

Our Great Region 2040 Strategy Playbook

Economic Development



Environment



Healthy Communities



Housing



Transportation



Resiliency



Our Region, A **Great** Region

Our Region is the 13 counties and 134 cities and towns within the 12,500-square mile Houston-Galveston Area Council service area. It is the place that more than 6 million of us call home. By 2040, forecasts predict that we will add another 3.7 million residents to this total, along with 2 million more jobs.

Our Region excels by many important measures – a robust economy, diverse population, abundant natural assets, and a variety of distinctive communities. But there are also concerns—some immediate and some longer term—that we will need to address if we are going to be a Great Region in 2040.



What can we do **today** to ensure an even better **tomorrow**?



Our Great Region 2040

Our Great Region 2040 is a high-level plan whose aim is for Our Region to be one of the world's greatest places to live, work, and succeed, as defined by measurable goals, by the year 2040.

Strategy Playbook

The *Strategy Playbook* documents potential voluntary strategies individuals, organizations and/or local governments can pursue to implement the vision, goals, and objectives of *Our Great Region 2040*.

Each of the strategies in the playbook includes a description of the strategy, the benefits of implementing the policies, what type of strategy it is, implementers, possible funding sources, implementation tools, and model policies.

The strategies in the *Strategy Playbook* denoted as “Priority Strategies” are those strategies that are contained in the *Our Great Region 2040* plan. They are strategies that reflect the priorities heard during the planning process. As each community in Our Region is unique, additional strategies that may be of interest to Our Region are also contained within this *Strategy Playbook*.

This *Strategy Playbook* includes strategies that address the following Big Ideas of *Our Great Region 2040*:

	Economic Development	Page 4
	Environment	Page 32
	Healthy Communities	Page 90
	Housing	Page 120
	Transportation	Page 140
	Resiliency	Page 174

Economic Development



Improve the opportunities for lifelong learning by scaling up and coordinating efforts, from quality early childhood education to GED and community education programs to skills training for seniors.

Learning should be a continuous process, with Our Region’s residents having educational opportunities that allow them to learn and grow throughout their lifetime. Providing education and training opportunities to people of all ages and abilities will improve the competitiveness and employability of Our Region’s workforce, while enhancing overall quality of life. Programs offered can be tailored to meet the needs of people at different stages of life:

- **Early Education:** High-quality early education lays a foundation for individual and regional success, with studies showing that childhood education generates a 7 – 10% annual return on investment.
- **Post-Secondary Education:** Post-secondary educational programs (colleges, universities, vocational schools, etc.) prepare students for specialized, higher-paying careers in high-demand fields.
- **Professional Development:** In an evolving economy, older adults must learn new skills to remain competitive; continuing education courses help them learn marketable skills suitable for today’s workplaces.
- **Senior Learning:** Lifelong learning programs help Our Region’s senior populations remain mentally active, improving their health, quality of life, and longevity.

The more Our Region’s residents learn through diverse educational offerings, the better their mental, physical, and financial health will be.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Creates a competitive, well-trained regional workforce • Enhances economic competitiveness • Improves quality of life 	<ul style="list-style-type: none"> • Program 	<ul style="list-style-type: none"> • School Districts • Colleges and Universities • Non-Profits • Regional Workforce Board

Possible Funding Sources

- The [Early Head Start Program](#) (U.S. Office of the Administration for Children and Families) is a federal initiative that provides additional educational opportunities to low-income children ages five and under.
- [Social Services Block Grants](#) (SSBG) (U.S. Dept. of Health & Human Services) provide state agencies with funding that supports a variety of social services, including employment assistance.
- The [Child Care and Development Fund](#) (U.S. Dept. of Health & Human Services) provides state agencies with funding to support childcare services for families whose children require care while they are working, seeking employment, or receiving job training or education. Appropriate state agencies use these funds to provide vouchers to families in need of child care.
- [Title I Grants](#) (U.S. Dept. of Education) provide financial assistance to local education agencies and schools with high numbers (or high percentages) of children from low-income families, helping ensure that all children meet state academic standards.
- The [Bernard Osher Foundation: Osher Lifelong Learning Institutes Grant Program](#) helps colleges and universities develop and strengthen initiatives that offer non-credit courses designed specifically for students 50 years of age or older.
- Employment and Training Administration [YouthBuild Grants](#) provide funding to organizations to oversee the provision of education, occupational skills training, and employment services to disadvantaged youth in their communities while performing meaningful work and service to their communities.

Implementation Tools	
<ul style="list-style-type: none"> • Pre-K Programs • Apprenticeship Programs 	<ul style="list-style-type: none"> • Senior Community Service Employment Programs • Community College Vocational Training Programs

Model Policies

- The City of Houston [Mayor’s After-School Achievement Program](#) gives non-profits and schools the opportunity to provide after-school programming for elementary and middle school-aged students. Participating schools and non-profits set their own curricula in collaboration with students, teachers, parents and program partners.
- [East Early College High School](#) (Houston ISD) prepares students for higher education, offering rigorous coursework aimed to provide students with up to 60 hours of college credit upon graduation.
- [The City of Houston: Youth Councils](#) provide young adults with an opportunity to be actively involved in local government, helping them learn about (and influence) city policies.
- [Workforce Solutions](#), managed by the regional workforce board, provides comprehensive human resource services for businesses and residents throughout the Houston-Galveston region.
- The [State of Oklahoma Universal Pre-K Program](#) has offered universal access to pre-kindergarten since 1998. Participation by both students and school districts is voluntary, but approximately ¾ of all four-year-olds in the state are enrolled in a pre-K program. Stringent standards ensure that students receive a high-quality education that provides lifelong benefits.
- [Osher Lifelong Learning Institutes](#) offer non-credit educational courses for adults aged 50 and older. The program, funded by the Osher Foundation, is housed at colleges and universities nationwide.
- The [Neighborhood Resource Center of Greater Fulton](#) (Richmond, Virginia) offers educational programs and other resources to a low-income, underserved urban neighborhood. A Montessori preschool with sliding-scale fees is open to neighborhood children, and after-school programs are also available. GED courses, tutoring, computer classes, and other resources are offered to adults.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents have access to education and training opportunities to allow them to realize their full potential • Our Region has a diverse economy and skilled workforce that support businesses, innovation, and entrepreneurship • Our Region’s residents have access to job opportunities that support a good quality of life and financial stability. 	<ul style="list-style-type: none"> • Reduce disparity in educational attainment rates; ensure that residents with special needs have equal access to education and training • Provide access to training opportunities for life skills and a wide spectrum of careers; align workforce skills with future demand • Provide skills training that allows resident to improve their earning capacity
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of students that complete their degree • Number of vocational certification programs/students • Number of households within 5-mile radius of higher education opportunity • Percent of people ages over age 25 without college degree • Unemployment rate for people ages 25-64 without a college degree • Number of workforce continuing education programs • Regional education attainment vs. other regions • Percentage of workers not in labor force over age 16 	<ul style="list-style-type: none"> • Enhance economic competitiveness



Expand programs to improve job and financial skills and promote self sufficiency.



Technical expertise is not the only asset needed to secure a job in today’s economy. To remain competitive, employees must have desirable soft skills, personal attributes and habits that shape interpersonal interactions and work performance; good etiquette, appropriate hygiene and dress, and timeliness are soft skills that all employers demand. At home, financial education helps families manage their resources effectively, ensuring economic stability and a higher quality of life. Expanding soft skills training, financial literacy programs, and similar initiatives will increase the competitiveness of Our Region’s workforce, while improving overall quality of life. Local schools, colleges, universities, and non-profit organizations can work together to ensure these programs are available to children and adults throughout Our Region.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Creates a competitive, well-trained regional workforce Enhances economic competitiveness Improves quality of life 	<ul style="list-style-type: none"> Education Program 	<ul style="list-style-type: none"> School Districts Colleges and Universities Non-Profits Regional Workforce Board Regional Employers Economic Development Corporations

Possible Funding Sources

- [Pathway to Financial Success \(Discover\)](#) offers grants and other resources schools can use to create financial education curriculum.
- The [FINRA Investor Education Foundation](#) provides grants to organizations that offer financial education programs to underserved populations.
- Opportunity Texas’ [Innovation and Investment Fund](#) supports programs that provide greater economic opportunities for low- and moderate-income Texans. Grants help Texas-based entities develop new asset-building programs or expand successful models.
- The [National Financial Educators Council](#) offers funding opportunities and other resources organizations can use to develop long-lasting financial literacy programs.
- The [Skills Development Program](#) (Texas Workforce Commission) provides grants to community and technical colleges offering job training programs customized to meet the needs of local businesses interested in training new workers or educating their existing workforce.
- The [Apprenticeship Training Program](#) (Texas Workforce Commission) provides funds to local public schools and colleges to support apprenticeship programs registered with the U.S. Department of Labor: Office of Apprenticeship.

Implementation Tools	
<ul style="list-style-type: none"> • Apprenticeship Programs • Community College Vocational Training Programs • Financial Literacy Programs 	<ul style="list-style-type: none"> • Soft Skills Programs • Career Counseling

Model Policies

- The [University of Houston: Program for Financial Literacy](#) teaches students of all ages about money management and the financial system, reaching more than 3,400 school-aged children and 450 college students to date.
- [Workforce Solutions](#), managed by the regional workforce board, provides comprehensive human resource services for businesses and residents throughout the Houston-Galveston region.
- [Bank on Houston](#) is a partnership between the City of Houston, the Federal Deposit Insurance Corporation (FDIC), National League of Cities, the Federal Reserve Bank, non-profit organizations, banks and credit unions that offers financial education opportunities, helping Houstonians become financially stable.
- [Financial Opportunity Centers](#), managed by the Local Initiatives Support Corporation (LISC), are career and financial service centers that help low- and moderate-income families become financially independent. Six centers throughout Houston provide families with different types of assistance: employment placement and career improvement; financial education and coaching; and access to public services.
- [Project QUEST](#) (San Antonio) teaches participants workplace soft skills and about job readiness as part of its workforce development programs, which targets underserved populations.
- The [Generation E Institute](#) (Battle Creek, Michigan) partners with public schools, community organizations, and other groups to teach middle- and high-school students about entrepreneurship. As part of the program, students learn soft skills appropriate for business situations, including table manners, phone etiquette, conversational skills, public speaking, interview techniques, and appropriate attire.
- The [Center for Employment Training](#) is a national non-profit organization that offers vocational training to people of all ages and abilities, helping students overcome barriers that may limit their educational achievement.
- [MoneySKILL](#) (American Financial Services Association Education Foundation) is a free online course that helps young adults understand the basics of financial management

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents have access to education and training opportunities to allow them to realize their full potential • Our Region has a diverse economy and skilled workforce that support businesses, innovation, and entrepreneurship • Our Region’s residents have access to job opportunities that support a good quality of life and financial stability. 	<ul style="list-style-type: none"> • Reduce disparity in educational attainment rates • Ensure that residents with special needs have equal access to education and training • Provide access to training opportunities for life skills and a wide spectrum of careers • Provide skills training that allows residents to improve their earning capacity.
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of vocational certification programs • Number of students in vocational certification programs • Percentage of people over age 25 with college degree • Number of workforce continuing education programs 	<ul style="list-style-type: none"> • Enhance economic competitiveness



Increase availability of information on job skills needed by employers to educational institutions, allowing them to better tailor their course and training offerings.



Our Region’s industries are creating positions that demand new skill sets, and the educational sector needs to respond in kind with graduates able to meet the requirements of employers. Equilibrium between employers’ needs and available skilled labor is important for Our Region’s economic health. In the coming years, jobs requiring at least an associate’s degree are projected to grow twice as fast as those requiring no college experience. Workforce Solutions, the regional workforce board, is able to project which jobs are expected to have the most growth over the next ten years. Coordinating training opportunities in these fields with educational institutions in Our Region will help provide the labor force needed for economic competitiveness.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Creates a competitive, well-trained regional workforce • Enhances economic competitiveness • Promotes inter-organizational cooperation • Maximizes use of existing resources 	<ul style="list-style-type: none"> • Partnership 	<ul style="list-style-type: none"> • School Districts • Colleges and Universities • Regional Employers • Regional Workforce Board • Economic Development Corporations • Non-Profits

Possible Funding Sources

- The [Veterans Workforce Investment Program \(VWIP\)](#) (U.S. Dept. of Labor) supports programs that provide employment, training, and other services to eligible veterans, focusing on innovative approaches that increase the number of veterans who complete industry-recognized training programs that improve their overall competitiveness in the civilian workforce.
- The [Skills Development Fund: Pre-Employment Training for New Jobs](#) (Texas Workforce Commission) provides grants to community and technical colleges to deliver customized job training programs to businesses that want to train potential new workers prior to hiring them.
- The [Environmental Workforce Development & Job Training Program](#) (U.S. Environmental Protection Agency) provides grants to non-profits and other organizations to recruit, train, and place predominantly low-income minority, unemployed and under-employed people living in areas affected by solid and hazardous waste.
- The [Trade Adjustment Assistance Community College & Career Training Grant Program \(TAACCCT\)](#) (U.S. Dept. of Labor) provides community colleges and eligible institutions of higher education funds to offer educational programs and training that prepares participants for employment in high-wage, high-skill occupations.
- The [KnowledgeWorks Foundation](#) provides innovative tools, training and assistance to schools and community stakeholders to prepare students for college and future careers.
- The [Lumina Foundation](#) supports programs that help communities meet local workforce demands and close gaps in attainment for groups not historically well-served by higher education.
- The [Parallel Pathways to Success Grant Program](#) (Texas Dept. of Agriculture) helps rural school systems offer job training programs to high school students.
- The [Ford Foundation](#) helps organizations improve opportunities for low-wage workers, supporting initiatives that make the workforce development system more effective and responsive to the needs of underserved and disadvantaged populations.

Implementation Tools	
<ul style="list-style-type: none"> Inter-organizational Partnerships and Coordination 	<ul style="list-style-type: none"> New and Expanded Workforce Education Programs

Model Policies

- As part of [H-GAC Workforce Solutions: Targeting High-Skill High-Growth Jobs](#), emerging job opportunities in the Houston-Galveston area are identified, and school districts, colleges, and universities are convened to discuss how their programs can support students interested in seeking employment in emerging industries
- The [Bayer Material Science \(BMS\): Production Technician Internship Program \(PTIP\)](#) was created in 2011 to provide BMS with highly-trained employees capable of replacing an aging workforce at its facility near the Houston Ship Channel. BMS worked closely with the East Harris County Manufacturers Association and local community colleges to design and implement the program.
- The [Ohio Skills Bank](#) is Ohio's effort to realign education and workforce systems with the skills and jobs that are in high demand. Stakeholders are working collaboratively to ensure the University System of Ohio's public universities, community colleges, and adult career centers provide training that meets the needs of growing industries.
- [West Virginia's Strategic Compass](#) provides students and jobseekers detailed information on 900 occupations, allowing them to work with educators and counselors to pursue career and training opportunities.

Goals	Objectives
<ul style="list-style-type: none"> Our Region's residents have access to education and training opportunities to allow them to realize their full potential Our Region has a diverse economy and skilled workforces that support businesses, innovation, and entrepreneurship 	<ul style="list-style-type: none"> Provide access to training opportunities for life skills and a wide spectrum of careers Support existing business strengths while diversifying to create competitive advantage in the future Prepare for international economy while emphasizing local talent and opportunities Align workforce skills with future demand Provide skills training that allows residents to improve their earning capacity.
Metrics	Livability Principles
<ul style="list-style-type: none"> State and/or local dollars spent for public education Vocational certification vs. top industry sectors mix Number of new jobs vs. number of new workers in labor force Number of colleges and higher learning institutes Unemployment rates by county compared to nation Percent change in unemployment rate Percentage of able workers not in labor force, over age 16 Percentage managerial, professional, and technical jobs 	<ul style="list-style-type: none"> Enhance economic competitiveness Support existing communities



Promote business attraction and retention efforts through multi-jurisdictional coordination and financial incentives.



All too often, communities focus economic development efforts almost entirely on recruiting new industries, providing little support to existing businesses. Retaining and expanding existing businesses is typically less costly and time intensive than recruiting new companies. These businesses have deep roots in the community, having already established a customer base and hired employees from the surrounding area. Communities can take a proactive role in supporting existing businesses by working with owners to identify issues that negatively impact their operations and providing assistance to those interested in expanding or at risk of closing or relocating. Market analyses and business surveys can be used to help communities determine what type of support and resources would be most helpful to existing businesses, whether it be financial or technical assistance. Businesses content with their communities are a great asset, serving as ambassadors to existing and new entrepreneurs and supporting a variety of community-based efforts.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Supports existing businesses • Strengthens existing communities and local economies • Maintains existing tax base • Affordable economic development strategy 	<ul style="list-style-type: none"> • Partnership • Program 	<ul style="list-style-type: none"> • State Agencies • Counties • Cities • Towns • Villages • Non-Profits • Economic Development Corporations • Economic Development Districts

Possible Funding Sources

- The [Texas Enterprise Fund](#) (Office of the Governor) provides financial incentives to companies interested in relocating to the state, where a single Texas site is competing with another viable out-of-state location.
- The [Texas Product/Business Fund](#) (Office of the Governor) provides loans with competitive interest rates to companies doing business in Texas.
- The [Texas Industry Development Loan Program](#) (Office of the Governor) provides low-cost financing to support public projects (public facilities, infrastructure improvements, environmental remediation, public transportation improvements, etc.) intended to stimulate economic development.
- The [Industrial Revenue Bond Program](#) (Office of the Governor) provides tax-exempt or taxable financing to support eligible industrial and manufacturing projects.
- The [Texas Capital Fund Infrastructure Development Program](#) (Texas Dept. of Agriculture) provides financial assistance to non-entitlement communities investing in public infrastructure improvements necessary to support economic development projects, particularly those that create or retain jobs for low- and moderate-income residents.
- The [Main Street Improvements Program](#) (Texas Dept. of Agriculture) provides eligible Texas Main Street communities with matching grants to expand or enhance public infrastructure in historic Main Street areas. In the Houston-Galveston area, Bay City and Huntsville are designated Main Street communities (as of 2013).
- The [Real Estate Development Program](#) (Texas Dept. of Agriculture) provides zero-interest loans financing real estate acquisition, construction, or rehabilitation projects that create or retain permanent jobs in rural communities.
- The [Texas Leverage Fund](#) (Office of the Governor) provides low-cost loans to communities investing in projects that support economic development. Future sales tax revenues serve as collateral for loan repayment.

Possible Funding Sources

- The [Texas Enterprise Zone Program](#) (Texas Comptroller of Public Accounts) supports investment in economically-stressed areas. Projects selected to participate in the program are eligible to apply for certain tax refunds.
- The [New Markets Tax Credit Program](#) (NMTC Program) was established to spur new or increased investments into operating businesses and real estate projects located in low-income communities.

Implementation Tools	
<ul style="list-style-type: none"> • Marketing Campaigns • Technical Assistance to Local Governments and Businesses • Economic Development Alliances • Low-Interest Financing 	<ul style="list-style-type: none"> • Grants • Tax Breaks • Land Assembly • Infrastructure Improvements • Waived/Reduced Permitting Fees

Model Policies

- The [Harris County Tax Abatement](#) provides eligible projects with a property tax reduction for up to 10 years. To be eligible, projects must increase the tax base by at least \$1 million and create at least 25 new full-time permanent positions, and senior management must have considered other possible locations.
- The [Harris County Green Building Tax Abatement for New Commercial Construction](#) provides tax abatements to new LEED-certified commercial buildings.
- The [Greater Houston Partnership](#) provides assistance to businesses interested in expanding or relocating to the Houston-Galveston area.
- The [City of Houston: LEED Tax Abatement](#) is available to owners of new or refurbished commercial buildings that obtain LEED certification.
- The [City of Houston: Tax Increment Reinvestment Zones \(TIRZ\)](#) are special zones created by City Council to attract new investment to designated areas. Taxes attributable to new improvements are used to finance public improvements within each zone.
- The [University of Minnesota Extension: Business Retention & Expansion Program \(BR&E\)](#) helps communities understand and respond to local business needs, assisting with business retention and expansion projects.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region has a diverse economy and skilled workforce that support businesses, innovation, and entrepreneurship • Our Region’s residents have access to job opportunities that support a good quality of life and financial stability • Our Region is resilient and adaptive to economic downturns and environmental or natural disasters • Our Region provides choices for individuals and for local communities to fulfill their needs 	<ul style="list-style-type: none"> • Support existing business strengths while diversifying to create competitive advantage in the future • Promote investments in entrepreneurship and start-ups
Metrics	Livability Principles
<ul style="list-style-type: none"> • Amount of state incentives/grants for business development received in the region • Percentage growth in business establishments • Dollars earned from local self-employment compared to national share • Number of SBA 504 loans by H-GAC 	<ul style="list-style-type: none"> • Enhance economic competitiveness • Support existing communities



Increase availability of high speed data connections and broadband Internet across the region, especially in rural areas.



In today’s economy, access to high-speed data connections is a necessity for most businesses. Communities lacking adequate broadband service are unable to take advantage of many economic development opportunities, including e-commerce, telecommuting, and distance learning. Broadband access is limited not only in rural areas with inadequate infrastructure, but also in urbanized areas where service may be available, but subscriptions are prohibitively expensive. Improving broadband availability will not only benefit businesses, but provide residents with greater opportunities, improving quality of life.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Provides economic and educational opportunities Allows companies to locate in areas with sufficient bandwidth 	<ul style="list-style-type: none"> Policy Program 	<ul style="list-style-type: none"> Councils of Government Counties Cities Towns Villages Non-Profits Economic Development Corporations Economic Development Districts Businesses Utility Providers

Possible Funding Sources

- The [Community Connect Program](#) (U.S. Dept. of Agriculture) provides funding to help rural communities improve access to broadband service.
- The [Farm Bill Broadband Loan Program](#) (U.S. Dept. of Agriculture) provides funding for the construction, improvement, and acquisition of facilities and equipment necessary to provide broadband service to eligible rural communities.
- The [Distance Learning & Telemedicine Loan & Grant Program](#) (U.S. Department of Agriculture) helps rural communities improve local telecommunications infrastructure, providing them with greater access to educational and healthcare opportunities.

Implementation Tools	
<ul style="list-style-type: none"> Assessment of High Speed Data Connections Internet Skills Training 	<ul style="list-style-type: none"> Public/Private Partnerships

Model Policies

- City of Houston: [WeCAN \(Wireless Empowered Community Access Network\)](#) aims to improve internet access and digital literacy in underserved neighborhoods. The program is funded through corporate sponsorships, grants, and donations.
- [Connected Texas](#), a non-profit organization, has created detailed maps of broadband coverage to identify gaps in broadband availability throughout the state.
- The [Florida Rural Broadband Alliance](#), a partnership between local governments and non-profit organizations, aims to provide cost-effective broadband infrastructure to rural, underserved communities in central and northwestern Florida.

Goals	Objectives
<ul style="list-style-type: none"> Our Region’s transportation and infrastructure promote effective goods movement and is well-connected to other global destinations Our Region’s residents have access to job opportunities that support a good quality of life and financial stability Our Region’s residents have access to education and training opportunities to allow them to realize their full potential 	<ul style="list-style-type: none"> Improve intermodal connections and coordination, including rail, truck, airports, seaports, and other goods movement and information infrastructure.
Metrics	Livability Principles
<ul style="list-style-type: none"> Percentage of Our Region with access to broadband Internet 	<ul style="list-style-type: none"> Enhance economic competitiveness Support existing communities



Institute a “buy local, make local, grow local” campaign to support local businesses.



Our Region has thousands of locally-owned farms and businesses, which provide surrounding communities with high-quality products and services. When goods are purchased from an independent, locally-owned business, rather than a national corporation, more of the money continues circulating in Our Region’s economy. Revenue generated from locally-owned businesses is used to make purchases from other local businesses, service providers, and farms, strengthening the economic base of our communities. Locally-owned businesses help make our communities unique, with one-of-a-kind shops and restaurants attracting residents and visitors alike. Since many locally-owned businesses operate within existing communities, they support community revitalization efforts. Local businesses are less likely to relocate, and are more invested in the community’s future. Supporting these businesses through local and regional marketing campaigns will help create vibrant rural, suburban, and urban communities throughout Our Region.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Promotes economic development and diversification • Supports local economies • Promotes entrepreneurship • Promotes revitalization of existing downtowns, neighborhoods, and commercial corridors 	<ul style="list-style-type: none"> • Policy • Program 	<ul style="list-style-type: none"> • Councils of Government • Counties • Cities • Towns • Villages • Non-Profits • Economic Development Corporations • Economic Development Districts • Businesses

Possible Funding Sources

- The [GO TEXAN Partner Program](#) (Texas Dept. of Agriculture) provides matching funds that businesses can use to market Texas’ agricultural products.
- [Sustainable Community Innovation Grants](#) are jointly administered by Southern Sustainable Agriculture Research & Education and the Southern Rural Development Center for the purpose of linking sustainable agriculture with healthy economic community development.

Implementation Tools	
<ul style="list-style-type: none"> Local and Regional Marketing Campaigns 	<ul style="list-style-type: none"> Technical Assistance to Local Governments and Businesses

Model Policies

- As part of its [Hire Houston First initiative](#), the City of Houston gives preference to locally-owned businesses when procuring goods or services.
- [Houston’s City Hall Farmers’ Market](#) provides residents with the opportunity to purchase fresh produce and prepared foods directly from local farmers.
- [Urban Harvest](#) organizes several farmers’ markets throughout Houston, providing local growers with a venue to sell their produce, while improving residents’ access to fresh, healthy foods.
- [GO TEXAN](#) is a marketing initiative sponsored by the Texas Department of Agriculture that promotes agricultural products and other goods produced throughout the state.
- [Buy Local First](#) is a marketing campaign in Clinton County, Ohio, that promotes locally-owned business. An up-to-date website directs potential customers to a wide range of locally-owned businesses and provides information on upcoming events throughout the community.
- [Think Local-Buy Local-Be Local](#) is a program managed by the non-profit Sustainable Connections that promotes the benefits of patronizing local, independently-owned businesses in Northwestern Washington.

Goals	Objectives
<ul style="list-style-type: none"> Our Region has a diverse economy and skilled workforce that support businesses, innovation, and entrepreneurship Our Region’s residents have access to job opportunities that support a good quality of life and financial stability Our Region is resilient and adaptive to economic downturns and environmental or natural disasters Our Region provides choices for individuals and for local communities to fulfill their needs 	<ul style="list-style-type: none"> Support existing business strengths while diversifying to create competitive advantage in the future.
Metrics	Livability Principles
<ul style="list-style-type: none"> Agricultural production by county, by crop Dollars earned from local self-employment compared to national share Dollars of venture capital investment by sector 	<ul style="list-style-type: none"> Enhance economic competitiveness Support existing communities



Develop a toolkit for matching local housing stock with economic development needs (such as employer-assisted housing agreements, public/private partnerships, developer incentives, etc.)

Housing opportunities for low- and moderate-income working households – often referred to as workforce housing – remain elusive in parts of Our Region experiencing rapid economic growth. Housing costs are rising at a faster rate than incomes, squeezing the household budgets of working families. Much of our workforce, including those who provide vital services to our communities (firefighters, police officers, teachers, health workers, etc.), cannot afford to live in the areas where they work. Many communities with a large supply of available housing stock often lack economic opportunities. By developing strategies to match local housing stock with economic development needs, both sectors will benefit, and livability is increased when workers can live close to their employment.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Creates high-quality housing at a variety of price points • Promotes economic development • Promotes redevelopment and revitalization • Reduces commute times and congestion • Improves employee retention 	<ul style="list-style-type: none"> • Resource 	<ul style="list-style-type: none"> • Counties • Cities • Towns • Villages • Employers • Local Housing Authorities • Non-Profits

Possible Funding Sources

- The [Local Initiatives Support Corporation \(LISC\)](#) provides loans, lines of credit, recoverable grants, and equity investments to help Community Development Corporations (CDCs), non-profit real estate developers and other partners revitalize their neighborhoods.
- The [HOME Investment Partnerships Program](#) (U.S. Dept. of Housing & Urban Development) provides funding that states and local governments can use to build, buy, and/or rehabilitate affordable housing for rent or homeownership.
- [Community Development Block Grants](#) (U.S. Dept. of Housing & Urban Development) help communities address a variety of unique community development needs, including housing initiatives that benefit low- and moderate-income households.
- The [Neighborhood Stabilization Program](#) (U.S. Dept. of Housing & Urban Development) helps stabilize communities suffering from foreclosures and abandonment. Funds awarded are used to purchase foreclosed and abandoned residential properties and redevelop the sites to build affordable housing.
- The purpose of the [Emergency Solutions Grants \(ESG\) Program](#) (U.S. Dept. of Housing & Urban Development) is to assist individuals and families quickly regain stability in permanent housing after experiencing a housing crisis or homelessness.
- [Federal Low-Income Housing Tax Credits \(LIHTC\)](#) are available to developers investing in affordable rental housing.

Implementation Tools	
<ul style="list-style-type: none"> • Employer-Assisted Housing • Public/Private Partnerships 	<ul style="list-style-type: none"> • Developer Incentives (Tax Breaks, Land Acquisition Assistance, Low-Interest Loans, Grants, Reduced Permit Fees, Expedited Review)

Model Policies

- [REACH \(Regional Employer Assisted Collaboration for Housing\) Illinois](#) is an incentive program that provides state matching funds and tax credits to businesses that implement their own employer-assisted housing program. The initiative is an expansion of a five-year pilot program based in the Chicago area.
- Since its inception, [Rochester First Homes](#) (Minnesota) has funded the purchase of 170 homes through its community land trust and helped 350 households through its down-payment assistance program.
- In Washington, the [Hometown Home Loan Program](#), offered by Seattle’s Affinity Lending Center/HomeStreet Bank, is an employer-assisted housing program that helps employees of participating companies and organizations purchase homes. The program offers borrowers a 50 percent reduction in loan origination fees, lower appraisal fees, free credit reports, and a lower escrow, resulting in savings of between \$1,700 and \$2,500 for each homebuyer.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving • Our Region’s communities have a range of quality housing choices that meet the diverse needs and preferences of all residents • Our Region coordinates infrastructure, housing, and transportation investments, creating areas of opportunity and enhancing existing neighborhoods • Our Region provides choices for individuals and for local communities to fulfill their needs • Our Region’s residents have access to job opportunities that support a good quality of life and financial stability 	<ul style="list-style-type: none"> • Encourage community planning and design that allows for shorter trips and accommodates safe pedestrian and bicycle travel. • Improve connectivity of land uses and multiple transportation modes. • Increase proximity of jobs and housing choices.
Metrics	Livability Principles
<ul style="list-style-type: none"> • Vehicle Miles Traveled (VMT) • Compare the number of workers and residential population in specific areas to gauge jobs/housing balance 	<ul style="list-style-type: none"> • Promote equitable, affordable housing • Support existing communities • Value communities and neighborhoods



Conduct an analysis of the regional and county-level economies to determine gaps and opportunities for diversification. Assist areas that may be over-dependent on single industries and help focus on supporting/incentivizing emerging industries.

Regional economic diversity has been promoted as a means to achieve the economic goals of stability and growth for nearly 60 years. A strong, growing economy is the goal of every region in the country. Having a diverse economy—that is, one based on a wide range of profitable sectors, not just a few—has long been thought to play a key role in creating economic stability. Economic diversification can reduce a region’s economic volatility and increase its real activity performance. Furthermore, there are metrics that policymakers can use to measure these key economic dimensions and ways that they can promote their long-term economic health and stability.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Promotes economic diversification • Increases resiliency 	<ul style="list-style-type: none"> • Assessment 	<ul style="list-style-type: none"> • Councils of Government • Counties • Cities • Towns • Villages • Non-Profits • Economic Development Corporations

Possible Funding Sources

- The [Economic Development Assistance Program](#) (U.S. Dept. of Commerce: Economic Development Administration) invests in construction, non-construction, and revolving loan funds supporting regional economic development strategies.
- The [Planning Program & Local Assistance Program](#) (U.S. Dept. of Commerce: Economic Development Administration) supports the creation of regional economic development plans.

Implementation Tool

- Economic Diversification Plan

Model Policies

- The South Carolina [Lowcountry Council of Governments Economic Diversification Plan \(2005\)](#) aims to assist a four-county region in attracting new businesses and target industries, diversifying its tax base, improving quality of life, and lessening dependency on three military installations in the region. The plan considers the region’s economic development goals and objectives, while being sensitive to resident concerns about the impact these initiatives may have on overall quality of life and community identity.
- [Planning for Regional Competitiveness](#) (National Association of Regional Councils: 2013) is a survey of select regional planning agencies across the country, highlighting different approaches to economic competitiveness used in the Denver, Kansas City, and Seattle metropolitan areas. The report informed economic development efforts in the Minneapolis-St. Paul region.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region has a diverse economy and skilled workforce that support businesses, innovation, and entrepreneurship • Our Region’s residents have access to job opportunities that support a good quality of life and financial stability • Our Region is resilient and adaptive to economic downturns and environmental or natural disasters • Our Region provides choices for individuals and for local communities to fulfill their needs 	<ul style="list-style-type: none"> • Support existing business strengths while diversifying to create competitive advantage in the future
Metrics	Livability Principles
<ul style="list-style-type: none"> • Industrial Diversity Score: Number of Jobs by Employment Sector • Dollars in earnings from local self-employment compared to national share 	<ul style="list-style-type: none"> • Enhance economic competitiveness



Develop a regional task force to capitalize on future growth sectors such as outdoor recreation and local food production

Next-generation economic clusters should be fostered to ensure sustained growth. Our Region has a successful history of research, innovation, and entrepreneurship. The creation and adoption of new products, services, and business models is a fundamental driver of economic prosperity, and the companies, universities and institutions behind those new products expand markets and sales, stimulating investment and ultimately creating jobs. High degrees of innovation in a region signal support for future growth. Creating the infrastructure needed for outdoor recreation can have immediate economic paybacks, while providing opportunities for active living. Local food production keeps capital in Our Region and reduces the impacts of transporting food long distances.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Promotes economic development and diversification Promotes inter-organizational partnerships and coordination 	<ul style="list-style-type: none"> Partnership 	<ul style="list-style-type: none"> Councils of Government Counties Cities Towns Villages Non-Profits Businesses Economic Development Corporations

Possible Funding Sources

- The [Land and Water Conservation Fund \(LWCF\)](#) (U.S. Dept. of Interior) supports the acquisition and development of outdoor recreation areas and facilities through matching grants to states and local governments.
- The [Farmers' Market Promotion Program](#) (U.S. Dept. of Agriculture) was created to help communities support local food systems through direct marketing. Direct marketing includes farmers' markets, roadside stands, community-supported agriculture, agri-tourism and other direct producer-to-consumer marketing opportunities. Project awards increase access to local foods by low-income consumers, expand opportunities for farmers and growers to market their products directly to the consumer, and raise customer awareness of local farm products through promotion and outreach.
- The [Texas Recreation and Parks Account \(TRPA\)](#) is funded through a portion of Texas sales tax revenues received on select sporting good items. TRPA is administered by the Texas Parks & Wildlife Department's Recreation Grants Branch and funds five grant programs. These grant programs include: Outdoor Recreation, Indoor Recreation, Small Community, Regional, and Community Outdoor Outreach Program.

Implementation Tools	
<ul style="list-style-type: none"> • Inter-organizational Partnerships and Coordination 	<ul style="list-style-type: none"> • Public/Private Partnerships

Model Policies

- The [Original Florida Tourism Task Force](#) is a non-profit organization that promotes tourism throughout North Central Florida. Formed through inter-local government agreements in 1993, the task force supports several programs and campaigns that market the region’s unique natural, historic, and cultural attractions. The program is staffed by the North Central Florida Regional Planning Council.
- The [Baltimore-Washington Cyber Task Force](#), an alliance of regional industry groups, was formed in May 2013 to develop and implement a strategy for growing the local “cyber industry,” capitalizing on the federal government’s interest in cyber security. The task force, which will partner with public and private organizations, will have four subcommittees: education and workforce; economic development; cyber content; and finance.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region has a diverse economy and skilled workforce that support businesses, innovation, and entrepreneurship • Our Region’s residents have access to job opportunities that support a good quality of life and financial stability • Our Region is resilient and adaptive to economic downturns and environmental or natural disasters • Our Region provides choices for individuals and for local communities to fulfill their needs 	<ul style="list-style-type: none"> • Support existing business strengths while diversifying to create competitive advantage in the future • Prepare for international economy while emphasizing local talent and opportunities
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage growth in business establishments • Rate of job growth vs. total job growth • Metropolitan gross domestic product 	<ul style="list-style-type: none"> • Enhance economic competitiveness



Develop a regional assessment tool to increase awareness of community factors that limit educational achievement or workplace skills/soft skills

Many school-aged children come from homes that lack stability, adequate nutrition, medical care, and other resources, which can negatively impact their development and classroom performance. A regional assessment could identify which community factors (substandard housing, criminal activity, lack of high-speed internet access, etc.) limit educational achievement and hinder residents' ability to learn valuable workplace and/or soft skills (good etiquette, appropriate hygiene and dress, timeliness, etc.). When complete, this tool could be used to direct resources to communities most in need, helping improve residents' educational opportunities.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Helps create a competitive, well-trained regional workforce Enhances economic competitiveness Improves quality of life 	<ul style="list-style-type: none"> Education Assessment 	<ul style="list-style-type: none"> Regional Workforce Board Counties Cities Towns Villages Non-Profits Economic Development Corporations

Possible Funding Sources

- The objectives of [Grants for Enhanced Assessment Instruments](#) (U.S. Department of Education) program are to: (1) improve the quality, validity, and reliability of state academic assessments; (2) measure student academic achievement using multiple metrics; (3) chart student progress over time; and (4) evaluate student academic achievement through the development of comprehensive academic assessment instruments, such as performance and technology-based academic assessments.

Implementation Tool

- Regional Assessment Tool

Model Policies

- The causes of achievement gaps are multiple and complexly interrelated, and they vary from school to school, district to district, and community to community. [Identifying Factors that Contribute to Achievement Gaps](#) (National Education Association) is designed to help educators and community members identify specific issues in their community that limit educational advancement.
- The U.S. Commission on Civil Rights has conducted a study of the racial achievement gap, accountability, and remediation issues in elementary and secondary education. [Closing the Achievement Gap: The Impact of Standards-Based Education Reform on Student Performance](#) evaluates the civil rights implications of No Child Left Behind, reviews its early impact on the racial achievement gap, and examines its implementation in two states, Maryland and Virginia.
- Harvard's [Achievement Gap Initiative](#) (AGI) is a university-wide effort by the School of Education to focus academic research, public education, and innovative outreach activities toward eliminating achievement gaps.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region has a diverse economy and skilled workforce that support businesses, innovation, and entrepreneurship • Our Region's residents have access to job opportunities that support a good quality of life and financial stability • Our Region provides choices for individuals and for local communities to fulfill their needs 	<ul style="list-style-type: none"> • Reduce disparity in educational attainment • Ensure that residents with special needs have equal access to education and training • Provide access to training opportunities for life skills and a wide spectrum of careers • Provide skills training that allows residents to improve their earning capacity
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of students that complete their degree (high school, undergraduate, professional) • Incarceration Rates (by Age) • Average freshman graduation rate • Percentage of people ages 25+ without college degree • Unemployment rate for people ages 25-64 without a college degree • Percentage of population with limited English proficiency • Literacy rate • Benchmark educational attainment vs. other regions • Percentage of people with a 2-year degree 	<ul style="list-style-type: none"> • Enhance economic competitiveness • Support existing communities



Create an incentive or partnership program for communities to develop job training centers or community college and local paid apprenticeship programs where there is demand

As the economy grows and evolves, Our Region will need to ensure it has a skilled workforce to meet the changing demands of existing and emerging industries. Our Region’s ability to sustain and grow a skilled workforce is compromised when degree completion rates do not compare favorably to peer regions. Job training centers and apprenticeships provide greater opportunities for Our Region’s residents to learn the skills needed for economic competitiveness, especially for those who do not pursue higher education. Partnership programs and incentives allow communities to develop effective, cost-efficient training programs that meet local needs.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Creates a competitive, well-trained regional workforce Enhances economic competitiveness Promotes inter-organizational cooperation Maximizes use of existing resources 	<ul style="list-style-type: none"> Partnership Policy/Program 	<ul style="list-style-type: none"> Regional Workforce Board Counties Cities Towns Villages School Districts Colleges and Universities Non-Profits Regional Employers Economic Development Corporations

Possible Funding Sources

- The [Apprenticeship Training Program](#) (Texas Workforce Commission) provides funds to local public schools and colleges to support apprenticeship programs registered with the U.S. Department of Labor: Office of Apprenticeship.
- The [Skills Development Program](#) (Texas Workforce Commission) provides grants to community and technical colleges offering job training programs customized to meet the needs of local businesses interested in training new workers or educating their existing workforce.
- The [Neighborhood Networks Initiative](#) (U.S. Dept. of Housing & Urban Development) encourages managers of properties insured or assisted by the Federal Housing Administration (FHA) to establish on-site, multi-service centers that provide computer access and offer workforce development, academic-enrichment, lifelong learning, and community-building programs.
- As part of the [Step-Up Apprenticeship Program](#), the U.S. Dept. of Housing & Urban Development partners with local schools, industries, employers, and service providers to develop apprenticeship programs for low-income individuals, particularly residents of public housing.
- The [YouthBuild U.S.A. Program](#) (U.S. Dept. of Labor) provides education, counseling and job skills training to unemployed young adults. As part of the program, participants help build affordable housing. There are 273 YouthBuild programs nationwide, including two programs in the Houston-Galveston area (Houston YouthBuild and New Waverly YouthBuild).
- [Community Development Block Grants](#) (U.S. Dept. of Housing & Urban Development) help communities address a variety of unique community development needs, including housing initiatives that benefit low- and moderate-income households.

Implementation Tools	
<ul style="list-style-type: none"> • Job Training Centers • Apprenticeship Programs • Inter-organizational Partnerships 	<ul style="list-style-type: none"> • Financial Incentives (Grants, low-cost loans, use of facilities, etc.)

Model Policies

- **Project QUEST** (San Antonio, Texas) provides workforce development programs to prepare participants for high-demand careers. Not only does the program provides technical training, but teaches participants workplace soft skills and about job readiness. Upon completion, participants are offered job search and placement services. The project is funded through a combination of public and private funds.
- As part of the **Integrated Basic Education and Skills Training Program (I-BEST)**, adult literacy and vocational instructors work together to develop and deliver instruction in 34 of Washington state’s community and technical colleges, improving students’ literacy and work skills simultaneously.
- The **PowerPathway Training Network** (Southern California) is a partnership between Pacific Gas & Electric (PG&E), community colleges, and universities that provides training for those pursuing careers in the energy field. At some educational institutions, PG&E provides faculty with training, while at others it offers technical assistance, donates equipment, or provides funding.
- The **Institute for Workforce Innovation: Metropolitan Community College** (Kansas City, Missouri) offers short-term training, certificate programs, and job placement services. The institute works with area workforce boards, the regional council of governments, and other organizations to tailor training programs to meet employers’ needs. It also provides customized training and other services to local businesses.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents have access to education and training opportunities to allow them to realize their full potential • Our Region has a diverse economy and skilled workforce that support businesses, innovation, and entrepreneurship • Our Region’s residents have access to education and training opportunities to allow them to realize their full potential 	<ul style="list-style-type: none"> • Reduce disparity in educational attainment • Ensure that residents with special needs have equal access to education and training • Provide access to training opportunities for life skills and a wide spectrum of careers • Provide skills training that allows residents to improve their earning capacity • Align workforce skills with future demand
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of students that complete their degree (high school, undergraduate, professional) • Number of vocational certification programs • Number of students enrolled in vocational certification programs • Number of households within 5 miles of higher education opportunity • Number of workforce continuing education programs 	<ul style="list-style-type: none"> • Enhance economic competitiveness • Support existing communities



Develop small business incubators through partnerships between local governments, chambers of commerce, economic development corporations, universities and/or other community anchor institutions to foster the development of locally-owned enterprises

Starting a business is an incredibly challenging undertaking. Financing, structuring, and permitting a new business can require significant time and money. Business incubators help entrepreneurs build their companies from the ground up, providing them with inexpensive office space and administrative, consulting, and networking services. These incubation programs come in many shapes and sizes and serve different industries. They are generally managed by economic development agencies, chambers of commerce, local governments, for-profit businesses, colleges, or universities. By providing sound business advice and affordable startup environments, incubation programs help ensure the long-term success of new locally-owned enterprises.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Promotes economic development and entrepreneurship • Supports economic diversification • Supports locally-owned businesses 	<ul style="list-style-type: none"> • Partnership • Resource 	<ul style="list-style-type: none"> • Council of Governments • Counties • Cities • Towns • Villages • School Districts • Colleges and Universities • Non-Profits • Economic Development Corporations • Chambers of Commerce

Possible Funding Sources

- The [Office of Small Business Development Centers Program](#) (U.S. Small Business Administration) helps provide management assistance to current and prospective small business owners.
- The [Economic Development Assistance Program](#) (U.S. Dept. of Commerce: Economic Development Administration) provides funding to support construction, technical assistance, and revolving loan fund projects that promote economic development in distressed rural, suburban, and urban communities.

Implementation Tool

- Small Business Incubators

Model Policies

- The [Economic Growth Business Incubator](#) (EGBI) (Austin, Texas) is a non-profit organization that provides education, business plan assistance, and consulting to new and established businesses owned by underserved populations.
- [TechColumbus](#) (Ohio) is a public-private partnership that helps startup companies by providing expert advice, access to capital, office space, and connections to other business resources. The program focuses primarily on three industries: information technology, biosciences, and advanced materials.
- [Blue Ridge Food Ventures](#) (Candler, North Carolina) helps food-related startups develop, create, and market their products and understand applicable food safety regulations. The incubator is housed within an 11,000-square-foot building that includes a shared-use kitchen and natural products manufacturing facility. Supported by public and private funds, Blue Ridge Ventures is a limited liability corporation (LLC) held solely by the regional economic development commission.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region has a diverse economy and skilled workforce that support businesses, innovation, and entrepreneurship • Our Region’s residents have access to job opportunities that support a good quality of life and financial stability • Our Region is resilient and adaptive to economic downturns and environmental or natural disasters • Our Region provides choices for individuals and for local communities to fulfill their needs 	<ul style="list-style-type: none"> • Support existing business strengths while diversifying to create competitive advantage in the future • Promote investments in entrepreneurship and start-ups.
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage growth in business establishments • Number of Minority/Women/Small Business Firms • Dollars of Venture Capital Investment • Number of SBA 504 loans by H-GAC • Dollars earned from local self-employment compared to national share 	<ul style="list-style-type: none"> • Enhance economic competitiveness • Support existing communities



Encourage the use of small business loans by businesses to expand their companies and create jobs

Small businesses are the backbone of the U.S. economy and the primary source of jobs for Americans. Our Region is a center for entrepreneurship and innovation, ranking first in the nation in the share of earnings coming from self-employment (37%). Federal, state, and local government offer a variety of low-cost financing options for small businesses interested in expanding their operations. Marketing programs can increase awareness of these programs, allowing small businesses to pursue non-traditional opportunities. Improving access to these loan programs will support job creation throughout Our Region, building and diversifying the local economy.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Promotes economic development and diversification Supports small businesses 	<ul style="list-style-type: none"> Education Program 	<ul style="list-style-type: none"> Federal Agencies Council of Governments Regional Workforce Board Non-Profits Economic Development Corporations Lending Institutions Economic Development Districts

Possible Funding Sources

- The [Gulf Coast Economic Development District \(GCEDD\) Business Loan Program](#) offers loans that help businesses purchase assets (including buildings, equipment, furniture and/or inventory) and provide for working capital and closing costs. Fifty percent or more of each loan must be used to purchase assets.
- The U.S. Small Business Administration works with banks and other lending institutions to offer several [Guaranteed Loan Programs](#) available to small businesses.
- The [Surety Bond Guarantee Program](#) (U.S. Small Business Administration) helps small businesses obtain surety bonds needed to complete construction projects.
- Companies participating in the [Small Business Investment Companies \(SBIC\) Program](#) (U.S. Small Business Administration) provide long-term loans and other types of funding to qualifying small businesses.

Implementation Tools	
<ul style="list-style-type: none"> Marketing Programs 	<ul style="list-style-type: none"> Financial Assistance

Model Policies

- The [Houston-Galveston Area Local Development Corporation](#), which promotes economic development and job creation throughout Texas' Upper Gulf Coast, administers Federal Small Business Administration Section 504 (SBA 504) loans. Compared to conventional financing, these loans offer lower, fixed interest rates and longer repayment terms.

Goals	Objectives
<ul style="list-style-type: none"> Our Region has a diverse economy and skilled workforce that support businesses, innovation, and entrepreneurship Our Region's residents have access to job opportunities that support a good quality of life and financial stability 	<ul style="list-style-type: none"> Support existing business strengths while diversifying to create competitive advantage in the future Promote investments in entrepreneurship and start-ups.
Metrics	Livability Principles
<ul style="list-style-type: none"> Dollar amount of state incentives/grants for business development received in the region Number of minority/women/small business firms Number of SBA 504 loans by H-GAC 	<ul style="list-style-type: none"> Enhance economic competitiveness



Support programs that offer financial incentives, such as scholarships, to students seeking vocational or college education

Post-secondary education is increasingly important, both for individual success and for Our Region’s economic vitality. Many of today’s employers, particularly in emerging industries, require employees to have some type of post-secondary education, whether it be vocational training or a college degree. Individuals with college degrees are more economically stable, experience less unemployment and vote and participate in civic life to a greater degree. Unfortunately, the rising costs of college and vocational training are discouraging some of Our Region’s residents from pursuing higher education opportunities. Financial incentives, such as scholarships and grants, can help make post-secondary education possible for low- and middle-income students. By making higher education more affordable, Our Region can increase the college completion rate, retaining its competitiveness amongst peer regions.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Provides greater opportunities for education and training • Creates a competitive, well-trained regional workforce • Enhances economic competitiveness • Improves quality of life 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • State Legislature • School Districts • Colleges and Universities • Non-Profits • Businesses

Possible Funding Sources

- Employment and Training Administration [YouthBuild Grants](#) provide funding to organizations that offer education, occupational skills training, and employment services to disadvantaged youth in their communities.

Implementation Tools	
<ul style="list-style-type: none"> Scholarships/Grants Fellowships 	<ul style="list-style-type: none"> Tuition Reimbursement Programs

Model Policies

- The [Towards Excellence, Access, and Success \(TEXAS\) Grant Program](#) was established in 1999 by the Texas Legislature to provide need-based financial assistance to Texas students prepared for higher education.

Goals	Objectives
<ul style="list-style-type: none"> Our Region’s residents have access to education and training opportunities to allow them to realize their full potential Our Region has a diverse economy and skilled workforce that support businesses, innovation, and entrepreneurship Our Region’s residents have access to job opportunities that support a good quality of life and financial stability. 	<ul style="list-style-type: none"> Reduce disparity in educational attainment rates Ensure that residents with special needs have equal access to education and training Provide access to training opportunities for life skills and a wide spectrum of careers Provide skills training that allows residents to improve their earning capacity.
Metrics	Livability Principles
<ul style="list-style-type: none"> Percentage of students that complete their degrees (high school, undergraduate, professional) Number of vocational certification programs Number of students in vocational certification programs Percentage of people over age 25 with college degree Compare regional educational attainment vs. other regions Percentage of people with 2-year degree 	<ul style="list-style-type: none"> Enhance economic competitiveness

Environment



Work together on long term structural solutions to increase water storage and distribution capacity.

Surface water supply is being affected by ongoing drought conditions, increased demand from ongoing growth in population and industry, sedimentation in some reservoirs, and mandated reductions in groundwater use in many areas. Adequate water resources are necessary to sustain Our Region’s economic vitality, the health of local ecosystems, and the vibrancy of our neighborhoods. As growth continues, Our Region will have to determine how to provide water to new and existing residents, businesses, and industries. By 2040, the Texas Water Development Board: Region H Water Planning Group estimates demand for water will exceed supply by approximately 18 percent. Communities must work together to develop new water sources and maintain existing facilities.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Promotes inter-organizational partnerships and coordination Ensures economic stability Improves quality of life Protects ecological health 	<ul style="list-style-type: none"> Partnership 	<ul style="list-style-type: none"> State Agencies Counties Cities River Authorities Groundwater Conservation Districts Utility Providers

Possible Funding Sources

- The [Regional Facility Planning Grant Program](#) (Texas Water Development Board) provides funding to localities to identify and evaluate projects necessary to meet regional water supply and wastewater facility needs.
- The [Regional Water Planning Group Grant Program](#) (Texas Water Development Board) provides funding to regional water planning groups to develop regional water plans.
- The [Water Research Grant Program](#) funds water-related research related to a priority issue identified by the Texas Water Development Board.
- The [Water Infrastructure Fund](#) (Texas Water Development Board) provides financial assistance for the planning, design and construction of projects identified in the State Water Plan and/or Regional Water Plan.
- The [State Water Implementation Fund of Texas \(SWIFT\)](#) and the [State Water Implementation Revenue Fund of Texas \(SWIRFT\)](#), approved by Texas voters in 2013, provide communities with low-cost, flexible financing that can be used to support projects identified in the State Water Plan.
- The [Drinking Water State Revolving Fund](#) (U.S. Environmental Protection Agency) helps state governments finance high-priority water infrastructure projects.
- [Water & Waste Disposal Direct Loans & Grants](#) (U.S. Dept. of Agriculture) provide financing to rural areas and small towns (population less than 10,000) developing community water and waste disposal systems.
- [Infrastructure Development Grants](#) (Texas Department of Agriculture) fund infrastructure improvements aimed at creating or retaining jobs in rural communities.
- The [Rural Water Assistance Fund \(RWAFF\)](#) Program (Texas Water Development Board) provides small rural utilities with low-cost financing for water and wastewater projects.
- The [State Participation Program](#) (Texas Water Development Board) provides financial assistance to entities constructing regional water, wastewater, or flood control projects.

Implementation Tools	
<ul style="list-style-type: none"> • Inter-organizational Partnerships • Water Storage Facilities/Reservoirs 	<ul style="list-style-type: none"> • Desalination Facilities

- The [Economically Distressed Areas Program](#) (Texas Water Development Board) offers financial assistance to political subdivisions to provide water and wastewater services to economically-distressed areas with substandard infrastructure.

Model Policies

- The [Region H Water Planning Group](#) consists of a diverse group of stakeholders charged with developing a comprehensive water management plan for Houston and surrounding areas.
- As part of the [Bay Area Regional Desalination Project](#), five of the largest water agencies in the San Francisco, California, area are working together to pursue development of a large-scale desalination facility, providing the region with an additional water source and diversifying its supply.
- The [North Florida Regional Water Supply Partnership](#) coordinates water resource management through the involvement of water management districts, state agencies, local governments, concerned residents, and other stakeholders living and working within the region.
- The [Jordan Lake Regional Water Supply Partnership](#) was formed in 2009 by local governments and water utilities in the Raleigh/Durham, North Carolina, area, who are working cooperatively to increase the amount of water available from one of the region’s largest reservoirs.
- In May 2011, voters in the [Laguna Madre Water District](#) (Port Isabel, Texas) authorized the issuance of bonds to build a \$13 million seawater desalination plant. The district has expressed interest in partnering with the private sector to build the plant, increasing its impact on the region.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations • Our Region is resilient and adaptive to economic downturns and environmental or natural disasters • Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption 	<ul style="list-style-type: none"> • Encourage water conservation across agricultural, commercial, and residential sectors to decrease water demand and maintain existing water supplies • Create infrastructure and policies to increase reuse of recyclable waste products and water
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of water demand being met • Per capita water usage • Economic and environmental service losses from vegetative changes in long term drought conditions of region • Gallons of water obtained from reuse projects 	<ul style="list-style-type: none"> • Enhance economic competitiveness • Value communities and neighborhoods



Create watershed protection plans to protect recharge zones, and water sources, as well as waterways and wetland buffer areas



Ensuring safe drinking water supplies requires keeping drinking water sources (wells and surface waters) as clean as possible. Communities nationwide have realized that protecting drinking water supplies is more cost-effective and protective of public health than building or expanding treatment facilities. New contaminants continue to emerge, which can require costly treatment of source waters, if these resources are not adequately protected. A watershed protection plan identifies potential sources of contamination to water supplies, and describes protective management strategies that, if properly implemented, can reduce the risk of contamination. Recommended strategies may include increased monitoring or inspections at potential sources of contamination, public education programs, and/or implementation of best management practices (BMPs).

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Improves water quality • Protects public health • Protects environmental health • Reduces water treatment costs • Increases resiliency 	<ul style="list-style-type: none"> • Plan 	<ul style="list-style-type: none"> • State Agencies • Councils of Government • Counties • Cities • Towns • Villages • Subsidence Districts • Flood Control Districts • River Authorities • Utility Providers

Possible Funding Sources

- The [Clean Water State Revolving Fund Loan Program](#) (Texas Water Development Board) provides low-interest financial assistance for planning, designing, and constructing wastewater infrastructure, including nonpoint source pollution control.
- [Nonpoint source grants](#), administered by the Texas State Soil & Water Conservation Board, fund activities aimed at preventing or reducing nonpoint source pollution from agricultural operations. These grants are made available through a federal program authorized under Section 319 of the Clean Water Act.

Implementation Tools	
<ul style="list-style-type: none"> Watershed Protection Plans 	<ul style="list-style-type: none"> Total Maximum Daily Loads (TDML) and Implementation Plans

Model Policies

- H-GAC had developed [watershed protection plans](#) for several different communities within the Houston-Galveston area, which describe actions that can improve degraded waterways.
- The [City of Austin \(Texas\): Save Our Springs Ordinance](#) limits impervious cover in parts of the Edwards Aquifer watershed and establishes regulations for buffers around certain major waterways (Austin City Code: Chapter 25-8, Article 12).
- The [City of Wilmington, Delaware: Source Water Protection Plan](#) (2010) describes actions that can be taken to prevent pollutants from contaminating Brandywine Creek, a major source of drinking water. To determine implementation strategies, land uses and potential sources of contamination were identified.
- The [Handbook for Developing Watershed Plans to Restore and Protect Our Waters](#) (U.S. Environmental Protection Agency: 2008) provides in-depth information on how to develop and implement watershed protection plans.

Goals	Objectives
<ul style="list-style-type: none"> Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations 	<ul style="list-style-type: none"> Increase capacity for local food production by promoting stewardship of prime farmland, water resources, and improved business infrastructure for local food production Continue to reduce levels of bacteria and other pollutants throughout Our Region’s waterways Encourage water conservation across agricultural, commercial, and residential sectors to decrease water demand and maintain existing water supplies Preserve, protect, and restore green infrastructure, vital ecosystems, and prime agricultural land
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of stream miles for water bodies with bacteria impairments Percentage of stream miles for water bodies with bacteria impairments Number of jurisdictions adopting Bacteria Implementation Group Plan Number of stream miles that fully meet water quality standards for contact recreation Percentage of stream miles that fully meet water quality standards for contact recreation Number of TMDL implementation plans and watershed protection plans within the region Acres of prime farmland Number of farms Acres of active/working agricultural land Number of farms using organic/sustainable practices Net acres of agricultural and natural resource land lost 	<ul style="list-style-type: none"> Support existing communities Value communities and neighborhoods



Conserve natural assets through multi-benefit green infrastructure projects and designing with nature, such as Low Impact Development and expanding Our Region’s network of open space and trails along waterways



Natural lands and working landscapes are part of the region’s green infrastructure network, a valuable system that helps clean water, reduce flooding and improve air quality, all while providing unique recreational opportunities. Public and private entities can work together to preserve these high-quality environmental resources to ensure these areas are protected in perpetuity.

Communities can encourage the use of environmentally-friendly design techniques, allowing Our Region to accommodate new growth, while protecting the health of natural habitats. Examples include:

- Direct Development to Existing Communities**
 Directing development away from sensitive ecosystems and into areas already served by adequate infrastructure (roads, utilities, etc.), protects rural lands while reducing the cost of building and maintaining public facilities.
- Encourage Use of Low Impact Development (LID) Practices**
 LID practices aim to replicate the pre-development hydrology of local watersheds. On-site detention and infiltration is achieved by preserving natural areas, minimizing impervious cover, and utilizing small-scale hydrologic controls that mimic natural processes.
- Promote Conservation Subdivision Design**
 Conservation subdivision design aims to conserve natural areas and reduce impervious cover by clustering development on a small portion of the site, leaving the remainder undisturbed.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Protects water quality Protects air quality Protects water supplies Promotes groundwater recharge Reduces flood risk Protects wildlife habitat Improves quality of life Provides recreational opportunities Improves neighborhood aesthetics 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> State Agencies Counties Cities Towns Villages Municipal Utility Districts Flood Control Districts Non-Profits Developers Private Landowners

Possible Funding Sources

- Several [Recreation Grant Programs](#) are administered by Texas Parks & Wildlife, supporting indoor and outdoor recreation in rural, suburban, and urban communities.
- The [Landowner Incentive Program](#) (U.S. Fish & Wildlife Service) provides funding to protect and restore habitats on private lands to benefit Federally-listed, proposed, or candidate species.
- The [Texas Farms & Ranch Lands Conservation Program](#) (Texas General Land Office) funds the acquisition of development rights on agricultural land statewide.
- The [National Coastal Wetlands Conservation Grant Program](#) (U.S. Fish & Wildlife Service) provides states with financial assistance to protect and restore coastal wetlands.

Possible Funding Sources

- Through its [Green Infrastructure Community Partnerships program](#), the U.S. Environmental Protection Agency provides communities with technical assistance aimed at helping them overcome barriers to green infrastructure.
- Through its [Strategic Conservation Guidance program](#), The Conservation Fund helps government leaders, conservationists, and other stakeholders prioritize investments in protecting open space.
- [Nonpoint source grants](#), administered by the Texas Commission on Environmental Quality and Texas State Soil & Water Conservation Board, fund activities aimed at preventing or reducing non-point source pollution. These grants are made available through a federal program authorized under Section 319 of the Clean Water Act.
- The [National Park Service Rivers, Trails, and Conservation Assistance grant](#) supports community-led natural resource conservation and outdoor recreation projects across the nation.
- The [NOAA Community-Based Restoration Program](#) began to sustain local efforts to conduct coastal habitat restoration. Since then, the program has funded more than 1,500 projects in the United States, Canada, the Caribbean, and the Pacific Islands. These projects have restored more than 41,000 acres of habitat and opened more than 1,700 miles for fish passage, while encouraging communities to actively participate in the conservation of our nation’s coastal

Implementation Tools	
<ul style="list-style-type: none"> • Conservation Easements • Purchase of Development Rights • Transfer of Development Rights • Land Acquisition • Development Agreements • Local Development Regulations 	<ul style="list-style-type: none"> • Conservation Subdivision Design • Use of Low Impact Development (LID) Techniques • Density Bonuses/Other Development Incentives • Tax Breaks/Incentives • Design Guidebooks



Conserve natural assets through multi-benefit green infrastructure projects and designing with nature, such as Low Impact Development and expanding Our Region's network of open space and trails along waterways (continued)

habitats.

Model Policies

- The [Harris County Low Impact Development and Green Infrastructure Design Criteria for Stormwater Management](#) (2011) describes how developers may use LID practices to meet local stormwater management requirements.
- The [Bayou Greenways Initiative](#) is a multi-organizational effort to create a continuous open space network with walking and biking trails along bayous and creeks throughout the greater Houston area. When complete, the region's greenway network will include 300 miles of trails within a 4,000-acre ribbon on open space.
- Several land trusts, including the [Bayou Land Conservancy](#) and the [Katy Prairie Conservancy](#), are working to protect environmentally-sensitive lands throughout the Houston-Galveston area.
- [Travis County \(Texas\) Conservation Design Manual](#) (2006) provides information on how developers can subdivide property in accordance with the Travis County Conservation Development Ordinance, which aims to accommodate development while protecting valuable open space. Developers have the option of subdividing their property in accordance with conservation development standards, rather than adhering to the standard Travis County development process (County Code: Chapter 82, Subchapter C).
- The [County of San Diego \(California\): Low Impact Development Handbook](#) (2007) describes how LID practices can be incorporated into development projects.
- [Prairie Crossing](#), a conservation subdivision in Grayslake, Illinois, consists of small clusters of single-family homes, condominiums, and small businesses, leaving more than 60 percent of the 677-acre site permanently protected as open space, preserving farmland, native prairies, ponds, and wetlands. Homes are positioned behind hedgerows and hills, concealing them from adjacent roadways and subdivisions. Access is provided to a regional network of trails.
- [Low Impact Development Design Strategies: An Integrated Approach](#) (1999) is a handbook prepared by Prince George's County, Maryland, to demonstrate how LID practices and associated educational programs can be used to improve water quality.
- [Conservation Design Resource Manual: Language & Guidelines for Updating Local Ordinances](#) (2003), prepared by the Northeastern Illinois Planning Commission and Chicago wilderness, describes how local governments can create land use policies that promote conservation design.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region values and preserves its unique ecosystems, working landscapes, parks, open spaces, and the ecological benefits they provide • Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations • Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> • Meet and maintain national air quality standards • Continue to reduce levels of bacteria and other pollutants throughout Our Region’s waterways • Encourage the use of green infrastructure • Preserve, protect and restore vital ecosystems and prime agricultural land • Increase public access to parks and natural areas • Promote low impact development and community planning that incorporates conservation • Develop partnerships to increase funding available for projects that improve environmental quality • Create a built environment that is resilient and adaptive to changes in the natural environment
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of steam miles for water bodies with bacteria impairments • Percentage of steam miles for water bodies with bacteria impairments • Acres of high value environmental resources by category • Percentage of population that resides within 1 mile of a park or open space for rural or 1/2 mile for urban space • Number of conservation easements • Acres of conservation easements • Acres of impervious surface 	<ul style="list-style-type: none"> • Value communities and neighborhoods



Increase awareness of the economic benefits of environmental systems



Our Region’s forests, wetlands, prairies, water bodies, and other natural ecosystems provide us with a variety of services, which can be quantified in dollars and cents. These ecologically-rich landscapes clean the air, filter and cool water, store and recycle nutrients, conserve and enhance soils, pollinate crops, regulate climate, sequester carbon, protect areas against storm and flood damage, and maintain water supplies. They also provide marketable goods and services, like forest products, fish, and recreational opportunities. Many citizens do not realize that Our Region’s unique ecosystems provide valuable services that enhance our quality of life. Educational programs, science-based analyses, and other initiatives can increase awareness of these benefits, highlighting the important role natural processes play in our everyday lives. Recognizing these benefits will help policymakers and citizens calculate the full costs of their decisions.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Promotes protection of valuable environmental resources Provides a more complete picture of a policy’s or project’s total costs 	<ul style="list-style-type: none"> Education 	<ul style="list-style-type: none"> Councils of Government Counties Cities Towns Villages Non-Profits

Possible Funding Sources

- The [Environmental Education Regional Grant Program](#) (U.S. Environmental Protection Agency) provides funding to support environmental education projects that increase public awareness of environmental issues.
- The [Environmental Literacy Grants Program \(ELG\)](#) (National Oceanic & Atmospheric Administration) provides funding for education projects implemented on regional and national scales, with the goal of increasing environmental stewardship and informed decision-making among public and K-12 audiences.
- The [Bay Watershed Education and Training \(B-WET\) Program](#) (National Oceanic and Atmospheric Administration) supports locally-relevant, hands-on environmental education for school-aged children. The Gulf of Mexico is one of the

Implementation Tools	
<ul style="list-style-type: none"> Public Education Campaigns 	<ul style="list-style-type: none"> Sustainable Return on Investment (SROI) Framework

program’s focus areas.

Model Policies

- The [Galveston Sustainable Return on Investment Case Study](#) (2013) focused on development of a tool to evaluate future public investments, based not only on financial considerations, but also social and environmental impacts. The tool assigns a monetary value to costs and benefits not typically included in such calculations, such as impacts related to greenhouse gases, safety, mobility, livability, water conservation, and waste reduction.
- [Return on Investment: The Economic Value of Protected Open Space in Southeastern Pennsylvania](#), commissioned by the Delaware Valley Regional Planning Commission and GreenSpace Alliance, quantifies the economic value of the region’s 200,000 acres of parks, preserved farms, and natural areas in terms of property value, ecosystem services, health benefits, and economic activity.
- The [Wildlife Habitat Benefits Estimation Toolkit](#) (2008), developed by Defenders of Wildlife, estimates the economic value of benefits generated by different habitat types throughout the country.

Goals	Objectives
<ul style="list-style-type: none"> Our Region values and preserves its unique ecosystems, working landscapes, parks, open spaces, and the ecological benefits they provide Our Region embraces its rich multicultural, historical and natural assets to ensure its communities retain their unique character Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> Preserve, protect and restore green infrastructure, vital ecosystems and prime agricultural land Promote low impact development and community planning that incorporates conservation Capitalize on the region’s reputation as a place of diversity, opportunity and unique historical, cultural and natural assets Create a built environment that is resilient and adaptive to changes in the natural environment Encourage development in locations that are more resilient to environmental and natural disasters
Metrics	Livability Principles
<ul style="list-style-type: none"> Acres of high value environmental resources by category Percentage of population that resides within 1 mile of a park or open space for rural or 1/2 mile for urban space Acres of impervious surface Dollar value of ecological services in environmentally sensitive areas Dollar value of environmental service losses from vegetative changes in long term drought conditions of region 	<ul style="list-style-type: none"> Enhance economic competitiveness Coordinate policies and leverage investment



Establish alliances to coordinate water conservation and protection efforts across Our Region, including sharing data and best practices, developing financial incentives, and implementing public awareness programs



Over the coming decades, communities throughout Our Region will have to determine how to provide water to new and existing residents, businesses, and industries. Providing water to a fast-growing population is expensive and increasingly difficult. Since our rivers, streams, and aquifers are part of an interconnected system, decisions made by water providers will likely have regional impacts. A Regional Water Task Force will promote collaboration and efficiency, resulting in potential cost savings for water providers, users, and taxpayers. This cooperative effort will coordinate policies amongst Our Region’s many water providers, streamlining regulatory processes.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Promotes inter-organizational cooperation and coordination • Maximizes efficiency 	<ul style="list-style-type: none"> • Partnership 	<ul style="list-style-type: none"> • State Agencies • Councils of Government • Counties • Cities • Towns • Villages • Municipal Utility Districts • Utility Providers • River Authorities • Groundwater Conservation Districts • Subsidence Districts • Non-Profits • Regional Water Planning Groups

Possible Funding Sources

- The [Regional Water Planning Group Grant Program](#) (Texas Water Development Board) provides funding to regional water planning groups to develop regional water plans.

Implementation Tool

- Inter-organizational Partnerships and Coordination

Model Policies

- [North Florida Regional Water Supply Partnership](#) coordinates water resource management through the involvement of water management districts, state agencies, local governments, concerned residents, and other stakeholders living and working within the region.
- The [Metropolitan Area Water Supply Advisory Committee](#) (Metropolitan Council: Minneapolis/St. Paul, Minnesota) played a lead role in developing the Metropolitan Area Master Water Supply Plan (2010), and meets regularly to discuss water supply issues. The group, created in 2005 at the direction of the state legislature, includes representatives from state agencies, local governments, and water providers.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations • Our Region efficiently uses, reuses and conserves its natural resources by managing waste and consumption 	<ul style="list-style-type: none"> • Encourage water conservation across agricultural, commercial, and residential sectors to decrease water demand and maintain existing water supplies • Create infrastructure and policies to increase reuse of recyclable waste products and water
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of water demand being met • Per capita water usage 	<ul style="list-style-type: none"> • Coordinate policies and leverage investment



Develop a regional plan to conserve high quality natural areas



The Houston-Galveston area contains several diverse ecosystems, ranging from coastal marshes and prairies to cypress swamps and upland forests. These ecosystems contribute to Our Region’s unique sense-of-place and provide multiple economic and environmental benefits. A regional conservation plan could describe strategies for protecting and managing high-quality wetlands, forests, and prairies throughout the region, promoting inter-organizational coordination and collaboration.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Protects wildlife habitat Promotes inter-organizational partnerships and coordination 	<ul style="list-style-type: none"> Plan 	<ul style="list-style-type: none"> State Agencies Councils of Government Counties Non-Profits

Possible Funding Sources

- The [National Coastal Wetlands Conservation Grant Program](#) (U.S. Fish & Wildlife Service) provides states with financial assistance to protect and restore coastal wetlands.
- The [Coastal Impact Assistance Program](#) (U.S. Fish & Wildlife Service) provides funding derived from federal offshore lease revenues to oil-producing states (including Texas) for conservation, protection, or restoration of coastal habitats.
- The [North American Wetlands Conservation Act Small Grants Program](#) (U.S. Fish & Wildlife Service) provides funding for the protection and restoration of wetlands and associated upland habitats benefiting wetlands-associated migratory birds.
- The [Landowner Incentive Program](#) (U.S. Fish & Wildlife Service) provides funding to protect and restore habitats on private lands to benefit Federally-listed, proposed, or candidate species or other species.
- The [Cooperative Conservation Partnership Initiative](#) (U.S. Dept. of Agriculture: Natural Resources Conservation Service) is a voluntary program that provides financial and technical assistance to owners and operators of agricultural and non-industrial private forest lands. The initiative consists of three programs, the Environmental Quality Incentives Program (EQIP), the Conservation Stewardship Program (CSP), and the Wildlife Habitat Incentive Program (WHIP).
- [Cooperative Landscape Conservation and Adaptive Science Grants](#) (U.S. Fish & Wildlife Service) provide financial assistance for the research, development, implementation, and monitoring of conservation design and adaptive management projects.

Implementation Tools	
<ul style="list-style-type: none"> • Strategic Planning • NatureServe VISTA (Land Use Decision Support Tool) 	<ul style="list-style-type: none"> • Eco-Logical

Model Policies

- [Cumberland Voices: A Conservation Vision for the South Cumberland Region](#) (2011) identifies regional conservation priorities in the South Cumberland region, which includes parts of Alabama, Georgia, and Tennessee. Over 30 partner organizations participated in this planning effort.
- The [Vision Plan for Open Space Conservation and Trail Connectivity in the Mid-Columbia Region](#) (2011) identifies priority conservation areas and trail connections in Washington’s Tri-Cities areas. A working group of citizens, non-profits, and local officials created the plan. Possible funding mechanisms are identified.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region values and preserves its unique ecosystems, working landscapes, parks, open spaces, and the ecological benefits they provide 	<ul style="list-style-type: none"> • Promote more efficient land use patterns • Preserve, protect, and restore green infrastructure, vital ecosystems, and prime agricultural land • Increase public access to parks and natural areas; promote low-impact development and community planning that incorporates conservation; remove barriers to development in areas with existing infrastructure networks • Increase capacity for local food production by promoting stewardship of prime farmland, water resources, and improved business infrastructure for local food production • Encourage water conservation across agricultural, commercial, and residential sectors to decrease water demand and maintain existing water supplies
Metrics	Livability Principles
<ul style="list-style-type: none"> • Acres of prime farmland • Number of farms • Acres of active/working agricultural land • Net acres of agricultural and natural resources land lost annually to development per new resident • Number of conservation easements • Acres of conservation easements • Acres of high value environmental resources by category • Number of new parks • Parks acreage per capita by geography and park type • Dollar value of ecological services in environmentally sensitive areas 	<ul style="list-style-type: none"> • Support existing communities • Coordinate policies and leverage investment



Promote efficient resource management, including energy, solid waste, and water



Taking steps to reduce the impact of Our Region’s growth on natural resources will become increasingly important as people and businesses continue to move here. Promoting efficient resource management will help ensure that Our Region has enough resources to support a growing population and economic base, while maintaining environmental health and quality of life. Utilizing conservation practices and promoting recycling efforts will minimize waste and demand for new energy sources, drinking water supplies, and waste disposal facilities.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Increases awareness of environmental issues Promotes civic engagement Promotes inter-organizational partnerships and coordination Improves air quality Improves water quality Reduces waste Ensures long-term access to water and energy 	<ul style="list-style-type: none"> Policy/Program Education 	<ul style="list-style-type: none"> State Agencies Councils of Governments Regional Water Planning Groups Counties Cities Municipal Utility Districts River Authorities Groundwater Conservation Districts Subsidence Districts

Possible Funding Sources

Energy

- The [Innovative Energy Demonstration Grant Program](#) (State Energy Conservation Office) provides grants to state agencies, local governments, school districts, and public colleges/universities interested in installing small-scale renewable energy systems.
- The [LoanSTAR Revolving Loan Program](#) (State Energy Conservation Office) finances energy-related cost-reduction retrofits made to public buildings. Eligible public entities receive low-cost loans to make these improvements; loans are repaid through the savings realized from these projects.
- The [Building Efficiency and Retrofit Program](#) (State Energy Conservation Office) aims to increase the energy efficiency of public buildings and other facilities statewide. Eligible governmental entities may include units of state and local government, public schools, public colleges and universities, public hospitals and municipal utilities.
- The [Weatherization Assistance Program](#) (U.S. Dept. of Energy) provides funding to low-income families interested in making energy-efficient improvements to their homes.
- The [Energy Efficient Commercial Building Tax Deduction \(IRS 179D\)](#) allows up to \$1.80 per square foot in federal tax deductions for property owners who have made energy-efficiency upgrades to their building’s lighting, HVAC, or building envelope.
- [State Energy Program Competitive Awards](#) (U.S. Dept. of Energy: Office of Energy Efficiency & Renewable Energy) support projects that advance policies, programs, and market strategies that accelerate job creation and reduce energy bills, while helping achieve national energy security.

Solid Waste

- The [Houston-Galveston Area Council Solid Waste Management Program](#) provides local governments and school districts with funding to support activities related to solid waste management.
- The [U.S. Dept. of Agriculture: Solid Waste Management Grant Program](#) offers technical assistance and/or training to help communities reduce the solid waste stream.

Possible Funding Sources

Water

- The [Agricultural Water Conservation Grants Program](#) (Texas Water Development Board) provides funding to state agencies and political subdivisions that can be used for technical assistance, education, metering, and demonstration projects that conserve water.
- The [Environmental Education Regional Grant Program](#) (U.S. Environmental Protection Agency) provides funding to support environmental education projects that increase public awareness of environmental issues.
- The [Water Infrastructure Fund](#) (Texas Water Development Board) provides financial assistance for the planning, design and construction of projects identified in the State Water Plan and/or Regional Water Plan.
- The [State Water Implementation Fund of Texas \(SWIFT\)](#) and the [State Water Implementation Revenue Fund of Texas \(SWIRFT\)](#), approved by Texas voters in 2013, provide communities with low-cost, flexible financing that can be used to support projects identified in the State Water Plan.

Implementation Tools	
<p>Overall</p> <ul style="list-style-type: none"> • Facility Audits • Public Education Campaigns • Low-Cost Loans • Grants • Tax Breaks • Reduced Permitting Fees • Expedited Permit Review • Awards/Certification Programs <p>Energy</p> <ul style="list-style-type: none"> • Weatherization Programs • Energy-Efficient Vehicle Fleets 	<p>Solid Waste/Recycling</p> <ul style="list-style-type: none"> • Drop-Off Centers • Buy-Back Centers • Curbside Pickup • Recycling Transfer Hubs • Dual Collection Vehicles • Organic Waste Management Programs • Building Material Reuse Centers • Used Electronics Recycling Programs <p>Water</p> <ul style="list-style-type: none"> • Water Recycling Programs • Water Conservation Plans

Model Policies

Energy

- [Houston Green Office Challenge](#) provides training opportunities and other resources to help office building owners, property managers, and tenants conserve energy, reduce waste, decrease water use, and utilize environmentally-friendly transportation options.
- The [City of Houston: Residential Energy Efficiency Program \(REEP\)](#) helps income-qualified Houstonians install energy-efficiency measures in their homes free-of-charge, based on the recommendations of a custom energy assessment.
- As part of its [Green Transportation Initiative](#), which began in 2002, the City of Houston purchases plug-in hybrid electric vehicles (PHEV) for its municipal fleet. More than 50% of its light-duty passenger fleet consists of hybrid vehicles.
- The [City of Austin, Texas: Energy Conservation Audit and Disclosure Ordinance](#) requires properties within Austin or served by Austin Energy to undergo energy audits before transferring ownership. The ordinance applies to single-family, multi-family, and commercial properties that are at least ten years old (City Code: Chapter 6-7).
- The [New Jersey Clean Energy Program: Local Government Energy Audit Program](#) provides funding to local governments, public universities, and non-profit organizations interested in performing energy audits on their buildings.
- The [Kansas City Regional Energy Efficiency and Conservation Strategy Initiative \(2009\)](#) is a partnership between the Mid-America Regional Council and 11 local jurisdictions that promotes regional energy sustainability through inter-jurisdictional collaboration and public outreach.



Promote efficient resource management, including energy, solid waste, and water (continued)

Model Policies

Solid Waste

- As part of the [Green Waste Diversion Program](#), the City of Houston partnered with Living Earth Technologies to divert recyclable tree and yard waste from local landfills. The waste is converted to mulch and compost, saving the city thousands of dollars annually in disposal fees.
- Houston's [One Bin for All Program](#) will allow residents to dispose of all discarded materials in one bin, and new technological processes will sort the waste to be recycled. The program is currently being developed with financial support from the Bloomberg Mayors Challenge.
- The [City of San Antonio, Texas: Multi-Family Recycling Ordinance \(City Code: Sec. 14-43\)](#) requires owners or managers of multi-family properties to provide their residents with recycling services. A guidebook provides property owners with information on how to implement a recycling program that meets city requirements.
- Georgia's [Regional Recycling Transfer Hubs](#) accept truckloads of recyclables from several rural communities, transferring them to long-haul transport vehicles bound for materials recovery facilities. Conglomerating smaller quantities of recyclable materials in one place allows rural localities to more effectively market their materials and reduce transportation costs, making recycling programs financial feasible.

Water

- [Austin \(Texas\) Water: Rainwater Harvesting Rebates Program](#) offers rebates to customers for installing rainwater harvesting systems, reducing the use of potable water for irrigation.
- [The Austin \(Texas\) Water: ICI Audit Rebate Pilot Program](#) offers a rebate that pays customers up to \$5,000 for an independent water audit of their industrial, commercial, or institutional facility. To qualify for the rebate, customers must commit to fixing any leaks and making any adjustments recommended by the auditor.
- [San Antonio \(Texas\) Water System](#) has the largest direct recycled water delivery system in the nation, with more than 110 miles of pipelines delivering high-quality recycled water for use by golf courses, park, commercial and industrial customers.
- As part of the [Albuquerque \(New Mexico\) Bernalillo County Water Utility Authority: Free Water Audits Program](#), both residential and commercial customers are eligible to receive free water audits. Residential customers participating in the program may receive free installation of some high-efficiency features, including low-flow shower heads.
- As part of the [Portland \(Oregon\) Water Bureau: Commercial Water Efficiency Survey Program](#), businesses may receive a free water audit, which provides recommendations on how to improve water efficiency. Upon completion of the audit, the Water Bureau works with participating businesses for up to three years, assisting with implementation of the recommended strategies and monitoring their effectiveness.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption 	<ul style="list-style-type: none"> • Increase the use of green construction practices and renewable energy sources
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of municipal energy use that is from renewable sources • Number of LEED-certified projects • Total regional energy usage • Regional energy use per capita 	<ul style="list-style-type: none"> • Coordinate policies and leverage investment • Promote equitable, affordable housing



Create a regional tree canopy strategy and urban forestry management plan

Trees provide significant aesthetic, environmental, and economic benefits, contributing to Our Region’s quality of life. By improving the urban forest, communities can reduce their carbon footprint, decrease energy costs, improve air quality, reduce stormwater runoff, enhance neighborhoods, increase property values, and reduce the urban heat island effect. An urban forestry management plan could identify actions that need to be taken to ensure the long-term vitality of urban forests. The plan could take a comprehensive, sustainable, and integrated approach to tree management, improving and coordinating management practices throughout Our Region.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Improves air quality • Improves water quality • Improves neighborhood aesthetics • Promotes inter-organizational partnerships and coordination 	<ul style="list-style-type: none"> • Plan 	<ul style="list-style-type: none"> • State Agencies • Councils of Government • Counties • Non-profits

Possible Funding Sources

- The [National Urban and Community Forestry Grant Program](#) (U.S. Dept. of Agriculture: U.S. Forest Service) funds innovative proposals for program development, study, and collaboration that address strategies described in the U.S. Forest Service’s Ten Year Action Plan. Each year, the program focuses on specific priority issues.

Implementation Tools	
<ul style="list-style-type: none"> i-Tree Software Suite 	<ul style="list-style-type: none"> Urban Forest Effects Model (UFORE)

Model Policies

- The [City of Phoenix \(Arizona\) Tree & Shade Master Plan](#) (2010) provides a framework for improving the health of urban forests throughout the city's 519 square miles. The plan describes actions various city agencies can take over the next 20 years to increase tree canopy coverage citywide.
- The [Wisconsin Department of Natural Resources: Northeast Regional Analysis Project](#) (2013) used the i-Tree Tools software suite to analyze street trees and canopy cover in 19 communities in Northeast Wisconsin. Current canopy cover was analyzed and potential canopy cover was assessed. The study also included an analysis of the ecological services provided by the region's street trees.
- Louisville, Kentucky's [Community of Trees](#) is a consortium formed by the city's mayor in 2007, consisting of government officials, universities, a local school district, state agencies, and other interests. The group was charged with developing a comprehensive approach to urban forestry citywide.

Goals	Objectives
<ul style="list-style-type: none"> Our Region values and preserves its unique ecosystems, working landscapes, parks, open spaces, and the ecological benefits they provide Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations 	<ul style="list-style-type: none"> Meet and maintain national air quality standards Continue to reduce levels of bacteria and other pollutants throughout Our Region's waterways Preserve, protect and restore green infrastructure, vital ecosystems and prime agricultural land Promote low impact development and community planning that incorporates conservation
Metrics	Livability Principles
<ul style="list-style-type: none"> Net acres of agricultural and natural resources land lost annually to development per new resident Acres of impervious surface Percentage of population that reside within 1 mile of a park or open space for rural or 1/2 mile for urban 	<ul style="list-style-type: none"> Value communities and neighborhoods



Develop regional public education campaigns about environmental issues (recycling, energy conservation, household hazardous waste disposal, composting, mobile source emissions, etc.)

Residents can take steps to ensure Our Region’s long-term environmental health, but many do not know how their actions impact the air and water. Public education campaigns about environmental issues can help residents understand how they can be actively involved in conserving resources and improving air quality, water quality, and the vitality of nearby ecosystems. Organizations can work collaboratively to ensure these programs reach a diverse audience and are tailored to meet each community’s needs.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Increases awareness of environmental issues Promotes civic engagement Promotes inter-organizational partnerships and coordination Improves air quality Improves water quality 	<ul style="list-style-type: none"> Education 	<ul style="list-style-type: none"> Councils of Governments Counties Cities Non-Profits School Districts Colleges and Universities

Possible Funding Sources

- The [Environmental Education Regional Grant Program](#) (U.S. Environmental Protection Agency) provides funding to support environmental education projects that increase public awareness of environmental issues.
- The [Environmental Literacy Grants \(ELG\)](#) Program (National Oceanic & Atmospheric Administration) provides funding for education projects implemented on regional and national scales, with the goal of increasing environmental stewardship and informed decision-making among public and K-12 audiences.
- The [Bay Watershed Education and Training \(B-WET\)](#) Program (National Oceanic and Atmospheric Administration) supports locally-relevant, hands-on environmental education for school-aged children. The Gulf of Mexico is one of the program’s focus areas.

Implementation Tools	
<ul style="list-style-type: none"> • Inter-organizational Partnerships • Classroom-Based Environmental Education • Public Training Programs • Interactive Workshops 	<ul style="list-style-type: none"> • Informational Websites • Brochures/Pamphlets • Public Events (Festivals, Fairs, etc.) • Multimedia Promotions

Model Policies

- [Bayou Land Conservancy: No Child Left Inside](#) uses hands-on experiences to teach middle and high school students in Our Region about water quality and local ecosystems.
- [Galveston Bay Foundation: Get Hip to Habitat](#) teaches students about water quality and wetland systems through interactive classroom lessons and fieldwork.
- [askHRgreen.org](#) is a regional public awareness program that increases environmental stewardship throughout southeastern Virginia’s 16 cities and counties. Administered by the Hampton Roads Planning District Commission, the website describes ways residents and businesses can recycle, conserve energy, reduce water use, and improve air and water quality.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption 	<ul style="list-style-type: none"> • Encourage water conservation across agricultural, commercial, and residential sectors to decrease water demand and maintain existing water supplies • Promote low impact development and community planning that incorporates conservation
Metrics	Livability Principles
<ul style="list-style-type: none"> • Regional Recycling Rate • Acres of high value environmental resources by category • Tons of waste sent to landfills in the region per capita 	<ul style="list-style-type: none"> • Value communities and neighborhoods



Create regional funding mechanism to upgrade and maintain aging infrastructure (water, sewer, drainage facilities)

Throughout Our Region, cities, counties, municipal utility districts (MUDs), flood control districts, and other entities are struggling to upgrade and maintain aging infrastructure. In many places, insufficient staff and resources exist for maintenance of water, sewer, and drainage facilities. Smaller entities have limited funding, making it difficult to pursue costly improvements necessary to increase efficiency, prevent property damage, and/or protect water quality. A regional funding mechanism could provide low-cost financing to entities planning improvements to aging infrastructure, preventing substandard or poorly-maintained systems from causing environmental or economic disruptions.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Improves aging infrastructure • Protects water quality • Promotes reinvestment in existing neighborhoods • Increases efficiency 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Councils of Governments • Counties • Cities • Towns • Villages • Flood Control Districts • Municipal Utility Districts • Utility Providers

Possible Funding Sources

- [Clean Water Act: Section 319 Funds](#) are provided to designated state agencies to implement approved non-point source management programs.
- [Community Development Block Grants](#) (U.S. Dept. of Housing & Urban Development) help communities address a range of unique community development needs.
- The [Water Infrastructure Fund](#) (Texas Water Development Board) provides financial assistance for the planning, design and construction of projects identified in the State Water Plan and/or Regional Water Plan.

Implementation Tools	
<ul style="list-style-type: none"> Regional Infrastructure Funds 	<ul style="list-style-type: none"> Capital Improvement Plans

Model Policies

- The [North Harris County Regional Water Authority](#), created in 1999 to reduce groundwater usage, funds infrastructure improvements through the sale of revenue bonds and groundwater pumpage fees.

Goals	Objectives
<ul style="list-style-type: none"> Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption 	<ul style="list-style-type: none"> Prioritize rehabilitation and maintenance of existing infrastructure Encourage water conservation across agricultural, commercial, and residential sectors to decrease water demand and maintain existing water supplies
Metrics	Livability Principles
<ul style="list-style-type: none"> Percentage of water demand being met Per capita water usage Gallons of water obtained from reuse projects 	<ul style="list-style-type: none"> Coordinate policies and leverage investment Support existing communities



Create a regional circuit rider program to aid in enforcement of water quality issues such as sediment runoff from construction sites, livestock/animal waste, on-site sewage facilities, illicit discharges, and illegal dumping

Many localities do not have the resources needed to investigate potential water quality issues. While preventable, improper erosion control, unmanaged animal waste, illegal dumping, and malfunctioning sewage facilities can cause significant damage to local waterways. A regional circuit rider program could provide localities with assistance enforcing existing regulations aimed at protecting water quality. Participation in the program would allow localities to work proactively to protect environmental health, without having to hire additional employees.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Promotes inter-organizational partnerships and coordination Increases government efficiency Improves water quality Maximizes resources 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> State Agencies Councils of Government Counties Cities Towns Villages

Possible Funding Sources

- The Houston-Galveston Area Council [Environmental Circuit Rider Program](#) helps counties enforce and prosecute environmental crimes by educating elected officials, law enforcement agencies, and code enforcement officers.
- The Houston-Galveston Area Council [Solid Waste Management Program](#) provides local governments and school districts with funding to support activities related to solid waste management.
- [Community Development Block Grants](#) (U.S. Dept. of Housing & Urban Development) help communities address a range of unique community development needs.

Implementation Tools	
<ul style="list-style-type: none"> Regional Circuit Rider Programs Regional Environmental Databases Model Ordinances and Policies 	<ul style="list-style-type: none"> Regional Training Workshops Model Nuisance Abatement Procedures Model On-Site Sewage Facilities Programs

Model Policies

- The Alliance for the Chesapeake Bay [Circuit Rider Program](#) provides technical assistance to local governments in York County, Pennsylvania, helping them develop and implement water quality projects that directly reduce nutrients and sediments flowing into the Chesapeake Bay watershed.
- The [MassDEP Wetlands Circuit Rider Program](#) provides technical, administrative, and regulatory assistance on wetlands-related issues to commissions, municipal boards, and consultants statewide.

Goals	Objectives
<ul style="list-style-type: none"> Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations 	<ul style="list-style-type: none"> Continue to reduce levels of bacteria and other pollutants throughout Our Region's waterways
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of stream miles for water bodies with bacteria impairments Percentage of stream miles for water bodies with bacteria impairments Number of jurisdictions adopting Bacteria Implementation Group Plan Number of stream miles that fully meet water quality standards for contact recreation Percentage of stream miles that fully meet water quality standards for contact recreation Number of TMDL implementation plans and watershed protection plans within the region Number of toxic chemical releases to land and water 	<ul style="list-style-type: none"> Value communities and neighborhoods



Promote voluntary efforts showcasing private innovation for emissions reductions from non-mobile sources

Like many other metropolitan areas throughout the country, the majority of Our Region does not meet the national air quality standard for ground-level ozone. Sources of air pollution fall into three categories:

- Mobile sources of air pollution include motor vehicles, engines, and equipment that can move from place to place.
- Stationary sources are fixed-site producers of pollution, such as power plants, chemical plants, oil refineries, manufacturing facilities, and other industrial operations.
- Area sources are a series of small sources that together can affect regional air quality, such as a large group of homes using woodstoves for heating.

Voluntary programs can promote the use of innovative programs and technologies to reduce non-mobile emissions, improving air quality without imposing additional regulations on existing businesses. Participating businesses can benefit from positive publicity and improved relations with surrounding communities, while residents enjoy cleaner air.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Improves air quality • Promotes innovation and technological advancement • Improves public image for participating businesses • Improves relationship between businesses and surrounding communities 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • State Agencies • Councils of Government • Counties • Cities • Towns • Villages • Non-Profits

Possible Funding Sources

- *No Funding Sources Currently Identified*

Implementation Tools	
<ul style="list-style-type: none"> • State Implementation Plan • Tax Incentives • Expedited Permit Review 	<ul style="list-style-type: none"> • Low-Cost Financing • Awards/Certification Programs • Grants

Model Policies

- [The City of Huntsville, Alabama: Air Pollution Achievement Awards Program](#) highlights the voluntary efforts of industrial, commercial, and institutional facilities to enhance local air quality. Administered by the Air Pollution Control Board since 1997, the program recognizes facilities that reduce harmful emissions, as well as educational programs that encourage the public to take actions aimed at improving air quality.
- [California Environmental Protection Agency: Non-Toxic Dry Cleaning Incentive Program](#) provides small grants to dry cleaning businesses willing to utilize alternative non-toxic and non-smog forming technologies, such as water-based and carbon dioxide cleaning systems.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region enjoys clean and plentiful air, water, soil and food resources to sustain healthy future generations 	<ul style="list-style-type: none"> • Meet and maintain national air quality standards
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of counties in non-attainment area • Percentage of population in non-attainment area • Number of 8-hour ozone days per year • Estimated tons of NOx reduced through MPO Air Quality programs • Number of air industrial upsets • Number of toxic chemical releases to land and water • Greenhouse gas inventory • Per capita emissions 	<ul style="list-style-type: none"> • Coordinate policies and leverage investment



Support community groups entering into dialogue with industry around air quality and environmental issues

While robust industries contribute to Our Region's prosperity, these activities can create air and water quality challenges for nearby communities. In some areas, residential neighborhoods are situated near factories, refineries, port facilities, or other industrial operations. Large-scale industrial facilities can generate harmful amounts of air, water, and/or noise pollution that can negatively impact adjacent communities. Community-based organizations can work with nearby industries to identify measures to reduce pollution, ensuring that residents' health is not compromised.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Improves relationship between businesses and surrounding communities Improves environmental health Promotes environmental equality Improves existing communities Improves quality of life 	<ul style="list-style-type: none"> Partnership 	<ul style="list-style-type: none"> State Agencies Councils of Government Counties Cities Towns Villages Non-Profits

Possible Funding Sources

- The [Environmental Justice Small Grants Program](#) (U.S. Environmental Protection Agency) helps local organizations understand and address environmental and public health issues in their communities.
- The [Environmental Justice Collaborative Problem-Solving Cooperative Agreement Program](#) (U.S. Environmental Protection Agency) provides communities with information to help them develop an effective approach to address environmental justice issues.
- The [Environmental Justice Showcase Communities Project](#) (U.S. Environmental Protection Agency) aims to help communities address environmental justice issues by promoting cooperation between governmental and non-governmental agencies.
- [Community Action for a Renewed Environment \(CARE\)](#) (U.S. Environmental Protection Agency) is a competitive grant program that helps communities organize and take action to reduce toxic pollution.

Implementation Tools	
<ul style="list-style-type: none"> Environmental Conflict Resolution Community Toolkits 	<ul style="list-style-type: none"> Inter-organizational Partnerships and Coordination

Model Policies

- [Improving Environmental Quality through Collaboration](#), headed by Mothers for Clean Air (now part of Air Alliance Houston), was an effort by local governments, universities, citizen organizations, elected officials, and industries to reduce exposure to air pollution in Southeast Houston. The project was funded by the Environmental Justice Small Grants Program in 2000.
- [Developing Plans of Action to Clean Up Environmental Problems](#) was a program in El Paso, Texas, that educated members of low-income minority communities about environmental issues. Information was provided on how community members, particularly youth, can work to improve environmental health. It was funded by the Environmental Justice Small Grants Program in 2001.
- [Empowering Residents to Learn about Clean Water](#) (Louisiana Environmental Action Network) was a project aimed at helping residents of “Cancer Alley,” an industrial area along the Mississippi River, understand water-related environmental issues plaguing their communities. Through a series of newsletters and training sessions, residents were taught how to use different tools to advocate for better water quality. The project was funded by the Environmental Justice Small Grants Program in 2000.
- Participating in [Refinery Redevelopment](#) was a project in Oklahoma that allowed members of the Cherokee and Creek tribes to become actively involved in the redevelopment of a local Superfund site. It was funded by the Environmental Justice Small Grants Program in 2000.

Goals	Objectives
<ul style="list-style-type: none"> Our Region provides choices for individuals and for local communities to fulfill their needs Our Region enjoys clean and plentiful air, water, soil and food resources to sustain healthy future generations 	<ul style="list-style-type: none"> Meet and maintain national air quality standards; Increase public awareness of and participation in local and regional planning
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of air industrial upsets Number of toxic chemical releases to land and water Number of brownfield sites Number of acres of brownfields 	<ul style="list-style-type: none"> Value communities and neighborhoods



Develop local parks and open space plans

Parks and open space are an important part of every community. These places improve quality of life, conserve environmental resources, protect cultural sites, and preserve Our Region’s sense-of-place. Parks and open space plans are long-range planning documents that guide the acquisition, maintenance, and development of open space, and describe recommended policies and recreational programs. Policymakers use the plan’s recommendations when creating budgets, developing capital improvement plans, and making land use decisions.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Increases government efficiency Guides public policy Protects natural habitat Protects cultural resources Promotes active living 	<ul style="list-style-type: none"> Plan 	<ul style="list-style-type: none"> Counties Cities Towns Villages Non-Profits

Possible Funding Sources

- Several [Recreation Grant Programs](#) are administered by Texas Parks & Wildlife, supporting indoor and outdoor recreation in rural, suburban, and urban communities.

Implementation Tools
<ul style="list-style-type: none"> Parks and Open Space Plans Planning Charrettes/Visioning Workshops

Model Policies

- The [Fort Bend \(Texas\) County Parks, Recreation, and Open Space Master Plan \(2007 Update\)](#) establishes priorities for future park and recreation improvements throughout the county’s unincorporated areas (and incorporated areas without a parks department), providing direction for parkland and open space acquisition.
- [Towards a Bright Future: A Green Infrastructure Plan for El Paso, Texas \(2007\)](#) aims to improve public access to parkland, while protecting environmentally-sensitive areas and cultural resources. The plan prioritizes where preservation should occur and recommends specific actions aimed at acquiring key areas.
- [Minneapolis \(Minnesota\) Park & Recreation Board Comprehensive Plan \(2007 – 2020\)](#), developed over a two-year period with significant public input, describes four vision themes that will be used to guide future development, operations, and maintenance of the Minneapolis park system.

Goals	Objectives
<ul style="list-style-type: none"> • Our residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving • Our Region’s residents are physically and mentally able to lead healthy lifestyles • Our Region values and preserves its unique ecosystems, working landscapes, parks, open spaces, and the ecological benefits they provide • Our Region’s communities are strengthened by strong social ties, local gathering places, and residents who participate in social, civic, service, and faith organizations • Our Region embraces its rich multicultural, historical, and natural assets to ensure its communities retain their unique character • Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> • Create and enhance existing community gathering places and institutions • Maximize accessibility and diversity of community facilities • Capitalize on the region’s reputation as a place of diversity, opportunity, and unique cultural, historical and natural assets • Create a built environment that is resilient and adaptive to changes in the natural environment • Encourage development in locations that are more resilient to environmental and natural disasters (and vice versa) • Increase opportunities for residents to be physically active • Create an emphasis on lifestyle choices that will reduce health care costs • Preserve, protect, and restore green infrastructure, vital ecosystems, and prime agricultural land • Increase public access to parks and natural areas • Promote low impact development and community planning that incorporates conservation
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of low and moderate income households within 1/2 mile of bikeways • Percentage of low and moderate income households within 1/2 mile of trails • Percentage of all households within 1/2 mile of bikeways • Percentage of all households within 1/2 mile of trails • Number of jurisdictions with parkland dedication ordinances • Number of conservation easements • Acres of conservation easements • Number of new parks • Acres of state and national parks lands • Parks acreage per capita by geography and park type • Percentage of population that resides within 1 mile of a park or open space for rural or 1/2 mile for urban space • Dollar value of ecological services in environmentally sensitive areas • Acres of high value environmental resources by category • Net acres of agricultural and natural resource land lost annually to development per new resident 	<ul style="list-style-type: none"> • Value communities and neighborhoods



Develop local solid waste management plans

Our Region’s residents, businesses, and industries generate millions of tons of waste each year, which must be properly handled and disposed of. Improperly managed solid waste endangers the health and safety of people and the environment. A solid waste management plan establishes goals and recommendations for handling solid waste properly. These long-range plans should consider how localities will manage storm debris, illegal dumping, construction/demolition waste, and special waste (hazardous household waste, electronics, tires, pharmaceuticals, etc.). Policymakers use these plans to guide future growth and development of the local solid waste management system, allowing them to prioritize investments in municipal facilities and programs. Recycling programs and waste reduction programs are critical components of these plans.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Increases government efficiency • Guides public policy • Reduces waste • Increases recycling • Reduces disposal costs • Protects environmental health 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Counties • Cities • Towns • Villages

Possible Funding Sources

- The [Houston-Galveston Area Council Solid Waste Management Program](#) provides local governments and school districts with funding to support activities related to solid waste management.

Implementation Tools	
<ul style="list-style-type: none"> Solid Waste Management Plans 	<ul style="list-style-type: none"> Storm Debris Plans

Model Policies

- The [City of Dallas \(Texas\) Local Solid Waste Management Plan \(2011-2060\)](#) identifies policies, programs, and infrastructure that will be needed to manage municipal solid waste and recyclable materials generated over the next 50 years. The plan promotes reuse, recycling, and conservation programs, with a goal of having zero waste by 2040.
- The [City of Seattle \(Washington\) Solid Waste Management Plan \(2004 update\)](#) describes how municipal solid waste will be managed over the next 20 years, identifying recommended policies and funding sources. These policies aim to prevent waste, increase recycling and composting, and improve services.

Goals	Objectives
<ul style="list-style-type: none"> Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption 	<ul style="list-style-type: none"> Create infrastructure and policies to increase reuse of recyclable waste products and water
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of homes with access to curbside recycling Percentage of homes with access to curbside recycling Regional recycling rate Percentage of residents within 3-mile radius of recycling center Number of recycling centers Tons of waste sent to landfills in the region per capita 	<ul style="list-style-type: none"> Value communities and neighborhoods



Expand options for the collection and recycling of both traditional materials and household hazardous waste

Throughout Our Region, communities have implemented programs aimed at better managing waste, reducing consumption, and efficiently reusing and conserving resources. These efforts have already been able to significantly reduce the overall waste stream. Creating convenient, user-friendly options for recycling and disposing of household hazardous waste (oil-based paints, motor oil, pesticides, lead-acid batteries, etc.) will further reduce the amount of trash that must be sent to landfills, lowering disposal costs and limiting potential groundwater contamination.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduces waste • Increases recycling • Protects environmental health • Conserves natural resources • Promotes creation of “green jobs” 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Counties • Cities • Towns • Villages • Businesses

Possible Funding Sources

- The [Houston-Galveston Area Council Solid Waste Management Program](#) provides local governments and school districts with funding to support activities related to solid waste management.

Implementation Tools	
<ul style="list-style-type: none"> • Inter-organizational Partnerships and Coordination • Drop-Off Centers • Buy-Back Centers • Curbside Pickup • Recycling Transfer Hubs 	<ul style="list-style-type: none"> • Dual Collection Vehicles • Organic Waste Management Programs • Building Material Reuse Centers • Used Electronics Recycling Programs • Ordinances

Model Policies

- Houston’s [One Bin for All Program](#) will allow residents to dispose of all discarded materials in one bin, and new technological processes will sort the waste to be recycled. The program is currently being developed with financial support from the Bloomberg Mayors Challenge.
- As part of the [Green Waste Diversion Program](#), the City of Houston partnered with Living Earth Technologies to divert recyclable tree and yard waste from local landfills. The waste is converted to mulch and compost, saving the city thousands of dollars annually in disposal fees.
- The City of Sugar Land offers [free curbside collection of household hazardous waste and electronics](#) on an on-call basis.
- The City of San Antonio, Texas, [Multi-Family Recycling Ordinance](#) (City Code: Sec. 14-43) requires owners or managers of multi-family properties to provide their residents with recycling services. A guidebook provides property owners with information on how to implement a recycling program that meets city requirements.
- [MetroPaint](#) is a program that recycles latex paint creating high-quality, low-cost paint available in 18 colors. The program is administered by METRO, the regional government serving the Portland, Oregon metropolitan area.
- As part of the [Athens-Clarke County Bags-to-Benches Program](#) (2006), the Athens-Clarke County (Georgia) Recycling Division partnered with Trex, a manufacturer of composite lumber, to challenge local schools to collect polyethylene (plastic grocery bags). Eleven schools participated, collecting 396,561 bags over a four-month period, with the county receiving more than \$1,000 from the sale of plastic bag bales.
- Georgia’s [Regional Recycling Transfer Hubs](#) accept truckloads of recyclables from several rural communities, transferring them to long-haul transport vehicles bound for materials recovery facilities. Conglomerating smaller quantities of recyclable materials in one place allows rural localities to more effectively market their materials and reduce transportation costs, making recycling programs financially feasible.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption 	<ul style="list-style-type: none"> • Create infrastructure and policies to increase reuse of recyclable waste products and water
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of homes with access to curbside recycling • Percentage of homes with access to curbside recycling • Regional Recycling rate • Percentage of residents within a 3-mile radius of recycling center • Number of recycling centers • Tons of waste sent to landfills in the region per capita 	<ul style="list-style-type: none"> • Value communities and neighborhoods



Create financial or regulatory incentives for developers to produce energy efficient buildings and/or expand green building programs for both new and retrofits

Our homes, businesses, and factories require large amounts of energy to heat, cool, light, and function properly. State and local governments across the country encourage green building by offering financial and/or regulatory incentives to builders, developers, and property owners. These incentives may include expedited permit review, density bonuses, tax credits and abatements, fee reductions or waivers, grants, revolving loan funds, technical assistance, and/or marketing assistance. Rewarding developers and homeowners who choose to build green is an effective way of encouraging the adoption of best practices in design, construction, and operations, while improving Our Region’s health, prosperity, and overall quality of life.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduces energy consumption • Reduces energy spending • Reduces greenhouse gas emissions • Promotes economic development • Improves environmental health 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Federal Agencies • State Agencies • Counties • Cities • Towns • Villages • Non-Profits

Possible Funding Sources

- The [Energy Efficient Commercial Building Tax Deduction](#) (IRS 179D) allows up to \$1.80 per square foot in federal tax deductions for property owners who have made energy-efficiency upgrades to their building’s lighting, HVAC, or building envelope.
- The [Weatherization Assistance Program](#) (U.S. Dept. of Energy) provides funding to low-income families interested in making energy-efficient improvements to their homes.

Implementation Tools	
<ul style="list-style-type: none"> • Expedited Permit Review • Reduced Permitting Fees • Tax Incentives • Low-Cost Financing 	<ul style="list-style-type: none"> • Awards/Certification Programs • Density Bonuses • Relaxed Development Requirements • Design Guidebooks

Model Policies

- The [Harris County \(Texas\) Green Building Tax Abatement for New Commercial Construction](#) provides tax abatements to new LEED-certified commercial buildings.
- The [City of Austin \(Texas\): Land Development Code](#) allows solar installations to exceed height limitations by 15 percent (City Code: Sec. 25-2-531).
- Under the [City of Indianapolis \(Indiana\): Green Building Incentive Program](#), property owners and developers may receive up to a 50 percent reduction in building fees, if they renovate or construct buildings using environmentally-friendly techniques.
- The Santa Barbara County (California) [Innovative Building Review Program](#) provides free guidance to developers interested in making their projects more energy-efficient. Developers may receive expedited review, reduced fees, or other incentives, depending on how many energy-efficient features are incorporated into their projects.
- The Arlington County, Virginia: [Green Building Bonus Density Program](#) allows developers to request additional bonus density and/or height, if their projects are LEED-certified and achieve certain energy-efficiency requirements.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption 	<ul style="list-style-type: none"> • Increase the use of green construction practices and renewable energy sources • Preserve, protect, and restore green infrastructure, vital ecosystems, and prime agricultural land • Promote low impact development and community planning that incorporates conservation • Increase the accessibility of safe, healthy, energy efficient housing units to residents throughout the region
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of LEED-certified projects • Total regional energy usage • Per capita energy usage 	<ul style="list-style-type: none"> • Coordinate policies and leverage investment



Conduct a local energy audit to improve energy efficiency and save money

Powering Our Region’s homes, businesses, and institutions requires large amounts of energy. Inefficient buildings and systems have significant energy losses, increasing management costs. An energy audit analyzes the energy flows within buildings, indicating actions that can be taken to reduce energy consumption and save money. Small improvements can result in considerable savings, while improving the comfort, health, and safety of users.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Reduces energy consumption Reduces energy spending 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> Counties Cities Towns Villages Businesses Non-Profits

Possible Funding Sources

- The [LoanSTAR Revolving Loan Program](#) (State Energy Conservation Office) finances energy-related cost-reduction retrofits made to public buildings. Eligible public entities receive low-cost loans to make these improvements; loans are repaid through the savings realized from these projects.

Implementation Tool

- Energy Audit

Model Policies

- The City of Austin, Texas [Energy Conservation Audit and Disclosure Ordinance](#) requires properties within Austin or served by Austin Energy to undergo energy audits before transferring ownership. The ordinance applies to single-family, multi-family, and commercial properties that are at least ten years old (City Code: Chapter 6-7).
- The [New Jersey Clean Energy Program: Local Government Energy Audit Program](#) provides funding to local governments, public universities, and non-profit organizations interested in performing energy audits on their buildings.
- The [California Wastewater Process Optimization Program](#) helps wastewater treatment facilities (both public and private) improve the energy-efficiency of their operations. Participating facilities receive free energy audits, and may be eligible for funding to implement projects recommended by the audit.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption 	<ul style="list-style-type: none"> • Increase the use of green construction and renewable energy sources
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of municipal energy use that is from renewable sources • Total regional energy usage • Per capita energy usage 	<ul style="list-style-type: none"> • Coordinate policies and leverage investment



Set up a system for consistent facility audits to identify opportunities for water conservation and reuse

Estimates show that by 2040, demand for water in Our Region will exceed available supply. Water conservation strategies can help reduce projected deficits in a cost-effective way. Conserving water helps ensure there will be clean water for future generations, while reducing the need to develop costly reservoirs, desalination plants, water treatment facilities, or other infrastructure necessary to increase water supply. Water audits analyze a facility’s water use, identifying practices individual households, businesses, and governmental entities can use to improve water-efficiency. As part of the water audit, domestic, sanitary, landscaping, and process-related water use is studied. Implementing the recommended improvements will reduce water use, which can result in significant savings.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduces water consumption in a cost-effective way • Improves resiliency • Protects environmental health 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Counties • Cities • Towns • Villages • Municipal Utility Districts • School Districts • Colleges and Universities • Hospitals • Utility Providers • Businesses • Non-Profits

Possible Funding Sources

- [System Optimization Reviews Grants](#) (U.S. Dept. of the Interior: Bureau of Reclamation) provide funding for water- and energy-efficiency projects identified as part of a WaterSMART System Optimization Review completed by the

Implementation Tools	
<ul style="list-style-type: none"> Facility Audits 	<ul style="list-style-type: none"> Assistance Implementing Recommended Water Conservation Policies

agency.

Model Policies

- The [Austin \(Texas\) Water: ICI Audit Rebate Pilot Program](#) offers a rebate that pays customers up to \$5,000 for an independent water audit of their industrial, commercial, or institutional facility. To qualify for the rebate, customers must commit to fixing any leaks and making any adjustments recommended by the auditor.
- As part of the [Albuquerque \(New Mexico\) Bernalillo County Water Utility Authority: Free Water Audits Program](#), both residential and commercial customers are eligible to receive free water audits. Residential customers participating in the program may receive free installation of some high-efficiency features, including low-flow shower heads.
- As part of the [Portland \(Oregon\) Water Bureau: Commercial Water Efficiency Survey Program](#) businesses may receive a free water audit, which provides recommendations on how to improve water efficiency. Upon completion of the audit, the Water Bureau works with participating businesses for up to three years, assisting with implementation of the recommended strategies and monitoring their effectiveness.

Goals	Objectives
<ul style="list-style-type: none"> Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations 	<ul style="list-style-type: none"> Create infrastructure and policies to increase reuse of recyclable waste products and water Encourage water conservation across agricultural, commercial, and residential sectors to decrease water demand and maintain existing water supplies
Metrics	Livability Principles
<ul style="list-style-type: none"> Percentage of water demand being met Per capita water usage Gallons of water obtained from reuse projects 	<ul style="list-style-type: none"> Enhance economic competitiveness Support existing communities



Create local farm management plans to improve water quality

Agricultural nonpoint source pollution is a major contributor to the contamination of rivers, streams, estuaries, and aquifers. Runoff from improperly-managed agricultural operations can wash sediments, nutrients, pathogens, pesticides, and metals into nearby waterways. Activities that can cause water pollution include poorly-located or managed animal feeding operations; overgrazing; plowing too often or at the wrong time; and improper, excessive, or poorly-timed application of pesticides, irrigation water, and fertilizer. Local farm management plans identify practices designed to reduce the amount of pollution affecting waterways. Many of these practices are not only environmentally-friendly, but can increase productivity and result in monetary savings.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Improves water quality Improves productivity and efficiency of agricultural operations 	<ul style="list-style-type: none"> Plan 	<ul style="list-style-type: none"> State Agencies Counties Non-Profits Private Landowners

Possible Funding Sources

- The [Clean Water State Revolving Fund Loan Program](#) (Texas Water Development Board) provides low-interest financial assistance for planning, designing, and constructing wastewater infrastructure, including nonpoint source pollution control.
- [Nonpoint source grants](#), administered by the Texas State Soil & Water Conservation Board, fund activities aimed at preventing or reducing nonpoint source pollution from agricultural operations. These grants are made available through a federal program authorized under Section 319 of the Clean Water Act.
- [Clean Water Act: Section 319 Funds](#) are provided to designated state agencies to implement approved nonpoint source management programs.
- The [Environmental Quality Incentives Program](#) (U.S. Dept. of Agriculture: Natural Resources Conservation Service) provides financial and technical assistance to agricultural producers interested in implementing conservation practices aimed at improving soil, water, air, and habitat quality. Assistance is provided through contracts that last up to ten years.
- [Conservation Technical Assistance](#) (U.S. Dept. of Agriculture: Natural Resources Conservation Service) provides technical assistance to agricultural producers, government agencies, and other stakeholders interested in conserving, maintaining, and improving natural resources in their area.

Implementation Tools	
<ul style="list-style-type: none"> Local Farm Management Plans Plan Templates 	<ul style="list-style-type: none"> Incentive-Based Voluntary Livestock Management Programs Technical Assistance Programs

Model Policies

- The [Texas State Soil & Water Conservation Board: Water Quality Management Plan Program](#) provides landowners with a plan for utilizing land management and production practices to reduce water pollution. Participation is voluntary, and plans are completed free-of-charge.
- The [Farm Water Quality Plan](#), prepared by the University of California: Division of Agriculture and Natural Resources, is a template for a comprehensive farm water quality management plan. It can be used for planning, implementing, and evaluating agricultural best management practices.
- The [Watershed Agricultural Council: Whole Farm Planning Program](#) (New York) helps farmers identify best management practices that will reduce runoff into nearby streams. By successfully integrating traditional and innovative farm management practices into a flexible, multifaceted management plan, this voluntary program is able to prevent agricultural pollution, while protecting the economic viability of farming.

Goals	Objectives
<ul style="list-style-type: none"> Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations 	<ul style="list-style-type: none"> Increase capacity for local food production by promoting stewardship of prime farmland, water resources, and improved business infrastructure for local food production Continue to reduce levels of bacteria and other pollutants throughout Our Region’s waterways Encourage water conservation across agricultural, commercial, and residential sectors to decrease water demand and maintain existing water supplies Preserve, protect, and restore green infrastructure, vital ecosystems, and prime agricultural land
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of stream miles for water bodies with bacteria impairments Percentage of stream miles for water bodies with bacteria impairments Number of jurisdictions adopting Bacteria Implementation Group Plan Number of stream miles that fully meet water quality standards for contact recreation Percentage of stream miles that fully meet water quality standards for contact recreation Number of TMDL implementation plans and watershed protection plans within the region Acres of prime farmland Number of farms Acres of active/working agricultural land Number of farms using organic/sustainable practices Net acres of agricultural and natural resource land lost 	<ul style="list-style-type: none"> Support existing communities Value communities and neighborhoods



Develop environmental justice plans to identify and address gaps and vulnerabilities

Everyone in Our Region should enjoy the same degree of protection from environmental and health hazards, and have equal access to decision-making processes that impact the health of our communities. Environmental justice planning examines whether minority, low-income, and disabled populations are unreasonably burdened by the negative environmental consequences of a policy or program, and ensures they are actively involved in public planning efforts. If these groups bear a disproportionate share of a project’s negative impacts, measures are taken to avoid, minimize, or mitigate the proposal’s adverse health, environmental, and social effects.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Increase equity Improve community health 	<ul style="list-style-type: none"> Plan 	<ul style="list-style-type: none"> Councils of Government Counties Cities Towns Villages Non-Profits

Possible Funding Sources

- The [Environmental Justice Small Grants Program](#) (U.S. Environmental Protection Agency) helps local organizations understand and address environmental and public health issues in their communities.
- The [Environmental Justice Collaborative Problem-Solving Cooperative Agreement Program](#) (U.S. Environmental Protection Agency) provides communities with information to help develop an effective approach to address environmental justice issues.
- The [Environmental Justice Showcase Communities Project](#) (U.S. Environmental Protection Agency) aims to help communities address environmental justice issues by promoting cooperation between governmental and non-

Implementation Tools	
<ul style="list-style-type: none"> Environmental Justice Assessment Guidelines 	<ul style="list-style-type: none"> Database of Environmental Justice Communities of Concern

governmental agencies.

Model Policies

- The Houston-Galveston Area Council, as the region’s Metropolitan Planning Organization (MPO), considers environmental justice issues throughout the transportation planning process, in accordance with state and federal guidelines. An [Environmental Justice Index](#) was developed to identify areas with large elderly, minority, and low-income populations. An accessibility analysis has been conducted to determine how environmental justice communities of concern are impacted by the regional transportation plan (RTP).
- In this sample [Environmental Justice Plan \(2009\)](#), the state of Michigan outlines policies aimed at promoting environmental justice statewide.

Goals	Objectives
<ul style="list-style-type: none"> Our Region’s residents are physically and mentally healthy and are able to lead healthy lifestyles Our Region values and preserves its unique ecosystems, working landscapes, parks, open spaces, and the ecological benefits they provide 	<ul style="list-style-type: none"> Increase public awareness of and participation in local and regional planning Increase public access to parks and natural areas Develop partnerships to increase funding available for projects that improve environmental quality
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of brownfield sites Number of acres of brownfields Percentage of zero-auto households in hurricane evacuation zones Percentage of elderly in hurricane evacuation zones Population in storm surge zones Percentage of population living within 100-year floodplain Percentage of population living in hurricane evacuation zones 	<ul style="list-style-type: none"> Support existing communities



Coordinate economic development and tourism plans

Our Region’s unique ecosystems can be key components of a successful economic development strategy. Preserving ecologically-significant and scenic open space not only protects the environment, but creates opportunities for ecotourism, agritourism, and outdoor recreation. High-quality parks, trails, waterways, coastlines and other environmental assets can attract tourists to Our Region and encourage residents to spend their free time here. By linking tourism, environmental stewardship, and economic development, communities can protect Our Region’s natural landscapes while boosting the local economy and improving quality of life.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Promotes economic development • Promotes open space conservation • Improves quality of life 	<ul style="list-style-type: none"> • Partnership 	<ul style="list-style-type: none"> • Counties • Cities • Towns • Villages • Economic Development Districts • Economic Development Corporations • Non-Profits • Businesses

Possible Funding Sources

- *No Funding Sources Currently Identified*

Implementation Tool

- Inter-organizational Partnerships and Coordination

Model Policies

- The [East County Bicycle Infrastructure and Economic Project](#) aims to promote economic development associated with bicycle tourism in East Multnomah County, Oregon. By raising awareness of existing infrastructure, the project aims to increase the use of existing bicycle infrastructure and gain support for future expansion, while promoting bicycle-related business development. Funded by a 2013 Regional Travel Option Grant from Metro (Portland’s regional government), the project aligns local transportation, economic development, and tourism goals.
- The [Loudoun Rural Economy Business Development Strategy](#) (2013) aims to promote economic development in western Loudoun County, Virginia by fostering business growth that is compatible with the area’s rural character, increases agricultural production, supports the equine and tourism industries, and protects high-quality farmland. The plan encourages coordination and collaboration between the agriculture, hospitality, culinary, arts, equine, and recreation industries. By integrating rural economic development and tourism, the county aims to protect its rural areas from suburban sprawl, while promoting investment in small, locally-owned businesses.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region values and preserves its unique ecosystems, working landscapes, parks, open spaces, and the ecological benefits they provide • Our Region embraces its rich multicultural, historical, and natural assets to ensure its communities retain their unique character 	<ul style="list-style-type: none"> • Increase public access to parks and natural areas • Capitalize on the region’s reputation as a place of diversity, opportunity and unique historical, cultural and natural assets
Metrics	Livability Principles
<ul style="list-style-type: none"> • Acres of high value environmental resources by category • Number of new parks 	<ul style="list-style-type: none"> • Enhance economic competitiveness • Support existing communities



Use urban design strategies that preserve and enhance the region’s unique attributes and each community’s sense of place

Where and how we build our homes and businesses directly impacts quality of life and Our Region’s unique sense of place. Urban design guidelines can help protect and enhance the features that make our cities, towns, and villages unique, ensuring new development is compatible with existing neighborhoods and protective of community assets. By promoting high-quality urban design within compact, context-sensitive development, Our Region can have vibrant communities that reflect our history, traditions, and culture.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Improves quality of life • Protects environmental resources • Protects historic resources • Improves water quality • Improves air quality • Promotes economic development • Increases property values 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Counties • Cities • Towns • Villages • Management Districts • Non-Profits • Developers

Possible Funding Sources

- As part of the [Livable Centers Program](#), the Houston-Galveston Area Council prepares planning studies aimed at creating walkable, mixed-use places that offer a variety of transportation options.
- The [Planning & Capacity Building Fund](#) (Texas Dept. of Agriculture) provides grants to small cities and counties for public facility and housing planning activities.

Implementation Tools	
<ul style="list-style-type: none"> • Architecture/Design Guidelines • Land Use Regulations (Architectural Review, Landscaping, Context-Sensitive Dimensional Requirements) 	<ul style="list-style-type: none"> • Density Bonuses/Other Development Incentives • Complete Streets Policies

Model Policies

- The [City of Houston Case Study: Urban Houston Framework](#) (2013), completed as part of the planning process for *Our Great Region 2040*, describes policy and regulatory incentives the City of Houston can use to encourage the creation of dense, sustainable communities in appropriate locations, while maintaining the character of existing neighborhoods.
- The [City of Houston: Urban Corridor Planning Initiative](#) uses land use tools to encourage pedestrian-friendly development near transit corridors.
- The [City of Austin \(Texas\): Urban Design Guidelines](#) (2009) provides recommendations on how the city and developers can create dense, vibrant, and diverse urban environments. The guidelines are divided into four sections: area-wide urban guidelines, guidelines for the public streetscape, guidelines for plazas and open space, and guidelines for buildings.
- Communities nationwide, including many in Texas, are adopting form-based codes. While traditional zoning regulations control land use, these development standards address the massing, scale, and overall appearance of newly-constructed and renovated buildings. The [City of Roanoke \(Texas\): Oak Creek Corridor Zoning District](#) (City Code: Chapter 12, Article III, Division 15) is a form-based code intended to promote pedestrian-friendly development compatible with historic buildings in the city's core.
- The [Tysons Corner Urban Design Guidelines](#) (2012: Fairfax County, Virginia) provide guidance on how a developed suburban commercial hub can transform into a new vibrant, sustainable urban center. The guidelines provide detailed information on recommended streetscape design, site design, architectural features, signage, and open space.
- The [City of Charlotte \(North Carolina\): Urban Street Design Guidelines](#) (2007) provides strategies on how to create streets that not only accommodate motorists, but provide residents with safe and comfortable places for walking and biking.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region embraces its rich multicultural, historical and natural assets to ensure its communities retain their unique character 	<ul style="list-style-type: none"> • Capitalize on the region's reputation as a place of diversity, opportunity, and unique historical, cultural and natural assets • Improve neighborhoods while preserving socioeconomic and cultural diversity
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of historical markers • Number of landmarks • Number of historic districts 	<ul style="list-style-type: none"> • Value communities and neighborhoods



Develop historic preservation regulations to preserve important community and cultural assets

Historic buildings and landscapes play a special role in creating the distinctive character of Our Region. They reflect Our Region’s rich history, traditions, and values, which distinguish us from other parts of the country. As development pressure increases, important historical structures are at a greater risk of being adversely impacted or lost entirely. If communities are not proactive, they may lose the places that make them unique. Communities nationwide are using a suite of tools to preserve cultural assets, recognizing that historic preservation programs can promote economic development and enhance quality of life. While some of these programs require the preservation of historic features, others provide financial and/or regulatory incentives to make historic preservation more appealing.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Preserves historic assets • Protects local sense of place • Enhances quality of life • Enhances existing neighborhoods • Increases property values • Promotes economic development and revitalization 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Counties • Cities • Towns • Villages • Non-Profits

Possible Funding Sources

- [Certified Local Government Grants](#) (Texas Historical Commission) provide funding to eligible local governments to develop and sustain preservation programs.
- [Humanities Texas](#) grants enable communities throughout the state to develop programs of local interest promoting heritage, culture, and education.
- The Portal to Texas History at the University of North Texas is accepting applications for its [Rescuing Texas History Mini-Grant](#) series. Each grant will provide up to \$1,000 of digitization services to libraries, archives, museums, historical societies, and other groups that house historical materials. All of the materials will be scanned at UNT Libraries and hosted on The Portal to Texas History.
- The [Certified Local Government Program](#) is a preservation partnership between local, state and national governments focused on promoting historic preservation at the grass roots level.

Implementation Tools	
<ul style="list-style-type: none"> • Historic Preservation Overlay Districts • Design Guidelines • Historic Landmark Programs • Local Inventory of Historic Resources • Review Policy for Public Construction Projects in Historic Areas 	<ul style="list-style-type: none"> • Land Use Regulations (Architectural Review, Landscaping, Context-Sensitive Dimensional Requirements) • Density Bonuses/Other Development Incentives • Tax Incentives • Low-Cost Financing • Reduced Permit Fees

Model Policies

- The [City of Houston: Historic Preservation Ordinance](#) establishes a process for officially designating buildings and neighborhoods as historic. Landmark and Protected Landmark designations recognize and protect individual historic structures, while Historic District designations provide recognition to unique, historically-significant neighborhoods (Code of Ordinances: Chapter 33, Article VII).
- The [City of League City: Historic Preservation Ordinances](#) establish a framework for creating and managing historic districts within the city. Some financial incentives are offered to those improving properties within designated historic districts (Code of Ordinances: Chapter 56).
- The [Texas Historical Commission Model Historic Preservation Ordinance](#) is a template Texas municipalities can use when creating their own historic preservation programs.
- The [Georgetown, Texas: Downtown and Old Town Design Guidelines](#) (2012) provide guidance to property owners looking to renovate or construct buildings within the Downtown and Old Town Historic Overlay Districts.
- The [2005 Idea Book: Updating Post-World War II Homes](#), prepared by the Kansas City First Suburbs Coalition, provides guidance on how homeowners can update or expand older, mid-century homes, promoting neighborhood reinvestment.
- Since 2000, the [Historic Chicago \(Illinois\) Bungalow Initiative](#) has provided homeowners with the financing and architectural expertise needed to restore the city’s iconic bungalows, some of which are 100 years old.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region embraces its rich multicultural, historical and natural assets to ensure its communities retain their unique character 	<ul style="list-style-type: none"> • Capitalize on the region’s reputation as a place of diversity, opportunity, and unique historical, cultural and natural assets
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of historical markers • Number of landmarks • Number of historic districts 	<ul style="list-style-type: none"> • Value communities and neighborhoods



Provide technical assistance and best practices to communities undergoing planning efforts

Communities can use a variety of tools to promote high-quality development compatible with citizens' vision for the future. While some municipalities already have robust planning programs, many do not have the resources necessary to develop long-range plans. Creating plans that meet the needs of residents, landowners, and developers can be difficult, time-consuming, and costly, especially for localities with limited experience and few employees.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Promotes high-quality, fiscally-responsible growth Helps citizens realize their vision for their communities Assists underserved and/or understaffed municipalities Increases government efficiency 	<ul style="list-style-type: none"> Resource 	<ul style="list-style-type: none"> Councils of Government Non-Profits

Possible Funding Sources

- As part of the [Livable Centers Program](#), the Houston-Galveston Area Council prepares planning studies aimed at creating walkable, mixed-use places that offer a variety of transportation options.
- The [Planning & Capacity Building Fund](#) (Texas Dept. of Agriculture) provides grants to small cities and counties for public facility and housing planning activities.
- As part of its [Building Blocks for Sustainable Communities Program](#), the U.S. Environmental Protection Agency provides technical assistance to select local governments, helping them implement policies that promote sustainable growth and economic development.

Implementation Tools	
<ul style="list-style-type: none"> • Technical Assistance • Workshops 	<ul style="list-style-type: none"> • Model Ordinances, Policies, and Guidebooks

Model Policies

- The [American Planning Association: Community Assistance Program](#) provides place-based assistance and advisory services to communities, regions, and neighborhoods nationwide. These services vary in cost and scope.
- The [Atlanta \(Georgia\) Regional Commission: Community Choices Program](#) provides local governments with technical assistance to implement innovative quality growth policies and plans. The costs of these services vary; some communities are selected to receive pro-bono assistance.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region provides choices for individuals and for local communities to fulfill their needs • Our Region coordinates infrastructure, housing, and transportation investments, creating areas of opportunity and enhancing existing neighborhoods 	<ul style="list-style-type: none"> • Increase public awareness of and participation in local and regional planning • Coordinate infrastructure and land use planning, construction and maintenance to optimize system performance and realize cost savings to taxpayers
Metrics	Livability Principles
<ul style="list-style-type: none"> • Net acres of agricultural and natural resource land lost annually to development per new resident • Percentage of population that reside within 1 mile of a park or open space for rural or 1/2 mile for urban space 	<ul style="list-style-type: none"> • Support existing communities • Value communities and neighborhoods



Take steps to reduce the impact of drought on existing supplies

Drought has impacted much of Our Region in recent years. Potential environmental changes may increase the frequency and severity of local droughts, straining Our Region’s water supplies. Not only must communities work proactively to identify reliable, environmentally-friendly water sources, they must also promote water conservation and reuse. Local governments can use different policies and programs to promote water conservation and water recycling practices, decreasing demand and making Our Region more resilient to drought.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Increases water supply • Reduces water use • Improves resiliency 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Federal Agencies • State Agencies • Counties • Cities • Towns • Villages • Utility Providers • River Authorities • Groundwater Conservation Districts • Subsidence Districts

Possible Funding Sources

- The [Drinking Water State Revolving Fund](#) (U.S. Environmental Protection Agency) helps state governments finance high-priority water infrastructure projects.
- [Water & Waste Disposal Direct Loans & Grants](#) (U.S. Dept. of Agriculture) provide financing to rural areas and small towns (population less than 10,000) developing community water and waste disposal systems.
- [Infrastructure Development Grants](#) (Texas Department of Agriculture) fund infrastructure improvements aimed at creating or retaining jobs in rural communities.
- The [Rural Water Assistance Fund](#) (RWAFF) Program (Texas Water Development Board) provides small rural utilities with low-cost financing for water and wastewater projects.
- The [State Participation Program](#) (Texas Water Development Board) provides financial assistance to entities constructing regional water, wastewater, or flood control projects.
- The [Water Infrastructure Fund](#) (Texas Water Development Board) provides financial assistance for planning, designing, and constructing projects identified in the State Water Plan or Regional Water Plan.
- The [Water Development Fund](#) (DFund) II (Texas Water Development Board) provides loans for the construction of water and wastewater facilities.
- The [Economically Distressed Areas Program](#) (Texas Water Development Board) offers financial assistance

Implementation Tools	
<ul style="list-style-type: none"> Water Conservation Programs Water Recycling Programs 	<ul style="list-style-type: none"> Public Education/Marketing Campaigns

to political subdivisions to provide water and wastewater services to economically-distressed areas with substandard infrastructure.

Model Policies

- [Austin \(Texas\) Water: Rainwater Harvesting Rebates Program](#) offers rebates to customers for installing rainwater harvesting systems, reducing the use of potable water for irrigation.
- [San Antonio \(Texas\) Water System](#) has the largest direct recycled water delivery system in the nation, with more than 110 miles of pipelines delivering high-quality recycled water for use by golf courses, park, commercial and industrial customers.
- The [Denver \(Colorado\) Water Drought Response Plan](#) (2011) outlines actions that will be taken to augment existing water supplies or reduce water use. The type of actions taken is dependent upon the severity of the drought.

Goals	Objectives
<ul style="list-style-type: none"> Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations Our Region efficiently uses, reuses and conserves its natural resources by managing waste and consumption 	<ul style="list-style-type: none"> Encourage water conservation across agricultural, commercial, and residential sectors to decrease water demand and maintain existing water supplies Create infrastructure and policies to increase reuse of recyclable waste products and water
Metrics	Livability Principles
<ul style="list-style-type: none"> Percentage of water demand being met Per capita water usage Gallons of water obtained from reuse projects 	<ul style="list-style-type: none"> Enhance economic competitiveness Coordinate policies and leverage investment



Support legislation and funding initiatives for increasing water conservation efforts and technologies and wastewater reuse

By 2040, estimates show that demand for water in Our Region will exceed available supply. Water conservation and reuse efforts can be cost-effective ways of addressing Our Region’s water needs. Legislative and financial support can help local governments effectively implement water conservation and reuse programs. A variety of different policies and programs can be used at the local level to promote water conservation and water recycling practices, decreasing demand and making Our Region more resilient to drought in a fiscally- and environmentally-responsible way.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduces water consumption • Improves resiliency • Enables communities to develop policies/programs to meet local needs • Improves environmental health 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • State Legislature • Councils of Government • Counties • Cities • Towns • Villages • Municipal Utility Districts • Utility Providers • River Authorities • Groundwater Conservation Districts • Subsidence Districts • Non-Profits

Possible Funding Sources

- *No Funding Sources Currently Identified*

Implementation Tools	
<ul style="list-style-type: none"> • New State Legislation • New State Funding Sources 	<ul style="list-style-type: none"> • Inter-organizational Partnerships and Coordination

Model Policies

- The 2010 Georgia Water Stewardship Act aims to increase water conservation efforts statewide, helping ensure there is an adequate water supply for a growing population. The legislation outlined new requirements for local governments, public water systems, and state agencies. Local governments are required to restrict outdoor water use for landscaping and enforce updated plumbing codes that require the use of high-efficiency fixtures. Public water systems must complete annual water loss audits, and state agencies must work collaboratively to enhance programs and incentives for voluntary water conservation.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations • Our Region efficiently uses, reuses and conserves its natural resources by managing waste and consumption 	<ul style="list-style-type: none"> • Encourage water conservation across agricultural, commercial, and residential sectors to decrease water demand and maintain existing water supplies • Create infrastructure and policies to increase reuse of recyclable waste products and water
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of water demand being met • Per capita water usage • Gallons of water obtained from reuse projects 	<ul style="list-style-type: none"> • Coordinate policies and leverage investment

Healthy Communities



Establish regional infrastructure and distribution mechanisms to support farmers markets and other means to provide fresh, healthy food to residents across Our Region

Access to healthy foods helps people maintain a well-balanced diet and reduces the risk of diet- and obesity-related illnesses. Many residents in Our Region have limited opportunities to purchase fresh, nutritious food, especially those living in rural areas and low-income neighborhoods. Our Region has already begun exploring ways to improve access to fresh foods, but more can be done. Farmers’ markets, high-quality grocery stores, and community gardens can provide nearby residents with easy access to healthy food. Regional food hubs, processing facilities, and storage facilities allow farmers to process and distribute their products locally. Farm-to-school, farm-to-hospital, and other partnerships between local farmers and Our Region’s institutions can promote healthy eating habits. Developing these infrastructure and distribution mechanisms will create a self-sustaining regional food network capable of providing fresh, healthy food for all.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Improves access to fresh, healthy foods Promotes healthy lifestyles Promotes economic development Supports locally-owned farms and businesses Encourages farmland preservation 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> State Agencies Council of Governments Economic Development District Counties Cities Towns Villages Non-Profits Businesses

Possible Funding Sources

- The [Specialty Crop Block Grant Program \(SCBGP\)](#) (U.S. Dept. of Agriculture) provides assistance to state agencies interested in improving the competitiveness of specialty crops.
- The [Farmers Market Promotion Program \(FMPP\)](#) (U.S. Dept. of Agriculture: Agricultural Marketing Service) offers grants to help improve and expand farmers’ markets, roadside stands, community-supported agricultural programs, agritourism activities, and other direct producer-to-consumer market opportunities.
- [Community Food Projects Competitive Grants](#) (U.S. Dept. of Agriculture: Agricultural Marketing Service) support non-profit organizations working to increase access to fresh, healthy foods within low-income communities.
- [Sustainable Agriculture Grants](#) , offered by Sustainable Agriculture Research (a national non-profit organization), support research and educational projects that promote environmentally-friendly agricultural practices.
- The [Rural Business Enterprise Grants \(RBEG\)](#) Program (U.S. Dept. of Agriculture) provides grants to facilitate the development of small and emerging rural businesses.
- [Rural Business Opportunity Grants \(RBOG\)](#) (U.S. Dept. of Agriculture) support sustainable economic development in rural communities.
- [Rural Cooperative Development Grants \(RCDG\)](#) (U.S. Dept. of Agriculture) provides funding to help establish, expand, or improve rural cooperatives and other business entities.
- The [Small Socially-Disadvantaged Producer Grant \(SSDPG\)](#) Program (U.S. Dept. of Agriculture) provides technical assistance to small, socially-disadvantaged agricultural producers.

Possible Funding Sources

- [Business and Industry Guaranteed Loans \(B&I\)](#) (U.S. Dept. of Agriculture) support economic development activities that create jobs and/or utilize sustainable practices to conserve water or energy resources.
- [Agricultural Loan Guarantee Program](#) (Texas Dept. of Agriculture) provides loan guarantees and interest rebates to agriculture-related businesses and ranching operations.
- The [Texans Feeding Texas: Surplus Agricultural Products Grant Program](#) (Texas Dept. of Agriculture) helps provide surplus agricultural products to food banks and other charitable organizations serving low-income communities. Grants help offset the costs of harvesting and transporting agricultural products to food banks throughout the state.

Implementation Tools	
<ul style="list-style-type: none"> • Farm-to-School Projects and Farm-to-Hospital Projects • Regional Food Hubs and Regional Food Processing Facilities • Technical Assistance to Food Producers and Farmers' Markets 	<ul style="list-style-type: none"> • Know Your Farmer, Know Your Food Program (U.S. Department of Agriculture) • I-PLACE3S Software (Econometric Agricultural Output Model)

Model Policies

- The [City of Houston: City Hall Farmers Market](#) offers locally-grown produce and a variety of locally-prepared foods,
- [Plant It Forward Farms](#) helps economically-disadvantaged refugees become self-sufficient by training them to grow, harvest, and sell produce from urban farms in Houston.
- The [Western North Carolina Regional Livestock Center](#) was built to provide farmers in western North Carolina with a local market to sell livestock, reducing travel time and expenses. Educational programs for farmers are held on-site. The majority of funding for the project came from grants, with local governments providing supplementary financial support.
- [Georgia Organics](#) is a non-profit organization that aims to provide Georgia's families with organically-grown foods produced by the state's farmers. The organization provides technical assistance and support to farmers through a variety of initiatives, including the Farmer-to-Farmer Mentoring Program.
- The [Sacramento \(California\) Area Council of Governments: Rural-Urban Connections Strategy](#) is an economic and environmental sustainability strategy for rural areas. As part of the project, working groups will look at economic development opportunities in rural areas, including agritourism and local food production, as well as agricultural infrastructure.
- [Appalachian Sustainable Agriculture Project](#) (Asheville, North Carolina) is a non-profit organization that supports local agriculture by providing marketing support and training to farmers, sponsoring the Get Local initiative (a local food campaign), administering the Appalachian Grown certification program, organizing farmers' markets, and managing the Growing Minds program, which helps schools integrate local foods into their programming.
- [GrowFood Carolina](#) (Charleston, South Carolina) is a regional food hub, aggregating fresh produce from nearby farms (within 120 miles) and marketing, selling, and distributing it to grocery stores, restaurants and other wholesale customers. Employees visit participating farms and educate growers on crop planning, regulatory compliance, and post-harvest handling.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations • Our Region's residents are physically and mentally healthy and are able to lead healthy lifestyles 	<ul style="list-style-type: none"> • Increase capacity for local food production by promoting stewardship of prime farmland, water resources, and improved business infrastructure for local food production • Increase access of all residents to healthy, nutritious food
Metrics	Livability Principles
<ul style="list-style-type: none"> • Revenue from agricultural production 	<ul style="list-style-type: none"> • Value communities and neighborhoods



Increase current funding and identify innovative funding sources to develop and maintain sidewalks, bikeways, bike-share infrastructure, and parks/open space that promote a more active lifestyle



Building parks, multi-use trails, sidewalks, and other amenities supportive of an active lifestyle can be costly. With many other needs competing for limited funding, it can be difficult for communities to finance these projects. Federal, state, and local agencies can work together to increase current funding, while identifying and/or creating new, innovative funding sources.

By combining public and private funding, communities can complete projects that not only encourage physical activity, but can accommodate alternative modes of transportation, spur investment in existing neighborhoods, protect environmental resources, and improve overall quality of life.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Creates new funding sources for community infrastructure Supports healthy lifestyle choices Promotes reinvestment in existing communities Increase community desirability 	<ul style="list-style-type: none"> Funding 	<ul style="list-style-type: none"> State Agencies Metropolitan Planning Organizations Counties Cities Towns Villages Management Districts Non-Profits

Possible Funding Sources

- The [MAP-21 Transportation Alternatives Program \(TAP\)](#) (U.S. Dept. of Transportation: Federal Highway Administration) provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities. The Federal Safe Routes to School Program and Recreational Trails Program are now funded under this program.
- The [Transportation, Community & System Preservation \(TCSP\)](#) Program (U.S. Dept. of Transportation: Federal Highway Administration) supports projects that integrate transportation, community, and system preservation plans and practices.
- The [Congestion Mitigation & Air Quality Improvement \(CMAQ\)](#) Program (U.S. Dept. of Transportation: Federal Highway Administration) supports surface transportation improvements designed to improve air quality and mitigate congestion.

Implementation Tools	
<ul style="list-style-type: none"> Metropolitan Planning Organization (MPO) Transportation Improvement Plan (TIP) Local Capital Improvement Plans (CIPs) Tax Increment Financing 	<ul style="list-style-type: none"> Adopt-a-Path Programs Impact Fees Federal/State Grant Programs

Model Policies

- The [City of Houston: Regional Bicycle/Pedestrian Connections to Transit](#) project was funded using public and private funds. Half of the project's cost (\$15 million) came in the form of a federal TIGER grant, with additional funds coming from local public and private organizations
- [Houston B-cycle](#), a bike-sharing program in Houston, is funded by a variety of public and private entities.
- The [Bayou Greenways Initiative](#) is a multi-organizational effort to create a continuous open space network with walking and biking trails along waterways throughout the greater Houston area. The project is being funded by public and private stakeholders.
- The [Atlanta \(Georgia\) BeltLine](#), an urban rails-to-trails project, is being financed by a variety of public and private funding

Goals	Objectives
<ul style="list-style-type: none"> • Our Region's residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving • Our Region's residents are physically and mentally healthy and are able to lead healthy lifestyles • Our Region coordinates infrastructure, housing and transportation investments, creating areas of opportunity and enhancing existing neighborhoods • Our Region values and preserves its unique ecosystem, working landscapes, parks, open spaces, and the ecological benefits they provide 	<ul style="list-style-type: none"> • Encourage community planning and design that allows for shorter trips and accommodates safe pedestrian and bicycle travel • Strengthen regional collaboration to increase transportation funding options • Increase access to commute alternatives, including transit, carpools, vanpools and telework • Increase opportunities for residents to be physically active • Create an emphasis on wellness focusing on lifestyle choices that will reduce health care costs • Improve connectivity of land uses and multiple transportation modes • Increase public access to parks and natural areas
Metrics	Livability Principles
<ul style="list-style-type: none"> • Vehicle Miles Travelled (VMT) • Mode Share • Number of Mixed Use/Transit Oriented Development (TOD) projects • Percentage of low and moderate income households within 1/2 mile of transit • Percentage of low and moderate income households within 1/2 mile of bikeways • Percentage of low and moderate income households within 1/2 mile of trails • Percentage of all households within 1/2 mile of transit • Percentage of all households within 1/2 mile of bikeways • Percentage of all households within 1/2 mile of trails • Frequency of transit and number of transit boardings • Percentage of funding approved by TPC for ped/bike and transit projects and amount requested (unmet need) • Number of jurisdictions in region with a complete streets policy • Number of complete streets projects • Number of bikes on buses • Obesity rate by county for adults and children • Number of new parks • Percentage of population that resides within 1 mile of a park or open space for rural or 1/2 mile for urban space 	<ul style="list-style-type: none"> • Coordinate policies and leverage investment • Value communities and neighborhoods • Provide more transportation choices



Create a regional task force that works across multiple disciplines (health departments, public safety, etc.) to address mental health issues



Mental health is a growing concern in Our Region, with communities struggling to provide the services necessary to meet demand. With insufficient funding and facilities, many communities are unable to provide adequate access to mental health services. A regional task force can help Our Region develop strategies for improving mental health, directing resources to policies and programs that will be the most impactful. Public safety agencies, healthcare providers, school districts, health departments and other groups could be represented; these organizations understand the mental health issues Our Region is facing, and have the expertise necessary to identify innovative programs that can help those in need. By participating in a regional task force, this diverse group of stakeholders can create a coordinated, multi-faceted approach to improving Our Region’s overall mental health.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Promotes interorganizational cooperation Increases awareness of mental health issues Creates framework for development of a coordinated regional mental health network 	<ul style="list-style-type: none"> Partnership 	<ul style="list-style-type: none"> Federal Agencies State Agencies Council of Governments Counties Cities Towns Villages Local Mental Health Authorities Healthcare Providers Non-Profits Public Safety Agencies

Possible Funding Sources

- The [Prevention and Public Health Fund](#) (U.S. Dept. of Health & Human Services) is a federal initiative that supports a variety of programs aimed at preventing illness and improving the nation’s healthcare system.

Implementation Tool

- Interdisciplinary Working Group/Task Force

Model Policies

- The [Burlington County \(New Jersey\) Community Health Improvement Plan \(2007\)](#) was developed by a committee of over 100 partners representing different areas of health and well-being. After identifying the community's health challenges and opportunities, the committee made recommendations on how stakeholders can address five priority issues.
- [Connecticut Prevention Network: Regional Action Councils](#) consist of government officials, mental health providers, law enforcement officers, social service providers, school personnel, parents, and non-profit organizations that work together to identify regional substance abuse problems and develop programs to fill identified gaps in services.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region's residents are physically and mentally healthy and able to lead healthy lifestyles 	<ul style="list-style-type: none"> • Increase access and availability of health services, especially in areas/populations that are currently underserved • Create an emphasis on wellness focusing on lifestyle choices that will reduce health care costs
Metrics	Livability Principles
<ul style="list-style-type: none"> • Dollars allocated for preventative health care • Average incidence rates of preventable diseases 	<ul style="list-style-type: none"> • Coordinate policies and leverage investment • Value communities and neighborhoods



Foster life-long neighborhoods that put an emphasis on health, incorporating elements that promote active living, social interaction, and healthy eating that allow for aging in place



Life-long communities support people of all ages and abilities, providing residents with regular opportunities to engage in physical activity, connect with other people, and access affordable, healthy foods. These are places where people have easy access to parks, sidewalks, bikeways, and other recreational facilities. Nearby farmers’ markets, grocery stores, and community gardens offer affordable, nutritious foods, while plazas and other public spaces provide opportunities for social interaction. Localities can adopt policies that support the creation of life-long communities, encouraging developers to create projects that help realize this vision. By creating neighborhoods that promote physical and mental health, communities will improve quality of life for all.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Improves quality of life • Fosters social interaction • Promotes active lifestyles • Reduces healthcare costs • Provides greater housing and transportation options • Increase community desirability 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Council of Governments • Counties • Cities • Towns • Villages • Local Housing Authorities • Neighborhood/Homeowners’ Associations • Developers • Non-Profits • Healthcare Providers

Possible Funding Sources

- The [MAP-21 Transportation Alternatives Program \(TAP\)](#) (U.S. Dept. of Transportation: Federal Highway Administration) provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities. The Federal Safe Routes to School Program and Recreational Trails Program are now funded as part of this initiative.
- The [Transportation, Community & System Preservation \(TCSP\)](#) Program (U.S. Dept. of Transportation: Federal Highway Administration) supports projects that integrate transportation, community, and system preservation plans and practices.
- The [People’s Garden Grant Program](#) (U.S. Dept. of Agriculture) provides funding for initiatives aimed at improving access to healthy foods in areas identified as “food deserts,” especially those with persistent poverty.

Implementation Tools	
<ul style="list-style-type: none"> • Community Gardens • Pocket Parks • Multi-Use Trails • Vacant Lot Clean-Up Programs • Traffic Calming Features 	<ul style="list-style-type: none"> • Complete Streets Policies • Standards/Requirements/Incentives for Sidewalks, Street Trees, Bicycle Parking, Street Interconnectivity, Crime Prevention through Environmental Design (CPTED)

Model Policies

- [Houston B-cycle](#), a bike-sharing program in Houston, is funded by a variety of public and private entities.
- The [Houston Department of Health & Human Services: Community Garden Program](#) helps residents learn how to grow food and eat healthier, with 11 community gardens located at its multi-service centers throughout the city.

Model Policies

- [Healthy Kids Houston](#) is a community-based obesity intervention program that encourages children to make healthy lifestyle choices. The program is offered at several community centers throughout the city, and is managed by the Houston Parks and Recreation Department with assistance from public and private entities .
- As part of its [Urban Grows initiative](#), the City of Houston allows community members to create vegetable gardens on vacant, publicly-owned lots.
- The [Houston Public Works & Engineering Department: Neighborhood Traffic Management Program](#) helps neighborhoods implement traffic calming measures (speed bumps, traffic circles, median islands, curb extensions, etc.) aimed at improving the safety of pedestrians and bicyclists.
- The [Houston Bikeway Program](#) promotes the City of Houston’s expanding bikeway network, which currently includes more than 300 miles of bike lanes, bike routes, and shared-use paths.
- [Great Opportunities \(GO\) Neighborhoods](#), managed by the Houston Local Initiatives Support Corporation (LISC), uses a collaborative, resident-led approach to revitalize Houston communities. Several communities throughout Houston are participating in the program.
- The [Bayou Greenways Initiative](#) is a multi-organizational effort to create a continuous open space network with walking and biking trails along bayous and creeks throughout the greater Houston area, providing many neighborhoods with easy access to new recreational opportunities.
- The [City of Pittsburgh, Pennsylvania: Edible Gardens Program](#) is a multi-agency initiative that works with volunteers to create community gardens on vacant properties within low-income neighborhoods.
- The [City of Charlotte, North Carolina: Urban Street Design Guidelines](#) provides strategies on how to create streets that not only accommodate motorists, but provide residents with safe and comfortable places for walking and biking.
- The [City of Madison, Wisconsin: Bicycle Parking Requirements](#) (Zoning Code: Sec. 28.141) requires secure off-street bicycle parking for new developments and building expansions.
- The [City of Virginia Beach, Virginia: Crime Prevention through Environmental Design – General Guidelines for Designing Safer Communities](#) (2000) provides recommendations on how different design features can make residences, businesses, and educational facilities safer.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving • Our Region’s residents are physically and mentally healthy and are able to lead healthy lifestyles. 	<ul style="list-style-type: none"> • Encourage community planning and design that allows for shorter trips and accommodates safe pedestrian and bicyclist travel • Increase opportunities for residents to be physically active
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of crashes involving bikes/pedestrians • Frequency of crashes involving bikes/pedestrians • Number of jurisdictions in the region with a Complete Streets policy • Number of governmental entities that require construction of sidewalks with new development/ redevelopment • Average county walk score • Percentage of population that resides within 1 mile of a park or open space for rural or 1/2 mile for urban space • Obesity rate by county for adults and children • Number of governmental entities with parkland dedication ordinances 	<ul style="list-style-type: none"> • Value communities and neighborhoods • Provide more transportation choices



Identify and promote existing and emerging community resources for mental health services



One in every five Houstonians has a mental illness, which impacts their mood, thinking, and behavior. Mental illnesses are often treatable, provided those affected have access to the resources needed to improve their condition. Many people seeking mental health services for themselves or loved ones are unsure where these services can be accessed, delaying treatment. Existing and emerging community resources can be identified and promoted, increasing the public’s awareness of available services.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Increases awareness of mental health services Improve quality of life 	<ul style="list-style-type: none"> Assessment 	<ul style="list-style-type: none"> State Agencies Counties Cities Towns Villages Local Mental Health Authorities Healthcare Providers Non-Profits

Possible Funding Sources

- The [Substance Abuse and Mental Health Services Administration \(SAMHSA\)](#), part of the U.S. Department of Health and Human Services, offers several funding opportunities aimed to improve mental health nationwide.

Implementation Tools	
<ul style="list-style-type: none"> Online Database Resource (e.g. Network of Care website) 	<ul style="list-style-type: none"> Mental Health Services Directory

Model Policies

- The [Montgomery County Network of Care for Mental/Behavioral Health](#) is an online database that provides information about nearby mental health services, along with helpful information on mental health issues. Communities throughout the country have similar resources.

Goals	Objectives
<ul style="list-style-type: none"> Our Region’s residents are physically and mentally healthy and able to lead healthy lifestyles 	<ul style="list-style-type: none"> Increase access and availability of health services, especially in areas/populations that are currently underserved
Metrics	Livability Principles
<ul style="list-style-type: none"> Percentage of uninsured residents Percentage of mentally ill residents receiving treatment 	<ul style="list-style-type: none"> Coordinate policies and leverage investment Value communities and neighborhoods



Expand availability of community health services and trauma care, particularly in low-income and rural areas



Although Our Region has a world-class medical center, high-quality healthcare remains inaccessible to some. Many rural and low-income communities do not have adequate healthcare services or trauma care nearby, and some residents lack the resources necessary to reach those services in neighboring communities. Underserved communities can work cooperatively with healthcare providers to improve access to medical facilities, using a variety of tools (cooperative agreements, innovative funding sources, etc.) to incentivize their development. Improving healthcare in underserved areas will boost our economy and improve quality of life, while saving households, businesses, and government agencies money.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Improves access to high-quality healthcare Improves quality of life Promotes economic development Saves households, businesses, and government agencies money 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> State Agencies Counties Cities Towns Villages Healthcare Providers EMS Providers Non-Profits

Possible Funding Sources

- [Community Facility Grants](#) (U.S. Dept. of Agriculture) help rural areas and small towns construct, enlarge, or improve community facilities for healthcare, public safety, and public services.
- The [Distance Learning & Telemedicine Loan & Grant Program](#) (U.S. Dept. of Agriculture) helps rural communities improve local telecommunications infrastructure, providing them with greater access to educational and healthcare opportunities.
- The [Rural Health Network Development Planning Grant Program](#) (U.S. Dept. of Health & Human Services) supports planning efforts aimed at improving healthcare delivery in rural areas.
- [New Access Points Grants](#) (U.S. Dept. of Health & Human Services) help organizations provide high-quality healthcare services to underserved communities.

Implementation Tools	
<ul style="list-style-type: none"> • Telemedicine • Low-Cost Healthcare Clinics 	<ul style="list-style-type: none"> • Healthcare Education Programs • Community Health Workers

Model Policies

- [Legacy Community Health Services](#), a federally-qualified health center (FQHC), provides no-cost or low-cost healthcare to Houstonians in a culturally-sensitive way. A variety of services are offered, including primary healthcare, pediatrics, family planning, behavioral health services, and dental care.
- The [Hidalgo Medical Services: Lifestyle and Values Impact Diabetes Awareness \(LaVIDA\)](#) Program is a community-based diabetes prevention and family support program that aims to reduce health disparities amongst the Hispanic population in rural southwestern New Mexico. Promotores (bilingual community health workers) provide information about diabetes and other health issues; help clients navigate the local health care system; and promote healthy eating through the Viva NM Restaurants initiative.
- The [University of Mississippi Medical Center \(UMMC\): Telehealth Program](#) provides rural residents with greater access to specialty care. Specially-trained nurse practitioners placed in rural hospitals work under the direct clinical supervision of emergency staff at UMMC via a telemedicine video link.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations • Our Region’s residents are physically and mentally healthy and able to lead healthy lifestyles 	<ul style="list-style-type: none"> • Increase access and availability of health services, especially in areas/populations that are currently underserved
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of residents within a 5-mile radius of hospital or trauma center • Percentage of residents within a 2-mile radius of community clinic (or access to primary care) 	<ul style="list-style-type: none"> • Support existing communities • Value communities and neighborhoods



Promote community education and information on the kinds of environments, activities, and resources that support mental health (e.g. information on how exercise can support mental health, where to access such activities, where to find conflict resolution classes, etc.)

Healthy behaviors can help reduce the severity of mental illnesses. Raising public awareness of these preventive measures can improve Our Region’s overall health and well-being, while reducing burdens on local law enforcement, hospitals, mental health facilities, and school systems. Educational programs can provide residents of all ages with information on maintaining positive mental health through exercise, healthy diets, and other preventive measures. Municipal governments, healthcare providers, public and private schools, and law enforcement agencies can work together to disseminate resources to people of all races, ages, and backgrounds. Not only can these measures decrease the likelihood and severity of mental illness, but can improve physical health and reduce healthcare costs throughout Our Region.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Improves overall community health • Promotes healthy eating habits • Reduces burdens on law enforcement agencies, healthcare facilities, and school districts • Reduces overall healthcare costs 	<ul style="list-style-type: none"> • Education 	<ul style="list-style-type: none"> • Counties • Cities • Towns • Villages • Local Mental Health Authorities • Healthcare Providers • School Districts • Non-Profits • Law Enforcement Agencies

Possible Funding Sources

- [Community Transformation Grants](#) (Centers for Disease Control & Prevention) support community-level programs aimed at preventing chronic diseases, such as cancer, diabetes, and heart disease.

Implementation Tools	
<ul style="list-style-type: none"> Public Education/Marketing Campaigns 	<ul style="list-style-type: none"> Classroom-Based Health Education Programs

Model Policies

- Let's Go!** is a childhood obesity program based in Maine that promotes physical activity and healthy eating amongst children to improve mental and physical health. Educational initiatives are held at schools, after-school programs, childcare centers, healthcare providers, and participating workplaces.
- LiveWell Colorado** is a non-profit organization committed to reducing obesity by promoting healthy eating and active living. Its Viva Streets program promotes active transportation options (walking, biking, etc.), while the LiveWell@School Food Initiative encompasses several programs that help schools prepare healthier foods and encourage students to make healthy food choices.

Goals	Objectives
<ul style="list-style-type: none"> Our Region's residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving Our Region's residents are physically and mentally healthy and able to lead healthy lifestyles Our Region values and preserves its unique ecosystem, working landscapes, parks, open spaces, and the ecological benefits they provide 	<ul style="list-style-type: none"> Encourage community planning and design that allows for shorter trips and accommodates safe pedestrian and bicyclist travel Increase access and availability of health services, especially in areas/populations that are currently underserved Increase opportunities for residents to be physically active Create an emphasis on wellness focusing on lifestyle choices that will reduce health care costs Increase public access to parks and natural areas
Metrics	Livability Principles
<ul style="list-style-type: none"> Percentage of low and moderate income households within 1/2 mile of transit Percentage of low and moderate income households within 1/2 mile of bikeways Percentage of low and moderate income households within 1/2 mile of trails Percentage of all households within 1/2 mile of transit Percentage of all households within 1/2 mile of bikeways Percentage of all households within 1/2 mile of trails Obesity rate by county for adults and children Dollars allocated for preventative healthcare Number of new parks Percentage of population that resides within 1 mile of a park or open space for rural or 1/2 mile for urban space 	<ul style="list-style-type: none"> Enhance economic competitiveness Value communities and neighborhoods



Provide police departments and other law enforcement with information/training on how to handle residents with mental health issues, and information on local resources for getting people help

Through the course of their careers, most law enforcement officers will have to respond to calls involving people with mental health issues. Many of these calls involve repeat contacts, who are suspected of committing minor crimes or exhibiting nuisance behavior. An officer’s response impacts how the situation will be resolved, as well as the individual’s future mental health. Training programs will help law enforcement officers interact with residents with mental health issues appropriately, protecting the safety of themselves and the mentally ill. Law enforcement officers can help the mentally ill access the care they need by providing them with information on locally-available resources.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Improve safety of law enforcement officials, residents with mental health issues, and the public • Increase access to mental health services • Reduce government costs (law enforcement response time, confinement costs, etc.) 	<ul style="list-style-type: none"> • Education 	<ul style="list-style-type: none"> • Council of Governments • Counties • Cities • Towns • Villages • Local Mental Health Authorities • Non-Profits • Law Enforcement Agencies

Possible Funding Sources

- The [Texas Criminal Justice Planning Fund \(Fund 421\)](#) supports a wide range of projects aimed at reducing crime and improving the criminal justice system.
- [Law Enforcement & Behavioral Health Partnerships for Early Diversion Grants](#) (Substance Abuse & Mental Health Services Administration) support community-based programs designed to keep individuals with mental health issues out of the criminal justice system.

Implementation Tools	
<ul style="list-style-type: none"> Informational Programs/Seminars for Law Enforcement Agencies 	<ul style="list-style-type: none"> Guidebook for Law Enforcement Agencies on Effective Response Techniques

Model Policies

- The [City of Memphis \(Tennessee\) Police Department: Crisis Intervention Team](#) is made up of officers that receive special training from mental health professionals to respond appropriately to crisis calls involving residents with mental health issues. Since its creation in 1988, this program has served as a model for law enforcement agencies nationwide.
- The [New River Valley Crisis Intervention Team](#) is the first rural, multi-jurisdictional adoption of a model developed in Tennessee. Initially funded by a federal grant, the program offers trainings to law enforcement officers from communities throughout the New River Valley (for free) and any other locality in Virginia (for a fee).

Goals	Objectives
<ul style="list-style-type: none"> Our Region's residents are physically and mentally healthy and able to lead healthy lifestyles 	<ul style="list-style-type: none"> Increase access and availability of health services, especially in areas/populations that are currently underserved
Metrics	Livability Principles
<ul style="list-style-type: none"> <i>No metrics currently identified</i> 	<ul style="list-style-type: none"> Coordinate policies and leverage investment



Create a healthy community design guidebook to reflect the community’s character and values and provide safe access to community amenities

The way we design and build our communities impacts our physical and mental health. Communities designed for healthy living promote physical activity, foster social interaction, have clean air and water, and provide access to healthy foods. For example, safe and convenient bicycle and pedestrian connections encourage residents to use active transportation, while community gardens and farmers’ markets provide residents with nutritious foods. A guidebook could describe how planners, architects, developers, and policymakers can create healthy environments for residents, workers, and visitors. Not only can the design elements described in the guidebook help improve community health, but can enhance everyone’s quality of life.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Helps create healthy communities • Promotes use of alternative modes of transportation • Promotes creation of inclusive communities • Promotes active lifestyles • Improves quality of life 	<ul style="list-style-type: none"> • Resource 	<ul style="list-style-type: none"> • Council of Governments • Counties • Cities • Towns • Villages • Management Districts • Non-Profits

Possible Funding Sources

- [Active Living Research](#), a national non-profit organization, funds projects examining environmental and policy strategies that promote daily physical activity amongst American children and families.

Implementation Tool

- Healthy Community Design Guidebook

Model Policies

- New York City’s [Active Design Guidelines: Promoting Physical Activity and Health in Design](#) (2010) describes strategies architects and urban designers can use to create healthier buildings, streets, and urban spaces.
- The [Local Government Commission’s Healthy Communities in California’s San Joaquin Valley: Community Design Toolkit](#) (2009) describes community design best practices, recommendations, and policies that will help make the San Joaquin Valley a healthier place to live.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents are physically and mentally healthy and able to lead healthy lifestyles • Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving • Our Region values and preserves its unique ecosystem, working landscapes, parks, open spaces, and the ecological benefits they provide 	<ul style="list-style-type: none"> • Increase opportunities for residents to be physically active • Create an emphasis on wellness focusing on lifestyle choices that will reduce health care costs • Encourage community planning and design that allows for shorter trips and accommodates safe pedestrian and bicyclist travel • Preserve, protect and restore green infrastructure, vital ecosystems and prime agricultural land • Increase public access to parks and natural areas
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of jurisdictions with parkland dedication ordinances • Number of jurisdictions in region with a complete streets policy • Percentage of low and moderate income households within 1/2 mile of transit • Percentage of low and moderate income households within 1/2 mile of bikeways • Percentage of low and moderate income households within 1/2 mile of trails • Percentage of all households within 1/2 mile of transit • Percentage of all households within 1/2 mile of bikeways • Percentage of all households within 1/2 mile of trails • Number of safe routes to school programs and participating schools in the region • Number of new parks • Percentage of population that resides within 1 mile of a park or open space for rural or 1/2 mile for urban space 	<ul style="list-style-type: none"> • Value communities and neighborhoods



Adopt and use the CDC’s Local Health Impact Assessment tool to inform policies and decision-making for new development and revitalization projects

Decisions by local and regional policymakers can affect the health of our communities, even if they seem unrelated to public wellness. Health impact assessments (HIAs) evaluate the potential health effects of a plan, project, or policy before it is implemented or built, providing recommendations on how to increase positive health outcomes and minimize any adverse impacts. These assessments are based on scientific data, stakeholder involvement, and professional analysis, providing public officials with sound information on which to make decisions. These assessments can be used to analyze federal, state, or local proposals that fall outside traditional public health arenas, such as transportation and land use.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Helps protect public health Improves quality of life 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> State Agencies Counties Cities Towns Villages Non-Profits

Possible Funding Sources

- The [Robert Wood Johnson Foundation/The Pew Charitable Trusts: Health Impact Project](#) provides funding to communities interested in completing a health impact assessment to inform local policies.

Implementation Tool

- Local Health Impact Assessment Tool (Centers for Disease Control and Prevention)

Model Policies

- The [Nashville \(Tennessee\) Metropolitan Planning Organization: Health Impact Assessment for the Northeast Corridor](#) (2011) assessed the health impacts potential transit-oriented development (TOD) would have on the surrounding community.
- A [Health Impact Assessment of Park, Trail, and Green Space Planning in the West Side of Greenville, South Carolina](#) (2013) was completed to inform the local comprehensive planning process, studying the impacts potential open space could have on three economically-distressed neighborhoods.
- The [St. Louis Park Comprehensive Plan Health Impact Assessment](#) (2011), completed by the Minnesota Department of Health, analyzed how community health issues are addressed in a local comprehensive plan.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region's residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving • Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations • Our Region's residents are physically and mentally able to lead healthy lifestyles • Our Region coordinates infrastructure, housing and transportation investments, creating areas of opportunity and enhancing existing neighborhoods • Our Region's communities have a range of quality housing choices that meet the diverse needs and preferences of all residents • Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption 	<ul style="list-style-type: none"> • Encourage community planning and design that allows for shorter trips and accommodates safe pedestrian and bicyclist travel • Meet and maintain national air quality standards • Continue to reduce levels of bacteria and other pollutants throughout Our Region's waterways • Increase opportunities to be physically active • Coordinate infrastructure and land use planning, construction and maintenance to optimize system performance and realize cost savings to taxpayers • Prioritize rehabilitation and maintenance of existing infrastructure • Increase the supply of affordable housing units in areas with good pedestrian infrastructure and access to transit and public services • Increase the accessibility of safe, healthy, energy efficient housing units to residents throughout the region • Increase the use of green construction practices and renewable energy sources
Metrics	Livability Principles
<ul style="list-style-type: none"> • Vehicle Miles Travelled (VMT) • Mode Share • Number of Mixed Use/Transit Oriented Development (TOD) projects • Percentage of low and moderate income households within 1/2 mile of transit • Percentage of low and moderate income households within 1/2 mile of bikeways • Percentage of low and moderate income households within 1/2 mile of trails • Percentage of all households within 1/2 mile of transit • Percentage of all households within 1/2 mile of bikeways • Percentage of all households within 1/2 mile of trails • Estimated tons of Nox reduced through H-GAC Air Quality Programs • Number of air industrial upsets • Per capita carbon emissions • Obesity rate by county for adults and children 	<ul style="list-style-type: none"> • Value communities and neighborhoods



Address barriers to access to fresh, healthy foods at the local level, including examining barriers in local ordinances and policies to urban/suburban agriculture, and examining incentives for location of grocery stores and farmers markets in food deserts

Lack of access to high-quality, nutritious foods prevents some of Our Region’s residents from maintaining a healthy diet, increasing their risk of suffering from obesity and related diseases. A variety of tools can be used to provide convenient access to fruits, vegetables, and other healthy foods. Regulatory and financial incentives encourage urban/suburban farming and the operation of full-service grocery stores in underserved areas, promoting economic development while improving overall health.

Urban Farming: While there is growing interest in local food production, municipal ordinances and policies often limit farming in urban and suburban neighborhoods. In some communities, zoning regulations and deed restrictions prohibit backyard gardening and/or the keeping of poultry and livestock. Cities nationwide are revising their policies on urban agriculture to provide greater flexibility, recognizing that small-scale food production can be done in urban and suburban neighborhoods without being a nuisance to nearby residents.

Food Deserts: Parts of Our Region have limited access to healthy foods, due to a lack of full-service grocery stores and farmers’ markets offering fresh, high-quality fruits, vegetables, and meats at affordable prices. These food deserts occur primarily in low-income urban and rural areas, where economic realities make operating a profitable grocery store difficult. Communities nationwide are offering a variety of incentives (loans, grants, tax credits, expedited permit review, site acquisition assistance, etc.) to grocers opening stores within food deserts, directing investment to communities most in need.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Increases access to healthy foods Promotes economic development 	<ul style="list-style-type: none"> Policy/Program Assessment 	<ul style="list-style-type: none"> State Agencies Council of Governments Counties Cities Towns Villages Non-Profits Developers

Possible Funding Sources

- The [Farmers Market Promotion Program \(FMPP\)](#) (U.S. Dept. of Agriculture: Agricultural Marketing Service) offers grants to help improve and expand farmers’ markets, roadside stands, community-supported agricultural programs, agritourism activities, and other direct producer-to-consumer market opportunities.
- [Community Food Projects Competitive Grants](#) (U.S. Dept. of Agriculture: Agricultural Marketing Service) support non-profit organizations working to increase access to fresh, healthy foods within low-income communities.

Implementation Tools	
<ul style="list-style-type: none"> • Ordinance/Policy Audit • Expedited Permit Review 	<ul style="list-style-type: none"> • Financial Incentives (Tax Breaks, Land Acquisition Assistance, Low-Interest Loans)

Model Policies

- The [California FreshWorks Fund](#) is a public-private partnership that provides funding to grocers and health food retailers interested in opening stores in underserved areas.
- The [Pennsylvania Fresh Food Financing Initiative \(FFFI\)](#) is a statewide program that provides several financing options to supermarkets and fresh food retailers willing to locate to high-need neighborhoods.
- The [FRESH Program](#) (New York, New York) provides zoning and financial incentives to companies opening grocery stores in underserved neighborhoods.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region enjoys clean and plentiful water, air, soil, and food resources to sustain healthy future generations • Our Region’s residents are physically and mentally able to lead healthy lifestyles 	<ul style="list-style-type: none"> • Increase capacity for local food production by promoting stewardship of prime farmland, water resources, and improved business infrastructure for local food production • Increase access of all residents to healthy, nutritious food
Metrics	Livability Principles
<ul style="list-style-type: none"> • Acres of prime farmland • Number of farms • Acres of active/working agricultural land • Revenue from agricultural production • Number of farms using organic practices • Percent of total population that reside in a low income census tract AND reside more than one mile from a supermarket/large grocery store 	<ul style="list-style-type: none"> • Coordinate policies and leverage investment • Value communities and neighborhoods



Pursue joint-use agreements to allow for recreation to occur at schools and other community facilities

Local schools usually have athletic fields, playgrounds, and other recreational amenities on-site, but they are not always accessible to the public. Due to security, liability, and financial concerns, many schools prohibit public use of their properties after school hours. Local governments and school districts can work together to address these concerns, sharing the costs associated with allowing greater public use of school facilities. Joint use agreements are legal documents that set forth the terms and conditions for the shared use of public facilities. These agreements vary in complexity, and can be tailored to meet local needs and expectations. Allowing greater public use of these facilities will provide nearby residents with greater recreational opportunities with minimal costs, promoting active lifestyles in a fiscally-responsible way.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Expands recreational opportunities in a fiscally-responsible way Promotes inter-organizational partnerships and cooperation 	<ul style="list-style-type: none"> Partnership 	<ul style="list-style-type: none"> Counties Cities Towns Villages School Districts Non-Profits

Possible Funding Sources

- No Funding Sources Currently Identified*

Implementation Tool

- Joint-Use Agreements

Model Policies

- [Texas House Bill No. 1018](#) allows for the establishment of community partnerships and the development of policy recommendations for increasing physical activity and improving fitness among public school students.
- [An Agreement for the Joint Use of Facilities between the Seattle \(Washington\) School District No. 1 and Seattle Parks and Recreation \(2010 – 2015\)](#) establishes guidelines allowing the joint use of properties owned by the city and the local school district, describing the management responsibilities of each entity.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents are physically and mentally healthy and are able to lead healthy lifestyles 	<ul style="list-style-type: none"> • Increase opportunities to be physically active
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of joint-use agreements • Number of jurisdictions involved in a joint-use agreement 	<ul style="list-style-type: none"> • Coordinate policies and leverage investment • Value communities and neighborhoods



Encourage local jurisdictions to apply for Safe Routes to School grants or develop local safe routes to schools programs

Childhood obesity and inactivity has become a growing national problem. Walking or biking to school provides children with regular physical activity, improving their long-term health and well-being. In 2009, only 13% of children walked or biked to school, compared to 50% in 1969. The Safe Routes to School program provides funding to communities to improve pedestrian and bicyclist safety and accessibility, making active transportation options more appealing. Rural, suburban, and urban communities throughout Our Region have received funding from this program, making existing neighborhoods more livable and sustainable. Not only does walking to school provide health benefits, but can help reduce congestion and lower local schools' transportation costs.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Promotes healthy lifestyles • Decreases congestion • Provides greater transportation options • Improves air quality • Increases the desirability of existing neighborhoods 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Counties • Cities • Towns • Villages • School Districts

Possible Funding Sources

- The [MAP-21 Transportation Alternatives Program \(TAP\)](#) (U.S. Dept. of Transportation: Federal Highway Administration) provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities. The Federal Safe Routes to School Program is now funded under this program.

Implementation Tool

- Safe Routes to School Program

Model Policies

- Several municipalities and school districts throughout Our Region have received [Safe Routes to School \(SRTS\)](#) grants, including the cities of Clute, East Bernard, Huntsville, Palacios, Rosenberg, and Sealy, along with Channelview Independent School District (ISD), Crosby ISD, Cypress-Fairbanks ISD, Galena Park ISD, Houston ISD, Sheldon ISD, and Waller ISD.
- The [Marin County, California Safe Routes to School Program \(SR2S\)](#), overseen by the Transportation Authority of Marin, promotes walking, bicycling, taking transit, and carpooling to school through a variety of initiatives. Events, contests, and promotional materials encourage children and parents to walk and bicycle, and trained crossing guards placed throughout the county make walking safer. Technical assistance and funding are available to communities and schools interested in planning or building safer pedestrian and bicycle routes.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving 	<ul style="list-style-type: none"> • Encourage community planning and design that allows for shorter trips and accommodates safe pedestrian and bicyclist travel • Improve the safety of all transportation systems
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of Safe Routes to School programs 	<ul style="list-style-type: none"> • Provide more transportation choices • Value communities and neighborhoods



Develop incentives for developers to include bicycle/pedestrian accommodations, parks, and other amenities that support active living

Approximately 48 percent of Our Region’s residents live within one-quarter mile of a park or trail. As our communities develop and redevelop, increasing access to parks, trails, and other recreational facilities will provide greater opportunities for active living. Not only will these amenities increase residents’ quality of life, but increase the desirability (and property values) of Our Region’s neighborhoods. Local governments can encourage developers to provide bicycle/pedestrian accommodations, parks, and other amenities that support active living by offering density bonuses, expedited permit review, fee reductions, grants, revolving loan funds, alternative design standards and/or other incentives to those with projects exceeding minimum requirements for open space and recreational facilities.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Encourages the construction of communities with amenities that promote active living Increases community desirability 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> Counties Cities Towns Villages Management Districts Developers

Possible Funding Sources

- No Funding Sources Currently Identified*

Implementation Tools	
<ul style="list-style-type: none"> Density/Intensity Bonuses Expedited Permit Review 	<ul style="list-style-type: none"> Alternative Standards for Exceeding Minimum Requirements Reduced Permit/Review/Impact Fees

Model Policies

- The [City of Saratoga Springs, New York: Density Bonus for Public Recreation or Affordable Housing Provisions](#) (Zoning Ordinance: Section 4.3) allows the local planning commission to allow a density bonus of up to 20 percent within certain zoning districts, if developers provides new public recreational facilities or public access to an important natural resource (or at least 20 percent of new housing is available to low- to moderate-income households).
- The [City of Redmond, Washington: Overlake Village Incentive Program](#) (Zoning Ordinance: Sec. 21.12.170) allows developers in a certain neighborhood additional height and density for constructing a major park or public plaza, or improving an existing plaza. Incentives are also available for developers that incorporate environmentally-friendly practices, exceptional design features, or affordable housing into their projects.
- The [Town of Beekman, New York: Incentive Zoning](#) (Town Code: Section 155-55) allows the local planning commission to permit increased density, decreased dimensional standards (setbacks, minimum lot area, or other bulk standards), and/or increased impervious coverage or building heights.

Goals	Objectives
<ul style="list-style-type: none"> Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving 	<ul style="list-style-type: none"> Encourage community planning and design that allows for shorter trips and accommodates safe pedestrian and bicyclist travel
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of jurisdictions in region with a complete streets policy Number of complete streets projects Percentage of low and moderate income households within 1/2 mile of transit Percentage of low and moderate income households within 1/2 mile of bikeways Percentage of low and moderate income households within 1/2 mile of trails Percentage of all households within 1/2 mile of transit Percentage of all households within 1/2 mile of bikeways Percentage of all households within 1/2 mile of trails Percentage of population that resides within 1 mile of a park or open space for rural or 1/2 mile for urban space 	<ul style="list-style-type: none"> Provide more transportation choices Coordinate policies and leverage investment Value communities and neighborhoods



Update design standards to reflect CPTED (Crime Prevention through Environmental Design) principles to help address safety concerns in the physical and built environment

The physical design and character of the built environment influences criminal behavior, affecting the safety of residents living, working, and playing in our neighborhoods. Crime Prevention through Environmental Design (CPTED) is an approach that aims to reduce criminal behavior through the use of various community design techniques. Maximizing visibility to and from buildings, streets, and other areas, and managing access to public and private spaces, can deter criminal activity by making inappropriate behavior more noticeable. By providing the public with updated design standards, localities can encourage developers, residents, and other property owners to utilize CPTED strategies when building, renovating, and maintaining their properties. The use of CPTED strategies can make our communities safer places to live, improving residents' quality of life and the desirability of our neighborhoods.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Improves safety Improves quality of life Increased community desirability 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> Counties Cities Towns Villages Developers

Possible Funding Sources

- The [Texas Criminal Justice Planning Fund](#) (Fund 421) supports a wide range of projects aimed at reducing crime and improving the criminal justice system.

Implementation Tools	
<ul style="list-style-type: none"> • Design Guidebooks • Changes to Land Development Regulations 	<ul style="list-style-type: none"> • Municipal Building Design Standards

Model Policies

- The City of Virginia Beach, Virginia: [Crime Prevention through Environmental Design – General Guidelines for Designing Safer Communities \(2000\)](#) provides recommendations on how different design features can make residences, businesses, and educational facilities safer.
- [Crime Prevention through Environmental Design: Durham \(North Carolina\) Guide to Creating a Safer Community](#) describes design techniques and practices that can improve the safety of neighborhoods, commercial, areas, and public spaces.
- [Crime Prevention through Environmental Design: A Guide to Safe Environments in Prince William County, Virginia](#), created by the local police department, details how new and existing homes, businesses, neighborhoods, parking areas, and open spaces can be built and maintained to deter criminal activity.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving 	
Metrics	Livability Principles
<ul style="list-style-type: none"> • Mode Share • Crime rate by Zip code • Number of Mixed Use/Transit Oriented Development (TOD) projects 	<ul style="list-style-type: none"> • Value communities and neighborhoods

Housing



Develop local housing plans to accommodate future growth

Ensuring a sufficient range of housing options is part of maintaining a vibrant community. As Our Region continues to grow, planning for the provision of shelter of future residents needs to be considered. Developing a housing plan allows municipalities to examine their current and future housing needs. A housing plan identifies existing housing conditions and needs, and establishes the goals, objectives, and policies that are the foundation of housing and growth strategy. Additionally, the housing plan should design programs to implement and create sustainable, mixed-income neighborhoods.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Describes existing housing conditions • Helps communities plan for future housing needs 	<ul style="list-style-type: none"> • Plan 	<ul style="list-style-type: none"> • Counties • Cities • Towns • Villages • Management Districts • Local Housing Authorities

Possible Funding Sources

- [Choice Neighborhoods Planning Grants](#) (U.S. Dept. of Housing and Urban Development) support the development of comprehensive neighborhood revitalization plans which focus on directing resources to address three core goals: Housing, People and Neighborhoods. To achieve these core goals, communities must develop and implement a comprehensive neighborhood revitalization strategy, or Transformation Plan. The Transformation Plan will include revitalization of the public and/or assisted housing units while simultaneously directing the transformation of the surrounding neighborhood.
- [Community Development Block Grants](#) (U.S. Dept. of Housing and Urban Development) provide communities with resources to address a wide range of unique community development needs. It is an important tool for helping local governments tackle serious challenges facing their communities. Not less than 70 percent of CDBG funds must be used for activities that benefit low- and moderate-income persons.

Implementation Tools	
<ul style="list-style-type: none"> Housing Plan Housing Needs Analysis 	<ul style="list-style-type: none"> Transformation Plan

Model Policies

- The Loudoun County, Virginia: [Five-Year Fair Housing Plan with Analysis of Impediments \(2009\)](#) was created as a part of their consolidated plan to further fair housing choice. The plan examines socio-demographics, housing profiles, support for housing choice, and physical characteristics. Additionally, the plan contains Loudoun County’s analysis of impediments to fair housing choice.
- Des Moines, Iowa: [Municipal Housing Agency Plan](#) is a comprehensive guide to the Des Moines Municipal Housing Agency’s (DMMHA) policies, programs, operations, and strategies for meeting local housing needs and goals. The planning process is an annual opportunity to determine the agency’s role in the community, both currently and in the future. Strategic planning helps DMMHA decide what mechanisms it will use to reach its goals.
- The [City of College Park, \(Maryland\): Housing Plan](#) was created to increase the focus on housing to meet the needs of the entire city and to guide and direct future housing development and neighborhood revitalization.
- Seattle, Washington’s [Consolidated Plan for Housing and Community Development](#) describes the city’s housing and community development needs, particularly those of low-income residents, and outlines strategies to address those needs over the next four years.
- The [Center for Neighborhood Technology: Housing & Transportation Affordability Index](#) estimates transportation costs on the neighborhood level, allowing policymakers to determine how transportation affects the cost of living in their community.

Goals	Objectives
<ul style="list-style-type: none"> Our Region coordinates infrastructure, housing, and transportation investments, creating areas of opportunity and enhancing existing neighborhoods Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving 	<ul style="list-style-type: none"> Encourage community planning and design that allows for shorter trips and accommodates safe pedestrian and bicyclist travel Coordinate infrastructure and land use planning, construction and maintenance to optimize system performance and realize cost savings to taxpayers
Metrics	Livability Principles
<ul style="list-style-type: none"> Housing + Transportation Affordability: Proportion of household income spent on housing and transportation costs Percentage of all households within 1/2 mile of transit Percentage of all households within 1/2 mile of bikeways Percentage of all households within 1/2 mile of trails Percentage of single-family and multi-family housing 	<ul style="list-style-type: none"> Support existing communities. Value communities and neighborhoods Coordinate policies and leverage investment



Provide financial incentives, such as tax foreclosure property programs or property lien dismissals, for developers to build diverse housing types near jobs, transit centers, and services, including mixed-use developments and housing that has a variety of price points



State and federal housing dollars are limited and competition for resources is fierce. Many municipalities have developed local funding mechanisms for affordable housing. Local resources can make it possible to tailor assistance to locally-identified priorities, and make it easier to leverage state and federal funds (applicants who can provide a local match usually have a competitive advantage), resulting in a larger investment per local dollar spent. Local assistance can take a variety of forms, including providing direct funding or indirect assistance in the form of tax relief and/or fee reductions and waivers. Private donations and fundraising can also provide critical assistance to local projects.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Increases housing choices Returns properties to the tax rolls Improves neighborhood desirability 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> Counties Cities Towns Villages Management Districts Local Housing Authorities Non-Profits

Possible Funding Sources

- State and local governments sell tax-exempt [Housing Bonds](#), also known as Mortgage Revenue Bonds, and Multifamily Housing Bonds with proceeds used to finance low-cost mortgages for lower income first-time homebuyers or the production of apartments at rents affordable to lower income families.
- [Community Development Block Grants](#) (U.S. Dept. of Housing and Urban Development) provide communities with resources to address a wide range of unique community development needs. It is an important tool for helping local governments tackle serious challenges facing their communities. Not less than 70 percent of CDBG funds must be used for activities that benefit low- and moderate-income persons.
- [HOME](#) is the largest Federal block grant to state and local governments designed exclusively to create affordable housing for low-income households. Each year it allocates approximately \$2 billion among the states and hundreds of localities nationwide.
- The [Low-Income Housing Tax Credit \(LIHTC\) Program](#) is an indirect Federal subsidy used to finance the development of affordable rental housing for low-income households. The LIHTC Program may seem complicated, but many local housing and community development agencies are effectively using these tax credits to increase the supply of affordable housing in their communities.
- [Rural Single Family Housing Grants and Loans](#) (U.S. Dept. of Agriculture) provide homeownership opportunities to low- and moderate-income rural Americans through several loan, grant, and loan guarantee programs. The programs also make funding available to individuals to finance vital improvements necessary to make their homes decent, safe, and sanitary.

Implementation Tools	
<ul style="list-style-type: none"> • Tax Incentives • Expedited Permitting Process • Design Guidelines • Property Lien Dismissals • Tax Foreclosure Property Program 	<ul style="list-style-type: none"> • Public-Private Partnerships (Infrastructure Improvements, Land Acquisition, etc.) • Tax Increment Reinvestment Zones (TIRZs) • Other Value Capture Programs

Model Policies

- The City of San Antonio, (Texas): [Center City Housing Incentive Policy](#) provides a variety of financial incentives to developers of multi-family housing projects in targeted inner-city neighborhoods. Incentives offered include fee waivers, property tax reimbursements, tax exemptions and credits, and low-cost financing. Several developers have taken advantage of the program to support infill residential projects.
- The City of Austin, (Texas): [S.M.A.R.T. \(Safe, Mixed-Income, Accessible, Reasonably-Priced, Transit-Oriented\) Housing Policy Initiative](#) supports the creation of affordable housing options citywide. Developers participating in the program may be eligible for fee waivers and expedited permit review.
- The Massachusetts [Housing Development Incentive Program](#) provides cities with a development tool to increase residential growth, expand diversity of housing stock, support economic development, and promote neighborhood stabilization in designated geographic target areas.
- In Massachusetts, a variety of [local assistance](#) tools are used to promote financial incentives to developers creating affordable housing, including housing trusts, funding programs, and forms of indirect support.
- The City of San Luis Obispo, California, Department of Community Development offers a range of [affordable housing incentives](#). Incentives include residential density bonuses, fee reductions or waivers, city installation of off-site improvements, direct city financial assistance, subdivision, zoning or other exceptions to city standards and other incentives that may be negotiated between the city and developer.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region coordinates infrastructure, housing, and transportation investments, creating areas of opportunity and enhancing existing neighborhoods • Our Region’s communities have a range of quality housing choices that meet the diverse needs and preferences of all residents • Our Region’s residents have access to job opportunities that support a good quality of life and financial stability 	<ul style="list-style-type: none"> • Increase the accessibility of safe, healthy, energy efficient, housing units to residents throughout the region. • Increase the supply of affordable housing units in areas with good pedestrian infrastructure and access to transit and public services. • Increase the accessibility of safe, healthy, energy efficient, housing units to residents throughout the region. • Provide housing mix that provides choices for residents of all ages.
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of population living in areas with high score on H-GAC connectivity/density index • Number of people living in sub-standard housing • Percentage of people living in sub-standard housing • Housing + Transportation Affordability: Proportion of household income spent on housing and transportation costs • Number of residents served by public housing authorities • Number of residents on public housing unit wait list 	<ul style="list-style-type: none"> • Promote equitable, affordable housing • Value communities and neighborhoods



Develop incentives and a toolkit for matching and maintaining local housing stock to meet economic development needs, bringing greater access to opportunities



Jobs-housing balance means that there are a roughly equal number of jobs and housing units. Better-planned mixed-use communities with balanced jobs and housing can help reduce travel distances and thus limit the growth in trip lengths.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduces travel time/cost for employees • Increases employee retention • Improves community relations • Promotes economic development 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Counties • Cities • Towns • Villages • Management Districts • Local Housing Authorities • Non-Profits • Employers • Developers

Possible Funding Sources

- **Choice Neighborhoods Planning Grants** (U.S. Dept. of Housing and Urban Development) support the development of comprehensive neighborhood revitalization plans which focus on directing resources to address three core goals: Housing, People and Neighborhoods. To achieve these core goals, communities must develop and implement a comprehensive neighborhood revitalization strategy, or Transformation Plan. The Transformation Plan will include revitalization of the public and/or assisted housing units while simultaneously directing the transformation of the surrounding neighborhood.
- **Community Development Block Grants** (U.S. Dept. of Housing and Urban Development) provide communities with resources to address a wide range of unique community development needs. It is an important tool for helping local governments tackle serious challenges facing their communities. Not less than 70 percent of CDBG funds must be used for activities that benefit low- and moderate-income persons.
- **HOME** (U.S. Dept. of Housing and Urban Development) is the largest federal block grant to state and local governments designed exclusively to create affordable housing for low-income households. Each year it allocates approximately \$2 billion among the states and hundreds of localities nationwide.
- The **Good Neighbor Next Door Program** (U.S. Dept. of Housing and Urban Development) allows law enforcement officers, teachers and firefighters/emergency medical technicians to contribute to community revitalization efforts while becoming homeowners. HUD offers a substantial incentive in the form of a 50% discount off the list price of the home if buyers commit to live in the property for 36 months as their sole residence.

Implementation Tools	
<ul style="list-style-type: none"> Jobs-Housing Balance Analysis Tax Incentives Expedited Permitting Process 	<ul style="list-style-type: none"> Design Guidelines Public-Private Partnerships (Infrastructure Improvements, Land Acquisition, etc.)

Model Policies

- The [City of Houston Case Study: Urban Houston Framework](#) (2013), completed as part of the planning process for *Our Great Region 2040*, describes policy and regulatory incentives the City of Houston can use to encourage the creation of dense, sustainable communities in appropriate locations, while maintaining the character of existing neighborhoods.
- The University of Chicago, Illinois, [Employer Assisted Housing Program](#) provides homebuyer assistance in the form of interest-free forgivable loans. The assistance is forgiven over five years provided the employee resides in the house as a primary home, continues to be employed by the University, and participates in homeownership counseling.
- The City of Rochester, New York, [Home Buyer Services](#) program provides an incentive for private employers to encourage their employees to purchase homes.
- The American Planning Association Policy Guide: [Jobs / Housing Balance](#) examines how public agencies can aid in creating a balance between housing and cities.
- [Deconstructing Jobs-Housing Balance](#) (California Planning Roundtable 2008) first looks at using “jobs-housing balance” as a planning concept. The paper then discusses the effectiveness of jobs-housing balance as a planning objective: whether targeting “balance” is a realistic measure to reduce commute trips and overall vehicle miles traveled (VMT), and whether attainment of balance would mean that communities would be less auto dependent and more livable.

Goals	Objectives
<ul style="list-style-type: none"> Our Region’s residents have access to education and training opportunities to allow them to realize their full potential Our Region provides choices for individuals and for local communities to fulfill their needs Our Region’s communities have a range of quality housing choices that meet the diverse needs and preferences of all residents 	<ul style="list-style-type: none"> Provide access to training opportunities for life skills and a wide spectrum of careers Maintain a diverse range of choices in housing and neighborhoods Increase the accessibility of safe, healthy, energy efficient, housing units to residents throughout Our Region
Metrics	Livability Principles
<ul style="list-style-type: none"> Housing + Transportation Affordability: Proportion of household income spent on housing and transportation costs Percentage of all households within 1/2 mile of transit Percentage of all households within 1/2 mile of bikeways Percentage of all households within 1/2 mile of trails Percentage of total population that reside in a low income census tract and reside more than 1 mile from a grocery store (10 miles for rural census tracts) 	<ul style="list-style-type: none"> Support existing communities Value communities and neighborhoods Coordinate policies and leverage investment



Identify gaps and opportunities of the quality and supply of the regional housing stock, including housing for seniors or aging in place



A regional Housing Gap Analysis assesses current and future housing demand, supply, cost and affordability in order to identify potential gaps in the supply of quality housing for individuals and households of a variety of incomes. The issue of sufficient housing affects many communities in Our Region. It is more than an issue of providing shelter; it is an economic development concern. Housing is one of the greatest challenges facing many communities today.

The housing market is tight and the housing stock is aging. A Housing Gap Analysis can investigate population trends, labor trends, housing supply, housing demand and the relation between these elements.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Creates an understanding of housing needs throughout Our Region Aids in recruiting housing development Helps address economic development concerns 	<ul style="list-style-type: none"> Assessment 	<ul style="list-style-type: none"> Federal Agencies State Agencies Councils of Government Counties Cities Local Housing Authorities Non-Profits

Possible Funding Sources

- Community Development Block Grants** (U.S. Dept. of Housing and Urban Development) provide communities with resources to address a wide range of unique community development needs. Entitlement cities and counties could use a small percentage of their CDBG allocation to contract a study of this type, or perhaps conduct it in-house. Larger cities receive more CDBG funds where such an activity may be justified.
- MacArthur Foundation Grants** offer housing grants that support practice-driven, evidence-based, policy-focused efforts to make stable, high-quality, affordable housing available and sustainable for more families across the country.

Implementation Tools	
<ul style="list-style-type: none"> American Housing Survey Opportunity Mapping 	<ul style="list-style-type: none"> Housing Gap Analysis

Model Policies

- [Texas Statewide Rural Housing Analysis](#) (2012) was created by the Texas Department of Housing and Community Affairs, for the purpose of evaluating the affordable housing need of rural Texas and to determine common barriers to residential development in rural communities.
- [Three-County Regional Housing Needs Assessment](#) was developed by Dutchess, Orange and Ulster counties in New York as a joint housing needs assessment due to the strong regional economic linkages between the counties and the shared housing affordability challenges. They are also linked through their relationship with the New York City Metro area, which brings both benefits (in terms of employment and business opportunities) and costs (through higher living expenses, transportation challenges, and an influx of new residents from the New York City area).
- Rogue Valley Council of Governments developed the [Bear Creek Valley Regional Problem Solving Project: Housing Needs Analysis](#) (Ashland, Oregon), which includes a 20-year and 50-year forecast of housing needs for the Bear Creek Valley and three sub-regions within the valley.
- Mississippi has a publication titled [Using Census Data to Conduct a Housing Gap Analysis](#) that provides guidance on using U.S. Census data to conduct a Housing Gap Analysis.

Goals	Objectives
<ul style="list-style-type: none"> Our Region provides choices for individuals and for local communities to fulfill their needs Our Region’s communities have a range of quality housing choices that meet the diverse needs and preferences of all residents 	<ul style="list-style-type: none"> Maintain a diverse range of choices in housing and neighborhoods Increase the accessibility of safe, healthy, energy efficient, housing units to residents throughout the region Provide housing mix that provides choices for residents of all ages
Metrics	Livability Principles
<ul style="list-style-type: none"> Mix of housing types in Our Region by percentage Average housing cost compared to median family income Percentage of renter units and owner units affordable to households earning 80% of HUD area median family income Number of residents living in sub-standard housing Percentage of residents living in sub-standard housing 	<ul style="list-style-type: none"> Support existing communities Value communities and neighborhoods Promote equitable, affordable housing



Develop and enforce local housing codes and standards to ensure owner-occupied and rental housing is safe and healthy



Effective enforcement of building and housing codes is a key ingredient in many neighborhood revitalization efforts. Local housing, property maintenance, and building codes contain a wide array of legal requirements pertaining to housing construction and maintenance. Housing and building codes, for example, typically contain provisions governing moisture, pests, and ventilation. Many jurisdictions rely on model codes to provide the framework for local fire, building, housing, property maintenance, plumbing, electrical, energy, and mechanical codes. Currently, these model codes are developed by the International Code Council (ICC), which has moved away from a regional approach to code development, toward the development of national model codes. Enforcement of local housing codes is critical to ensure the health and safety of the residents.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Improves quality of housing stock Protects public health and safety Protects neighborhood stability Improves neighborhood desirability 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> Counties Cities Towns Villages

Possible Funding Sources

- **Pre-Disaster Mitigation Grant Program** (Federal Emergency Management Agency) provides funds to states, territories, Indian tribal governments, communities, and universities for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event. Funding these plans and projects reduces overall risks to the population and structures, while also reducing reliance on funding from actual disaster declarations.
- **Community Development Block Grants** (U.S. Dept. of Housing and Urban Development) provide communities with resources to address a wide range of unique community development needs. It is an important tool for helping local governments tackle serious challenges facing their communities. Not less than 70 percent of CDBG funds must be used for activities that benefit low- and moderate-income persons.

Implementation Tools	
<ul style="list-style-type: none"> Local Building Code Property Maintenance Code 	<ul style="list-style-type: none"> Dangerous Building Ordinance Code Enforcement

Model Policies

- Several cities in the Houston-Galveston area, including the [City of Sugar Land](#) (City Code: Chapter 7), require that new buildings be constructed in accordance with the International Building Code.
- Several cities in the Houston-Galveston area, including the [City of Friendswood](#) (City Code: Chapter 14, Article VII), require that dangerous and substandard buildings be repaired or demolished, to protect the safety of nearby residents.
- The [Dallas \(Texas\) County Residential Building Code](#) (Commissioners’ Court Order 2010-0911) requires single-family homes, duplexes, and additions of a certain size to be constructed in accordance with the International Residential Code, if located in unincorporated areas outside of a city’s extraterritorial jurisdiction.
- [Code Enforcement Association of Texas](#) was formed to study and advance the science and practice of code enforcement through certification to further the interests of the profession.
- The City of Sacramento, California: Department of [Housing and Dangerous Buildings](#) enforces City and State codes. Building owners are legally required to maintain their property to the standards set forth in the City Housing and Dangerous Building Codes. If a structure is to remain vacant for more than one month, the owner is required to pay a monitoring fee to the City. In addition, fines may be levied if the property is not clean and secure.
- [Leveraging Code Enforcement for Neighborhood Safety](#), from the Local Initiatives Support Corporation (LISC), notes that the most effective partnerships for community revitalization involve code enforcement agencies – the housing, health, zoning, and building inspection departments found in most municipalities, as well as law enforcement – police and prosecutors – and community developers.
- [Code Enforcement and Community Stabilization](#) from the Albany (New York) Government Law Review, examines the role of code enforcement in foreclosures. As foreclosed homes become vacant, code departments are the first responders to citizen complaints often referred by mayors, city councilors, and county commissioners. Local code enforcement officials have the legal and policy responsibilities to enforce a wide array of building, housing, and property maintenance codes and to administer special nuisance abatement processes.

Goals	Objectives
<ul style="list-style-type: none"> Our Region’s communities have a range of quality housing choices that meet the diverse needs and preferences of all residents 	<ul style="list-style-type: none"> Increase the accessibility of safe, healthy, energy efficient, housing units to residents throughout the region. Provide housing mix that provides choices for residents of all ages.
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of people living in sub-standard housing Percentage of people living in sub-standard housing 	<ul style="list-style-type: none"> Promote equitable, affordable housing Value communities and neighborhoods



Create a regional campaign to promote an understanding of impediments to fair housing choice.

Governments have a duty to protect the rights of all residents to access housing without regard to race, color, religion, sex, disability, familial status, or national origin. In exchange for federal funds, governments submit certification stating that they are furthering fair housing to the U.S. Department of Housing and Urban Development (HUD). This certification has three elements:

1. Complete an Analysis of Impediments to Fair Housing Choice (AI),
2. Take actions to overcome the effects of any impediments identified, and
3. Maintain records reflecting the actions taken in response to the analysis.

Local governments need to educate key staff, top policy makers, community organizations, and the general public on regional impediments to fair housing choice. Equal and free access to housing is fundamental to meeting essential needs and pursuing personal, educational, employment, or other goals. A regional campaign will have further reach and be able to aggregate the cost of a public education campaign.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Increases awareness of impediments to housing choice on a regional scale • Improves access to housing and opportunity 	<ul style="list-style-type: none"> • Education 	<ul style="list-style-type: none"> • Councils of Government • Counties • Cities • Non-Profits

Possible Funding Sources

- [The Fair Housing Initiative Program: Education and Outreach Initiative \(EOI\)](#) (U.S. Dept. of Housing and Urban Development) offers a comprehensive range of support for fair housing activities, providing funding to state and local government agencies and non-profit organizations for initiatives that explain to the general public and housing providers what equal opportunity in housing means and what housing providers need to do to comply with the Fair Housing Act.
- [The Fair Housing Assistance Program](#) (U.S. Dept. of Housing and Urban Development) supports a variety of fair housing administrative and enforcement activities, including complaint processing, training, implementation of data and information systems, and other special projects.

Implementation Tools	
<ul style="list-style-type: none"> • Analysis of Impediments to Fair Housing (AI) • Public Workshops 	<ul style="list-style-type: none"> • Guidebooks/Brochures

Model Policies

- [North Texas Fair Housing Center](#) presents fair housing workshops and training seminars to teach communities how to stop housing inequity. Materials and programs are offered to a variety of audiences such as property personnel (e.g. landlords, property managers, and realtors), tenants, prospective homebuyers, city governments, and other non-profit organizations.
- The [Fair Housing Education and Outreach Program](#) has established an effective and comprehensive outreach and public education program designed to raise awareness of the fair housing laws that protect individuals, often in traditionally underserved communities, against housing discrimination in the Los Angeles , California, region.
- [Rents Right](#) is a partnership between the City of Chicago, Illinois, and landlord and tenant organizations. It is a hotline that provides education on rental rights and responsibilities.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s communities have a range of quality housing choices that meet the diverse needs and preferences of all residents • Our Region provides choices for individuals and for local communities to fulfill their needs 	<ul style="list-style-type: none"> • Provide housing mix that provides choices for residents of all ages. • Maintain a diverse range of choices in housing and neighborhoods
Metrics	Livability Principles
<ul style="list-style-type: none"> • Average housing cost compared to median family income • Housing + Transportation Affordability: Proportion of household income spent on housing and transportation costs • Number of residents living in sub-standard housing • Percentage of residents living in sub-standard housing • Mix of housing types in Our Region by percentage 	<ul style="list-style-type: none"> • Support existing communities • Value communities and neighborhoods



Create model ordinances, funding strategies, and a regional campaign to improve energy efficiency in public buildings, businesses, and private homes.

Buildings account for close to forty percent of energy use in the United States. The amount of energy required to operate a building varies greatly, and buildings can be designed or retrofitted to reduce this demand significantly. By adopting green building principals and practices, energy use can consistently be reduced by 25%.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Reduces utility costs Reduces governmental expenditure Promotes economic development 	<ul style="list-style-type: none"> Resource 	<ul style="list-style-type: none"> State Agencies Counties Cities Non-Profits Utility Providers

Possible Funding Sources

- The [LoanSTAR Revolving Loan Program](#) (State Energy Conservation Office) finances energy-related cost-reduction retrofits made to public buildings. Eligible public entities receive low-cost loans to make these improvements; loans are repaid through the savings realized from these projects.
- The [Better Buildings Neighborhood Program](#) (U.S. Dept. of Energy) is helping over 40 competitively selected state and local governments develop sustainable programs to upgrade the energy efficiency of more than 100,000 buildings.

Implementation Tools	
<ul style="list-style-type: none"> • Building Energy Efficiency Performance Standards • Building Code Standards • Expedited Permitting Process • Tax Incentives 	<ul style="list-style-type: none"> • Sustainable Design and Green Building Toolkit for Local Governments (EPA) • International Energy Conservation Code (IECC) • Energy Star qualified products • WaterSense qualified products

Model Policies

- Developers must make a minimum investment in the green building improvements to qualify for Harris County (Texas) [Green Building Tax Abatement for New Commercial Construction](#).
- As governments seek to contain operational costs, create jobs, reduce emissions, and save energy through energy-related infrastructure improvements and initiatives, the [Public Building Enhanced Energy Efficiency Program \(PBEEEP\)](#) will provide technical assistance and financing.
- [International Energy Conservation Code \(IECC\) Help Page](#) helps building officials, designers, and builders in Maryland evaluate and attain compliance with the 2012 International Energy Conservation Code (IECC). The Maryland Energy Administration is creating [training videos and informational pamphlets](#) to be distributed to local code offices.
- [REScheck](#) makes it fast and easy for builders, designers, and contractors to determine whether new homes, additions, and alterations meet the requirements of the IECC or a number of state energy codes. REScheck also simplifies compliance determinations for building officials, plan checkers, and inspectors by allowing them to quickly determine if a low-rise residence meets the code.
- The [Better Buildings Neighborhood Program](#) is helping over 40 competitively selected state and local governments develop sustainable programs to upgrade the energy efficiency of more than 100,000 buildings.
- [City of Indianapolis \(Indiana\): Green Building Incentive Program](#) qualifies building projects to receive up to a 50 percent reduction on permit fees associated with the project and also rewards building owners and developers for integrating sustainable design techniques into building projects.
- [City of Shreveport \(Louisiana\) Energy Audit Program](#) offers professional energy audit buy-downs and low-interest loans for qualifying retrofits of residential buildings. These incentives are intended to assist in raising program awareness, applicant participation, and diminish costs for improvements.
- [Retrofit Chicago \(Illinois\) Residential Partnership](#) provides homeowners with information on available energy-efficiency programs and information on how to request a home energy assessment. Homeowners can save up to 30% on their energy bills and increase the comfort of their home.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption 	<ul style="list-style-type: none"> • Increase the use of green construction practices and renewable energy sources
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of LEED certified projects • Total regional energy usage • Per capita energy usage 	<ul style="list-style-type: none"> • Enhance economic competitiveness • Coordinate policies and leverage investment



Develop a model program to promote the reuse of construction and demolition materials.

Over 8,000 pounds of waste are typically thrown into the landfill during the construction of a 2,000-square-foot home. Construction waste recycling is the separation and recovery of waste materials generated during construction and remodeling. Packaging, new material scraps, and old materials and debris all constitute potentially recoverable materials. In renovations, appliances, masonry materials, doors and windows are recyclable. Deconstruction of older homes can recover reusable items such as mantels, doors, fixtures, tiles, and hardware. Old-growth lumber, vintage bricks, and antique fixtures can be rare and quite valuable. Salvaged materials and products can also be installed in new or renovated buildings.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Creates new job opportunities • Reduces materials sent to landfills • Reduces use of raw materials 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Councils of Government • Counties • Cities • Non-Profits • Businesses • Developers

Possible Funding Sources

- The [Houston-Galveston Area Council Solid Waste Management Program](#) provides local governments and school districts with funding to support activities related to solid waste management.
- The [U.S. Dept. of Agriculture: Solid Waste Management Grant Program](#) offers technical assistance and/or training to help communities reduce the solid waste stream.
- The U.S. Environmental Protection Agency’s [Beyond the Bank: A Primer on Non-Traditional Financing Strategies for the Recycling Industry](#) describes non-traditional finance sources and methods, which may assist recyclers in the capitalization of their business.
- [Community Development Block Grants and HOME Investment Partnerships Program](#) (U.S. Dept. of Housing and Urban Development) funds can be used in conjunction with eligible projects to address reuse of construction and demolition materials.

Implementation Tools	
<ul style="list-style-type: none"> Construction or Demolition Waste Management Plan 	<ul style="list-style-type: none"> Demolition Debris Recycling & Reuse Program

Model Policies

- Construction material accounts for 38% of the waste stream in the Houston area. [The Building Materials Reuse Warehouse](#), a component of the City of Houston Solid Waste Management Department, benefits the community by providing space for excess building materials that would otherwise be dumped in local landfills. It accepts material from individuals, supply companies, and builders, and make it freely available for reuse by any non-profit organization.
- [Habitat for Humanity ReStore](#) is a home improvement store that offers new and like-new building materials including furniture, paint, and cabinetry, at deeply discounted prices. The ReStore team also specializes in deconstruction projects.
- [Building Savings: Strategies for Waste Reduction of Construction and Demolition Debris from Buildings](#) profiles communities in Connecticut, Oregon, New York, Wisconsin, Texas, and California that are “record-setters” in C&D materials reduction and recovery.
- [Selfridge Air National Guard Base](#) is about 20 miles outside of Detroit, Michigan. As part of its recent renovation plan, 22 buildings were demolished throughout the base. In total, approximately 74 percent of the demolition debris was recycled or reused, diverted from disposal in the landfill. These reuse and recycling practices also resulted in a contract bid price that was 25 percent below competing estimates, demonstrating significant cost savings to the government.
- [Builders' Guide to Reuse & Recycling](#) is a website and directory to help builders find out how and where to recover construction and demolition materials in the Washington, D.C., area.
- [Waste Spec Model Specifications for Construction Waste Reduction, Reuse, and Recycling](#) includes model language that could be adopted by architects and engineers seeking to reduce waste during construction projects.

Goals	Objectives
<ul style="list-style-type: none"> Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption 	<ul style="list-style-type: none"> Increase the use of green construction practices and renewable energy sources Create infrastructure and policies to increase re-use of recyclable waste products and water
Metrics	Livability Principles
<ul style="list-style-type: none"> Tons of waste sent to landfills in the region/capita Regional recycling rate 	<ul style="list-style-type: none"> Enhance economic competitiveness



Develop a toolkit to improve the quality of neighborhoods without displacing existing residents

As Our Region’s economy and population continue to grow, housing prices are increasing; low-and moderate-income households are sometimes displaced from their homes and communities. Low-income communities suffer from chronic under-investment and need economic revitalization. These neighborhoods often lack an adequate mix of housing, retail, schools, and employment. As these services come into neighborhoods, their desirability increases, along with housing costs.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Preserves affordable housing • Helps revitalize communities • Helps maintain diverse neighborhoods • Improves community desirability 	<ul style="list-style-type: none"> • Resource 	<ul style="list-style-type: none"> • Councils of Government • Counties • Cities • Management Districts • Local Housing Authorities • Colleges and Universities • Non-Profits

Possible Funding Sources

- [Strong Cities, Strong Communities Visioning Challenge](#) is a U.S. Economic Development Administration grant that supports the development and implementation of comprehensive economic development strategic plans.
- [Building Blocks for Sustainable Communities](#) (U.S. Environmental Planning Agency) provides quick, targeted technical assistance to selected local and/or tribal governments using a variety of tools that have demonstrated results and widespread application.
- [Choice Neighborhoods Planning Grants](#) (U.S. Dept. of Housing and Urban Development) support the development of comprehensive neighborhood revitalization plans which focused on directing resources to address three core goals: Housing, People and Neighborhoods. To achieve these core goals, communities must develop and implement a comprehensive neighborhood revitalization strategy, or Transformation Plan.
- [Choice Neighborhoods Implementation Grants](#) (U.S. Dept. of Housing and Urban Development) support those communities that have undergone a comprehensive local planning process and are ready to implement their “Transformation Plan” to redevelop the neighborhood.
- [HOME Investment Partnerships Program](#) (U.S. Dept. of Housing and Urban Development) provides grants to communities, often in partnership with local non-profit groups, to fund a wide range of activities that build, buy, and/or rehabilitate affordable housing for rent or homeownership or provide direct rental assistance to low-income people.
- [Community Development Block Grant](#) (U.S. Dept. of Housing and Urban Development) Program provides grants and loans for housing rehabilitation programs within low-to-moderate-income neighborhoods.

Implementation Tools	
<ul style="list-style-type: none"> Toolkit for Neighborhood Revitalization 	<ul style="list-style-type: none"> Training Workshops

Model Policies

- The [Commercial Revitalization Planning Guide](#) (LISC) provides examples of tools, techniques, and activities that other urban commercial districts have used to develop unique local strategies for their long-term revitalization.
- The [Homestead Preservation Act](#) was adopted in 2005 with the passage of Texas House Bill 525. The bill authorizes municipalities to create a Homestead Preservation District that protects homeowners from being forced out of their homes due to rising property taxes and conversion or demolition of affordable housing.
- The [New Communities Program](#) is a long-term program to support comprehensive community development in 16 Chicago, Illinois, neighborhoods. The 10-year effort seeks to rejuvenate challenged communities and preserve the diversity of areas in the path of gentrification.
- In the [Face of Gentrification: Case Studies of Local Efforts to Mitigate Displacement](#), from the Urban Institute, highlights how low- and moderate-income households face a number of challenges threatening their housing options: robust housing markets, stagnating wages, and the gentrification of their neighborhoods. This report highlights strategies used to help low-income families weather these challenges and remain in their neighborhoods.
- [Development Without Displacement Community Handbook](#), from the Joint Center For Environmental and Urban Problems, presents research that explores what triggers gentrification, why gentrification occurs, and what can be done by neighborhoods to mitigate its effects.
- [Keeping the Neighborhood Affordable: A Handbook of Housing Strategies for Gentrifying Areas](#), from the Urban Institute, describes a wide range of strategies that local governments, developers, and non-profits organizations can use to create and retain affordable housing in their communities.
- [Bringing Buildings Back](#), from the National Housing Institute, is a guidebook for policymakers and practitioners to turn abandoned properties into community assets, and methods to achieve community development goals.

Goals	Objectives
<ul style="list-style-type: none"> Our Region's communities have a range of quality housing choices that meet the diverse needs and preferences of all residents 	<ul style="list-style-type: none"> Increase the supply of affordable housing units in areas with good pedestrian infrastructure and access to transit and public services Increase the accessibility of safe, healthy, energy efficient, housing units to residents throughout the region Provide housing mix that provides choices for residents of all ages
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of people living in sub-standard housing Percentage of people living in sub-standard housing Percentage of single-family and multi-family housing 	<ul style="list-style-type: none"> Promote equitable, affordable housing Value communities and neighborhoods



Conduct local zoning and subdivision ordinance audit to remove barriers to the provision of housing choices for all members of the community

Local officials need to ensure that local zoning and subdivision ordinances do not create a barrier to housing choice. It is rare that land use regulations are openly discriminatory, but in many cases regulations have the unintended consequences of limiting housing choice, unnecessarily increasing housing cost, or reducing affordable housing. The Fair Housing Act prohibits discrimination in housing based on race, color, religion, sex, national origin, disability, or family status; any actions or decisions which have the effect of restricting housing choice are against the law. Zoning, deed restrictions, impact fees, development fees, building codes, over-lapping authority, and environmental regulations can all add to the costs of housing. However, these provisions can also be crucial to creating vibrant places to live; every opportunity should be taken to ensure that implementation does not affect the ability of all community members to access housing.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Increases housing choices Improves access to housing and opportunity 	<ul style="list-style-type: none"> Assessment 	<ul style="list-style-type: none"> Councils of Government Counties Cities Towns Villages

Possible Funding Sources

- **Community Development Block Grants** (U.S. Dept. of Housing and Urban Development) provide communities with resources to address a wide range of unique community development needs. It is an important tool to help local governments tackle serious challenges facing their communities. Not less than 70% of CDBG funds must be used for activities that benefit low- and moderate-income persons.
- **HOME** (U.S. Dept. of Housing and Urban Development) is the largest Federal block grant to state and local governments designed exclusively to create affordable housing for low-income households. Each year it allocates approximately \$2 billion among the states and hundreds of localities nationwide.

Implementation Tools	
<ul style="list-style-type: none"> Fair Housing Act Texas Fair Housing Act 	<ul style="list-style-type: none"> Analysis of Impediments to Fair Housing Choice

Model Policies

- The State of Texas Department of Housing and Community Affairs [Analysis of Impediments to Fair Housing \(2003\)](#) is a report that represents an overall analysis of the efforts of Texas to deal with the issues involved in housing discrimination. Much of this is a synthesis and summary of assessments routinely undertaken for the enforcement of the Texas Fair Housing Act.
- Making fair housing available to all remains an enormous challenge. The Metropolitan Housing Coalition of Louisville, Kentucky’s [Campaign to Remove Zoning Barriers to Fair Housing Choice](#) seeks to undo the long standing separations and inequalities in residential patterns that have been present since Louisville, Kentucky’s earliest days.
- The [Fair Housing Planning Guide](#) (U.S. Dept. of Housing and Urban Development) provides information on how to conduct an Analysis of Impediments to Fair Housing Choice (AI), undertake activities to correct identified impediments, and the types of documentary records to be maintained.

Goals	Objectives
<ul style="list-style-type: none"> Our Region’s communities have a range of quality housing choices that meet the diverse needs and preferences of all residents 	<ul style="list-style-type: none"> Increase the accessibility of safe, healthy, energy efficient, housing units to residents throughout the region. Provide housing mix that provides choices for residents of all ages.
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of people living in sub-standard housing Percentage of people living in sub-standard housing Number of age-restricted or assisted units compared to population 	<ul style="list-style-type: none"> Promote equitable, affordable housing Value communities and neighborhoods Coordinate policies and leverage investment

Transportation



Improve the efficiency of freight movement by investing in projects that improve connections between ships, trains, and trucks

Efficient goods movement is crucial to supporting Our Region’s economy. However, goods movement can come at a cost to the environment. Poor freight mobility amplifies the negative impacts associated with commercial truck shipping. To ensure the long-term prosperity of Our Region, connections between different modes of transport (ships, trains, trucks, etc.) need to be made, allowing goods to flow in and out of the region efficiently.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Reduces emissions Improves economic efficiencies Reduces impacts of freight movement on surrounding communities Reduces congestion Promotes economic development 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> Federal Agencies State Agencies Metropolitan Planning Organization Counties Cities Port Authorities Railroads Trucking and Logistics Companies

Possible Funding Sources

- The [Surface Transportation Program](#) (U.S. Dept. of Transportation: Federal Highway Administration) provides flexible funding that may be used by states and localities for projects to preserve and improve the conditions and performance of highways, bridges, tunnels, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals.
- The [Congestion Mitigation & Air Quality Improvement](#) (CMAQ) Program (U.S. Dept. of Transportation: Federal Highway Administration) supports surface transportation improvements designed to improve air quality and mitigate congestion.
- The [Small Starts](#) funding program (U.S. Dept. of Transportation: Federal Transit Administration) is intended to provide a simplified process for eligible small scale projects. Further, the Small Starts category is intended to fund small projects that support a range of modal alternatives, including bus rapid transit, streetcar, commuter rail, and other fixed guideway projects.
- The [Metropolitan & Statewide Planning](#) (5303, 5304, 5305) (U.S. Dept. of Transportation: Federal Transit Administration) programs provide funding to support cooperative, continuous, and comprehensive planning for making transportation investment decisions in metropolitan areas and statewide.
- [Marine Highway Projects](#) (U.S. Dept. of Transportation: Maritime Administration) are new waterborne transportation services, or expansions of existing services operating between U.S. ports. Projects that reduce external costs and provide public benefit by transporting passengers and/or freight (container or wheeled) are eligible to compete for Marine Highway grants.

Implementation Tools	
<ul style="list-style-type: none"> Improved IT systems Recommendations from the <i>H-GAC Regional Goods Movement Study</i>, including: <ul style="list-style-type: none"> Formally define and designate the freight-significant network Work with partners to mitigate short-term deficiencies on the freight-significant network 	<ul style="list-style-type: none"> Develop a concept of operations for a freight ITS program Create a regional goods movement subcommittee Incorporate freight-specific measures into project evaluation processes Designate and publicize a freight point of contact/technical lead Develop a freight performance measures program

Model Policies

- The [Houston Region Freight Study](#) (TxDOT: 2007) identifies improvements that could be made throughout the region to improve freight movement.
- The [H-GAC Regional Goods Movement Study](#), initiated in 2010, provides recommendations on how to improve mobility for both commuters and freight throughout Our Region.
- The [Chicago \(Illinois\) Region Environmental & Transportation Efficiency Program](#) is a public-private partnership that aims to improve rail infrastructure throughout Northeastern Illinois. Federal, state, and local governments are working with several railroad companies to invest billions of dollars to increase the efficiency of the region’s urban rail network.
- The [Regional Freight Mobility Roundtable](#) from the Puget Sound Regional Council (Seattle, Washington), is a nationally-recognized public/private forum that allows a diverse group of stakeholders to discuss multi-modal freight issues. The Roundtable discusses transportation topics as they relate to trucking, marine cargo, rail freight, air cargo, and intermodal connections between.
- The [FAST Corridor Partnership](#) is co-sponsored by the Washington State Department of Transportation and the Puget Sound Regional Council. The partnership includes cities and counties, ports, and railroads intent on solving freight mobility problems with coordinated solutions.
- [10 Best Practices in Freight Movement](#), from the City of Seattle, Washington, is a summary of ten innovative techniques being used to optimize freight movement and improve mobility for all users. These include policies related to restrictions on delivery hours; incentives for off-peak deliveries; and shipment consolidation.
- The City of Portland, Oregon developed a [Central City Sustainable Freight Strategy](#) to reduce emissions generated from goods movement. This process called upon local freight experts and other stakeholders to recommend sustainable shipping strategies tailored to meet Portland’s needs.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving • Our Region coordinates infrastructure, housing, and transportation investments, creating areas of opportunity and enhancing existing neighborhoods 	<ul style="list-style-type: none"> • Coordinate infrastructure and land use planning, construction and maintenance to optimize system performance and realize cost savings to taxpayers • Remove barriers to development in areas with existing infrastructure networks • Improve connectivity of land uses and multiple transportation modes • Prioritize rehabilitation and maintenance of existing infrastructure
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of transportation funding going to new capacity vs. existing (including rehab and maintenance) and amount requested (unmet need) • Housing +Transportation Affordability: Proportion of household income spent on housing and transportation costs • Dollar amount of economic activity Our Region’s goods movement brings into the state/region • Lane miles of freight-designated corridors 	<ul style="list-style-type: none"> • Provide more transportation choices • Support existing communities • Value communities and neighborhoods



Optimize existing transportation network through a ‘Fix it First’ strategy and by using technology and improved incident management to maximize system capacity



Nationwide, about two-thirds of state transportation funds are spent on the construction of new roads, while about half of our existing roads and bridges show signs of poor maintenance. The ‘Fix It First’ strategy prioritizes reducing the amount of deteriorated and/or unsafe infrastructure through preventative maintenance and repair of existing roads. Using technology and improved incident management strategies can be less costly than building new highways, but just as effective at reducing congestion.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduces long-term maintenance costs • Reduces the need to invest in costly highway congestion projects • Encourages investment in existing centers and corridors • Provides greater return on taxpayer investments 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • State Agencies • Metropolitan Planning Organizations • Counties • Cities

Possible Funding Sources

- The [Metropolitan & Statewide Planning \(5303, 5304, 5305\)](#) (U.S. Dept. of Transportation: Federal Transit Administration) programs provide funding to support cooperative, continuous, and comprehensive planning for making transportation investment decisions in metropolitan areas and statewide.
- The [Transportation, Community, and System Preservation Program \(TCSP\)](#) (U.S. Dept. of Transportation: Federal Highway Administration) is a comprehensive initiative of research and grants to investigate the relationships between transportation, community, and system preservation plans and practices and identify private sector-based initiatives to improve such relationships. States, metropolitan planning organizations, local governments, and tribal governments are eligible for discretionary grants to carry out eligible projects to integrate transportation, community, and system preservation plans.
- The [Every Day Counts Initiative](#) (U.S. Dept. of Transportation: Federal Highway Administration) supports research and demonstration projects aimed at identifying innovative ways of reducing the time it takes to complete highway projects, improve safety, and protect the environment.

Implementation Tools	
<ul style="list-style-type: none"> • Transportation Improvement Programs • Condition Inventories • Infrastructure Asset Management Systems • Transportation Planning Capacity-Building Peer Program • Programmatic Agreements • 3D Modeling for Construction Means and Methods • Intelligent Compaction 	<ul style="list-style-type: none"> • Accelerated Bridge Construction • Design Build • Geospatial Data Collaboration • Incident Management Programs • Intelligent Transportation Systems • Access Management

Model Policies

- The [City of Houston’s Geographic Information and Management System \(GIMS\)](#) includes detailed data on the transportation network and other infrastructure throughout the city, and has different functions available for use by public employees and citizens.
- The [City of Houston: Consolidated Transportation Planning Tool](#) is a web-based GIS application that allows users to view transportation data posted by various agencies working throughout the city.
- [New Jersey’s Fix-it-First Program](#) was mandated by the New Jersey legislature as part of the 2000 Transportation Trust Fund reauthorization. This mandate gave the New Jersey Department of Transportation five years to reduce the amount of deteriorated infrastructure by half.
- [Oklahoma Department of Transportation Geographic Resource Intranet Portal](#) is a Web application that allows ODOT users to query, overlay, map, and report on many of ODOT’s business data layers. The portal includes information on bridges, pavement management, needs analysis, accidents, inventory, at-grade railroad crossings, speed zones, and Highway Performance Monitoring System.
- [UPLAN](#) is an interactive planning network developed for the Utah Department of Transportation. The program allows users to automate workflows, communicate more quickly, share GIS data and documents easily, set up meetings, find project contacts, and create documents in a centralized database.
- The [Florida Department of Transportation’s Efficient Transportation Decision-Making Process](#) was designed to streamline the planning and review of transportation projects, coordinating the actions of different local, state, and federal agencies.
- The [Delaware Department of Transportation’s Information Network for Online Mapping](#) contains all of the agency’s geospatial data. This centralized database allows employees to easily access a vast amount of information and ensures everyone is working from the same data set, increasing productivity and reducing costs.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving • Our Region coordinates infrastructure, housing, and transportation investments, creating areas of opportunity and enhancing existing neighborhoods 	<ul style="list-style-type: none"> • Coordinate infrastructure and land use planning, construction and maintenance to optimize system performance and realize cost savings to taxpayers • Remove barriers to development in areas with existing infrastructure networks • Improve connectivity of land uses and multiple transportation modes • Prioritize rehabilitation and maintenance of existing infrastructure
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of transportation funding going to new capacity vs. existing (including rehab and maintenance) and amount requested (unmet need) • Housing +Transportation Affordability: Proportion of household income spent on housing and transportation costs 	<ul style="list-style-type: none"> • Provide more transportation choices • Support existing communities • Value communities and neighborhoods



Create a regional framework for expanding transit across Our Region



A regional framework for expanding transit would provide a blueprint for necessary programs, projects and initiatives to expand and coordinate public transportation throughout the 13-county region. It would serve to enhance the role of public transit as an economic engine for workers and businesses and seek to improve efficiencies between existing public transportation systems.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduces vehicle miles traveled • Reduces household expenditures on transportation • Improves efficiency of transit agencies • Promotes inter-organizational partnerships and coordination 	<ul style="list-style-type: none"> • Partnership 	<ul style="list-style-type: none"> • State Agencies • Metropolitan Planning Organization • Counties • Cities • Transit agencies

Possible Funding Sources

- The [Small Starts](#) funding program (U.S. Dept. of Transportation: Federal Transit Administration) funds small projects that support a range of modal alternatives, including bus rapid transit, streetcar, commuter rail, and other fixed guideway projects.
- [Urbanized Area Formula Funds \(5307\)](#) (U.S. Dept. of Transportation: Federal Transit Administration) are appropriated annually by Congress to transit agencies based upon population served and the amount of transit service provided. Funds can be used for capital projects and for bus and light rail vehicle maintenance. Up to 10 percent of the formula funds may be used to fund paratransit service to persons with disabilities.
- [Clean-Fuels Grant Program \(5308\)](#) (U.S. Dept. of Transportation: Federal Transit Administration) provides funding to public transit operators that use clean-fuel technologies for their bus fleets.
- The [Fixed Guideway Modernization Program](#) (U.S. Dept. of Transportation: Federal Transit Administration) provides annual funding to upgrade and improve light rail vehicles, stations, and maintenance equipment. Funds are distributed based on a formula that considers system age, length and level of service.
- The [Congestion Mitigation & Air Quality Improvement \(CMAQ\)](#) Program (U.S. Dept. of Transportation: Federal Highway Administration) supports surface transportation improvements designed to improve air quality and mitigate congestion.
- The [Job Access/Reverse Commute \(JARC\) Program](#) (U.S. Dept. of Transportation: Federal Transit Administration) funds projects designed to provide welfare recipients and low-income individuals access to jobs and to fund reverse commute initiatives.

Implementation Tool

- Texas Statutes - Section 452.701, Creation of Regional or Subregional Authority Authorized

Model Policies

- The Chicago, Illinois, [Regional Transportation Authority \(RTA\)](#) is considered a special purpose unit of local government and a municipal corporation of the State of Illinois. Initially, the RTA provided financial assistance to existing public transit operators. As the need for public transportation increased, the RTA's role expanded to include the acquisition and operation of public transportation carriers as well as contracting to provide service.
- The [Sacramento, \(California\) Regional Transit District](#) operates approximately 67 bus routes and 38.6 miles of light rail throughout its 418 square-mile service area and has seen annual ridership steadily increase on both systems. Regional Transit is governed by an 11-member Board of Directors comprised of elected officials from local, city and county governments.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region's residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving • Our Region coordinates infrastructure, housing, and transportation investments, creating areas of opportunity and enhancing existing neighborhoods 	<ul style="list-style-type: none"> • Strengthen regional collaboration to increase transportation funding options • Improve connectivity of land uses and multiple transportation modes
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of transportation funding going to new capacity vs. existing (including rehab and maintenance) and amount requested (unmet need) • Housing + Transportation Affordability: Proportion of household income spent on housing and transportation costs • Percentage of funding by Transportation Policy Council for pedestrian, bicycling, and transit projects and amount requested (unmet need) 	<ul style="list-style-type: none"> • Provide more transportation choices • Support existing communities • Value communities and neighborhoods



Develop and implement policies that improve transit, pedestrian and bicycle access between and within activity centers, connecting residents to job centers



Major employment and population centers are scattered throughout Our Region. Travel between these activity centers can be difficult, especially without a car. Providing alternative means of transportation within and between activity centers will help reduce congestion on Our Region’s roadways, improving quality of life and creating more travel options for residents. Communities can implement policies that will help make activity centers suitable for transit, walking, and biking. Careful planning can lead to the inclusion of measures supportive of alternative modes of transportation, eliminating the need for costly retrofits.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduces emissions • Promotes active lifestyles • Promotes economic development • Quality of life 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Counties • Cities • Towns • Villages • Management Districts • Municipal Utility Districts • Transit Agencies

Possible Funding Sources

Transportation Improvement Program (TIP): The TIP is a fiscally constrained plan of transportation projects approved to receive federal funding over the next four years. H-GAC, as the Metropolitan Planning Organization for the region, administers the TIP. Examples of some of the funding allocated through the TIP include:

- The [Metropolitan & Statewide Planning \(5303, 5304, 5305\)](#) (U.S. Dept. of Transportation: Federal Transit Administration) programs provide funding to support cooperative, continuous, and comprehensive planning for making transportation investment decisions in metropolitan areas and statewide.
- The [Urbanized Area Formula Program \(5307\)](#) (U.S. Dept. of Transportation: Federal Transit Administration) makes federal resources available to urbanized areas and to Governors for transit capital and operating assistance in urbanized areas and for transportation related planning. An urbanized area is an incorporated area with a population of 50,000 or more that is designated as such by the U.S. Department of Commerce, Bureau of the Census.
- [Formula Grants for Other than Urbanized Areas \(5311\)](#) (U.S. Dept. of Transportation: Federal Transit Administration) is a rural program that is formula based and provides funding to states for the purpose of supporting public transportation in rural areas, with a population of less than 50,000.

Possible Funding Sources

- The [Transportation, Community, and System Preservation Program \(TCSP\)](#) (U.S. Dept. of Transportation: Federal Highway Administration) is a comprehensive initiative of research and grants to investigate the relationships between transportation, community, and system preservation plans and practices and identify private sector-based initiatives to improve such relationships. States, metropolitan planning organizations, local governments, and tribal governments are eligible for discretionary grants to carry out eligible projects to integrate transportation, community, and system preservation plans.
- The [Congestion Mitigation & Air Quality Improvement \(CMAQ\)](#) Program (U.S. Dept. of Transportation: Federal Highway Administration) supports surface transportation improvements designed to improve air quality and mitigate congestion.
- The [Surface Transportation Program](#) (U.S. Dept. of Transportation: Federal Highway Administration) provides flexible funding that may be used by states and localities for projects to preserve and improve the conditions and performance on highway, bridge, tunnels, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals.

Implementation Tools	
<ul style="list-style-type: none"> • Roadway Design Manuals • Complete Streets • Streetscaping 	<ul style="list-style-type: none"> • Livable Centers Program • Subdivision Ordinance, Parking Ordinances & Other Land Use Policies



Develop and implement policies that improve transit, pedestrian and bicycle access between and within activity centers, connecting residents to job centers (continued)

Model Policies

- The [City of Houston Case Study: Urban Houston Framework \(2013\)](#), completed as part of the planning process for *Our Great Region 2040*, describes policy and regulatory incentives the City of Houston can use to encourage the creation of dense, sustainable communities in appropriate locations, while maintaining the character of existing neighborhoods.
- The [City of Houston: Urban Corridor Planning Initiative](#) uses land use tools to encourage pedestrian-friendly development near transit corridors.
- The Houston-Galveston Area Council's [Livable Centers Program](#) helps create walkable, mixed-use places that provide multi-modal transportation options, improve environmental quality, and promote economic development.
- METRO has several initiatives aimed at improving transit access within Houston and other parts of Harris County:
 - The [METRO Bike & Ride Access & Implementation Plan](#) (started in 2012) will identify actions METRO can take to better link bicycle facilities with transit infrastructure.
 - [Transit System Reimagining](#) (started in 2013) aims to identify actions METRO can take to improve its transit system and increase ridership. Recommendations will be based on input received from transit experts, residents, and a diverse task force made of up stakeholders representing neighborhoods, employment centers, and government agencies.
 - [METRO Transit Academy](#) teaches local leaders about the services offered by METRO and how the agency functions, helping participants better understand the transit system and promote its use in their communities.
 - The [METRO Customer Advisory Committee](#) consists of 15 transit users who provide feedback on service expansions and modifications, marketing campaigns, day-to-day operations, and ways to improve customer service, based on their experience riding METRO buses and trains.
- The Minnesota Department of Transportation launched the [Minnesota GO](#) visioning process to better align the transportation system with what Minnesotans expect for their quality of life, economy and natural environment. The effort is based on an understanding that transportation is a means to other ends, not an end in itself. It also recognizes that infrastructure is only one of many elements necessary to achieving a high quality of life, a competitive economy and a healthy environment. This 50-year vision for transportation will require consistency and collaboration across jurisdictions and sectors to be fully achieved.
- The Mid-Ohio Regional Planning Commission adopted a regional [Complete Streets Policy \(2010\)](#). Complete Streets are roadways designed to safely and comfortably accommodate all users, including, but not limited to motorists, cyclists, pedestrians, transit and school bus riders, delivery and service personnel, freight haulers, and emergency responders.
- [Cook County \(Illinois\) Complete Streets Ordinance \(2011\)](#) is a directive to create a comprehensive, integrated and connected transportation network. It strengthens and formalizes the County's commitment to creating streets that are better for everyone, regardless of their mode of travel. Cook County agencies, in cooperation with both public and private planning partners, will structure policies affecting all phases of project planning and development.
- The City of Charlotte, North Carolina, has developed comprehensive new [urban street design guidelines](#) to be applied to all new and modified streets. The design guidelines, approved in 2007, describe facilities for all travel modes, while explicitly considering land use context, street function, and allocation among competing uses for often-limited right-of-way.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region's residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving 	<ul style="list-style-type: none"> • Encourage community planning and design that allows for shorter trips and accommodates safe pedestrian and bicyclist travel • Improve the safety of all transportation systems • Strengthen regional collaboration to increase transportation funding options • Increase access to commute alternatives, including transit, carpools, vanpools, and telework
Metrics	Livability Principles
<ul style="list-style-type: none"> • Housing + Transportation Affordability: Proportion of household income spent on housing and transportation costs • Number of crashes involving bicyclists or pedestrians • Percentage of all households within 1/2 mile of transit • Percentage of all households within 1/2 mile of bikeways • Percentage of all households within 1/2 mile of trails • Percentage of population within major activity centers • Number of jurisdictions with complete streets policy 	<ul style="list-style-type: none"> • Support existing communities



Provide counties with tools to better coordinate land use and transportation planning in unincorporated areas

Transportation and land use are interdependent; the coordination of planning activities can reduce transportation spending and lead to a greater number of transportation options for communities. Currently counties in Texas are very limited in how they are able to plan and manage growth within their unincorporated areas. State legislation allowing counties to utilize a greater variety of land use and transportation planning tools could enhance the health and safety for county residents living in unincorporated areas.



Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduces transportation spending • Increases quality of life 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • State Government • Counties

Possible Funding Sources

- *No Funding Sources Currently Identified*

Implementation Tool

- State legislation allowing all counties to utilize a greater variety of land use and transportation planning tools, such as access management standards, impact fees, and concurrency and adequate public facilities ordinances.

Model Policies

- **Impact fees** are one-time fees developers pay for improvements to public infrastructure needed to support new development, reducing the financial burden new development may have on taxpayers. Cities in Texas have the ability to impose fees to offset the impacts new development may have on existing transportation infrastructure (Local Government Code: Chapter 395), but counties do not. The Georgia Development Impact Fee Act (1990) allows counties to impose impact fees that support transportation improvements described in their comprehensive plans.
- **Concurrency and adequate public facilities ordinances** require developers to determine whether or not existing public infrastructure can support proposed development. If adequate facilities are not in place, the developer must provide additional facilities needed, wait until the local government expands existing facilities, or implement an alternative project that can mitigate the impacts of the proposed development. Florida law (Florida Statutes §163.3180) allows local governments to establish concurrency requirements for transportation facilities and other infrastructure types.
- **Access management standards** can preserve the functionality of transportation corridors by limiting the frequency of driveway entrances and associated cross-movements. The Texas Department of Transportation establishes access management criteria for state highways. Counties have some authority to create access management standards, but it is limited; they can institute spacing and design standards within county-owned right-of-ways, and can use the subdivision ordinance to review new roadway construction. Harris County and adjacent counties have the ability to assume responsibility for managing access to state highways. State legislation could better clarify the ability of all counties to manage access along the entire roadway network

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving 	<ul style="list-style-type: none"> • Meet and maintain national air quality standards • Increase access to commute alternatives, including transit, carpools, vanpools, and telework
Metrics	Livability Principles
<ul style="list-style-type: none"> • Vehicle Miles Travelled • Mode Share • Housing + Transportation Affordability: Proportion of household income spent on housing and transportation costs • Number of Mixed Use/Transit-Oriented Development Projects 	<ul style="list-style-type: none"> • Support existing communities



Include economic, safety, and quality of life costs and benefits of transportation projects in funding prioritizations



Transportation planning in Our Region has historically emphasized improving congestion and air quality when calculating the costs and benefits of projects. While it is important that goods and people can move freely around Our Region, other considerations must be weighed in prioritizations to ensure a balanced transportation system. Possible prioritization measures could include safety, economic development, and quality of life considerations such as community identity, social equity, and public health.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Provides greater transportation options Makes the distribution of transportation funding more equitable Helps agencies monitor transportation performance more holistically 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> State Agencies Metropolitan Planning Organizations Counties Cities

Possible Funding Sources

Transportation Improvement Program (TIP): The TIP is a fiscally constrained plan of transportation projects approved to receive federal funding over the next four years. H-GAC, as the Metropolitan Planning Organization for the region, administers the TIP. Examples of some of the funding allocated through the TIP include:

- The [Metropolitan & Statewide Planning \(5303, 5304, 5305\)](#) (U.S. Dept. of Transportation: Federal Transit Administration) programs provide funding to support cooperative, continuous, and comprehensive planning for making transportation investment decisions in metropolitan areas and statewide.
- The [Urbanized Area Formula Program \(5307\)](#) (U.S. Dept. of Transportation: Federal Transit Administration) makes federal resources available to urbanized areas and to Governors for transit capital and operating assistance in urbanized areas and for transportation related planning. An urbanized area is an incorporated area with a population of 50,000 or more that is designated as such by the U.S. Department of Commerce, Bureau of the Census.
- [Formula Grants for Other than Urbanized Areas \(5311\)](#) (U.S. Dept. of Transportation: Federal Transit Administration) is a rural program that is formula based and provides funding to states for the purpose of supporting public transportation in rural areas, with a population of less than 50,000.

Implementation Tool

- Strategic Prioritization Process

Model Policies

- The [Galveston Sustainable Return on Investment Case Study](#) (2013) focused on development of a tool to evaluate future public investments, based not only on financial considerations, but also social and environmental impacts. The tool assigns a monetary value to costs and benefits not typically included in such calculations, such as impacts related to greenhouse gases, safety, mobility, livability, water conservation, and waste reduction.
- [North Carolina Department of Transportation Project Prioritization Processes](#) uses a transparent, systematic, and data-driven process for prioritizing the major transportation investments in the state and making investment decisions. Projects are evaluated based on their merit through an analysis of the existing and future conditions, the benefits the project is expected to provide, the project’s multi-modal characteristics and how the project fits in with local priorities.
- Puget Sound Regional Council (Seattle, Washington) developed the [Transportation 2040 Prioritization Process](#) to ensure regionally significant transportation investments implement VISION 2040, the region’s strategy for accommodating expected growth while enhancing the environment and quality of life.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving • Our Region coordinates infrastructure, housing, and transportation investments, creating areas of opportunity and enhancing existing neighborhoods 	<ul style="list-style-type: none"> • Coordinate infrastructure and land use planning, construction and maintenance to optimize system performance and realize cost savings to taxpayers • Remove barriers to development in areas with existing infrastructure networks • Improve connectivity of land uses and multiple transportation modes • Prioritize rehabilitation and maintenance of existing infrastructure
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of transportation funding going to new capacity vs. existing (including rehab and maintenance) and amount requested (unmet need) • Mode share • Housing + Transportation Affordability: Proportion of household income spent on housing and transportation costs 	<ul style="list-style-type: none"> • Provide more transportation choices • Support existing communities • Value communities and neighborhoods



Pursue creative, non-traditional transportation funding strategies

Recognizing the need for new ways to address gaps in traditional funding sources, governments are investigating innovative funding and financing tools for transportation. According to the Federal Highway Administration (FHWA), innovative financing encompasses a combination of techniques and mechanisms that include new or nontraditional sources of revenue; new financing mechanisms designed to leverage resources; new funds management techniques; and new institutional arrangements.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Reduces taxpayer expenditures Allows for continued investment in infrastructure improvements 	<ul style="list-style-type: none"> Funding 	<ul style="list-style-type: none"> Metropolitan Planning Organizations State Agencies Counties Cities Towns Villages Management Districts Transit Agencies

Possible Funding Sources

- **Grant Anticipation Revenue Vehicles** (GARVEEs, or GARVEE) bonds (U.S. Dept. of Transportation: Federal Highway Administration) are any debt financing instrument (bond, note, certificate, mortgage, or lease) issued by a state whose principal and interest are repaid primarily by future federal-aid funds.
- **Qualified Private Activity Bonds** are tax-exempt bonds issued by a state or local government, the proceeds of which are used by an entity other than the government issuing the bonds. For a private activity bond to be tax-exempt, at least 95% of the net bond proceeds must be used for one of the several qualified purposes, including improvements to airports, docks, and mass commuting facilities.
- The **Transportation Infrastructure Finance and Innovation Act** (TIFIA) program (U.S. Dept. of Transportation: Federal Highway Administration) provides credit in the form of direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance. TIFIA credit assistance provides improved access to capital markets, flexible repayment terms, and potentially more favorable interest rates. TIFIA can help advance qualified, large-scale projects that otherwise might be delayed or deferred because of size, complexity, or uncertainty over the timing of revenues. Many surface transportation projects (highway, transit, railroad, intermodal freight, and port access) are eligible for assistance.
- The **State Infrastructure Banks** (U.S. Dept. of Transportation: Federal Highway Administration) provide states with a new mechanism to finance large transportation projects through direct loans at attractive interest rates; the revenues from loan repayment and interest are used to fund subsequent loans. It offers states a flexible funding source, which can be tied to a set of state established criteria that evaluate a project's benefits (such as economic development) and significance.
- **Congestion Pricing** is designed to shift demand to less congested areas or time periods by charging motorists for road use during times of peak demand. Vehicles are charged for entry into a congested area, such as a city center, during some portion of the day.
- **Vehicle miles traveled (VMT) fees** charge drivers directly for each mile traveled; they replace the traditional motor fuel tax. States are just beginning to examine using vehicle miles traveled fees.
- **Public-private partnerships** (PPPs) establish a contractual agreement between a public agency and a private entity to collaborate on a transportation project. PPPs entail various provisions to allocate resources, risks, and rewards among parties involved. Important elements of successful PPPs for states include creating a public policy framework and criteria for developing PPPs, establishing internal expertise, and developing external relationships.

Implementation Tools	
<ul style="list-style-type: none"> • Impact Fees • Public/Private Partnerships • Innovative debt financing strategies, including new bonding authority, federal credit assistance, and state infrastructure banks 	<ul style="list-style-type: none"> • Congestion and cordon pricing • Vehicle Miles Traveled fees • Other programs such as international vehicle emissions fees, impact fees, container fees, and traffic camera fees

Model Policies

- METRO’s [HOT lanes](#) allows drivers without passengers touse the HOV Lane system by paying a toll with an authorized toll tag.
- The Minnesota Dept. of Transportation and the Twin Cities Metropolitan Council have a [combined transit and congestion pricing](#) program that converts bus-only lanes to “priced dynamic shoulder lanes” on I-35 in Minneapolis. The toll revenues will be used to initiate a bus rapid transit network in the corridor. Transit fare reductions will be funded from toll revenues.
- [South Carolina Transportation Infrastructure Bank](#) was created to help finance qualified projects by providing loans and financial assistance to governments and private entities that construct and improve highway and transportation facilities. The state is a leader in State Infrastructure Bank (SIB) financing, representing more than 50% of the value of SIB loan agreements nationwide.
- The [Chicago \(Illinois\) Region Environmental & Transportation Efficiency Program](#) is a public-private partnership that aims to improve rail infrastructure throughout Northeastern Illinois. Federal, state, and local governments are working with several railroad companies to invest billions of dollars to increase the efficiency of the region’s urban rail network.
- Oregon passed the first legislation to establish a [road usage charge system](#) for transportation funding. Beginning in 2015, the state may assess a charge of \$0.015 per mile for up to 5,000 volunteer motorists.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving • Our Region coordinates infrastructure, housing, and transportation investments, creating areas of opportunity and enhancing existing neighborhoods 	<ul style="list-style-type: none"> • Coordinate infrastructure and land use planning, construction and maintenance to optimize system performance and realize cost savings to taxpayers • Remove barriers to development in areas with existing infrastructure networks • Improve connectivity of land uses and multiple transportation modes • Prioritize rehabilitation and maintenance of existing infrastructure
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of transportation funding going to new capacity vs. existing (including rehab and maintenance) and amount requested (unmet need) • Housing + Transportation Affordability: Proportion of household income spent on housing and transportation costs • Percentage of funding by Transportation Policy Council for pedestrian, bicycling, and transit projects and amount requested (unmet need) 	<ul style="list-style-type: none"> • Provide more transportation choices • Support existing communities • Value communities and neighborhoods



Facilitate coordination between cities, counties and utility districts to improve efficiency in permitting and utility placements

Transportation improvements often impact other types of infrastructure, including water, sewer, electric lines, and other utilities that may be located within or adjacent to the right-of-way. Issues with utility relocations have been identified as one of the most common causes of project delays and increased costs. Effective coordination between government agencies and utility providers can minimize delays and cost overruns, saving taxpayers money. Inter-organizational coordination should begin early in the design process, so that entities involved have time to determine the best way to relocate or avoid affected infrastructure.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Protects integrity of the highway roadbed/right of way • Lowers cost to the taxpayers supporting the highway system and the rate payers supporting the utility system • Protects safety of motorists, pedestrians, construction workers, and other highway users 	<ul style="list-style-type: none"> • Partnership 	<ul style="list-style-type: none"> • Metropolitan Planning Organization • State Agencies • Counties • Cities • Utility Districts

Possible Funding Sources

- In some circumstances, federal funds can be used for utility relocations necessitated by federally-supported highway projects.

Implementation Tools	
<ul style="list-style-type: none"> • Interlocal Agreements • Inter-organizational Partnerships and Coordination 	<ul style="list-style-type: none"> • Project Coordination Officers

Model Policies

- The City of Chicago, Illinois: [Office of Underground Coordination](#) reviews all construction work in or adjacent to the public way. This also includes large projects with deep excavations and penetrations, such as foundations (piles, caisson, etc.), earth retention systems, or major piping installations. Proposed projects are reviewed prior to issuance of permits by other city departments.
- Indiana Dept. of Transportation (INDOT) created a [Utility Coordination](#) web page with information related to utility coordination for highway improvement projects. This information is designed to support coordination between utility providers, consultants, contractors and INDOT.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region coordinates infrastructure, housing, and transportation investments, creating areas of opportunity and enhancing existing neighborhoods 	<ul style="list-style-type: none"> • Coordinate infrastructure and land use planning, construction and maintenance to optimize system performance and realize cost savings to taxpayers
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of transportation funding going to new capacity vs. existing (including rehab and maintenance) and amount requested (unmet need) • Number of interlocal agreements between entities regarding transportation 	<ul style="list-style-type: none"> • Support existing communities



Develop partnerships to expand availability of transit services, balancing needs of “lifeline” and “choice” users, focusing particularly on rural and underserved areas

Transit is an important part of Our Region’s transportation system, providing access to jobs, services, and other destinations. For some, transit is their only means of transportation; 7.4% of households in Our Region do not have a car. Some communities have limited access to transit, making it difficult for non-drivers to get around. The coverage and efficiency of our transit system needs to be broadened to better serve existing customers and attract new ones. Transit agencies, local governments, and other organizations can work together to create greater transportation choices, particularly in rural and underserved areas with few options. Partnerships can increase the availability of transit services by reducing redundant costs.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Improves access to transit Improves efficiency of transit operations 	<ul style="list-style-type: none"> Partnership 	<ul style="list-style-type: none"> Counties Cities Towns Management Districts Transit Agencies

Possible Funding Sources

- The federal [Rural Transit Assistance Program \(49 U.S.C. 5311\(b\)\(3\)\)](#) (U.S. Dept. of Transportation: Federal Transit Administration) provides a source of funding to assist in the design and implementation of training and technical assistance projects and other support services tailored to meet the needs of transit operators in non-urbanized areas.

Implementation Tools	
<ul style="list-style-type: none"> • Demand Response Service • Fixed Route Services • Ride Sharing 	<ul style="list-style-type: none"> • Commuter Rail Service • Inter-organizational Partnerships and Coordination

Model Policies

- The [Allendale County Scooter](#) is a coordinated community public transit system that serves a rural South Carolina community. The initiative is designed to overcome lack of alternative transportation options for individuals requiring access to employment, training, medical, human service agencies, recreation, etc.
- [Streamline](#) offers fare-free service throughout the Bozeman, Montana, area, including connecting with the Skyline Bus System for travel to and from Big Sky, Montana.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving • Our Region coordinates infrastructure, housing, and transportation investments, creating areas of opportunity and enhancing existing neighborhoods 	<ul style="list-style-type: none"> • Strengthen regional collaboration to increase transportation funding options • Increase access to commute alternatives, including transit, carpools, vanpools, and telework • Coordinate infrastructure and land use planning, construction and maintenance to optimize system performance and realize cost savings to taxpayers
Metrics	Livability Principles
<ul style="list-style-type: none"> • Percentage of transportation funding going to new capacity vs. existing (including rehab and maintenance) and amount requested (unmet need) • Mode share • Average frequency of transit (in minutes) • Number of transit boardings 	<ul style="list-style-type: none"> • Support existing communities



Create a local bicycle and pedestrian infrastructure inventory, including the conditions of facilities

Communities can have many types of infrastructure for pedestrians and bicyclists. Documenting the presence and status of these facilities allows governments to identify and prioritize locations where improvements are needed. Knowing where current or potential pedestrian and bicycle use is high also enables decision makers to focus planning efforts on areas where the benefits would be maximized.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Identifies existing resources Helps prioritize investments in bicycle and pedestrian infrastructure, maximizing the impact of taxpayer dollars 	<ul style="list-style-type: none"> Assessment 	<ul style="list-style-type: none"> Metropolitan Planning Organization Counties Cities Towns Villages Management Districts Transit Agencies

Possible Funding Sources

- No Funding Sources Currently Identified*

Implementation Tool

- GIS database

Model Policies

- The [Texarkana \(Texas/Arkansas\) Bicycle and Pedestrian Master Plan \(2009\)](#) provides a comprehensive vision for non-motorized transportation, as well as recreation. Having a master plan is a first step towards coordination among the various agencies responsible for transportation and recreation facilities, as well as other interested parties.
- The Nashville, Tennessee, Area Metropolitan Planning Organization's [Bicycle and Pedestrian Study \(2009\)](#) credits a strategic vision for improving walking and bicycling opportunities in the greater Nashville region. That vision informed the Nashville Area Metropolitan Planning Organization's overall regional transportation plan and provided the basis by which investments in bicycle and pedestrian accommodations are prioritized.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region's residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving 	<ul style="list-style-type: none"> • Encourage community planning and design that allows for shorter trips and accommodates safe pedestrian and bicyclist travel • Improve the safety of all transportation systems • Strengthen regional collaboration to increase transportation funding options • Increase access to commute alternatives, including transit, carpools, vanpools, and telework
Metrics	Livability Principles
<ul style="list-style-type: none"> • Housing + Transportation Affordability: Proportion of household income spent on housing and transportation costs • Number of crashes involving bicyclists or pedestrians • Percentage of all households within 1/2 mile of transit • Percentage of all households within 1/2 mile of bikeways • Percentage of all households within 1/2 mile of trails 	<ul style="list-style-type: none"> • Support existing communities



Coordinate land use and transportation investments through local implementation plans such as livable centers plans, comprehensive mobility studies, and plans to facilitate development in transit supportive locations

Coordinating transportation and land use planning results in increased travel efficiency and convenience, improving returns on infrastructure investment and reducing automobile-related emissions. Coordination is needed to create walkable and compact communities with high-quality design and a mixture of land uses. These studies can encourage transit oriented development and investment in transportation projects, while supporting land use patterns that provide citizens with the option of walking, bicycling, or taking transit.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduces greenhouse gas emissions • Increases economic competitiveness • Reduces energy consumption • Promotes active lifestyles • Reduces land consumption 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • State Agencies • Metropolitan Planning Organization • Council of Government • Counties • Cities • Management Districts

Possible Funding Sources

- [Infrastructure Voluntary Evaluation Sustainability Tool \(INVEST\)](#) (U.S. Dept. of Transportation: Federal Highway Administration) helps transportation agencies evaluate the sustainability of transportation projects and their economic, social and environmental outcomes.
- The [Metropolitan & Statewide Planning \(5303, 5304, 5305\)](#) (U.S. Dept. of Transportation: Federal Transit Administration) programs provide funding to support cooperative, continuous, and comprehensive planning for making transportation investment decisions in metropolitan areas and statewide.

Implementation Tools	
<ul style="list-style-type: none"> Livable Centers Plans Comprehensive Mobility Studies 	<ul style="list-style-type: none"> Transit-Oriented Development Studies

Model Policies

- The Houston-Galveston Area Council’s [Livable Centers Program](#) helps create walkable, mixed-use places that provide multi-modal transportation options, improve environmental quality, and promote economic development.
- Atlanta, Georgia, Regional Commission’s [Livable Centers Initiative](#) (LCI) awards planning grants to local governments and non-profit organizations to prepare and implement plans for the enhancement of existing centers and corridors consistent with regional development policies. Funding is also available to build infrastructure projects identified in the LCI plans.
- The City of Seattle, Washington’s, [Transit Oriented Development](#) (TOD) case studies look at a variety of transit operators, cities, and station types throughout North America. The case studies make reference to many exemplary station-area projects within the transit corridors served. They also provide valuable insights that will help the City of Seattle ensure that station area plan goals are met and avoid the mistakes that have limited transit-oriented development elsewhere.

Goals	Objectives
<ul style="list-style-type: none"> Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving 	<ul style="list-style-type: none"> Encourage community planning and design that allows for shorter trips and accommodates safe pedestrian and bicyclist travel Improve the safety of all transportation systems Strengthen regional collaboration to increase transportation funding options Increase access to commute alternatives, including transit, carpools, vanpools, and telework
Metrics	Livability Principles
<ul style="list-style-type: none"> Housing + Transportation Affordability: Proportion of household income spent on housing and transportation costs Number of crashes involving bicyclists or pedestrians Percentage of all households within 1/2 mile of transit Percentage of all households within 1/2 mile of bikeways Percentage of all households within 1/2 mile of trails Percentage of population within major activity center 	<ul style="list-style-type: none"> Support existing communities



Develop a local comprehensive safety and crash database for all modes, including freight, to address transportation safety hot spots more efficiently

Injuries resulting from motor vehicle crashes remain a public health concern for Our Region. They can be prevented, but only if we understand their type, severity and cost in relation to the characteristics of the crash, vehicles, and persons involved. Crash data alone do not indicate the medical and financial consequences of vehicular accidents. By linking crash, vehicle, and behavior characteristics to their specific medical and financial outcomes, we can identify prevention factors.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduces congestion • Decreases healthcare costs • Improves public safety 	<ul style="list-style-type: none"> • Resource 	<ul style="list-style-type: none"> • Metropolitan Planning Organization • Council of Government • Counties • Cities • Villages • Towns • Management Districts • Transit Agencies • Freight/Logistics Providers

Possible Funding Sources

- *No Funding Sources Currently Identified*

Implementation Tools	
<ul style="list-style-type: none"> • Law Enforcement Crash Reports • State Crash Database • Fatality Analysis Reporting System Database 	<ul style="list-style-type: none"> • Hospital Data • GIS Software

Model Policies

- North Carolina provides a [data analysis tool](#) that will create tables reflecting crash, vehicle, and person information for crashes, organized by type, ranking, overall cost, and maps and other resources for analysis.
- Southeast Michigan Council of Governments hosts a [database](#) of all traffic crashes occurring in Southeast Michigan between 2003 and 2012. You can search for individual traffic crashes that meet any given search criteria.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region's residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving 	<ul style="list-style-type: none"> • Encourage community planning and design that allows for shorter trips and accommodates safe pedestrian and bicyclist travel • Improve the safety of all transportation systems • Strengthen regional collaboration to increase transportation funding options • Increase access to commute alternatives, including transit, carpools, vanpools, and teleworkork
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of crashes involving bicyclists or pedestrians • Number of motor vehicle crashes 	<ul style="list-style-type: none"> • Support existing communities



Promote public and industry education to reduce mobile source emissions, including carpool options

Mobile source emissions are generated by motor vehicles, airplanes, locomotives, and other engines that move from one place to another; these emissions can cause serious health and environmental effects. Many strategies identified have the potential to not only reduce mobile source emissions, but also reduce vehicle miles traveled. Freight transportation emissions also have associated strategies to reduce their impacts.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduce mobile source emissions • Improves public health • Reduces congestion 	<ul style="list-style-type: none"> • Education 	<ul style="list-style-type: none"> • State Agencies • Council of Governments • Metropolitan Planning Association • Transit Agencies • Private companies • Non-Profits

Possible Funding Sources

- The [Environmental Education Regional Grant Program](#) (U.S. Environmental Protection Agency) provides funding to support environmental education projects that increase public awareness of environmental issues.
- The [Emissions Reduction Incentive Grants](#) (Texas Commission on Environmental Quality) support projects in nonattainment areas and affected counties. The grants offset the incremental costs associated with reducing emissions of oxides of nitrogen (NOx) from high-emitting internal combustion engines.
- The [Diesel Emissions Reduction Act Grants](#) (U.S. Environmental Protection Agency) support projects that reduce emissions from existing diesel engines.
- The [Congestion Mitigation & Air Quality Improvement \(CMAQ\) Program](#) (U.S. Dept. of Transportation: Federal Highway Administration) supports surface transportation improvements designed to improve air quality and mitigate congestion.

Implementation Tools	
<ul style="list-style-type: none"> • Online Rideshare Programs • Company Carpooling Programs • Parking Cash-Out for Employees 	<ul style="list-style-type: none"> • Transportation Demand Management (TDM) programs • Public Transit and Rideshare Improvements • Freight Transportation Management

Model Policies

- [Commuter Solutions](#) is a one-stop alternative transportation resource in the Houston-Galveston area for both commuters and businesses; it provides advice, answers and assistance on commuting options and employee transportation programs.
- Bay Area (San Francisco, California) Quality Management District's [Spare the Air Campaign](#) helps commuters find a better way to work and enjoy the many perks experienced by commuters who take transit, carpool, bike or walk to work, instead of driving alone.
- The [Clean Air Campaign](#) is the state of Georgia's resource for air quality and traffic congestion information and solutions.
- [Give Your Car a Rest on Tuesdays](#) is a Minnesota program to increase awareness of transportation options and to encourage rideshare use at least one day each week.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region's residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving 	<ul style="list-style-type: none"> • Encourage community planning and design that allows for shorter trips and accommodates safe pedestrian and bicyclist travel • Improve the safety of all transportation systems • Strengthen regional collaboration to increase transportation funding options • Increase access to commute alternatives, including transit, carpools, vanpools, and telework
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of counties in non-attainment area • Percentage of population in non-attainment area • Number of 8-hour ozone exceedance days per year 	<ul style="list-style-type: none"> • Support existing communities



Improve fleet efficiency (of public and private fleets) including idle reduction

Creating an efficient fleet begins by analyzing vehicle operations and vehicle types and considering options that deliver the same advantages, but at a lower cost and at a reduced impact to the environment. Purchasing more efficient, lower emission, gasoline-powered vehicles provides benefits similar to alternative fuels, most often at a lower initial cost. Idling can be reduced without compromising driver comfort or vehicle equipment operations.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Reduces fuel consumption Reduces greenhouse gas emissions Reduces costs 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> State Agencies Council of Governments Counties Cities Towns School Districts Metropolitan Planning Association Transit Agencies Businesses Non-Profits

Possible Funding Sources

- The [TIGGER Program](#) (U.S. Dept. of Transportation: Federal Transportation Administration) works directly with public transportation agencies to implement new strategies for reducing energy use within transit operations. These strategies can be implemented through operational or technological enhancements or innovations.
- The [National Research and Technology Program](#) (5312) (U.S. Dept. of Transportation: Federal Transportation Administration) seeks to improve public transportation by funding research, development, demonstration and deployment projects.
- [SmartWay Finance Program](#) (U.S. Environmental Protection Agency) was established to award non-profit organizations and local governments competitive grants to establish national, regional, state, or local financing programs that provide financial incentives (e.g., low-cost loans, rebates, etc.) to vehicle/equipment owners for the purchase of eligible vehicle replacements, idle reduction technologies, and emission control retrofits.
- [Clean School Bus](#) (U.S. Environmental Protection Agency) is a national, innovative program designed to help communities reduce emissions from older diesel school buses. School districts, fleet owners and operators, bus drivers, parents and students all have a role in helping to reduce diesel emissions from school buses.
- The [Congestion Mitigation & Air Quality Improvement \(CMAQ\)](#) Program (U.S. Dept. of Transportation: Federal Highway Administration) supports surface transportation improvements designed to improve air quality and mitigate congestion.

Implementation Tools	
<ul style="list-style-type: none"> City Council Resolution/Policy Directive Purchasing of Energy-Efficient Vehicles 	<ul style="list-style-type: none"> Onboard Idle Reduction Equipment for Heavy-Duty Trucks

Model Policies

- As part of its [Green Transportation Initiative](#), which began in 2002, the City of Houston has been purchasing plug-in hybrid electric vehicles (PHEV) for its municipal fleet. More than 50% of its light-duty passenger fleet consists of hybrid vehicles.
- The H-GAC [Drayage Loan Program](#) is a low-interest loan program that enables eligible truck owners to finance the purchase of newer, cleaner and more environmentally-friendly trucks. This innovative program is intended to establish a revolving loan fund that will enable an individual borrower to obtain a “bridge loan” equal to the difference between the actual cost of purchasing a newer-model qualified truck and the incentive grant that truck owners apply for through the Texas Commission on Environmental Quality Texas Emissions Reduction Plan (TERP).
- [Engine Off](#) is improving air quality in the Houston-Galveston area. Idling has become a habit that wastes fuel and money, while producing smog.
- Seattle, Washington’s, [Clean and Green Fleet](#) demonstrates how cities can improve air quality and encourage smart vehicle choices by creating an environmentally-friendly vehicle fleet.
- The Illinois [Green Fleets Program](#) is a voluntary program where businesses, government units, and other organizations in Illinois gain recognition and additional marketing opportunities for having environmentally-friendly vehicles in their fleet, especially those that use domestic renewable energy sources. It is a program to recognize a fleet manager’s progressive efforts in using environmentally-friendly vehicles and fuels to improve air quality while promoting domestic fuels for greater national energy security.
- Denver, Colorado’s, [Green Fleet](#) has made strides in reducing the city’s impact. Alternatively fueled or powered vehicles currently make up 43 percent of the city’s total fleet. The city has switched all diesel-powered vehicles to B20 biodiesel and is purchasing hybrid models as older light-duty vehicles in the fleet are replaced.
- [Government Fleet Magazine](#) provides information on best management practices for fleets, including GPS tracking, alternative fuels, bio-diesel, and fuel management.

Goals	Objectives
<ul style="list-style-type: none"> Our Region enjoys clean and plentiful water, air, soil and food resources to sustain healthy future generations 	<ul style="list-style-type: none"> Meet and maintain national air quality standards
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of counties in non-attainment area Percentage of population in non-attainment area 	<ul style="list-style-type: none"> Support existing communities



Increase supply and efficient consumption of alternative transportation fuels

Public and private entities can pursue alternatives to gasoline and diesel, helping Our Region improve air quality and reduce demand for foreign petroleum. A balanced approach is needed to meet Our Region’s air quality and transportation efficiency objectives.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Reduces emissions Potential cost savings Insulates Our Region from petroleum price variance 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> State Agencies Council of Governments Metropolitan Planning Association Transit Agencies Businesses

Possible Funding Sources

- [SmartWay Finance Program](#) (U.S. Environmental Protection Agency) was established to award non-profit organizations and local governments competitive grants to establish national, regional, state, or local financing programs that provide financial incentives (e.g., low-cost loans, rebates, etc.) to vehicle/equipment owners for the purchase of eligible vehicle replacements, idle reduction technologies, and emission control retrofits.
- The [Emissions Reduction Incentive Grants](#) (Texas Commission on Environmental Quality) support projects in nonattainment areas and affected counties. The grants offset the incremental costs associated with reducing emissions of oxides of nitrogen (NOx) from high-emitting internal combustion engines.
- With [Alternative Fuel Market Project Awards](#) (U.S. Dept. of Energy), communities throughout the United States can help increase the use of alternative fuel vehicles, including those that run on electricity and natural gas.

Implementation Tools	
<ul style="list-style-type: none"> • Procurement Programs • Purchasing Incentives • Upgrading Electric Vehicle Infrastructure 	<ul style="list-style-type: none"> • Natural Gas Vehicle Conversions • Natural Gas Filling Stations

Model Policies

- The [Recipe for Fueling Diversity in the Energy Capitol of the World](#) project will work to expand access to natural gas, propane, and biodiesel transportation fuels across the eight-county Houston-Galveston area.
- [Central Texas Fuel Independence Project](#) will expand an interagency agreement to include alternative fueling infrastructure procurement; deliver electricity and natural gas vehicle safety training; host electric vehicle and natural gas workshops to educate potential fleet users in the Austin and San Antonio region; and hold training seminars regarding multifamily housing and workplace electric vehicle charging.
- The State Energy Conservation Office’s [alternative fuels projects](#) offer a flexible approach to building alternative fuels markets, providing participants with options to address problems unique to their cities and fostering partnerships to help overcome them.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption • Our Region enjoys clean and plentiful water, air, soil and food resources to sustain healthy future generations 	<ul style="list-style-type: none"> • Increase the use of green construction practices and renewable energy sources • Meet and maintain national air quality standards
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of counties in non-attainment area • Percentage of population in non-attainment area • Number of 8-hour ozone exceedance days per year 	<ul style="list-style-type: none"> • Support existing communities • Value communities and neighborhoods



Promote the use of alternative modes of transportation

Our transportation system is overwhelmingly car-oriented. Over 80% of all trips are made by car and, on average, our residents drive 30 miles per day. Transit service, bikeways and pedestrian infrastructure exist to varying degrees throughout the region but do not constitute a large share of the overall trips. To reduce congestion and provide greater options for residents, communities can promote the use of alternative modes of transportation, including carpools, vanpools, transit, bicycling, and walking.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduces traffic congestion • Improves public health • Improves quality of life • Reduces emissions 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • State Agencies • Council of Governments • Metropolitan Planning Organization • Counties • Cities • Towns • Villages • Transit Agencies • Businesses • Non-Profits

Possible Funding Sources

- The Houston-Galveston Area Council’s [Pedestrian-Bicyclist Program](#) coordinates programs and projects that improve mobility and safety for pedestrians and bicyclists throughout the region.
- The [MAP-21 Transportation Alternatives Program \(TAP\)](#) (U.S. Dept. of Transportation: Federal Highway Administration) provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities. The Federal Safe Routes to School Program and Recreational Trails Program are now funded as part of this initiative.
- The [Small Starts](#) funding program (U.S. Dept. of Transportation: Federal Transit Administration) funds small projects that support a range of modal alternatives, including bus rapid transit, streetcar, commuter rail, and other fixed guideway projects.
- The [Bicycle & Pedestrian Program](#) (U.S. Dept. of Transportation: Federal Highway Administration) seeks to improve conditions and safety for bicycling and walking to create an integrated, intermodal transportation system which provides travelers with a real choice of transportation modes.
- The [Rural Transit Assistance Program \(5311\(b\)\(3\)\)](#) (U.S. Dept. of Transportation: Federal Transit Administration) provides a source of funding to assist in the design and implementation of training and technical assistance projects and other support services tailored to meet the needs of transit operators in non-urbanized areas.

Implementation Tools	
<ul style="list-style-type: none"> • Funding for Alternative Modes of Transportation • Complete Streets Program • Marketing and Outreach Campaigns • Transit Oriented Development 	<ul style="list-style-type: none"> • Improve Transit, Bicycle, and Pedestrian Networks • Subdivision Ordinances, Parking Ordinances & Other Land Use Policies • Multi-Modal Navigation Tools • Employee Incentives for Alternative Commuting Options

Model Policies

- The [Houston-Galveston Area Council: Livable Centers Program](#) helps communities create plans for walkable, mixed-use places that provide multimodal transportation options.
- Portland, Oregon’s, [SmartTrips program](#) aims to make sure everyone who lives, works or runs a business in Portland knows about all the options they have for getting around.
- The [ORCA Business Passport](#) in King County, Washington, is a comprehensive, annual transportation pass program for employers. It offers employees an annual comprehensive transportation pass program within a single card.
- [PACommutes](#) (Pennsylvania Dept. of Transportation) provides information on all the forms of alternative transportation available in Pennsylvania, helping commuters understand their options.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit and driving 	<ul style="list-style-type: none"> • Meet and maintain national air quality standards • Increase access to commute alternatives, including transit, carpools, vanpools, and telework
Metrics	Livability Principles
<ul style="list-style-type: none"> • Vehicle Miles Travelled • Mode Share • Housing + Transportation Affordability: Proportion of household income spent on housing and transportation costs • Percentage of population living in areas with high score on the H-GAC connectivity/density index • Percentage of population living within major activity centers 	<ul style="list-style-type: none"> • Support existing communities

Resiliency



Create public education programs on wildfire, flooding, and other risks



Our Region is vulnerable to hurricanes, flooding, drought, and wildfires, but many people are unaware of the risks these disasters present. To limit property damage and protect citizens, Our Region can create public education programs that provide residents and businesses with information on how they can reduce their vulnerability to natural disasters. These programs can be tailored to appeal to different audiences, ensuring that potentially life-saving information is relayed to Our Region’s diverse citizenry.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Protects public safety • Reduces loss of life and property • Decreases post-disaster recovery costs • Improves resiliency in a cost-effective way 	<ul style="list-style-type: none"> • Education 	<ul style="list-style-type: none"> • Federal Agencies • State Agencies • Council of Governments • Counties • Cities • Towns • Villages • Flood Control Districts • School Districts • Colleges and Universities • Non-Profits

Possible Funding Sources

- [Emergency Management Performance Grants](#) (Federal Emergency Management Agency) provide assistance to state and local governments to help them prevent, protect against, mitigate, respond to, and recover from man-made and natural disasters.

Implementation Tools	
<ul style="list-style-type: none"> Marketing/Public Outreach Campaigns 	<ul style="list-style-type: none"> Workshops

Model Policies

- The [Harris County Flood Control District: Flood Education Mapping Tool](#) is an easy-to-use, interactive mapping site that helps residents and businesses determine whether their properties are located within a floodplain.
- The [City of Medford, Oregon: “Ready, Set, Go” Personal Wildfire Action Guide](#) describes steps homeowners can take to reduce the risk of wildfires, and includes preparatory checklists and easy-to-understand diagrams.
- The [City of Edmonton, Alberta: Flood Prevention Program](#), initiated in 2005, uses several media sources to relay flood prevention tips to the public, and flood prevention workshops are held in at-risk communities. Residents can request a free on-site professional consultation, which will help homeowners identify and resolve drainage issues on their properties, minimizing the risk of flood damage.

Goals	Objectives
<ul style="list-style-type: none"> Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> Increase disaster preparedness for residents and businesses Create a built environment that is resilient and adaptive to changes in the natural environment Encourage development in locations that are more resilient to environmental and natural disasters
Metrics	Livability Principles
<ul style="list-style-type: none"> Dollars of FEMA Disaster Recovery funds received after natural disasters Dollars of Small Business Association Disaster Recovery funds received after natural disasters Number of communities participating in the Community Rating System 	<ul style="list-style-type: none"> Coordinate policies and leverage investment



Develop an integrated regional storm defense system, which includes both structural and non-structural elements



Due to its location along the Gulf of Mexico, Our Region is vulnerable to hurricanes and tropical storms. Storm surges from previous events have caused significant damage, and future storms have the potential to be just as destructive. An integrated regional storm defense system, which includes both structural and non-structural elements, could help protect homes, businesses, industries, and critical infrastructure from inundation, reducing the risk of property damage and loss of life. Structural elements, including dikes, flood gates, levees, building adaptations, and other physical improvements, could help protect key assets, but their high cost means that this approach must be carefully targeted. Non-structural elements are policies and actions that reduce risk, such as protecting coastal wetlands, limiting development in flood-prone areas, and educating the public about flood risk. An integrated approach can reduce potential losses in a cost-effective way, protecting both existing communities and fragile ecosystems.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduces flood risk • Reduces loss of life and property • Protects existing communities and coastal ecosystems • Improves resiliency 	<ul style="list-style-type: none"> • Infrastructure 	<ul style="list-style-type: none"> • Federal Agencies • State Agencies • Counties • Cities • Towns • Villages • Utility Providers • Non-Profits

Possible Funding Sources

- **Hazard Mitigation Assistance (HMA) Grant Programs** (Federal Emergency Management Agency) provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. There are three different HMA grant programs: the Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation (PDM) Program, and the Flood Mitigation Assistance (FMA) program.

Implementation Tools	
<ul style="list-style-type: none"> • Floodgates • Dikes • Levees • Wetlands and Riparian Zone Protection 	<ul style="list-style-type: none"> • Stormwater Detention • Hurricane-Resistant Building Codes • Repetitive Loss Buyout Programs • Land Development Regulations

Model Policies

- [A Stronger, More Resilient New York \(2013\)](#) identifies strategies for rebuilding the communities impacted by Hurricane Sandy and increasing the resilience of infrastructure and buildings throughout the city.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> • Create a built environment that is resilient and adaptive to changes in the natural environment • Encourage development in locations that are more resilient to environmental and natural disasters
Metrics	Livability Principles
<ul style="list-style-type: none"> • Acres of wetlands and riparian zones conserved or protected • Additional acre-feet of stormwater detention • Number of properties entering buyout programs • Number of National Flood Insurance Program claims • Number of repetitive and severe repetitive loss properties • Population in storm surge zones 	<ul style="list-style-type: none"> • Coordinate policies and leverage investment • Support existing communities



Enhance coordination of evacuation planning and preparation efforts, particularly to address the needs of vulnerable populations



Previous regional hurricane evacuations brought into focus the difficulties faced in efficiently moving large portions of the region’s population out of harm’s way. Much work has been done to improve the region’s capacity for mass evacuations since Hurricane Rita in 2005, but ongoing coordination is needed to ensure emergency preparedness. Planning efforts are especially needed to address the needs of vulnerable populations: the disabled, elderly, infirm, or indigent. Partnerships among a range of organizations strengthen the region’s ability to cope with natural disasters.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Increases public health and safety during a disaster • Improves public awareness of disaster preparedness • Enhances communication during and after a disaster • Reduces evacuation times and stress 	<ul style="list-style-type: none"> • Partnership/Program 	<ul style="list-style-type: none"> • State Agencies • Council of Governments • Counties • Cities • Towns • Villages • School Districts • Transit Authorities • Healthcare Providers • Employers • Media

Possible Funding Sources

- [Hazard Mitigation Assistance \(HMA\) Grant Programs](#) (Federal Emergency Management Agency) provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. There are three different HMA grant programs: the Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation (PDM) Program, and the Flood Mitigation Assistance (FMA) program
- [Emergency Management Performance Grants](#) (Federal Emergency Management Agency) provide assistance to state and local governments to help them prevent, protect against, mitigate, respond to, and recover from man-made and natural disasters.

Implementation Tools

<ul style="list-style-type: none"> • Evacuation Studies • Disaster Preparedness Plans • Emergency Communication Plans 	<ul style="list-style-type: none"> • Emergency Shelter Planning • Public Education
--	--

Model Policies

- Houston-Galveston Region: [Together Against the Weather](#) was created to help people with access and functional support needs better plan and prepare for hurricanes in the 13-county region of the Houston-Galveston Area Council. The strategies and toolkit of materials developed help overcome challenges experienced by the program’s targeted audiences and to encourage the formation of supportive partnerships in advance of a storm.
- Houston, Texas: [Ready Houston](#) (City of Houston: Office of Public Safety and Homeland Security) is designed to provide quick access to local and national information on disaster preparedness. The Ready Houston program has produced videos on a variety of topics related to emergency preparedness. Local agencies provide training that helps citizens prepare, and our partners are also a valuable source of information.
- Texas: [Ready or Not? Have a Plan](#) is a statewide campaign to help Texans prepare for emergencies from the Texas Department of State Health Services. Key to the campaign is a website, www.TexasPrepares.org and www.TexasPrepara.org in Spanish, where Texans can create a family emergency plan, download a disaster supplies list and get information about the threats we face.
- [Texas Emergency Management Executive Guide](#), from the Texas Department of Public Safety, helps communities in planning for disasters and emergencies in Texas, emergency management professionals use a variation of the Emergency Support Functions concept through the development of functional annexes. The Emergency Support Functions are woven into these annexes in an all-hazards approach that allows personnel and resources to be grouped according to specific functions and utilized within a variety of emergencies and disasters.
- [North Central Texas Council of Governments Emergency Preparedness Department](#) enhances lasting partnerships and proactive Emergency Preparedness initiatives through advocacy, communication, and collaboration.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> • Increase disaster preparedness for residents and businesses • Create a built environment that is resilient and adaptive to changes in the natural environment • Encourage development in locations that are more resilient to environmental and natural disasters
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of communities covered in a hazard mitigation plan • Number of mitigation actions identified in regional or local hazard mitigation plans 	<ul style="list-style-type: none"> • Coordinate policies and leverage investment • Support existing communities



Develop a rapid recovery plan to help people and businesses return as quickly as possible



Flooding, hurricanes, wildfires, and other natural events can cause catastrophic damage, destroying homes, businesses, and critical infrastructure. Widespread destruction can lead to an overwhelming sense of loss, causing many residents and businesses to relocate to other areas. High rates of outmigration make recovery difficult, threatening the long-term economic vitality of affected communities. A rapid housing and business recovery plan establishes policies and procedures aimed at facilitating the reconstruction of buildings and infrastructure as soon after a disaster as possible, allowing displaced residents and businesses to quickly return to their communities.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Speeds the recovery of communities after disasters • Ensures the long-term vitality of communities affected by disasters • Protects the health and safety of residents 	<ul style="list-style-type: none"> • Plan 	<ul style="list-style-type: none"> • State Agencies • Council of Governments • Counties • Cities • Towns • Villages • Transit Agencies • Local Housing Authorities

Possible Funding Sources

- [Hazard Mitigation Assistance \(HMA\) Grant Programs](#) (Federal Emergency Management Agency) provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. There are three different HMA grant programs: the Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation (PDM) Program, and the Flood Mitigation Assistance (FMA) program.
- [Community Development Block Grant \(CDBG\) Program: Disaster Recovery Assistance](#) (U.S. Dept. of Housing & Urban Development) provides funding to communities, particularly low-income areas, recovering from natural disasters. A portion of the funding awarded may be used for planning activities

Implementation Tools	
<ul style="list-style-type: none"> Rapid Housing and Business Recovery Plans 	<ul style="list-style-type: none"> Business Continuity Plans

Model Policies

- The [Beaufort County, South Carolina Disaster Recovery Plan \(2009\)](#) is a comprehensive document that describes policies and procedures that will be used to help the county and its cities and towns quickly return to pre-disaster conditions following a natural disaster. The plan describes mechanisms aimed at providing temporary housing, repairing existing structures, redeveloping damaged communities, and restoring the local economy.
- The [Florida Business Disaster Survival Toolkit](#) is an online resource intended to help small businesses create their own business continuity plans, helping them resume operations quickly after a disaster. The tool was developed by the Tampa Bay Regional Planning Council with support from state and federal agencies.
- The [Leon County \(Florida\) Disaster Housing Strategy: Local Post-Disaster Redevelopment Plan Housing Guide \(2012\)](#) describes a full range of interim housing options that can be used after a disaster, providing temporary shelter for residents and helping them transition to permanent housing. Other Florida localities have similar plans.

Goals	Objectives
<ul style="list-style-type: none"> Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> Provide equitable access to capital and resources for businesses during and after economic or natural occurrences
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of businesses with recovery plans Dollars of disaster recovery enhancement funds received Number of communities covered in a hazard mitigation plan Number of migration actions identified in regional or local hazard mitigation plans 	<ul style="list-style-type: none"> Enhance economic competitiveness Promote equitable, affordable housing



Improve regional air quality and reduce regional greenhouse gas emissions by offering alternative modes of transportation, improving energy efficiency, and effectively managing resources



Emissions from vehicles, industries and power plants (nitrogen oxide and volatile organic compounds), in the presence of heat and sunlight, create ground-level ozone through a chemical reaction. Increased temperatures resulting from potential climate change could lead to a greater number of days in which ozone levels exceed air quality standards, exacerbating Our Region's existing ozone difficulties. Reducing emissions will improve air quality, decreasing the amount of ozone-causing gases in the air. A variety of tools can be used to reduce emissions on both a local and regional level.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Improves air quality Increases mobility Increases livability Improves health 	<ul style="list-style-type: none"> Policy/Program Infrastructure 	<ul style="list-style-type: none"> State Agencies Council of Governments Metropolitan Planning Organization Counties Cities Towns Villages Utility Providers Transit Agencies Non-Profits

Possible Funding Sources

- The [Innovative Energy Demonstration Grant Program](#) (State Energy Conservation Office) provides grants to state agencies, local governments, school districts, and public colleges/universities interested in installing small-scale renewable energy systems.
- The [LoanSTAR Revolving Loan Program](#) (State Energy Conservation Office) finances energy-related cost-reduction retrofits made to public buildings. Eligible public entities receive low-cost loans to make these improvements; loans are repaid through the savings realized from these projects.
- The [Climate Showcase Communities Program](#) (U.S. Environmental Protection Agency) helps local governments pilot innovative, cost-effective greenhouse gas reduction projects.
- The [Weatherization Assistance Program](#) (U.S. Dept. of Energy) provides funding to low-income families interested in making energy-efficient improvements to their homes.
- The [MAP-21 Transportation Alternatives Program](#) (TAP) (U.S. Dept. of Transportation: Federal Highway Administration) provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities.

Implementation Tools

<ul style="list-style-type: none"> Bicycle Facilities Pedestrian Facilities Increased Transit Opportunities Weatherization Programs Financial Incentives for On-Site Renewable Energy Production and Energy-Efficiency Improvements (Low-Cost Loans, Grants, Tax Breaks, Reduced Permitting Fees) 	<ul style="list-style-type: none"> Expedited Permit Review for Renewable Energy Facilities and Energy-Efficiency Improvements Land Use Regulations Supportive of On-Site Renewable Energy Production Energy-Efficient Vehicle Fleets Public Education Campaigns Awards/Certification Programs
--	--

Model Policies

- [Houston Green Office Challenge](#) provides training opportunities and other resources to help office building owners, property managers, and tenants conserve energy, reduce waste, decrease water use, and utilize environmentally-friendly transportation options.
- The [Green Houston Emissions Reduction Plan \(2008\)](#) identifies actions the City of Houston can take (or is already taking) to reduce emissions created by municipal operations.
- [Houston B-cycle](#), a bike-sharing program that operates in Houston, is funded by a variety of public and private entities.
- The [City of Houston: Residential Energy Efficiency Program \(REEP\)](#) helps income-qualified Houstonians install energy-efficiency measures in their homes free-of-charge, based on the recommendations of a custom energy assessment.
- As part of its [Green Transportation Initiative](#), which began in 2002, the City of Houston has been purchasing plug-in hybrid electric vehicles (PHEV) for its municipal fleet. More than 50% of its light-duty passenger fleet consists of hybrid vehicles.
- The [METRO STAR](#) program is a vanpool service with hundreds of routes serving eight counties in the Houston-Galveston area, providing commuters with an affordable, convenient option for getting to work. By encouraging commuters to ride together, this program reduces congestion and greenhouse gas emissions.
- The [City of Rockport, Texas: Wind Powered Systems Ordinances](#) allows wind turbines and similar wind-powered systems to be installed as an accessory use in residential, commercial, and industrial zoning districts, provided that certain requirements are met (Code of Ordinances: Chapter 42, Article VI).
- The [City of Portland, Oregon: Streamlined Building Permits for Residential Solar Systems Program](#) allows solar contractors to submit building permit permits online, expediting the review process.
- [Solarize Portland](#) was a neighborhood-based initiative that made solar installations more affordable by allowing residents to buy solar panels in bulk and helping them identify financing options. Similar programs have been established in other cities, including [Plano Texas](#).

Goals	Objectives
<ul style="list-style-type: none"> • Our Region enjoys clean and plentiful water, air, soil and food resources to sustain healthy future generations • Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption • Our Region’s residents live in safe, healthy communities with transportation options, including walking, biking, transit, and driving 	<ul style="list-style-type: none"> • Meet and maintain national air quality standards • Increase the use of green construction practices and renewable energy sources • Increase access to commute alternatives, including transit, carpools, vanpools and telework.
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of counties in non-attainment area • Percentage of population in non-attainment area • Number of high 8-hour ozone days • Dollars granted or loaned for incentives/funds for energy efficiency, weatherization • Percentage of municipal energy use that is from renewable sources • Mode Share • Number of transit boardings • Number of people/trips participating in NuRide • Number of companies participating in commute solutions programs 	<ul style="list-style-type: none"> • Provide more transportation choices



Support innovative adaptation strategies that help communities prepare for potential environmental changes, such as sea level rise and severe weather events



Potential environmental changes may result in higher temperatures, rising sea levels, and increased intensity and frequency of extreme weather events (drought, tropical storms, etc), impacting local ecosystems, economies, and infrastructure. Communities can use innovative adaptation strategies to minimize economic disruptions, property damage, and loss of life, should these predictions become reality. Adaptation strategies can address a variety of issues, including water conservation, flood risk reduction, and alternative energy production. Implementation of these strategies will not only allow Our Region to quickly recover from disaster, but improve overall quality of life.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Increases resiliency • Protects environmental resources • Decreases post-disaster recovery costs 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Federal Agencies • State Agencies • Council of Governments • Counties • Cities • Towns • Villages • Flood Control Districts • Non-Profits

Possible Funding Sources

- [Hazard Mitigation Assistance \(HMA\) Grant Programs](#) (Federal Emergency Management Agency) provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. There are three different HMA grant programs: the Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation (PDM) Program, and the Flood Mitigation Assistance (FMA) program.
- The [Climate Showcase Communities Program](#) (U.S. Environmental Protection Agency) helps local governments pilot innovative, cost-effective greenhouse gas reduction projects.

Implementation Tools	
<ul style="list-style-type: none"> • Technical Assistance Programs • Inter-organizational Partnerships and Coordination • Water Conservation Plans • Tree Planting Programs 	<ul style="list-style-type: none"> • Heat Wave Management Plans • Hurricane-Resistant Building Codes • Green Building Programs • Local Adaptation Plans

Model Policies

- [Ready Houston](#) provides residents with information on how they can prepare for disasters that may occur in the Houston-Galveston area.
- The [Louisiana Comprehensive Plan for a Sustainable Coast \(2012\)](#) identifies structural and non-structural measures that can be taken to protect communities from the impacts of hurricanes, while restoring coastal ecology.
- The [Punta Gorda \(Florida\) Adaptation Plan \(2009\)](#) identifies several measures that can be taken to improve the city’s resiliency as sea level is expected to rise, including managed retreat, a gradual disinvestment in areas at high-risk for inundation.
- The Collier County, Florida: [Sea-Level Rise Impact Assessment Requirements](#) stipulate that all shoreline development proposals submit an analysis demonstrating the impact sea level would have on the proposed project (Collier County Land Development Code: Section 3.03.05)
- The [Los Angeles \(California\) County: Green Building Program](#) requires green building techniques to be used in new construction projects. These regulations were created through a series of legislative actions, including the Drought-Tolerant Landscaping, Green Building, and Low Impact Development ordinances.
- Manatee County, Florida utilizes [non-structural mitigation techniques](#), such as zoning, building setbacks, environmental protection regulations, and educational programs, to limit the exposure of people and infrastructure to flood risk in its fast-growing coastal communities.
- City of Keene, New Hampshire: [Adapting to Climate Change – Planning a Climate Resilient Community \(2007\)](#) describes how potential environmental changes may affect the area’s built, natural, and social environment, and identifies strategies aimed at mitigating those impacts.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region is resilient and adaptive to economic downturns and environmental or natural disasters • Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption • Our Region enjoys clean water and plentiful water, air, soil and food resources to sustain health future generations. 	<ul style="list-style-type: none"> • Increase disaster preparedness for residents and businesses • Encourage development in locations that are more resilient to environmental and natural disasters • Create infrastructure and policies to increase re-use of recyclable waste products and water • Encourage water conservation across agriculture, commercial and residential sectors to decrease water demand and maintain existing water supplies.
Metrics	Livability Principles
<ul style="list-style-type: none"> • Estimated tons of NOx • Dollar value of ecological services in environmentally sensitive areas 	<ul style="list-style-type: none"> • Coordinate policies and leverage investment • Value communities and neighborhoods



Create a regional approach to prioritization of structural and non-structural mitigation to increase resiliency of community infrastructure

Our Region’s coastal location is vulnerable to hurricanes and flooding. Just over one-quarter of Our Region’s residents live within a hurricane evacuation zone, and nearly 35% live within a 100-year floodplain. Much of our infrastructure (highways, water treatment plants, sewer treatment plants, port facilities, etc.) is located in low-lying areas, making it susceptible to damage during those events. Structural and non-structural mitigation techniques can be used to protect community infrastructure during and after natural disasters, helping Our Region recover more quickly after these events. With limited funding and significant needs, we cannot fully protect all infrastructure immediately. Our Region must prioritize investments aimed at improving the resiliency of community infrastructure, directing funding towards protecting facilities that have the greatest regional benefit. Cities, counties, and other governmental entities in Our Region can work together to develop a methodology for determining how projects can be prioritized, while identifying policies and programs that can reduce risks to community infrastructure.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Improves resiliency Promotes inter-organizational partnerships and coordination 	<ul style="list-style-type: none"> Plan 	<ul style="list-style-type: none"> Council of Governments Counties Cities Towns Villages Flood Control Districts

Possible Funding Sources

- Hazard Mitigation Assistance (HMA) Grant Programs** (Federal Emergency Management Agency) provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. There are three different HMA grant programs: the Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation (PDM) Program, and the Flood Mitigation Assistance (FMA) program.

Implementation Tools	
<ul style="list-style-type: none"> Regional Prioritization Framework 	<ul style="list-style-type: none"> Hazard Mitigation Planning

Model Policies

- Within Louisiana’s Comprehensive Plan for a Sustainable Coast (2012), a combination of scientific modeling and public input was used to prioritize coastal protection projects, identifying measures that maximized risk reduction and/or land building.

Goals	Objectives
<ul style="list-style-type: none"> Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> Increase disaster preparedness for residents and businesses Create a built environment that is resilient and adaptive to changes in the natural environment Encourage development in locations that are more resilient to environmental and natural disasters
Metrics	Livability Principles
<ul style="list-style-type: none"> Number communities covered in a hazard mitigation plan Number of mitigation actions identified in regional or local hazard mitigation plans Acres of development in storm surge areas Value of ecological services in environmentally sensitive areas Percentage population living within 100-year floodplain Percentage of population living in hurricane evacuation zone 	<ul style="list-style-type: none"> Coordinate policies and leverage investment Support existing communities Value communities and neighborhoods



Conduct a regional assessment of dam and levee safety and vulnerability

Dams and levees are an integral part of our nation’s infrastructure, equal in importance to bridges, roads, and airports. Over 10,000 dams in the United States are classified as high-hazard potential, meaning that their failure could result in loss of life, significant property destruction, lifeline disruption, and environmental damage. Dams and levees are scattered throughout Our Region’s urban, suburban, and rural communities, varying in age, condition, and purpose. A regional assessment could study the structural integrity of each of these facilities and determine the risk and consequences of failure. This analysis could help decision-makers prioritize funding for infrastructure improvements.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Identifies threats to public safety Helps decision-makers prioritize public investments 	<ul style="list-style-type: none"> Assessment 	<ul style="list-style-type: none"> Federal Agencies State Agencies Council of Governments Counties Flood Control Districts River Authorities

Possible Funding Sources

- Hazard Mitigation Assistance (HMA) Grant Programs** (Federal Emergency Management Agency) provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. There are three different HMA grant programs: the Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation (PDM) Program, and the Flood Mitigation Assistance (FMA) program.

Implementation Tools	
<ul style="list-style-type: none"> Regional Dam/Levee Assessment 	<ul style="list-style-type: none"> Hazard Mitigation Planning

Model Policies

- In Texas, the Texas Commission on Environmental Quality: [Dam Safety Program](#) monitors and regulates private and public dams statewide, periodically inspecting dams that pose a high or significant hazard and making recommendations on how they can be fixed.
- The Federal Emergency Management Agency: [National Dam Safety Program](#) is a partnership of states, federal agencies, and other stakeholders that promote dam safety, providing tools to assist the public and decision-makers. The program researches dam safety risk and remediation, and provides dam safety training programs. With the U.S. Army Corps of Engineers, the program supports the National Inventory of Dams. Funding provided to individual states supports dam inspections, emergency action planning, and other initiatives.

Goals	Objectives
<ul style="list-style-type: none"> Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> Increase disaster preparedness for residents and businesses Create a built environment that is resilient and adaptive to changes in the natural environment Encourage development in locations that are more resilient to environmental and natural disasters
Metrics	Livability Principles
<ul style="list-style-type: none"> Percentage of dams in good state of repair 	<ul style="list-style-type: none"> Coordinate policies and leverage investment Support existing communities



Develop a toolkit to assist local governments in being able to continue services during/after disasters

When a disaster strikes, local governments must respond quickly to protect their citizens. With the possibility of limited staff resources and damaged infrastructure, maintaining essential services may be difficult. A toolkit describing model policies will help communities create a streamlined decision-making protocol, ensuring the continuity of government services during and after disasters.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Helps communities continue government services with minimal disruptions 	<ul style="list-style-type: none"> Resource 	<ul style="list-style-type: none"> Federal Agencies State Agencies Council of Governments Counties

Possible Funding Sources

- Hazard Mitigation Assistance (HMA) Grant Programs (Federal Emergency Management Agency) provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. There are three different HMA grant programs: the Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation (PDM) Program, and the Flood Mitigation Assistance (FMA) program.

Implementation Tools	
<ul style="list-style-type: none"> Toolkit for Continuity of Operations 	<ul style="list-style-type: none"> Training Workshops

Model Policies

- The [San Diego County, California: City Continuity of Operations \(COOP\) Initiative](#) helps localities prepare plans outlining the steps needed to restore vital government services after a disaster, providing plan templates and other resources.
- The [Virginia Department of Emergency Management: Local Government Continuity of Operations \(COOP\) Planning Manual \(2008\)](#) provides guidance to local governments for the development and maintenance of COOP plans.

Goals	Objectives
<ul style="list-style-type: none"> Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> Increase disaster preparedness for residents and businesses
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of communities in a hazard mitigation plan Number of mitigation actions identified in regional or local hazard mitigation plans Dollars of FEMA Disaster Recovery funds received after natural disasters Dollars of Small Business Administration Disaster Recovery funds received after a natural disasters 	<ul style="list-style-type: none"> Coordinate policies and leverage investment



Create education programs on the importance and benefits of property owners purchasing flood insurance

Many communities in Our Region are vulnerable to flooding. Flooding can cause significant damage to homes and businesses, which is costly to repair. Purchasing flood insurance is the best way to protect from devastating financial loss, but many property owners in areas at risk of flooding do not have it. Properties within floodplains are not the only areas affected by damaging floods – approximately one-third of flooded homes are outside of the regulatory floodplain. Public education programs could encourage residents and businesses throughout the region to get flood insurance, even if their properties are outside of mapped floodplains.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Reduces financial impacts of flooding on property owners 	<ul style="list-style-type: none"> Education 	<ul style="list-style-type: none"> Federal Agencies State Agencies Council of Governments Counties Cities Towns Villages Flood Control Districts River Authorities Non-Profits

Possible Funding Sources

- [Emergency Management Performance Grants](#) (Federal Emergency Management Agency) provide assistance to state and local governments to help them prevent, protect against, mitigate, respond to, and recover from man-made and natural disasters.

Implementation Tools	
<ul style="list-style-type: none"> Marketing/Public Outreach Campaigns 	<ul style="list-style-type: none"> Workshops

Model Policies

- The Hillsborough County (Florida) Community Rating System (CRS) Outreach Strategy provides information to property owners (residential and commercial) about the hazards associated with building in the floodplain, and promotes activities that can prevent property loss in those areas. The county has worked with state and federal agencies to share information with builders, developers, building officials, and interested citizens, distributing information at training sessions, home shows, and neighborhood meetings.

Goals	Objectives
<ul style="list-style-type: none"> Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> Increase disaster preparedness for residents and businesses Create a built environment that is resilient and adaptive to changes in the natural environment Encourage development in locations that are more resilient to environmental and natural disasters
Metrics	Livability Principles
<ul style="list-style-type: none"> Dollars of FEMA Disaster Recovery funds received after natural disasters Dollars of Small Business Administration Disaster Recovery funds received after natural disasters Number of repetitive and severe repetitive loss properties Number of buyouts for repetitive flood loss properties Number of communities participating in the Community Rating System 	<ul style="list-style-type: none"> Coordinate policies and leverage investment



Incorporate the recommendations of the Foresight Panel on Environmental Effects report into local practices, such as implement water conservation plans to prepare for drought, and prepare for increase in wildfires

Communities throughout the country are investigating ways to prepare for potential environmental changes. In 2007, the Houston-Galveston Area Council established an expert panel to develop recommendations for local governments to adapt to potential changes in the region’s climate. The panel, comprised of experts in climate change and local infrastructure, developed 25 strategies local governments can use to adapt to a changing environment, including:

- Adopt and implement water conservation plans to prepare for prolonged periods without rain and higher temperatures.
- Prepare for increase in wildfires due to prolonged periods without rain and higher temperatures.
- Employ green building standards to reduce operating and maintenance costs and to reduce demand on natural resources.
- Preserve wetland and riparian zones, which provide natural flood protection and improved water quality processes.
- Build “livable centers” to alleviate traffic congestion and to become more resilient after extreme events.

Implementation of these strategies will not only mitigate the potential impacts of climate change, but improve overall quality of life.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Increases resiliency • Protects environmental resources • Improves air quality • Improves water quality • Reduces automobile dependency 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Federal Agencies • State Agencies • Council of Governments • Counties • Cities • Towns • Villages • Flood Control Districts • Non-Profits

Possible Funding Sources

- **Hazard Mitigation Assistance (HMA) Grant Programs** (Federal Emergency Management Agency) provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. There are three different HMA grant programs: the Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation (PDM) Program, and the Flood Mitigation Assistance (FMA) program.

Implementation Tools	
<ul style="list-style-type: none"> • Inter-organizational Cooperation and Partnerships • Water Conservation Plans • Tree Planting Programs • Heat Wave Management Plans 	<ul style="list-style-type: none"> • Hurricane-Resistant Building Standards • Green Building Standards • Land Use Policies Promoting Compact Development Outside of Hazardous Areas

Model Policies

- [Houston Green Office Challenge](#) provides training opportunities and other resources to help office building owners, property managers, and tenants conserve energy, reduce waste, decrease water use, and utilize environmentally-friendly transportation options.
- The [City of Houston: Residential Energy Efficiency Program \(REEP\)](#) helps income-qualified Houstonians install energy-efficiency measures in their homes free-of-charge, based on the recommendations of a custom energy assessment.
- The [Harris County \(Texas\) Green Building Tax Abatement for New Commercial Construction](#) provides tax abatements to new LEED-certified commercial buildings.
- The [Houston-Galveston Area Council: Livable Centers Program](#) helps communities create plans for walkable, mixed-use places that provide multimodal transportation options.
- [San Antonio \(Texas\) Water System](#) has the largest direct recycled water delivery system in the nation, with more than 110 miles of pipelines delivering high-quality recycled water for use by golf courses, parks and businesses
- Under the City of Indianapolis, Indiana: [Green Building Incentive Program](#), property owners and developers may receive up to a 50 percent reduction in building fees, if they renovate or construct buildings using environmentally-friendly techniques.
- [Metropolitan North Georgia Water Planning District: Water Supply and Water Conservation Management Plan \(2009 Update\)](#) describes policies state agencies, regional entities, and localities can implement to ensure that the Atlanta region has adequate water supplies through 2035. The original plan (2003) and initial update were developed with input from local governments, state agencies, and other stakeholders, and was developed in conjunction with the region's Watershed Management Plan and Wastewater Management Plan.
- The [Collier County, Florida: Sea-Level Rise Impact Assessment Requirements](#) stipulate that all shoreline development proposals submit an analysis demonstrating the impact sea level would have on the proposed project (Collier County Land Development Code: Section 3.03.05)

Goals	Objectives
<ul style="list-style-type: none"> • Our Region is resilient and adaptive to economic downturns and environmental or natural disasters • Our Region efficiently uses, reuses, and conserves its natural resources by managing waste and consumption • Our Region enjoys clean water and plentiful water, air, soil and food resources to sustain healthy future generations 	<ul style="list-style-type: none"> • Increase disaster preparedness for residents and businesses • Encourage development in locations that are more resilient to environmental and natural disasters • Create infrastructure and policies to increase re-use of recyclable waste products and water • Encourage water conservation across agriculture, commercial and residential sectors to decrease water demand and maintain existing water supplies
Metrics	Livability Principles
<ul style="list-style-type: none"> • Dollars of FEMA Disaster Recovery funds received after natural disasters • Dollars of Small Business Administration Disaster Recovery funds received after natural disasters • Number of communities participating in the Community Rating System • Number of communities participating in the Firewise Communities program 	<ul style="list-style-type: none"> • Coordinate policies and leverage investment • Value communities and neighborhoods



Conduct a local economic vulnerability study (including natural and economic factors)

Economic resilience is the ability of a local economy to remain prosperous despite major disruptions, such as the relocation of a major employer or the long-term closure of businesses after a disaster. When a local economy is singularly focused on one industry, it has less of an ability to recover from a natural or man-made disaster. Economic vulnerability studies identify strengths and weaknesses of local economies, providing recommendations on how communities can reduce the frequency and severity of economic disruptions. Recommendations may address economic diversification, improvements to transportation and communications systems, or other actions that allow local industries to better withstand natural and man-made disturbances.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Increases economic resiliency Helps communities diversify local economies 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> Council of Governments Counties Cities Towns Villages Non-Profits Economic Development Corporations Economic Development Districts

Possible Funding Sources

- [Hazard Mitigation Assistance \(HMA\) Grant Programs](#) (Federal Emergency Management Agency) provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. There are three different HMA grant programs: the Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation (PDM) Program, and the Flood Mitigation Assistance (FMA) program.

Implementation Tool

- Economic Vulnerability Study

Model Policies

- [Economic Vulnerability and Adaptation to Climate Hazards and Climate Change: Building Resilience in the Barnegat Bay Region \(Rutgers University: 2013\)](#) identifies key economic vulnerabilities to climate change and options for adaptation in the Barnegat Bay region of New Jersey. Like many coastal communities throughout the country, the Barnegat Bay region already faces significant pressures as the result of population growth, new residential and commercial development, loss of wetlands and natural areas for residential and commercial uses, intensification of land use in the watershed, and other factors. The region is also subject to major environmental hazards, including sea level changes and extreme storm events, nor'easters, and hurricanes.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> • Provide equitable access to capital and resources for businesses during and after economic or natural occurrences demand and maintain existing water supplies
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of businesses with recovery plans • Dollars of disaster recovery enhancement funds received • Number of communities participating in the Community Rating System • Number of communities participating in Firewise Communities program 	<ul style="list-style-type: none"> • Enhance economic competitiveness



Encourage local governments to participate in Firewise Communities to reduce community risk to wildlife damage

Wildfires have threatened homes and businesses throughout Our Region. Although they are a natural part of the environment, experts believe wildfires will occur more frequently in the future. The Firewise Communities Program (National Fire Protection Association) provides a number of resources government officials, homeowners, and others can utilize to limit fire damage, and recognizes communities that have taken steps to reduce their risk to wildfire. Several communities throughout Our Region have been recognized, including Windsor Hills (The Woodlands) and Elkins Lake (near Huntsville).

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Provides a framework for action during wildfires Provides access to funding and assistance Educates public about wildfire 	<ul style="list-style-type: none"> Policy/Program 	<ul style="list-style-type: none"> Council of Governments Counties Cities Towns Villages

Possible Funding Sources

- [Fire Prevention and Safety Grants](#) (Federal Emergency Management Agency) support projects that improve the safety of the public and firefighters from fire and related hazards. The primary goal is to target high-risk populations, reduce injury, and prevent death.

Implementation Tools	
<ul style="list-style-type: none"> Regional Hazard Mitigation Plan County Hazard Mitigation Plan Local Hazard Mitigation Plan 	<ul style="list-style-type: none"> Marketing/Public Outreach Campaigns Workshops

Model Policies

- Windsor Hills**, a heavily-forested community in The Woodlands, is participating in the Firewise Communities program. The Texas Forest Service helped residents develop a wildfire mitigation plan. Homeowners are working together to removing potential fuel sources from around their homes and in common areas, reducing the risk of wildfire.
- In Etoile, Texas, middle school students from the Etoile Independent School District helped their hometown become a recognized **Firewise Community** in 2008. Students educated residents about how they can reduce the risk of wildfire, and volunteered to remove debris and other flammable materials from around homes
- Federal Alliance for Safe Homes: WildFIRE Wizard** is an interactive tool designed to help those in wildfire-prone areas understand how landscaping, terrain and structural features increase or decrease their home’s vulnerability during a wildfire. WildFIRE allows the user to input details about their home’s features, including windows, doors, roof, and exterior walls and landscaping, and creates a custom report that includes specific recommendations on how to reduce the home’s potential to ignite during a wildfire.

Goals	Objectives
<ul style="list-style-type: none"> Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> Increase disaster preparedness for residents and businesses Create a built environment that is resilient and adaptive to changes in the natural environment Encourage development in locations that are more resilient to environmental and natural disasters
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of communities participating in Firewise Community program Number of communities covered in a hazard mitigation plan Number of mitigation actions identified in regional or local hazard mitigation plans 	<ul style="list-style-type: none"> Support existing communities Enhance economic competitiveness Value communities and neighborhoods



Encourage local governments to participate in StormReady, which verifies that a community has completed certain weather preparedness planning and programming

This is a program through the National Weather Service that certifies communities as “storm ready” through an application process that verifies a community has completed certain weather preparedness planning and programming.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Increase public health and safety before and after a disaster • Increase public awareness of disaster preparedness • Increase communication during and after a disaster 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Council of Government • Counties • Cities • Towns • Villages

Possible Funding Sources

- [Homeland Security Grant Program](#) (Federal Emergency Management Agency) plays an important role in the implementation of the National Preparedness System (NPS) by supporting the building, sustainment, and delivery of core capabilities essential to achieving the National Preparedness Goal (NPG) of a secure and resilient nation. The building, sustainment, and delivery of these core capabilities are not exclusive to any single level of government, organization, or community, but rather, require the combined effort of the whole community

Implementation Tools	
<ul style="list-style-type: none"> Regional Hazard Mitigation Plan County Hazard Mitigation Plan Local Hazard Mitigation Plan 	<ul style="list-style-type: none"> Marketing/Public Outreach Campaigns Workshops

Model Policies

- Several communities within Our Region have been recognized as [StormReady](#), including Fort Bend and Galveston counties, and the cities of Alvin, Friendswood, Galveston, Jamaica Beach, La Porte, and Pasadena.

Goals	Objectives
<ul style="list-style-type: none"> Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> Increase disaster preparedness for residents and businesses Create a built environment that is resilient and adaptive to changes in the natural environment Encourage development in locations that are more resilient to environmental and natural disasters
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of communities covered in a hazard mitigation plan Number of mitigation actions identified in regional or local hazard mitigation plans Percentage of population living in storm surge areas Number of acres of development in storm surge areas Dollar value of ecological services in environmentally sensitive areas 	<ul style="list-style-type: none"> Support existing communities Value communities and neighborhoods



Encourage local governments to participate in the Community Rating System

Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum National Flood Insurance Program (NFIP) requirements. In participating communities, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the program’s three goals:

1. Reduce flood damage to insurable property;
2. Strengthen and support the insurance aspects of the NFIP, and
3. Encourage a comprehensive approach to floodplain management.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Reduces impact of flood events • Reduces flood insurance claims • Reduces cost of flood insurance to property owners 	<ul style="list-style-type: none"> • Policy/Program 	<ul style="list-style-type: none"> • Council of Government • Counties • Cities • Towns • Villages

Possible Funding Sources

- [Community Resilience Innovation Challenge](#) (Federal Emergency Management Agency) focuses on building local community resilience to man-made and natural disasters, with an emphasis on innovation, collaboration with community stakeholders, sustainability, repeatability and measurable benefits to the community.

Implementation Tools	
<ul style="list-style-type: none"> Regional Hazard Mitigation Plan County Hazard Mitigation Plan Local Hazard Mitigation Plan 	<ul style="list-style-type: none"> Marketing/Public Outreach Campaigns Workshops

Model Policies

- Several communities in Our Region participate in the [CRS](#) program including Harris County and the cities of Baytown, Bellaire, Conroe, Deer Park, Dickinson, Friendswood, Houston, Kemah, LaPorte, League City, Missouri City, Nassau Bay, Pasadena, Pearland, Seabrook, Sugar Land, Tiki Island, and Wharton.
- Tulsa, Oklahoma, has a [comprehensive flood control program](#) that encompasses all the activities for which the CRS program grants credit (aside from direct flood protection aid to homeowners, as prohibited by Oklahoma state law). The city emphasizes the acquisition of flood-prone properties and preservation of open space in flood-prone areas. Through the Acquisition Program, Tulsa has removed more than 900 buildings from its floodplains.

Goals	Objectives
<ul style="list-style-type: none"> Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> Increase disaster preparedness for residents and businesses Create a built environment that is resilient and adaptive to changes in the natural environment Encourage development in locations that are more resilient to environmental and natural disasters
Metrics	Livability Principles
<ul style="list-style-type: none"> Number of communities participating in the Community Rating System 	<ul style="list-style-type: none"> Support existing communities Enhance economic competitiveness Value communities and neighborhoods



Develop a communication action plan to notify residents and businesses about openings/closings of businesses, institutions, and services during/after a disaster

During and after a disaster, damage to communications infrastructure may make it difficult for public agencies to relay information to residents and businesses. Communication actions plans create a process for providing accurate, up-to-date information to the public, preventing panic and coordinating public response with other entities. These plans identify how information will be conveyed to residents, businesses, media outlets, emergency responders, governmental entities, and elected officials, and who will relay it. Distributing information in a timely and efficient manner will protect the public and hasten the recovery process.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> • Increases the speed and efficiency of emergency communications • Protects public safety • Speeds recovery processes 	<ul style="list-style-type: none"> • Plan 	<ul style="list-style-type: none"> • Council of Governments • Counties • Cities • Towns • Villages • Media Outlets

Possible Funding Sources

- [Hazard Mitigation Assistance \(HMA\) Grant Programs](#) (Federal Emergency Management Agency) provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. There are three different HMA grant programs: the Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation (PDM) Program, and the Flood Mitigation Assistance (FMA) program.
- [Emergency Management Performance Grants](#) (Federal Emergency Management Agency) provide assistance to state and local governments to help them prevent, protect against, mitigate, respond to, and recover from manmade and natural disasters.

Implementation Tool

- Communication Action Plans

Model Policies

- The [Portland \(Oregon\) Urban Area Regional Emergency Public Information Concept of Operations \(ConOps\) Plan \(2009\)](#) provides a set of procedures participating cities, counties, and special districts can use to coordinate communications during and after an emergency, helping them provide timely, useful, and accurate information to the public and other stakeholders. There are different modes of operation, depending on the conditions present.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> • Increase disaster preparedness for residents and businesses • Create a built environment that is resilient and adaptive to changes in the natural environment • Encourage development in locations that are more resilient to environmental and natural disasters
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of public service announcements on disaster preparedness • Number of businesses with recovery plans 	<ul style="list-style-type: none"> • Enhance economic competitiveness



Encourage local government participation in hazard mitigation planning to assess areas susceptible to disasters, and identify and quantify impacted assets and mitigation strategies

Our Region is vulnerable to a wide range of natural disasters, including hurricanes, flooding, drought, and wildfire. Man-made disasters, including chemical releases, and terrorist attacks, are also a threat to our communities. While we cannot eliminate natural and man-made disasters, we can take actions to lessen their potential impact. Hazard mitigation plans describe broad guiding principles intended to reduce hazard risk, including specific mitigation actions aimed at eliminating or reducing identified vulnerabilities. The Houston-Galveston Area Council, the Texas Division of Emergency Management, and local governments worked together to create and update the Regional Hazard Mitigation Plan. More localities throughout the region can participate in that process, or develop plans of their own.

Benefits	Strategy Type	Implementers
<ul style="list-style-type: none"> Helps communities prepare for disasters 	<ul style="list-style-type: none"> Plan 	<ul style="list-style-type: none"> Council of Governments Counties Cities Towns Villages

Possible Funding Sources

- [Hazard Mitigation Assistance \(HMA\) Grant Programs](#) (Federal Emergency Management Agency) provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. There are three different HMA grant programs: the Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation (PDM) Program, and the Flood Mitigation Assistance (FMA) program

Implementation Tool

- Hazard Mitigation Planning

Model Policies

- [The Houston-Galveston Area Council: Regional Hazard Mitigation Plan \(2011 Update\)](#) describes actions participating communities can take to reduce the impact flooding, hurricanes, wildfire, and other disaster have on residents, businesses, and government operations. 74 communities participated in the 2011 update of the plan.
- [The City of League City Local Mitigation Plan \(2010 Update\)](#) describes actions city departments and agencies can take to reduce the impact of hazards classified as moderate or highly likely in occurrence and risk, as determined through a detailed risk assessment.

Goals	Objectives
<ul style="list-style-type: none"> • Our Region is resilient and adaptive to economic downturns and environmental or natural disasters 	<ul style="list-style-type: none"> • Increase disaster preparedness for residents and businesses • Create a built environment that is resilient and adaptive to changes in the natural environment • Encourage development in locations that are more resilient to environmental and natural disasters
Metrics	Livability Principles
<ul style="list-style-type: none"> • Number of communities covered in a hazard mitigation plan • Number of mitigation actions identified in regional or local hazard mitigation plans 	<ul style="list-style-type: none"> • Support existing communities • Value communities and neighborhoods

Disclaimer

The work provided as the basis for *Our Great Region 2040* was supported by funding under an award from the United States Department of Housing and Urban Development. The substance and findings of the work are dedicated to the public. The author and publisher are solely responsible for the accuracy of the statements and interpretations contained in this plan. Such interpretations do not necessarily reflect the view of the United States government.