
CONVERSE

CHAPTER 4
INFRASTRUCTURE & PUBLIC FACILITIES

Infrastructure & Public Facilities

Infrastructure systems and public facilities serve as the physical backbone of a community, providing not only for the basic needs of the community but also the support structure for successful city administration and quality of life.

Simply put, the elements of the desired community vision, development patterns, economic development, and community connections and identity in this Plan are not possible without appropriate infrastructure and facilities planning and implementation.

Furthermore, the design, timing and placement of infrastructure and facilities can profoundly shape the outcomes for each of these elements listed above.

The City's infrastructure consists of several systems, including transportation (discussed in Chapter 3), communications, utilities, water, wastewater, and drainage. Facilities take on a variety of forms - from public safety facilities like police stations to places of community gathering, like libraries, city halls and recreational centers. Information from this Plan, such as the Future Land Use Plan found in Chapter 2, serve as a basis for planning these various systems and facilities.

The subsequent sections of this chapter are as follows:

- Why infrastructure & Public Facilities Matters
- Public Facilities
- Facilities & Community Resilience
- Public Safety
- Water
- Wastewater
- Stormwater
- Environmental
- Infrastructure Planning & Coordination

By aligning infrastructure and public facilities with the community's long-term vision, anticipated growth, and evolving needs, the City can ensure that investments provide not only essential services but also enhance resilience, quality of life, and equitable development. Coordinated planning across systems helps maximize efficiency, reduce costs, and limit disruptions, while also creating opportunities to reinforce community identity and civic pride. In this way, infrastructure and facilities serve as more than functional assets—they become catalysts to help shape the community's future in lasting and meaningful ways.



Why Infrastructure & Public Services Matters

Regulatory, financial, and governance structure typically lead to each infrastructure system and each public facility being placed into separately-managed silos. However, solving many of todays challenges often requires breaking down barriers between these silos, with the added benefit that a holistic view introduces transformational opportunities to accomplish multiple goals in an efficient, cost-effective and even expedited manner. This view is imperative to building the momentum and coalitions that are critical for a City with stretched resources in seeking to achieve the community's vision. By linking infrastructure and public facilities planning directly to the Big Ideas as seen in Chapter 1, the City can position these critical systems to do more than serve functional needs and advance the broader vision for Converse's future.

Strengthening Community Resilience

Infrastructure and facilities are fundamental to resilience. Investments in water, wastewater, stormwater, and other systems that prioritize efficiency and redundancy reduce vulnerability to flooding, drought, and system failures. Well-designed public safety and emergency facilities also improve the City's ability to respond to natural disasters and public health events. Taken together, these investments provide stability for residents and reduce long-term financial burdens.

Creating Vibrant Community Spaces

Public facilities and shared spaces provide more than basic services; they shape how residents connect with one another and how the community expresses its identity. Libraries, recreation centers, parks, and civic buildings contribute to a sense of place while supporting cultural, educational, and social activities. When designed with character and programmed to meet local needs, these spaces strengthen civic pride and reinforce Converse's unique identity.

Utilizing Economic Vitality for Infrastructure

Infrastructure and facilities are essential to supporting growth. Reliable infrastructure systems enable quality development, while public facilities such as libraries, recreation centers, and civic buildings contribute to community services and overall quality of life. Fiscally sustainable infrastructure choices also help protect the property tax base and create a foundation for stable economic growth.

Expanding Local Experiences

Local experiences are made possible by the systems and facilities that support them. Reliable utilities and drainage support businesses and entertainment venues, while coordinated investments in corridors and neighborhood centers make it easier for residents to reach shops, dining, and cultural activities. These systems turn local destinations into practical, accessible parts of daily life.



Public Facilities

Senior Center

A city-operated facility serving adults 55 and older, located at 405 S. Seguin Road. It offers activities like exercise, arts and crafts, bingo, movies, karaoke, tech classes and social programs.

Fire Stations

The Converse Fire Department operates two stations, Station 1 at 602 Toepperwein Road and Station 2 at 8425 Thornton Lane, providing fire protection and emergency medical services. Together they handle thousands of calls annually and maintain a Class 1 ISO rating.

Converse Public Library

Located at 601 S. Seguin Road, the public library offers a wide array of services including free library cards for residents, e-books and audiobooks, public computers, and a large selection of reading materials.

Converse City Annex

The Converse City Annex consists of City Hall, Water Big Department, Police Department, and Municipal Court located at 406 S. Seguin Road.

Public Works

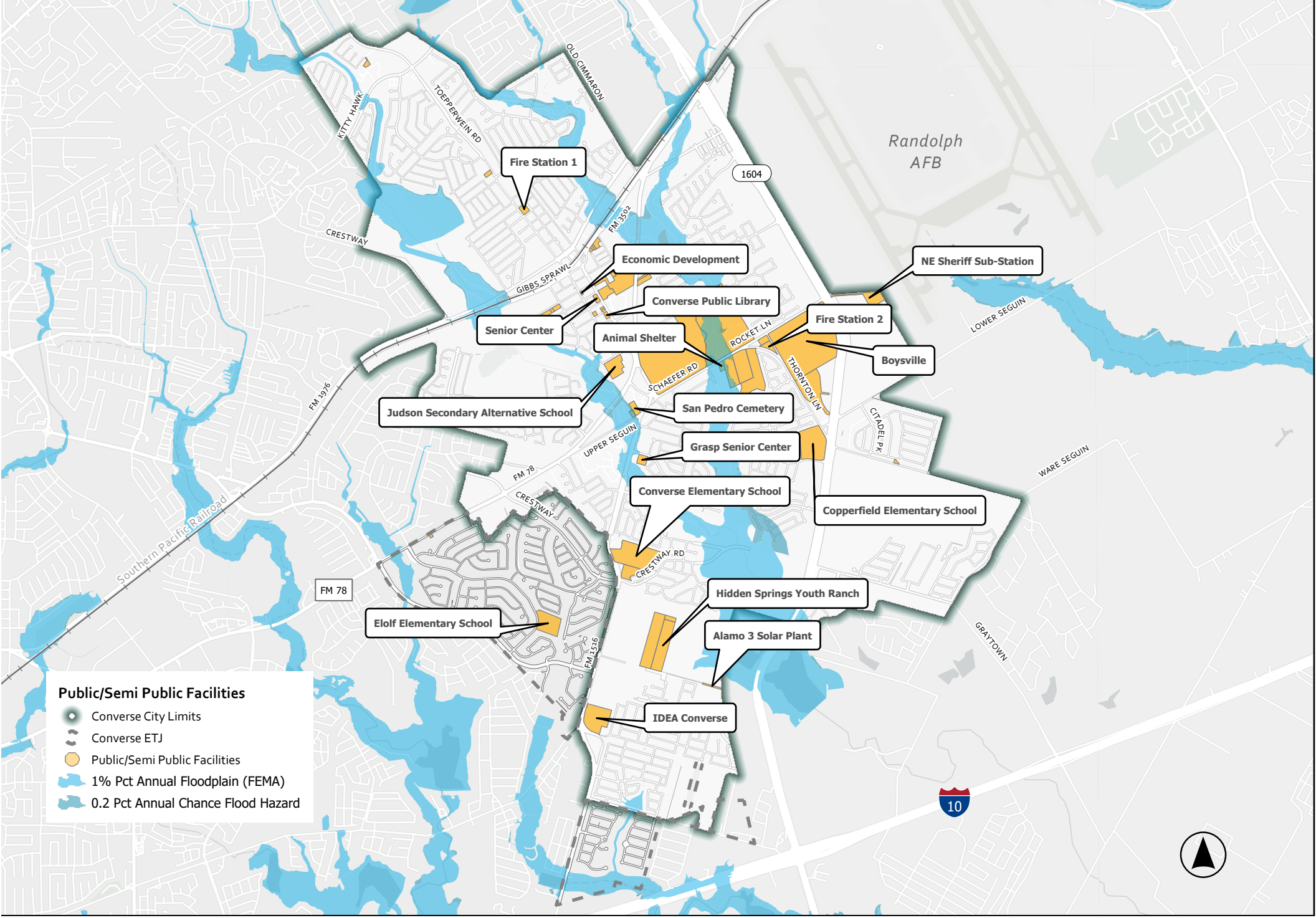
The public works department handles street maintenance, traffic control devices, parks, grounds, stormwater management and related service. The building is located at 5160 Martinez.

Converse Animal Shelter

Located at 8755 FM 1516, the animal shelter provides care for stray and impounded animals, enforces animal-related laws, conducts outreach, and adoption.



Converse Public Library



Map 13. Public/Semi Public facilities

Public Facilities & Community Resilience

When Converse plans new public facilities, resilience and hazard mitigation must be central to design and siting decisions. The City faces risks from flash flooding, severe thunderstorms, tornadoes, drought, and extreme heat, along with the potential impacts of nearby rail infrastructure. Ensuring that public facilities remain safe, functional and able to serve residents during these events strengthens both the community's capacity to respond and its long-term quality of life.

Key considerations that the City may want to consider when planning public facilities include:

- Given the prevalence of localized flooding in Bexar County, all new public facilities should undergo a flood risk assessment. Facilities should be located and elevated to reduce vulnerability, with a preference for sites outside of flood-prone areas and designed in coordination with City drainage improvements.
- Backup power systems should be incorporated into essential facilities such as police, fire and emergency shelters. Natural gas generators or alternative fuel sources can help maintain operations during grid outages.
- Buildings should be constructed or retrofitted to withstand high winds, hail and severe storm events common to the region. This may include reinforced roofing, impact-resistant glazing and structural design standards that exceed basic code requirements.
- Facilities should be designed with insulation, weatherization and efficient HVAC systems to withstand winter freezes and prolonged summer heat. Designating certain facilities as cooling centers or warming shelters provides critical relief during extreme temperature events.
- Core government facilities should be equipped with resilient IT systems, redundant communications and emergency operation protocols to ensure essential services continue during disruptions.
- Being adjacent to freight rail activity, siting new public facilities at safe distances from these lines can minimize risks associated with derailments or hazardous material spills.
- Select community facilities, such as recreation centers or libraries, can be designed or retrofitted to serve as resilience hubs - safe, hardened spaces where residents can access information, shelter, charging stations, and basic services during emergencies.



Converse Senior Center

Public Safety

Insurance Services Office (ISO) Rating

Public facility design and City planning directly influence the ISO rating that insurers use to gauge fire-protection quality. A community's ISO rating depends on where fire stations are located, the level of equipment and staffing, response times, and whether hydrants and water mains deliver adequate flow and pressure.

Strategic fire station placement is important in facility and urban planning, because the street network that surrounds a station ultimately governs how quickly crews can reach an emergency. Compact, mixed-use development patterns shorten travel distances and help meet ISO's preferred response window, while sprawling, low-density neighborhoods lengthen routes and stretch resources.

Converse is recognized with an ISO Class 1 rating, the highest classification available. This achievement reflects the City's investment in fire protection facilities, equipment, staffing, training, communications and water infrastructure. The Class 1 rating provides tangible benefits for Converse residents and businesses, including reduced insurance premiums, improved emergency response times, and lower risks of property loss.

To maintain and build upon this distinction, Converse should continue to emphasize:

- **Fire Department Enhancements (50% of the score)**
  - Sustain adequate staffing and firefighter training.
  - Maintain and upgrade firefighting equipment and apparatus.
  - Ensure optimal distribution of fire stations to reduce response times.
- **Water Supply Improvements (40% of the score)**
  - Maintain a robust water distribution system to ensure adequate flow and pressure.
  - Expand the number and upkeep of hydrants across the City.
- **Emergency Communications (10% of the score)**
  - Upgrade dispatch systems for rapid and efficient response.
  - Ensure redundancy and reliability in communication infrastructure.
- **Community Risk Reduction (Up to 5.5% bonus)**
  - Expand Fire safety education and outreach programs.
  - Conduct regular code inspections and enforcement.
  - Continue prevention activities that reduce risks before emergencies occur.



Fire Station #2



Flooded Street in San Mateo County

National Flood Insurance Program (NFIP) and Community Rating System (CRS)

The NFIP, established under the 1968 National Flood Insurance Act, was created to reduce the growing cost of flood losses nationwide. Communities that participate in the NFIP agree to adopt and enforce flood-resistant building standards, particularly within mapped Special Flood Hazard Areas, in exchange for access to federally backed flood insurance policies. Converse is a participant in the NFIP, which allows property owners to purchase federally supported flood insurance and ensures that new development follows standards designed to reduce future flood damage.

While Converse participates in the NFIP, it is not currently enrolled in FEMA's CRS. The CRS program rewards communities that go beyond NFIP minimum requirements by providing discounted flood insurance premiums to property owners. CRS points are earned through activities such as enhanced floodplain mapping, stormwater and drainage improvements, open space preservation and expanded public outreach.

Although not a current CRS community, Converse could benefit from adopting CRS-aligned practices. Actions such as elevating critical facilities above the 500-year flood elevation, preserving open space along flood-prone corridors like Salitrillo Creek, and expanding floodplain education and outreach would both reduce long-term flood risk and lay the groundwork for CRS participation in the future. If pursued, CRS enrollment could provide residents and businesses with direct financial savings on insurance while further strengthening citywide resilience.

Going forward, all new or renovated public facilities in Converse should continue to meet NFIP requirements and, where feasible, integrate CRS best practices. Doing so will safeguard public investments, reduce hazard exposure and leave the door open for future CRS enrollment.

Water & Wastewater

Existing Systems

The City of Converse owns and operates a water distribution system providing treated water to approximately 9,000 customers. The City's existing water system consists of a 90 mile network of pipelines ranging from 2 to 16-inches in diameter. The City supplies water via four wells in the Edwards aquifer with a total capacity of 8,500 acre-feet per year (ac-ft/yr). The City also purchases 500 ac-ft/yr of treated water from the Canyon Regional Water Authority (CRWA) from Lake Dunlap Water Treatment Plant and Wells Ranch. In addition to the ground water wells, the City also operates two high service pump stations with a total pumping capacity of 3,550 gallons per minute (gpm) to hold pressure on the system by pumping to three elevated storage tanks with 2.15 million gallons (MG) of total elevated storage. The City also has two ground storage tanks for a total system storage capacity of 3.5 MG.

The City of Converse also owns and operates a wastewater collection system that conveys customer flows to a treatment facility. The City's existing wastewater system consists of 74 miles of pipelines ranging from 4 to 18-inches in diameter and five lift stations. The City's wastewater is treated at the Salatrillo Creek Wastewater Treatment Plan owned and operated by San Antonio River Authority (SARA).

Population Growth and Future Land Use

The City of Converse is expected to continue growing over the next decade. To anticipate and project the growth in water and wastewater connections, it is important to understand how the City's population has grown in the past. Historical growth patterns and average growth rates can provide further understanding as to how the population is expected to increase and affect a water or wastewater systems capacity. Table 5 to the right shows the past 15 years of historical population growth for the City of Converse. The City has experienced an average annually compounding growth rate of approximately 3% over the last 15-years. There is ample developable area for future growth within the existing water and wastewater service areas even though the City is landlocked with no potential for expansion.

Table 5. Historical Population Growth

Year	Population	Annual Compounding Growth Rate
2010	21,761	-
2011	22,,421	3.03%
2012	23,164	3.31%
2013	23,808	2.78%
2014	24,589	3.28%
2015	25,548	3.90%
2016	26,290	2.90%
2017	26,944	2.49%
2018	27,641	2.59%
2019	28,171	1.92%
2020	27,864	-1.09%
2021	28,695	2.98%
2022	29,663	3.37%
2023	30,455	2.67%
2024	31,400	3.10%
Average		2.66%
4-year Average		3.03%

Stormwater

Stormwater and Land Use

When pursuing economic development through land development and redevelopment, it is important to consider mitigation strategies alongside other planning measures to ensure a well-rounded approach to urban growth. While new projects can boost local economies and enhance community amenities, they often bring unintended environmental consequences that, if ignored, may undermine long-term prosperity.

Stormwater mitigation techniques such as green infrastructure, permeable pavements, and restored wetlands, combined with traditional infrastructure investments, can help preserve natural ecosystem functions, manage runoff, and protect water quality.

This balanced approach not only protects vulnerable waterways and neighborhoods from flooding and pollution but also strengthens community resilience. It ensures that economic gains are sustainable and do not come at the expense of environmental health or quality of life.

Thoughtful mitigation is therefore an essential part of responsible development, aligning growth with stewardship for future generations. The following table highlights some of the benefits of development along with the tradeoffs in stormwater impacts and how they can be addressed.

Infrastructure improvements required to support the proposed land use patterns.

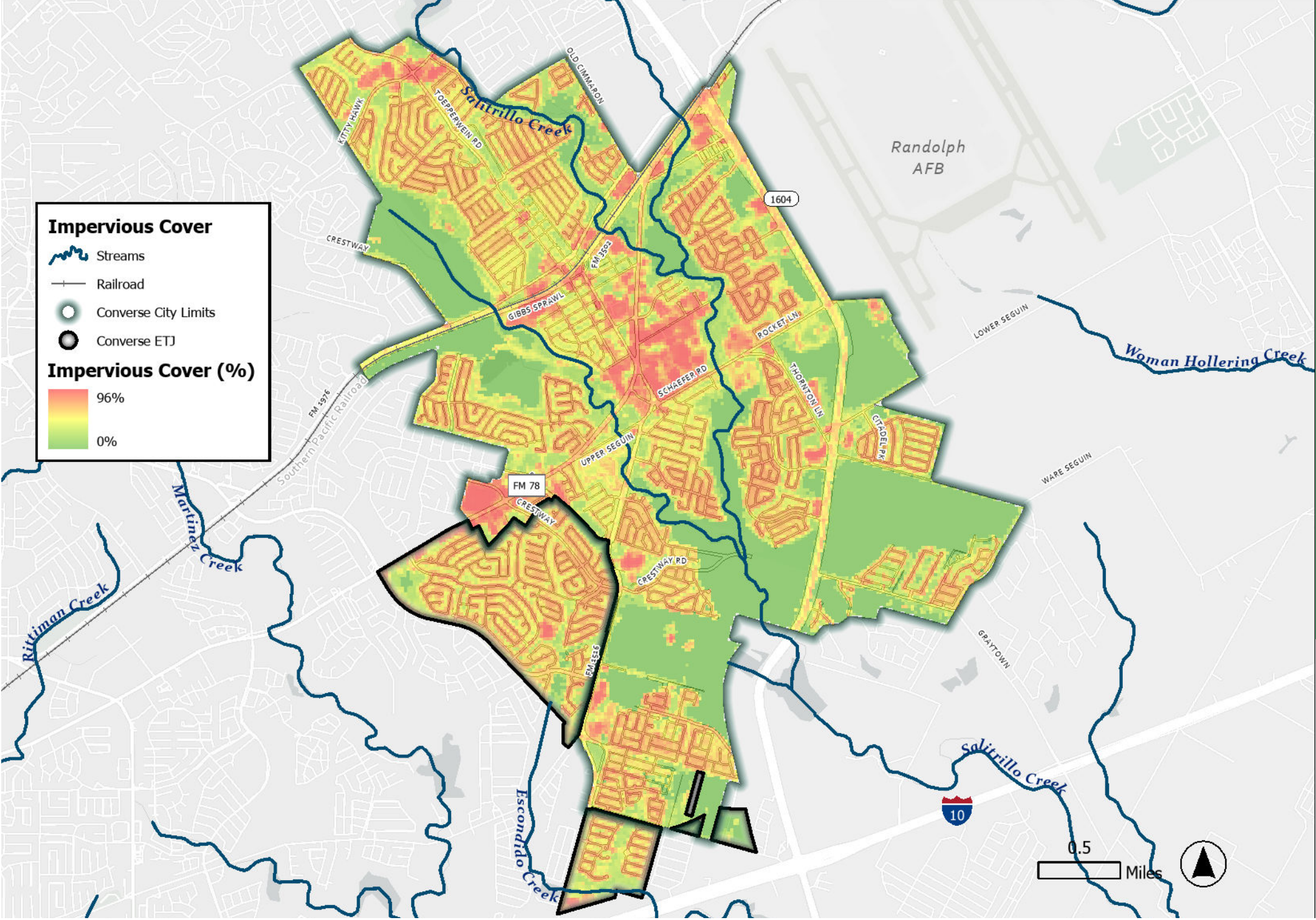
As impervious surfaces expand with urban development such as roads, parking lots, rooftops, and other paved areas, stormwater management becomes more complex and requires targeted infrastructure upgrades. Existing drainage systems may need to be retrofitted or enlarged to handle higher volumes and faster runoff caused by reduced natural infiltration. This might include installing larger or additional storm sewers, enhanced culverts, and upgraded detention or retention basins to reduce peak flows and minimize downstream flooding risks.

It is also important to study potential impacts on floodplains when planning future growth areas. Understanding how increased runoff may affect floodplain boundaries and inundation levels helps ensure new development does not inadvertently heighten flood risks or harm important natural habitats. Applying this knowledge to land use decisions can help guide the placement of new infrastructure and residential or commercial zones away from flood prone areas, fostering safer and more sustainable communities.

In tandem with traditional gray infrastructure, investments in green solutions such as bioswales, rain gardens, and tree canopy expansion can help absorb and filter runoff, relieving pressure on conventional systems. Regulations for stormwater treatment may also need to be updated to address higher pollutant loads and ensure water quality standards are upheld as urbanization increases.

Smart infrastructure, such as real time monitoring sensors and adaptive management technologies, can provide early warnings for potential overflow events and allow resources to be allocated more efficiently during storms. Maintenance programs will also need to expand to keep systems working effectively, especially as sediment and debris from intensified urban activity put extra strain on existing capacities.

Map 21 to the right shows the balance of impervious versus pervious cover in the City of Converse using National Land Cover Data (NLCD). Much of the area along Saltrillo and Escondido Creek(s) has less impervious surfaces, which is ideal for the floodplain area. Many of the areas with the highest impervious cover percentages are the commercial nodes and corridors with large parking surfaces and roadways. Some larger commercial developments have on-site stormwater detention facilities.



Map 14. Impervious Cover

Table 6. Stormwater Impacts vs. Increased Land Development with Mitigation Strategies

Aspect	Benefits of Increased Development	Stormwater Impacts/Tradeoffs	Mitigation Strategies
Economic Growth	Expands local economy; increases tax revenues	Higher costs for stormwater infrastructure and flood protection	Establish stormwater utility fees; link growth to infrastructure investments
Housing & Infrastructure	Provides more housing options and commercial space	Increased impervious cover reduces infiltration and increases runoff	Use permeable pavements, green roofs, and rain gardens
Transportation	Expands roadway network and improves connectivity	Roads add impervious surfaces, generate runoff, and transport pollutants	Install vegetated swales, infiltration trenches, and permeable shoulders
Environmental Quality	Opportunity to include parks and planned green spaces in development	Loss of natural vegetation and wetlands that absorb and filter stormwater	Protect riparian buffers; require open space or green space set-asides
Water Quality	None – development provides no direct benefit	Runoff carries oil, fertilizer, and heavy metals into streams	Install bioretention cells, filter strips, and constructed wetlands
Water Supply	None – development does not increase supply	Increased runoff and peak flows stress water systems and can worsen localized flooding	Build detention/retention basins; integrate reuse, recharge, and Low Impact Development (LID) practices
Groundwater Recharge	None – development provides no direct benefit	Reduced infiltration lowers groundwater levels	Promote infiltration basins, pervious surfaces, and aquifer recharge projects
Stream Health	None – development provides no direct benefit	Streambank erosion, habitat loss, and channel degradation from higher flows	Stabilize streambanks and restore riparian vegetation
Urban Heat Island	Higher density can justify investment in cooling green infrastructure	Impervious cover traps heat, warms stormwater, and degrades ecosystems	Increase tree canopy, use reflective materials, and install green roofs
Maintenance Costs	Larger tax base can support long-term system upkeep	Ongoing maintenance of stormwater facilities adds financial burden	Adopt asset management plans; incentivize private property retrofits

Environmental

The 2050 Future Land Use Plan shows a balanced mix of residential, commercial, industrial, and mixed-use areas that reflect regional growth trends and local priorities. As the community expands, new development will place added pressure on natural systems, particularly Salitrillo Creek and its tributaries. Protecting these corridors is important for managing flood risk, preserving water quality and habitat, and supporting recreational opportunities.

While the FLUP emphasizes compact development and strategic use of infrastructure, additional impervious cover from rooftops, streets, and parking lots will increase stormwater runoff and pollutant loading. To balance growth with watershed protection, Converse should consider the following approaches:

- Waterway Setbacks and Buffers: Establish minimum setbacks—such as 100 feet along Salitrillo Creek and 50 feet along smaller tributaries—to protect riparian vegetation, preserve floodplain functions, and improve water quality. Where buffers are degraded, require restoration with native riparian plantings.
- Impervious Cover Limits: Apply thresholds for impervious surfaces near creeks to maintain infiltration, protect baseflow, and limit runoff impacts.
- Green Infrastructure: Incorporate bioswales, permeable pavements, and detention basins into subdivision standards to improve stormwater quality before it reaches waterways.
- Floodplain Protection: Discourage development within the 100-year floodplain to reduce future flood risks in low-lying neighborhoods.
- Monitoring: Establish water quality monitoring and storm event sampling to track creek health and inform adaptive management strategies.
- Salitrillo Creek Greenway: Expand the trail and greenway system along Salitrillo Creek to serve as both a recreational amenity and a natural floodway buffer.



Biodetention Basin in San Marcos, Tx

Infrastructure Planning & Coordination

As Converse grows, the City's ability to deliver reliable, affordable, and sustainable utility services will depend on proactive infrastructure planning and close coordination with land use decisions. Water, wastewater, electric, and telecommunications systems must be maintained and expanded in a way that both supports new development and protects the City's long-term fiscal health. The following strategies outline how Converse can align infrastructure planning with community growth.

Active Infrastructure Planning

As Converse continues to grow, steady pressure will be placed on water, wastewater, and other utility networks. At present, the City does not have formal Water or Wastewater Master Plans in place. Developing these plans will be a critical next step to test growth scenarios, identify system vulnerabilities, and schedule future plant expansions and line replacements before they create service challenges. Establishing a proactive planning framework will also allow Converse to begin design work ahead of the Texas Commission on Environmental Quality's (TCEQ) 75 percent "planning" threshold, helping the City avoid permitting delays and supply chain constraints as new subdivisions or businesses come online.

Integration of Utility Master Plans

Utility systems perform best when they are planned and managed together. By assigning condition and criticality scores to infrastructure, the City can direct investments toward assets that pose the highest risks to public health and essential services. Regularly updating system models and testing scenarios during subdivision review gives staff the tools to negotiate cost-sharing, phase improvements, and align service delivery with development timelines.

Coordination with the Future Land Use Plan

Utility planning must remain closely aligned with Converse's Future Land Use Plan. Changes in land use designations—whether increasing residential density, adding mixed-use centers, or expanding industrial districts—should be reflected in utility models and, when necessary, incorporated into updated construction schedules. This coordination helps provide utility infrastructure that is prepared to serve new growth efficiently and sustainably.

Compact Development and Fiscal Health

Land use decisions directly shape long-term utility costs. Encouraging infill development, mixed-use projects, and well-connected street grids increases the number of service connections, reduces per-unit maintenance expenses, and strengthens fee revenue. Promoting compact, fiscally responsible development patterns will help Converse keep rates affordable, sustain reliable service, and ensure that investments in water and wastewater infrastructure remain viable well into the future.



Converse Water Storage Tank


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