

# Saint Paul Climate Scenarios

## Scenario 1: Wipe Out

Climate change hits hard but a chronic economic malaise inhibits the City of Saint Paul’s abilities to respond, resulting in a range of reactive and uncoordinated responses by individuals and neighborhoods.

Pundits have used the phrase “the new normal” so frequently in the past 20 years that the late-night comics now make fun of it. Things have changed—deteriorated, many say—so much so in the last generation or two that little ever seems normal for long.

In the last 30-40 years the United States and indeed the entire world has seemingly lurched from struggle to crisis with little respite. Economies and income growth have stagnated for long periods of time; it seems like we haven’t gotten a break in decades. Persistent natural and human disasters driven by climate changes have been a major factor, and we’ve proven unable to muster the political and collective will to take any substantial action. Climate change mitigation efforts, from scalable renewable energy to effective carbon taxation, were just beyond reach; only short-term and experimental efforts ever got off the ground. Increasing climate disruptions and natural disasters such as floods, droughts, invasive species, tree canopy loss, and heat waves threatened the American landscape and destabilized vulnerable nations like Bangladesh across the globe.

The costs of all the “just-in-time” adaptation spiraled out of control, even for a city such as Saint Paul, which has not been hit as hard as coastal and desert cities. Saint Paul’s challenges were significant: the Mississippi River flooded three times in the five years between 2024-2028, near-drought conditions occurred in other years, and bug infestations challenged the city’s trees and greenery. Emergency services and infrastructure repair took precedence over other city services and budgets, and planning for the future was nearly impossible. For Saint Paul, the 2010s and 2020s were emotionally and financially exhausting, as coffers were drained in a struggle to maintain a modest sense of security and normalcy for its citizens.

In 2027 the city raised property taxes sharply to fund the escalating cost of coping with extreme weather events. The short-term gain in revenues had its own price, as political backlash and lowering housing val-



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ues hurt the city. A wave of homeowners sought to sell and leave the city, leaving remaining residents to feel more vulnerable than ever.

From challenges arise opportunities. New leadership emerged during this period, as community-driven initiatives filled some of the spaces government retreated from. Saint Paul’s Hmong-American and African-American communities, each in their own way, modeled how neighborhoods could band together and care for their own. Dependence on the public sector for safety and comfort began to be considered nostalgic as neighborhoods implemented homegrown storm cleanup, as well as “climate refugee centers” for people struggling through the prolonged hot and humid weather. Community service, previously performed by a few, was now truly a community-wide event. The refrain echoing across these frequent evening clean-ups and neighborhood check-ins was “it could be worse.”

And it was true—it could be worse. Saint Paul’s struggles mirrored the nation’s and world’s, and Saint Paul could even count itself lucky relative to others. On a national and global scale, climate change hit hard in particular places in the late 2010s and early 2020s. For example, massive droughts across the southwestern U.S. crippled many cities and livelihoods, including the

once-golden goose of Las Vegas as Lake Meade dried up and silted in. The severe and persistent flooding in Bangladesh killed thousands and wrought a humanitarian crisis, including a huge outflow of refugees. Less dramatic but still difficult changes occurred throughout the world and challenged lives, crops, and economies throughout the world. Market mechanisms proved too slow and unfocused, and cities and countries around the world struggled to keep up with the challenges as the climate changed more rapidly than many thought possible.

In some ways, Saint Paul was worse off than other places. Google Maps had long acknowledged semi-permanent closure of roads and abandoned bridges left in disrepair, but a new functionality now identified the quality of road surfaces along with traffic conditions. Saint Paul on Google Maps increasingly looked like an archipelago of blue islands with good roads surrounded by growing patches of red and yellow, indicating damaged streets and avenues due to the increased frequency and severity of freeze-frost cycles. While neighborhoods volunteered to make repairs and took responsibility for different stretches of road, this effort was inconsistent from place to place and the resulting patchwork quilt of good and bad roads makes navigating Saint Paul by car or bike increasingly challenging.

The focus on grassroots, neighborhood-scale efforts evolved over time into a new kind of governance regime. New refugees, less governmental enforcement of what now seemed like antiquated zoning regulations, and a grassroots community activism borne of necessity combined, for better or sometimes for worse, to re-make the city. Politicians at the state level, under pressure from constituents, pulled away from what Minnesotans began to perceive as the “disturbed and distracted” national agenda and focused instead on putting “Minnesota First.” Under this initiative the state and city drafted new experimental energy, water, and land use policies to support innovative solutions to climate-driven challenges. The Hmong community’s experience with different farming techniques helped

the city pioneer the first “vertical farms” in the state, to increase food production in the city. The vertical gardens went into backyards, abandoned lots, boulevard strips; anywhere there was a little space and some sunshine. We lost 50% of our ash trees between 2010 and 2025, so there was more open space to grow than there used to be. The hotter summers and new varieties of crops developed by the University of Minnesota spurred innovation in urban food production.

Saint Paul is surviving if not thriving in 2040. The climate keeps getting hotter and who knows what the next 30 years will bring. The city is more self-sufficient than it was 30 years ago. Citizens grow more of their own food, generate their own power when the grid is out, and clean up their own neighborhoods after natural disasters. In spite of this “can-do” spirit that many applaud, living standards have permanently declined and many think back to the early part of the century with some nostalgia and a lot of anger. When our parents and grandparents had a chance to really do something about climate change, they wonder, why didn’t they do it?

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## Scenario 2: Riding the Big Wave

Minnesota and Saint Paul experience increasing numbers of weather-related disasters but several decades of investment in environmental projects combined with economic entrepreneurialism help to keep the disruptions of climate change manageable for now.

“The Stuck Decade”—that was the name pundits and historians gave to the 2010s. The Great Recession that had begun with the 2008 housing bust never quite went away, as the economy nationally and globally remained tepid at best. The austerity approach to government started in Europe and spread to the U.S., and while deficits fell the economy never really got back in gear. Some sectors blossomed, of course. For example, in Saint Paul and other places around the country, green energy and environmental entrepreneurial activities grew, resulting in a cadre of mostly small businesses and services. But for many, it was a difficult time. College graduates from the “Stuck Decade” struggled mightily to find work and make independent lives. The sluggish economy increased strain on families, suppressed birth rates, challenged schools with lower enrollments and budgets, and led to a host of other ripple effects that stressed society. And then it got worse.

We remember 2018 as the year climate changes burst into an undeniable reality in Minnesota. On October 14-15 of that year, the Twin Cities experienced the first of a series of “super floods”—this one saw 12 inches of rain fall in 24 hours. Leaves clogged thousands of storm drains, leading to widespread urban flooding. Damage to electrical and gas systems spawned many

fires across the city that firefighters had difficulty battling because of many impassable streets. Looting erupted in some neighborhoods. The morning after revealed a smoldering and sodden city, shaken in its confidence.

The storm served as a wake-up call to citizens and political leaders alike. It fit into a larger national pattern in the late 10s and early 20s, when the U.S. as a whole experienced a series of natural disasters: more frequent tropical storms and hurricanes along the Gulf Coast and East Coast, droughts and wild fires in the West and Southwest, heavy rains in the Midwest. It’s a wonder that the economic blues and natural disasters didn’t send everyone over the edge. But Americans are resilient people, and Minnesotans played a leading role in helping the country bounce back.

International, national and local events all contributed to Saint Paul’s surprising revival. A series of international energy and climate-related agreements in the 20s committed the U.S. government to incorporate environmental costs into the prices of fossil fuels, effectively changing the basic economics of energy production and consumption. Gasoline prices rose steadily, prompting many upper- and middle-class people to move closer to work and cluster along transit corridors.

Increased tax revenues and economic growth in the city allowed investments in long-underfunded infrastructure, economic development projects, and low-income housing in the 30s. In a huge win for the city and the state, the long-discussed Highland Innovation Park (HIP) project finally took off in the late 20s. Located on the site of the former Ford assembly plant, the HIP nurtured dozens of industrial and clean energy-related start-ups and grew into an economic engine for Saint Paul and the state. A public-university-private partnership, the park played a major role in the city’s increasingly proactive thinking about climate change challenges. University research and entrepreneurial innovation in areas such as urban tree canopies, public health, battery technology, and urban farming found investment and expression at HIP. The City of Saint Paul benefited in many ways, including being a demonstration site for innovations.



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Saint Paul's assets weren't limited to HIP. The investments made along the Central Corridor and the Gateway Corridor lines, including extending District Energy Saint Paul's cooling and heating lines, grew vibrant, densely populated, energy-efficient communities and business nodes. By becoming an early adopter and practitioner of advanced heat recovery, Saint Paul became a leading center for architects, engineers, financiers, and others engaged in this kind of energy efficiency retrofit work across the nation and around the world. Urban gardening and food production expanded significantly in the city (although every other year seemed to bring yet another exotic insect or disease that growers struggled to control).

Not all was rosy, however. Saint Paul responded relatively well to climate changes and economic challenges, but the climate was still wreaking havoc. Hotter summers, lower snow totals, and more severe rains and storms continue to change the rules of life here, in large and small ways. The region and state struggled to keep up; flood control is the latest in a line of debates about how to predict the future and how far to go to protect vulnerable assets. And, as usual, the poor and working classes suffered the most. Rising housing prices and gentrification forced working people out of their neighborhoods and toward the suburbs, where gas and transportation costs added a big burden to making economic ends meet. The educational achievement gap proved stubborn and challenged educators and workforce developers alike. Tensions persisted; the election of Saint Paul's first Hmong mayor symbolized a positive change but the subsequent years seemed to highlight even deeper ethnic and racial divisions.

Several decades of steady environmental investments made possible by the Legacy Amendment and the Environment and Natural Resources Trust Fund had, by 2030, yielded dramatic results—especially in comparison to other U.S. regions and many places around the world. While big jumps in annual temperatures made most lakes in Minnesota no longer suitable

for walleye, water quality in the state's lakes and rivers was good overall because of large-scale efforts to stem polluted runoff from farmlands. Bowing to the obvious, the Minnesota Legislature designated the large-mouth bass the new official State Fish in 2035. Ice fishing was all but non-existent by this time except along the Canadian border, but on the other hand, mild winters made it possible for Minnesota to become a significant producer of winter wheat—a lucrative crop in a food-strapped world.

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## Scenario 3: Awaiting the Big One

Climate changes slowly increase but fail to garner much public consideration because protracted economic and political instability favors stopgap measures, although most everyone appreciates that makeshift responses run the risk of letting a problem worsen until it is unmanageable.

“No, I won’t answer your stupid questions!” Kua Neng barked at the Tribune-Pioneer Press reporter, who had approached her in the Target parking lot on a hot summer day in 2019. She was tired and didn’t want to do yet another “person on the street” interview about the dismal economy and threatening social unrest that roiled in St. Paul, Minnesota, and throughout the nation during the 2010s. Kua’s circumstances were familiar to many, as was her frustration and anger. An entire generation had come of age during these turbulent years, unable to gain much footing in the flat-lined economy. The structural economic challenges were hard: mounting debt, an increasingly aging population that drew more services than it contributed to, persistent global competition for jobs, and an economy that couldn’t gain any momentum.

Added on top of that, though, were two economic challenges that no one saw coming. First, the oil crisis hit: OPEC oil prices rushed to \$175/barrel after a combination of global economic events in late 2016, and have stayed there ever since. The U.S. government moved to mitigate the crisis by aggressively tapping oil reserves in Alaska and natural gas reserves in Pennsylvania and New York, and indeed some jobs were created and oil flowed by 2023. But prices never moved much and people continued to decry both the rise in gas prices and the long-term environmental costs of fracking and oil exploration in the Arctic National Wildlife Refuge. The second economic blow was a result of all of this bad news: an unemployment rate of over 10%. Kua remembered how the 2012 election had turned on the “high” unemployment rate of 8 to 9%; now, 10, 11, even 12% unemployment rates were common. Her entire generation was left behind and an angry, generation-gap politics had erupted across the U.S. and Europe.

Everything in St. Paul was stuck in neutral, too: housing prices and the housing market sputtered along. Tax collections by the city were flat or declined, and kept a lid on the city’s ability to provide services. The high unemployment rate hit lower-income communities especially hard and left many citizens increasingly

frustrated. Tempers flared, and worsening hot spells in a number of the summers didn’t help.

While most acknowledged that our climate was probably changing, there wasn’t much urgency to do anything about it. The city had plenty of water, but in nearby farming communities the dry spells hurt the growing seasons. What people experienced—hotter, drier summers, mostly—just didn’t push people’s panic buttons. Even the severe flooding of the Mississippi River during the spring of 2019 didn’t influence much on the climate change readiness front. There were few tax dollars and little political will to do anything that wasn’t addressing the urgent economic needs of the day.

Back in the city, gang activity increased as disaffected young people looked for some connection and purpose that education and the working world weren’t providing. The crime rate crept up. Finally, a spark ignited the flame: in July 2018 a sheriff executing a foreclosure in Frogtown got into an argument with a neighbor that turned into an arrest. Neighbors got mad at the police and then the city, and the hot summer night turned ugly. The rioting lasted for three nights that summer, damaged 30 businesses along University Avenue, and resulted in dozens of arrests. In the aftermath, everyone around the city was shook up—how could that have happened in Saint Paul?



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In retrospect, the 2018 Riots were a turning point for St. Paul. It took a year or two to get going, but the event galvanized a new awareness of the need for more aggressive economic and social action. Political opponents found more common ground as the fallout from the riots was negotiated, realizing that job creation in the city was a key to re-election.

Some pieces fell into place: the Federal government, after years of inaction, created a national energy policy in 2020 that, among other things, implemented energy tax reform that spurred clean energy production. The City of Saint Paul did its part, helping clean energy businesses to get started in the city. By the end of the 20s the Clean Energy League, a group of startups known by that moniker because of their intense intermural softball leagues, became an engine for innovation in Minnesota and the Upper Midwest. Other jobs came from the city's infrastructure bonding, which allowed the city to rebuild its aging infrastructure and invest in the Central Corridor. Still more jobs were created to build 5,000 new housing units at the old Ford plant site. All units were powered by hydro and solar generated on-site or nearby. This activity drove the unemployment rate down (as it had been trending down nationally but not to this extent), and the economy grew. In 2022 St. Paul elected its first Hmong mayor, celebrated in the Hmong community as a sign of full citizenship.

Luckily, Saint Paul had regained some economic footing and job growth, because the 2030s proved to be trying for the city, its residents, and indeed the entire country. While climate change effects had seemed episodic and secondary to the past decades' major economic struggles, the rapidly changing climate became a key challenge in the 2030s. First an infestation of Asian longhorned beetles, which blossomed due to the heavy rains of 2032 and the very dry period that followed, began weakening maples and ash trees throughout the city. Then two wicked storms, one in late May and then another 3 weeks later, downed 120 trees in the city and damaged another 400. A fur-

ther examination found thousands of trees that were on their last legs, and all of a sudden Saint Paul was looking at losing half its trees in just a few years. The change in tree coverage exacerbated the urban heat island effect, which was already increasing from the now very evident change in seasonal temperatures. Increasing freeze/thaw cycles, local flooding and damage due to heavy and unprecedented rainfalls, and disruptions to agricultural cycles and seasons increased the need for low-income residents to get subsidies to keep their air conditioning on—all this and more made Saint Paulites, and all Americans, realize that climate change was upon us.

The decade saw Minnesotans buffeted from one crisis to another, and the lack of prior planning began to show itself. Saint Paul's economic infrastructure, strengthened during the 20s, helped provide resilience (and a more stable tax base) for the city to draw on. Transportation innovations and policies begun in the 20s in the Twin Cities helped decrease car traffic by 40% from 2020 levels. This mitigated the economic impact compared to other regions, but the challenges were still daunting. Infrastructure investments, long underfunded, became a hot topic. Massive and expensive efforts related to flood control, bridge maintenance, building energy retrofits, and public health readiness were debated. The climate-changed future was upon the city, and the city wasn't ready. The future of Saint Paul and the U.S. seemed as full of uncertainties and daunting challenges as it had ever been.

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## Scenario 4: Staying Ahead of the Curve

Climate change is underway but a healthy and vibrant city economy enables Saint Paul to make win-win investments over several decades that improve its livability and also enhance its resiliency in the face of increasingly erratic weather.



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It didn't seem like "smart government" at the time, and political pundits sure didn't see it like that. But when Time magazine wrote its cover story on the Twin Cities in 2025, those were the words used to describe the "new Minnesota Miracle." While much of the country was paralyzed on climate change adaptation and stuck in economic third gear, the Twin Cities and Minnesota had managed to accomplish progress on both fronts.

It wasn't dramatic. Looking back, the changes seemed to have emerged from necessities, budget cuts, and a willingness to try something new. The innovations were small, most of them, but like the little engine that could, they pulled Saint Paul slowly up the hill.

Take the consolidation of city services. As emergency calls increased with our aging population in the 2010s, Saint Paul began combining emergency medical services with cities and counties in the metro area. Aggressive consolidations of other city services with those of nearby cities and counties continued throughout the 2020s in response to budget constraints. Sure, Saint Paul gave up some of its autonomy with the consolidations, but the budgetary savings helped hold down property taxes, which in turn allowed the city to invest its limited dollars in more economic development areas. And as gas prices continued their upward ascent through the 2010s and 2020s, working and living in the city became increasingly attractive, es-

pecially following the completion of the Union Depot redevelopment and the Central Corridor Light Rail line in 2014-15.

The 2016 heat storm prompted other responses. The city and neighborhood councils established the citizen urban forestry corps in 2017, which was dedicated to substantially increasing the size and health of the urban forest. Also that year the city began requiring that new and replacement roofs be light in color. With the help of these and other adaptive measures, Saint Paul reduced the amount of solar energy absorbed in the summer and was better situated for the next big heat storm than other Midwestern cities.

In the 2020s the state and Saint Paul saw an upswing in its economic fortunes, especially compared to the still-stagnant national economy. The site of the former Ford assembly plant became a hub for the new genetic medical research and technology industry. Other vacant or underused Saint Paul sites fed off this hub and became prime real estate for new biotech-related businesses. The Twin Cities' reputation as a medical technology center grew, fueled by the growing demand of the country's aging population for medical devices and implants. As a result of all this activity and the many spin-off effects, unemployment dropped to levels not seen since the mid-2000s. The "high-speed ready" commuter rail link between St. Paul and Rochester began operating in 2025. This controversial project ultimately turned out to be a good investment when the high-speed rail between the Twin Cities and Chicago finally became operational in the early 2030s. With the Mayo Clinic only 35 minutes away by train, and with easy access to the airport and regional biomedical companies, St. Paul became an ideal place for the biotech industry to flourish.

Though scientists still predicted dramatic climate changes later in the century, the years between 2010-2035 produced relatively mild effects. Sure, winters were shorter and milder and summers warmer and more humid, and the weather was more erratic. Hot,

dry stretches seemed to be getting longer and more severe, and wet spells were more frequent and severe. In 2023, despite vociferous objections, the city passed new ordinances mandating that property owners develop and implement plans for how to manage runoff from their buildings, grounds, and parking lots and ramps.

The burgeoning biomedical technology and a wide variety of green businesses increased tax rolls, which in turn made some targeted investments possible. The city subsidized the cost of storm water management, which helped mute objections and led to a profusion of green roofs, rain barrels, rain gardens, community cisterns, porous paving and other water infiltration innovations throughout the city. This widespread adoption of the idea of “a more permeable city” came to the rescue when 12 inches of rain fell on the city in 24 hours in August 2033. The city was a soggy mess the next day but everyone acknowledged that the water management innovations had averted disaster.

By 2030, supplies of fresh produce from sources such as California, Florida, and Central and South America were becoming increasingly pricey and scarce in Saint Paul because of climate change stresses in these distant places and the escalating cost of shipping food long distances. The produce aisles of local supermarkets, however, stayed remarkably well stocked and varied because of rapid innovations in urban factory agriculture. From the early Saint Paul pioneers in hydroponic lettuce, sweet basil, and tomatoes of the 2010s grew an astonishingly diverse group of agro-urban entrepreneurs who appear capable of growing just about anything.

By the late 2030s, climate change began to accelerate worldwide, and international agreements were finally reached to make substantial reductions in the global releases of heat-trapping gases. But experts acknowledged that these treaties were too late to stave off substantial climate changes in the latter half of the century. Yet so far Saint Paul has been able, through its vibrant economy and the steady integration of adaptation

strategies into its decision making, to keep ahead of climate change. The city’s green measures have made the city more interesting and livable while also making climate change less of an issue locally. These efforts have been so successful that despite disconcerting climate change news from elsewhere around the world, St. Paulites in 2040 still could rate education, public safety, and the health of the economy as their top concerns.