CITY OF NEW BRAUNFELS

Edwards Aquifer Habitat Conservation Plan
Impervious Cover and Water Quality Protection - 5.7.6
Water Quality Protection Plan
Phase I

Final
April 2017

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1.0 Executive Summary

The Edwards Aquifer Habitat Conservation Plan (EAHCP) is a collaborative effort to protect federally-listed endangered species inhabiting both the Comal and San Marcos River spring-systems that are fed by water issuing from the Edwards Aquifer. The listed endangered species found in the Comal Springs and the Comal River system include the fountain darter (*Etheostoma fonticola*), Peck's cave amphipod (*Stygobromus pecki*), Comal Springs dryopid beetle (*Stygoparnus comalensis*), and the Comal Springs riffle beetle (*Heterelmis comalensis*). These species depend largely on cool, clean water flowing from the Comal spring-system.

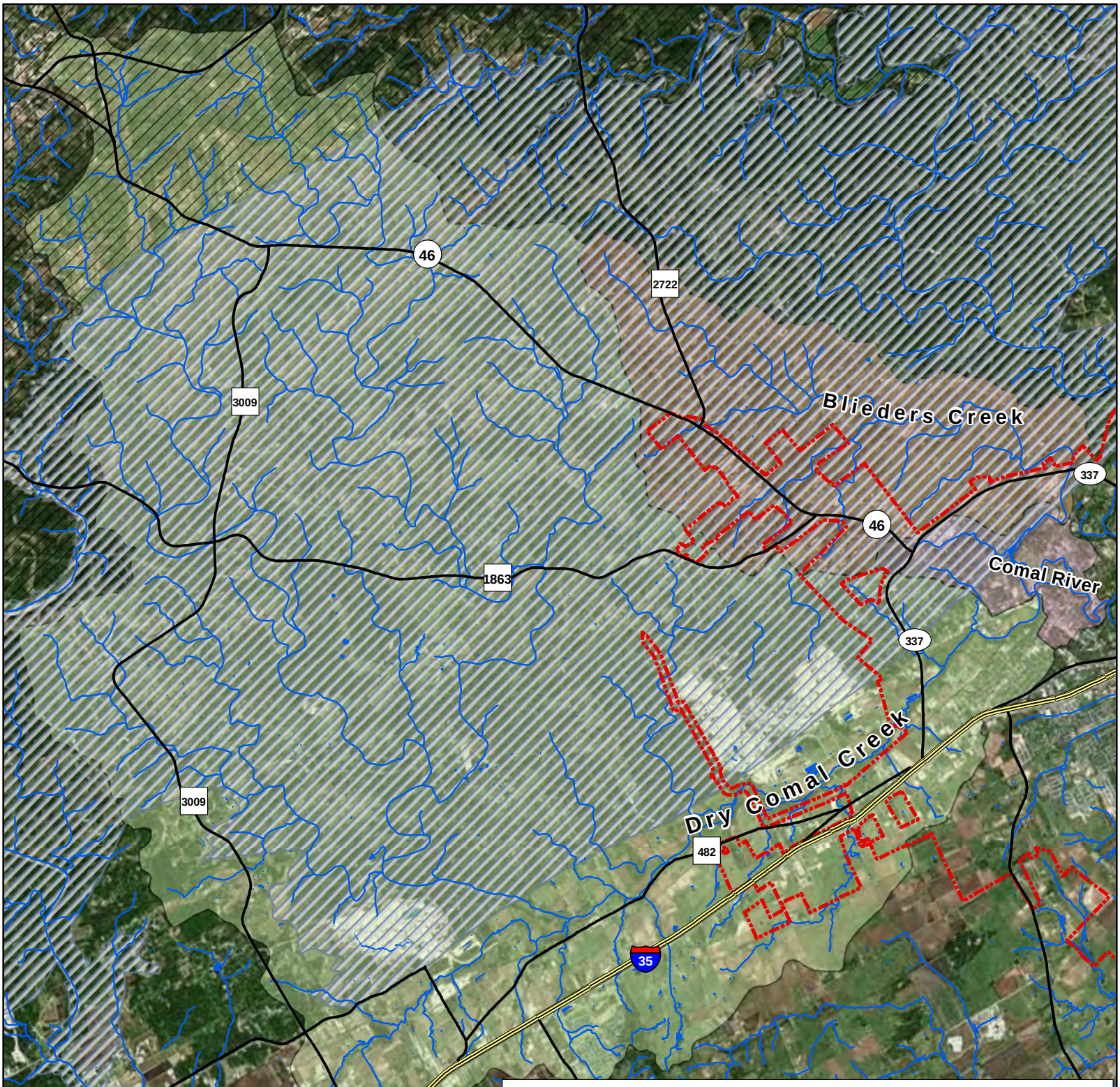
Non-point source pollution transmitted to the Comal River system via stormwater runoff has the potential to negatively impact water quality and the listed species. The potential for non-point source pollution to affect the listed species may be elevated during periods of low spring flow since stormwater-related pollutants would be less diluted. Section 5.7.6 of the EAHCP, "Impervious Cover/ Water Quality Protection", includes requirements for the City of New Braunfels to establish and implement water quality management measures that will ultimately aid in reducing pollutant contributions to the Comal River system. In order to fulfill these requirements and to address concerns related to non-point source pollution, a plan has been developed to identify stormwater controls and management measures that can be implemented within the Comal River watershed as part of the EAHCP program.

Downtown New Braunfels is in a unique location of being nearly fully developed in terms of impervious surface while adjacent to natural treasures, the Comal River and Landa Lake. This area is now under management through the Edwards Aquifer Habitat Conservation Plan (EAHCP) Incidental Take Permit that was adopted by United States Fish and Wildlife Service to protect endangered and threatened species in the river and springs. The City is a participant in the multi-year program to restore habitat and provide long-term species protection.

From Section 5.7.6 in the EAHCP, it notes that most potential water quality problems are linked to nonpoint source pollution (stormwater runoff) such as fertilizer and chemical washoff from landscaped areas and streets, sediment, trash, vehicle and tire wear, metals, and spills and leaks from industrial areas. Runoff and spills originating even at long distances from the spring openings can also affect water quality at the springs and in the lake. It is also noted that water quality in the Edwards Aquifer remains very good, however, as levels of development continue to increase over the recharge, transition, and contributing zones, the threats to water quality will increase.

This report summarizes multiple water quality measures that can help improve stormwater quality before it flows into critical habitat areas and the Comal River. This plan will work in tandem with the ongoing Comal and Dry Comal Watershed Protection Planning process to stretch resources and enhance funding options to maximize water quality management.

The Water Quality Protection Program (Program) defined in this document is designed to meet the requirements of the Edwards Aquifer Habitat Conservation Plan (HCP, 2012). The area addressed by the Program includes the City of New Braunfels city limits and extra-territorial jurisdictional in the Comal River, Dry Comal Creek, and Bleiders Creek, watersheds that drain to critical habitat from surface or ground water sources, as shown in Figure 1. The primary goal of this Program, per the EAHCP, is to reduce the impacts of impervious cover (IC) and associated nonpoint source pollution. In addition, coordination can take place with the Texas Commission on Environmental Quality, City of New Braunfels Municipal Separate Storm Sewer System



City of New Braunfels
EAHCP Water Quality Protection Program
Comal River and Contributing Watershed Areas

New Braunfels City Limits

Edwards Aquifer Zones

Edwards Aquifer Contributing Zone

Edwards Aquifer Recharge Zone

Watersheds

Comal River (3 sq. miles, w/ approx. 45% in Edwards Aquifer Recharge Zone)

Blieders Creek (16 sq. miles, w/ >99% in Edwards Aquifer Recharge Zone)

Dry Comal Creek (111 sq. miles, w/ approx. 70% in Recharge Zone & 8% in Contributing Zone)

program, and the ongoing Dry Comal Watershed Protection Plan (WPP) to ensure consistency and coordination in the application of programs and projects to maximize water quality benefits while efficiently managing Program cost.

2.0 Existing Regulatory Programs

Most of the contributing watershed to the Comal River is within the Edwards Aquifer Recharge Zone as shown on Figure 2. Stormwater runoff quality is regulated by the Texas Commission on Environmental Quality (TCEQ) Edwards Aquifer Protection Program in this region and requires the preparation of a Water Pollution Abatement Plan (WPAP) and approval from TCEQ. The WPAP key elements consist of constructing pollution control measures with new development to manage 80% of the increase in total suspended sediment. Numerous options are available to engineers and designers to demonstrate compliance. Construction erosion controls are also required as part of the review, approval, and field inspection process.

The City of New Braunfels recently enacted a water quality ordinance that requires water quality treatment for Type 3 Development (adds more than 5,000 square feet of impervious cover) that exceeds 30 percent impervious cover. The first one-half inch of runoff from impervious surfaces must be detained at least 24 hours. Criteria are included in the City of New Braunfels Drainage and Erosion Control Design Manual and is aligned with the TCEQ Edwards Aquifer Protection Program technical guidance document.

City of New Braunfels Jurisdiction by Watershed

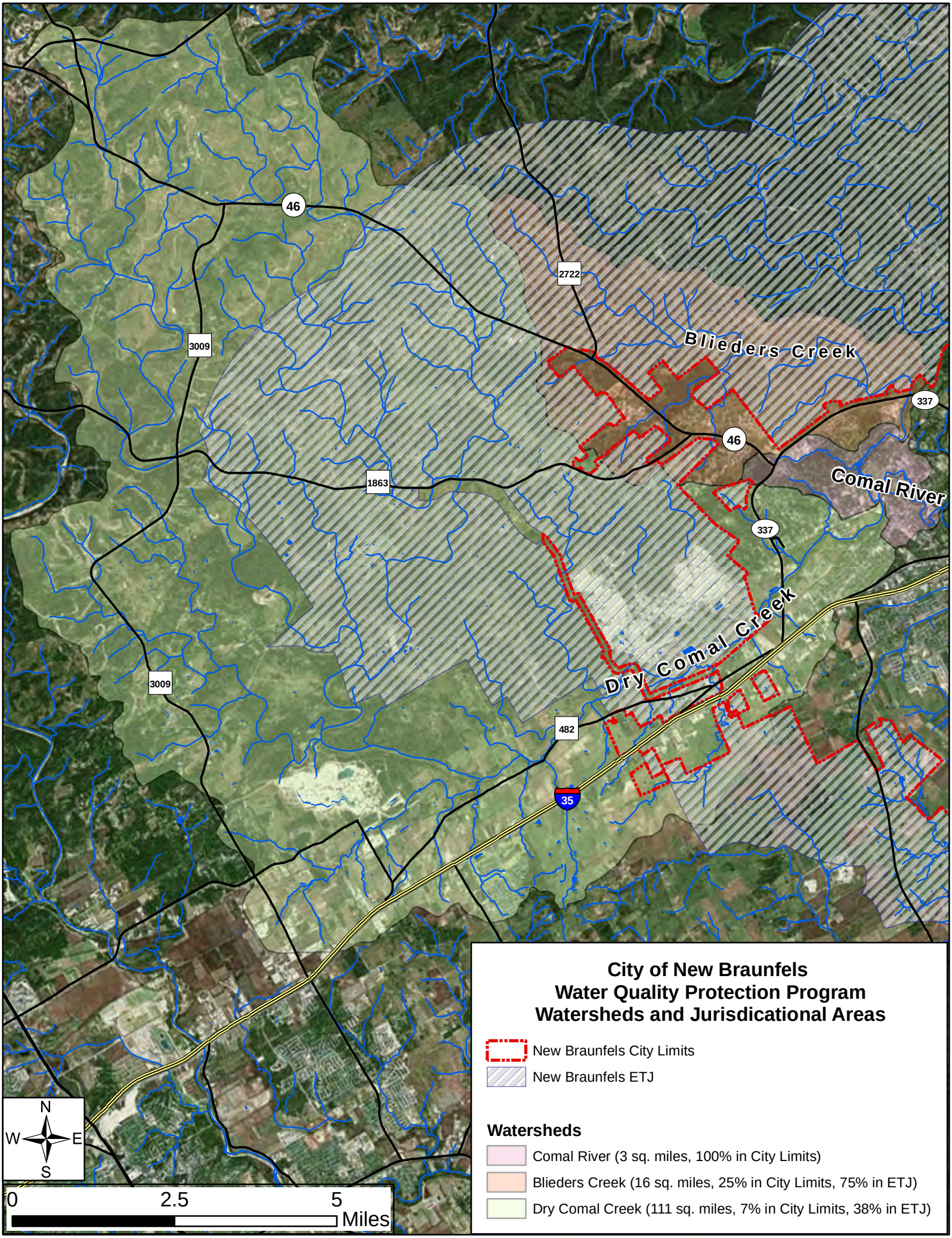
Watershed	Drainage Area (sq. mi)	Percent in City Limits	Percent in ETJ*	Percent in Comal County
Comal River	3	100	0	0
Dry Comal Creek	111	7	38	55
Blieders Creek	16	25	75	0

*ETJ – extraterritorial jurisdiction

As noted above, the City of New Braunfels has regulatory management of approximately 69 square miles (53 percent) of the drainage area contributing to the Comal River system. It's important for the City to continue to coordinate with TCEQ and Comal County in the management of water quality, both during construction and post construction, to protect the Comal River and spring system.

3.0 Potential Water Quality Threat – Development in the Blieders Creek Watershed

Blieders Creek Watershed is mostly undeveloped and flows into the upper arm of Landa Lake. Large-scale development is anticipated in this watershed with the Veramendi Project being one of the major projects that will build out over a number of years. Most of watershed is under the jurisdiction of TCEQ Edwards Aquifer Rules and 100 percent of the watershed is within the City's jurisdiction. The Veramendi Development has a development agreement with the City regarding water quality management that increases the performance requirements above the TCEQ Edwards Aquifer Protection Program guidelines. Still, it's important for sound design, well managed construction practices and the use of appropriate erosion controls to minimize sediment and pollutant discharge to Landa Lake as the watershed develops. To help define



City of New Braunfels
Water Quality Protection Program
Watersheds and Jurisdicational Areas

New Braunfels City Limits

New Braunfels ETJ

Watersheds

Comal River (3 sq. miles, 100% in City Limits)

Blieders Creek (16 sq. miles, 25% in City Limits, 75% in ETJ)

Dry Comal Creek (111 sq. miles, 7% in City Limits, 38% in ETJ)

baseline water quality conditions, existing drainage features and structures, potential pollutant loads, threats, and opportunities, a Watershed Assessment is recommended for Bleiders Creek in 2018.

- Drainage area – 16 square miles
- Existing land uses – Commercial, single-family, rural undeveloped
- Veramendi Development area - 2,340 acres (3.65 square miles)
- Existing NRCS Dam is located in the upper basin and helps manage stormwater runoff

4.0 Comal and Dry Comal Watershed Protection Plan

The City is a participant in the ongoing Watershed Protection Planning (WPP) process for the Comal and Dry Comal watersheds. The WPP effort is partially funded by an EPA 319 grant and is focused on reducing bacteria (E. coli) in the receiving creek and river. A WPP follows the prescribed EPA process that relies on Nine Elements to complete the plan. Elements include identification of the primary causes of impairment and pollutant sources, load reductions expected, potential measures and financial needs, schedule, education, milestones and monitoring. Once the WPP is nearing approval or approved, it creates the opportunity to pursue implementation grant funds from TCEQ and EPA through the 319 program.

The WPP developed an E. Coli Reduction BMP Menu and this will considered in the implementation of measures through the Water Quality Protection Program. The current WPP schedule anticipates the submittal of the final WPP to TCEQ and EPA in late 2017/ early 2018 and the expectation to seek implementation grants around that same timeframe. The 319 Program provides funds through the Texas State Soil and Water Conservation Board (TSSWCB) and TCEQ. Typically, grant applications are due to the TSSWCB in the June time-frame of each year and our focused on rural measures while the TCEQ applications are due in the September time-frame and address urban nonpoint source pollution issues.

This Watershed Quality Protection Program should continue to coordinate with the Watershed Protection Plan to support effort, ensure consistency across plans, coordinate management measures, and enhance future funding opportunities through the 319 and other grant programs.

5.0 Water Quality Management Measures and Strategies

This section summarizes the ongoing watershed protection planning and project measures and identifies potential strategies to enhance water quality in the Comal River watershed and spring system.

5.1 *Current/Upcoming Projects and Activities*

Panther Canyon Erosion Control Preliminary Engineering Report identified multiple options in the Panther Canyon watershed that begins at the High School and drains southeast to Landa Lake. Designs were prepared for rain gardens at the High School and along Ohio Street to treat runoff from the large high school parking lot. This project is scheduled for construction in 2018 at an estimated cost of approximately $100,000. Funding is provided by the City of New Braunfels.

The City recently released the Drainage and Erosion Control Design Manual and Low Impact Development Manual to guide design, permitting, and construction practices. These manuals are well-coordinated with TCEQ Edwards Aquifer Protection Program measures to ensure consistency and performance. This Water Quality Protection Program will rely extensively on these manuals for the selection of appropriate retrofits and design considerations to maximize pollutant management while minimizing cost and maintenance requirements.

5.2 *Stormwater Management Program (TPDES General Permit)*

The City's Stormwater Management Program (SWMP) includes five Minimum Control Measures (MCM) with each measure having multiple components that will be completed over the 5 year plan period. The plan was prepared in 2014 and has the following MCMs:

- Public education/outreach/involvement
- Illicit discharge detection and elimination
- Construction site stormwater runoff control
- Post construction stormwater management in new development and redevelopment
- Pollution prevention and good housekeeping for municipal operations

Please see the City's Stormwater Management Program for specific practices and implementation timelines. This program will continue to coordinate with the Stormwater Management Program to ensure consistency and stretch resources to enhance water quality in the river and springs.

5.3 *Pollution Prevention and Housekeeping (Street Sweeping)*

Street sweeping can be a low cost practice in heavily urbanized areas that were developed before stormwater management features were included in projects. Thus, most of the downtown urbanized areas lack stormwater water treatment. The significant amount of street surface in this area makes this a prime candidate for maximizing the use of street sweeping to help manage road runoff pollutant loads. APAI understands that the City of New Braunfels has a street sweeping program and we encourage the continuance of this practice with potential emphasis on the streets and roads that drain directly to critical habitat area. The City's Stormwater Management Program that is compliance with the Texas Pollution Discharge Elimination General Permit provides street sweeping guidance on the City's current practice. The management measure also recommends inlet protection measures to retain trash and debris and minimize discharge to receiving water bodies. This program can be evaluated to assess if the frequency of street sweeping in the critical habitat area should be modified.

5.4 *Streambank Erosion Hazard Setbacks*

The City has established Erosion hazard setback zone for the banks of streams in which the natural channel is to be preserved. The purpose of the setbacks is to reduce the amount of structural damage and stream degradation caused by the erosion of the bank. With the application of stream bank erosion hazard setbacks, an easement is dedicated to the City such that no structure can be located, constructed, or maintained in the area encompassing the erosion hazard setback.

The City allows for stream bank stabilization as an alternative to dedicating the erosion hazard setback zone. Stream bank erosion hazard setbacks may extend beyond the limits of the regulatory floodplain and are shown in following table.

Stream Bank Erosion Hazard Setbacks

Contributing Drainage Area (Square miles)	Setback Distance from Stream Centerline (feet)
0-1	0
1-5	50
5 or more	100

As noted above, streams with a drainage area of less than one square mile (640 acres) do not have a setback distance from the stream centerline. Comparing stream setbacks to stream buffers, buffers are natural areas adjacent to streams and waterways that remain free of development, construction, or other alterations and play an important role in maintaining pre-development water quality. The riparian vegetation stabilizes stream channels, provides terrestrial and aquatic habitat, slows runoff rates, reduces runoff volume, and filters development runoff. Stream buffers can also serve as an important flood management tool to keep new development outside of the floodway and floodplain.

Stream buffers are a low impact development (LID) approach by designing the development to minimize its impact to the terrestrial and aquatic systems, such as minimal cut and fill, preserving trees, and working with the natural topography and vegetation to maximize the natural system function. The City of New Braunfels recognized this by including stream buffers in the Low Impact Development Manual and suggests the following buffer widths that are based on the TCEQ Edwards Aquifer Protection Program Optional Enhanced Measures for the protection of endangered species.

- 25 feet for drainage areas > 5 acres and < 40 acres;
- 50 feet for drainage areas > 40 acres and < 128 acres;
- 100 feet for drainage areas > 128 acres and < 320 acres
- 200 feet for drainage areas > 320 acres and < 640 acres, and
- 300 feet for drainage areas > 640 acres.

An alternative to prescribed setback that is used by the Lower Colorado River Authority in the management of the Highland Lakes is to delineate the fully developed 100-year floodplain and add 25 feet on each side. Currently, the City of San Marcos is considering the adoption of creek buffer zones to a contributing drainage area of 5 acres as part of the Land Development Code revision process.

The City should review the current stream setbacks in the future to evaluate the performance of the current rules and consider the potential of enhancing the stream buffer system to smaller drainage areas to promote recharge, manage construction sediment, minimize change in hydrology, and improve water quality. This would be an effective low impact development measure that would protect the creeks and streams in the City and ETJ and offer opportunities for trails and parkland.

5.5 *Coal Tar-Based Sealants*

Coal tar-based sealants on roadways have been identified to pose a risk to human health and can seep into waterways over time through stormwater runoff. Banning this product can provide public and environmental health benefits. The City of San Antonio banned the use of this sealant in 2016. City of San Antonio staff reviewed more than 80 white papers, independent studies and articles published by universities, independent researchers, the National Oceanic and Atmospheric Administration and the Environmental Protection Agency stating that coal tar sealants are a major source of polycyclic aromatic hydrocarbons or PAHs. These chemicals, especially at high levels of exposure, are known to be toxic. The Edwards Aquifer Authority adopted a ban of coal tar sealants over environmentally sensitive portions of Hays and Comal counties. Austin banned the use and sale of coal tar sealants in 2005 and San Marcos also approved a ban in 2016.

The EAHCP indicates that the EAA will develop materials regarding the value of a coal tar sealant ban and work with local governments to encourage their consideration of such a ban.

5.6 *Water Quality Retrofit Alternatives*

A water quality retrofit involves the construction of a measure in the existing urban environment to potentially manage stormwater runoff quality, rate, and volume. These stormwater management measures (SMM) are appropriately selected for each unique site to improve runoff quality to receiving streams and lakes, maximize infiltration to enhance baseflow, and can help mitigate flooding.

Retrofits should focus on parking lots and roads that directly discharge to habitat area as these impervious surfaces generate runoff in most storm events and studies have found that road sediments, which consist of fine and coarse particles, can have the most detrimental effects to the aquatic system. Contaminates identified with road sediments are derived from vehicle exhaust emissions, tire and body wear, break lining material, building and construction materials, road salts, road paint, and pedestrian debris. These studies have shown that within an urban river system, upwards of 20% of the sediment is generated from roadway surfaces and carry with it a high concentration of metals and nutrients. The EPA has found through field observations and laboratory tests that contaminated sediments can be lethal to benthic organisms.

Due to the typical lack of large open space areas in the urban environment, it can be challenging to implement large-scale measures that could be required for new development, thus, the water quality program managers must be creative in maximizing benefits while managing cost. Often, smaller practices are shoe-horned into the existing drainage system to disconnect impervious cover (roads, parking lots, buildings) to gain some level of treatment, infiltration, and runoff reduction. Below are potential SMMs that could be applied in the City of New Braunfels:

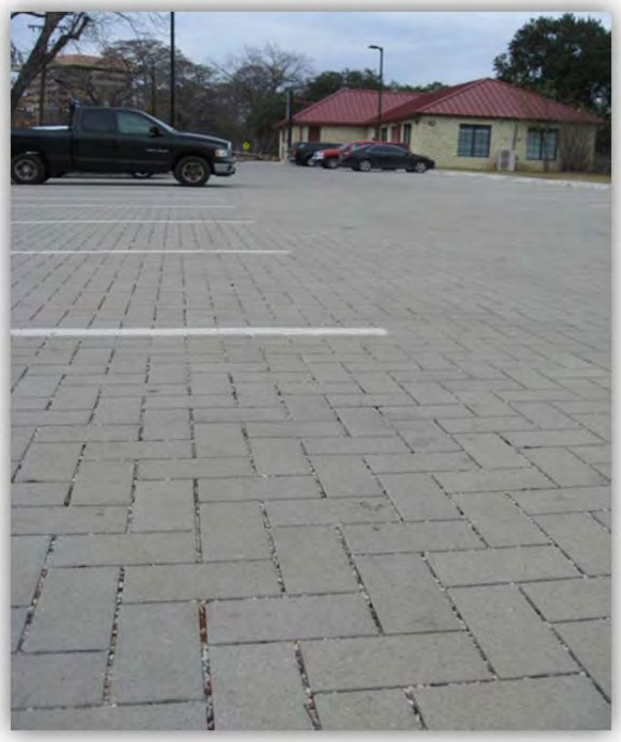
Bioretention/biofiltration – an attractive landscaped water quality basin that functions as a soil and plant-based infiltration device

Rain gardens – a small-scale bioretention facility that collects runoff from small drainage areas such as roof-tops, small parking areas or short segments of roadway

Infiltration – basins, trenches, and filter strips that direct runoff into the suitable soils to remove pollutants found in stormwater runoff

Vegetated filter strips – densely vegetated sections of land designed to accept runoff and manage pollutants through detention, filtration, and infiltration

Pervious pavement – materials used in parking lots, sidewalks, and roads that allow runoff to flow through the surface into water storage areas or suitable natural soils



Green alley - uses sustainable and green infrastructure elements to provide a safe, accessible, and creative space that infiltrates and/or disconnects stormwater runoff

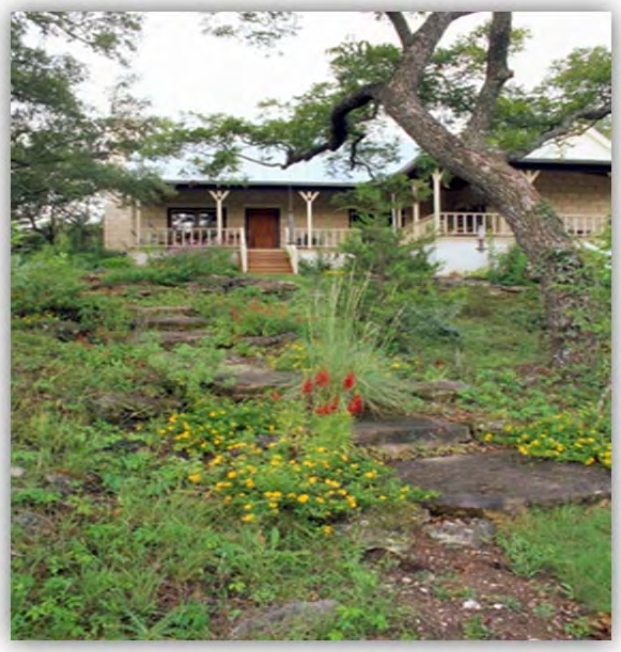
Rainwater harvesting – collection of roof-top runoff into tanks or basins and using the stored water for beneficial purposes to reduce water supply demands

Roof-top disconnection - runoff is directed from the downspout onto vegetated surfaces to promote infiltration and filtration to reduce runoff rate and volume

Green roofs – vegetated roof tops to retain runoff and reduce runoff volume that also improve energy efficiency and appearance

Inlet protection/treatment devices – proprietary devices that are installed at inlets to manage trash and/or improve water quality depending upon selected device

Conservation landscaping – use of native soils at appropriate depths and native plants, shrubs, trees, and perennials to reduce runoff volume and limit chemical application



Natural area preservation – conservation of natural areas within development sites to retain pre-development runoff quantity and quality characteristics

5.7 *Potential Water Quality Retrofits near Landa Lake (Phase I)*

Site reconnaissance was conducted at potential sites in the area near and contributing to the Comal River and Landa Lake. See Figure 3 for the water quality retrofit location map.

The following table identifies potential retrofits, water quality benefits, and estimated implementation costs. Costs are based upon recent City of Austin Watershed Protection Department construction cost data and are applied on a square foot basis or unit basin of the water quality measure to estimate construction cost. In, addition, this number was multiplied by 15% to estimate engineering, surveying, testing, stakeholder interaction, accompanying water quality education materials, and project management. To account for potential various unknowns in a conceptual design process, a contingency of 25% was added to develop a total implementation cost estimate. Several sites were evaluated but were found to have too many constraints such as driveways, narrow streets, excessive flow rates, and other factors and were ruled out in this assessment.

According to the Soil Conservation Soil Survey, the soils in the area of Landa Lake and the retrofits evaluated in this study are composed primarily of Oakalla Soils, a silty clay loam that was frequently flooded, well drained, moderate permeability, and available high water capacity and categorized as Hydrologic Soil Group B. The soil permeability rate is estimated to range from 0.6” to 2” per hour which is a very acceptable rate for rain gardens and other infiltration type water quality measures.


1 in = 400 feet
N
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Fredericksburg Rd
Landa Lake
Landa Park Golf Course
Elizabeth Ave
N Union Ave
N Houston Ave
W Torrey St
Fredericksburg Rd
Schlitterbahn
Comal River
Landa Park Golf Course
1
2
3
4
5
6
7
City of New Braunfels
Water Quality Protection Program
Phase 1 Water Quality Retrofit Assessment
Potential Water Quality Retrofit Location
(Please see the report for retrofit details)

Evaluated Water Quality Retrofit Summary

Design Data	**Site 1**	**Site 2**	**Site 3**	**Site 4**	**Site 5**	**Site 6**	**Site 7**
Location	Elizabeth Ave at Landa Lake	North Union Street From Dallas St to Edgewater	North Houston Ave at Landa Lake	Golf Course Club House	Overflow Parking along Elizabeth Ave	Fredericksburg Road Storm Drain Outfall into Landa Park	Landa Park Aquatic Complex Parking Lot
Recommended Measure	Rain Garden	Linear Roadside Rain Garden	Rain Garden	Grass/gravel pavers, function as filter strip	Grass/gravel pavers	Storm Drain Underground Vault	Permeable Pavers
Approx. Drainage area (acres)	5.0	4.0	4.3	0.26	1.2	5.4	1.5
Approx. Impervious cover (acres)	1.9	1.2	1.3	0.24	0	5	1.4
Approx. % Impervious Cover	38.0%	30.0%	30.2%	92.3%	0.0%	92.6%	93.3%
Measure width (feet)	30	8	30	20	20	NA	100
Measure length (feet)	50	300	70	150	800	NA	160
Measure footprint (sq ft)	1500	2400	2100	3000	16,000	NA	16000
Measure depth (ft)	1.5	1	1	NA	NA	NA	NA
Measure Volume (cubic feet)	2250	2400	2100	NA	NA	NA	NA
Runoff depth treated (inches)	0.34	0.52	0.44	NA	NA	NA	NA
TSS lbs per year managed	875	720	700	170	15	2200	170
Estimated measure cost/SF	$33.00	$40.00	$33.00	$8.00	$6.00	NA	$15.00
Cost per Unit						$60,000.00 12'x6'x84	
Total Measure Cost	$71,156	$138,000	$99,619	$34,500	$138,000	$86,250	$345,000
Cost/TSS lbs managed/year	$81	$192	$142	$203	$9,200	$39	$2,029
Maintenance Requirements	MINIMAL to MODERATE: Vegetation management required, occassional sediment/debris removal	MINIMAL to MODERATE: Vegetation management required, occassional sediment/debris removal	MINIMAL to MODERATE: Vegetation management required, occassional sediment/debris removal	MODERATE: Vegetation management, rejuvenation may be necessary, inspect two times per year	MODERATE: Vegetation management, rejuvenation may be necessary, inspect two times per year	MODERATE: Inspect four times per year, removal of sediment and debris	MODERATE: Semi-annual inpsection, vacuuming required based on infiltration loss/sediment load.
Notes	Need to move golf course access location. Verify no utility impact	Verify no utility impact, 150' length at each intersection, no available storm drain to connect to, must infiltrate	If d=1.5', TSS treated = 860 lbs/yr. Verify no utility impact	Located at parking lot edge, could be impacted by river flood flows (sediment deposition)	Replace current gravel/grass drive area with grass pavement product	Suntree Nutrient Separating Baffle Box or approved equal, need to verify utilities. Consider upstream inlet filters on 16 inlets	Used $15/SF estimate from paver supplier. COA estimate is $10/SF. If using COA data, cost would be $230,000

Site 1 – Elizabeth Avenue at Landa Lake (rain garden in the street)

Site 5 – North Union Street, From Dallas Street to Edgewater Terrace (Linear rain garden at two intersections)

Site 6 – North House Avenue at Landa Lake (rain garden)

Site 7 – Golf Course Clubhouse Parking Lot (pavers or grass paving)

Site 8 – Overflow Parking along Elizabeth Avenue

Fredericksburg Road (Storm Drain Underground Vault)

Landa Bathhouse (Permeable pavers)

The total estimated cost for the measures is approximately $1.1 M, however, more than half of the cost is from parking lot reconstruction in Landa Park at the Bathhouse. This potential retrofit is being considered as part of the Landa Park Master Plan process. Other retrofit opportunities include:

- Partnering with NBU to implement future measures at the Headwaters of the Comal Project in which Phase I is currently under construction;
- Partnering with the ongoing Comal/Dry Comal Watershed Protection Planning process to pursue EPA 319 grants to construct water quality measures;
- Coordinating with the Public Works Department to implement water quality treatment measures in tandem with roadway and sidewalk improvements;
- Considering the development of a private-public partnership capital improvement fund similar to the San Antonio River Authority program that provides design, construction, and monitoring funding for selected projects on private property, and
- Implementing projects from the Panther Canyon Erosion Control Preliminary Engineering Report.

In addition to the retrofits above, many options are available throughout the downtown area. These could be further assessed in subsequent planning efforts to pinpoint the location, cost, and benefits.

6.0 Funding/Implementation Considerations

Additional funding opportunities could be available to generate resources to construct water quality improvement measures that could also provide flood control and recreational benefits. Some of the options include:

- Drainage Utility – a fee on a residents monthly water bill that funds drainage, flood control, water quality, stream protection programs and projects. Based on the rate of funding, there can be reduced demand on General Obligation Bond funds to construct desired projects. Currently, the cities of San Antonio and San Marcos operate a drainage utility to help manage their drainage infrastructure.
- Sales tax – The City of San Antonio has a 1/8 cent sales tax to fund EAHCP projects and land conservation efforts. If a similar sales tax were applied in New Braunfels, the potential revenue for water quality protection program measures would be about $3.8 million per year based on current tax revenues.
- Partnership Program with Existing Development – The San Antonio River Authority operates a program that evaluates applications each year to consider the funding of the design, permitting, construction, and monitoring of new water quality protection measures to improve runoff from existing development. This effort is funded from the sales tax noted above. A similar program could be considered by the City to partner with existing development owners near critical habitat to partner with them in the consideration of water quality retrofits.

7.0 Program Recommendations

The following summarize potential measures for consideration to improve stormwater runoff quality from impervious cover and new development and are in compliance with the EAHCP Section 5.7.6:

- Construction of water quality retrofit projects
- Enhanced water quality education programs
- NBU Headwaters at the Comal project design coordination
- Ban on coal-tar sealants
- Expansion of the street sweeping program in critical habitat areas
- Blieders Creek Watershed Assessment
- Stream buffer assessment/recommendation development
- Water quality treatment measures for new and re-development in the downtown area
- Landa Park Master Plan support/design guidance
- Grant application writing/submittals
- Continued coordination with the Comal and Dry Comal WPP
- LID Rebate Program
- Funding opportunities/grant applications