



Infrastructure Investment and Jobs Act

On November 12, 2021, President Joe Biden signed into law The Infrastructure Investment and Jobs Act (IIJA). IIJA provides funding for transportation and road projects, clean water, electric grid renewal, and broadband access. The act allocates approximately \$1.2 trillion in spending, with \$550 billion as newly authorized spending on top of what Congress was planning to authorize regularly.

IIJA is the largest investment in the resilience of physical and natural systems in American history. It includes:

- \$500 billion for roads and bridges programs
- \$55 billion to upgrade water systems,
- \$50 billion to make communities more resilient from the impacts of floods and droughts

This funding provides a once in a lifetime opportunity to spur digital transformation that supports improved public health and safety, social and economic outcomes.

The Decision Makers

Government agencies with the statutory authority to spend IIJA funds will strive to ensure this historic funding is used as efficiently and effectively as possible to achieve the greatest good.

Agencies that will play a role in prioritizing, allocating and spending IIJA and other funding to protect and improve water resiliency efforts include, but are not limited to:

- Departments of Environmental Protection
- Departments of Health
- Departments of Agriculture
- Departments of Transportation
- Regional Watershed Protection Programs
- Emergency Management Agencies
- Drinking and Wastewater Revolving Funds

These decision makers will require the best intelligence to identify projects that are most needed to protect and improve infrastructure, save human lives, and reduce the economic impact of natural disasters.



Government executives and managers will make these decisions in a transparent environment that requires significant oversight. Executive branch agencies and Congress will conduct spending oversight through agency Inspectors General, congressional committee activities, the U.S. Government Accountability Office (GAO) and/or Recovery Accountability and Transparency Board.

To be ready for such oversight, agencies will need sound decision-making processes. These processes must be based on advanced data aggregation, analysis and forecasting capabilities for the most fully informed, equitable decisions possible.

The Need for Water Intelligence Is Urgent

Recently, high profile events have increased attention on the condition of America's local drinking water and wastewater infrastructure, and the financial challenges that communities confront in maintaining, repairing, or replacing aging water infrastructure. Such events include elevated lead levels in drinking water in Flint, MI, Newark, NJ, and other older cities; local water infrastructure damage from severe weather in Jackson, MI and Houston, TX; and increasingly frequent detection of unregulated drinking water contaminants that may require additional treatment processes.

Ninety percent of climate change impacts are water related. Agencies, utilities, and landowners responsible for improved watershed management have a large incentive to adopt faster, less expensive, and more effective planning processes to avoid risk of liability and damage to reputation, and to experience general savings in both cost and time. It is important for these groups to protect their resources and environmental services and to respond to growing public concerns for sustainable, equitable land use and water quality.

Lastly, as climate change causes seas to rise and storms to become more severe, roads are flooding more often, and bridges are in danger. And it is not just water that is causing a problem for our nation's roads; increased heat is causing roads to buckle and putting our road system in jeopardy. The Washington Post recently [1] highlighted the Delaware Department of Transportation taking a proactive approach to these issues through the creation of a Resiliency and Sustainability division to make decisions about which of the state's roads can be saved.

[1] Washington Post 11/28/21 "A changing climate is buckling concrete and flooding roads. States are moving slowly to guard the nation's infrastructure."



Water is the universal connector. How we manage our shared water resources determines our collective future.

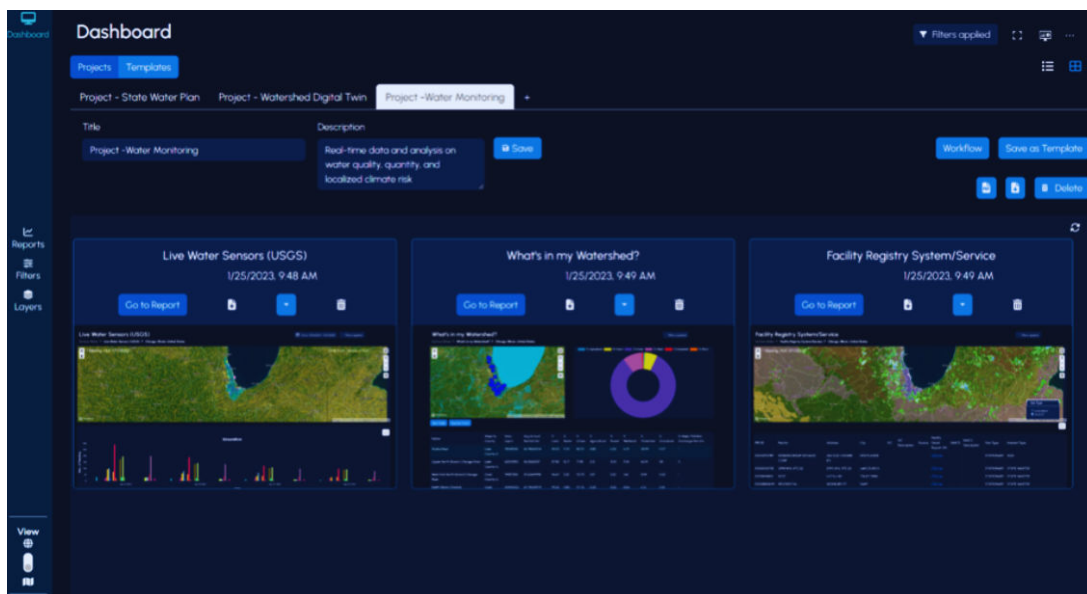
Increasingly, leaders recognize climate change is presenting an existential threat to our way of living. Increases in rainfall, flooding, and stormwater related contaminants are driving the need to invest in solutions to build resilience to protect our nation's most vulnerable infrastructure.

Decision Makers Need

- Fast, easy, and effective data aggregation, analysis, and forecasting capabilities for fully informed water and climate related decision making
- A dynamic digital asset that provides data analysis and forecasting in real time to help prioritize investments in infrastructure and programs; support investment, regulatory and public policy recommendations, and decisions; and provide improved transparency to the public
- Clear communication tools that facilitate collective action between government officials, regulators, stakeholders, and community leaders to protect our shared, precious water resources

True Elements' Solutions

True Elements provides deep, clear water intelligence that clarifies water and watershed complexity to help government leaders make accurate, effective decisions to address their city, state, and community water challenges. True Elements applies a sophisticated, patent pending scientific and AI lens to multiple layers of disparate watershed data to produce deeper, clearer, more holistic insights into watershed dynamics. We turn those insights into clear visualizations and scores for more reliable analysis, forecasting and sound decision making.



True Elements:

- **Transforms Complex Data** into Intelligence for easy, fast, and effective decision making
 - We track a multitude of data layers – contaminants, turbidity, flow, pollution sources, drought status, hazardous waste proximity, agricultural runoff, and more for accurate understanding of water quality and quantity
 - We aggregate complex layers of data from hundreds of sources and normalize it for consistent interpretation, deep analysis, and clear decision making
- **Creates a Dynamic Digital Watershed Twin** for reliable modeling, analysis, and forecasting
 - We create accurate digital watershed twins so viewers can apply different data layers to help answer key questions, prioritize efforts, make informed decisions, and take action
 - We use sophisticated, patent pending artificial intelligence capabilities to forecast water quality conditions up to three weeks and water related climate impacts up to 50 years
- **Clarifies Water Complexity** for clear multi-stakeholder communication and collective action
 - We use state of the art technology, scientific, and AI capabilities to translate water's complex, multi-dimensional interrelationships into clearly understandable indexes, visualizations, and scores for reliable analysis, forecasting and fully informed decision making.

