



Reuse Assessment for the Bandera Road Superfund Site

Leon Valley, Texas

June 2010

Prepared by E², Inc. for EPA Region 6, the City
of Leon Valley, and the Leon Valley Community



- Reuse Assessment Purpose
- Background and Timeline
- Planning and Development Initiatives
- Site Characterization
- Future Use Strategies
- Recommendations



Reuse Assessment Purpose

Reuse Assessment Purpose

This Reuse Assessment report was funded by the EPA Superfund Redevelopment Initiative and produced by E² Inc for EPA Region 6, the City of Leon Valley and the Leon Valley Community. The Superfund Redevelopment Initiative was founded to “help communities return Superfund sites to productive use.”¹

Stakeholders interviewed or contacted included representatives of EPA, the City of Leon Valley, the source area site owners, the Bandera Road Community Advisory Group (CAG), TxDOT, Bexar County and Halff Associates.

Additionally, the report was presented in draft form to Leon Valley residents and community members at the April 22, 2010 CAG meeting, and feedback from these stakeholders was also included in the final report.

¹ US EPA. *Reuse Assessments: A Tool to Implement The Superfund Land Use Directive*. Memorandum signed June 4, 2001 from Larry Reed to the Superfund National Policy Managers, Regions 1-10.

Reuse Assessment Purpose

- Identify reasonably anticipated future land uses and associated remedial considerations.
- Identify interim revitalization strategies for the city given the long-term cleanup and potential for stigma related to the Superfund site.



Background and Timeline

Bandera Road Superfund Site

- Groundwater plume with at least two sources that originate in Leon Valley
 - Savings Square Shopping Center
 - Pilgrim Cleaners
- Plume was identified by TCEQ in 2004
- Placed on the National Priorities List in 2007
- Primary contaminants of concern are chlorinated solvents
- EPA is conducting an ongoing investigation to identify the extent of the plume
 - 6 private wells identified as contaminated and residents connected to public water
 - Public wells in vicinity of site have not been impacted
 - 2 vapor mitigation systems have been installed near the Savings Square Shopping Center to address vapor intrusion
 - No additional vapor intrusion issues expected



Timeline

Timeframe	Remedial Timeline	Reuse Planning Tasks
Nov 2009 - Early 2010	Ongoing investigation	Gather community and stakeholder input and coordinate with Leon Valley's planning efforts
Spring 2010	Discussion of potential technologies	Develop a site characterization and revitalization strategies
April 2010		Site visit to share draft characterization and strategies
Summer 2010		Develop a final reuse report summarizing site reuse characterization, reuse considerations and stakeholder goals.
Fall 2010	Draft RI/FS	
Winter 2010	Proposed Plan	
Early 2011	Record of Decision	



Planning and Development Initiatives

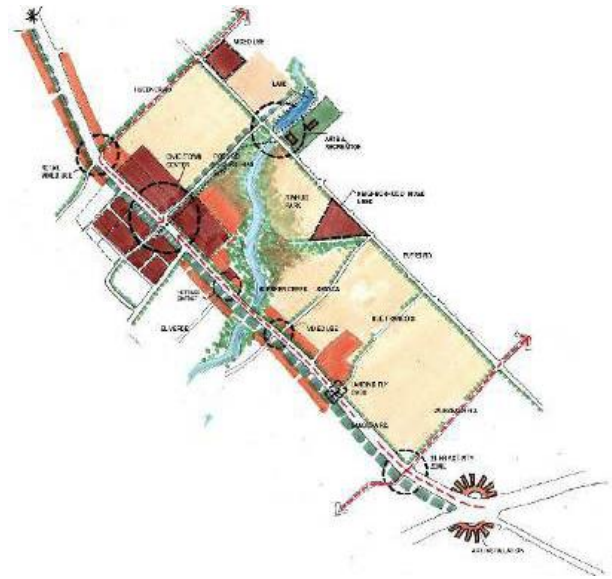
Sustainable Design Assessment Team (SDAT) Study

- A broad planning assessment to help frame future policies and sustainable solutions
- Project principles look for the intersection of the three “E”s (environment, economics and equity) to create:
 - Physical basis for prosperity
 - Demand for products and services
 - Sense of place



Additional City Initiatives

- “El Verde by 2020”
- Leon Valley Redevelopment Master Plan
- Leon Valley Tree Challenge
- Bandera Road Landscaping (STEP Grant)
- Fiesta Dodge Plans



Town Center Concept Plan

Source: Leon Valley SDAT – El Verde 2020 report

Regional Initiatives

- Crystal Hills Park (planned)
- Huebner and Leon Creek Community Plan Update
- Bexar County Floodplain Project
- Bandera Road Landscaping (STEP Grant)
- Bus Rapid Transit access



Leon Valley Land Use Goals

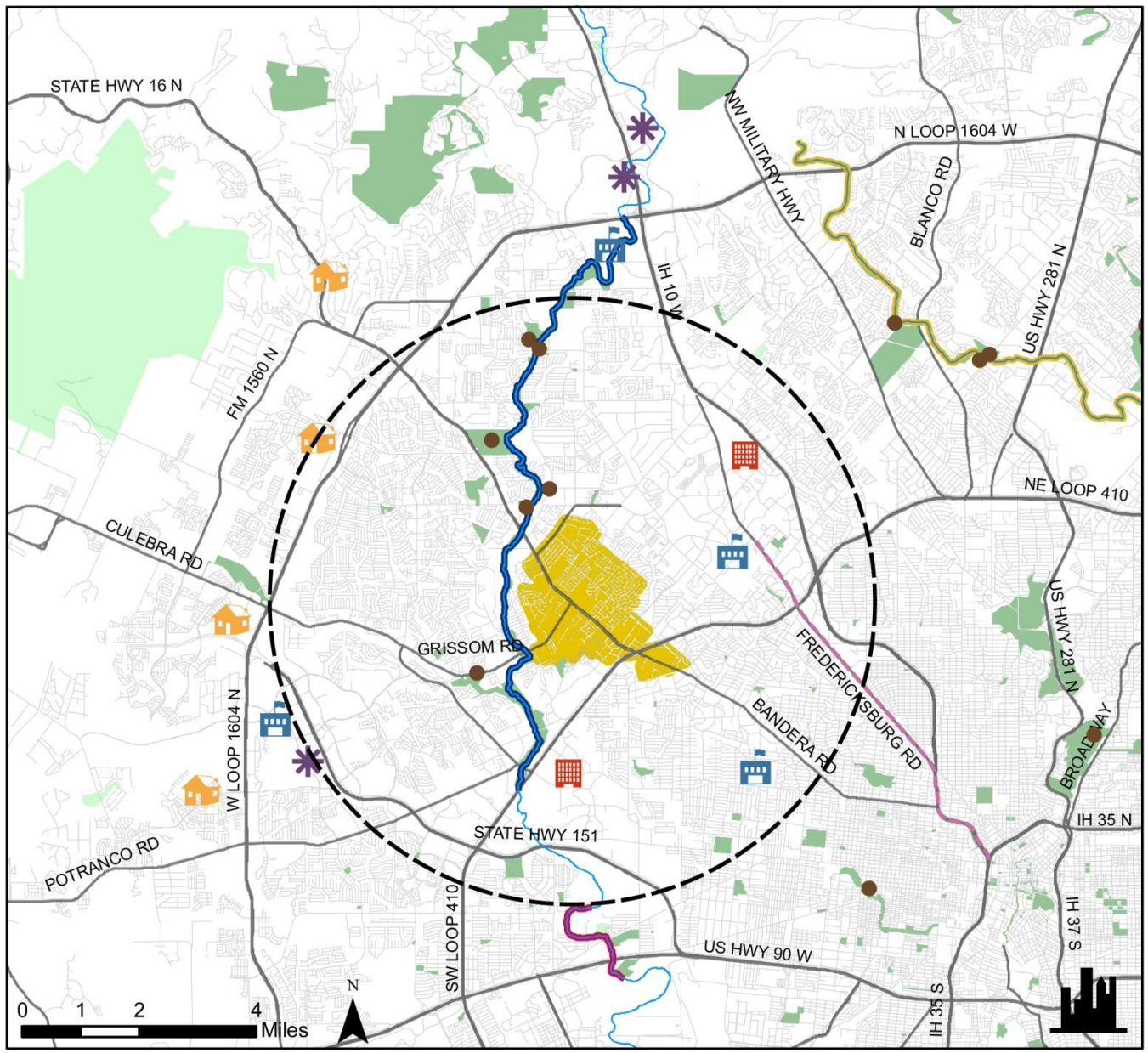
- Protect the city's groundwater supply from contamination by the groundwater plume and/or future industrial activities
- Guide and support redevelopment along Bandera Road
 - Create a Town Square and Town Center
 - Create a sense of place
 - Attract young professionals by promoting a live/work environment
- Promote sustainability through the Sustainability Overlay and other city initiatives



Site Characterization

Regional Context

- Residential growth along W Loop 1604 and in Helotes
- Local universities and colleges provide jobs and attract young professionals
- Major employers in the area include:
 - Medical research facilities (SW Research Institute, UTSA Health Sciences)
 - USAA (5 miles from LV; 27,000 new jobs)
- Regional attractions include Sea World, Six Flags Fiesta Texas, The Rim and downtown San Antonio
- Leon Valley is located on a major travel route between downtown San Antonio and surrounding centers (Bandera Road)



Key

Regional Features

- Downtown San Antonio
- Residential Growth
- Employment Centers
- Universities/Colleges
- Regional Attractions
- Bus Rapid Transit (coming 2012)

Parks and Greenways

- Regional Trailheads
- North Leon Creek Greenway
- South Leon Creek Greenway
- North Salado Creek Greenway
- San Antonio Parks
- County and State Parks

General Features

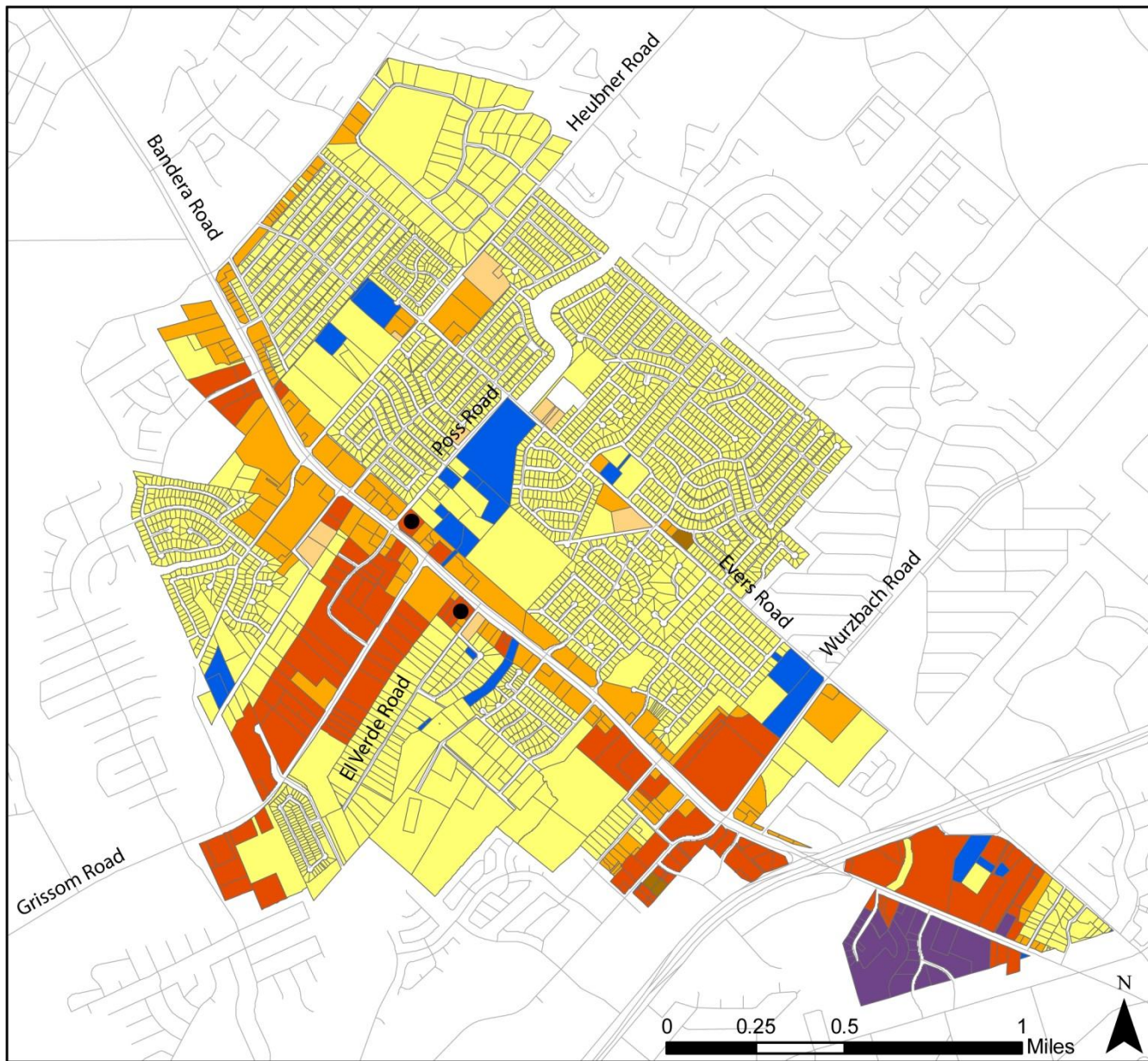
- Creeks
- Major Roads
- Additional Roads
- Leon Valley
- 5 mile radius from Poss and Bandera (The FourCorners)

Figure 1: Regional Context

Zoning and Redevelopment Master Plan

- Zoning
 - Bandera and Grissom Roads are primary commercial corridors
 - A mix of residential, commercial and industrial uses are present in Leon Valley
- Redevelopment Master Plan Areas
 - Town Square to be located at Four Corners intersection
 - Town Center to be located along Bandera and Grissom
 - Sustainability Overlay requirements will affect most areas with business, retail or commercial zoning
 - Commercial and Industrial Overlay requirements will affect the southeastern part of Bandera Road





Key

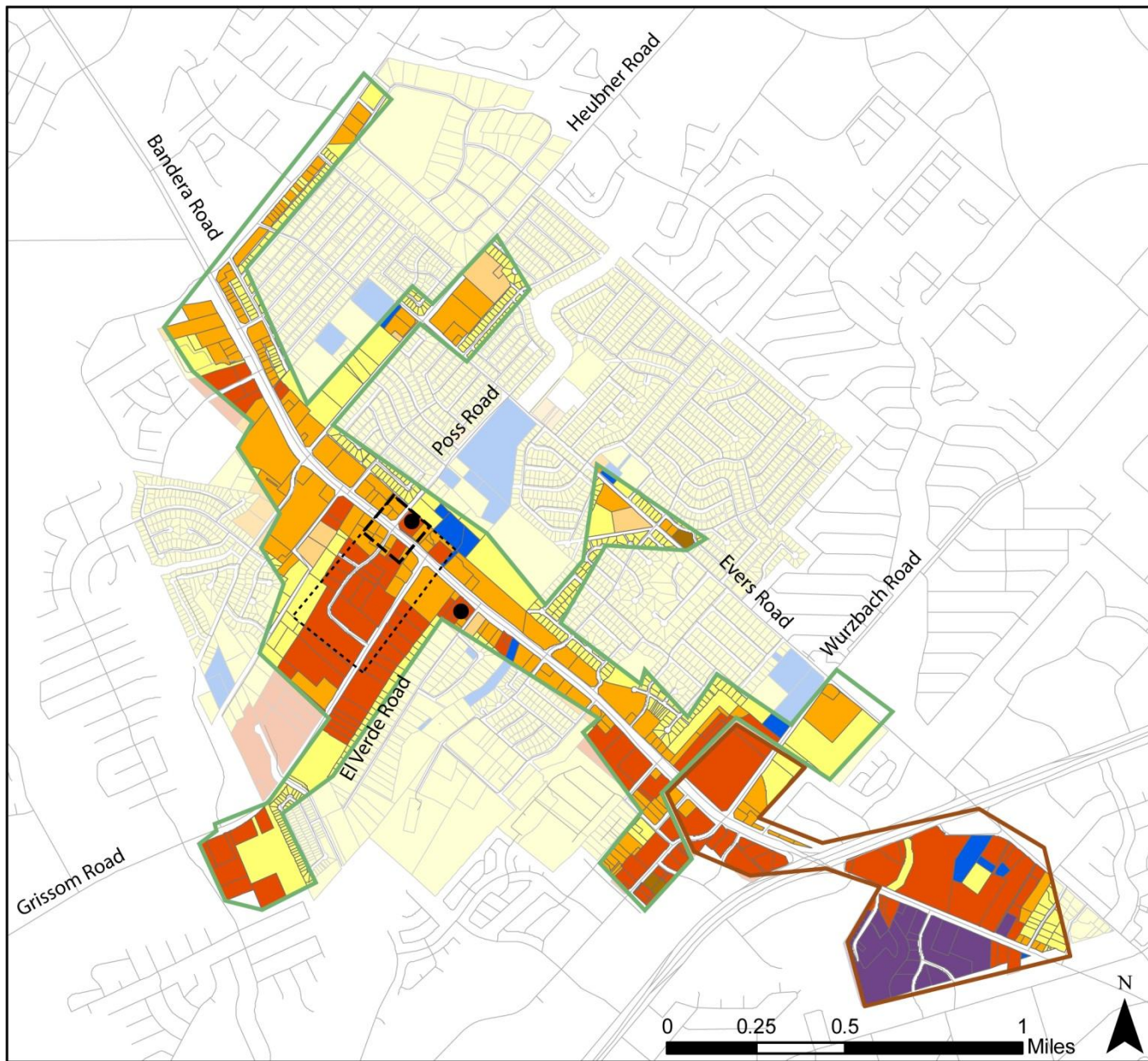
Zoning

- Residential (R1-R6)
- Small Business (B1)
- Retail (B2)
- Commercial (B3)
- Office (O1)
- Government (G/E)
- Light Industrial (I1)

General Features

- Chlorinated Solvent Source Areas
- Roads
- Leon Valley Parcels

Figure 2: Leon Valley Zoning



Key

Redevelopment Master Plan Areas

- Town Square
- Town Center
- Sustainable Overlay
- Commercial and Industrial Overlay

Zoning

- Residential (R1-R6)
- Small Business (B1)
- Retail (B2)
- Commercial (B3)
- Office (O1)
- Government (G/E)
- Light Industrial (I1)

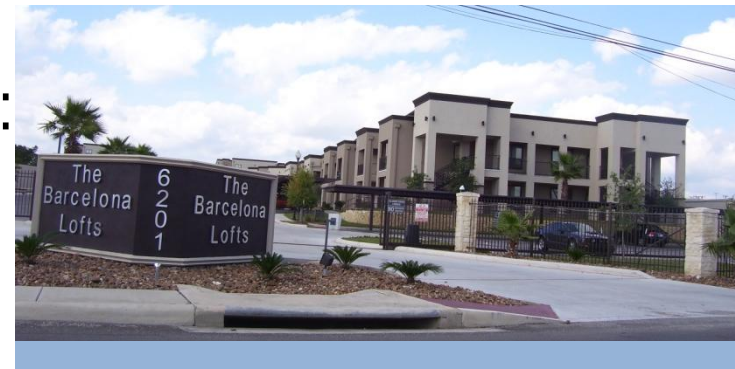
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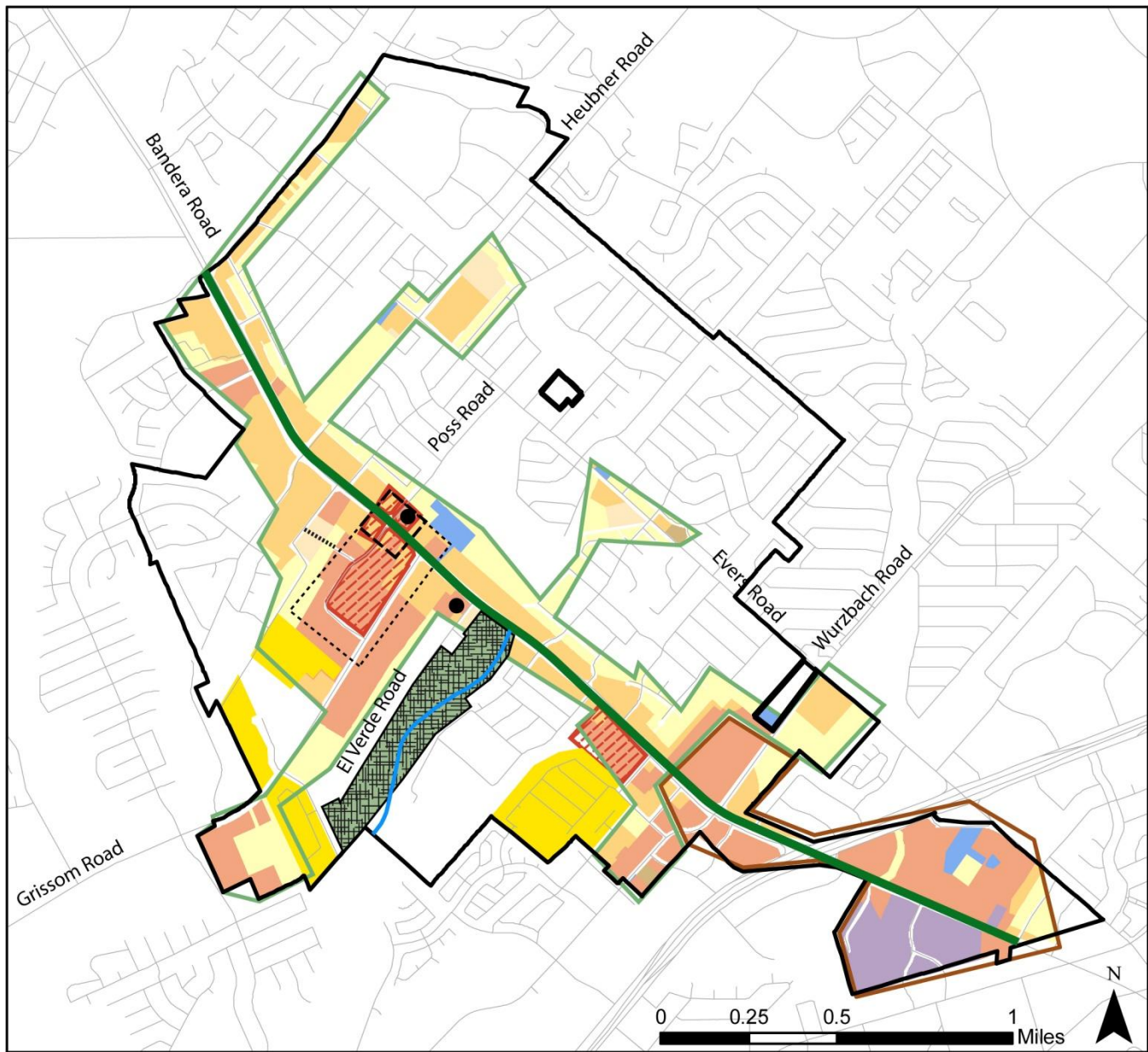
- Chlorinated Solvent Source Areas
- Roads
- Leon Valley Parcels

Figure 3: Redevelopment Master Plan Areas

New Development Projects

- Redevelopment Master Plan areas will guide development along Bandera
- New residential neighborhoods south of Bandera target young professionals
- Floodplain Annexation Zone
 - Properties along the southeast side of El Verde Road are being annexed for a floodplain zone by Bexar County
- Future commercial areas include:
 - Four Corners and the intersection of Bandera/Grissom
 - Former Fiesta Dodge location
- Potential transportation projects include:
 - Potential town center road extension
 - Bandera Road landscaping





Key

New and Future Land Use

- Town Square
- Town Center
- Sustainability Overlay
- Commercial and Industrial Overlay
- New Residential Areas
- Future Commercial Areas
- Floodplain Channel Expansion
- Open Space

Potential Transportation Projects

- Bandera Road Landscaping
- Potential Town Center Road

Existing Zoning inside Overlay Areas

- Existing Zoning

General Features

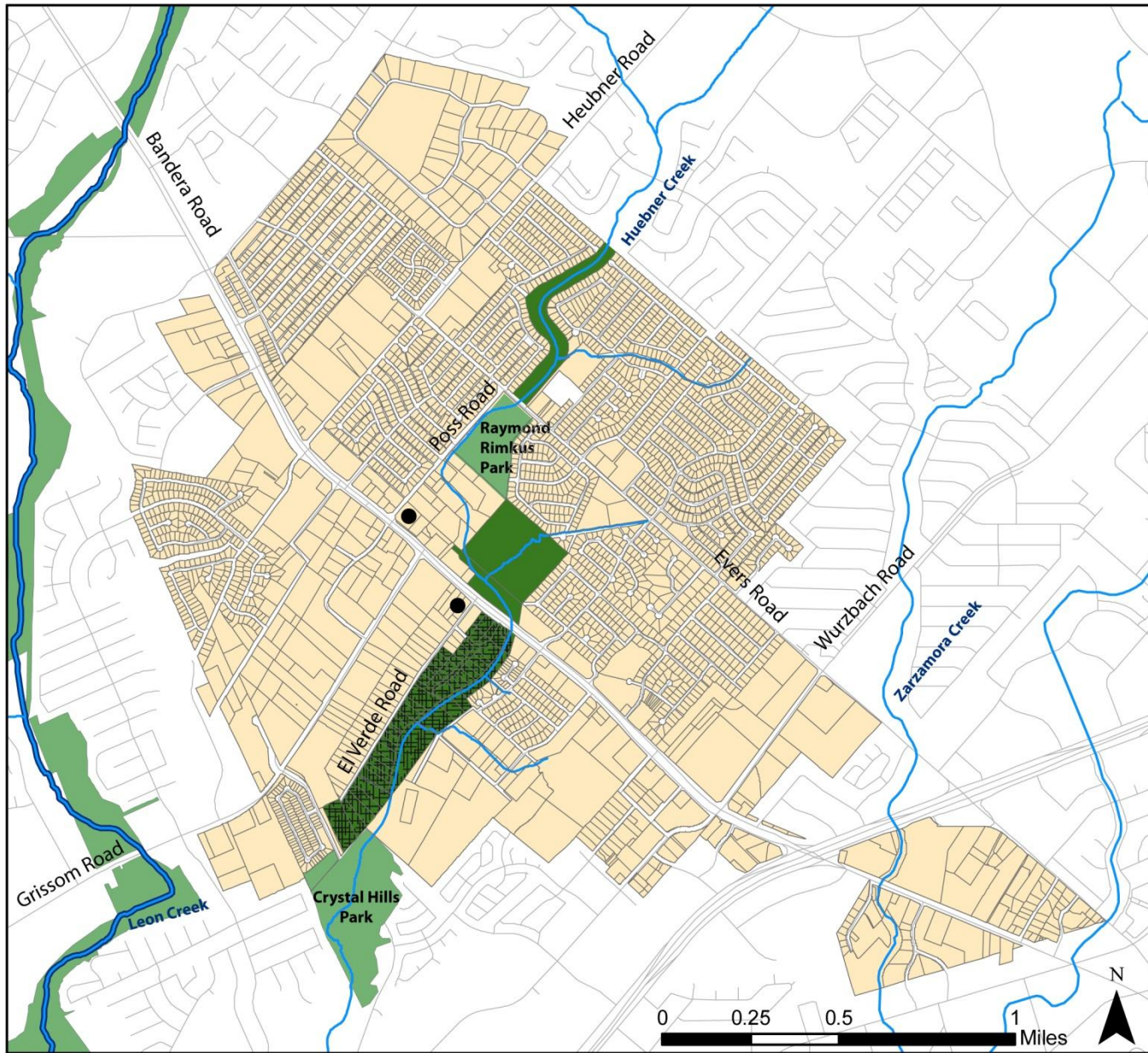
- Chlorinated Solvent Source Areas
- Roads
- Leon Valley City Limits

Figure 4: New Development

Natural Assets

- Creeks include Leon, Huebner and Zarzamora
- Existing open space along Huebner Creek
- Future open space created by the Bexar County floodplain project
 - Potential to incorporate trail grading into construction
- Trails located in:
 - Leon Creek Greenway
 - Crystal Hills Park (proposed)
 - Raymond Rimkus Park
 - North of Raymond Rimkus Park along Huebner Creek





Key

Natural Assets

- Creeks
- North Leon Creek Greenway
- Public Parks
- Existing Open Space
- Future Open Space

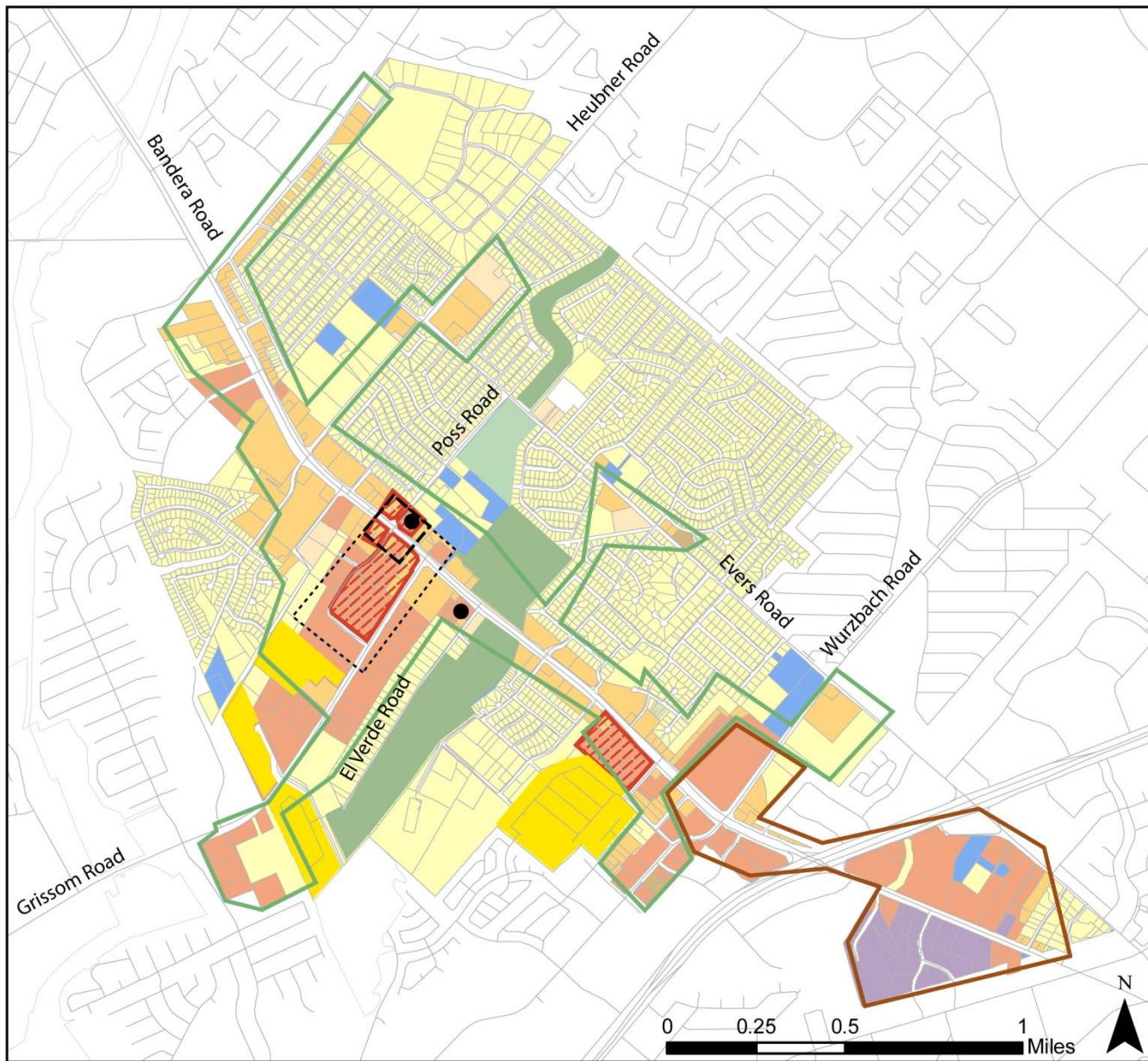
General Features

- Chlorinated Solvent Source Areas
- Roads
- Leon Valley Parcels

Figure 5: Natural Assets

Reasonably Anticipated Future Land Use

- Future land use in the area of the Bandera Road Superfund Site is likely to include residential, recreational, commercial and industrial uses.
- Current land use plans and initiatives seek to green the city and increase the amount of time residents and visitors spend outdoors.
- One source area is located inside Leon Valley's Town Center area, which is targeted for redevelopment.



Key

New and Future Land Use

- Town Square
- Town Center
- Sustainability Overlay
- Commercial and Industrial Overlay
- New Residential Areas
- Future Commercial Areas

Existing and Future Parks/Open Space

- Parks
- Open Space

Zoning

- Residential (R1-R6)
- Small Business (B1)
- Retail (B2)
- Commercial (B3)
- Office (O1)
- Government (G/E)
- Light Industrial (I1)

General Features

- Chlorinated Solvent Source Areas
- Roads
- Leon Valley Parcels

Figure 7: Reasonably Anticipated Future Land Use

Remedial Considerations

- Remedial features are likely to be located at the source sites and may create minimal constraints on use.
- Reuse in areas beyond the source sites is more likely to be impacted by Superfund stigma than by remedial features.

Remedial Considerations

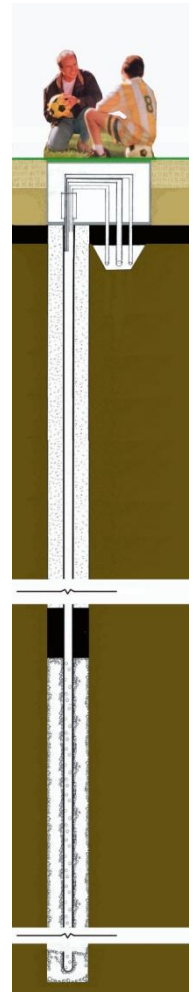
- Possible remedial features include:
 - Flush mounted monitoring wells across the plume area
 - Groundwater treatment wells at the source sites



Typical well



Example of a flush-mount monitoring well





Future Use Strategies

Reuse Assessment Purpose

- Identify reasonably anticipated future land uses and associated remedial considerations.
- Identify interim revitalization strategies for the city given the long-term cleanup and potential for stigma related to the Superfund site.

Strategic Goals

- Leverage the value of existing assets and the momentum of planned revitalization projects to counter potential Superfund stigma
- Enhance Leon Valley's image as the "Greenest Little City in Texas"
- Implement SDAT Principles:
 - Physical basis for prosperity
 - Demand for products and services
 - Sense of place



Sustainable Design Assessment Team (SDAT) Study

Additional recommendations included:

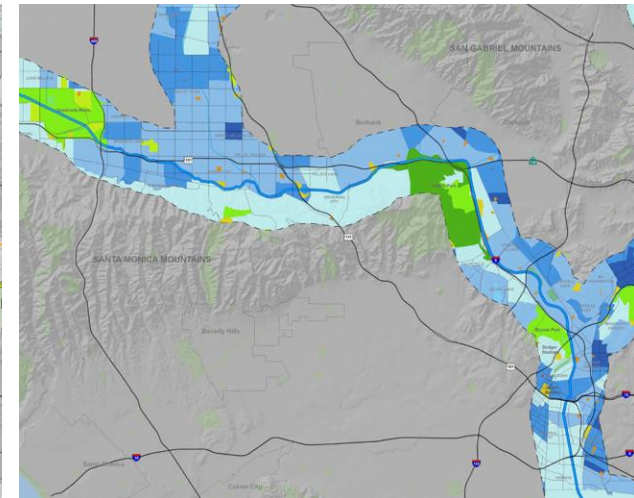
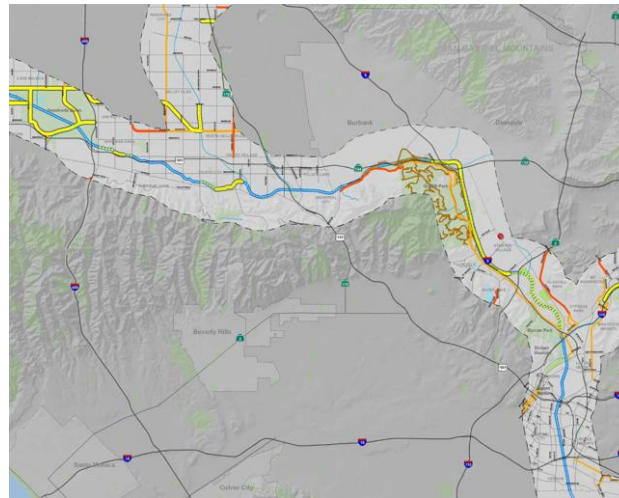
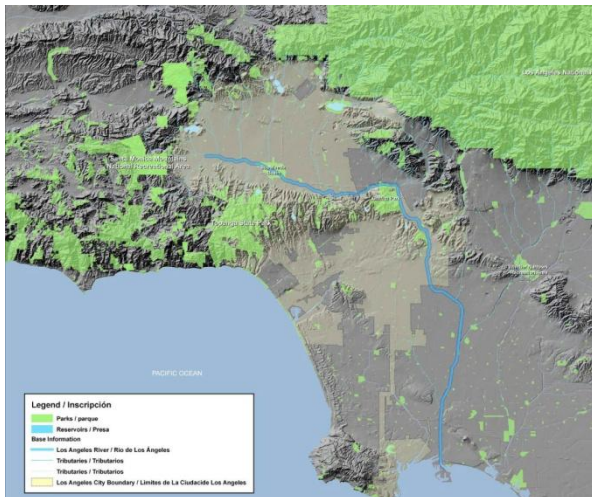
- Incorporate sustainable “green infrastructure” elements
 - Low impact development components in site planning and stormwater management
 - Increase tree canopy cover
 - Implement trail linkages
- Leverage existing open spaces
 - Use open spaces to create a “sense of place”
 - Make natural open areas a prominent part of the City
- Introduce unifying streetscape components
 - Improve conditions for pedestrians
 - Use landscaping components to create “green streets”



Bandera Road existing right-of-way
Source: SDAT Study

Green Infrastructure (GI): a framework for understanding the valuable services that nature provides for the human environment and integrating these natural assets into development plans. At a regional or municipal scale it forms a patchwork of open space that can guide growth and preservation.

- Habitat
- Community
- Water
- Mobility
- Energy and Materials



Examples of analysis mapping of GI systems (open space/habitat, bike/equestrian trails and population density to park size) for the Los Angeles River Revitalization project.

Source: <http://councilcommittee.lacity.org/lariver/map.htm>

Green Infrastructure

- At a site scale, it integrates functions and utilizes natural processes to make communities more healthy and enjoyable.



Examples of a natural drainage systems in arid climates

Economic Value of Green Infrastructure

Investing in GI can yield tangible benefits for residents, businesses and municipalities:

- Property values increase near green space.
- Green spaces near places of work increase productivity, and businesses attract and retain more motivated staff in green settings
- GI can reduce energy costs by countering summer temperatures.
- GI can alleviate pressure on storm water management systems by reducing the velocity and amount of runoff.
- Shoppers stay longer and spend more in commercial areas with landscaping and tree canopy cover.

Integrate green infrastructure planning into the city's current and future infrastructure projects through three future use strategies:

1. Greenway
2. Green streets
3. Green links

Strategy 1: Create a Huebner Creek Greenway.

Existing Assets

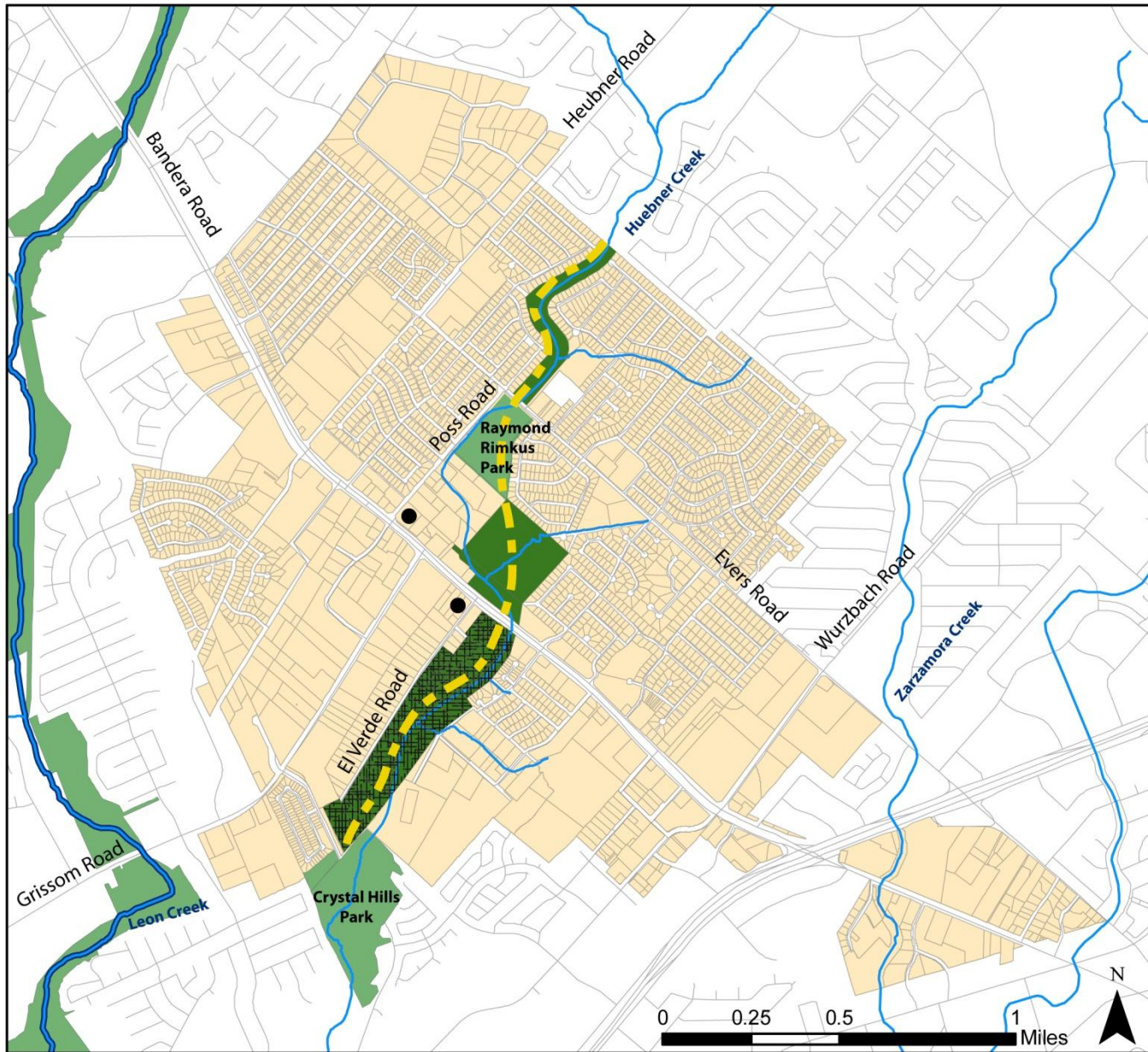
- Raymond Rimkus Park and trails
- Natural Area and trails
- Trail north of Raymond Rimkus along Huebner Creek

Planned Revitalization Projects

- Crystal Hills Park and trails
- Floodplain Annexation and potential trail grading



Bob Jones Trail, San Luis Obispo, CA
Source: Los Angeles Times



Key

Proposed Green Infrastructure

- Huebner Creek Greenway

Existing or Planned Natural Assets

- Creeks
- North Leon Creek Greenway
- Public Parks
- Existing Open Space
- Future Open Space

General Features

- Chlorinated Solvent Source Areas
- Roads
- Leon Valley Parcels

Figure 8: Huebner Creek Greenway

Huebner Creek Greenway - Potential Action Steps

- Coordinate with San Antonio to support development of Crystal Hills Park.
- Coordinate with County to integrate a paved trail into the floodplain project.
- Improve accessibility of the trails in the Leon Valley Historical Society natural area in order to continue greenway.
- Seek funding to ensure full connectivity and to add entrance signage to the greenway.

Strategy 2: Select a green streets network to target for tree planting and natural drainage features.

Suggested street selection criteria:

- Intersects Bandera Road
- Connects to the proposed Huebner Creek Greenway
- Provides access to an existing amenity or attraction

Existing Assets

- Existing attractions and amenities
- 10,000 Trees Program

Planned Revitalization Projects

- Potential landscaping along Bandera Road



Street-tree plantings and swale
Highpoint Community, Seattle
Source: SvR Design Company

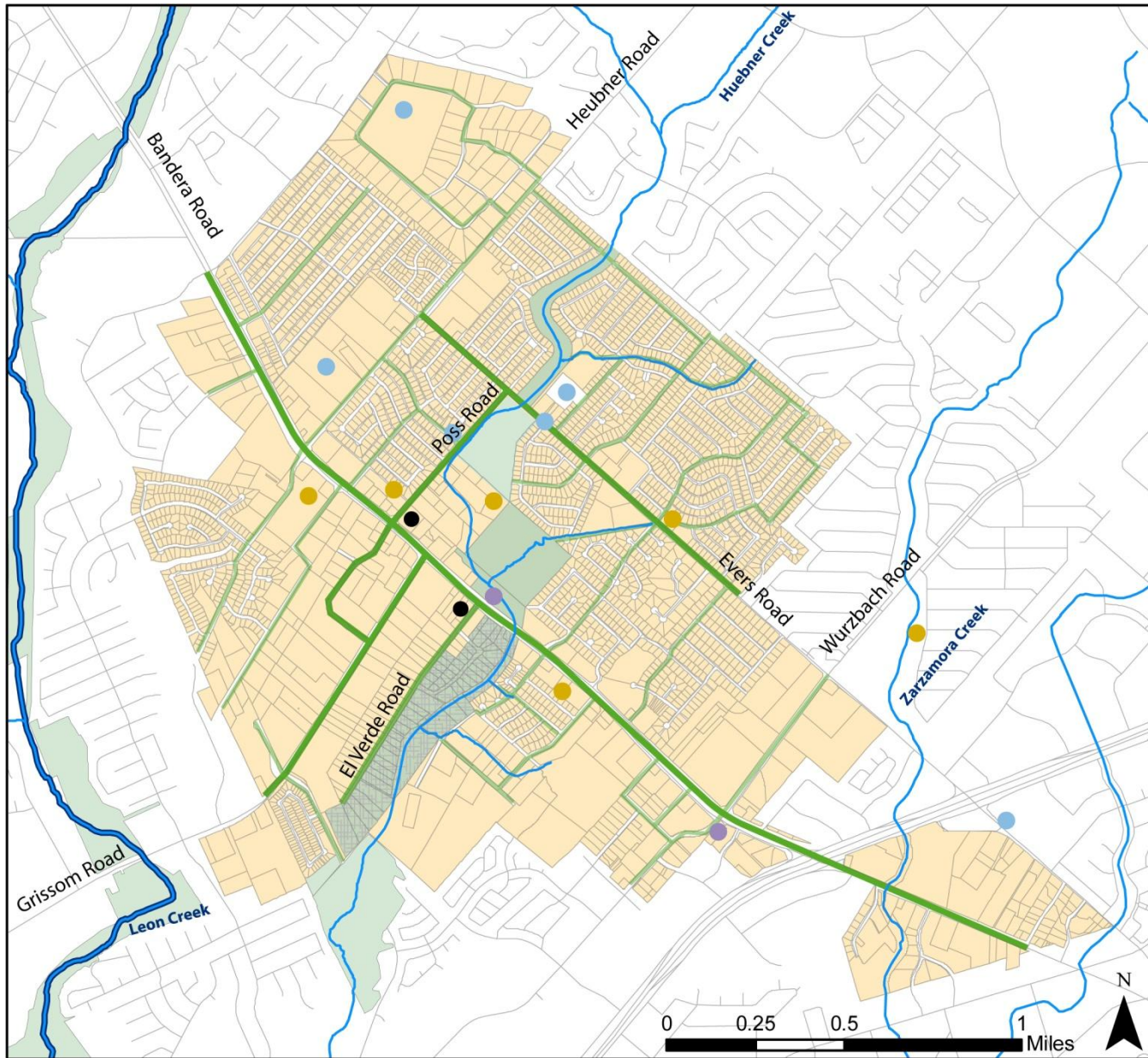


Figure 9: Green Streets Network

Green Streets Network - Potential Action Steps

- Negotiate with TxDOT to integrate bike lanes, natural drainage and tree planting into Bandera Road
- Target tree planting to designated streets connecting neighborhoods to Bandera, Huebner Creek Greenway and local amenities
- Apply for grant funding to ensure all green streets have connected trails or sidewalks.
- Integrate natural drainage to improve stormwater on green streets draining to creeks
- Coordinate with new developments to ensure street improvements facilitate green street vision.

Strategy 3: Build green links to connect to the Leon Creek Greenway.

Existing Assets

- Leon Creek Greenway
- Leon Valley trails network

Planned Revitalization Projects

- Crystal Hills Park and trails
- Potential landscaping along Bandera Road
- Community Commercial land use plan for Bandera Road between Leon Valley and the Leon Creek Greenway

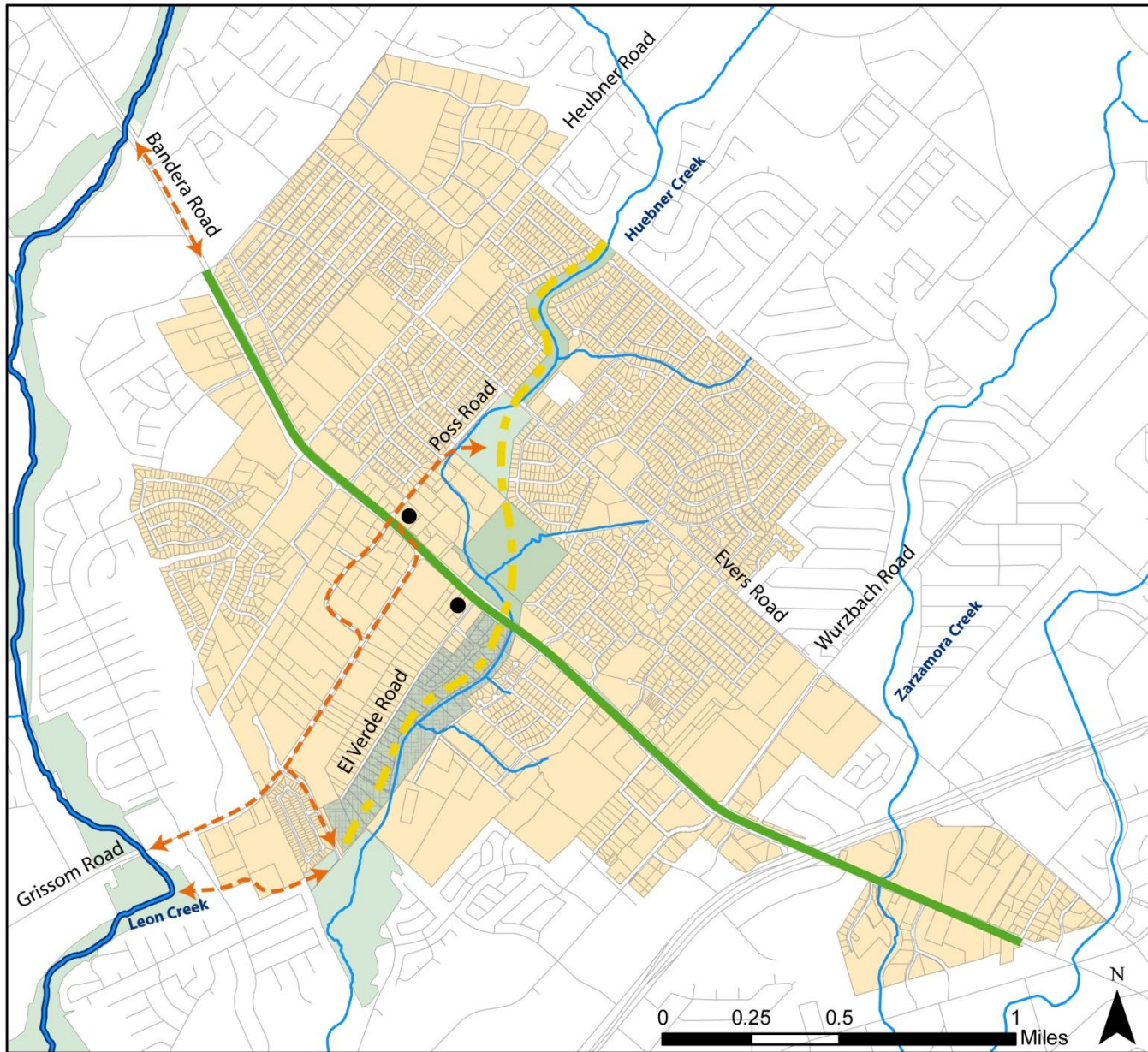


Barcelona, Spain
Source: Staff photo



Stormwater Planters, Los Angeles, CA
Source: Mia Lehrer + Associates

**Integrating bicycle mobility
and stormwater function
into city streets**



Key

Proposed Green Infrastructure

- Green Links
- Huebner Creek Greenway
- Bandera Road

Existing or Planned Natural Assets

- Creeks
- North Leon Creek Greenway
- Public Parks
- Existing Open Space
- Future Open Space

General Features

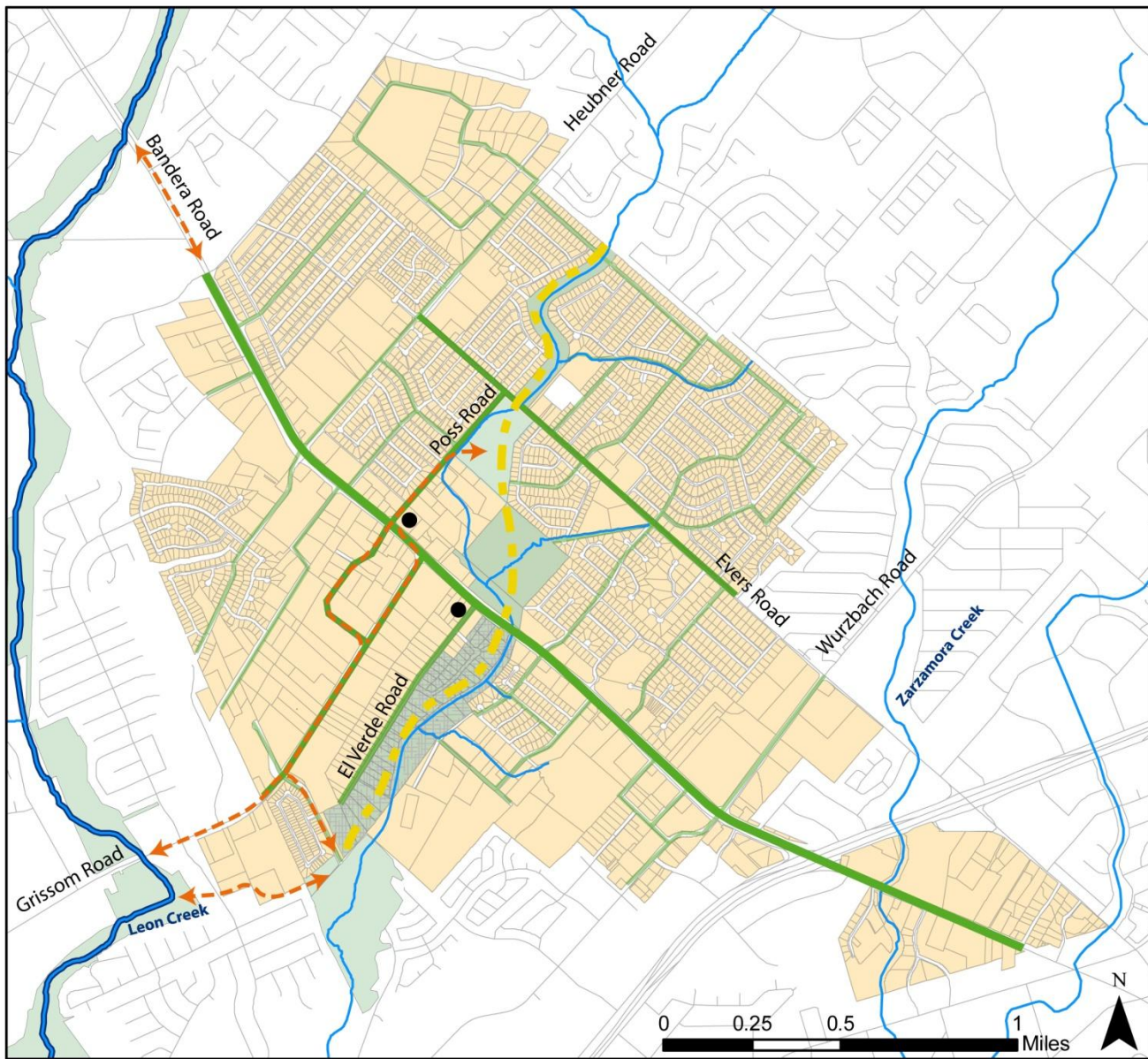
- Chlorinated Solvent Source Areas
- Roads
- Leon Valley Parcels

Figure 10: Green Links

Regional Green Links - Potential Action Steps

- Conduct feasibility study to determine most suitable trail access and connector points to the North Leon Creek Greenway.
- Apply for funding to acquire land or easement and construct connectors and signage.
- Add Huebner Creek Greenway to regional greenway maps and signage.
- Integrate bike lanes and signage along Grissom and Poss Roads
- Initiate recreational programming in the own Center to create a destination for greenway users and shoppers





Key

Proposed Green Infrastructure

- Huebner Creek Greenway
- Green Streets
- Green Links

Existing or Planned Natural Assets

- Creeks
- North Leon Creek Greenway
- Public Parks
- Existing Open Space
- Future Open Space

General Features

- Chlorinated Solvent Source Areas
- Roads
- Leon Valley Parcels

Figure 11: Greenway, Green Streets, Green Links

Town Center Revitalization

- Redevelopment planning process has moved into second phase
- A master plan for the Town Square and Town Center areas of the city is expected in Fall 2010
- Revitalization Strategies may inform the redevelopment planning process as stakeholders discuss what elements should be incorporated into the master plan



- ① Town Square (Four Corners)
- ② Town Center
- ③ Potential City Parcel Acquisition
- ④ Future Town Center Shopping Mall
- ⑤ Potential Town Center Road Extension
- ⑥ Potential Natural Drainage Pilot Project
- ⑦ Bexar County Floodplain Project
- ⑧ Connect to North Leon Creek Greenway

Figure 12: Town Center Revitalization

Town Center Revitalization – Potential Actions Steps

- Focus street greening efforts on Poss, Grissom and Bandera Roads.
- Identify funding for a natural drainage pilot project to connect Raymond Rinkus Park and the Town Square.
- Integrate bike lanes and signage along Poss and Grissom Roads to draw regional greenway users and other pedestrians and cyclists into the Town Center.
- Purchase a parcel to use as green gateway into the Town Center; programming could include green space, a paved trail, and/or an outdoor farmers market.
- Create marketing materials for the Town Center that emphasize an integrated recreational-commercial sense of place.

Summary

- Leon Valley has a proactive approach to sustainability
- Numerous existing sustainability initiatives could provide a foundation for counteracting potential Superfund-related stigma
- Suggested strategies include developing an intentional green infrastructure network based on:
 - Greenway
 - Green Streets
 - Green Links
- These strategies may inform the Town Center master plan and future city planning and economic development initiatives



Example of a tree-lined pathway, Volunteer Park, Seattle

Source: SvR Design Company



Recommendations

Recommendations

- Leon Valley's Economic Development Department could seek to align economic development analysis from the Buxton Company report with the strategies and recommendations of this reuse assessment.
- The City of Leon Valley could identify and pursue sources of funding for green infrastructure pilot projects that support the proposed future use strategies.
- The City of Leon Valley could use the strategies as a discussion tool with stakeholders during the second phase of redevelopment planning for the Town Center and adopt elements of the strategies into the Sustainability Overlay Design Standards as appropriate.
- EPA could provide information on Superfund liability and the steps necessary to obtain a comfort letter to the City of Leon Valley and local property owners.
- The City of Leon Valley and EPA could collaborate with source area site owners on aligning site-specific redevelopment or revitalization plans with remedial design.



Appendix A

Planning Initiatives: City of Leon Valley

SDAT Study | “El Verde by 2020” | Redevelopment Master Plan

Tree Challenge | STEP Grant | Fiesta Dodge Plans

Sustainable Design Assessment Team (SDAT) Study

- A broad planning assessment to help frame future policies and sustainable solutions
- Project principles look for the intersection of the three “E”s (environment, economics and equity) to create:
 - Physical basis for prosperity
 - Demand for products and services
 - Sense of place



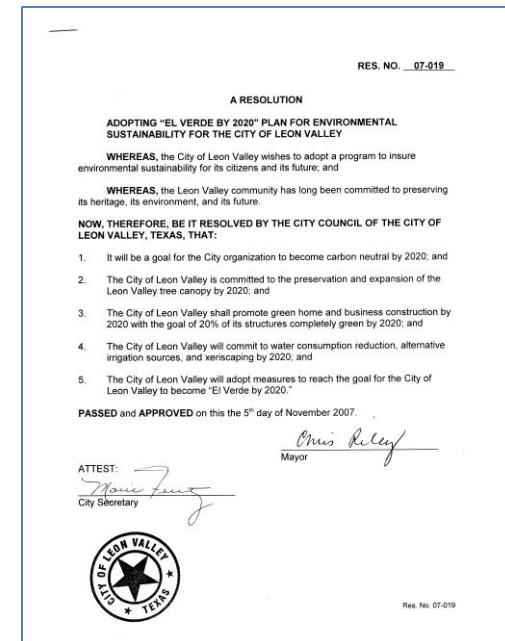
Sustainable Design Assessment Team (SDAT) Study

- Identified economic health of the Bandera Road Corridor as key to city's long-term sustainability
- Recommended 5 kick-off projects:
 - Create a Bandera Road Vision Document
 - Poss Road Reconstruction
 - LEED Construction Initiative
 - Promote development of a town center at the intersection of Bandera and Poss Roads (the “Four Corners”)
 - Initiate a street tree planting program



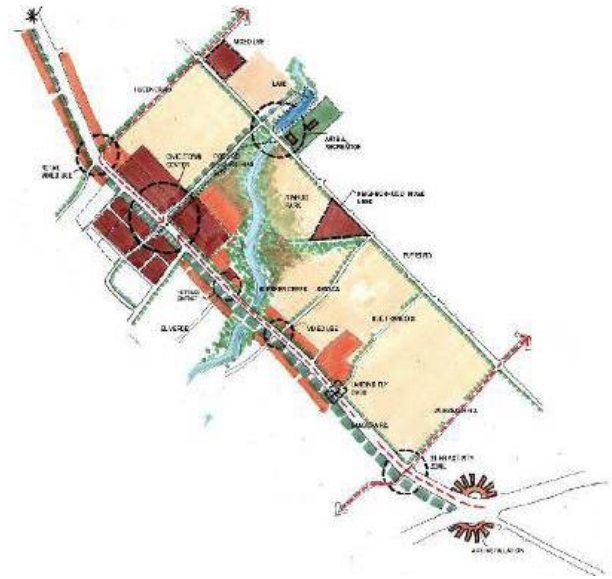
“El Verde by 2020” Plan

- City Council resolution passed in February 2009 to ensure environmental sustainability through:
 - Becoming carbon neutral
 - Preserving and expanding the tree canopy
 - Promoting green home and business construction to achieve 20% of structures being completely green
 - Pursuing water consumption reduction, alternative irrigation sources and xeriscaping
- The City of Leon Valley will adopt measures to reach these goals by 2020



Leon Valley Redevelopment Master Plan

- Overlay Districts provide land use, design and site plan guidance
 - Sustainability Overlay District: create an identity for Leon Valley and integrate sustainable design principles
 - Commercial and Industrial Overlay: provide building standards and use clarifications for commercial and industrial area in southeastern Leon Valley
- Town Square: located at 4 Corners
- Town Center: located along Bandera and Poss Roads



Town Center Concept Plan

Source: Leon Valley SDAT – El Verde 2020 report

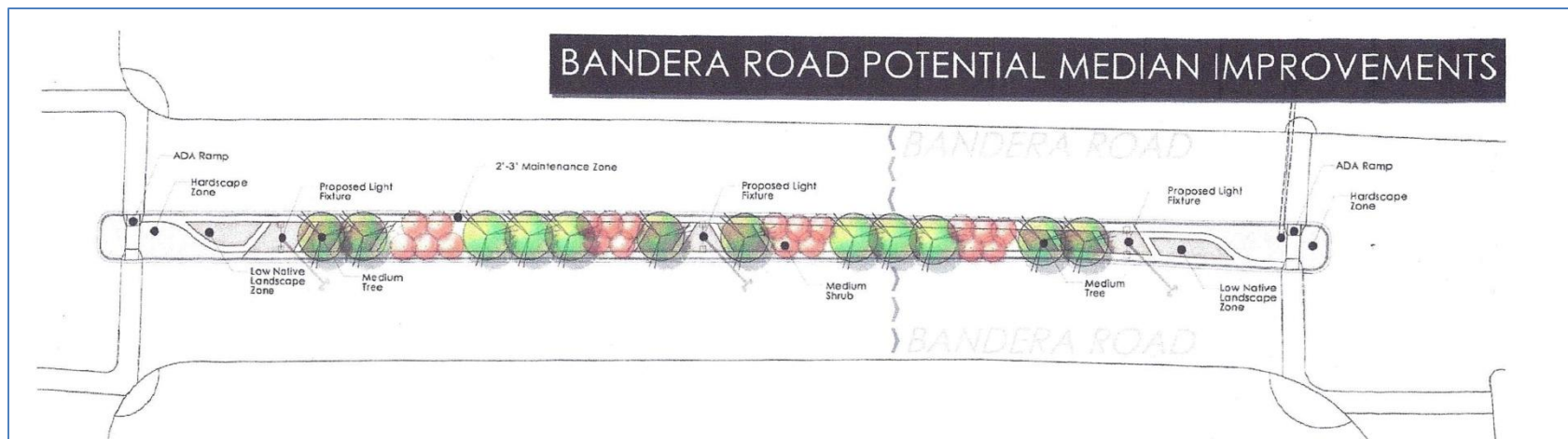
Leon Valley Tree Challenge

- City tree planting program aims to plant 10,000 trees by 2020
- Every citizen in Leon Valley will be asked to plant one tree in the City from now until the year 2020
- Periodic tree give-aways to the first 100 residents
- Funding sources need to be identified in order to purchase the trees



STEP Grant

- Leon Valley submitted an application in December 2009 to take over landscaping of Bandera Road within the city limits, including:
 - Major landscaping initiatives in the Town Center area
 - Entrance landscaping at the north entrance to Leon Valley and at the flyover entrance to the south
- A final funding decision is expected by summer 2010



Fiesta Dodge Plans

- Leon Valley would like this property to become a mixed use area that includes residential uses and exemplifies the Sustainability Overlay Standards
- Leon Valley is pursuing a number of funding sources for the site including:
 - Brownfields Grant Application (forthcoming)
 - HUD Sustainable Communities planning grant (forthcoming)

Leon Valley Land Use Goals

- Protect the city's groundwater supply from contamination by the groundwater plume and/or future industrial activities
- Guide and support redevelopment along Bandera Road
 - Create a Town Square and Town Center
 - Create a sense of place
 - Attract young professionals by promoting a live/work environment
- Promote sustainability through the Sustainability Overlay and other city initiatives



Appendix B

Additional Planning Initiatives

Crystal Hills Park | Huebner and Leon Creeks Community Plan Update
Floodplain Annexation | Transportation Plans

Crystal Hills Park Master Plan

City of San Antonio, July 2008

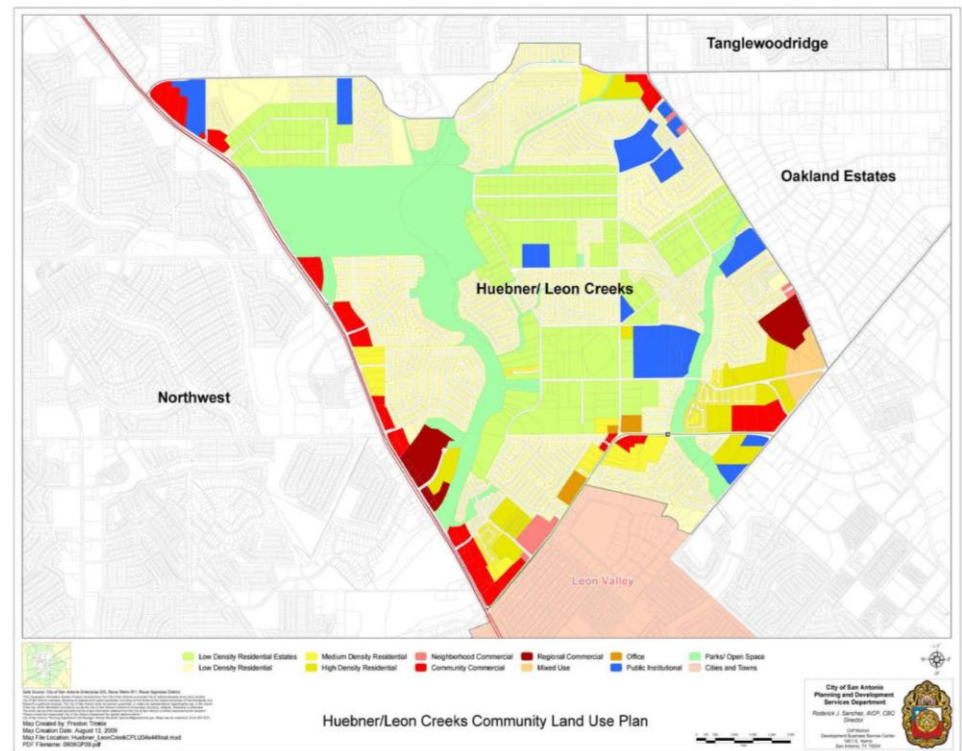
- 47.5 acre community park (3 acres in Leon Valley, 44.5 acres in San Antonio)
- Divided by Huebner Creek; surrounded by new residential development
- Master plan includes:
 - Dog park
 - Skate Park
 - 2.5 miles of trails
 - Multi-use courts
 - Disc-golf course
 - Natural areas
 - Playground and picnic facilities



Huebner and Leon Creeks Community Plan Update

City of San Antonio, August 2009

- Effort to update area land use plan to the north of Leon Valley
- Community commercial uses planned between Leon Valley and the Leon Creek Greenway
- Uses include offices, professional services, and retail uses that are accessible to bicyclists and pedestrians



Bexar County Floodplain Project

- Current channel will be widened from 150' to 400'
 - Concrete pilot channel
 - Restored/planted banks
- Recreation and Amenity Opportunities
 - Opportunity to link Raymond Rimkus Park and the Crystal Hills Park
 - Enough space for trails or small pocket parks/overlooks
 - Bexar County is willing to coordinate with Leon Valley to accommodate new trails in floodplain project grading plans
 - Leon Valley would be responsible for trail construction and O&M



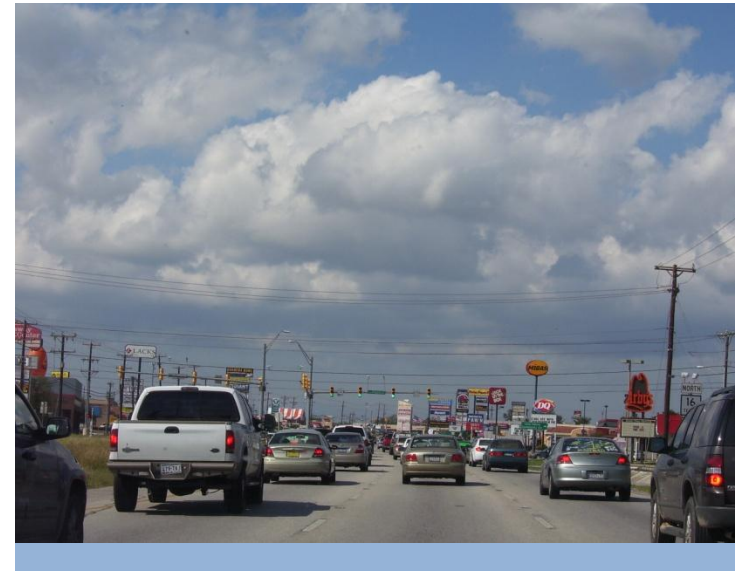
Transportation

■ Bandera Road

- TxDOT has no plans at this time to add additional traffic capacity
- Operational improvements, such as turn lanes, may be a possibility

■ Bus Rapid Transit Access

- Mayor Riley is working with VIA to explore the possibility of expanding Bus Rapid Transit to Leon Valley via Wurzbach Road





Appendix C

EPA Contacts

To obtain additional information about reuse planning or the Bandera Road Superfund Site, please contact:

- Casey Lockett Snyder, EPA Superfund Reuse Coordinator
(Lockett.Casey@epa.gov, 214.665.7393)
- Chris Villarreal, EPA Remedial Project Manager
(Villarreal.Chris@epa.gov , 214.665.6758)