

A Tale of Two Cities

WEATHERING THE STORM

Welcome to Resilient Ridge and Vulnerable Valley, two fictional cities that represent the environmental and socio-economic challenges facing America's 19,500 incorporated municipalities.

As we follow their journey from 2025 to 2055, we'll explore how infrastructure choices impact a city's ability to withstand and adapt to environmental shifts.

Let's see how our two cities fare over three decades of environmental challenges...



Located on the same region, Resilient Ridge and Vulnerable Valley face similar environmental challenges but take different approaches to preparation.









2025

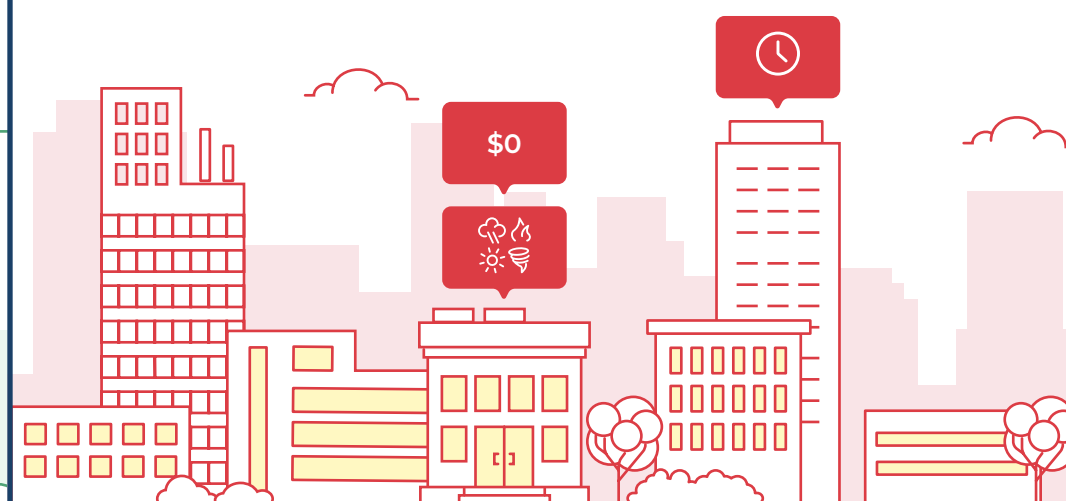
Setting the Stage



Resilient Ridge





POPULATION: 250,000

-  Proactive city council implementing a climate action plan
-  Aging infrastructure, but committed to upgrades
-  \$\$ \$50 million resilience budget approved for use over the next five years
-  Partnership with SAFEbuilt initiated for public works services
-  SAFEbuilt conducted a visioning charrette with the city's residents to evaluate the community's long range vision of development
-  Identified grant opportunities and programs to assist with funding of community development projects



Vulnerable Valley

POPULATION: 250,000

-  Business-as-usual approach to city planning
-  Aging infrastructure
-  \$\$ No specific budget for climate resilience
-  No external partnerships for public works services or planning & zoning expertise



DID YOU KNOW?

In 2022, the U.S. faced 18 major disasters, each costing over \$1 billion. Here's the key: For each \$1 spent on preparing for disasters, we save \$6 in recovery costs.¹



DID YOU KNOW?

FEMA has an online tool to help cities calculating benefit-cost analysis which is a requirement for most Building Resilient Infrastructure and Communities (BRIC) grant programs.²






2035

A Decade of Decisions



Resilient Ridge with SAFEbuilt.







POPULATION: 250,000

-  Comprehensive infrastructure vulnerability assessment completed
-  Upgraded stormwater systems with resilient infrastructure solutions
-  Secured grant to implement smart grid for improved energy resilience
-  Developed a climate-adaptive transportation network plan
-  Implemented proactive maintenance schedule for critical infrastructure



Vulnerable Valley

POPULATION: 250,000

-  Minimal upgrades to aging water and sewer systems
-  Delayed response to increasing flood events in low-lying areas
-  Reactive approach to extreme weather impacts on infrastructure resulting in longer interruptions of public services
-  Limited investment in renewable energy integration for public facilities
-  Inadequate long-term planning for climate change effects on public works
-  Fails to conduct public outreach events to understand resident's needs and pain points

2035

A Decade of Decisions



Weather Event: Category 4 Hurricane

Resilient Ridge with SAFEbuilt.

POPULATION: 250,000 **Resilient Ridge**

2-Day

power outage in **20% of the city**

\$50M

in damages to public infrastructure

Quick Recovery

rapid post disaster response with SAFEbuilt's staff augmentation, on-site permitting, remote plan reviews, etc

- Comprehensive infrastructure vulnerability assessment completed
- Upgraded stormwater systems with green infrastructure solutions
- Secured grant to implement smart grid for improved energy resilience
- Developed a climate adaptive transportation network plan
- Implemented proactive maintenance schedule for critical infrastructure

Vulnerable Valley **Vulnerable Valley**

2-Week

power outage in **60% of the city**

\$500M

in damages to public infrastructure

Delayed Response

without a established partnership, the city fails to assist residents with a surge in permits, plan reviews, inspections and public works projects

- Minimal upgrades to water and sewer systems
- Delayed response to residents in low-lying areas
- Reactive approach to weather impacts on infrastructure
- Limited investment in renewable energy integration for public facilities
- Inadequate planning for climate change effects on public works
- Fails to conduct public outreach events to understand resident's needs and pain points



KEY FACT

According to NOAA, sea levels along the U.S. coastline are expected to rise 10–12 inches by 2050 — as much as they rose over the previous 100 years.³

2045

The Midcentury Mark



Resilient Ridge with SAFEbuilt.

POPULATION: 250,000

- 85% reduction in flood damage costs since 2025 thanks to meaningful and tailored drainage improvement projects designed by the SAFEbuilt team of experts
- 70% decrease in power outages due to inclement weather
- 40% improvement in water quality
- Streamlined permitting process for resilience projects
- Ongoing training for public works staff on latest resilience strategies



Vulnerable Valley

POPULATION: 230,000

- 200% increase in flood damage costs since 2025
- 100% increase in power outages
- 15% decline in water quality
- Backlog of permit applications for repair and reconstruction
- Increase in the community's frustration with the lack of adequate response to public works and building department needs
- Decline in population leading to a reduced tax based and decreased city revenue



DID YOU KNOW?

A lot of U.S. infrastructure is nearing the end of its life. This aging infrastructure is threatened by inclement weather events — some of which are already becoming more frequent and/or more intense.⁴

2055

The 30-Year Impact



Resilient Ridge with SAFEbuilt.

POPULATION: 300,000

- Thriving green spaces and blue corridors
- Robust public transportation system
- Diversified, clean energy grid
- Population growth to 300,000 results boosts the city's annual budget
- National recognition for climate resilience and economic initiatives
- Continued partnership with SAFEbuilt for ongoing infrastructure project management and planning & zoning support
- ROI on initial infrastructure investment



Vulnerable Valley

POPULATION: 200,000

- Abandoned coastal neighborhoods
- Strained public services
- Frequent energy shortages
- Population decline to 200,000
- Struggling to implement reactive resilience measures
- Massive exodus of job-generating companies directly impacting the city's ability to provide viable economic opportunities to its residents



KEY TAKEAWAY

Essential services are interdependent. In urban settings, weather-related disruptions of services in one infrastructure system will almost always result in disruptions in one or more other infrastructure systems.

The tale of these two cities demonstrates the critical importance of proactive climate resilience planning and the value of expert partnerships. While the challenges are significant, the benefits of investing in resilient infrastructure far outweigh the costs. Resilient Ridge's upfront investment proved substantially smaller than Vulnerable Valley's reactive expenses, highlighting the long-term financial wisdom of preparedness.

At SAFEbuilt, we understand the unique challenges facing public works departments in adapting to environmental changes. Our comprehensive services include:

- ✓ A team of professionals with the knowledge and experience to assist your community every step of the way
- ✓ Planning & Zoning experts to assist with current challenges and future visioning
- ✓ Engineering design and reviews
- ✓ Infrastructure assessments and resilience planning
- ✓ Emergency response and post-disaster recovery support
- ✓ Code development and enforcement
- ✓ Ongoing training and education for public works staff

Our team of experts can help your community navigate the complex landscape of infrastructure resilience, ensuring that your city's story is one of growth, adaptation, and success.

Ready to start your city's resilience journey? Contact SAFEbuilt today for a consultation.

SAFEbuilt®

SOURCES:

1. [2022 U.S. billion-dollar weather and climate disasters in historical context](#)
2. [Navigating FEMA's BRIC Program](#)
3. [U.S. coastline to see up to a foot of sea level rise by 2050 | National Oceanic and Atmospheric Administration](#)
4. [Climate Change Impacts on the Built Environment | US EPA](#)

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