



Reuse Planning Bandera Road Superfund Site

Leon Valley, Texas
December 7, 2010

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

- Reuse Assessment Planning
- Planning and Development Initiatives
- Site Characterization
- Revitalization Strategies
- Recommendations

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

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.

Purpose of Reuse Planning

- 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.

Reuse Assessment Process

- Initial site visit (October 29, 2009)
- Carried out research and developed graphic map analysis
- Contacted and interviewed Stakeholders
 - (EPA, City of Leon Valley, source area site owners, Bandera Road Community Advisory Group (CAG), TxDOT, Bexar County and Halff Associates)
- Presented draft report to Leon Valley residents and community members (April 22, 2010 CAG meeting)
- Incorporated feedback from stakeholders into final report



Planning and Development Initiatives

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

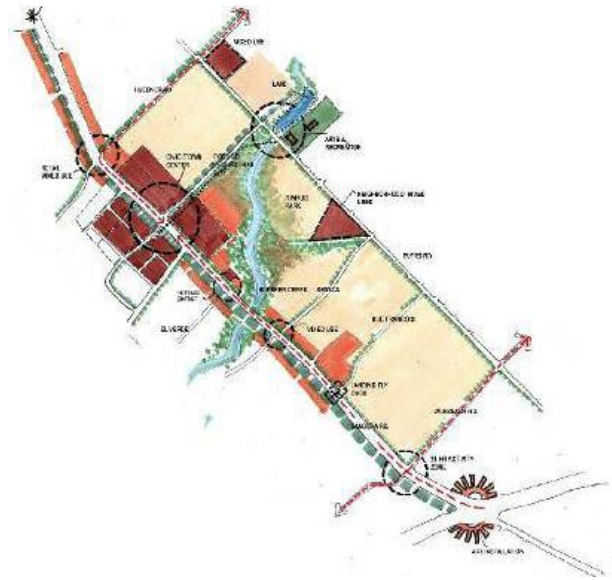
Sustainable Design Assessment Team (SDAT) Study

- 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

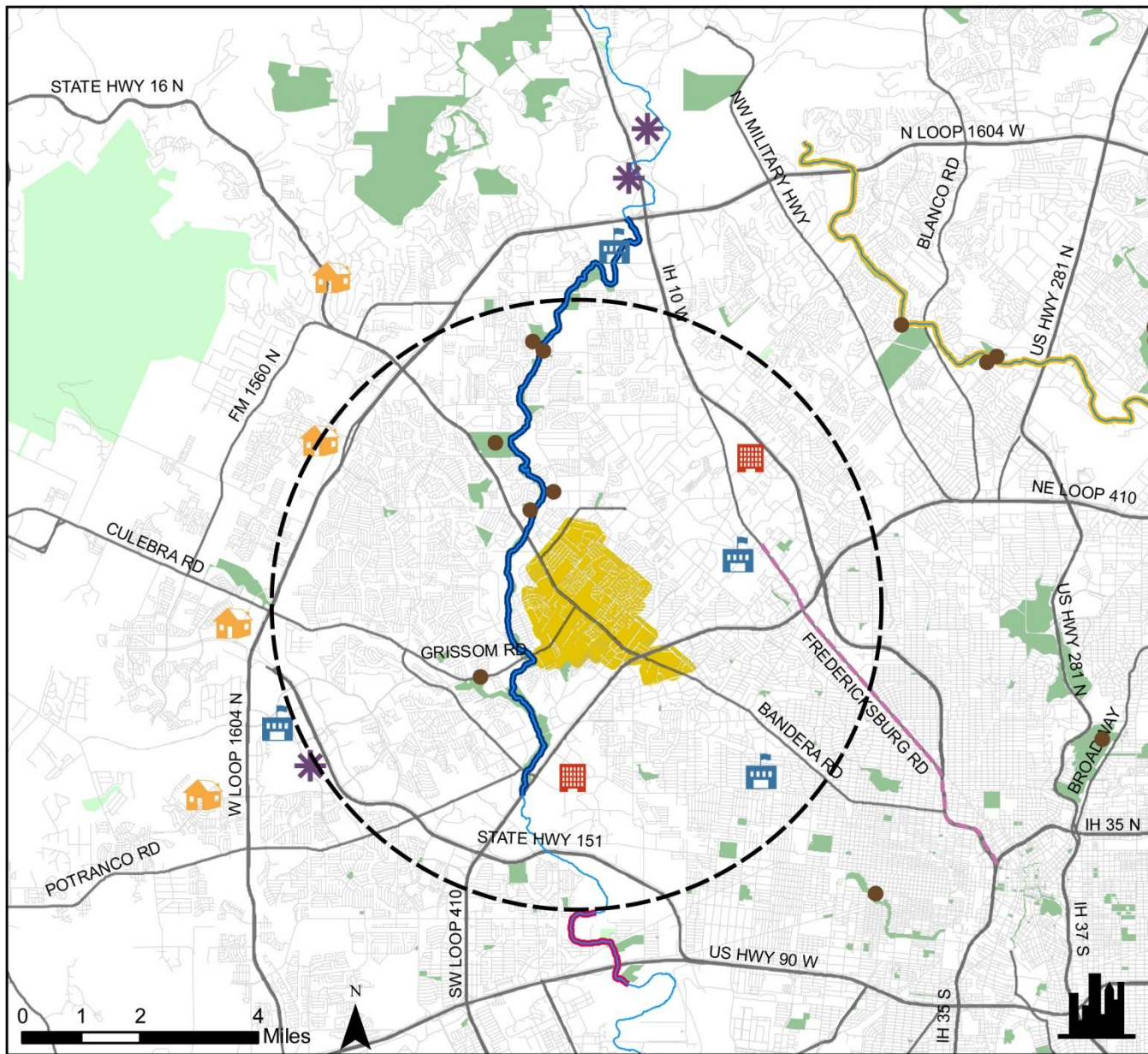


Site Characterization

Regional Context | Residential and Economic Centers | New Development

Regional Context

- Bandera Road is a major travel route between downtown San Antonio and surrounding centers
- Leon Valley is well-positioned to attract economic development:
 - Residential growth areas
 - Key employers (USAA, medical research facilities)
 - Nearby attractions (downtown San Antonio, Sea World, Six Flags, The Rim)
 - Local universities and colleges
- North Leon Creek Greenway - a regional recreation asset



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

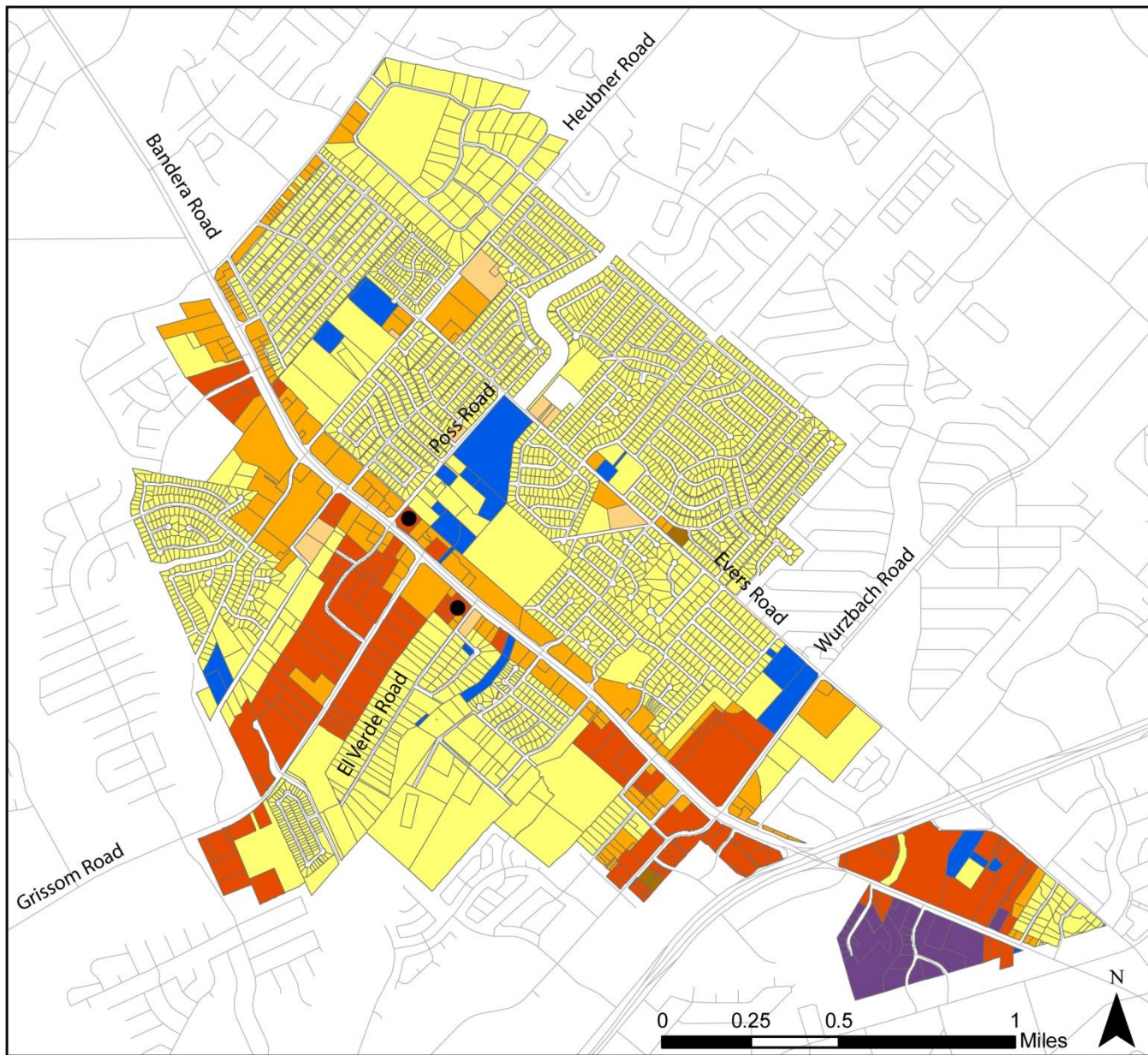
- Creeks
- Major Roads
- Additional Roads
- Leon Valley
- 5 mile radius from Poss and Bandera (The FourCorners)

Figure 1: Regional Context

Zoning and Redevelopment Master Plan Areas

- 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
 - Sustainability Overlay District standards guide development in most areas with business, retail or commercial zoning
 - Town Square and Town Center areas are the desired locus of sustainable reinvestment and redevelopment





Key

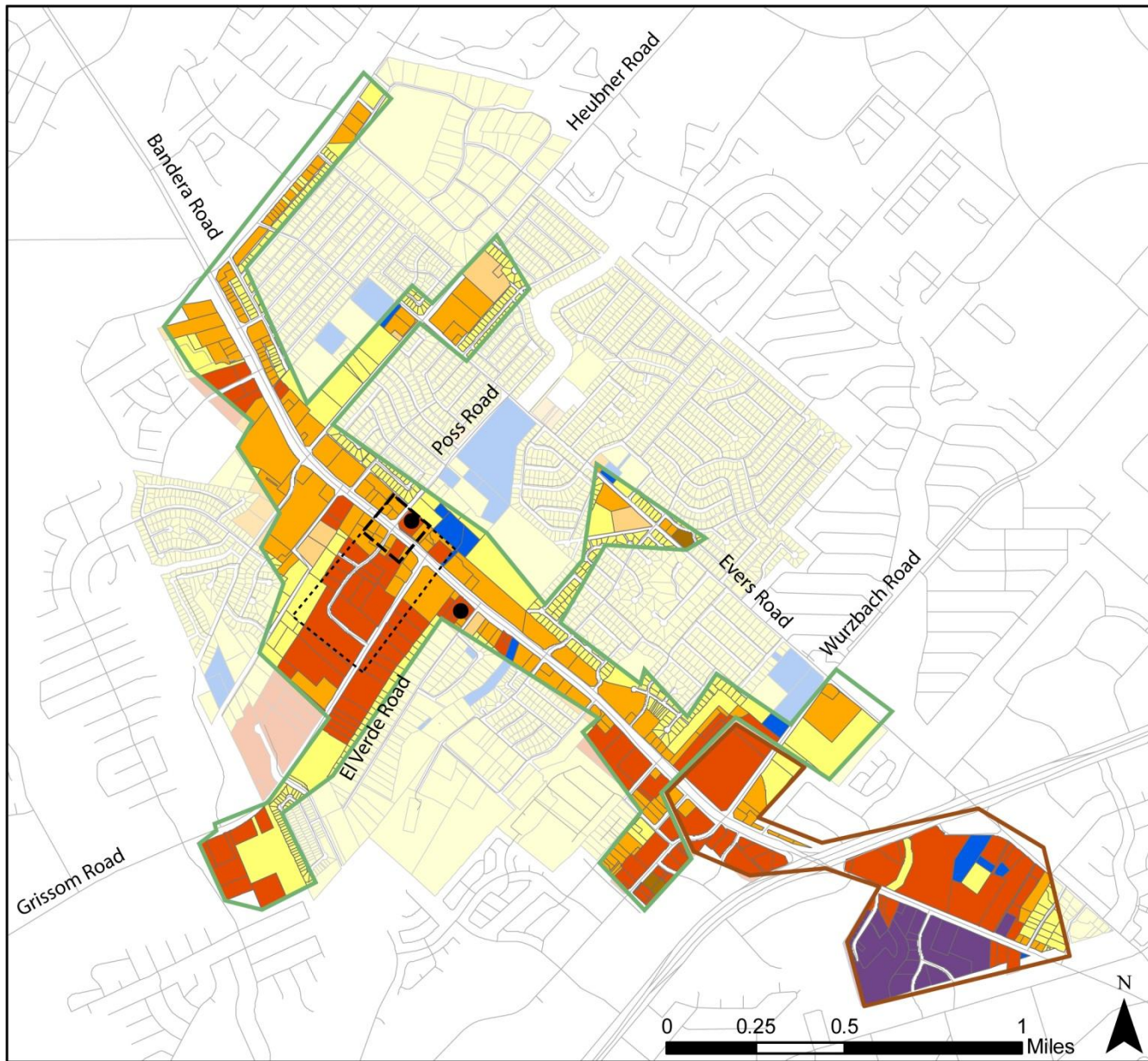
Zoning

- 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)

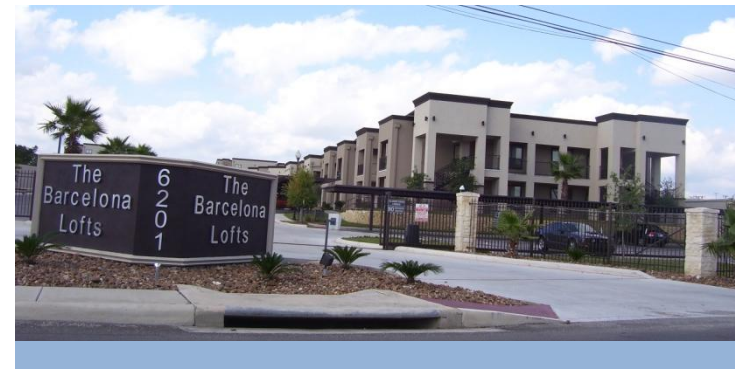
General Features

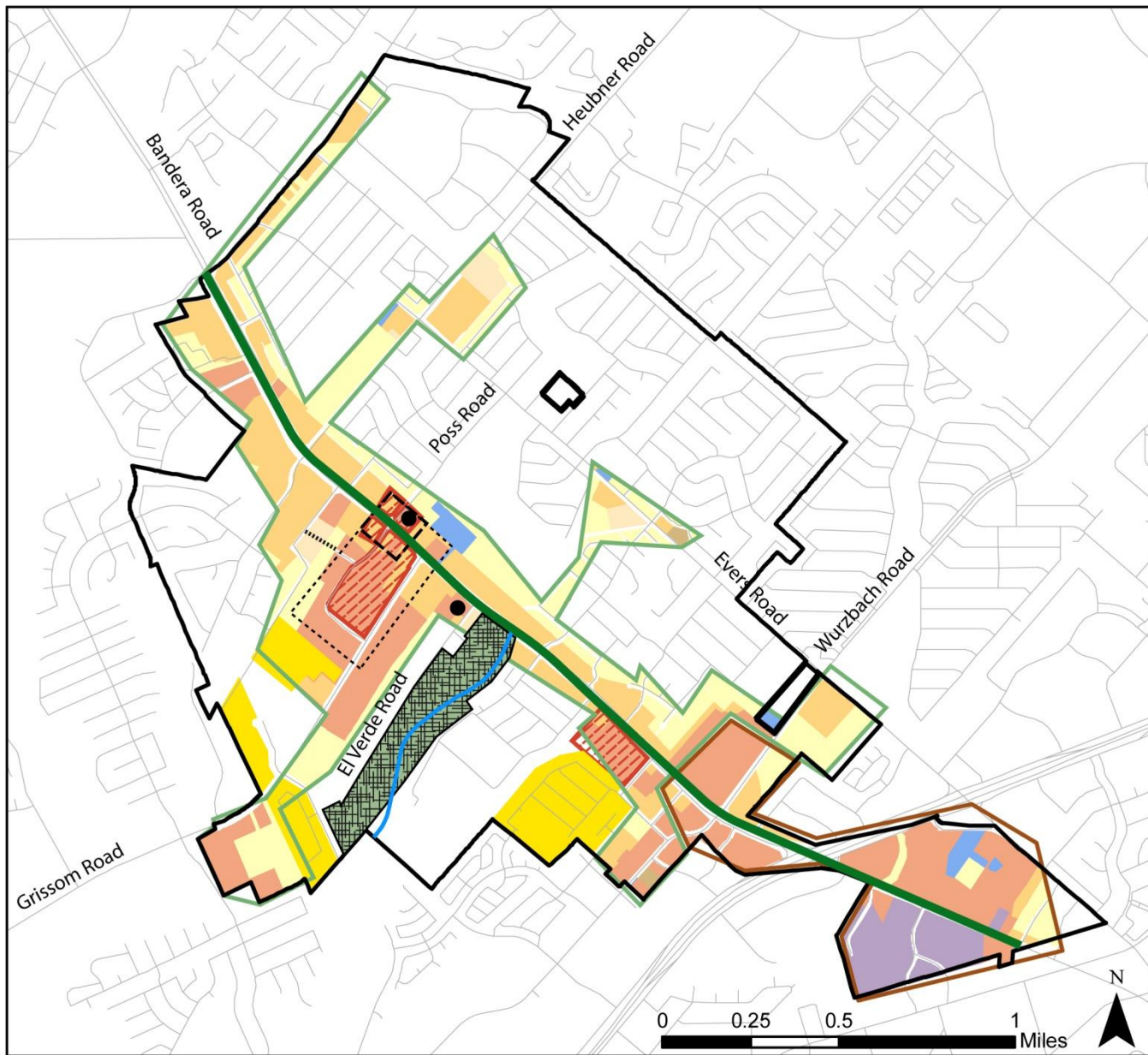
- Chlorinated Solvent Source Areas
- Roads
- Leon Valley Parcels

Figure 3: Redevelopment Master Plan Areas

New Development Projects

- New residential developments attract young professionals
- Bexar County Floodplain Annexation Zone channel improvements could support recreational amenities
- Walkable, neighborhood-oriented commercial centers are desirable in future commercial areas
- Potential transportation projects include:
 - Potential town center road extension
 - Bandera Road improvements





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

0 0.25 0.5 1 Miles



Figure 4: New Development



Revitalization Strategies:

Green Infrastructure and Economic Development

Moving Forward

- 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 storm water 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”



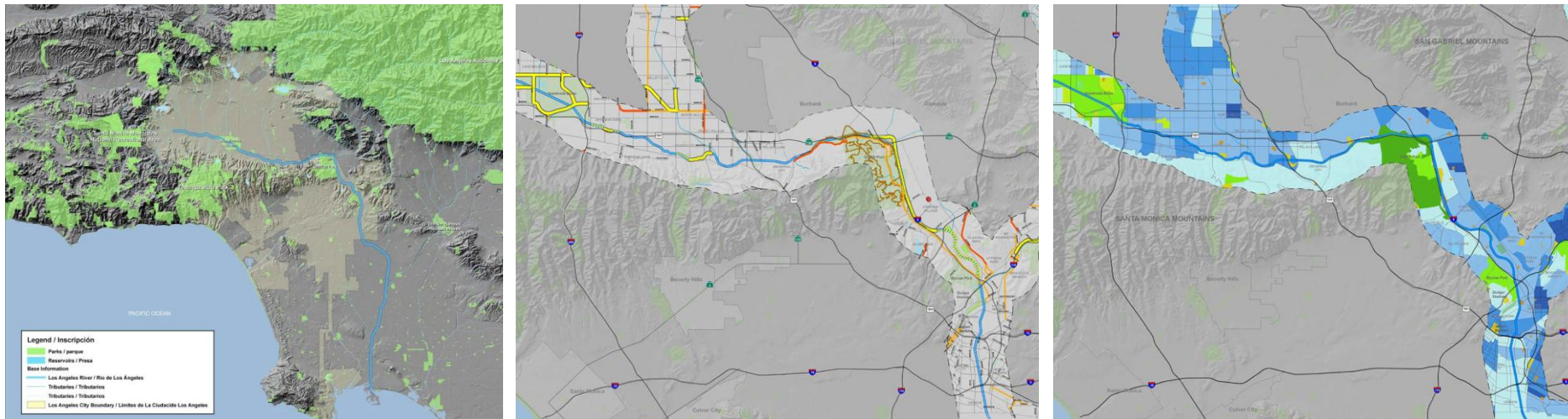
Bandera Road existing right-of-way
Source: SDAT Study

Revitalization Strategies

Green Infrastructure (GI): a framework for understanding the valuable services that nature provides for the human environment and integrating these natural **systems** or assets into city and regional planning:

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

GI Systems - At a regional or municipal scale can guide growth and preservation



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>

Site Scale GI Systems

Integrate functions and utilize natural processes to make communities more healthy and enjoyable



Examples of a natural drainage systems in arid climates

Economic Benefits

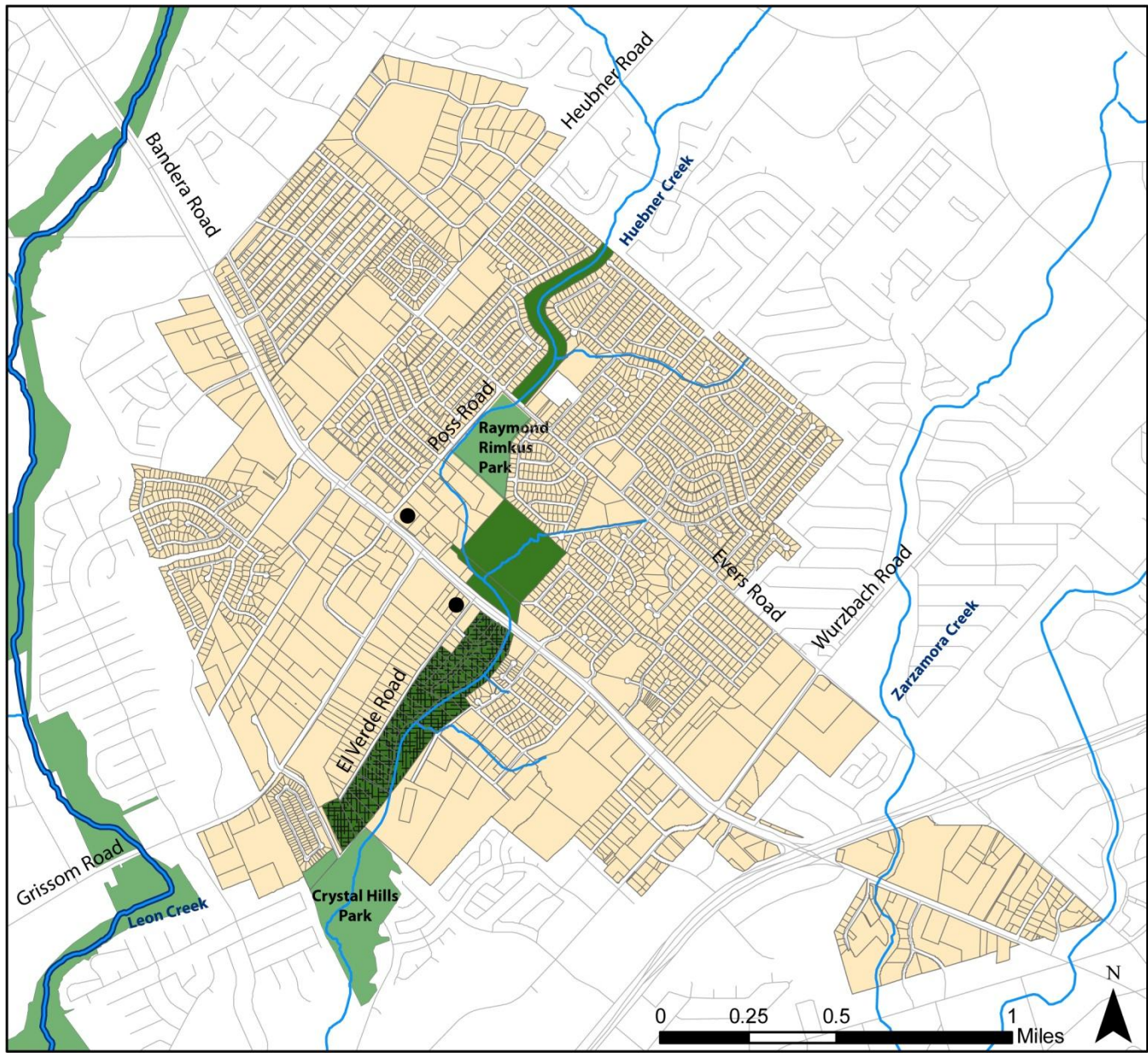
Investing in GI can yield tangible benefits for residents, businesses and municipalities:

- 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

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 6: Natural Assets

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

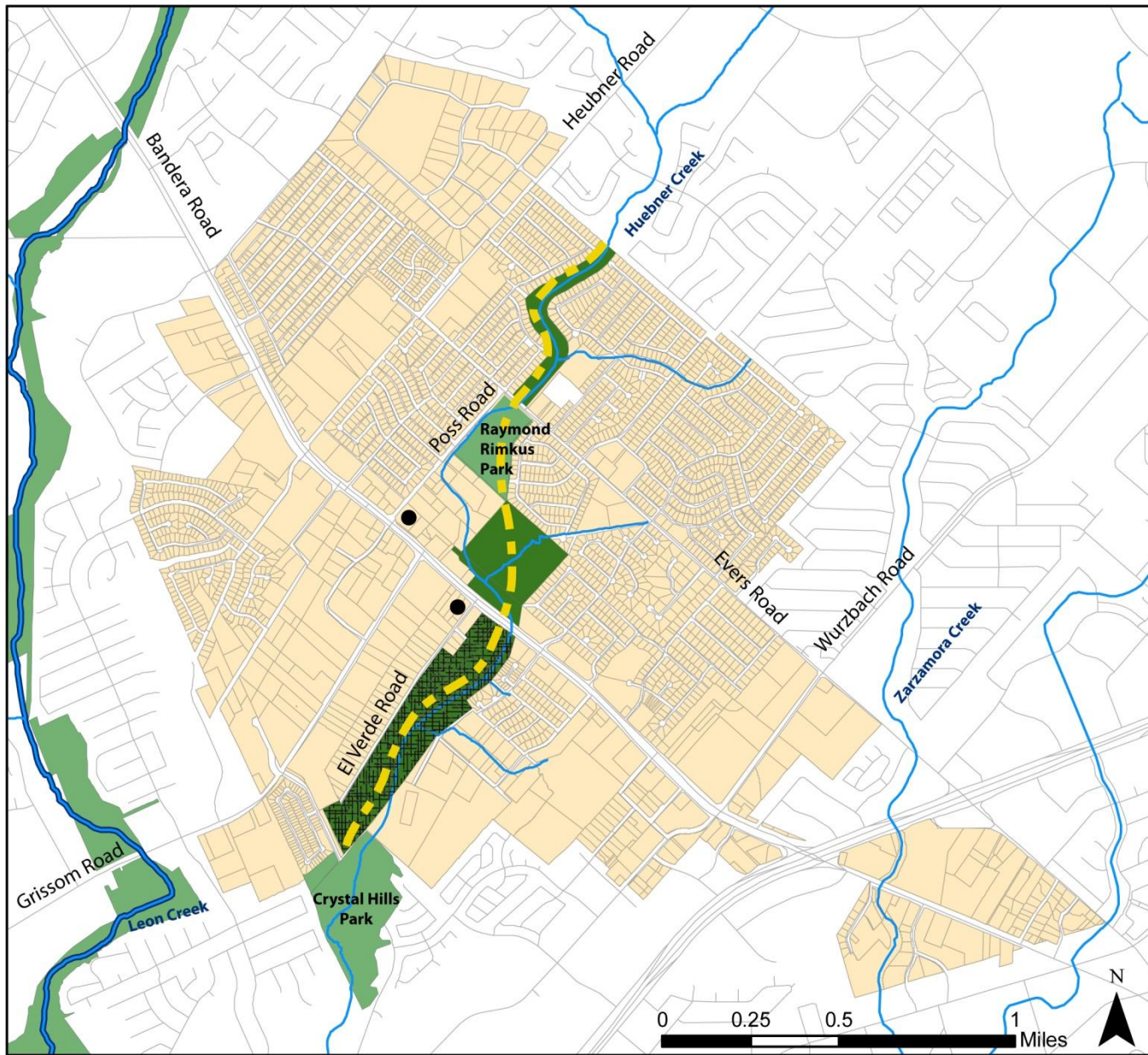
- Raymond Rimkus Park and trails
- Natural Area and trails
- Trail north of Raymond Rimkus along Huebner Creek

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 7: Huebner Creek Greenway

Huebner Creek Greenway - Potential Action Steps

- Coordinate with San Antonio to support development of Crystal Hills Park
- Coordinate with Bexar County to integrate trail grading 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 green infrastructure/natural drainage on Bandera Road



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

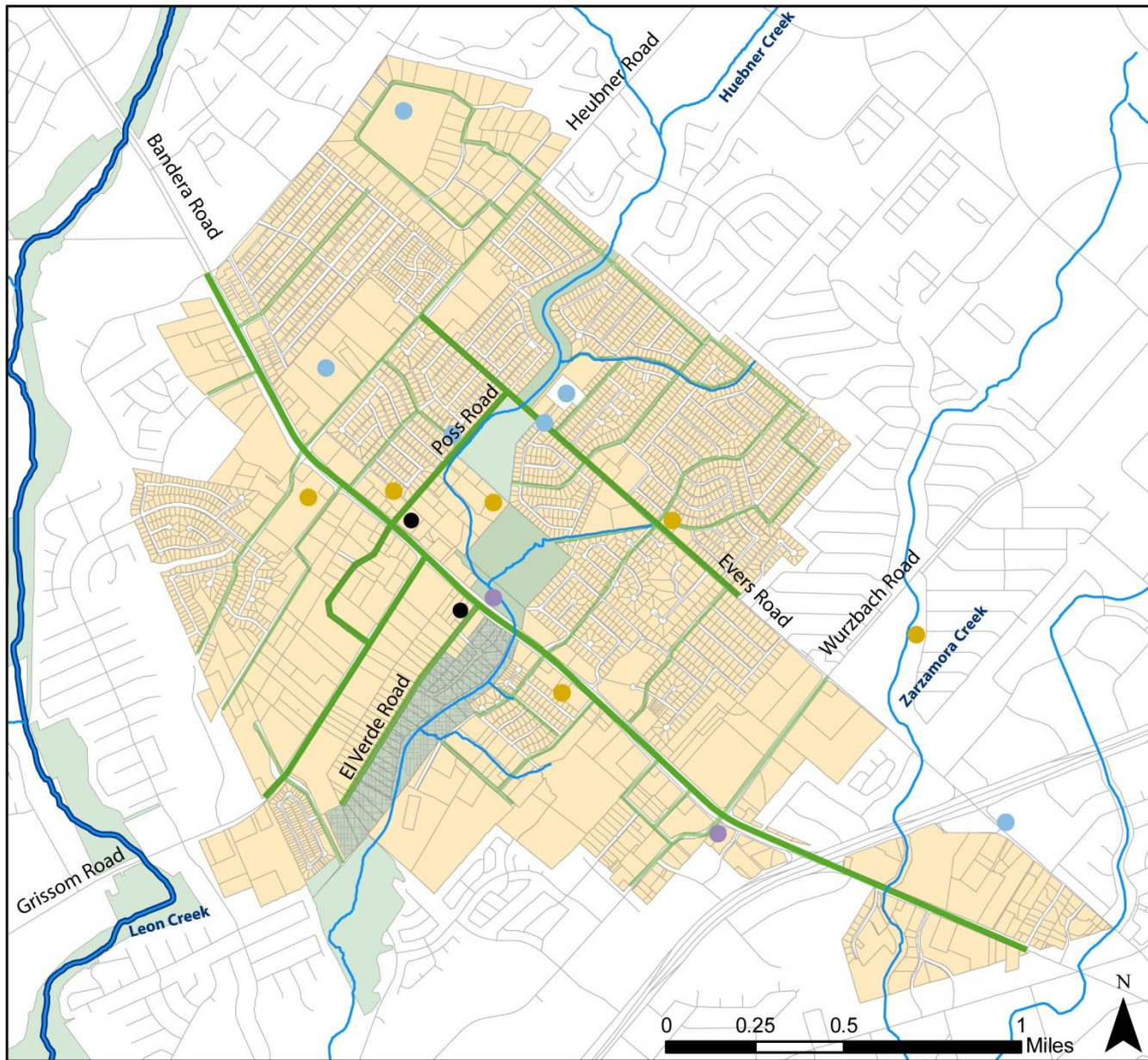


Figure 8: Green Streets Network

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 storm water on green streets draining to creeks (seeking GI/NDS funding)
- 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

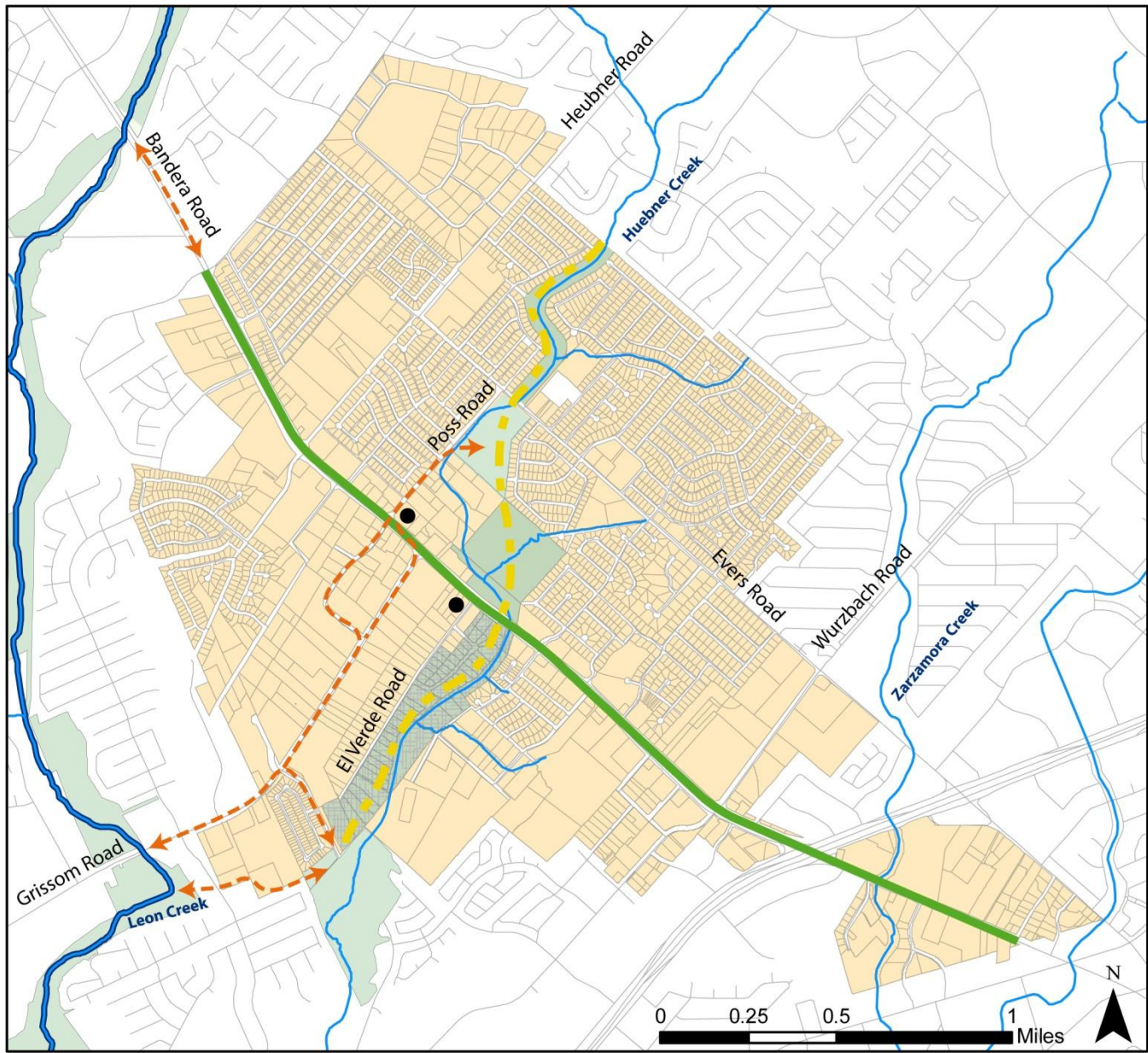
- Crystal Hills Park and trails
- Potential GI/NDS along Bandera Road
- Huebner and Leon Creeks Community Plan (Bandera Rd. north of LV) includes community commercial development with pedestrian/bike access to Leon Creek Greenway



Barcelona, Spain
Source: Staff photo



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



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

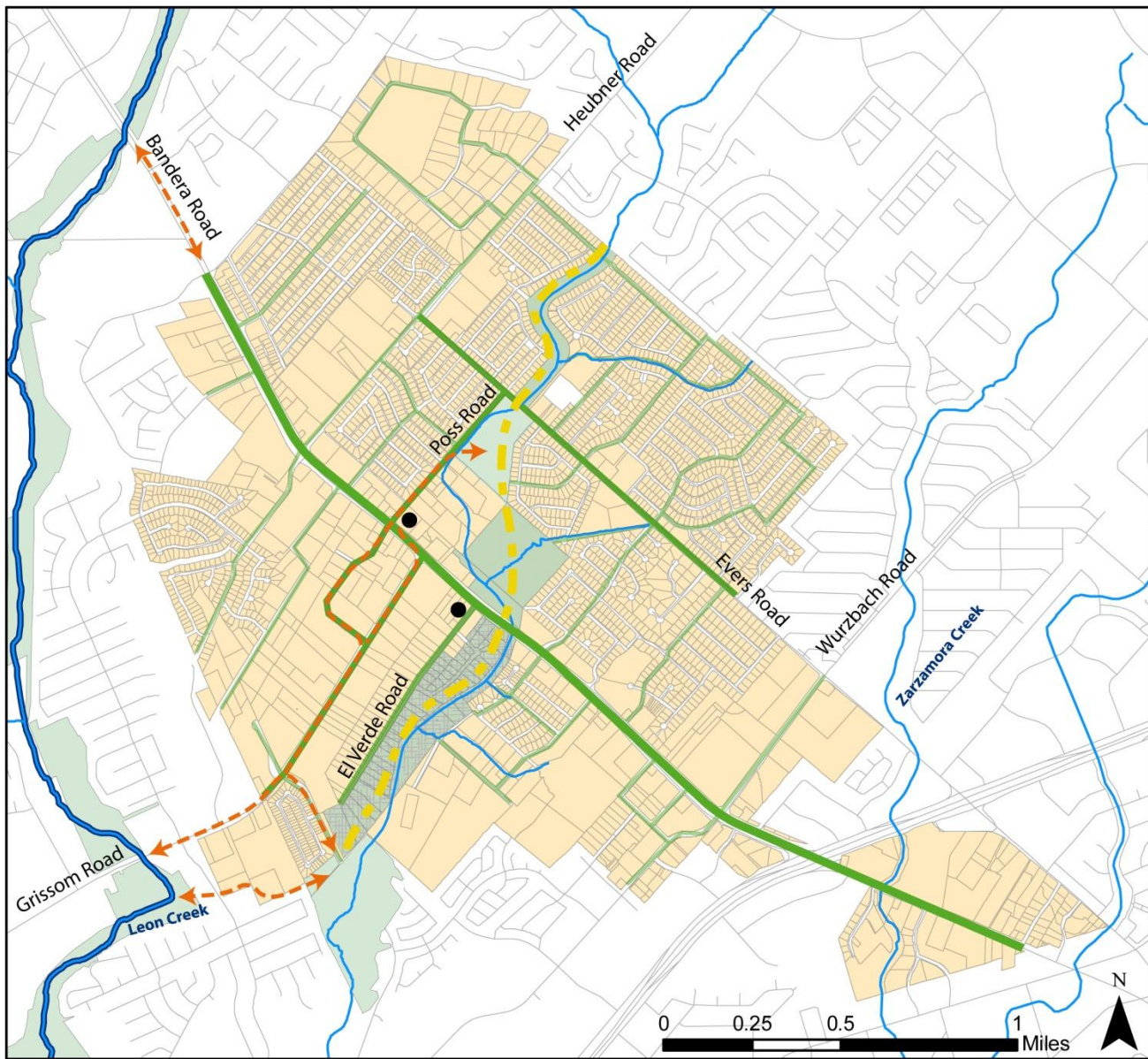
- Chlorinated Solvent Source Areas
- Roads
- Leon Valley Parcels

Figure 9: 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/signage and pedestrian enhancements along Grissom and Poss
- Initiate recreational programming in the Town 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 10: Greenway, Green Streets, Green Links

Revitalization at the Town Center

- 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 11: 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 and enhanced pedestrian access 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

For Continued Reuse Planning

- Align Economic Development Analysis
- Identify Green Infrastructure Pilot Projects
- Integrate Strategies into Leon Valley Redevelopment Planning
- Address Superfund Liability Concerns
- Collaborate with Source Area Site Owners





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



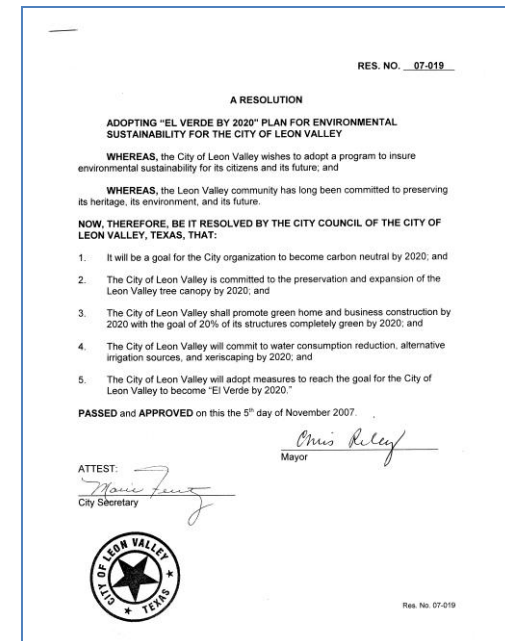
Sustainable Design Assessment Team (SDAT) Study

- 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



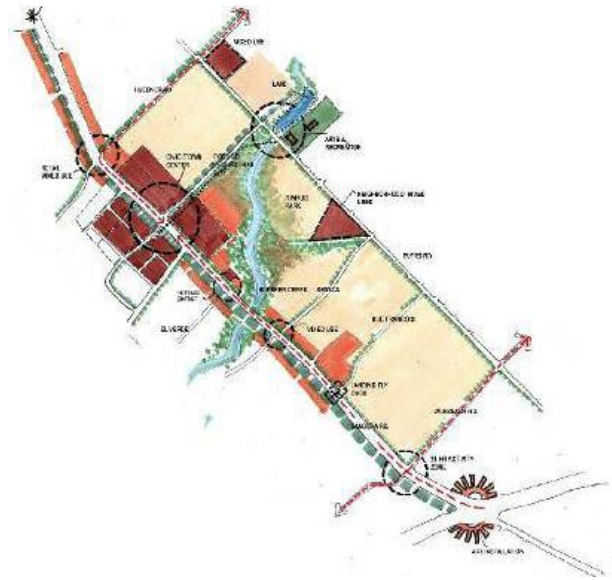
“El Verde by 2020” Plan

- 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

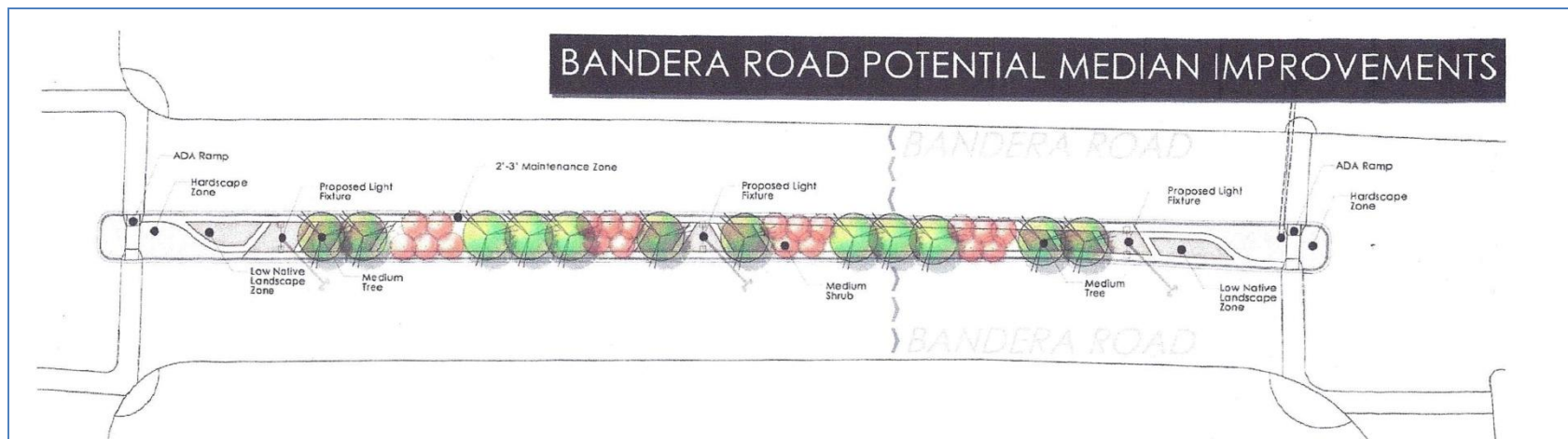
Leon Valley Tree Challenge

- 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

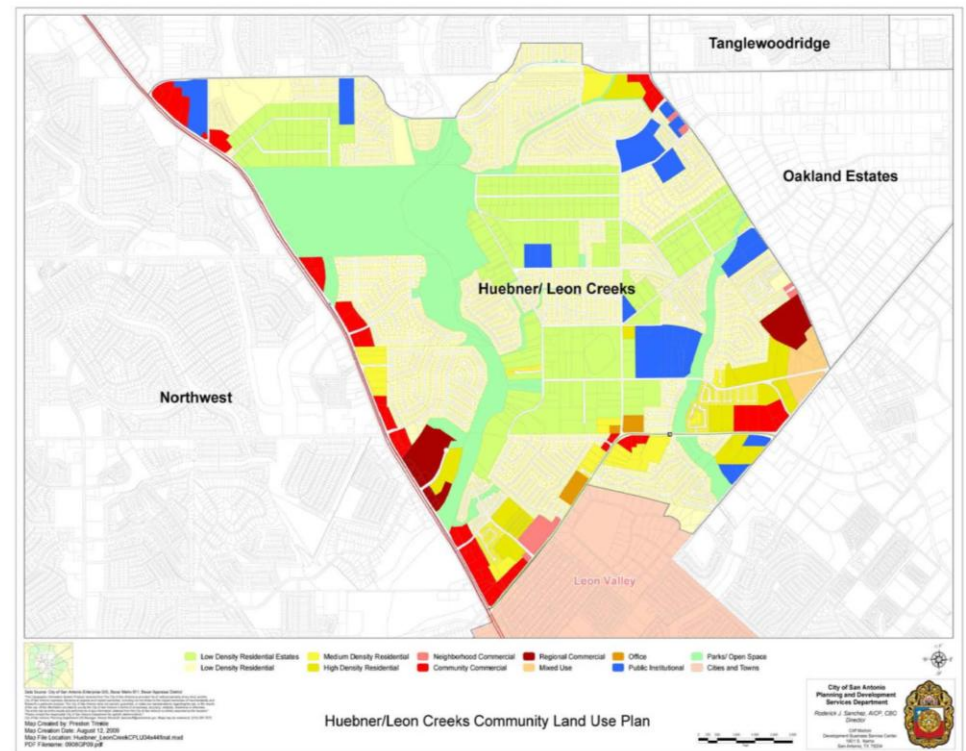
- 47.5 acre community park (3 acres in Leon Valley, 44.5 acres in San Antonio)
- Divided by Huebner Creek; surrounded by new residential development
- Master plan includes:
 - Dog park
 - Skate Park
 - 2.5 miles of trails
 - Multi-use courts
 - Disc-golf course
 - Natural areas
 - Playground and picnic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



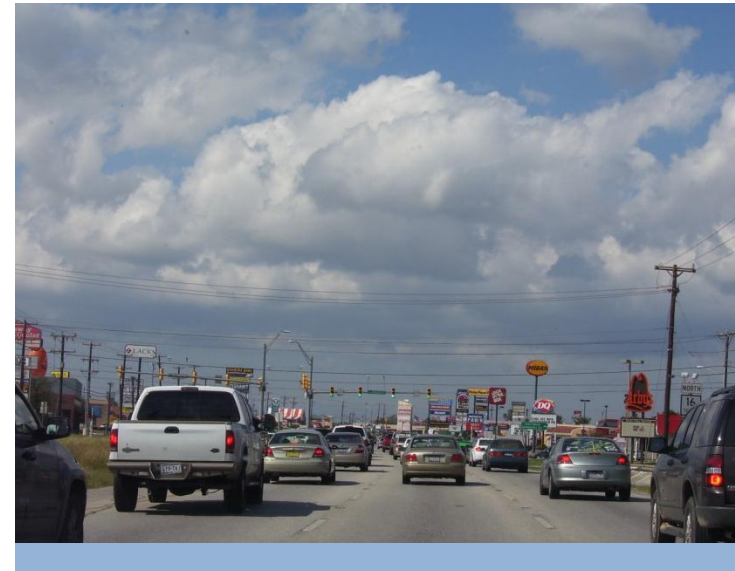
Transportation

■ 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

Remedial Considerations

Land Use Considerations

EPA uses reasonably anticipated future land use to inform decisions regarding cleanup methods and remedial design. Key considerations include:

- Future land use likely to include residential, recreational, commercial and industrial uses
- Current land use plans and initiatives seek to green the city and enhance outdoor access for residents and visitors
- One source area is located inside Leon Valley's Town Center area, which is targeted for redevelopment

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 potential Superfund stigma than by remedial features

Remedial Considerations

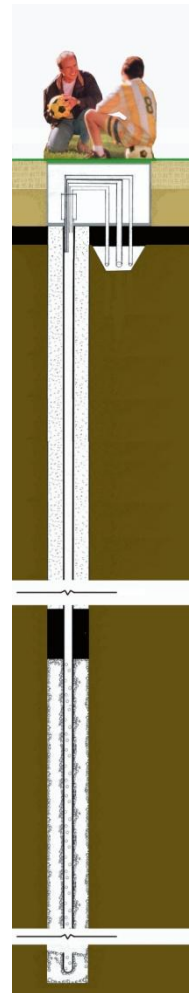
- Possible remedial features include:
 - Flush mounted monitoring wells across the plume area
 - Groundwater treatment wells at the source sites

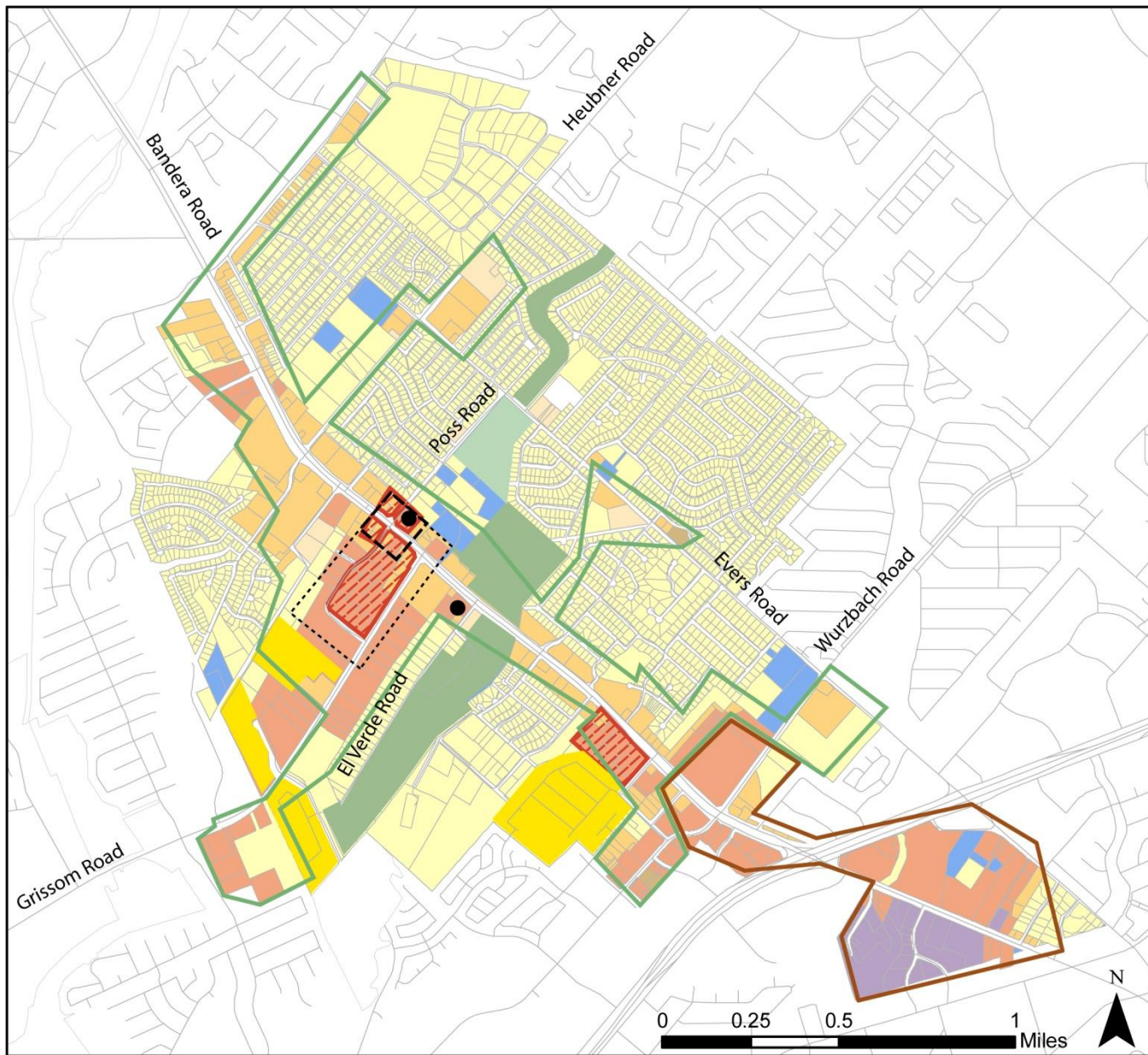


Typical well



Example of a flush-mount monitoring well





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 5: Reasonably Anticipated Future Land Use



Appendix D

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)