Growth Capacity

Horizon Plan

Development in Huntsville must be guided in a logical and sequential pattern. This plan element contributes to an overall policy framework defined by this Comprehensive Plan that is designed to guide decisions relating to timely extension of adequate infrastructure, provision of qualtiy municipal services, and a logical sequencing of future development. Ongoing land development places added demands on the City to provide utility infrastructure, police and fire protection, and other basic services over a broader area to meet community needs.

The concept of "growth capacity" as addressed in this plan chapter is two-fold. First, it involves the City's basic ability to provide public infrastructure and services, both for today's needs as well as projected growth. Second, it involves the City's stance as to the geographic area it is willing and able to serve, both today and in the future. As Huntsville's urbanized area continues to expand, the City must consider both the practical and fiscal implications of extending its public services over a wider area. The City may be well-positioned to respond to these increasing service demands, or it may reach a point of having to delineate the maximum area it is prepared to serve in coming years and where it will draw the line to avoid a sprawling, unsustainable growth pattern beyond the current city limits.

Therefore, this chapter first assesses significant needs and issues associated with the City's key infrastructure and public services. It then considers the broader context of the current and future "urban service area" – the area in which the City can, and should, be prepared to provide an acceptable urban level of service over the long term.

What comprises the Water System?
The water system includes supply facilities (wells and surface water), treatment facilities, and the distribution system.

What comprises the Wastewater System?
The wastewater system includes gravity flow pipes or pressurized lines in the collection system (facilities that receive wastewater from customers and convey it to the treatment plant), pumping or "lift" stations, treatment units at the plant, and reclaimed water distribution facilities in some cases.

What comprises the Drainage System?
Drainage (or storm water) facilities typically include streets, underground storm drainpipes, and surface channels or swales. They may also include detention ponds and storm water treatment facilities.

Water System

Key Facts

- The City of Huntsville Water Division produces an average of approximately 8.0 million gallons of water daily. The peak daily water production is nearly 12.5 million gallons.
- This system, as illustrated in **Figure 6.1, Water Infrastructure**, provides water service for a population of approximately 34,000, as well as additional users

PUBLIC WATER SYSTEM: By the Numbers

The Water Services Division is responsible for maintaining the City's two treatment plants, over 150 miles of water mains, more than 3,000 water valves, and 1,200 fire hydrants. Employees in the meter shop are responsible for maintaining over 9,500 meters in the community.

inside the city limits (Sam Houston State University) and outside (primarily TDCJ's Ellis and Estelle units, plus officer housing, in north Walker County, plus several hundred scattered users).

- Approximately 75 percent of this water is produced at a water treatment plant on Wallace Road, off of FM 2628, north of the city (the original source of this raw surface water is Lake Livingston). The plant began service in 1980 and, along with Lake Livingston, is managed by the Trinity River Authority (TRA). Based on Texas Commission on Environmental Quality (TCEQ) design criteria, the plant currently has a firm capacity of 6.0 million gallons per day (MGD). Huntsville shifted to surface water as its predominant source of water supply during the 1970s when area growth outpaced the capacity of the City's wells to provide all needed water.
- The remaining 25 percent of daily water production originates from the City's seven major water wells, which are located in southern Huntsville and draw from the Catahoula aquifer. These wells have a combined firm capacity of 5.76 MGD. Their total pumping capacity is currently 8.42 MGD. However, the aquifer recharge can only support prolonged pumping of 3.00 MGD, which is considered to be the safe yield of the existing well field.
- The City currently has 2.5 million gallons of above-ground water storage and 5.4 million gallons of ground storage. No additional storage capacity is expected to be added in the foreseeable future. Water levels in the tanks generally remain constant, with only minor variations most of the year. During summer peak demands water levels may drop by roughly 25 percent, but seldom any more than that.
- All water supplied by the City is monitored and exceeds all standards set by the Texas Commission on Environmental Quality (TCEQ). In fact, the City has been awarded a Superior Water Systems rating by TCEQ.
- The City water system does not experience any pressure problems thanks to new water mains and other capital improvements completed since the mid 1980s, which provided better system connections to areas that previously experienced reduced pressures.
- The City of Huntsville has the distinction of experiencing only eight percent water loss from its system for the last two consecutive years, which is an exemplary level compared to most municipal systems.

Never-Ending Pursuit of Water Security

During the period of this comprehensive planning process, the City of Huntsville concluded a new agreement with TRA to guarantee the current, relatively low rate for all water purchase made from TRA through 2020. Under this contract, the water price will remain at $0.0283 per 1,000 gallons over the next 13 years. However, starting in 2020 when this extended agreement expires, the price will jump to a

"market rate" of $0.29154 per 1,000 gallons – roughly 10 times as high as the current price.

This situation reflects the current water reality in Texas, where rapid population growth and economic development are placing unprecedented demands on the state's limited water supplies. The availability of surface water is *currently* not an issue for Huntsville (the City already had 10 MGD of raw surface water reserved through TRA with an option for an additional 10 MGD; and City Council authorized securing the additional 10 MGD, which is considered ample for the projected City population). Recent studies have confirmed that adequate water sources are available to accommodate projected needs of area water users through 2050. Huntsville has the further advantage of having both ground and surface water sources. While groundwater capacity is more limited than surface capacity, the rising cost of water is likely to keep groundwater as an active water supply option for the City for the foreseeable future. However, significant new sources of groundwater are not readily available in the immediate vicinity of the city.

Huntsville is fortunate to have access to significant surface water supplies available from the Trinity River Basin. However, the cost of surface water is escalating across Texas.

Given increasing water scarcity in Texas, the City of Huntsville will have to constantly monitor the Texas water market and shifting claims (especially by major public and private users) on available supplies, such as Lake Livingston, to be prepared for a much different water scenario beyond 2020. With water rights becoming more of a saleable commodity than ever in Texas, a water "marketplace" truly has emerged. Water laws in Texas are also evolving as a result, particularly with regard to control and conservation of this increasingly precious resource through new organizational structures (e.g., groundwater conservation districts) that will enable more direct regulation (e.g., minimum spacing of wells).

While the City has made wise moves recently to clarify its water situation, the danger is that the public and private sectors in Huntsville will move forward with a false sense of security about the area's true, long-term water outlook. In sum, long-range surface water availability to meet all future municipal needs is much more of a question mark than a sure thing when so many major players are after the same, ever more limited resource – and with major initiatives such as potential inter-basin water transfers still to be decided in Texas. If a dramatic change was to occur on a

broader level within the state, then the City needs adequate lead time to adjust its own water strategy.

Maintaining the City's Physical Plant

While dramatic changes in the Texas water business are beyond the City's control, where it can have its greatest influence is in the ongoing maintenance and upgrading of its own water treatment and distribution facilities. This is essential both to address typical and unanticipated problems with existing infrastructure as well as to be prepared to serve future service demands. The City currently has a process for identifying "do-able" projects for both the water and wastewater systems over the next three to five years – with a longer-term "wish list" for other needs. Much of the current City water system has been replaced in this way since an aggressive capital program was begun in 1985, but some areas still have aging lines and components that need work.

A next step for City officials and staff is to elevate this effort to a more formal Capital Improvement Plan (CIP) process to support better internal planning as well as the City's annual budgeting and multi-year projections. In particular, through the CIP, the City needs to establish an ongoing infrastructure replacement program since aging segments of the overall system will always need attention before they become major problems requiring high-dollar fixes. The *City of Huntsville Strategic Plan 2006* started the City down the path of creating and maintaining a five-year CIP and associated Debt Management Plan to allow for long-range planning of debt issuance and retirement in support of priority infrastructure improvements.

Another current water-related challenge is to resolve isolated quality issues with the City's tap water, particularly regarding brown water that some residents see on the west side of Huntsville, as well as odor problems in some areas of town.

All of these efforts should be guided by a new, up-to-date Water System Master Plan. The City has various reports from recent years that have addressed supply options, system capacity, projected demands, and improvement needs. But a comprehensive, system-wide technical study based on the most recent available information, including this updated Comprehensive Plan, is an essential next step. The *City of Huntsville Strategic Plan 2006* outlined a three-year process for working toward adoption and implementation of formal utility plans for water, wastewater and solid waste in 2008-09. Rate studies were to be a first step, setting the stage for development of the three major utility plans in 2007-08.

Goals, Objectives and Action Recommendations: WATER

The following goals, objectives and recommended actions were formulated to specifically address the issues and needs outlined above, which were culled from extensive community input as well as deliberations of the Comprehensive Plan Advisory Committee. The goals reflect the overall vision of the community, which may be achieved through the objectives and by acting on the recommendations.

GOAL 6.1: Adequate, reliable water supply and associated infrastructure to serve long-term community needs.

- ***Complete the necessary agreements, studies and capital improvements to secure Huntsville's water needs for multiple decades.***
  1. Prepare a complete Water System Master Plan to reflect current conditions and identify needed improvements to water supply, treatment, distribution and storage facilities to meet projected growth demands through the Year 2025.
  2. Use the City's updated new Water Plan as a guide for completing prioritized water system improvements, including needed expansion in peak water treatment capacity.
  3. Maintain and intensify coordination with the Trinity River Authority and other area agencies, and continue the City's active participation in regional water supply planning efforts overseen statewide by the Texas Water Development Board.
- ***Ensure that water is used efficiently and actively promote water conservation by industries, businesses, public agencies and institutions, and individuals.***
  4. Expand water conservation measures within the City and in all new developments regulated by the City, using various tools, which may include an escalating rate scale tied to the relative volume of water use and/or billing water and wastewater services separately to encourage reduced water consumption.
  5. Involve citizens and local community groups in the creation of awareness programs designed to reduce water consumption and waste, including relatively easy and low-cost measures such as residential water catchment (from roof drainage) for re-use by homeowners on their property.

Wastewater System

Key Facts

- The City of Huntsville Wastewater Services Division oversees the collection and treatment of domestic and industrial wastewater within the community.

SANITARY SEWER SYSTEM: By the Numbers

The City's Wastewater Services Division maintains over 175 miles of sanitary sewer mains, more than 3,500 sewer manholes and over 7,500 sewer connections.

- The City's wastewater collection system includes approximately 190 miles of trunk and lateral "feeder" lines. The largest major trunk lines are 30 inches in diameter while the smallest residential feeder lines are six inches in size.
- The most efficient and cost-effective means of collecting and transporting wastewater to treatment facilities is through the use of gradually sloped, gravity-based sewer lines. Huntsville's rolling terrain requires that the City's gravity-based collection system be supplemented by "lift" stations in various locations to help pump sewage toward the receiving wastewater treatment plant. The City currently has 26 lift stations in operation, 12 in the northern portion of the community and 14 to the south.
- The City operates three wastewater treatment plants which receive raw sewage from their respective service areas. Details on each plant, including their current capacities and percentage utilization of their respective capacities, are presented in **Table 6.1**, and their locations, plus the City's overall wastewater system, are shown in **Figure 6.2, Sewer Infrastructure**. The A.J. Brown plant generally serves the northern portion of the City, including much of central Huntsville; the N.B. Davidson plant serves Huntsville's southern and southeastern sectors, including Elkins Lake; and the newer Robinson Creek plants serves the southwest quadrant of the community, including some areas east of I-45 and generally south of Sam Houston Avenue.

Table 6.1 Wastewater Treatment Plant Characteristics

WWTP	Location and General Area Served	Year Built	Permitted Capacity	Approximate Utilization
A.J. Brown	94 Parker Creek Rd. – serving north Huntsville	1980	4.15 MGD	60-65%[1]
N.B. Davidson	1859 Camellia Rd. – serving south-southeast Huntsville	1976	1.6 MGD	40%
Robinson Creek	4420 FM 1374 – serving southwest Huntsville	2002	2.5 MGD	35%

[1] Subsequent to the Westridge improvement project (approximately 78 percent currently)

Source: City of Huntsville

- No treatment plant expansions are expected to be necessary in the immediate future. With 60-65 percent of its available capacity currently being utilized, the A.J. Brown plant is closest to reaching the 75-percent threshold where planning for additional capacity must be initiated as required by the state's "75-90" rule (construction must be under way by the time the 90-percent mark is surpassed).
- Like most older wastewater collection systems, the City of Huntsville system experiences "inflow and infiltration" of storm drainage and other ground and surface water that can significantly increase the total flows moving through the network of underground pipes. During a rain storm, the amount of "I & I" can range anywhere from one-and-a-half to two times the normal system flow. As a result, Huntsville is also like many other cities in having staff who are dedicated

to aggressively searching for and repairing problem lines to minimize the amount of storm water and groundwater infiltrating into the collection system.

- All wastewater-related activities are performed in accordance with the federal Clean Water Act and related regulations and permit requirements enforced by the U.S. Environmental Protection Agency (EPA), Texas Commission on Environmental Quality (TCEQ), the City's Pretreatment Program and other City ordinances.

Planning for Future System Improvements

The City is in need of an up-to-date and comprehensive Wastewater System Master Plan. The last such engineering study was completed in 1995 (*The Huntsville Plan, A Wastewater System Master Plan, 1995 through 2020*). Planning for and prioritization of future collection system and treatment plant improvements needs to be based on more timely technical analyses and data. This is especially important given the extent of "inflow and infiltration" (I & I) that is impacting the system, raising the scenario of plant operational thresholds being exceeded prematurely, which can attract regulatory scrutiny. Key indicators and projection factors in the 1995 plan need to be revisited and updated as needed, including trends in overall flows and per-capita wastewater generation, seasonal variation, wet-weather fluctuations and peak flows (in part, due to I & I), and current conditions and projected demands by plant and service area. System planning should also take into account recent development activity and the current and future land use pattern indicated by this Comprehensive Plan.

As noted above in the water system discussion, the *City of Huntsville Strategic Plan 2006* calls for preparation and adoption of formal utility plans for water, wastewater and solid waste by 2008-09.

The "75/90" Rule

Texas Commission on Environmental Quality (TCEQ) regulations require that a wastewater permittee commence engineering design and financial planning for expansion when a plant reaches **75 percent** of permitted average daily flow for a consecutive three-month period. The rule further requires that the permittee gain regulatory approval and begin construction of expanded facilities when a plant reaches **90 percent** of permitted average daily flow for a consecutive three-month period.

How Much to Expect?

Because of Huntsville's unique population situation, including both on-campus and off-campus students associated with SHSU plus incarcerated prisoners at various TDCJ sites around the community, predicting future demands for both water and wastewater service is even more challenging than planning for just the general population in an average community. Daytime population – the influx of workers, visitors and commuting SHSU students that come into the community most weekdays – must also be considered as opposed to just the service needs of the City's full-time resident population.

In addition, City staff underscored that Huntsville does not currently have significant industrial activity. However, a major economic development "win" could quickly change the City's public service equation in terms of both water and

wastewater. The City periodically receives inquiries from potential major water users who are investigating potential investments in the area. Even established users can signal potential growth surges at an institutional level – such as is anticipated now with both SHSU and TDCJ – that leave the City limited lead time to adjust to a new level of service demands.

Goals, Objectives and Action Recommendations: WASTEWATER

GOAL 6.2: Adequate wastewater collection and treatment capacity to accommodate long-term growth objectives and projected needs.

- ***Position the City to undertake future capacity-enhancing improvements that will require significant capital investment.***

  1. Prepare a new, up-to-date Wastewater System Master Plan to reflect the current condition and capacity of and expected future demands on the wastewater treatment and collection system. The plan should identify any deficiencies and needed improvements in the system to adequately meet projected growth demands through the Year 2025. As part of this effort, establish a particular focus on and commitment to the City's ongoing efforts to minimize infiltration and inflow ("I and I") problems, which can dramatically impact plant capacity utilization, risk state enforcement attention, and create pressure for plant expansion much sooner than should be necessary.
  2. Design and implement needed wastewater system replacements and upgrades at the appropriate time in conformance with the overall infrastructure planning described in an updated Wastewater System Master Plan.
  3. As part of the Wastewater System Master Plan, develop a strategy to extend the City's gravity-based collection system and thereby eliminate as many lift stations as possible.
  4. For both water and wastewater, use the City's utility master planning – and a more formalized CIP process – to maintain an ongoing program of infrastructure replacement so that older, deteriorating lines and facilities are addressed in a timely manner versus in a reactive, sometimes crisis mode.
  5. Weigh opportunities to reuse treated municipal wastewater effluent for irrigation (e.g., non-edible agriculture, golf courses, parks) to divert higher-quality water away from this use. Any significant program of effluent reuse could involve infrastructure costs (additional piping and likely pumping given local topography) as well as necessary staff and budget for operations and maintenance activities.
  6. Through the City's wastewater system planning, consider applying innovative techniques that have particular cost and environmental benefits, such as the potential use of constructed wetlands for final-stage treatment of

Wastewater Reuse Potential

The area's total water supply is expected to decrease six percent between 2010 and 2060, primarily due to reduced supplies in the Gulf Coast Aquifer because of subsidence district regulations in the Houston metropolitan area. The decline in groundwater supply will result in increased use of surface water to meet future needs. Indirect reuse of wastewater by Houston and the North Harris County Regional Water Authority is recommended at 20 percent of available wastewater effluent to provide 83 acre-feet per year.

wastewater effluent. As has been shown in other cities, such sites can also become a community amenity while serving a basic public service function.

Storm Drainage

Key Facts

- Surface drainage in Huntsville is almost divided in half. The northern portion of the City lies in the Trinity River basin and drains to the north. The southern portion of the City lies in the San Jacinto River basin with drainage to the south. Within these larger river basins, Huntsville is centered over eight watersheds, three of which drain to the north and five others to the south.

Elevating Drainage Initiatives

For too many years Huntsville has deferred significant action to address storm drainage problems and has been operating primarily in a reactive mode. The community is fortunate to not experience widespread flooding. But with the area's topography, various creeks and drainageways traversing the urbanized area, and the presence of development and public infrastructure in some low-lying areas, periodic ponding and flooding – and associated damage to private property and public assets, including local streets – does occur in places.

As an essential first step, the City needs to prepare a comprehensive Storm Drainage Master Plan to document and quantify the nature and magnitude of its drainage challenges and determine an appropriate mix of public improvements and requirements on private development to alleviate drainage problems and minimize flood risk. A key technical and policy issue is whether on-site detention requirements should be more widely implemented in Huntsville, or whether a more regional detention approach would offset this site-by-site burden to some extent – although the extent of smaller watersheds across the community could limit the effectiveness of regional detention. The results of this engineering study and plan would then lead to specific, prioritized capital projects to be included in the City's multi-year CIP. The City also needs to re-evaluate its entire approach to floodplain management and identify critical areas where a more direct public role is needed, such as routinely acquiring drainage easements on private property, where necessary, through the development review and approval process.

Federal Storm Water Quality Regulations

The City of Huntsville was not subject to Phase 1 storm water discharge regulations, as were many large cities, under the Clean Water Act and associated EPA rules. Phase 2 of this significant federal program extended the permitting requirements to many more cities. Huntsville remains exempt based on its 2000 Census population and its designation by EPA as a "non-urbanized" area. However, he City has prepared and implemented plans to minimize pollution potential in storm runoff from specific facilities such as the Municipal Airport, City garage and wastewater treatment plants as required by Texas Commission on Environmental Quality (TCEQ) regulations resulting from the Clean Water Act program.

Goals, Objectives and Action Recommendations: STORM DRAINAGE

GOAL 6.3: Minimized risk to lives and property from flooding through effective storm water management practices.

- ***Establish storm water and floodplain management as essential functions of Huntsville municipal government, with requisite funding and institutional support to ensure effective public improvements and necessary regulation.***

  1. Prepare a Drainage Master Plan to quantify existing and projected drainage needs, document the condition and capacity of current storm drainage infrastructure, determine the City's options and policy approach regarding potential on-site and or regional detention strategies, and identify needed capital improvements.
  2. Investigate the option of forming a storm water utility to generate necessary revenues that would be dedicated to drainage-related public improvements, depending on whether this "enterprise" mechanism would make fiscal and practical sense for Huntsville. The *City of Huntsville Strategic Plan 2006* called for initial planning for a storm water utility during 2006-07, creation of the utility in 2007-08, and implementation of a Drainage Maintenance Program in 2008-09 to pursue a first set of improvement projects.
  3. Amend the Development Code to better control building and impervious cover on development sites, including the ratio of open space on residential sites and the extent of landscape surface on non-residential sites. Also incorporate offsetting incentives for development clustering and increased floor area ratios.
  4. Through the Development Code (and also on publicly-owned sites), require the use of best management practices in collecting, storing and conveying storm water for better drainage and improved quality of storm water runoff.

Solid Waste Management

Key Facts

- The City's Solid Waste Services Division is responsible for the collection and disposal of solid waste for 7,000 residential and 1,090 commercial customers in accordance with standards established by the Texas Commission on Environmental Quality (TCEQ), the U.S. Environmental Protection Agency, and City Ordinances.
- The Residential Waste Division provides service to approximately 7,000 residents. Customers receive twice per week garbage collection services and once per week yard waste and brush collection on a call-in basis as part of a customer's standard residential service. Four three-person crews, including drivers, are devoted to collection activities.
- The Commercial Collection Division provides services for approximately 1,100 customers (including businesses, apartments, and mobile home parks) through the use of dumpsters, open-top roll-off containers, and compacting roll-off

containers. Rates are based on the size of the container and the number of pick-ups per month.

- The Solid Waste Disposal Division is responsible for the operation of the City's solid waste transfer station. This facility is the collection point for all municipal solid waste for the City of Huntsville, as well as TDCJ, SHSU, and areas throughout Walker County. Tractor-trailer rigs transfer the solid waste to a permitted landfill site for proper disposal.
- The City of Huntsville is under contract for municipal solid waste disposal with Polk County Solid Waste Management Center Facility (PCSWMCF). The current five-year contract expires September 30, 2008.
- The Recycling Division is responsible for the operation of the City's recycling drop-off center for collection of clear and brown glass, paper, newspaper and magazines, plastic, cardboard, aluminum and steel cans, and tennis shoes for the City of Huntsville and areas throughout Walker County. The drop-off center is located at 590 IH 45 North, with Monday-Saturday hours from 7:30 a.m. to 5:00 p.m.

Maintaining Quality Service While Assessing Long-Term Options

Garbage collection is a basic City function that, unlike some others, involves direct service to tax-paying residents and businesses every week. For elected officials, solid waste management can involve various political "minefields" and sensitivities for constituents, including basic rates for service, frequency and reliability of the service, and extent of recycling options (especially the desire by some for curb-side pickup versus having to go to a drop-off location). For instance, many large and small communities have struggled with the transition from traditional crew-based garbage collection to the use of automated collection vehicles. Huntsville still provides back door pick-up for some customers, the potential loss of which is often a rallying cry for residents opposed to automation, as is the difficulty for some residents of maneuvering larger and heavier garbage containers to the curb.

As with Huntsville's long-term water situation, looking beyond current contract arrangements for disposal of the City's solid waste can be daunting considering more limited landfill options in Texas due to stepped-up regulation, plus the higher cost environment that has resulted. This causes many communities to revisit, or consider for the first time, the "pros" and "cons" of either increased or full privatization of core solid waste services. Among the potential "cons" are the likely service changes discussed above (automated collection, etc.) that a private provider would likely insist upon to achieve an acceptable cost structure for the City. Even if the City continues to operate its own garbage collection system in

Increased Utilization of the Trash Into Plowshares (TIP) Warehouse

This innovative program being operated in the City to accept, free of charge, excess and recycled building materials offers a proactive opportunity to reduce the solid waste needs at the landfill. At the same time, this material offers benefits for construction of attainable housing in Huntsville, helping to meet the affordability needs of residents.

coming years, the cost-savings offered by automation will have to be weighed against perceived reductions in the level of service customers receive.

As noted earlier in this chapter, the *City of Huntsville Strategic Plan 2006* outlined a three-year process for working toward adoption and implementation of formal utility plans for water, wastewater and solid waste in 2008-09. The solid waste planning process will provide the appropriate opportunity and forum to weigh the options and issues summarized here as the City looks ahead to its near-term and long-term solid waste disposal options.

Goals, Objectives and Action Recommendations: SOLID WASTE

GOAL 6.4: Dependable solid waste collection and disposal services that balance cost, efficiency and environmental objectives of City government and residents.

- ***Prepare for a comprehensive review of the City's intermediate and long-term solid waste management, waste reduction and recycling strategies through drafting of a new Solid Waste Management Plan.***
  1. Update the City's Solid Waste Management Plan, particularly given rapid anticipated growth in SHSU enrollment, potential TDCJ expansion in the area, and other ongoing economic development.
  2. Continue the City's active involvement in the Solid Waste Management Committee of the Houston-Galveston Area Council. H-GAC provides a forum for coordinated public and private sector discussion and response to the significant, ongoing regional challenge of solid waste management, including associated waste minimization/reduction, recycling, and environmental enforcement initiatives. The City has also benefited from grant programs administered by H-GAC, including to fund its own *Local Solid Waste Management Plan (2001-2020)*.
  3. Through the Recycling Division, continue coordination with Walker County and other area organizations such as Keep Huntsville Beautiful and Walker County Master Gardeners on public education efforts and programs/events that help to reduce the amount of disposed waste, increase recycling participation, and keep the community cleaner.

Public Safety Services

Key Facts

Police

- The Huntsville Police Department (HPD) currently consists of 56 staff, 49 of which are certified officers. Current positions include a chief, lieutenants, sergeants, School Resource Officer (SRO) Sergeant, senior police officers,

detectives, patrol officers, SROs, administrative coordinator, evidence technician, animal control officer, parking enforcement official, data control clerks, and a receptionist. HPD also maintains a two-person bike team.

- All police officers have, at a minimum, a Texas Basic Peace Officer's license and engage in ongoing, mandatory training to maintain their license and achieve higher certification.
- HPD operates from 1220 11th Street. The HPD facility houses a reception/records area, patrol briefing and work area, training room, interview room, CID area, evidence office and secured evidence vault, and several other offices. HPD also has an off-site firearms range. The City Service Center, along SH 75 in north Huntsville, is utilized as a patrol vehicle staging area and impound lot for seized vehicles.
- As shown in **Table 6.2**, HPD call volumes in each of the last five years have generally been in the 40,000-44,000 range, with the lowest and highest levels actually reached in consecutive years (39,679 in 2002 and 43,975 in 2003).
- HPD is actively involved in several community relations and policing programs including: Identikit/fingerprinting, fairs and tours, public speaking engagements, and a Citizens Police Academy.

Table 6.2 Police Department Call Statistics, 2002 through 2006

Year	2006	2005	2004	2003	2002
Call Volume	42,023	41,428	42,455	43,975	39,679

Source: Huntsville Police Department

Fire

- The Huntsville Fire Department (HFD) consists of seven full-time employees.
- HFD has three fire station locations, from which it responds to calls across the community and also helps to cover Walker County's 790 square miles through mutual agreements with the following volunteer fire departments: Crabbs Prairie, Pine Prairie, Riverside, Thomas Lake Road, Dodge, and New Waverly.
- The following equipment is housed at the three fire stations:

Station #1 (Daisy Lane)
- Engine
- Tanker truck
- Ladder truck
- Haz-Mat trailer
- Dive trailer
- Fast Attack vehicle

Station #2 (Sam Houston)
- Engines (2)
- Ladder truck
- Rescue vehicle
- Fast Attack vehicle

Station #3 (Hwy 75)
- Engine
- Tanker/Engine
- Fast Attack vehicle

- As shown in **Table 6.3**, HFD call volumes over the last five years have varied from approximately 1,100 calls per year (in 2002 and

Table 6.3 Fire Department Call Statistics, 2002 through 2006

Year	2006	2005	2004	2003	2002
Call Volume	1,324	1,522	1,275	1,136	1,185

Source: Huntsville Fire Department

2003) to a high of 1,522 calls in 2005.

- The City has an Insurance Services Office (ISO) rating of "3" based on station locations, staffing, equipment and water availability.

The *City of Huntsville Strategic Plan 2006* spelled out the following multi-year initiatives related to the City's public safety services:

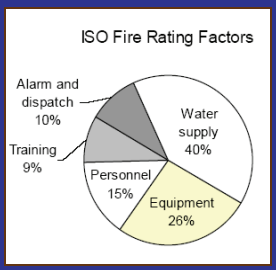
- With regard to police staffing, the City committed to a phased program of adding a certain number of new positions each year. The *Strategic Plan* specifically cited as a goal: "… to provide more community-oriented policing versus the current low staff levels that are more reactionary." The plan for 2006-07 was to add three police officers (one narcotics officer, one patrol officer and one lieutenant) to continue moving toward a "more proactive" policing stance and also to "fill gaps left in the loss of the local narcotics task force." Projections for future budget cycles also included adding up to three police officers per year during 2007-08, 2008-09, 2009-10, 2010-11 and 2011-12 until desired police protection service levels are achieved.
- The City also committed to add up to two full-time firefighters per annual budget cycle between 2007-08 and 2010-11 until a goal of 12 full-time firefighters on staff is met with the addition of a twelfth firefighter in 2011-12.
- The City intended to explore, during 2007-08, the option of creating a full-time Emergency Management Coordinator position. The idea is to fund this position jointly between the City and Walker County so the individual could serve both City and County. If this arrangement comes about, the City expects to fill this new position during 2008-09.
- Two key facility projects – a new North Fire Station and a Joint City-County Emergency Operations Center -- were to be pursued over roughly a five-year period, starting with feasibility studies in 2006-07. This would be followed by land purchases for both facilities in 2007-08 and extension of utilities in 2008-09. For the Emergency Operations Center, design would occur in 2009-10 and a construction contract in 2010-11 to enable opening of the facility in 2011-2012 (in time for any citizen sheltering needs during the 2012 hurricane season). The North Fire Station was placed on a slightly faster track, with both design and construction projected to occur during 2009-2010 to allow for a ribbon cutting event during the City's 2010-11 budget cycle.

Upgrading Public Safety Assets

As described above, the City of Huntsville has already committed to gradual expansion of its Police and Fire departments, as well as potential staffing and facility initiatives in coordination with Walker County, to ensure adequate service capabilities, responsiveness and geographic coverage in coming years.

The **Insurance Services Office (ISO)** collects information on public fire protection and analyzes the data using a Fire Suppression Rating Schedule (FSRS). ISO assigns a Public Protection Classification (PPC) from 1 to 10. Class 1 represents the best public protection, and Class 10 indicates less than the minimum recognized protection.

By classifying a community's ability to suppress fires, ISO helps communities evaluate their public fire protection services. The program provides an objective, nationwide standard that helps fire departments in planning and budgeting for facilities, equipment and training. Most importantly, by helping communities to secure lower fire insurance premiums based on better citizen and property protection, the PPC program provides incentives and rewards for communities that choose to improve their firefighting capabilities and services.



Comparisons against several national benchmarks confirmed this staffing need for both police and fire services. A survey conducted by the FBI of cities with a population between 10,000 and 24,999 showed an average of 1.8 full-time law enforcement officers per 1,000 citizens (*Crime in the United States 2002, Uniform Crime Reports*, Federal Bureau of Investigation). While Huntsville had a 2000 Census population of 35,078, the lower population range (10,000-24,999) was considered more appropriate for this benchmarking exercise after considering the roughly 8,600 individuals who were included in the 2000 Census count but actually were prisoners housed in local TDCJ facilities (i.e., not in need of HPD services). SHSU students who treat Huntsville as their primary residence (as opposed to a "home" address elsewhere) also account for a portion of the official Census population. But university students in the community, whether living on or off campus (estimated by SHSU as approximately 3,400 and 7,400 respectively in Spring 2006), may require HPD assistance at some point while in Huntsville or be subject to traffic, parking or other law enforcement activities of the municipal police department.

Based on this FBI standard and somewhat smaller city size, HPD should have 63 full-time law enforcement officers. Therefore, based on the current staffing of 49 officers, the City is already in need of 14 more officers. If the City desires to maintain such a standard in the future to meet increasing service demands, then it will need to follow through with the necessary budget resources to hire additional employees concurrent with population growth (including anticipated growth in SHSU enrollment to the 20,000 range by 2010). Additional facility space and equipment may also be required sooner than originally thought.

The National Fire Protection Association (NFPA) conducted a survey of fire departments for U.S. fire experience. The survey included data pertaining to a ratio of career firefighters per 1,000 residents. These rates were based on data reported by the NFPA and do not reflect recommended rates or a defined fire protection standard. However, they do provide information for comparisons with fire departments in similar sized communities. According to the survey of fire departments protecting a population of 25,000 to 49,999 residents, the median ratio of career fire fighters (those who work 52 to 60 hours per week) per 1,000 people was 1.60. Based on a 2000 Census population of 35,078, Huntsville should have 56 career firefighters under this informal comparison. A smaller city size was not used for the fire staffing comparison because HFD personnel sometimes respond to emergencies beyond the City's incorporated area and can also be called into action should a major incident occur on the SHSU campus or at a TDCJ facility. It is also important to note that the rates for a particular size of community may differ due to variations in local circumstances and policies.

The **National Fire Protection Association (NFPA)** was created in 1896 as a standards-making body. Today, over 66,000 fire safety professionals belong to the NFPA, the world's largest and most influential fire safety organization. NFPA has published almost 300 codes and standards with the mission of preventing the loss of life and property. Topics include fire prevention equipment, extinguishing systems, inspection, residential and commercial dwellings, safety of flammable gases, and the very important National Electrical Code.

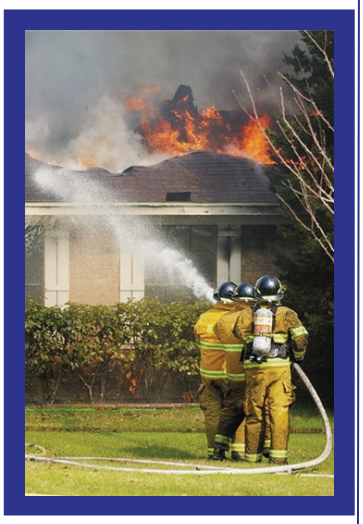
One consequence of current staffing limitations, as noted by Public Safety personnel, is that fire code enforcement for existing structures and businesses, which occurs through periodic site visits, is sometimes delayed as this activity is a part-time responsibility of personnel involved in other basic duties.

Goals, Objectives and Action Recommendations: PUBLIC SAFETY SERVICES

GOAL 6.5: Reliable, cost-effective public safety services that assure the security of residents and businesses.

- ***Fulfill the mission and essential responsibilities of the City's key public safety and service functions through adequate budget and community support.***

  1. Continue the gradual, phased expansion of Huntsville Police Department (HPD) and Fire Department (HFD) staffing in a way that is affordable to the City but also is responsive to any shorter-term crime, public safety and property protection concerns. The Public Safety Department intends to seek City Council support for: (1) the addition of 13 sworn police personnel and two civilian personnel over the next seven years, starting with Fiscal Year 2007-08; and (2) the addition of 15 firefighters over the same seven-year period.
  2. Anticipate and be prepared to address any HPD facility and/or equipment needs that are necessitated by increased staffing. The department's existing space has recently been renovated and is believed to suffice for the next five years. Current equipment needs identified by HPD include: digital evidence gathering/analysis equipment, conversion of VHF to UHF radio, and mobile computers.
  3. Complete the design and construction of a fourth HFD station (already planned for north Huntsville in the vicinity of Fish Hatchery Road). Then monitor future needs for additional station sites or upgrades to existing stations in order to sustain and improve levels of service, especially as development continues and land use patterns potentially shift over time. HFD has also identified the need for another engine, ladder truck, and fast attack vehicle for the new north station (and any future stations would also require associated staffing and equipment).
  4. In coordination with Walker County, work toward the establishment of one, full-time Emergency Management Coordinator and support staff for both City and County to eliminate duplication, as well as the eventual construction of a joint Emergency Operations Center as a dedicated facility for the long term. Both City and County should also continue funding the migration of police and fire functions to a compatible regional communication system that would also link SHSU police, TDCJ, and other area institutions and emergency responders.



5. Explore the technical requirements and potential cost of incorporating additional technology tools into fire and police practices (e.g., HFD mentioned the value of having access to City mapping information, via on-board laptop, while en route to a fire to view the layout and conditions of the subject property and surrounding properties, as well as fire hydrant locations and pressure in the area).

Public Facilities

Key Facts

- The City's main administrative functions and personnel are located primarily at City Hall, 1212 Avenue M, and the Service Center facility at 448 State Highway 75 North.
- Police and fire facilities and space needs are addressed elsewhere in this chapter, and parks and recreation facilities are covered in depth in **Chapter 5, Parks & Recreation**.
- Another significant facility managed by the City is its Municipal Airport. **Chapter 3, Transportation**, includes a summary of ongoing planning and improvements for the airport.

Library

- The outlook for the Huntsville Public Library facility was the subject of considerable public discussion during the comprehensive planning process. The library is located at 1216 W. 14th Street. From this relatively small site and building, the library provides a wide variety of services to the people of Huntsville and Walker County. In addition to reference assistance, these services and programs include: Books by Mail (free for homebound patrons), a literacy program, outreach to nursing home residents, genealogy research, and access to tax forms.
- The library staff currently consists of seven full-time and four part-time employees.
- The library's collection of resource materials exceeds 64,000 items of various media forms.
- The City established a Library Board in 1970, which currently includes six resident appointees.
- The library also offers many volunteer opportunities for citizens, including adult literacy, genealogy and general operations.

Addressing Space Needs of City Government

City of Huntsville officials and management are already in the process of assessing and considering options for how best to house essential City departments and functions in coming years. This is proceeding partly from an efficiency and

effectiveness standpoint, but also due to certain buildings being outmoded, offering inadequate space, or having maintenance issues that may be too costly to tackle through renovation.

With regard to the City's popular public library, Huntsville's population has more than doubled over the nearly 40 years since the library first opened. Not surprisingly, one comment heard repeatedly from citizens throughout the public outreach activities for this Comprehensive Plan was that the City needs another library facility – or it needs to expand at the existing location, if feasible. A library building fund accepts private donations from local organizations and individuals toward the development of a new library facility.

Additionally, Huntsville has had ongoing discussions and debate as to whether some type of multi-purpose community facility should be built. Such facilities can include a conference center or meeting component, including for wedding receptions and other community events; a cultural/performing arts aspect; a recreational facilities and programming function; and various other potential options within a "flex space" design and layout.

The Municipal Airport is addressed in more depth in **Chapter 3, Transportation**, but was also mentioned by some within the context of this chapter as another important City asset that needs to be managed as such (both its facilities and surrounding property), not be neglected (i.e., receive more ongoing attention than just basic maintenance), and be administered from a more prominent position within the overall City organizational structure.

The *City of Huntsville Strategic Plan 2006* already offers a multi-year strategy for addressing the City's administrative space situation, as well as the particular library concern of many residents:

- A Facilities Management Study, slated for the 2007-08 timeframe, is to assess available space and potential building improvement needs based on a parallel management review of City functions, staffing and workflows. The study results are expected to lead to implementation and budgeting decisions for the 2008-09 budget cycle and future fiscal years.
- The *Strategic Plan* lays out a path toward ribbon cutting on a new or renovated/expanded library facility by 2011-12. This would begin with funding of a Library Feasibility Study in 2007-08 (to consider possible expansion of the current facility or construction of a new facility); consideration of implementation and funding options in 2008-09 based on the feasibility study findings and recommendations; and actual funding of preparatory steps during the 2009-10 and 2010-11 budget cycles, including potential site selection and land

purchase/acquisition if a new facility is to be built, planning of utility extensions, and design and construction preparation.

Goals, Objectives and Action Recommendations: PUBLIC FACILITIES

GOAL 6.6: Adequate community facilities to house essential City functions and also enrich the experience of living in Huntsville.

- ***Through appropriate space and management studies, determine the construction and capital funding commitments the City must make in coming years to realize its community facilities vision.***

1. Prepare a comprehensive Public Facilities Master Plan to assess existing building conditions and address basic space needs for City administrative staff plus specialized functions such as police and fire, as well as to determine the City's options and potential direction on a new or expanded public library facility and some form of multi-purpose community center and/or conference/cultural facility.
2. Work toward either a second library location or an expanded main library that is consistent with the Huntsville Public Library's stated goal of providing "a central facility adequate to meet the needs of the community." Consideration of the City's options and eventual strategy should be closely coordinated with downtown planning and enhancement efforts and neighborhood protection measures, particularly regarding parking provision if the City chooses to expand the current library.
3. Continue coordination of library services and offerings between Huntsville Public Library and the Sam Houston State University library system as this is a key advantage of hosting a college or university within a community.

"The public library has been historically a vital instrument of democracy and opportunity in the United States … Our history has been greatly shaped by people who read their way to opportunity and achievements in public libraries."

Arthur M. Schlesinger (1888–1965)

Future Development and Growth Management

Through the Future Land Use Plan in **Chapter 2, Land Use & Community Character**, this Comprehensive Plan identifies a variety of desirable growth areas that are all within, or in close proximity to, the community's central "triangle" of I-45 on the west, SH 19 on the east, and FM 2821 on the north. Focusing new residential and non-residential development in these areas, along with supporting public facilities, would ensure contiguous growth in locations where existing City utilities are generally readily available for extension. This growth strategy, along with a parallel in-fill development and redevelopment push within the city limits, envisions the City attempting to guide future fringe development as best it can within the Texas statutory framework.

When the City simply reacts to development proposals, it is placed in a position of responding to sporadic and unplanned development. Serving scattered development is much more costly than proactively planning for sensible, contiguous growth. Thus it makes sense for Huntsville to adopt a plan that rationalizes its growth, thereby better managing public resources while meeting residents' and business needs. Adoption and steady implementation of this Comprehensive Plan will help to establish a policy framework for guiding future growth in a manner that is wise and fiscally responsible.

The intent of the policies and principles in this Comprehensive Plan is to encourage relatively compact and more efficient development patterns, thereby minimizing adverse fiscal impacts caused by an outward, sprawling growth pattern. For Huntsville, sprawl has been a relatively low-profile issue, even as the City annexed extensive areas to the south and west across Interstate 45 in the last 20 years. There are indications of a potential sprawl growth pattern around the edges of the community, albeit not of a scale as to cause significant alarm at this point. However, an increasingly spread-out development pattern would have implications for future public health, safety and welfare in terms of increasing traffic on inadequate roadways, higher utility rates, and the potential tax burden resulting from duplication of public facilities and long-term maintenance of a more extensive roadway network and water and wastewater systems. This is particularly relevant and important when a community is confronted by limited fiscal resources and increasing demands for service. It is essential for the community, through this Comprehensive Plan, to anticipate the trend and likely pattern of future growth and to put the necessary policy guidance in place to effectively manage it.

In addition to its fiscal consequences, sprawl results in the degradation of natural resources by prematurely committing vast areas to the impacts of urban development. Phased, orderly growth mitigates this situation by comprehensively addressing the impacts of development on natural systems. Leap-frog development – such as the large-lot, rural subdivisions that have developed around the periphery of Huntsville – is piecemeal in nature and detrimental to any type of comprehensive framework.

Another significant aspect of sprawl is the tendency toward strip commercial development, such as that seen along portions of the Interstate 45 corridor and other major arterials in Huntsville. This form of development can have a multitude of negative impacts, including a premature increase in land values and, hence, a depreciation of values elsewhere in the City, increased pressure for inefficient extension of utilities, a potential for erosion of downtown businesses, more widespread commercial vacancy and derelict buildings, traffic congestion and safety concerns, and reduced community aesthetics unless development along such

Walker County Community Wildfire Protection Plan

Wildland fire is an integral component of the Walker County ecosystem. For millennia low-intensity fires have maintained the health of the area's native forests and grasslands. Changes in land use and fire suppression have significantly altered the composition and structure of native vegetation in these fire-prone ecosystems. In many situations the risk associated with a wildfire can be dramatically reduced through actions such as public outreach, fuels reduction around structures, and improving local infrastructure.

The City of Huntsville is participating in this initiative with Walker County, the Texas Forest Service and the Healthy Forests Initiative of the U.S. Forest Service. The purpose of the plan is to protect human life and reduce property loss due to wildland fire. The City has an important role to play through its guidance of growth and setting of development standards in the ETJ. The plan is expected to be finalized durina 2007.

corridors is held to high standards. While many of these impacts may be handled by regulatory means – assuming annexation and the imposition of zoning – land use policies offer an approach to prevent such problem, rather than attempting to remedy them after the fact.

The most efficient pattern of growth for the community will be one that occurs sequentially from previously developed areas and that is closely coordinated and timed to occur concurrent with adequate service provision. Haphazard development that occurs in an unplanned and uncontrolled manner is inefficient and undesirable. Rather, the community must pursue a growth sequencing strategy, which provides direction to capital improvements and public services planning.

The primary tools available to the City to manage its future growth are annexation, subdivision regulation, utility extension policies, and, to a lesser extent, zoning since municipal zoning is not permitted within the extraterritorial jurisdiction (ETJ) of Texas cities. Therefore, in order to effectively manage the pattern of future development within growth pressure areas, the City must use its annexation authority – which Huntsville has done repeatedly in recent decades, and which was wise given more recent restrictions on municipal annexation authority. Annexation extends the City's zoning authority and, hence, the ability to determine the amount, type, scale, pattern – and, to some extent, the timing – of development within new or projected growth areas. This is not to say, however, that these areas are to be entirely restricted from any type of development. Instead, the intent is for the City to have the ability to make decisions about the pattern of future use in such areas, and especially its fiscal and public service implications.

The *City of Huntsville Strategic Plan 2006* already calls for the City to work toward adoption of a three-year Annexation Plan as required by Texas Local Government Code Chapter 43 prior to significant, City-initiated annexations. The 2008-09 timeframe is targeted for plan adoption to position the City to proceed with priority annexations identified in the plan.

It is also advocated by this plan that appropriate instruments be put in place, through incentives and resolution of common development and redevelopment constraints, to allow and encourage infill development on vacant or underutilized parcels. Over time, there will also be an increased propensity for redevelopment, which should also be accommodated and encouraged. This would help maximize the efficiency of service provision by intensifying the use of existing and available infrastructure in previously developed areas of the community.

Extent of Extraterritorial Jurisdiction (ETJ)

The extraterritorial jurisdiction of a municipality is the unincorporated area that is contiguous to the corporate boundaries and that is located within a certain distance of those boundaries. The designated distance depends on the municipality's population size. The ETJ extends **two miles** from the city limits of a municipality with 25,000 to 49,999 inhabitants, which is the population range that applies to Huntsville.

The ETJ may expand beyond the distance limitations to include additional area contiguous to the existing ETJ if land owners in the area request the expansion.

Texas Local Government Code, Chapter 42
Extraterritorial Jurisdiction of Municipalities

Goals, Objectives and Action Recommendations: FUTURE DEVELOPMENT and GROWTH MANAGEMENT

GOAL 6.7: A fiscally responsible, environmentally sound growth pattern.

- ***Recognize the key role of potable water service, centralized wastewater systems and roadway improvements in growth management and guidance efforts, together with other infrastructure policies and development regulations and incentives.***

1. Maintain an ongoing annexation planning program to monitor if and when the City should adopt a new or amended Three-Year Annexation Plan per the requirements of Chapter 43, Texas Local Government Code, in order to initiate annexation proceedings for strategic areas in a timely, predictable manner. The plan should incorporate policies and criteria similar to those appearing at the end of this section. Any annexation proceeding that involves properties or areas that would appear to go against the City's general goal of focused, contiguous urban development should be treated as an exceptional case, and non-compliance with any of the established policies or criteria must be justified.
2. Coordinate the City's capital improvements planning with the Annexation Plan to ensure the availability and capacity of "full municipal services" within two and one-half years from the date of annexation as required by statute.
3. Develop a locally-appropriate fiscal impact model and formal process for assessing the feasibility of providing "full municipal services" so that the anticipated revenues and up-front and ongoing costs to the City of each annexation proposal may be carefully weighed.
4. Evaluate and determine the City's best approach for potential infrastructure and service needs in the ETJ given the extent of non-municipal service providers and rural systems in Walker County, which has implications for City codes and standards (urban versus rural) and future annexation activity. Also, continue to pursue the vision of a truly regional water system whenever mutually beneficial alliances and service agreements are possible between the City and other entities.
5. Set parameters on the City's utility extension practices so that provision of valuable public services and infrastructure outside the current city limits is only done when consistent with the long-range growth pattern and objectives reflected in this Comprehensive Plan and related City plans, codes and standards.
6. Use the Thoroughfare Plan and Future Land Use Plan as tools to identify areas where transportation access will spur development activity. Coordinate alterations and expansions to the water and wastewater systems with demands appropriate for the designated land use.

Annexation Potential

Home Rule cities like Huntsville, in any given year, may annex acreage equal to 10 percent of their current incorporated area. If the city does not annex any territory, the acreage allowance may be carried forward and combined with the 10 percent allotment for the next year. This cumulative acreage amount is capped at 30 percent of the city's existing geographic area.

7. Use the Thoroughfare Plan during the subdivision and site development review process to ensure functional integration of new streets with the expansion and extension of properly sized wastewater collection lines.
8. Continue to require high standards for water, wastewater and storm drainage infrastructure in new developments that are regulated beyond the current city limits to avoid inheriting problem situations as the City grows. Also, in coordination with the City's ongoing annexation planning, determine whether rural versus urban infrastructure standards should be allowed in certain portions of the ETJ (e.g., curb and gutter, sidewalks, street lighting, storm sewers, etc.) where the City seeks to discourage urbanization and has limited interest in annexing over time.
9. As recommended elsewhere in this Comprehensive Plan, evaluate and amend the City's development codes as appropriate to eliminate clear barriers to infill development while setting adequate standards and protections to maintain neighborhood and community character.
10. Incorporate criteria into the City's capital improvements planning that will assign a higher priority to capital projects that will benefit undeveloped sites conducive for contiguous development and desirable densities to support good stewardship of the City's past and future infrastructure investments and public service provision.
11. Continue to monitor trends and practices in the building code and development arenas related to "green" building standards (including for energy efficiency, water conservation, waste reduction and recycling, etc.) to ensure that the City's codes promote and do not discourage such activity in Huntsville.

Annexation Policies and Criteria

As a general policy statement, annexation should occur prior to or concurrent with development to properly plan for and coordinate the extension of adequate public facilities and services. The following policies should be considered in guiding the City's annexation decisions:

Policies

- Annexation should occur in compliance with the policies of this plan.
- The long-term pattern of growth should be managed in a fiscally responsible manner, while balancing market demands and economic development objectives.
- Future growth should be coordinated with infrastructure and public service investments such that the pattern and timing of development will be sustainable for the City over the long term, both fiscally and from a service capacity standpoint.

- To maximize the use and efficiency of existing City infrastructure, growth should first be directed toward vacant parcels and underutilized lands before growth areas beyond the current city limits are considered for annexation.
- Criteria should be established to consider the suitability and fiscal benefits of each proposed annexation to the City.
- In addition to formal fiscal impact analysis of every annexation proposal, the City should consider potential intangible benefits of annexation (and costs of inaction), such as the ability to extend the City's zoning authority to new growth areas.
- Where near-term annexation is not feasible, the City should consider negotiated agreements in lieu of annexation to provide for potential interim service arrangements, cost-sharing or fee mechanisms, and adherence to the City's development standards.

Criteria

- The subject parcel is within a designated growth area as indicated on the City's adopted Future Land Use Plan and will not create obstacles to successful implementation of a suitable roadway network consistent with the City's adopted Thoroughfare Plan.
- The land proposed for annexation abuts the City's existing water and wastewater service areas and can be immediately served – or served within two-and-a-half years with manageable and affordable capital improvements.
- The land can be adequately served by municipal police, fire and emergency medical services, and the City can readily assume maintenance of existing roads, street lights, parks, and any publicly-owned facility, building or other service in accordance with the "full municipal services" provisions of Chapter 43, Texas Local Government Code.
- All public improvements necessary to serve the annexed area will be constructed and financed in accordance with City standards and policies.
- As determined by the City, the actual financial impact of expanding the incorporated area and then providing basic services, maintaining public facilities, and making other necessary public improvements is favorable and sufficiently offsets the associated costs to the City.