



Toward a Regional Plan for the Texas Hill Country

The University of Texas at Austin
Community and Regional Planning

Cover photo: Tom Zinn



The University of Texas at Austin

Community and Regional Planning

School of Architecture

The University of Texas at Austin

The University of Texas at Austin School of Architecture vision is to be the most influential School of Architecture in the world. Our programs are highly regarded because we combine intellectual curiosity and ambition with professional prowess. To maintain and broaden our significance, we must continue to refine this approach to teaching and research, that is, the simultaneous advancement of both theory and practice.

Expanding our influence rests on four interconnected factors:

1. Like The University of Texas at Austin, the School of Architecture must be strongly grounded in the Austin region and the State of Texas.
2. Although rooted in a particular place, the school must have a national and international reach and consequence.
3. We must be committed to interdisciplinary teaching and research both within the school and across the university.
4. We need to address important societal issues facing the built environment, specifically sustainability, including the aspects of urbanization, energy and resource consumption, and greenhouse gas production.

Formed in 1948, the School of Architecture has been led by Dean Frederick Steiner since 2001. The school includes programs in architecture, community and regional planning, historic preservation, interior design, landscape architecture, sustainable design, and urban design. The Community and Regional Planning (CRP) program has a strong focus on sustainable development processes and practices, seeking development paths that balance growth with improved environmental performance.

Community and Regional Planning Program Studios

The requirements for the Master of Community and Regional Planning degree include a six-credit course in a planning studio. The Planning Studio is an intensive, applied research course in which students apply the skills they have learned to real world planning problems, often in partnership with a key stakeholder. The class operates in a large group dynamic and works collaboratively to develop the project and present it at the close of the course, often to both key stakeholders and to an academic review panel.

Introduction to the Project

The Hill Country Alliance (HCA) presented The University of Texas at Austin School of Architecture (UTSOA) with their collaborative strategy and draft vision for the Texas Hill Country. The Alliance asked UTSOA to use fresh eyes and planning expertise to provide new ideas and strategies for HCA to consider as they work toward a better future for this special region. Dean Frederick Steiner recruited Professor Robert Yaro as Potter Rose Visiting Professor to lead a planning studio to craft this implementation strategy for the Alliance. Mr. Yaro recently retired as president of New York's Regional Plan Association, and has had a long career in planning for large landscapes in other parts of the country.

The Potter Rose Professorship in Urban Planning was endowed by Deedie and Rusty Rose of Dallas in 2009. As philanthropists and civic leaders, the Roses have made considerable contributions to arts, architecture, and environmental causes in Texas and beyond. Their goal in creating this position was to engage designers in finding solutions to important planning challenges facing Texas cities and regions. Professor Yaro asked UT Lecturer Meg Merritt and CRP Ph.D. Candidate Jane Winslow to join him in advising the students.



Introduction to the Hill Country Alliance

The Hill Country Alliance (HCA) is a collaboration of people and organizations whose purpose is to raise public awareness and build community support around the need to protect the natural resources and heritage of the Central Texas Hill Country. They held their first meeting in 2004, formalized as a 501(c)(3) nonprofit in 2005 and have experienced steady growth ever since. HCA convenes diverse stakeholders, partners, and elected officials for public outreach, education, and advocacy programs. More than 130 volunteer leaders participate in teams focused on water policy, land conservation, rainwater harvesting, and night sky protection. They have developed extensive mapping resources, concise issue papers, and frequent community events. In only a decade, HCA has already had an extraordinary impact on the region, creating significant public understanding about the threats facing the Hill Country and the actions needed to shape the region's future.

Funding Support

The work of the Hill Country Planning Studio is made possible by generous gifts from Deedie and Rusty Rose, as well as special funding provided by Dean Frederick Steiner and assistance from the Hill Country Alliance.

Instructors

Robert Yaro, Potter Rose Visiting Professor
Meghan Merritt, Lecturer
Jane Winslow, CRP Ph.D. Candidate

Studio Project Managers – Hill Country Alliance

Christy Muse, Advisor
Clifford Kaplan, Coordinator

Studio Team

Letha Allen	Laura Keating
Meghan Bock	Nick Kincaid
Annie Boggs	Doug Norman
Britin Bostick	Prachi Patel
Rebecca Fleischer	Patrick Russell
Ian Johnston	Elizabeth Welch

Acknowledgments

UT Faculty

Frederick Steiner, Dean of the School of Architecture
Karen Huber, Adjunct Assistant Professor, LBJ School of
Public Affairs
Katherine Lieberknecht, Lecturer, School of Architecture
Jonathan Ogren, Lecturer, School of Architecture

UT Staff

Pamela Peters, Communications Coordinator, School of
Architecture
Christine Marcin, Executive Assistant, School of
Architecture

Hill Country Studio Field Trip Advisors

J. David Bamberger, President, Selah Bamberger Ranch
Preserve
Don Bosse, Principal, Bosse & Associates
Michelle Fischer, City Manager, City of Dripping Springs
Scott Gardner, Ranch Manager, Browning Ranch
Wayne Gosnell, Civic Volunteer, City of Blanco
Bruce Peele, Mayor, City of Blanco
Scott Roberts, Owner, The Salt Lick

Hill Country Studio Advisors

Tom Bacus, Partner, Sherwood Design Engineers
Jon Beall, Board Member, Save Barton Creek Association
Bill Bunch, Executive Director, Save Our Springs Alliance
Will Conley, County Commissioner, Hays County
John T. Dupnik, General Manager, Barton Springs
Edwards Aquifer Conservation District
Peter Einhorn, Chief of Staff, Travis County Judge Sarah
Eckhardt
Olivia Hayden, Director of Development and Community
Relations, Save Barton Creek Association
John Hoffman, Executive Vice President of Water, Lower
Colorado River Authority
Katherine Lieberknecht, Lecturer, Community and
Regional Planning, The University of Texas at Austin
Ross Milloy, President, Greater Austin-San Antonio
Corridor Council & Interim Executive Director, Lone
Star Rail District
Andrew Sansom, Executive Director, Meadows Center
Scheleen Walker, Long Range Planning Manager, Travis
County

Hill Country Studio Workshop Advisors

David Baker, Executive Director, Wimberley Valley Watershed Association
Robert Bendick, Director, Gulf of Mexico Program, The Nature Conservancy
Patrick Bixler, Research Scientist and Adjunct Professor, Texas A&M University
George Cofer, Executive Director, Hill Country Conservancy
Susan Culp, Principal, NextWest Consulting, LLC
Frank Davis, Director of Land Conservation, Hill Country Conservancy
Harry Dodson, Principal, Dodson Flinker Associates
John S.C. Herron, Director of Conservation Programs, Texas Chapter, The Nature Conservancy
Karen Huber, Adjunct Assistant Professor, LBJ School of Public Affairs, The University of Texas at Austin
Jim Levitt, Fellow and Principal Investigator, Conservation Innovation, Lincoln Institute of Land Policy
Ashley Lovell, Director of Partnerships and Outreach, Texas Land Conservancy
Bob McIntosh, Consultant, National Park Service
Jonathan Ogren, Principal, Siglo Group
Peter Pollock, Ronald Smith Fellow, Lincoln Institute of Land Policy
Frederick Steiner, Dean of the School of Architecture, The University of Texas at Austin
Kathy Zarsky, Systems Director, HOLOS Collaborative

HCA Board Members

Leo Tynan, President
Garry Merritt, Vice President
Sharlene Leurig, Treasurer
Karen Huber, Secretary
Pete Dwyer
Carolyn Chipman Evans
Karen Ford
Chris Hale
Kathleen Tobin Krueger
Matt Lara
Sky Lewey
Milan J. Michalec, Immediate Past President
Bill Neiman
Ira Yates

HCA Staff

Christy Muse, Executive Director
Katherine Romans, Program Director
Charlie Flatten, Water Policy Program Manager
Shannon Chambers, Communications Manager
Sheila Holt, Office Manager

Contents

Preface	11
Executive Summary	14
1. Introduction & Beginning	28
A Brief History of the Hill Country Landscape and its Settlement	28
Protecting the Hill Country's Critical Assets	32
Growth-based Threats to Hill Country Assets	33
Threats From Weak Regulatory Frameworks	39
Pollution and Natural Disaster Threats	44
Call to Action	47
2. Comparison of Future Scenarios	52
Will the Hill Country Keep Growing?	52
How Will the Hill Country Grow?	54
Metrics for Comparing Outcomes	55
3. Visualizing the Hill Country's Future	62
Visualizing Density in Urban Areas	63
Visualizing Low-Impact Development	65
Building with the Hill Country in Mind	68
4. Where Do We Go From Here?	72
Create a Hill County Endowment	72
Action Strategies	86
Near-Term Goals	86
Medium-Term Goals	90
Long-Term Goals	93
Conclusion	98
Appendices	100
References	108

Figures & Tables

Figure a Hill Country Draft Vision Map	11	of Groundwater Resources in the	
Figure a.1 Hill Country Population Projections	15	Hill Country	43
Figure a.2 HCE Funding Sources	19	Figure 1.7 Daily Ozone Air Quality Index in	
Figure a.3 HCE Programs	19	Texas for August 28, 2015	45
Figure a.4 Timeline of Strategies	21	Figure 1.8 Proposed Route for the Lone Star Rail	49
Figure a.5 Preliminary Suitability Map for the			
Hill Country	23	Figure 2 In-Migration Map, 2005- 2010	52
Figure 1 Greater Hill Country Water		Figure 2.1 Population Projections for the Hill Country	53
Consumption	34	Figure 2.2 Annual Growth Averages for Different	
Figure 1.1 Vista Ridge Pipeline	34	Scenarios in the Hill Country	54
Figure 1.2 Edwards, Trinity, and		Figure 2.3 New Impervious Cover in the	
Edwards-Trinity Aquifers	35	Austin-San Antonio Corridor, 2000 to 2010	56
Figure 1.3 Comparison of the Hill Country		Figure 2.4 Pollutant Loading by Density Scenario	58
to the Size of New Jersey	36	Figure 2.5 Stormwater Runoff by Density Scenario	59
Figure 1.4 Building Permits Issued by Year for		Figure 2.6 Commuting Habits in the Austin-San Antonio	
New Privately Owned Residential		Corridor	60
Units	39	Figure 3 Aerial View of a New Subdivision in	
Figure 1.5 Median Land Value per Acre	39	Travis County	62
Figure 1.6 Natural and Regulatory Boundaries		Figure 3.1 Aerial View of Rosslyn-Ballston, Virginia	



Llano River | Photo: Jim Olive

Corridor	63	Table a Stakeholders Roles	18
Figure 3.2 Transit- Oriented Development in Addison Circle, Texas	64	Table 1 Hill Country Tourism Travel Spending	31
Figure 3.3 Sketch of Crestview Station in Austin, Texas	64	Table 2 Comparison of Scenarios for Future Development	55
Figure 3.4 Texas SmartCode TOD, San Marcos, Texas	65	Table 2.1 Scenarios of Land Consumption	57
Figure 3.5 Planned Agricultural Community, Prairie Crossing, Illinois	66	Table 2.2 Density and Impervious Cover in Urban Counties	57
Figure 3.6 Driftwood Development Plan	67	Table 2.3 Predicted Impacts of Lone Star Rail	60
Figure 3.7 Hillsborough County TOD, Roseville, California	68	Appendix Figure A.1 Development Suitability Map for the Hill Country	103
Figure 3.8 Visualizing Conventional Development versus Smart Growth	70	Appendix Figure A.2 Conservation Suitability Map for the Hill Country	104
Figure 4 Timeline of Strategies	76	Appendix Figure A.3 Suitability Map for the Hill Country	105
Figure 4.1 HCE Funding Sources	81		
Figure 4.2 HCE Programs	82		
Figure 4.3 Roles and Responsibilities of Each Stakeholder	84	Appendix Figure A.4 Development Type Suitability Map for the Hill Country	106
Figure 4.4 Suitability Map for the Hill Country	91		
Figure 4.5 Proposed Hill Country Trinity Water Conservation Area	96		

Terms & Definitions

CAMPO: Capital Area Metropolitan Planning Organization

Metropolitan Planning Organization for the six-county Austin Metropolitan Region: Bastrop, Burnet, Caldwell, Hays, Travis, and Williamson Counties

CAPCOG: Capital Area Council of Governments

Voluntary association working as a regional advocate, planner, coordinator and service provider for 10 counties in Central Texas: Bastrop, Blanco, Burnet, Caldwell, Fayette, Hays, Lee, Llano, Travis, and Williamson Counties

EAA: Edwards Aquifer Authority

Manages and protects the San Antonio segment of the Edwards Aquifer, which provides drinking water to two million people throughout the Hill Country

GCDs: Groundwater Conservation Districts

Local bodies formed by the Texas Legislature or the TCEQ to manage groundwater

GMAs: Groundwater Management Areas

Areas to manage groundwater resources; cover all aquifers in the state

HCA: Hill Country Alliance

A civic group that seeks to protect and conserve the Texas Hill Country

Home Rule City

A city with a population of more than 5,000 residents, which has adopted a charter to define the local government authority and has broad powers including annexation

MPO: Metropolitan Planning Organization

Decision-making body that oversees transportation planning for urban areas greater than 50,000 people

MUD: Municipal Utility District

Created to supply infrastructure such as water, sewage and drainage to new real estate development in areas outside of a municipal water system

TCEQ: Texas Commission on Environmental Quality

Environmental agency for the State of Texas

TIRZ: Tax Increment Revitalization Zones

A political subdivision of a municipality or county created to implement tax increment financing

TOD: Transit-Oriented Development

Focusing mixed-use development in a compact and connected land use pattern in close proximity to public transportation

TPWD: Texas Parks and Wildlife Department
State agency that manages and conserves natural and cultural resources, including state parks

TWDB: Texas Water Development Board
Issues State Water Plans and finances water development projects listed in the plan

UTSOA:
The University of Texas School of Architecture



Photo: Colin Bester

Preface

This report summarizes the findings and recommendations of the Hill Country Studio convened by The University of Texas School of Architecture (UTSOA) at the request of the Hill Country Alliance (HCA) in the fall of 2015. HCA is a civic group that seeks to protect and conserve the Texas Hill Country. The Alliance asked the studio to outline strategies that might be used to protect the land and water resources of the Hill Country. This report will provide HCA with a framework for planning and consensus building as they work to protect this special part of Texas.

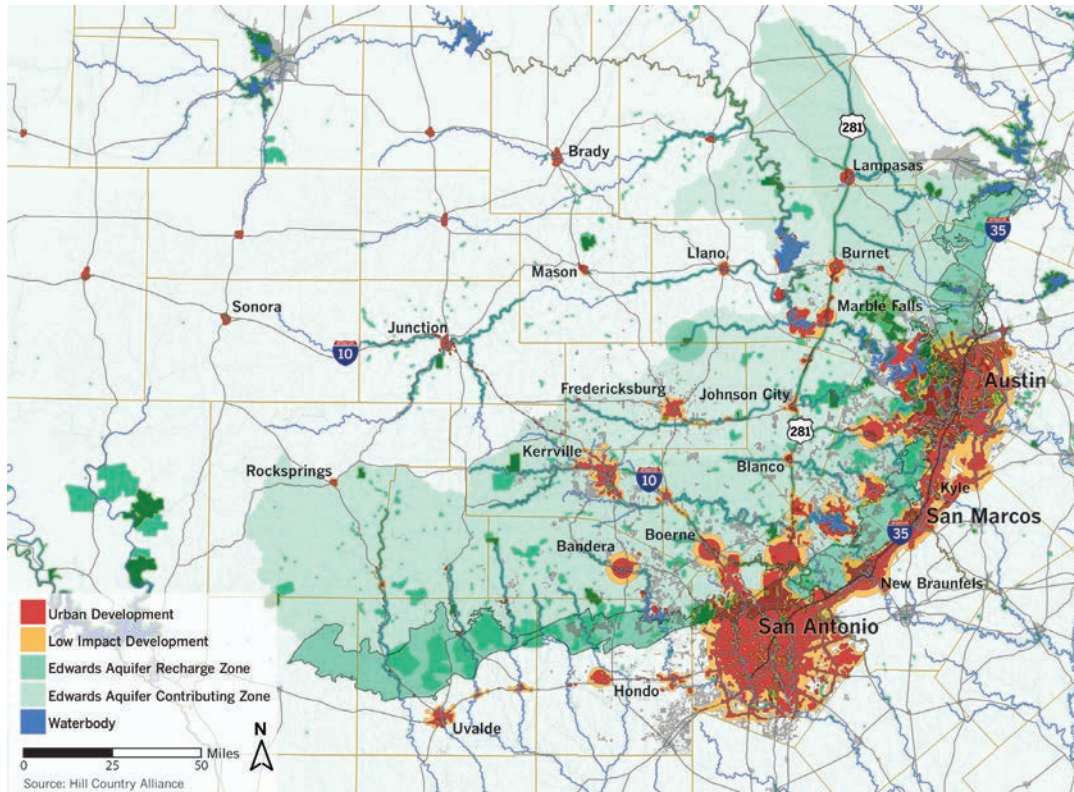


Figure a: Hill Country Draft Vision Map | Source: Hill Country Alliance and Siglo Group

The Alliance provided the studio with a draft “Vision Map,” which identifies its preliminary thinking about where development should be encouraged and where conservation measures should be concentrated. The Alliance’s draft map calls for the preservation of natural, scenic, historic, and water resources in 17 counties extending westward from the Austin-San Antonio corridor in Central Texas. The two large metropolitan areas and the smaller communities lying between them are among the nation’s fastest growing places. As they have grown, suburban sprawl has extended out into formerly rural areas of the Hill Country, threatening its wildlife, scenery, and the water resources upon which the whole region depends.

The studio began its work with a field visit to the Hill Country and meetings with city and county officials, ranchers, and conservationists. Studio participants then prepared case studies on more than a dozen other U.S. regions that have approached large landscape preservation. In many cases these initiatives were led by federal and state agencies, although some were initiated and administered by county governments or voluntary civic groups. This research informed the studio’s thinking about the range of options that might be considered for managing growth and conservation efforts in the Hill Country.

The studio has been guided by some of the most respected and knowledgeable practitioners in the fields of urban and regional planning and large landscape preservation in Texas and the nation. Throughout the semester the studio met

with key stakeholders, including ranchers, developers, and water, land, and wildlife conservation experts. In October the studio participated in HCA’s annual Hill Country Summit in Fredericksburg, where students met with dozens of other stakeholders and residents. This provided an opportunity for the studio to hear from them directly about the issues facing the region and to discuss the role the studio could play in helping to identify strategies to accomplish the vision. The studio continued to meet through the rest of the semester with policy makers and experts, leading up to the Workshop described below.

Hill Country Workshop

The Hill Country Planning Studio, in partnership with The University of Texas at Austin School of Architecture Dean Frederick Steiner, hosted a workshop from November 2-4 to bring together Hill Country stakeholders and local and national experts in regional planning and large landscape conservation to discuss the issues facing the Texas Hill Country today and in the future, as well as strategies to address those issues. Following a tour for out-of-town visitors to the region, workshop participants engaged in two days of large and small group discussions on land and wildlife conservation, water resource management, urban growth management, and related issues. The workshop closed with a large group recap that expressed confidence in Texans’ ability and commitment to protect the region’s exceptional natural, scenic, and water resources.

Workshop participants offered a breadth and depth of knowledge, experience, and leadership that helped guide the studio's findings and final recommendations, which have been incorporated into this report. While a wide range of thought and analysis was presented, the workshop group drew out a list of major themes and strategies, which are included in the Executive Summary below.

Hill Country at a Glance

Size: 17,760 square miles; 11,366,400 acres¹

Number of Counties: 17

Percent unincorporated land: 90 percent²

State Parks and Natural Areas: 15³

Permanently protected land: 3.6 percent⁴

Endangered species: 88⁵

Land value increase, 1997-2007: 215 percent⁶

Population: 3,383,019⁷

Population growth rate, 2000-2010: 25 percent⁸

Portion of Hill Country growth within corridor counties:
96 percent⁹

Projected 2050 population: 6,806,379¹⁰



Native landscaping | Photo: Andy/Sally Wasowski

Executive Summary

The Texas Hill Country is one of America's most treasured landscapes. Its iconic vistas of rolling hills, spring fed rivers and streams, historic towns and ranches, and abundant wildflowers and wildlife have made it beloved to generations of residents and visitors from across Texas and around the world. In the words of Frederick Steiner, dean of the UT Austin School of Architecture, "If it were anywhere else in the country it would be a national park." However, unlike most other special places, the Hill Country's treasures are fragile and very much at risk. Its limited groundwater resources are mined far faster than they can be replaced by rainfall, its ranches and farms are fragmented by land speculation and subdivisions, while cookie-cutter suburbs sprawl out from the fast-growing Austin and San Antonio metropolitan areas to consume vast amounts of open country.

The region does not yet have the institutions, regulations, and dedicated financial resources needed to protect itself from these threats. The Hill Country Alliance and other civic and conservation groups are working hard to mobilize public attention to these concerns, but they are hamstrung by the absence of effective state, county, and municipal regulations needed to protect the region's land, water, and ecological resources. The state's archaic "Rule of Capture" and water laws that treat surface and groundwater as separate resources make it impossible to

protect the region's water supplies. The absence of county planning and zoning regulations in more than 90 percent of the region means that nearly the entire Hill Country is a land speculation "free fire zone." The blind adherence to individual property rights means that everyone's property is at risk due to unregulated land development and abuse of groundwater. Only 3.6 percent of the region's land is currently protected and, unlike most states, Texas has only limited funds available for land conservation. Rather than mobilizing political support for solutions to these problems, the state's political forces are divisive, polarizing, and counterproductive.

Unless these challenges are successfully addressed, the region's natural, scenic, and water resources could, within a matter of years, be permanently lost to future generations. If this were to happen, it would jeopardize the prosperity not only of the Hill Country itself, but also of the Austin-San Antonio corridor, which depends on the Hill Country for its water and other natural amenities, an important part of the quality of life that attracts people to Central Texas.

New pressures are building as a result of the rapid population growth in the Austin-San Antonio corridor, exacerbating land fragmentation and sprawling development patterns. Current growth patterns threaten the wellbeing of Hill Country communities, the desirability of the cities and towns in the corridor, and the natural systems that

support life throughout the region. Sprawling, auto-oriented development increases traffic congestion while rapid population growth contributes to escalating housing prices. These trends are pushing new development out into formerly rural areas of the Hill Country, where they will destroy the region's scenery and wildlife habitats while threatening water supplies and natural resources. More pavement in upstream areas will increase the frequency and severity of flash flooding throughout the region.

However, another future is possible, one in which a new partnership and a shared destiny is established between the Hill Country and the Austin-San Antonio corridor, in effect redefining the Hill Country as a “Greater Hill Country” that encompasses both the corridor counties and the 13 rural counties to the west. Through this partnership, a fraction of the growing economic resources of the urban corridor would be used to finance a bold program of land conservation,

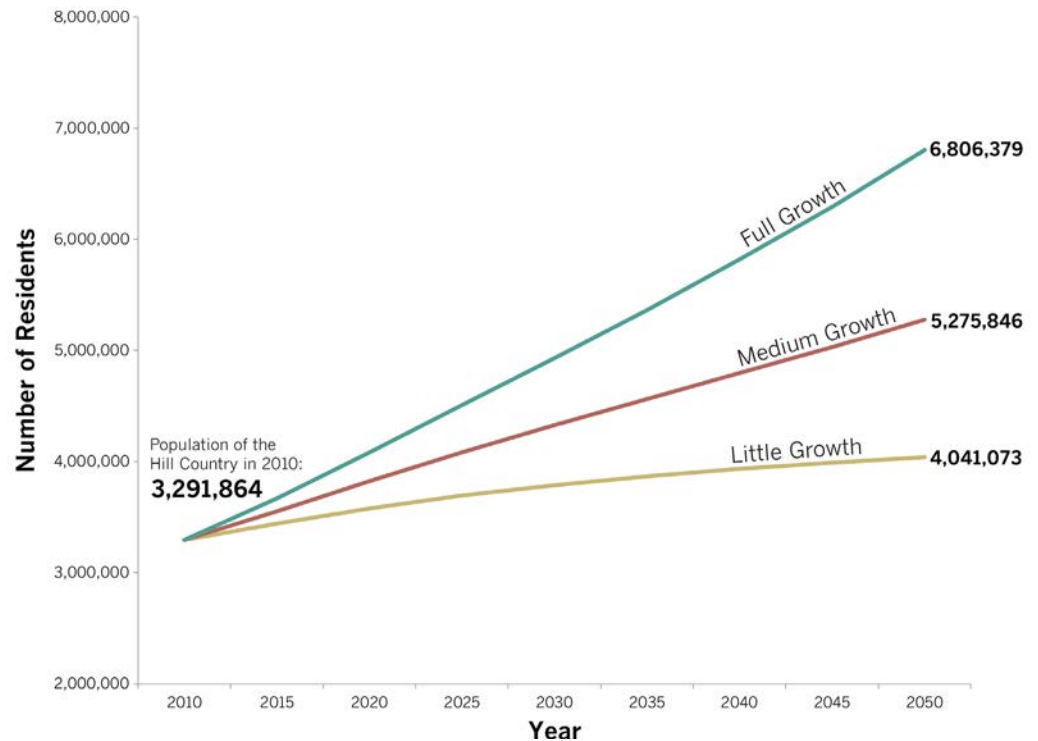


Figure a.1: Hill Country Population Projections

stewardship, and resource protection in the Hill Country. The political power of the urban communities and across the region should mobilize to reform our water and land use laws, and to appropriately fund the institutions necessary to protect the Hill Country.

These efforts, if successful, will give shape to a prosperous future, one that preserves the things that people have always loved about this region: close-knit communities, reasonably priced housing, a rich cultural heritage, access to a beautiful countryside, clean air and



Milky Way in Hunt, Texas | Photo: Todd Abbott Winters

water, and short commutes for those who want them. These are all at risk under current low-density development patterns, and can only be sustained by focusing continued population and economic growth in livable transit-friendly urban and suburban centers and small towns across the region.

1. Create a Hill Country Endowment

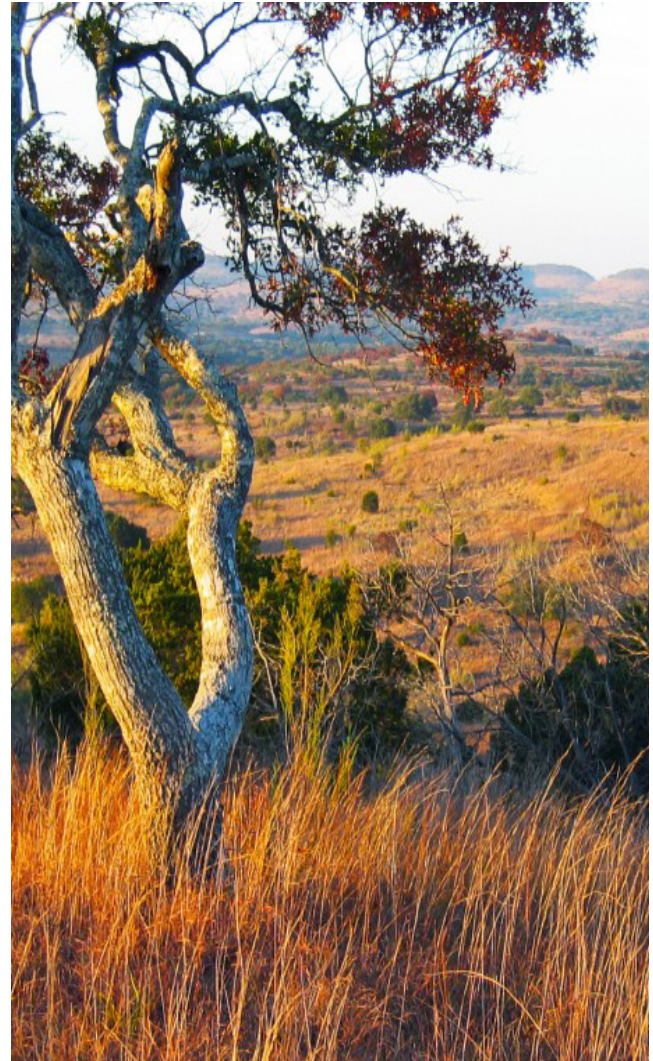
To finance these investments, a Hill Country Endowment (HCE) should be established to promote growth in the right places and patterns, and to protect the region's water and other natural resources. The concept would work as follows: As robust population and economic growth continue in the Austin-San Antonio corridor, a small portion of the increase in economic value, along with other funding sources, would be captured to finance the key infrastructure investments required in urban areas as well as the conservation measures needed in rural areas of the Hill Country. This approach would build on the success of San Antonio's Edwards Aquifer Protection Program and other land conservation initiatives by creating a permanent dedicated fund to support these activities.

Funds from the Endowment will be used to purchase conservation easements, protect aquifer recharge areas, and finance infrastructure in strategically important small towns in the Hill Country. Corridor counties will fund the Hill Country Endowment, knowing that it will ensure abundant, clean drinking water for them by

safeguarding open spaces that contribute to aquifer recharge and protecting surface water from polluted runoff. Endowment funds should also be matched by state and federal land and water conservation funds. Ironically, the federal Land and Water Conservation Fund, established by President Lyndon B. Johnson to promote land conservation in Texas and across the country, has been allowed by Congress to expire. It should be reauthorized and matching funds provided to support Hill Country conservation activities.

In addition to its role in funding infrastructure investments and land and resource protection, the Endowment could also assume the role of a regional planning body, creating an official vision or plan for the Greater Hill Country region and encouraging or requiring that municipal and county plans and regulations are consistent with the regional plan. In this capacity the Endowment would have two critical functions – to coordinate the development of transit infrastructure and support economic growth throughout the region. It would do so in the following manner:

1. Coordinate the development of transit infrastructure around the Lone Star Rail corridor.
2. Support economic growth in the Greater Hill Country.
3. Promote sustainable development practices by:
 - Incentivizing low-impact development in environmentally sensitive lands.
 - Incentivizing transit-oriented development along the Lone Star Rail corridor.
 - Incentivizing model land management practices of private lands.
4. Identify urban utility boundaries.



Brushy Top Ranch in Blanco, Texas | Photo: Texas Land Conservancy

Hill Country Endowment Organizational Structure

In the Texas Hill Country, an easy consensus between all parties is unlikely. However, we believe that the advantages offered by a legally binding agreement far outweigh the costs of protracted negotiations. When complete, this agreement would result in the establishment of the Hill Country Endowment. The roles of the stakeholders would be as follows:

Stakeholders	Key Functions	Role Summary
Rail Corridor Metros	<ul style="list-style-type: none"> ★ Support maintenance of surface water quality and quantity ★ Support efforts along flood prone rivers and streams to reduce flooding risk ★ Supply water for large manufacturers vital to the economy ★ Build support for a regional watershed protection plan ★ Contribute a portion of increasing property values and sales tax revenue to the Endowment 	Will play the leading role in providing resources and funding to preserve the Hill Country's water, land, and quality of life values necessary to the continued growth and prosperity of Central Texas
Rail Corridor Small Towns	<ul style="list-style-type: none"> ★ Use Endowment financing to build transit friendly developments ★ Plan to minimize impervious cover and limit sprawl by setting urban utility limits ★ Cooperate with NGOs to conserve land most in need of conservation 	Will use Endowment resources to maximize development around rail stops and within municipal boundaries, while protecting sensitive areas in the Edwards Aquifer recharge zone
Rural Small Towns	<ul style="list-style-type: none"> ★ Define rural character through a public process funded by the Endowment ★ Maintain rural character while growing through the use of design guidelines ★ Use Endowment funds for infrastructure improvements 	Will use Endowment funds to upgrade outdated infrastructure and create effective development plans for each town's reinvigoration
Counties	<ul style="list-style-type: none"> ★ Participate in identifying lands most suited for development ★ Support efforts to gain more ability to influence development ★ Access capital improvement project funds from the Endowment ★ Partner with large metros to develop a package of attractive developer incentives 	Will use Endowment opportunities and relationships to create proactive plans for smarter, less intrusive development patterns in unincorporated areas
Rural Land Owners	<ul style="list-style-type: none"> ★ Take advantage of Endowment educational resources ★ Work with TPWD to improve economic viability of working lands ★ Use Endowment resources and funding to improve and protect ecological function ★ Enhance property values by maintaining the region's scenic beauty 	Will manage their lands responsibly and economically by using Endowment funds to subsidize habitat restoration and other important stewardship practices
Developers	<ul style="list-style-type: none"> ★ Use Endowment incentives to densely develop within the urban corridor ★ Enhance the Hill Country's iconic image through conservation developments ★ Reinvigorate Hill Country towns through mixed use development ★ Improve and protect property values by maintaining the region's scenic beauty 	Will add to the region's character and liveability by building densely around transit in the urban corridor and more gently across the Hill Country, helping to ensure a positive climate for long-term growth across the region
Non-Governmental Organizations	<ul style="list-style-type: none"> ★ Develop education and outreach programs aimed at various stakeholder groups ★ Launch media campaigns to raise awareness support for the Endowment ★ Connect smaller communities to planning and financial resources ★ Develop a monitoring system to measure and evaluate the Endowment's success at regular intervals 	Will shepherd the collective efforts of all stakeholders, providing the glue that keeps them all moving in the same direction, while respecting their rich diversity

Table a: Stakeholder Roles

The Endowment could be funded by earmarking a portion of the increase over time of sales or property taxes, water utility rates, and Tax Increment Reinvestment Zone (TIRZ) funds to capitalize general obligation and revenue bonds. It should be noted that in other regions of the country that have created programs of this kind to protect natural, scenic and other resources, land values have increased in those protected areas; it would be appropriate to capture a small portion of these increased values to help finance the Endowment. While it is impossible to predict what the ultimate funding scheme would be, one possible configuration is illustrated in the chart below:

HCE Programs

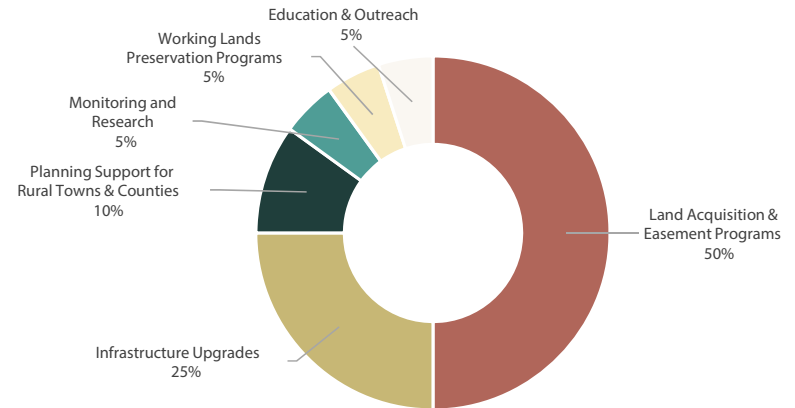


Figure a.3: HCE Programs

HCE Funding Sources

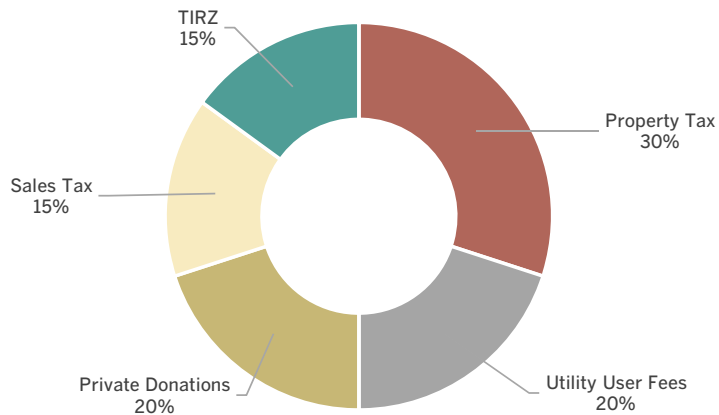


Figure a.2: HCE Funding Sources

In urban areas, the Hill Country Endowment would make investments into urgently needed transit projects, like the Lone Star Rail, which are necessary to allow the Austin-San Antonio corridor to accommodate over three million new residents by 2050. In turn, the urban growth will help finance land and water conservation and stewardship programs throughout the Hill Country. In rural areas, Endowment funds would be used to fund many programs, including purchase of development rights of important conservation lands, creation of municipal land use regulations, economic development strategies, and infrastructure investments in the region's small cities and towns.

Funds could be channeled to counties, municipalities, land trusts, and utility districts to enable them to undertake these activities. This Endowment would support the region's population and economic growth by financing necessary investments in infrastructure and environmental protection required to enable this growth to occur. It would create a vehicle for growth in the region's urban and suburban districts to help finance conservation and other measures in rural areas.

Hill Country Endowment - Mutually Beneficial Results

Each group of stakeholders participating in the Hill Country Endowment will have different needs and will accordingly enjoy different benefits. It is important that the spectrum of programs offered by the Endowment target the needs of each group.



McKinney Falls State Park, Travis County | Photo: Edgar Gallardo

Benefits of the Endowment to Smaller Cities & Towns

- Infrastructure upgrades
- Large landscape preservation
- Economic development
- Planning support and expertise

Benefits of the Endowment to Rural Landowners

- Training and education for the next generation of land stewards
- Subsidies for habitat restoration and other improvements
- Funds for agricultural easements which could re-capitalize ranches and farms
- Awards and recognition for leading land stewards

Benefits of the Endowment to Corridor Cities

- Protection of drinking water quality
- Protection of economic growth
- Opportunity to coordinate strategic planning with surrounding jurisdictions
- Opportunity to increase recreational capacity of the Hill Country

2. Action Strategies

Near-Term Goals

Goal #1 – Generate Scientific Data:

Water management authorities need to have accurate information to make informed decisions that will preserve our water resources. This requires increased scientific research about the behaviour of our aquifers and the relationships between groundwater and surface water.

Goal #2 – Identify Baseline Indicators:

The following indicators and others should be used to track progress in the Greater Hill Country:

- (a) Record accurate water table levels
- (b) Record transportation trends
- (c) Record and track new impervious cover
- (d) Record the amount of newly subdivided land
- (e) Tally total acres of protected land
- (f) Tally total dollars dedicated to protecting land
- (g) Design model development standards

Goal #3 – Coordinate Education and Public Outreach:

The public outreach and education goals of the Hill Country Alliance should be expanded with new partnerships and funding sources to bring critical information to elected officials, administrators, and the general public.

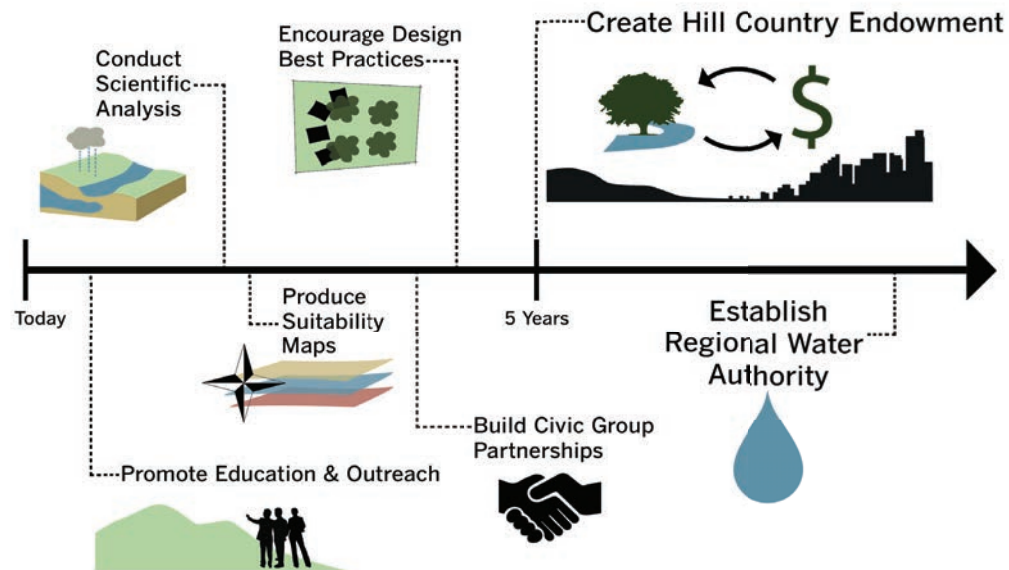


Figure a.4: Timeline of Strategies

Goal #4 – Suitability Mapping:

Suitability maps can lay the groundwork for future efforts to balance development and conservation across the Hill Country region. They provide additional weight and affirmation to the recommendations of the Hill Country Alliance's Vision Map.

Medium-Term Goals

Goal #1 – Create and Sign a Regional Compact:

The Greater Hill Country region needs coordinated management of land use, transportation, water, and economic development. Gaining support for a regional-level regulatory body may be difficult in the current political atmosphere. However, many of the same goals could be achieved through a civic partnership between the Hill Country Alliance and the Greater Austin-San Antonio Corridor Council. Together, with participation from other stakeholders, they could create an advisory regional plan that identifies appropriate locations for development and conservation, proposes locations for transit and other necessary infrastructure, and sets targets for housing production and other facets of development. This advisory plan could provide the basis for subsequent activities, outlined below, including those of the regional compact and Endowment. In other regions – including such disparate places as Salt Lake City and the New York metropolitan area – civic led regional plans have shaped development and conservation activities and infrastructure investments for decades.

Goal #2 – Establish the Hill Country Endowment:

As detailed in the opening of this executive summary, the studio recommends that a Hill Country Endowment be established that could have two functions:

1. An institution that could capture a small share of the region's economic growth to finance needed investments in infrastructure and land and water conservation activities; and
2. A regional commission that could adopt a regional plan and then promote a regional compact in which the region's municipalities and counties would develop plans, regulations, and capital investment strategies consistent with the regional plan.

Creating the Endowment will require a formal working agreement among Hill Country stakeholders, identifying roles and responsibilities for each group engaged in managing the region's future. It is important to build off of cooperative successes in the near term to establish an enduring framework for balancing growth over many decades. There are two critical components of this step:

1. Creating a formal working agreement among stakeholders, and
2. Funding and managing the associated programs.

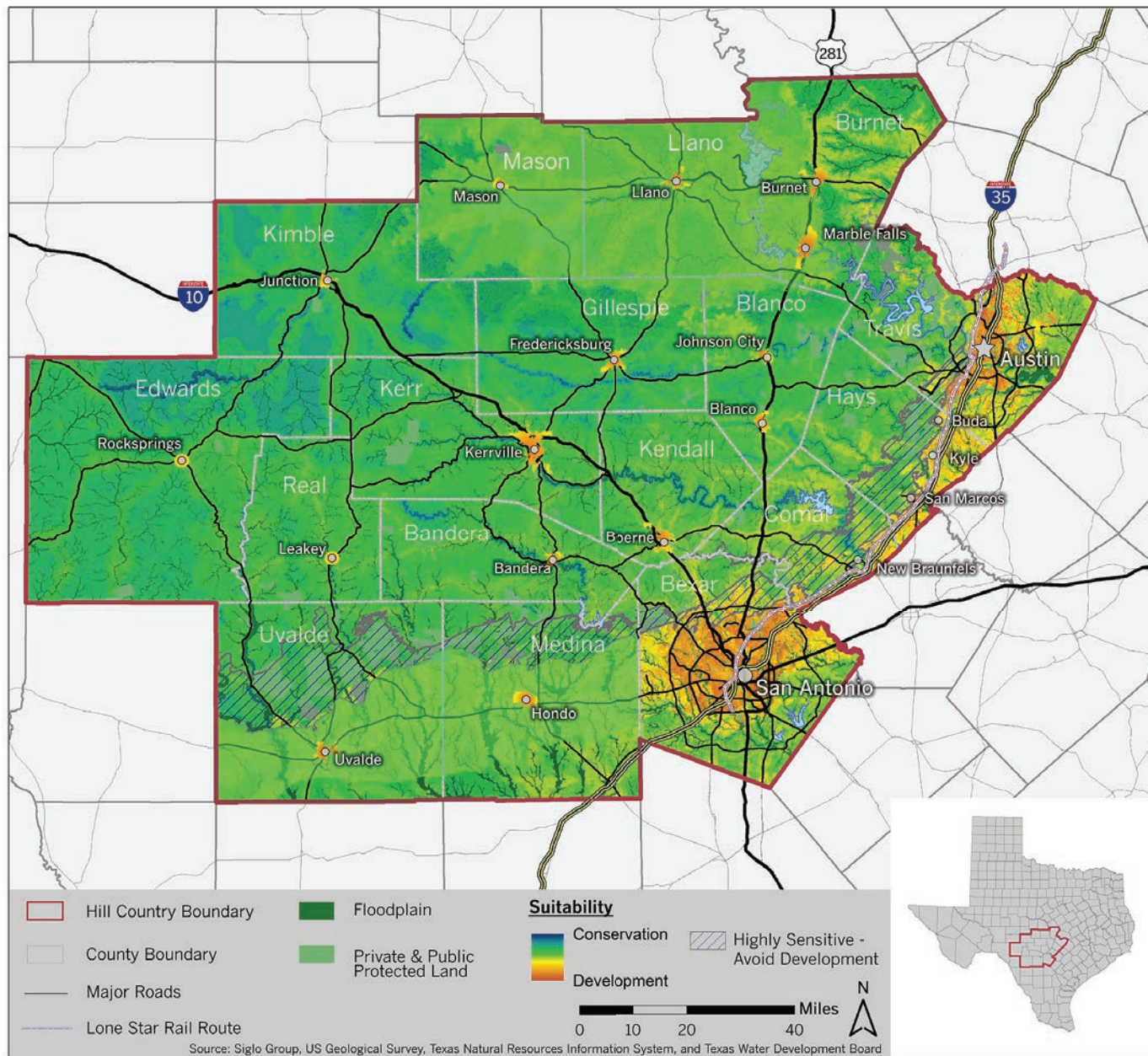


Figure a.5: Preliminary Suitability Map for the Hill Country

Long-Term Goals

All efforts in the region towards coordinated management will fail if required policy reforms are not made at the state level. The State Legislature should recognize that the concerns facing the Hill Country require special consideration in state law. Stakeholders in the Greater Hill Country should advocate for the policy reforms detailed in this section.

Goal #1 – Protect Large Landscapes from Eminent Domain

The goal of protecting land from development is compromised when infrastructure pathways such as roads and electric transmission lines cut through large open landscapes. To make matters worse, properties held under conservation easement agreements are subject to the exercise of eminent domain by governmental entities and utility providers, just like properties that are not permanently dedicated to conservation. In fact, conserved lands often become targets for infrastructure pathways because infrastructure firms and planners perceive conserved lands as large open spaces with few obstructions and few landowners to oppose the project. Changes to state law should improve protections for conservation easements from the exercise of eminent domain.

Goal #2 – Ensure Regulation by Groundwater Conservation Districts

Current groundwater conservation district (GCD) coverage should be reviewed for gaps or unmanaged aquifer areas, and the district boundaries should be extended to cover

the gaps. Furthermore, all GCDs should receive sufficient funding to adequately monitor groundwater and administer all of their regulatory duties. Comprehensive GCD coverage and enhanced funding will help prevent unregulated groundwater pumping that compromises groundwater resources.

Goal #3 – Ensure Counties Have Authority over Municipal Utility Districts

Municipal utility districts (MUDs) are currently required to submit applications for approval to the Texas Commission on Environmental Quality (TCEQ). This application requires an evaluation of the effect that the district will have on the groundwater level within the region and of the recharge capability of the groundwater source. It does not, however, require proof of approval from the local GCD or county. TCEQ approval may not reflect local values or priorities for this type of development, and the lack of requirement for a water supply plan or pumping permit

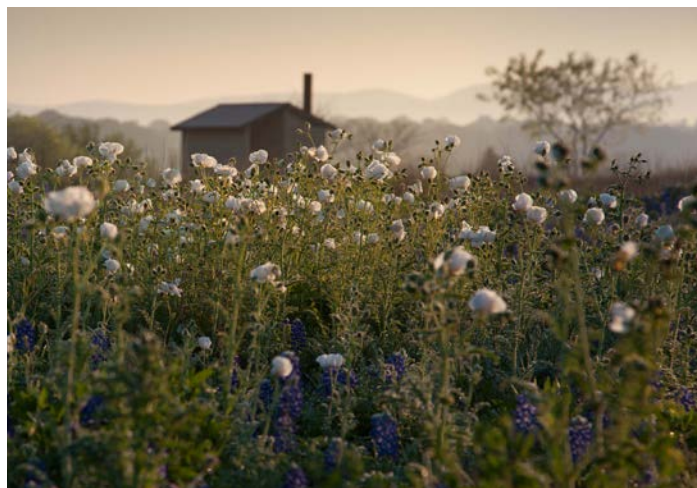


Photo: Karen Bruett

may result in the over-burdening of local groundwater resources once the development is built out. State law should be changed to require MUDs to acquire a permit from GCDs and approval from counties during the MUD permitting process.

Goal #4 – Require Public Disclosure of Real Estate Sales Prices

In Texas, real estate transaction prices are not currently subject to public disclosure. This leaves county appraisal districts without market information that could serve to better inform property tax appraisals and the resulting assessments. One of the risks of not requiring the public disclosure of this information is uneven valuations of commercial and residential properties. In addition to improving the accuracy of evaluations, disclosure of real estate sales prices would also provide important data for planning purposes. State law should be changed to conform with those of most states, which require this disclosure.

Goal #5 – Grant Hill Country Counties Land Use Authority

Proposals to grant land use regulatory authority to counties have been unsuccessful in the Texas Legislature. However, rapid development in some of the most critical aquifer recharge and wildlife conservation zones of the Hill Country presents an urgent need to provide counties with this authority. Establishment of minimum lot sizes and site planning provisions to facilitate preservation of natural areas and working lands, along with regulatory incentives to direct development into small towns, are some of the regulatory tools that counties could use to guide desired

development. If counties were able to regulate land use, it would enable them to use their resources more efficiently by planning for the provision of infrastructure such as roads, utilities, and emergency services.

Goal #6 – Create the Hill Country Trinity Water Conservation Area

The actions outlined above respect the Texas tradition of minimal and localized government regulation. Hill Country stewards should carefully monitor the effects of these strategies on the region's economic resilience, water supplies, and biodiversity. If the strategies yield the region's desired outcomes, a new form of regional management could emerge through local initiatives – Texas' very own form of planned regional growth. However, if these strategies do not adequately protect public water supplies, it may be necessary to take additional steps at the regional scale to protect water quality and better coordinate the integrated planning of land use and water management.

To achieve this goal, a new Hill Country Trinity Water Conservation Area should be established to consolidate the current hodgepodge of water management agencies. The Conservation Area would have jurisdiction over the area now under the control of Groundwater Management Area 9. Board members of the existing groundwater conservation districts (GCDs) could serve on an advisory board to the new Conservation Area. This new entity would develop plans and regulatory measures to manage both ground and surface water in the region. Additionally, it could designate “areas of special water resource concern” in which it could regulate developments of regional impact.

Summary

The goal of this report is to advise the Hill Country Alliance on its future activities and to initiate a public debate about the future of the Hill Country and the steps that are necessary to protect the region's extraordinary economic and natural resources. To initiate this debate we have put forward a number of proposals for new policies, institutions, and investments that could prevent degradation and improve the health of the natural systems that underpin the region's health and quality of life. We have concluded that to protect the Hill Country it will also be necessary to create a new and constructive relationship with the rapidly growing Austin-San Antonio corridor, in effect redefining the whole area as a "Greater Hill Country Region" with a shared destiny. Further, we believe that it will be necessary to transform current sprawling development patterns in the corridor, which are pushing suburban development into the Hill Country's rural areas. These strategies will address the key concerns that will impede the region's future growth: traffic congestion, rising housing prices, and water shortages.

Many of these proposals may be controversial, but we believe that the Texas Hill Country, and these initiatives, are worth fighting for. We are well aware of the challenge of advancing initiatives of this kind given the resistance to new public expenditures and new regulations at the State Capital and across Texas. However, we also have enormous confidence in the ability of Texans to rally around efforts to preserve the Hill Country, this place that is so central to the self-image of our state and region.

We believe that when residents and business and civic leaders comprehend the importance of moving ahead with these measures, and the potential benefits that will follow, they will embrace these and other steps to preserve the region's underlying natural systems.

Let the debate begin!



Gillespie County | Photo: Nancy Naylor



Photo: Rob Greebon