

Alachua County Health Department

Environmental Health Section



Question

- What role do septic systems play in the fecal coliform loading of Sweetwater, Tumblin' and Hogtown Creeks?
- Of the 8 watersheds in urban Gainesville, these 3 were prioritized due to data indicating poor water quality.

Funding

- In July of 2004, the State Health Office, Bureau of Onsite Sewage Programs, awarded the ACHD \$20,000 to implement the project titled:

“FECAL COLIFORM LOADING ATTRIBUTED TO ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS IN THE HOGTOWN, TUMBLIN’ AND SWEETWATER CREEK SYSTEMS, IN GAINESVILLE, FLORIDA.”

Work to be Completed:

- a. Identification of parcels not served by Gainesville Regional Utilities (GRU) that abut creeks.
- b. Development of digital map of parcels identified in (a.).
- c. Recruitment, selection, and training of staff.
- d. Requisition and procurement of necessary equipment.

Work to be Completed (continued)

- e. GPS location of OSTDS on parcels abutting creek system in the study area, develop and generate accurate GIS maps of OSTDS locations in the watershed.
- f. Qualitative evaluation of OSTDS functionality:
 - 1. Are there visible signs of system failure? Y/N
- g. Evaluation of onsite soils to six feet below natural grade:
 - 1. Soil Series identification per Soil Survey of Alachua County.
 - 2. Textural soils assessment utilizing USDA methodology to six feet below natural grade.
 - 3. Seasonal high water table (SHWT) identification.

Work to be Completed (continued)

- h. Setback measurements of infiltrative absorption surface of drainfield:
 - 1. Horizontal setback determination to creek.
 - 2. Vertical separation to SHWT.
- i. Water quality assessment of creek at selected intervals measuring fecal coliform levels.

Characterization of Evaluated OSTDS

- Based upon data results of items f. through i. above, a characterization of the investigated OSTDS in terms of its potential impact to the creek were documented as follows:

Potential Impact to Creek

- 1. Confirmed impact to creek:
 - Visible signs of untreated effluent impacting creek.
- 2. Significant potential for adverse impact to creek:
 - No visible signs of impact to creek.
 - Horizontal setback to creek of less than 75 feet and/or:
 - Vertical setback to SHWT of less than 24 inches.
- 3. Minor potential for adverse impact to creek:
 - No visible signs of impact to creek.
 - Horizontal setback of greater than 75 feet and:
 - Vertical setback to SHWT of greater than 24 inches.

Basis for Setbacks (Fecal Coliform Loading)

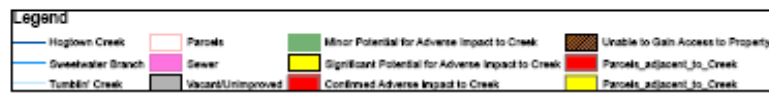
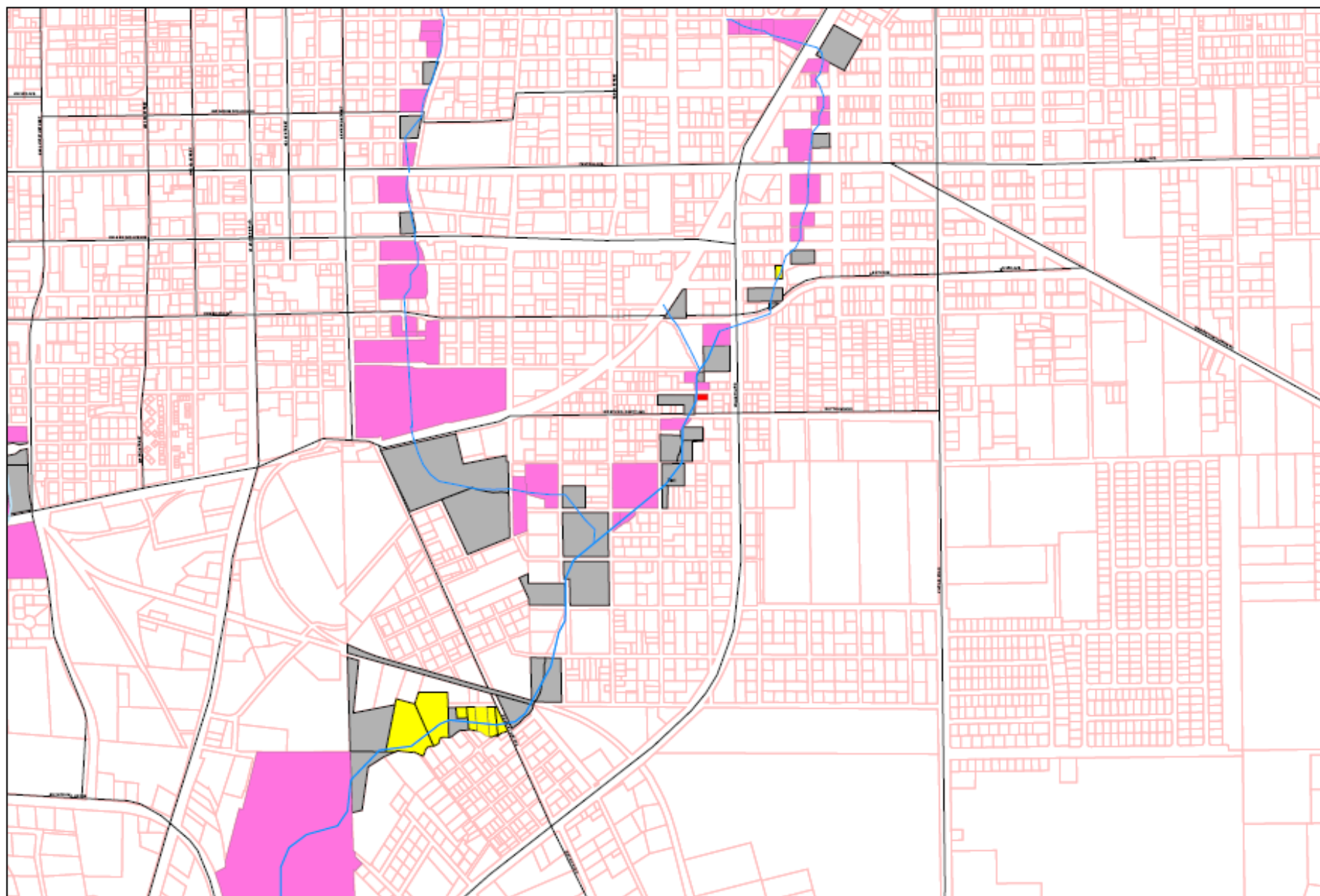
■ Vertical Setback:

- Lewis, A.L., Stark, L.M., 1993, Florida OSDS Research Project.
- EPA, Onsite Wastewater Treatment Systems Manual, 2002, EPA/625/R-00/008

■ Horizontal Setback:

- Canter, L.W., Knox, R.C., 1985, Septic Tank System Effects on Groundwater Quality
- EPA, Onsite Wastewater Treatment Systems Manual, 2002, EPA/625/R-00/008

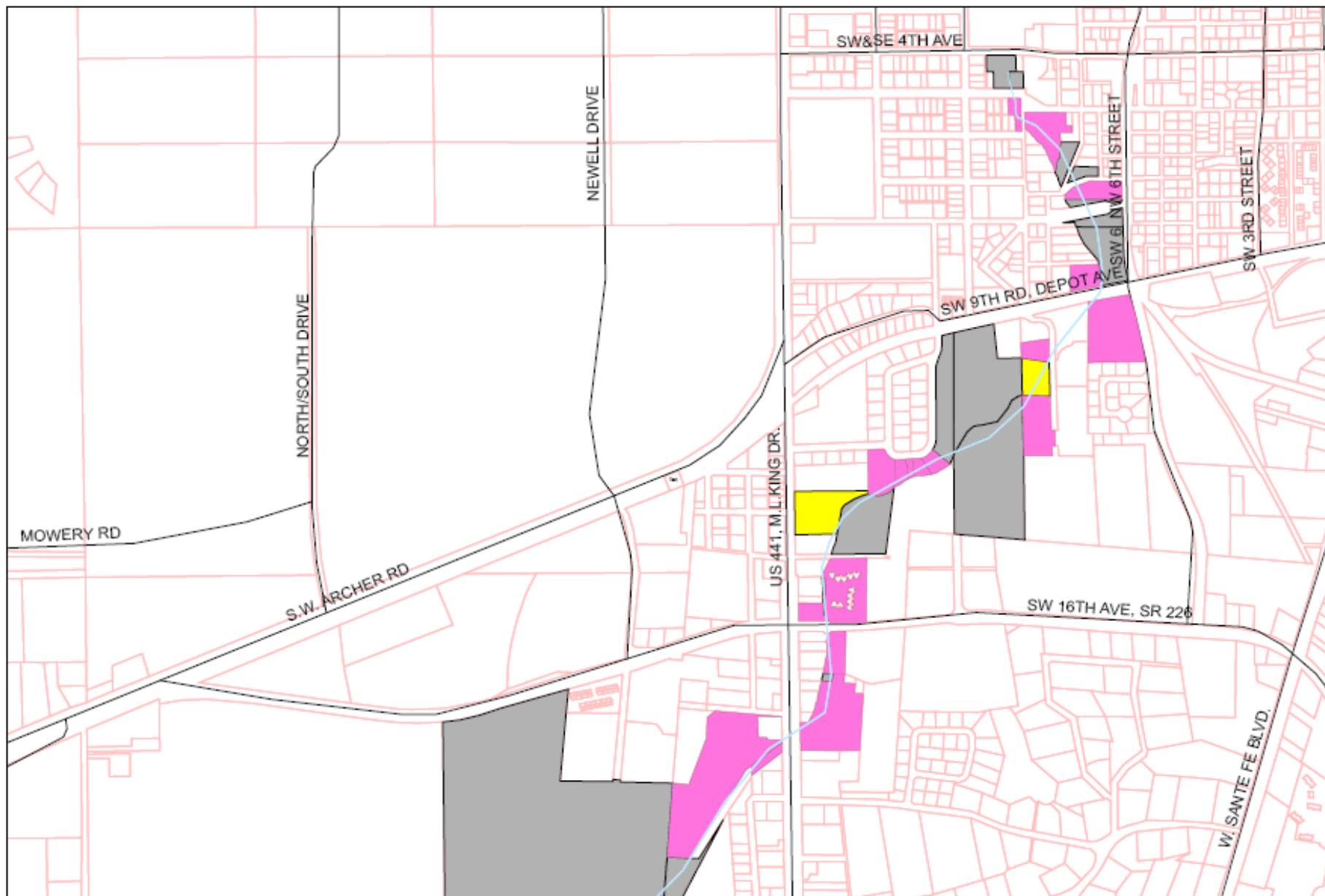
SWEETWATER BRANCH



Sweetwater Stats

- 9 parcels on OSTDS
 - 0 w/ Minor potential
 - 7 w/ significant potential
 - 2 w/ suspected impact

TUMBLIN'



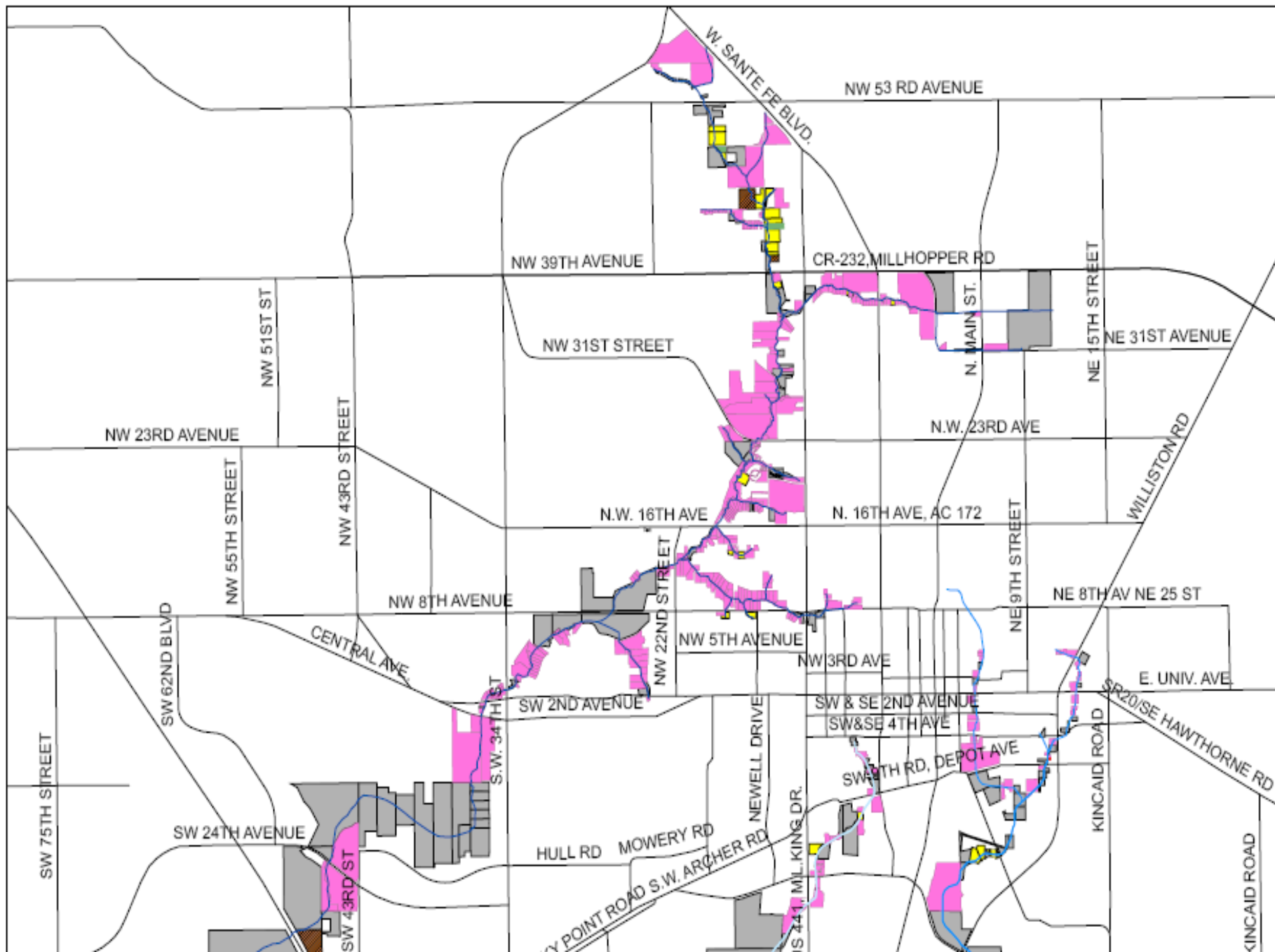
Legend							
	Hogtown Creek		Parcels		Minor Potential for Adverse Impact to Creek		Unable to Gain Access to Property
	Sweetwater Branch		Sewer		Significant Potential for Adverse Impact to Creek		Parcels adjacent to Creek
	Tumblin' Creek		Vacant/Unimproved		Confirmed Adverse Impact to Creek		Parcels adjacent to Creek



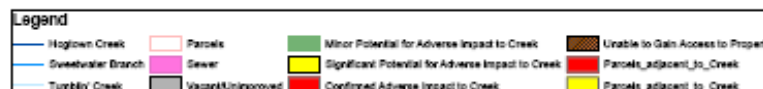
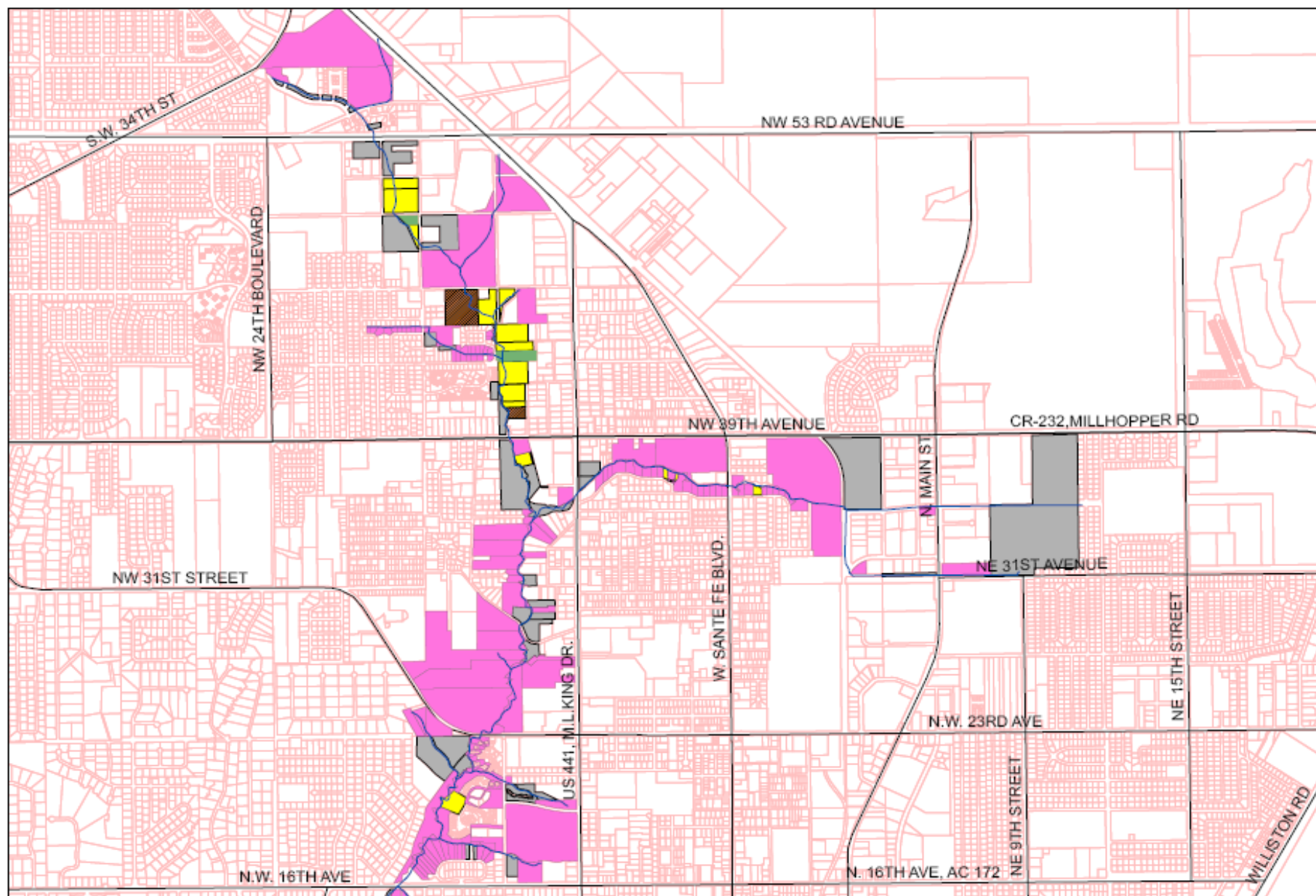
Tumblin' Stats

- 3 possible parcels on OSTDS
 - 1 unable to gain access
 - 0 w/ minor potential
 - 2 w/ significant potential
 - 0 w/ confirmed impact

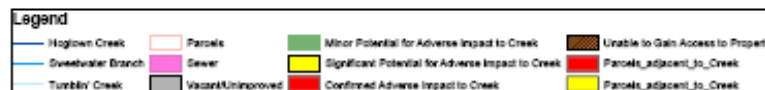
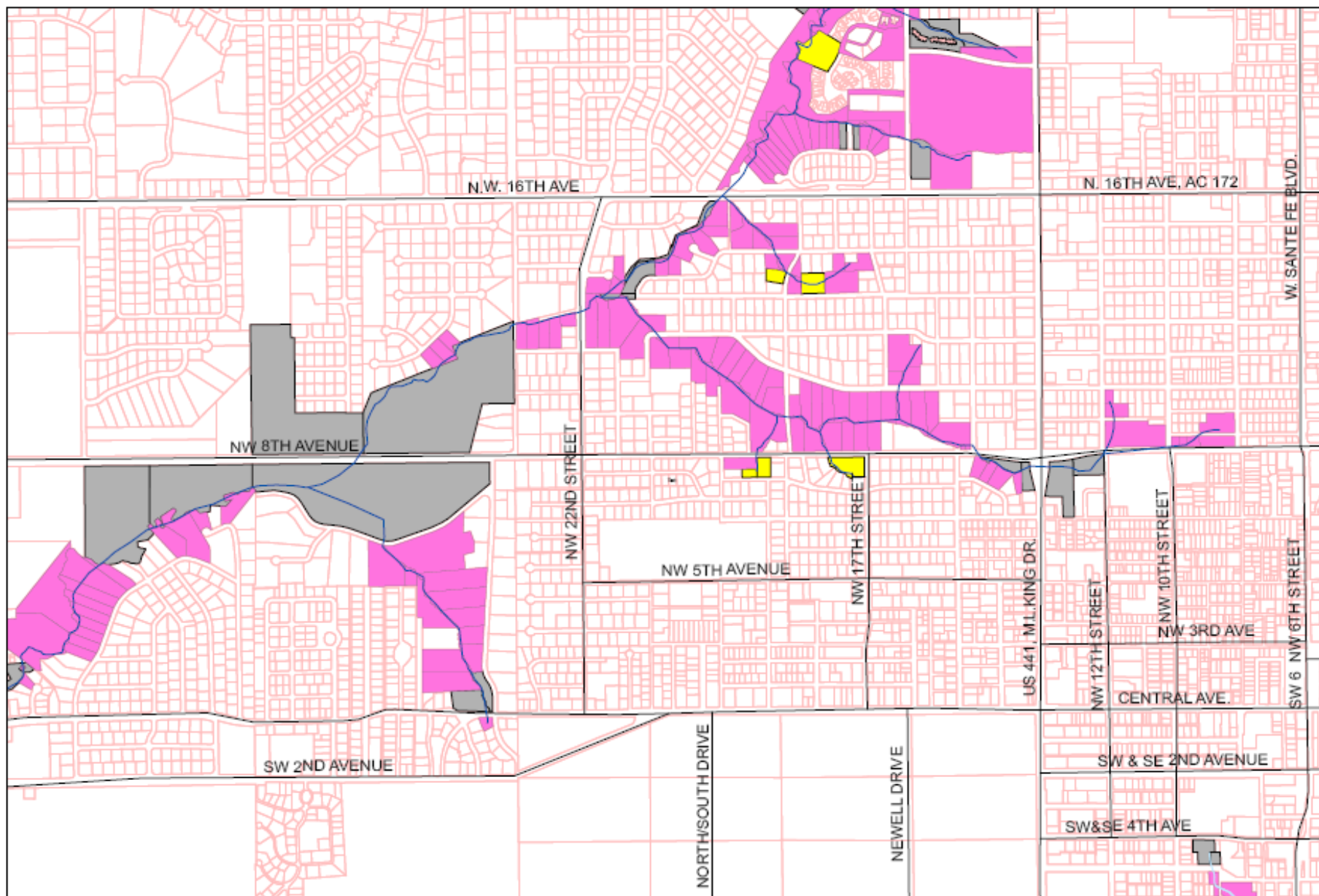
HOGTOWN CREEK



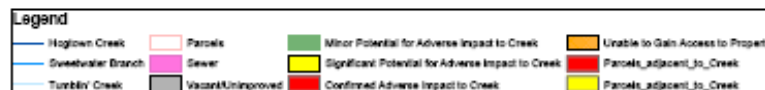
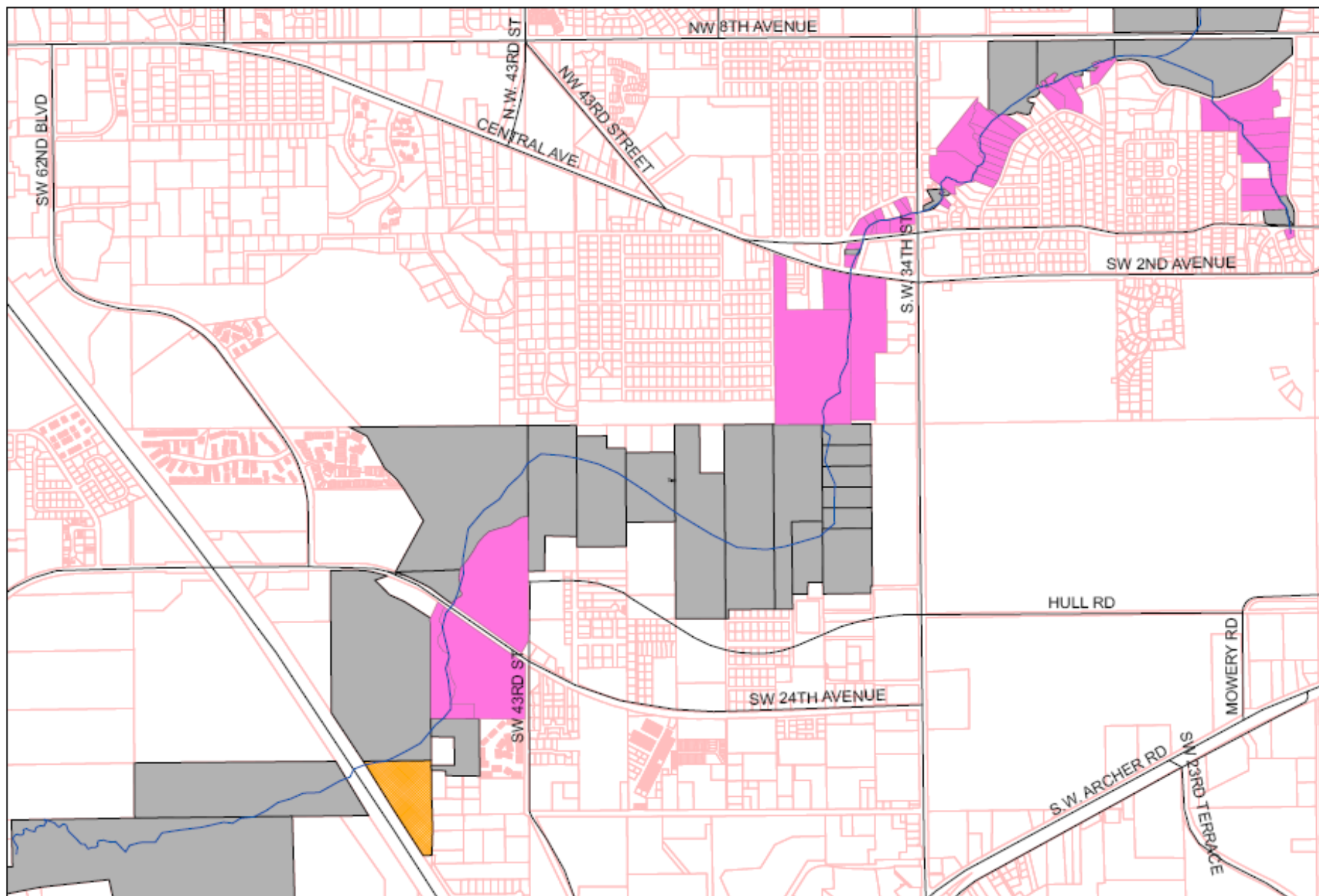
HOGTOWN CREEK



HOGTOWN CREEK



HOGTOWN CREEK

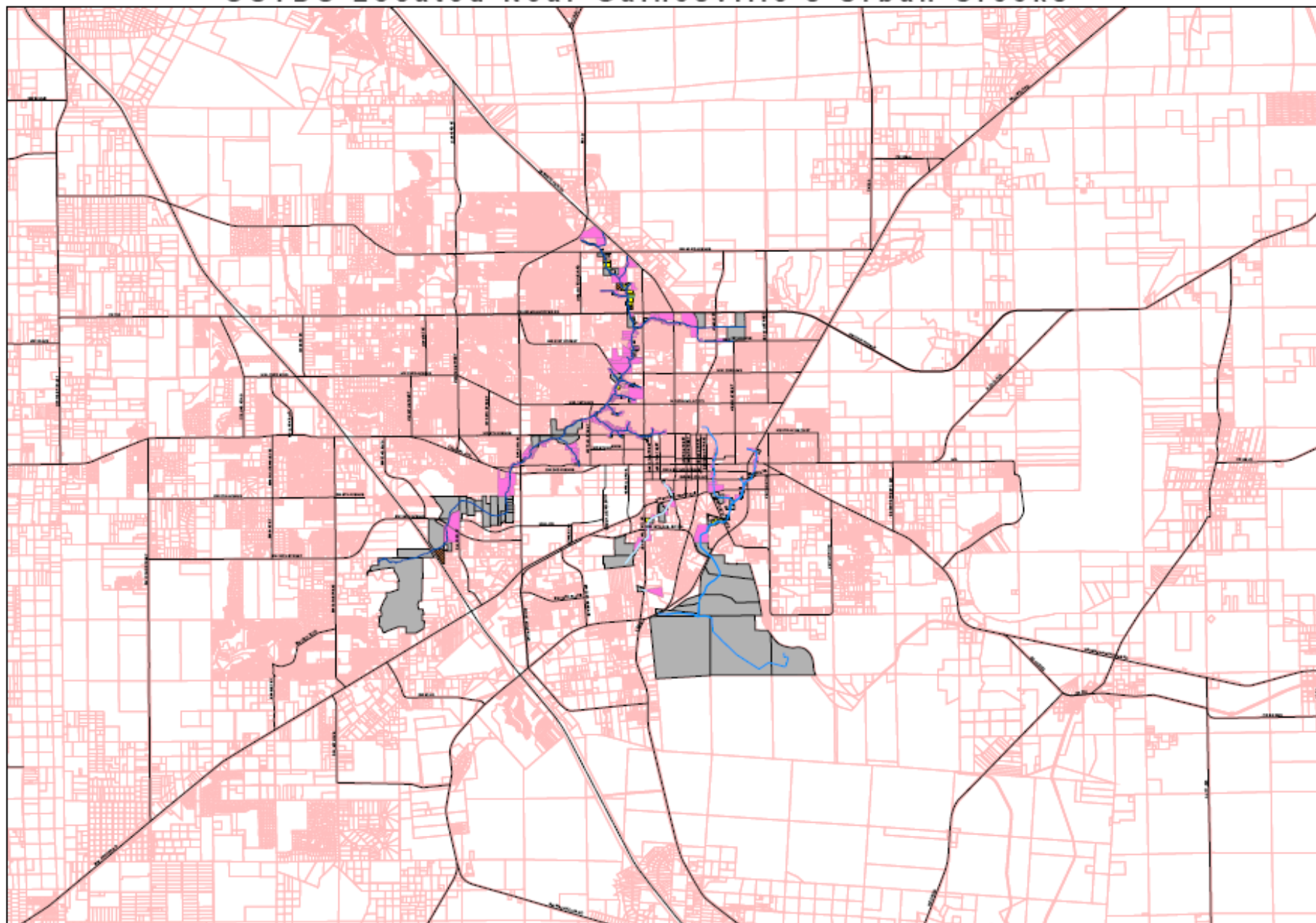


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Hogtown Stats

- 25 parcels on OSTDS
 - 3 unable to gain access
 - 2 w/ minor potential
 - 20 w/ significant potential
 - 0 w/ confirmed impact

OSTDS Located Near Gainesville's Urban Creeks



Legend			
Hogtown Creek	Parcels	Minor Potential for Adverse Impact to Creek	Unable to Gain Access to Property
Sweetwater Branch	Sewer	Significant Potential for Adverse Impact to Creek	Parcels adjacent to Creek
Turnbull Creek	Vacant/Unimproved	Confirmed Adverse Impact to Creek	Parcels adjacent to Creek

Hogtown, Tumblin' & Sweetwater Summary

- 455 total parcels that abut creeks
- 301 on GRU Sewer (66%)
- 36 on OSTDS (8%)
- 118 unimproved (26%)