

Capital Improvement Projects Overview

Electric, Water, and Wastewater Services

FY 2025 – 2029



Capital Improvement Projects Overview

Electric, Water, and Wastewater Services

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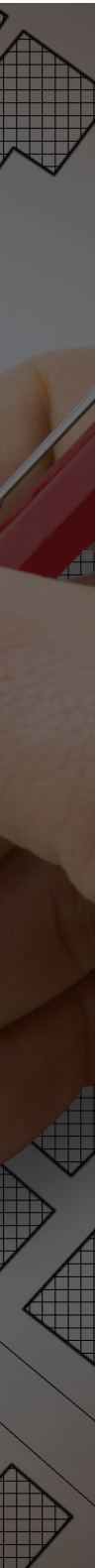
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INTRODUCTION

New Braunfels Utilities (NBU) has an aggressive capital improvement projects plan to build and enhance necessary infrastructure over the next five years to meet the needs of a growing community. As New Braunfels and the NBU service territory continue to experience unprecedented growth, NBU has committed to more than \$1 billion in capital improvement projects. These improvements will ensure we are well prepared to meet the electric, water, and wastewater needs of our customers for decades to come. While there are 153 capital improvement projects in progress or being planned, the following pages provide a high-level overview of NBU's projects.



MISSION

Strengthening our community by providing resilient essential services

VISION

Be a trusted community partner dedicated to excellence in service

CORE VALUES

Safety, Team, Integrity, Culture, and Stewardship

ELECTRIC – CAPITAL IMPROVEMENT PROJECTS

Electric Statistics Fiscal Year 2024

Megawatt-hours Sold (in thousands)	1,766
Active Electric Meters	58,129
Residential Electric Meters	49,723
Miles of Overhead Distribution	626.6 miles
Miles of Underground Distribution	467.8 miles
Number of Substations	11
System Average Interruption Duration Index (SAIDI)	40.64 minutes
Customer Average Interruption Duration Index (CAIDI)	67.70 minutes
Coincident Peak Demand	359.8 MW
Non-Coincident Peak Demand	447.6 MW

ELECTRIC – CAPITAL IMPROVEMENT PROJECTS



- Hueco Springs Substation
- Kohlenberg Road Substation
- System Extensions - Electric
- Distribution Transformers
- Electric Aging Infrastructure, Distribution
- Electric Meters
- Henne Substation Breaker and Half
- Freiheit Breaker Additions and Control House
- Comal T3 Replacement and Feeder C033
- CONB Road Widening Adjustments
- TxDOT Road Widening
- Distribution Feeder Breaker Addition and Replacements
- FR24 Kowald Lane Feeder
- HW14 to FM 3009 Extension Phase 2
- Sheriff's Posse to Marion, T-340 Upgrade
- EC23 FM 482 Feeder
- Three-Phase Extensions
- Transmission Access and Wildlife Protection
- Electric Aging Infrastructure Substation
- HW23 NB West Feeder
- Fiber Optic Extensions
- HE11 Conrads Road Feeder
- Residential OH to UD Conversion
- GPI Substation Improvements
- Industrial Substation PWT Replacement (TXI T1)
- Lone Oak Substation
- Comal Substation Breaker and Half
- Freiheit T2 Replacement
- FR34 Hueco Drive Feeder
- C021 Howard Street Feeder

Top Five Financial Investments, High-Level Overview

System Extensions/Meters/Transformers – \$87.4M

These annual expenditures provide general on site service and extensions to accommodate system growth. Between FY25 and FY29 NBU estimates electric meter connections to increase by a total of 22.8% ultimately exceeding 68,000 meters. It is estimated that ten miles of distribution overhead primary will be added and 150 miles of underground distribution will be added. Specific System Extensions include those within Veramendi, Solms Landing, Mayfair, Purlsong, and many other developments.



Electric Aging Infrastructure, Distribution, and Substation – \$18.4M

This pair of ongoing projects consists of replacing aging infrastructure within the system. Utility poles, overhead wire, pad-mounted equipment, and underground cable are included and bring NBU infrastructure up to current standards upon completion. In particular, newer and technologically superior materials are anticipated to have a greater lifespan and duty cycle. For example, new underground cable is designed for a minimum 40-year service life. Critical utility poles are designed for a minimum 80-year service life. NBU's Aging Infrastructure Replacement Program is now expanded to include substation equipment as well, including replacement of substation switches, breakers, battery banks, and other critical equipment. Previously, substation equipment was replaced as needed only through Operation & Maintenance.



Kohlenberg Substation and Feeders – \$16.1M

New Braunfels Utilities has identified the need for additional transformation and distribution feeder capacity along FM 1101 near Kohlenberg Road. Growth within the region includes that of Creekside Terrace subdivision, the Mayfair project, and adjacent industrial load including Continental Automotive Systems. The substation requires a 2.9 mile transmission extension, and a backside transmission extension at a later time in order to provide looped redundancy. Two power transformers and six distribution feeders are proposed to be constructed and energized initially, in essence building straight to the master plan.



Lone Oak Substation – \$11.4M

New Braunfels Utilities is proposing construction of a new distribution substation in or around FY28. Tentatively and dependent on growth patterns along the Hwy. 46 West corridor, this substation is to be the Lone Oak Substation, along Lone Oak Rd. near FM 2722. The substation's primary purpose will be to serve residential growth of the Vintage Oaks at the Vineyard community and The Preserve at Elm Creek. In addition, the substation relieves and provides resiliency backup to Hwy. 46 Substation, which is approaching capacity limits particularly during winter peak conditions. The property for Lone Oak Substation was previously secured in April 2018, after it was identified a large tract was to be subdivided into three 5+ acre lots. The property already houses the existing LCRA TSC owned transmission line necessary to serve the substation. The alternative location for the substation is along FM 3009.



Hueco Springs Substation and Feeders – \$10M

To serve continued and accelerated growth of the Veramendi development, NBU has identified the need to construct an additional distribution substation along River Road, at Edwards Blvd. The proposed substation site is adjacent to an existing LCRA TSC looped transmission line, and will not require a lengthy transmission extension. Initially, the substation will consist of one power transformer and three feeders. The substation is master planned for two power transformers and six distribution feeders. It will also create several switching ties to other adjacent substations for system resiliency. The substation land site is procured and long lead time materials are ordered.



WATER – CAPITAL IMPROVEMENT PROJECTS

Water Statistics Fiscal Year 2024

Gallons of Water Sold (in millions)	4,411
Number of Water Meters	55,941
Raw Water Supply	49,875 acre feet
Miles of Water Main	678 miles
Peak Annual Usage	5.2 billion gallons
Treatment Capacity	8 MGD surface / 31 MGD wells / 4.7 MGD purchased
Storage Capacity	29.8 million gallons



WATER – CAPITAL IMPROVEMENT PROJECTS



- FM 1044 EST
- Water Tank Rehabilitations
- Trinity Expansion Treatment Plant - TWDB
- Mission/Westpointe Connection Waterlines - TWDB
- Conrads EST
- Water Meters
- Trinity Expansion Well Field - TWDB
- Aquifer Strg and Recovery Project
- FM 1101 Pump Station and GST
- Landa Street and Elm Street Water Line Improvements
- Union Avenue Water Replacement CNB
- Aging Infrastructure-W
- SWTP Expansion - Water Supply Facilities
- FM 306 Pump Station and Discharge Pipeline
- Solms Pump Station and Ground Storage Tank
- Simon Avenue Improvements
- Landa Pump Station Phase 2 / Well 5
- FM 1101 Discharge Line
- Central Downtown to Morningside PZ Conversion
- Senate Bill 3 EPP Generators
- Barbarosa Waterline CNB
- Goodwin/Conrads Adjustments (CNB)-W
- Downtown to Loop PZ Conversion
- San Antonio St Rehabilitation Phase 3 CNB
- City Widening Street Projects
- Western Downtown to Morningside PZ Conversion
- Loop GST Improvements
- Well 6 Site Improvements
- System Extensions-W
- Rio to Kuehler River Crossing
- Senate Bill 3 EPP Generators Phase 2
- Hwy 46 Water Line (Mission) Phase 2
- Water Infrastructure Replacement
- Broken and Critical Valve Replacements
- AC Pipe Replacement - Solms
- Hueco Springs SWTP 2
- Wood Meadows Water Line River Crossing
- Infrastructure Replacement Package 3
- San Antonio Street Phase 4 CNB W
- Technology Upgrades-W
- Infrastructure Replacement Package 2
- Solms Road Relocations CNB
- Water Tank Rehabilitations Phase 2
- Mill Street Improvements - W
- Senate Bill 3 EPP Generators Phase 3
- AC Pipe Replacement - Balcones Phase 2
- Landa Park Drive Bridge CNB
- Bretzke to Hoffman Discharge Line
- Water Tank Rehabilitations Phase 3
- Bretzke Pump Station for Hoffman Pressure Zone
- Downtown High Elevations PZ Conversion
- Coll Street Relocations CNB
- Senate Bill 3 EPP Generators Phase 4
- County Line Pump Station Expansion
- County Line Pump Station Discharge Line
- Water Tank Rehabilitations Phase 4
- South Mesquite Avenue Improvements W
- Altgelt EST
- River Chase EST

Top Five Financial Investments, High-Level Overview

Surface Water Treatment Plant Expansion – \$55.7M

The goal of the expansion of the surface water treatment plant (SWTP) from 8-million gallons per day (MGD) to 16-MGD is to utilize the extent of NBU's available surface water rights. The expansion design consists of a new treatment train for rapid mix, flocculation, sedimentation, filtration, and decant basin for solids handling. Both the new and existing treatment trains will share the existing raw water pump station (RWPS), existing high service pump station (HSPS), expanded chemical feed systems, and expanded sludge drying beds.

FM 1101 Pump Station – \$21.7M

This project includes a new pump station located near the intersection of FM 1101 and Barbarosa Road that will convey flow from the Downtown Pressure Zone to the Kohlenberg Pressure Zone. The firm pumping capacity of the facility will be 7.5 million gallons per day (MGD), expandable to 10 MGD in the future, and include a 2.5-million-gallon ground storage tank. This project will facilitate additional distribution pumping capacity in the Kohlenberg Pressure Zone to serve projected growth.

Solms Pump Station and Ground Storage Tank – \$20.6M

A new 1.0 MG ground storage tank and pump station located on the new NBU Headquarters site near the intersection of Engel Road and IH-35. This project will include decommissioning the existing pump station and ground storage tank at the existing site on Rusch Lane and provide additional storage and pumping capacity to the Morningside Pressure Zone.

FM 1044 Elevated Storage Tank – \$19.2M

This project includes a 2 MG elevated storage tank (EST) close to the Old Marion Rd and FM 1044 intersection. The FM 1044 EST will provide additional elevated storage for the Morningside Pressure Zone in order to continue to exceed the minimum TCEQ criteria for elevated storage capacity per customer for years to come as growth continues.

Water Tank Rehabilitations – \$18.8M

The purpose of this phased project is to fully rehabilitate select NBU existing elevated and ground storage tanks to extend their service life. The selected tanks include the Loop GST, County Line Standpipe, Kerlick EST, Hoffmann Standpipe, Mission Hills Ranch EST, Gruene EST, Voss Farms EST, Newks EST, and the Westpointe EST. Currently this project is split into 4 phases, which includes two or three tanks per year over the next several years.



WASTEWATER – CAPITAL IMPROVEMENT PROJECTS

Wastewater Statistics Fiscal Year 2024

Number of Accounts	36,461
Miles of Sewer Main	486
Number of Wastewater Treatment Plants	4
Treatment Capacity	12.3 MGD
Total Reuse Water Output	8.3 MGD

WASTEWATER – CAPITAL IMPROVEMENT PROJECTS



- McKenzie WRF Expansion
- McKenzie Interceptor Upgrade
- Kuehler WRF Clarifier Rehabilitation
- Sewer Infrastructure Replacement Package 2
- I-35 Interceptor Upgrade
- Gruene Rd Sewer Main Rehabilitation/Relocation
- Infrastructure Replacement Package 1
- Aging Infrastructure-WW
- Dove Crossing Force Main
- Kuehler WRF Rehabilitation
- Manhole Rehabilitation
- NKI Odor Control Facility
- Simon Avenue Improvements CNB
- Goodwin/Conrads Adjustments CNB-WW
- Gruene Lift Station Expansion
- San Antonio St Rehabilitation Phase 3 CNB
- North Kuehler Interceptor - Segment 3
- Solms Lift Station Expansion
- City Street Projects CNB
- Sewer Infrastructure Replacement Package 1
- System Extensions-WW
- South Kuehler Interceptor Phase 1
- Kuehler WRF Access Road - Courtyard Dr.
- Infrastructure Replacement Package 3
- Saengerhalle North Interceptor
- San Antonio St Phase 4 CNB WW
- Coll Street Relocations CNB
- Technology Upgrades-WW
- Solms Road Relocations CNB
- Infrastructure Replacement Package 2
- Solms LS and Force Main
- Gruene WRF Expansion
- Mill Street Improvements CNB WW
- South Kuehler Interceptor Phase 2
- Walnut Heights Wastewater Main
- Mather Street Wastewater Main
- South Mesquite Avenue Improvements WW
- Torrey St Wastewater Main
- River Gardens Wastewater Main
- Comal Ave Wastewater Main
- Loop 337 Wastewater Main
- Dahlia Lift Station Decommission
- South Kuehler Interceptor Phase 3

Top Five Financial Investments, High-Level Overview

McKenzie Water Reclamation Facility Expansion – \$53.6M

This project includes expansion of the plant's treatment capacity from 2.5 million gallons per day (MGD) to 5 MGD, including: construction of a new flow splitter box, expansion of headworks facilities, construction of new biological treatment basins, construction of new secondary clarifiers, expansion of tertiary filters, expansion of Ultraviolet (UV) disinfection equipment, expansion of aerobic digestions, expansion of solids dewatering system, and construction of new electrical equipment, site piping, and miscellaneous site civil improvements. The project will increase treatment capacity to serve current and future growth in the area.

Kuehler Water Reclamation Facility Rehabilitation – \$47.0M

The project includes: replacing existing aeration equipment, walkways, and gates in all the aerations basins except the new basins at the south plant, replacing the existing clarifiers including the addition of a submerged effluent launder system at the south plant, replacing all existing blowers at the north and south plant, replacing the existing MCCs in the sludge pump buildings, replacing the MCC in the administration building at the south plant, rehabilitation of the existing buried RAS piping at the south plant, replacing the existing drain return pumps at the north plant, addition of a new digester blower at the north plant, replacing the existing screening and grit treatment structures at both plants with a new common headworks with screens, aerated grit chambers, lift station, and elevated flow split structure, and constructing a new access road from FM-725 and a private vehicular traffic bridge across the North tributary.

McKenzie Interceptor Upgrade – \$45.9M

This project includes approximately 35,000 feet of new 36-inch wastewater main that will replace existing 21-inch and 24-inch interceptors conveying flow to the McKenzie Water Reclamation Facility. The existing lines are near their maximum capacity and must be replaced. This project will increase transmission capacity to serve current and future growth in the area.

Gruene Water Reclamation Facility Expansion – \$20.7M

This project includes expansion of the Plant's treatment capacity from 2.5 MGD to 5 MGD including: construction of a new flow splitter box, expansion of the headworks facilities, construction of new biological treatment basins, construction of new secondary clarifiers, expansion of tertiary filters, expansion of ultraviolet disinfection equipment, expansion of aerobic digestions, expansion of solids dewatering system, and construction of new electrical equipment, site piping, and miscellaneous site civil improvements. This project will increase treatment capacity to serve current and future growth in the area.

I-35 Interceptor Upgrade – \$16.1M

This project includes approximately 7,500 linear feet of new 36, 30, 15, 12, and 8-inch diameter wastewater main, replacing existing interceptors conveying flow to the Rio Lift Station; a redesign and lowering of the Rio Bar Screen Vault to eliminate backwater within the incoming interceptors; and, the addition of an odor control unit. This project will replace infrastructure at the end of its service life and increase transmission capacity to serve current and future growth in the area.



PLANNING FOR THE FUTURE

New Braunfels Utilities is investing \$871 million in capital improvement projects. The following highlighted projects represent those that are currently in design or in progress for FY 2025 – 2029.

**WATER TANK
REHABILITATIONS - \$18.8M**

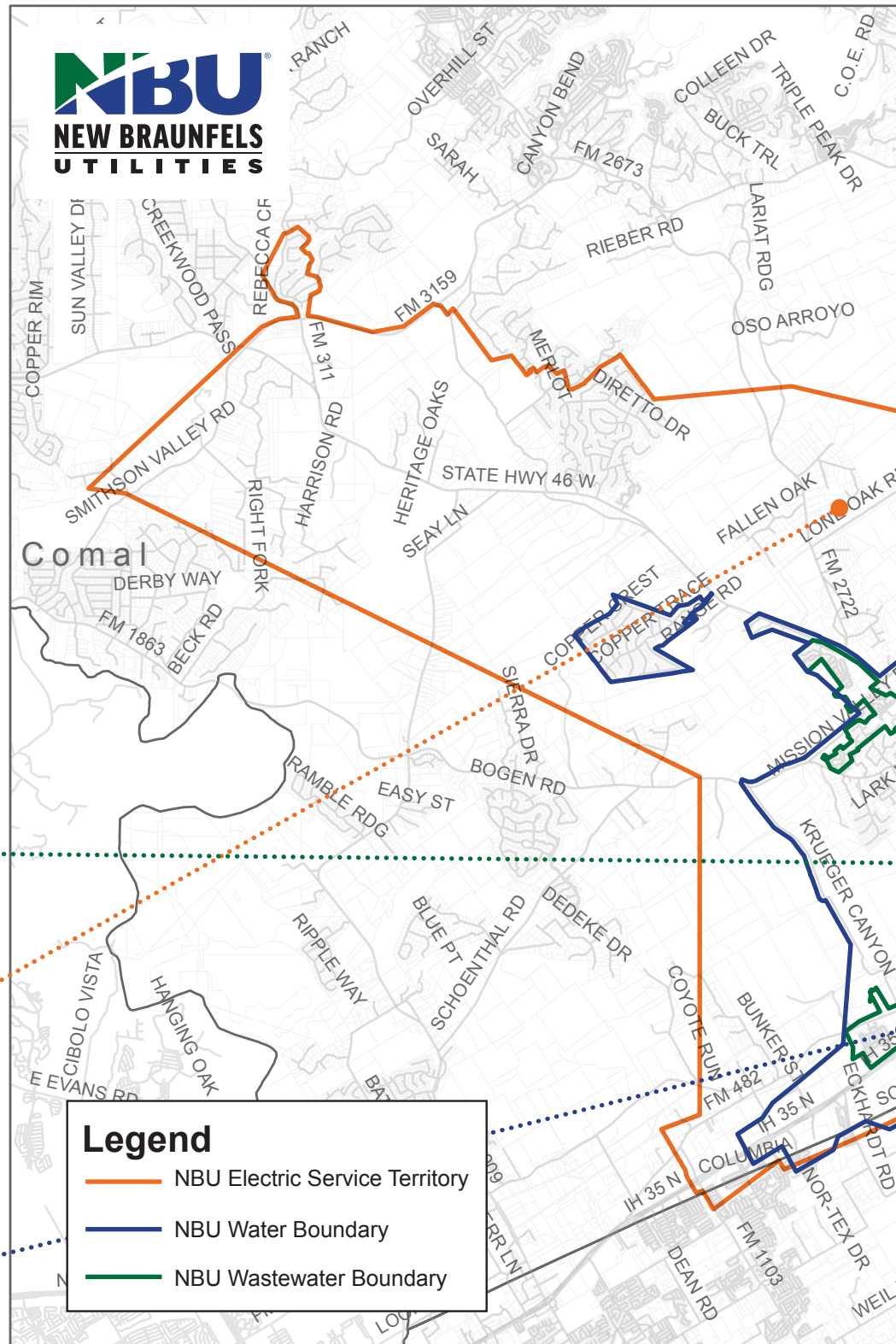
**I-35 INTERCEPTOR
UPGRADE - \$16.1M**

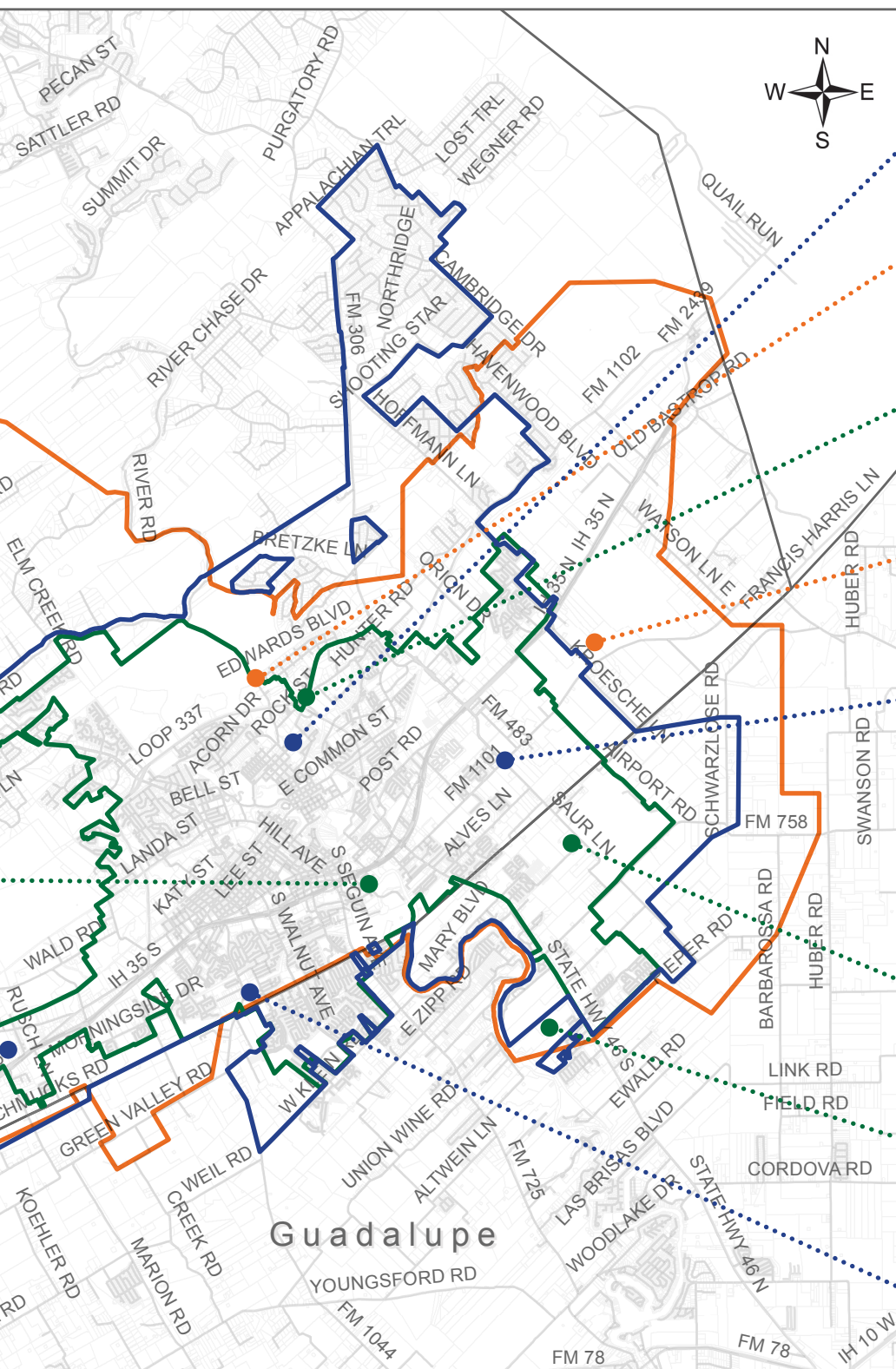
**KUEHLER WATER
RECLAMATION FACILITY
REHABILITATION - \$47.0M**

**LONE OAK
SUBSTATION - \$11.4M**

**SYSTEM EXTENSIONS/METERS/
TRANSFORMERS - \$87.4M**

**SOLMS PUMP STATION AND
GROUND STORAGE TANK - \$20.6M**





**SURFACE WATER TREATMENT
PLANT EXPANSION - \$55.7M**

**HUECO SPRINGS SUBSTATION
AND FEEDERS - \$10M**

**GRUENE WATER RECLAMATION
FACILITY EXPANSION - \$20.7M**

**KOHLBERG SUBSTATION
AND FEEDERS - \$16.1M**

FM 1101 PUMP STATION - \$21.7M

**ELECTRIC AGING
INFRASTRUCTURE, DISTRIBUTION
AND SUBSTATION - \$18.4M**

**MCKENZIE INTERCEPTOR
UPGRADE - \$45.9M**

**MCKENZIE WATER RECLAMATION
FACILITY EXPANSION - \$53.6M**

**FM 1044 ELEVATED
STORAGE TANK - \$19.2M**



For more information visit,
nbutexas.com/planning-for-the-future-of-new-braunfels.

