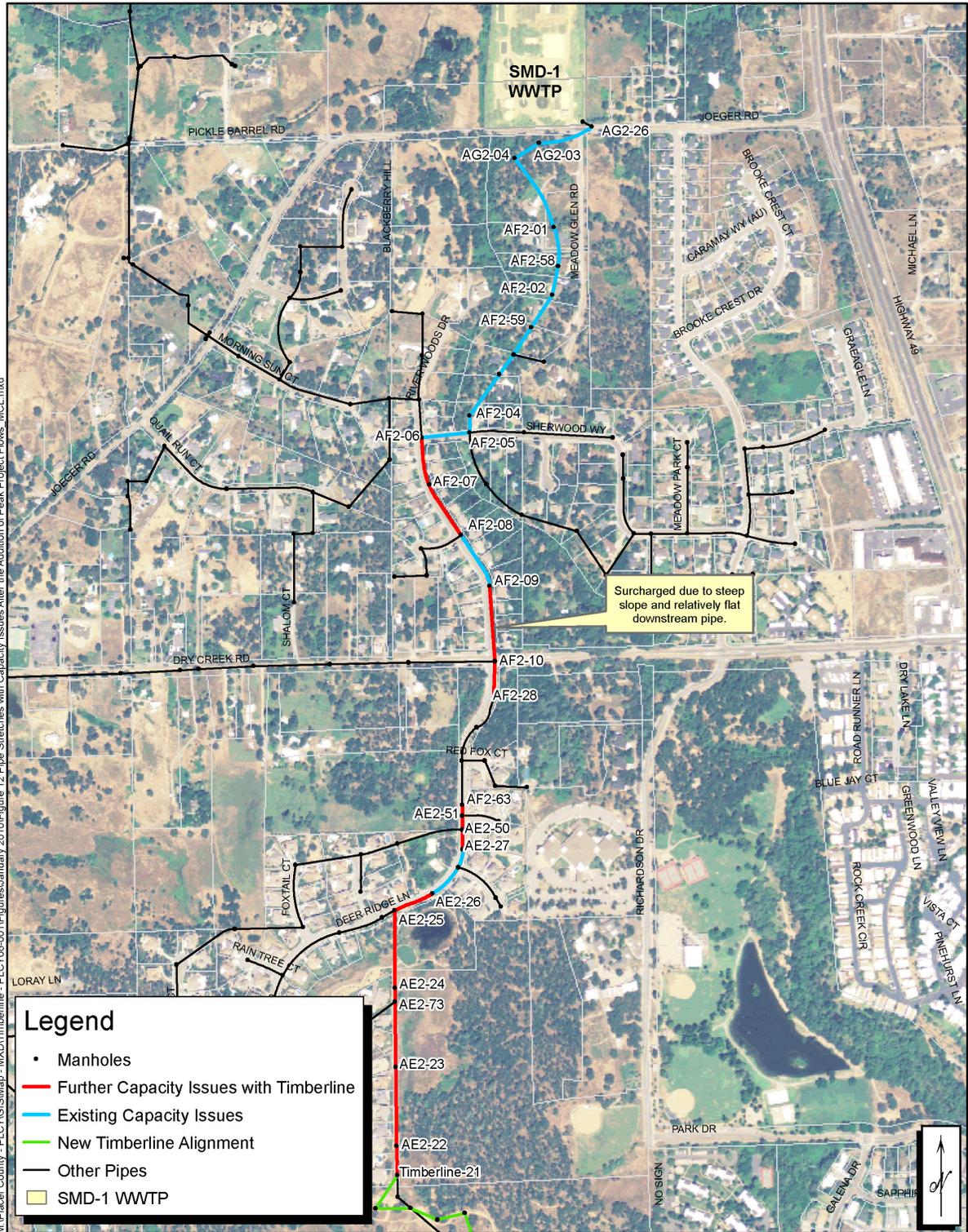


**Figure 5-5
 Off-Site Sewer Pine Alignment and Replacement Sections**



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 Timberline Project

Figure 12
 Pipe Stretches with Capacity Issues After the Addition of
 Peak Project Flows

Notes:

Three segments of pipe, from manholes AF2-63 to AF2-28, do not require upsizing as part of the Timberline improvements. However, since the majority of the sewer trunk from the Timberline project to the SMD-1 WWTP would be replaced/upsized during the course of the buildout of the project, the project sewer report includes a recommendation for these three stretches of pipe to be concurrently upsized to accommodate buildout development. See Impact 12-2, Increased Demand for Wastewater Disposal, of Chapter 12, *Public Services and Utilities*, for a detailed discussion of the needed off-site sewer improvements.

Figure 5-5 shows the alignment from the northern boundary of the project site to the Joeger Road SMD-1 Wastewater Treatment Plant (WWTP). The numbers next to the alignment, such as “AE2-22,” are numbers given by the County to specific sewer manholes along the alignment. The off-site sewer alignment construction impact area would vary in width, depending on the location. Generally, for segments of the off-site alignment where there are no sensitive resources, the sewer construction impact area (i.e., work area) would have a maximum width of approximately 30 feet; however, if there are sensitive resources or receptors, such as wetlands or residential properties, the construction impact area would be reduced to approximately 10 feet in width. Specific widths of the construction impact area along the off-site sewer alignment are as follows, using the manhole designations illustrated in Figure 5-5 as identification points:

- Northern boundary of Timberline Project, north to AE2-24. For most of this section a 25-foot construction width would be utilized; however, there are several areas in this section where the construction width would narrow down to avoid wetland areas and existing native oaks.
- AE2-24 to AE2-25. The construction impact area would be 10 feet in width.
- AE2-25 to AF2-05. This portion of the off-site alignment is within County road right-of-way; therefore, construction activities would be restricted to the County road easement width.
- AF2-05 to Joeger Road. The construction impact area would be restricted to 10 feet unless property owners grant permission to utilize a wider area up to 30 feet in width.

On August 31, 2009, Nick Pappani of Raney Planning & Management met with County Facility Services Staff and the project applicant, to conduct a site visit and photograph the off-site sewer alignment area (See Appendix N, Off-Site Sewer Alignment Photographs). As shown in Figures 5-6, 5-7, and 5-8, the off-site sewer alignment area contains several small oak trees and landscape trees. Upsizing of the off-site sewer pipe would require the removal of several protected oaks well under 24 inches within the construction impact area of the off-site sewer alignment.

In addition, on the ARD property there are several trees, including oaks, located outside of the construction impact area, but within close proximity (See Figures 5-9 and 5-10). During construction of the off-site sewer, tree protection methods will need to be implemented to avoid potential impacts to nearby protected trees.

Figure 5-6
Photo 9 - Looking SW from Manhole AF2-59 at Alignment to Manhole AF2-03



Figure 5-7
Photo 18- Looking NE from Manhole AG2-04 at Alignment



**Figure 5-8
Photo 20 - Looking NE from Manhole AG2-03 at Alignment**



**Figure 5-9
Photo 26 - View of Oaks South of Manhole AE2-23**



Figure 5-10
Photo 28 – View of Manhole AE2-22 Looking South

