability to Corridor Studies.** Consider generalizing scoring requirements for corridor studies, developing alternative scoring requirements, or removing inapplicable scoring requirements when scoring corridor plans.
- **Subjectivity.** Because scoring requirements are general and subjective, their robust application requires the knowledge of subject matter experts. INVEST is a good starting point to explore sustainable options, but independent scoring by a general planner would require more detailed definition of terms and greater specificity in the INVEST criteria.
- **Implementation.** Scoring requirements related to implementation (demonstration of sustainable outcomes, achievement of goals, supportive investment) are outside the scope of corridor plans and should be removed for scoring or reframed for corridor planning.

Recommendations on WSDOT Corridor Planning

In addition to the INVEST feedback, the planning team developed substantive recommendations for making corridor planning more sustainable.

- **Broader Outreach.** Based on context and budget, WSDOT should engage broader internal and external interests in corridor planning.
- **Stronger Connections to Other Plans.** Corridor plans should reference and integrate a broader set of internal and external plans.
- **Stronger Connections to Other Processes.** WSDOT should strengthen connections between corridor planning, programming, scoping, environmental review, and design.
- **Sustainability Goals.** Corridor plans should include goals and objectives that are quantifiable where appropriate, support sustainability principles, and harmonize the vision and goals of the community and WSDOT.
- **Data and Performance Measurement.** Corridor planners should consider a wider range of data to develop and evaluate planning recommendations.
- **Analysis.** WSDOT may need additional analytical tools to help planners evaluate tradeoffs between diverse goals.
- **Strategy Development.** Corridor plans should document how sustainability goals, objectives, and data informed the analysis, the identification of potential strategies, and the selection of final planning recommendations.
- **Planning Recommendations.** WSDOT should develop guidelines for prioritizing which strategies are better when, where, and for what purpose.