

BANDERA COUNTY BROADBAND INFRASTRUCTURE PROJECT

SCOPE OF WORK

The Alamo Area Council of Governments (AACOG) will coordinate with the Bandera Electric Cooperative (BEC) and the Project Management Team of Bandera County to improve the delivery of high-speed internet access for the county. Deliverables include:

- AACOG to coordinate meeting(s) with Bandera County and BEC within 30 business day of the approval and award of the CDBG-MIT Competition grant.
- Finalize project timeline within 60 business days of the approval of the CDBG-MIT Competition grant.
- Develop Project Management Team
 - Project Management Team will meet monthly by the second week of each month to discuss each phase and progress of project.
 - BEC and AACOG (Financial Management Lead and Alternate) will meet by the second week of each month to discuss and coordinate financial management reports.
 - AACOG (Grant Administrator) will prepare report summaries and financial coordination with GLO in a timely manner as required by GLO.
- Provide monthly progress/status reports of project, including financial status, to Bandera County Commissioners Court and Bandera County residents by the 30th day of each month.
- Track progress of project
- Coordinate payment and procurement activities
- BEC (Financial Management and Procurement Lead) and AACOG (Grant Administrator and Financial Management Alternate) to coordinate report information and presentation by the 15th of each month for Bandera County (Project Contact and Authorized Signatory) and BEC (Authorized Signatory).
- Keep the public apprised of the progress made on the project
 - Project Management Team will provide monthly progress reports to Bandera County Commissioners Court and residents by the fourth week of each month.
 - Written and verbal report to Bandera County Commissioners Court prepared by AACOG.
 - Posting of written report on Bandera County website (Bandera County).
- Announce completion of project within 10 business days of actual completion.

About the Project

AACOG is seeking a grant in the amount of \$9,995,333.56 from the CDBG-MIT program related to 2016 Floods State Mitigation Competition.

The proposed project will increase access to high-speed broadband Internet to much of rural Bandera County. In partnership with Bandera Electric Cooperative (BEC), the county's main Internet service provider, AACOG will direct the installation of 188 miles of fiber broadband

infrastructure, affecting 1241 households in the county. In addition to Internet service, BEC will also be able to offer Voice over Internet Protocol (VoIP) service to these customers, significantly reducing the cost of traditional landline services and providing an alternative where cellular coverage is unreliable.

When flooding hit the area in 2016, emergency notices and updates in these rural areas were difficult to communicate. As lake and river levels rose, sometimes swiftly, the lack of reliable communication methods put lives in danger. The need for better communication infrastructure was apparent then; with the added stress that the COVID-19 pandemic has placed on the lives of our citizenry, it is even more apparent now.

Project Beneficiaries

Low- and moderate-income families will be well-served with the new service. Affordable packages are available that deliver 25Mbps/25Mbps, more than substantial enough for online learning and streaming services. This demographic, especially in rural communities, is a primary market for this project and will be a focus for delivery of the services.

This is especially important for the community of Medina, where low-to-moderate-income levels are high at 77.64% of the population. The income gap is significant in Bandera County, and the differences between rural and the more urban areas are acute.

The project will serve five zones in Bandera County, with a focus on the rural areas around the communities of Medina and Bandera (see accompanying maps for detail). Without grant assistance, these projects would not be financially feasible for BEC to implement on their own.

About Bandera Electric Cooperative

BEC is a not-for-profit, member-owned electric cooperative established in 1938. Nine citizens of the Texas Hill Country from Bandera, Tarpley, Vanderpool, Pipe Creek, Medina and Utopia banded together, signed the original charter, and became BEC's first board of directors. The newly formed cooperative received a loan from the Rural Electrification Administration to provide power to roughly 400 farms and ranches along 200 miles of line.

BEC currently operates and maintains more than 4,600 miles of power lines and serves more than 27,000 members and more than 36,000 meters in a seven-county service territory. The counties are Bandera, Bexar, Kendall, Kerr, Medina, Uvalde, and Real.

In 2017, BEC began with a small fiber broadband pilot program that proved to be very successful. BEC's fiber broadband network continues to expand at a rapid pace with more than 1,300 miles of fiber; internet access is available to more than 55% of members and more than 7,200 members are subscribed. New expansion opportunities have been opened thanks to the passing of Texas Senate Bill 14. This law removes barriers to expanding broadband capacity to

underserved rural areas, and directly resulted in BEC's fiber broadband subscriber base doubling since its signing.

Distribution automation (DA) is being deployed across the electric grid with the expansion of the fiber network. DA is the starting point for the development of a "smart grid." The smart grid provides real-time adjustment to changing loads, generation and operating conditions of the system, while integrating renewable energy resources. The automation allows for a standardized approach to provide for the reliability, efficiency, safety and cost effectiveness of the power system as well as enhancing grid security. DA also allows BEC to better quantify the value of solar during peak conditions. The smart grid automation will eventually lead to predictive strategies where problems can be managed before failure occurs.

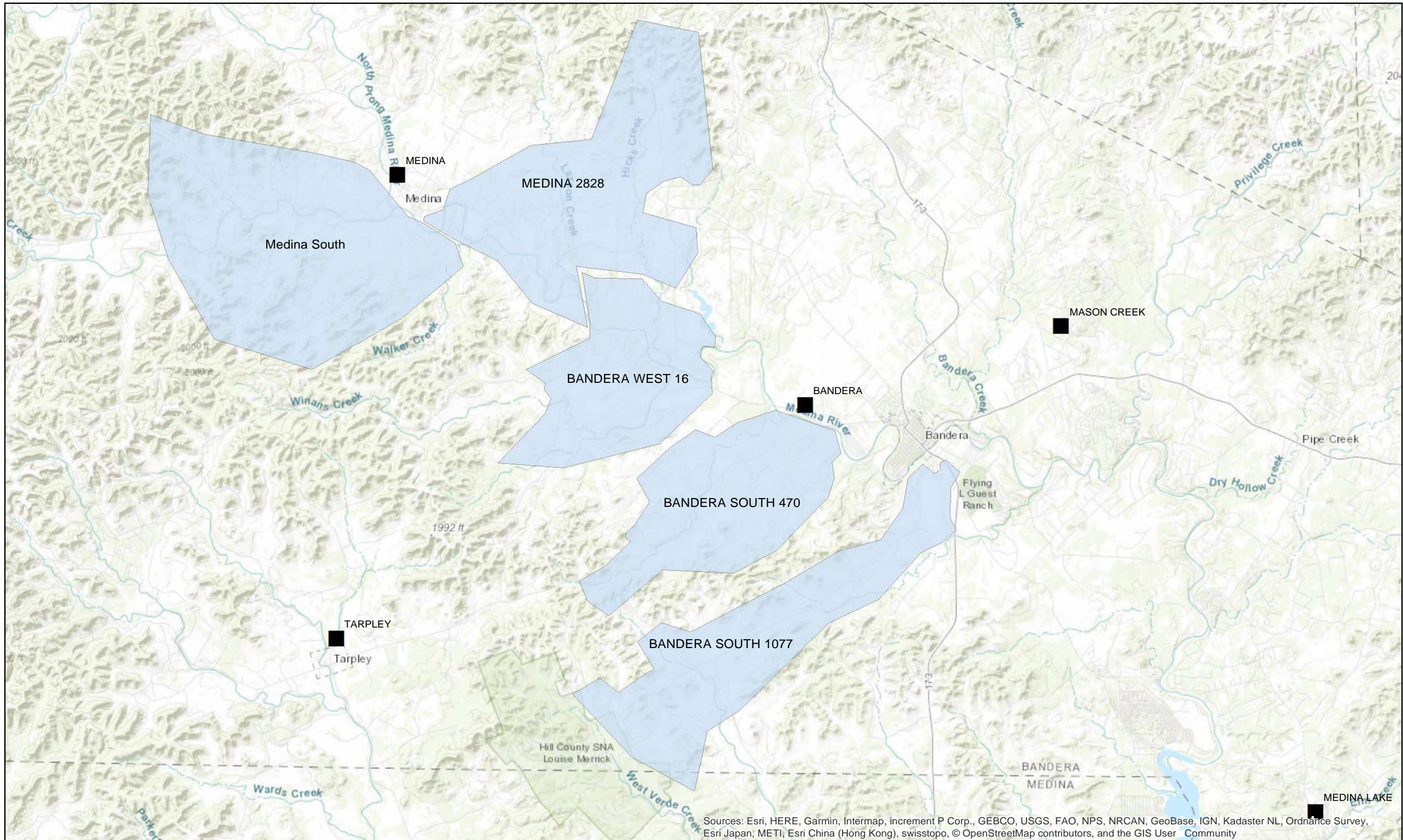
Network advancements continue with added Dedicated Internet Access (DIA) for redundancy and direct peering with powerhouse servers to ensure BEC Fiber is the most technologically advanced fiber network in the Texas Hill Country. BEC's fiber broadband network makes available symmetrical Gigabit services to members who reside within an active fiber zone. In addition, at a commercial level BEC has the capabilities to offer up to 10 Gigabit symmetrical packages for businesses requiring large amounts of data access.

Since its inception, BEC has worked to improve the quality of life for its members by providing highly-reliable electric service. Today, improving the quality of life means providing additional products and services, including but not limited to, fiber-broadband, renewable energy options such as solar and battery storage, energy analytics, and modernizing the electric grid through distribution automation. BEC is committed to improving the overall efficiency of the electrical system to provide members with the best possible electric and other related services. With the fiber network and the advances in communication, BEC hopes to level the playing field by closing the urban vs. rural digital divide and improve economic conditions in the area. BEC plans to provide broadband access to 82% of members by 2023.

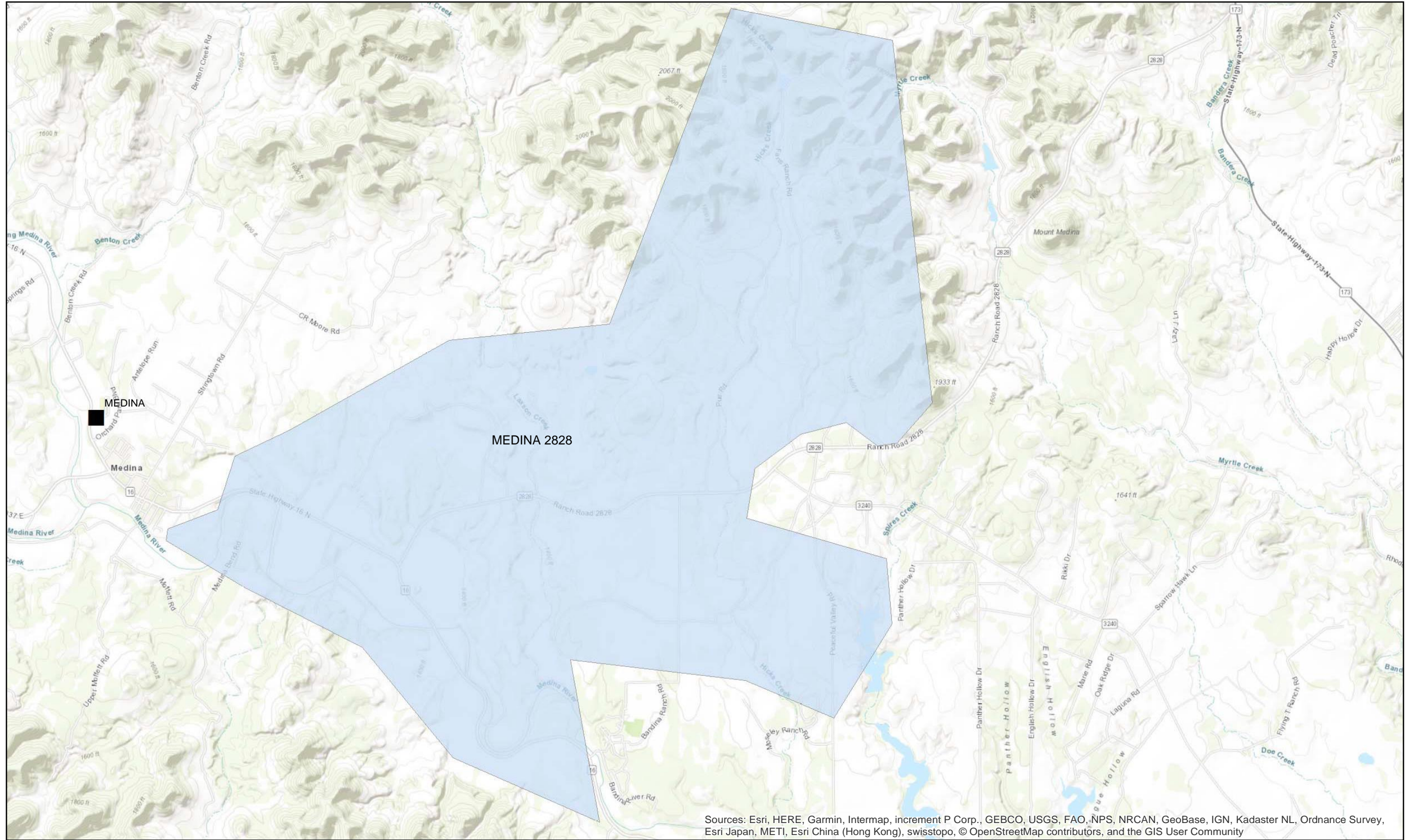
More information about the proposed project will be posted on the Alamo Area Council of Governments (AACOG) website, www.aacog.com, and on the Bandera County website, www.banderacounty.org, on October 14, 2020. Public comments about the proposed project are welcome and encouraged. Please submit public comments to disaster_recovery@aacog.com no later than noon, October 28, 2020.

Bandera County: Bandera Electric Cooperative Fiber Installation Project Budget

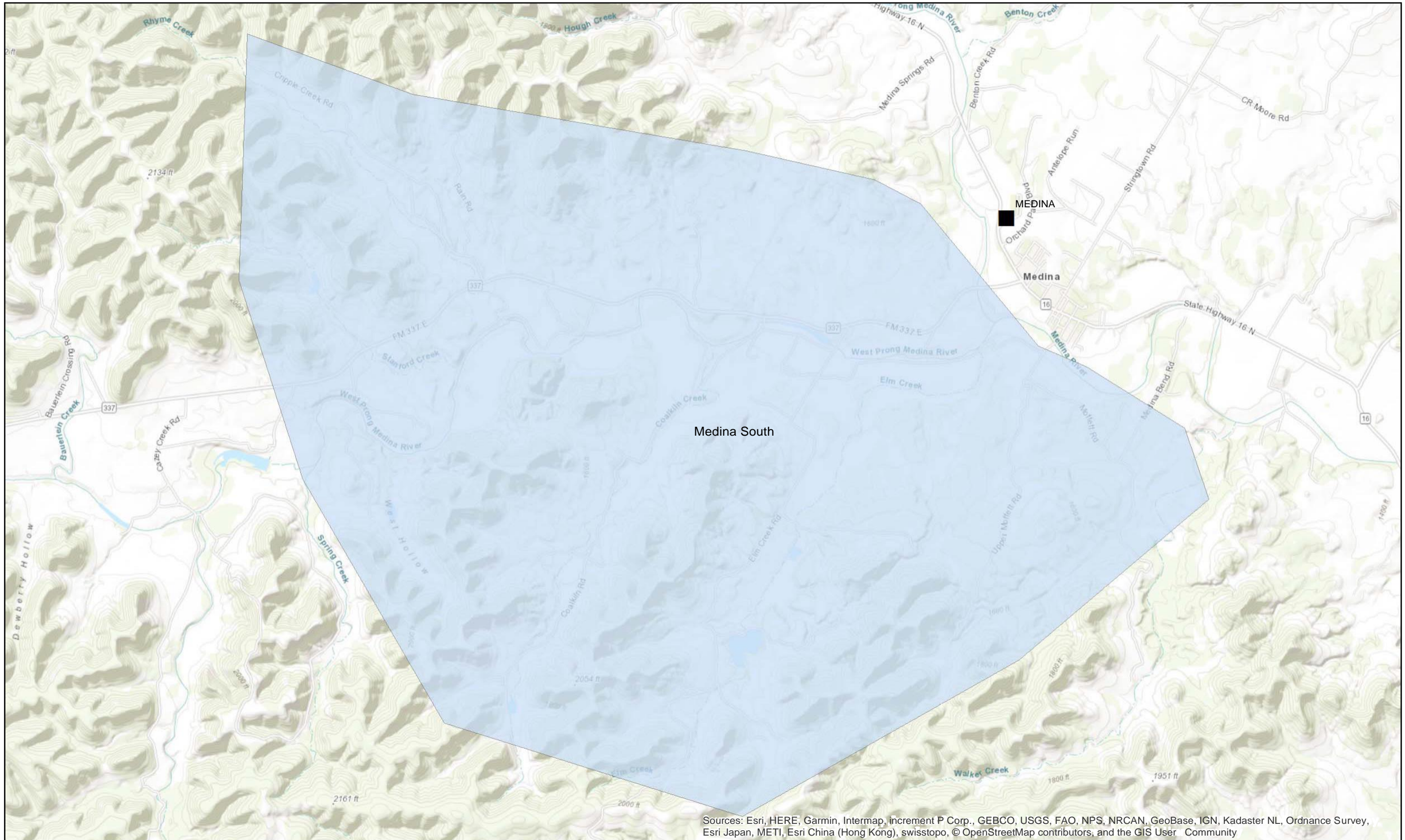
Budget Item	Fiber Cost Per Mile	Number of Miles	Total Estimated Cost	Funding Source
BEC Fiber Labor/OH/Spreads	\$ 3,698.75	188	\$ 695,365.11	CDBG-MIT
Engineering/Inspections	\$ 4,408.66	188	\$ 828,827.61	CDBG-MIT
General Contractor	\$ 28,893.66	188	\$ 5,432,008.64	CDBG-MIT
Make Ready	\$ 3,798.23	188	\$ 714,066.86	CDBG-MIT
Easements	\$ 275.00	188	\$ 51,700.00	CDBG-MIT
Owner Furnished Materials	\$ 6,678.55	188	\$ 1,255,567.57	CDBG-MIT
Total	\$ 47,752.85	188	\$ 8,977,535.80	CDBG-MIT
Contingencies 10%	\$ 4,775.52	188	\$ 897,797.76	CDBG-MIT
AACOG Grant Administration	N/A	N/A	\$ 120,000.00	CDBG-MIT
Total per mile	\$ 52,528.37		\$ 9,995,333.56	



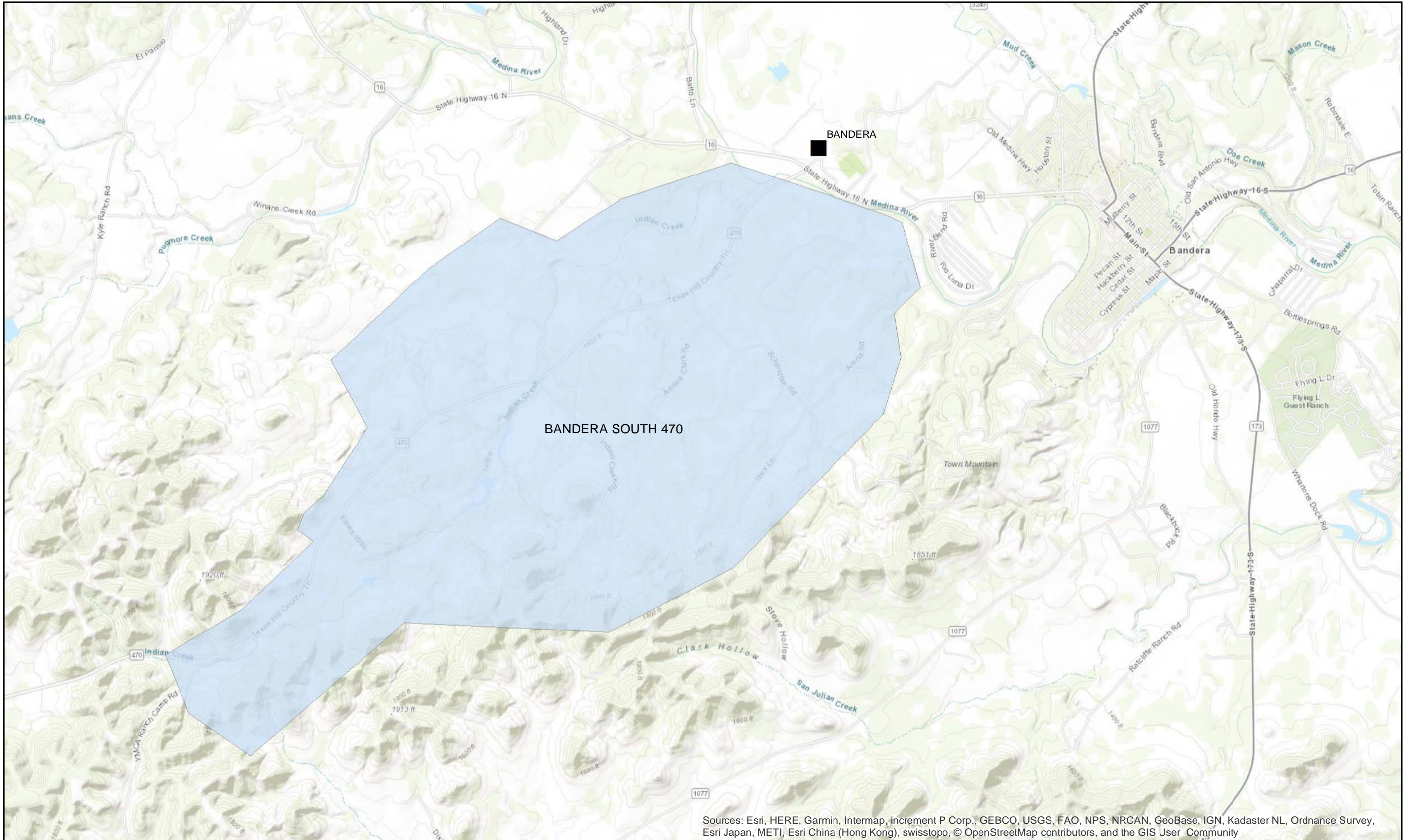
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community



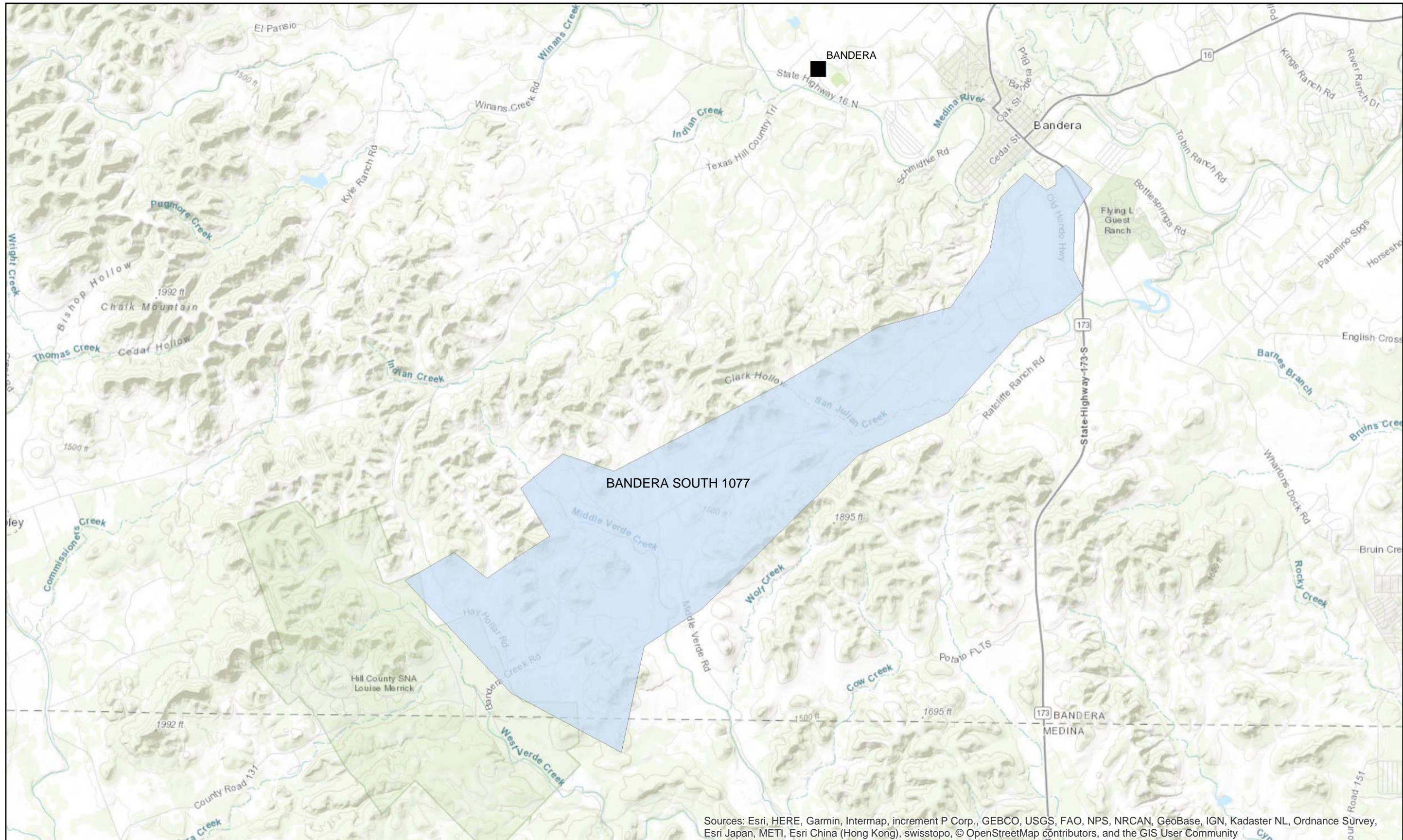
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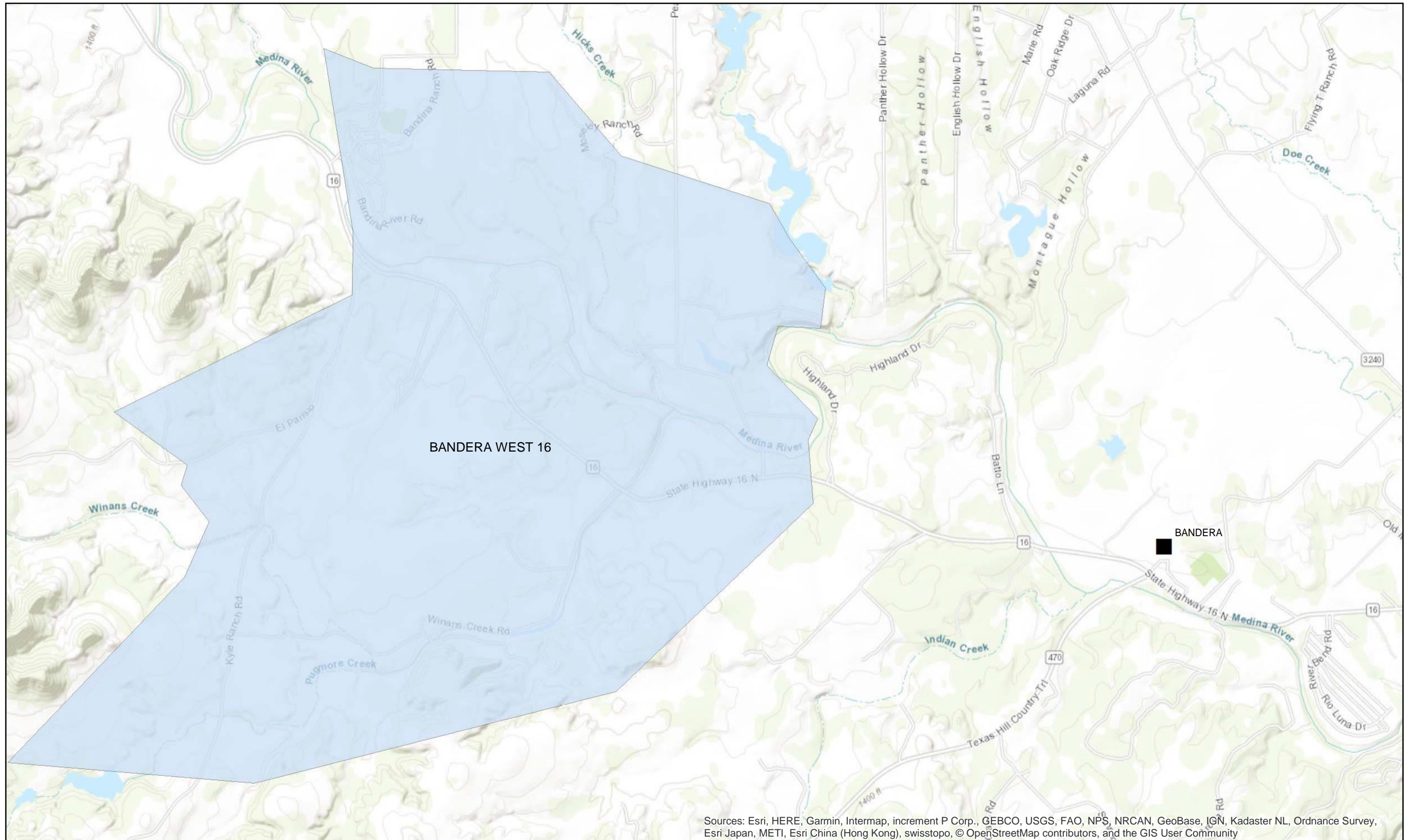
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