CITY OF WEED
LEAD SERVICE LINE INVENTORY
WORK PLAN
SEPTEMBER 2024

1. PROJECT BACKGROUND

The City of Weed (City) is located in Siskiyou County at the junction of Interstate 5 and Highway 97, approximately 70 miles north of Redding, California and about 50 miles south of the Oregon Border. As shown in Figure 1, the city limits encompass an area of approximately 3,080 acres, and the existing water service area boundary includes an area of approximately 3,255 acres. The current population for Weed is 2,862 as reported in the 2020 Decennial Census.

The City's water system is supplied by a combination of spring and well sources. Normally, water is provided by Beaughan Springs, Mazzei Well, and South Weed Well. A third well, the Carrick Well, is used as a backup source due to the presence of elevated total dissolved solids, which are within drinking water limits but cause an unpleasant color, taste, and odor compared to other sources. A fourth well, the Gazelle Well, is used as an emergency backup source because of the presence of sulfur-reducing bacteria, which cause an unpleasant taste and odor compared to other sources.

Under typical operations, no treatment is necessary for the wells or spring source. The effective capacity of a water system is the combined capacity of all the City's sources minus its largest well. The Beaughan Springs, Mazzei Well, Gazelle Well, and Carrick Well have an effective capacity of about 3.4 million gallons per day (MGD).

The City's network of pipelines consists of over 160,000 feet of ¾- to 12-inch pipeline of various material including steel, polyvinyl chloride (PVC), ductile iron (DI), and asbestos cement (AC). Approximately 24% of the system (or 39,000 feet of pipelines) is known to be 60- to 70-year-old steel mains, and about 16% of the system (or 26,000 feet of pipelines) is known to be 40- to 50-year-old AC. Steel mains have a theoretical useful life of 55 to 75 years, and AC has a theoretical useful life of 50 years. With both of these pipeline materials reaching or exceeding their useful life, the City is concerned

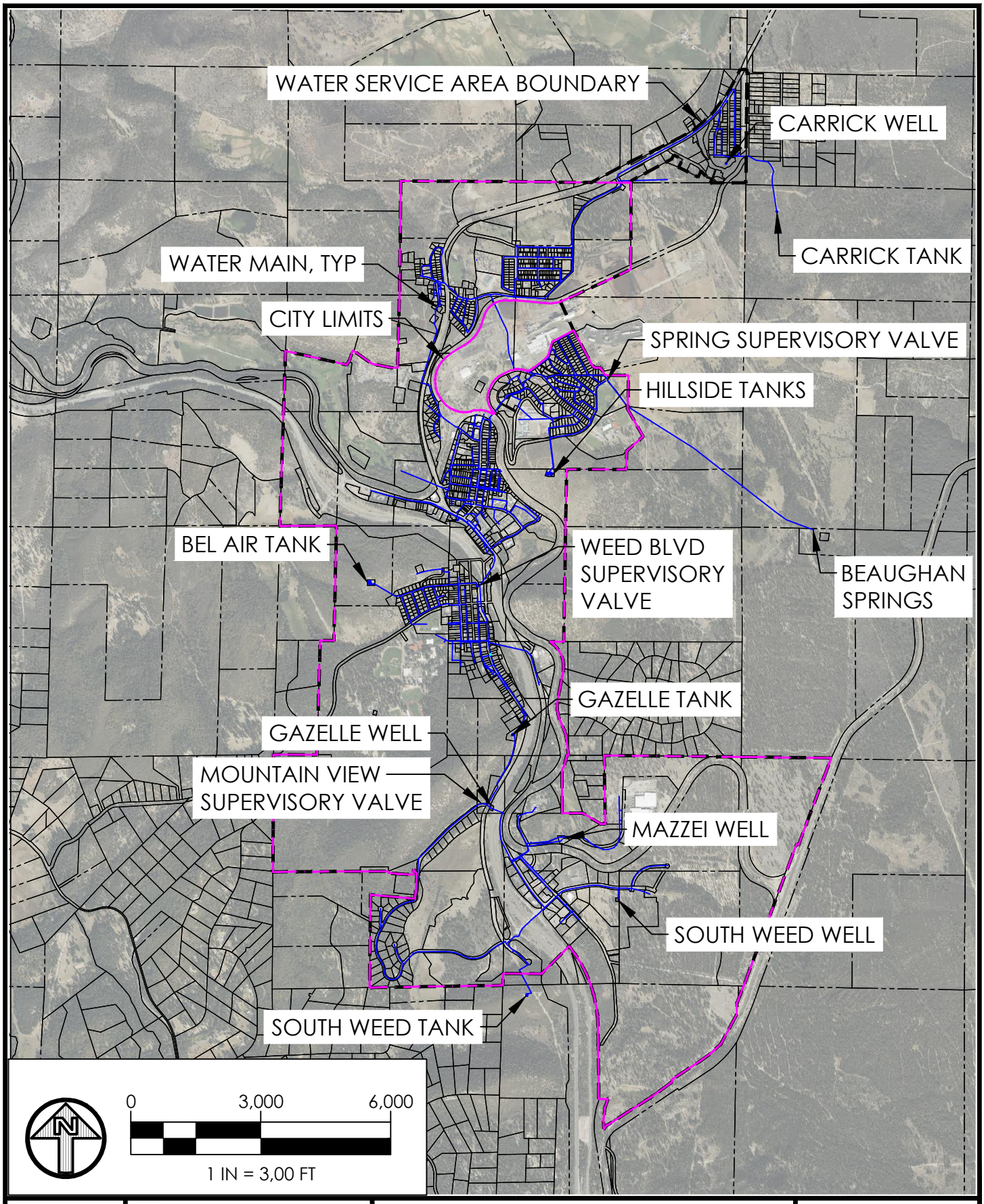
about their integrity, especially the steel water mains. The vast majority of the water system, 57% of the system (or 91,000 feet), is PVC pipelines, and the remaining 3% of the system (or 4,000 feet) is DI pipelines.

The City continues to pursue grant funding opportunities to replace old steel and AC water mains, along with associated water services. A large water main replacement project, funded in part with a Drinking Water State Revolving Fund (DWSRF) construction grant, is scheduled to start construction in 2024 and be completed in 2025. A smaller water main replacement project, funded in part with a United States Department of Agriculture (USDA) Rural Development (RD) grant, is scheduled to be constructed in 2025.

The City maintains five steel water tanks that provide 1.75 million gallons of storage. Four of the five water tanks have been constructed within the past three decades and are in excellent condition. The City's oldest tank, the Gazelle Tank, shows signs of deterioration and is in need of replacement. The City hopes to secure grant funding in the near future for the replacement of this tank.

A hydraulic model was developed using InfoWater by Innovyze, Inc. and includes all City water pipelines. This model, originally developed as part of the 2003 Master Water Plan (MWP), has been periodically updated to reflect water system improvement projects and water system demands.

Although no lead is suspected to be present in the distribution system, written documentation is not currently available to allow for verification of this assumption. The Lead and Copper Rule Revisions issued in 2021 require all community water systems to complete a service line inventory no later than October 16, 2024.



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CITY OF WEED WATER SYSTEM MAP

FIGURE 1

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The City has reviewed capital improvement projects and new construction since 1986. Of the 898 current water services in the City, 188 water services (21% of all water services) have been replaced from the water main to the structure, 269 water services (30% of all water services) have been replaced on the City side of the water meter, and 97 water services (11% of all water services) were constructed after 1986. Therefore, 344 water services (approximately 38%) require verification.

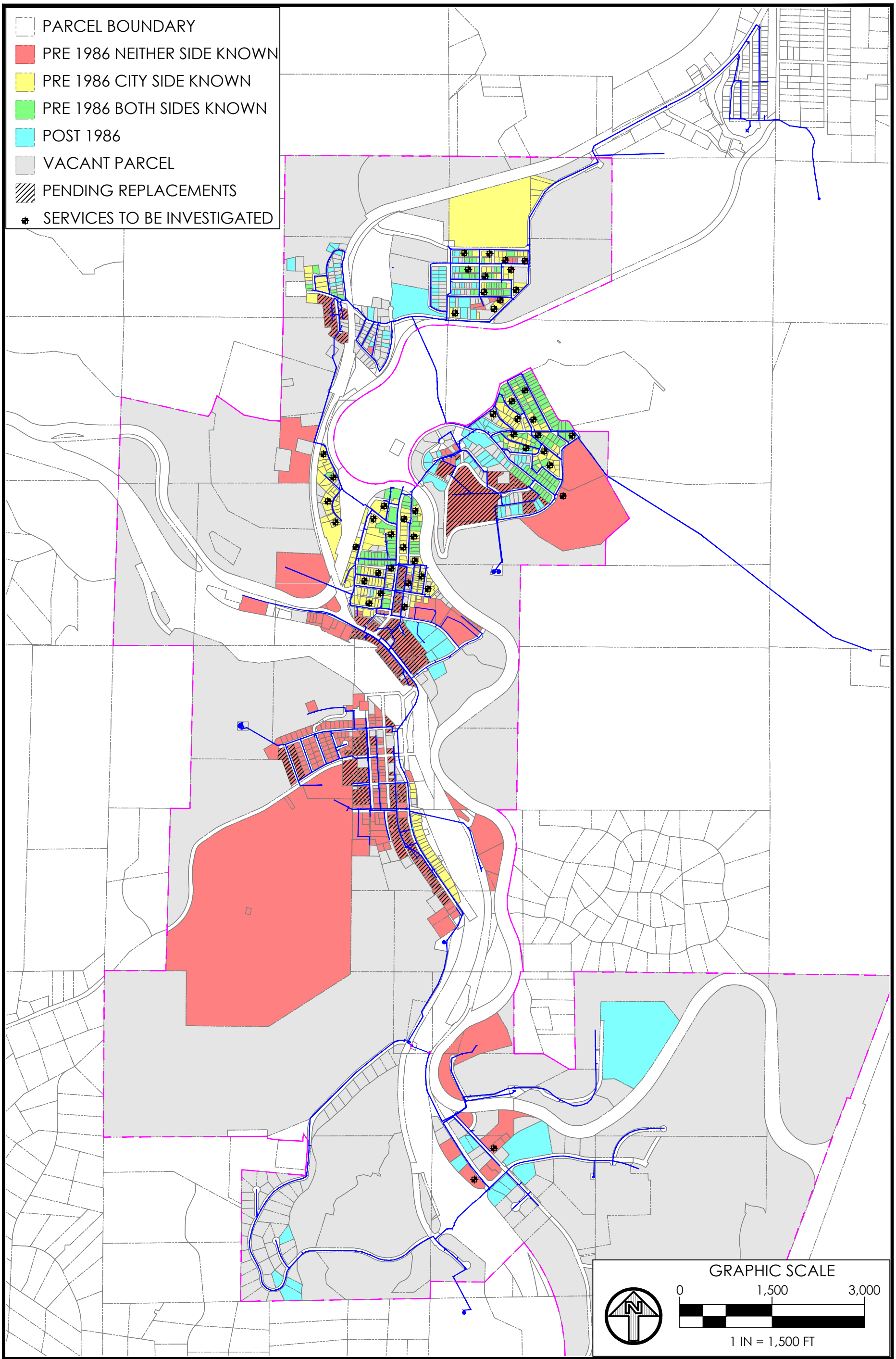
Additionally, as part of the DWSRF-funded and USDA RD-funded water main replacement projects (anticipated to start construction in the summers of 2024 and 2025, respectively), a combined total of approximately 150 water services on the City's side of the meter will be replaced, and the customer's side of the meter will be documented.

According to staff at the State Water Resources Control Board, lead service line inventory guidance requires verification of 20% of service lines for water systems with less than 1,500 service connections. Interpolation can then be used to statistically verify the remainder of service line type. The City was divided into 9 homogenous areas, and service material documentation for each area was analyzed. Based on this analysis, the plan is to initially verify 48 services in addition to the 154 water services (on both the City's and customer's side of the meter) that are to be verified during upcoming construction and are spread strategically throughout the City's service area. This will result in verification of more than 20% of all unknown service types in the City. Refer to Table 1 for service line inventory analysis for each homogenous area. The anticipated locations of services proposed to be potholed, and services to be verified during construction, are shown in Figure 2.

The proposed Lead Service Line Inventory effort will complete vacuum excavation (potholing) of 48 water service types on both the City's side and the customer's side of the service. City staff will complete the potholing and documentation effort. If no lead is found, it will be assumed that no lead exists anywhere in the system. If lead services are identified, further investigation will be conducted.

TABLE 1
CITY OF WEED
SERVICE LINE INVENTORY ANALYSIS

Area	Pre 1986 Neither Side Known	Pre 1986 City Side Known	Pre 1986 Both Sides Known	Post 1986	Total	Construction	**Investigate**
Angel Valley	10	46	32	31	119	0	**12**
Lincoln Heights	14	5	6	16	41	13	**0**
Stringtown	2	58	102	13	175	0	**12**
School Hill	20	0	0	20	40	15	**0**
N. Downtown	1	61	42	0	104	0	**13**
S. Downtown	25	77	6	1	109	12	**9**
Hwy 97	48	0	0	4	52	32	**0**
Bel Air	215	22	0	0	237	82	**0**
South Weed	9	0	0	12	21	0	**2**
Total	344	269	188	97	898	154	**48**



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CITY OF WEED
WATER SERVICE INVENTORY MAP

FIGURE 2

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