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January 4, 2013

RECEIVED
JAN 04 2013
PUBLIC SERVICE
COMMISSION

VIA HAND DELIVERY

Jeff Derouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, KY 40601

RE: *In the Matter of: Application of Jessamine-South Elkhorn Water District for a Certificate of Public Convenience and Necessity to Construct and Finance a Waterworks Improvement Project Pursuant to KRS 278.020 and 278.300* – Case No. 2012-00470

Dear Mr. Derouen:

In accordance with the Commission's November 27, 2012 Order, please find and accept for filing the original and five copies of Forest Hills Residents' Association, Inc.'s and William Bates' Notice of Filing a report prepared by Photo Science, which supplements certain data responses propounded by the Jessamine-South Elkhorn Water District.

Portions of the report contain information for which the Water District has sought confidential protection. To protect the confidentiality of the Water District's information, an original and five copies of the redacted report have been provided to the Commission, with an unredacted copy provided in a sealed envelope with all confidential information designated by yellow highlighting.

Please acknowledge receipt of these filings by placing the stamp of your Office with the date received on the enclosed additional copies and return them to me. Should you have any questions pleased contact me at your convenience.

Sincerely,

Stoll Keenon Ogden PLLC

Monica H. Braun

Monica H. Braun

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED
JAN 04 2013
PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF JESSAMINE-SOUTH ELKHORN WATER DISTRICT FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT AND FINANCE A WATERWORKS IMPROVEMENT PROJECT PURSUANT TO KRS 278.020 AND 278.300	)	**CASE NO. 2012-00470**

FOREST HILLS RESIDENTS' ASSOCIATION, INC.'S AND WILLIAM BATES' NOTICE OF FILING

Forest Hills Residents' Association, Inc. and William Bates (collectively, "Intervenors"), by counsel, hereby provide notice of filing the attached report, *Jessamine South Elkhorn Water District Water Tank Siting Study*, which was prepared by Photo Science. The report supplements the responses to Item Nos. 4(c), 5, and 10 of the Intervenors' Responses to Jessamine-South Elkhorn Water District's First Set of Data Requests and Item No. 5 of the Intervenors' Responses to Jessamine-South Elkhorn Water District's Supplemental Requests for Information.

Portions of the report that utilize the Water District's distribution map, which was provided confidentially to the Intervenors pursuant to a request for confidential protection, have been redacted from the public version. An unredacted copy of the report has been provided to the Commission and the Water District, with the confidential information designated by yellow highlighting.

Dated: January 4, 2012

Respectfully submitted,

Robert M. Watt, III
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By: Monica H. Braun
Counsel for Intervenors

CERTIFICATE OF SERVICE

This is to certify that the foregoing pleading has been served by e-mail and by mailing a copy of same, postage prepaid, to the following person on this the 4th day of January 2012:

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Monica H. Braun
Counsel for Intervenors

114681.140074/4098081.1

Jessamine South Elkhorn Water District
Water Tank Siting Study

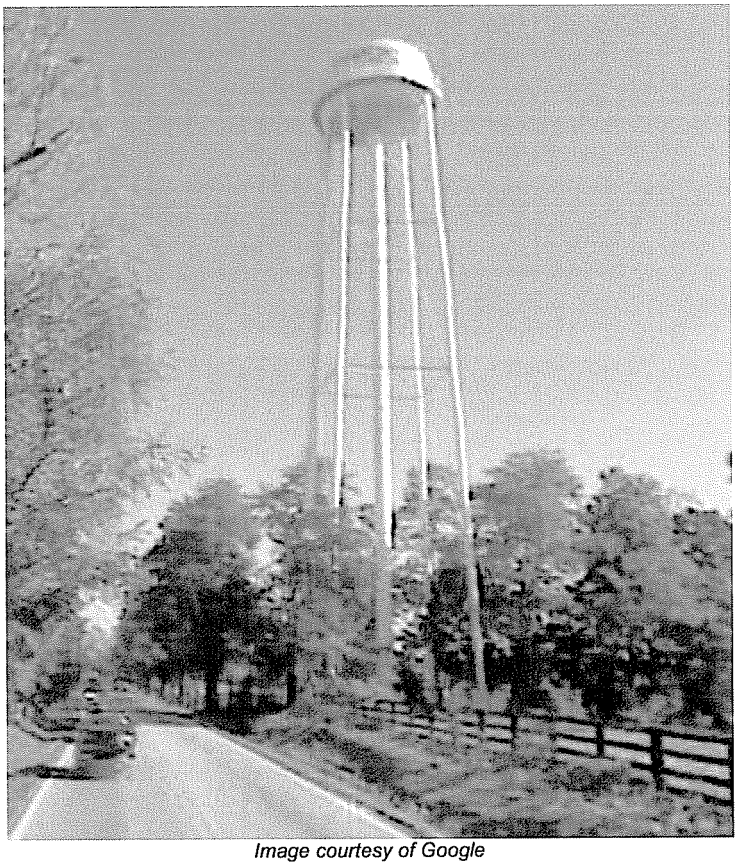


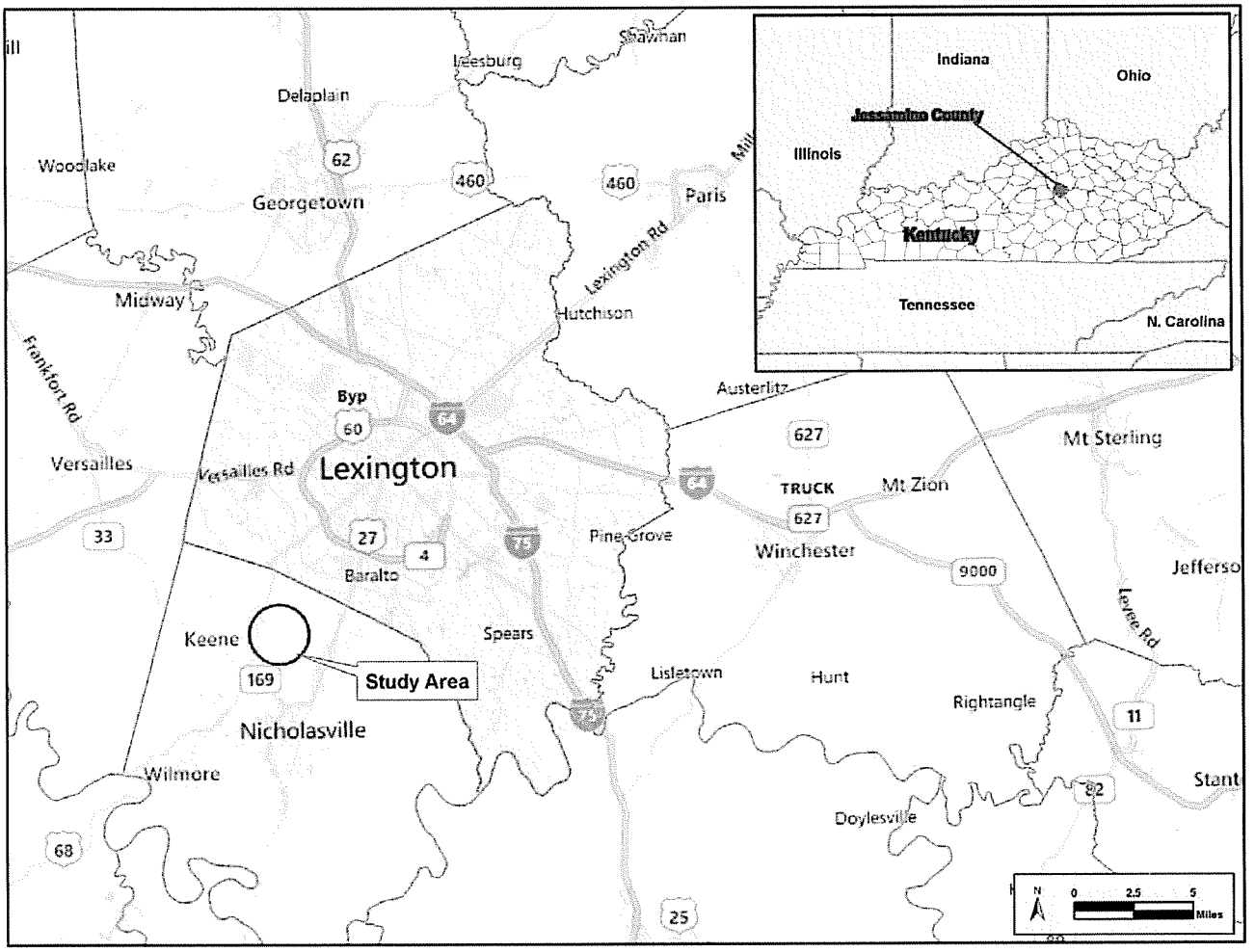
Image courtesy of Google

January 3, 2013

PHOTO SCIENCE
Geospatial Solutions

Table of Contents

1. Location Overview



As you can see on this map, the proposed site for the water tank is located south of Lexington, north of Nicholasville near the intersection of Harrodsburg and Catnip Hill Roads. This study examined alternative site locations within 1.25 miles of the proposed site. The study area is represented by the pink circle on this map.

2. Engineering Criteria

This evaluation was patterned after the Electric Power Research Institute / Georgia Transmission Corporation (EPRI/GTC) Transmission Line Siting Methodology, which has been used in Kentucky to site transmission lines for the past seven years. The team who performed this analysis helped develop the EPRI Siting Methodology and has implemented it in Kentucky on numerous projects. Given that electric transmission structures and large above ground water tanks can have similar impacts on the environment in which they are placed, general principles from the EPRI/GTC Methodology can be applied to the siting of large above ground water tanks. Siting Criteria were categorized by Engineering Criteria, the Natural Environment, and the Built Environment.

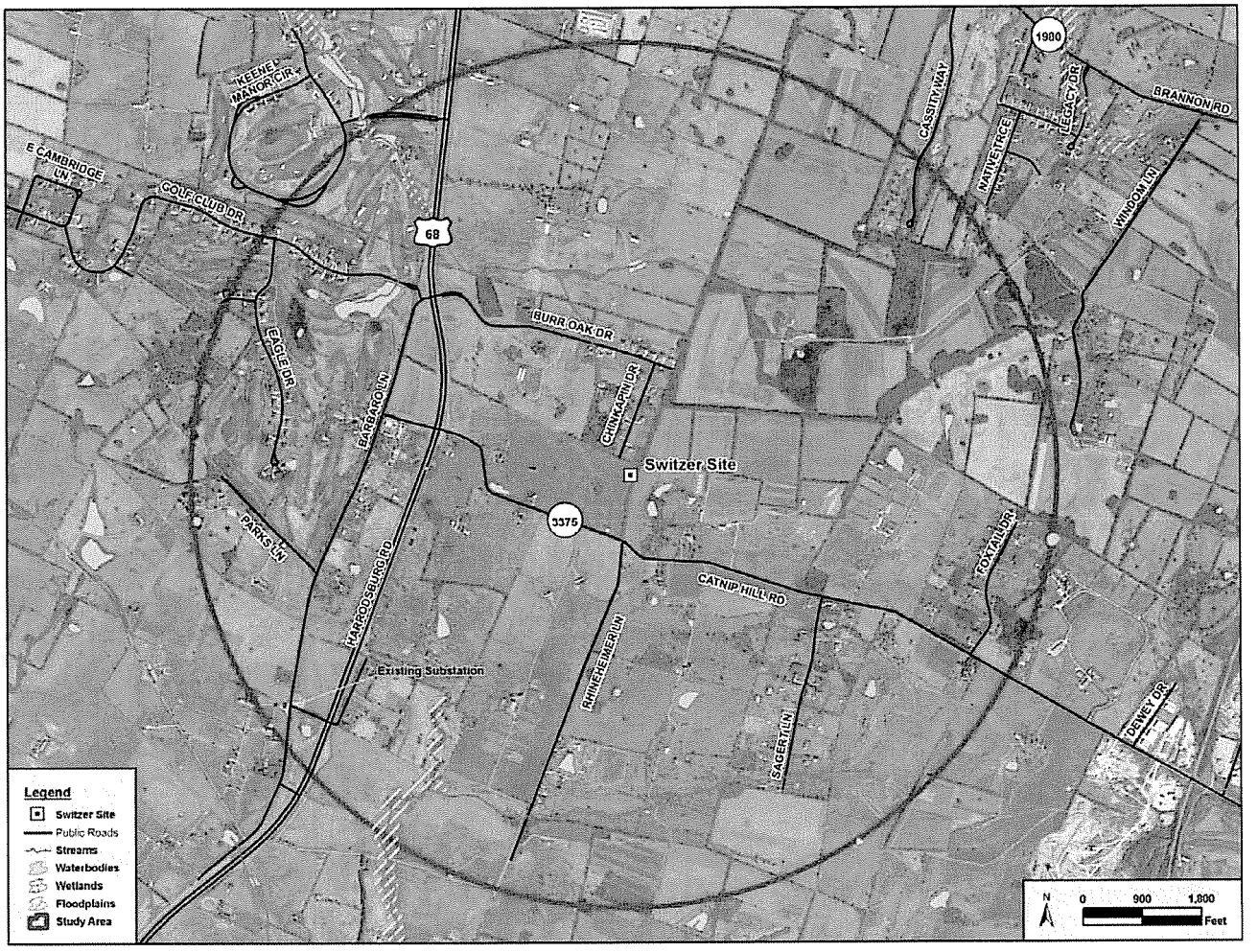
This map shows Engineering Criteria. According to the documents provided by the District, a primary concern is to locate the tank site on land that lies at least 950 feet above sea level. Using advanced mapping technology, Photo Science created the most accurate terrain map of Jessamine County that has ever been

created. This map was the basis for this study. The area on this map shown in black lies below 950 feet in elevation. Everywhere else in the study area lies above 950 feet.

According to the District, it is also important to locate the tank near a water main. The blue lines on this map show the location of all water lines in the area greater than 6 inches. The orange lines on this map show the location of proposed water projects according to the Kentucky Infrastructure Authority's website. The black lines show the public roads in the area. The green stars show the existing water tanks.

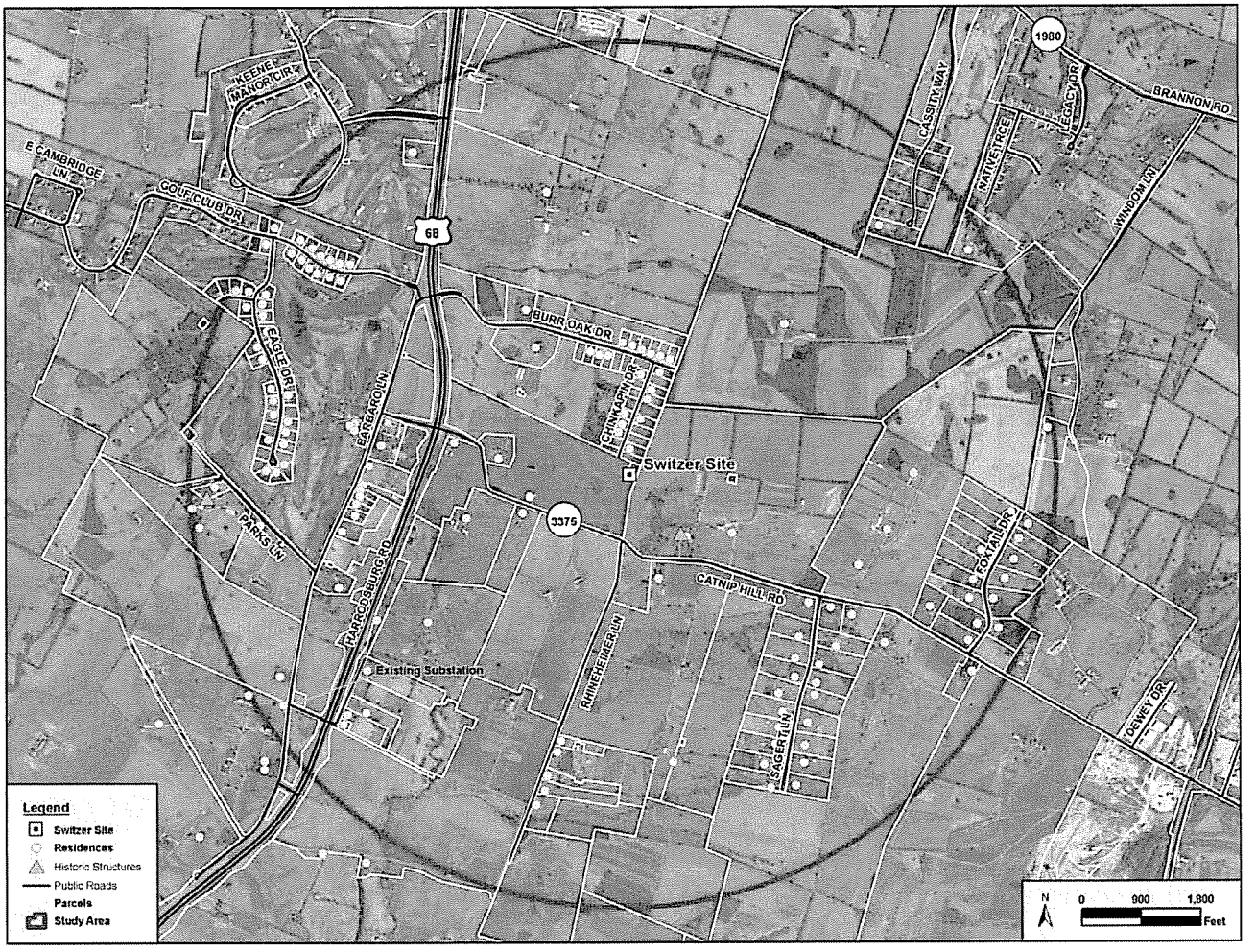
The blue points show water wells and the green points show springs. These are shown as areas you would want to avoid when siting a water tank.

3. Natural Environment



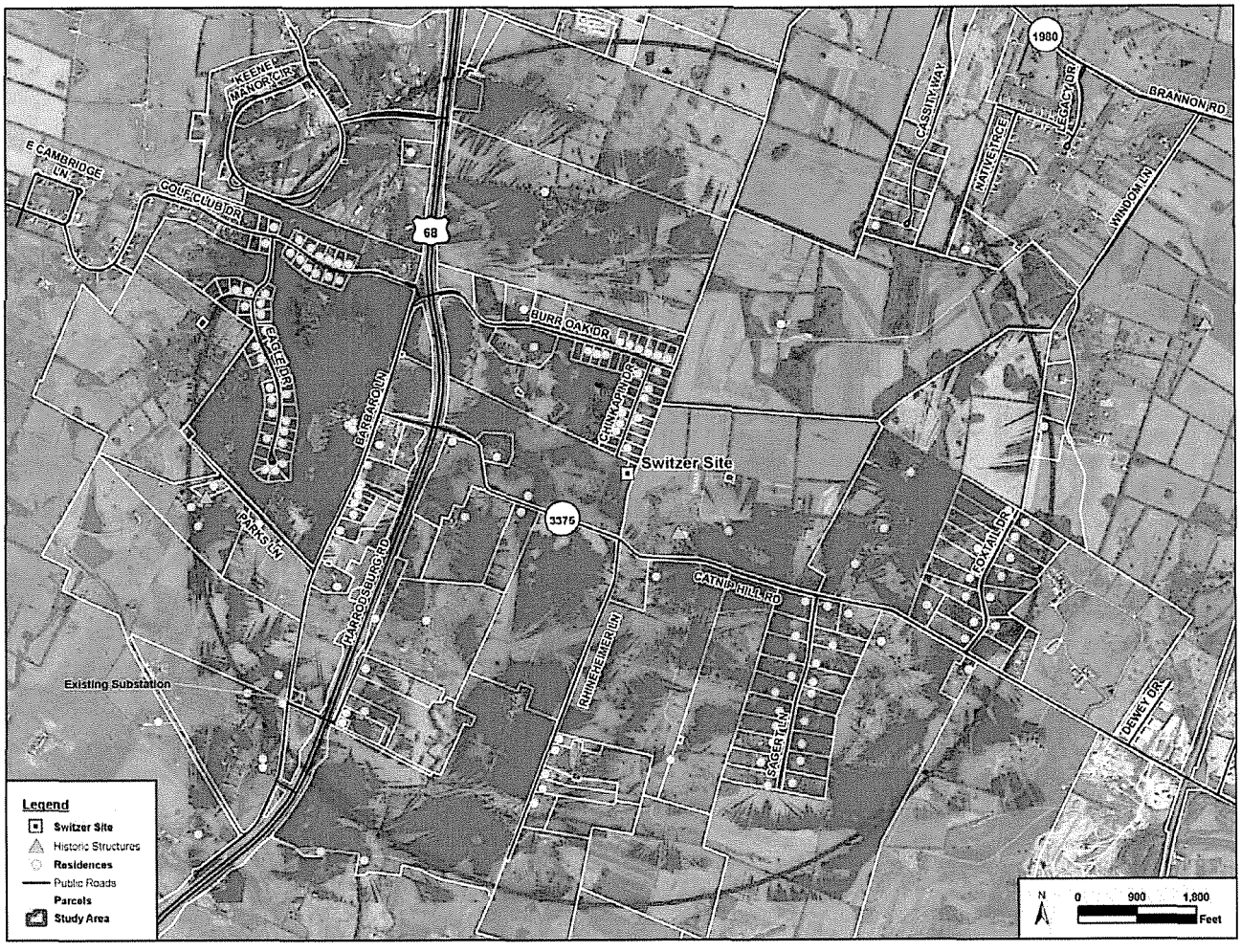
The Natural Criteria include 100-year flood zones, wetlands, streams, lakes and ponds.

4. Built Environment



The Built Environment includes man-made features. This map shows property lines and residences in the area. There are also a couple of historic properties shown on this map.

5. Built Environment with Viewshed

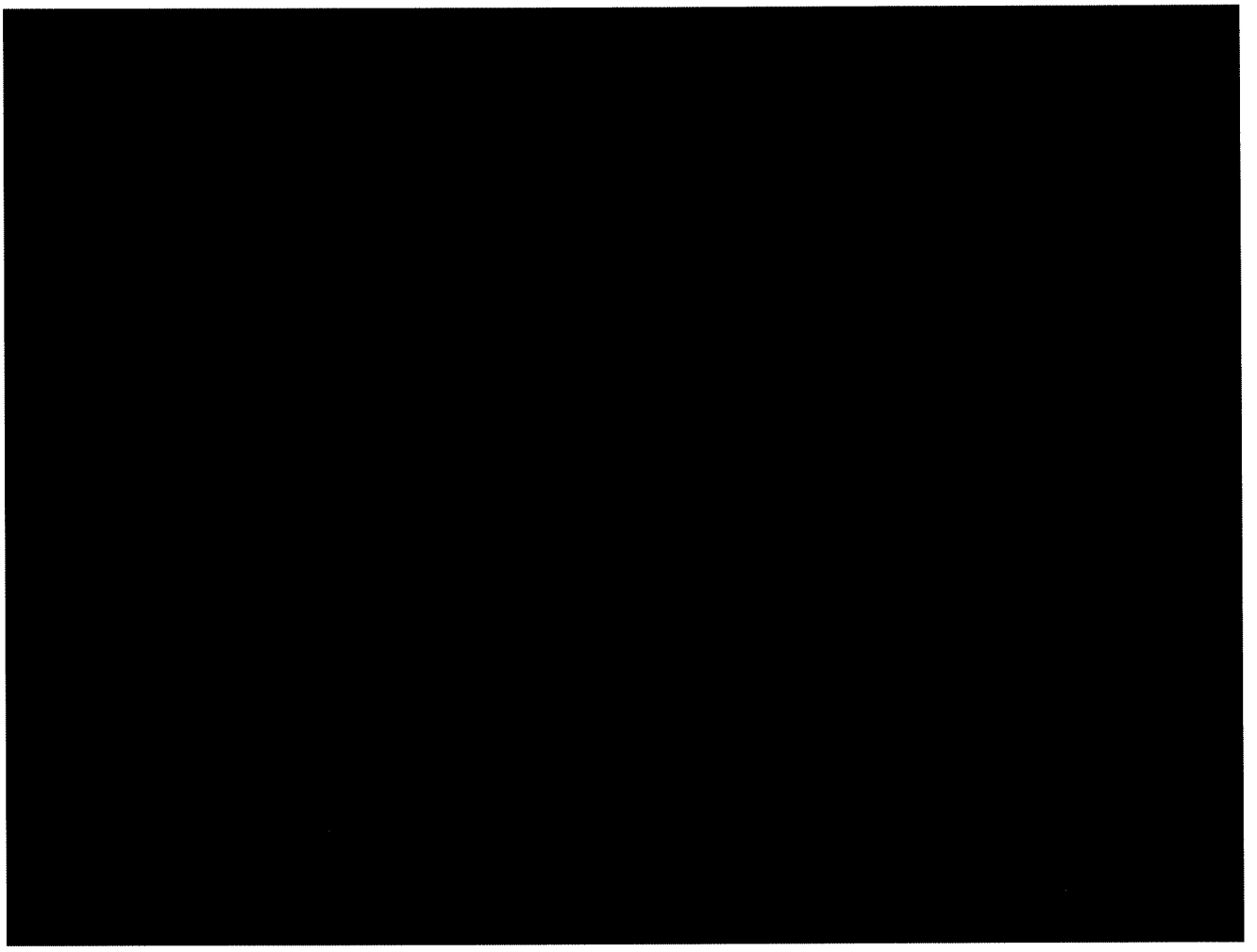


An important concern of the public is siting the tank in an area that has the least visual impact to the community. In order to determine areas that could be seen from residences, a viewshed analysis was performed using GIS technology. Viewshed analysis simply calculates the line of sight from residences to other locations in the area based on the map of the terrain and vegetation. The areas in red on this map are visible from residences. Therefore, the areas without red represent siting opportunities.

6. Alternate Sites

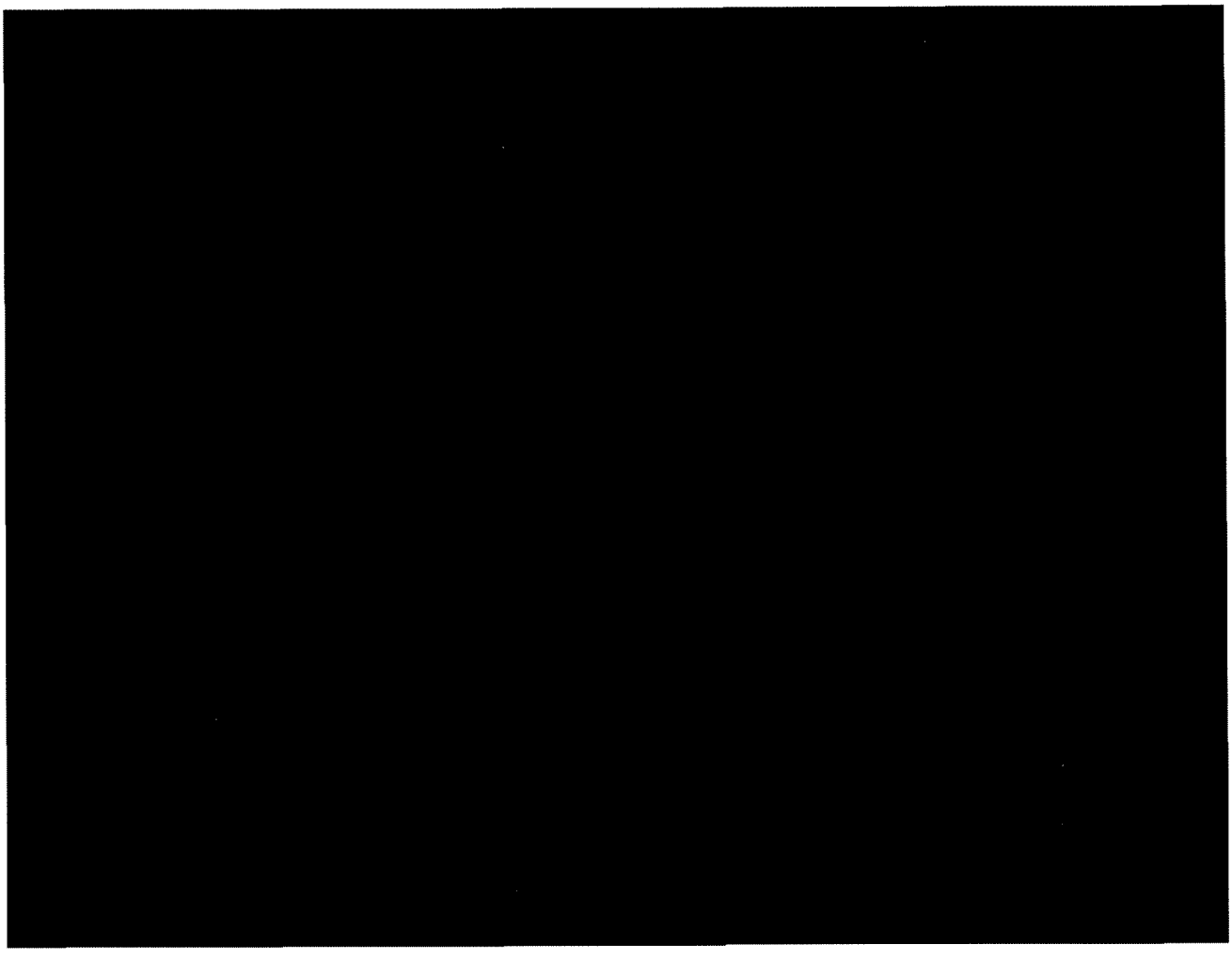
This map shows all of the siting criteria. Based on these features, the project team identified eight sites for the evaluation. The alternate sites include the proposed Switzer Site (Site C) and a site adjacent to an existing water tank referred to as the Brown Site (Site B). Site H is adjacent to an existing electrical substation. Site G is near the intersection of existing and proposed water lines. Sites F and E are on the proposed water line and on the "McMillan Farm". Site D is just across the property line and on the proposed water line. Finally, Site A is located in the north of the study area in a location that the analysis shows is relatively invisible to residences in the study area.

7. Site C (Switzer Site)



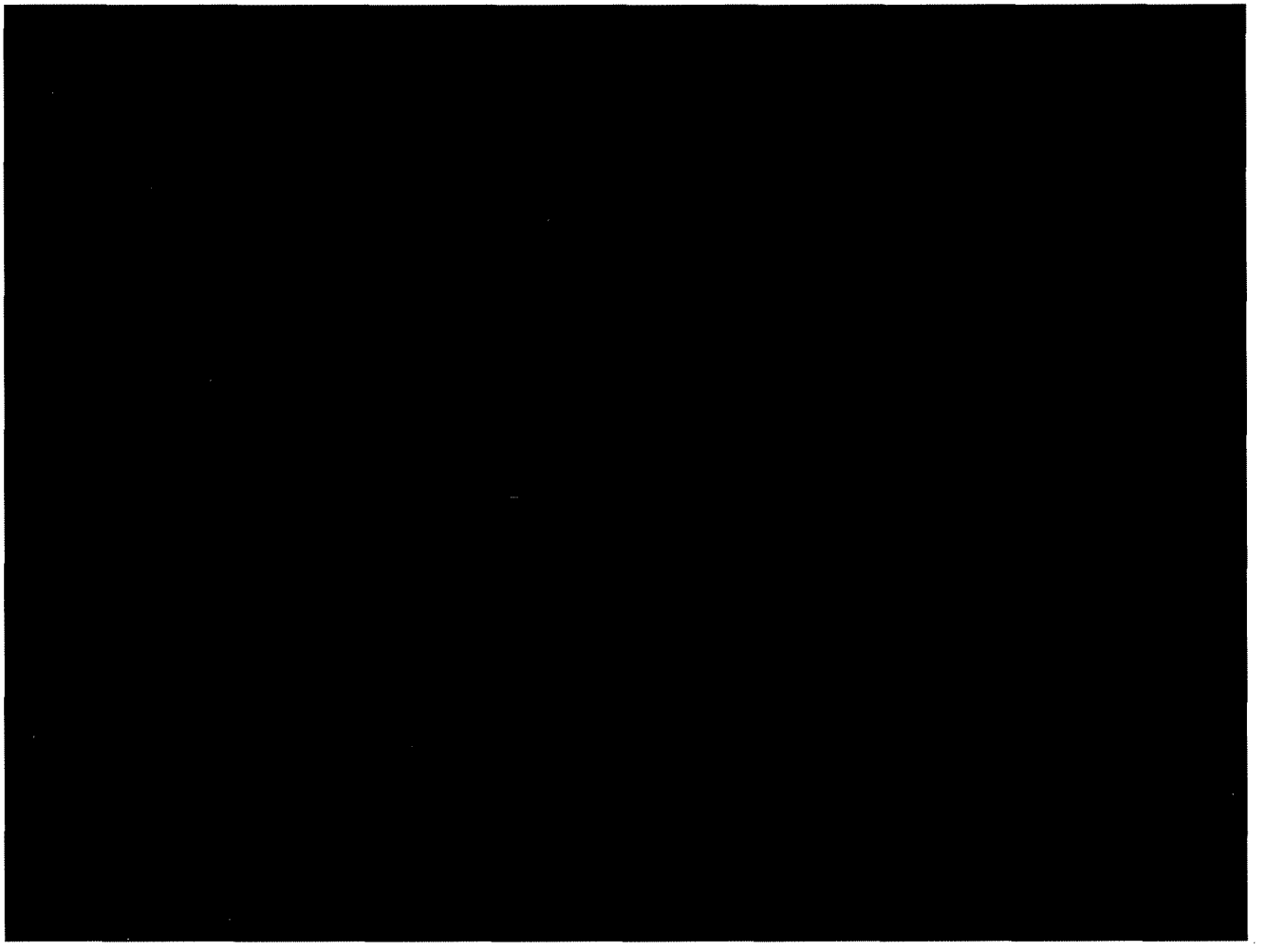
This map is focused on the area within half of a mile of the proposed Switzer Site. Based on the viewshed analysis, the red areas will likely be able to see the tank when it has been constructed. There are 16 residences that will likely have a view of the tank if constructed at this location.

8. Site B (Brown Site)



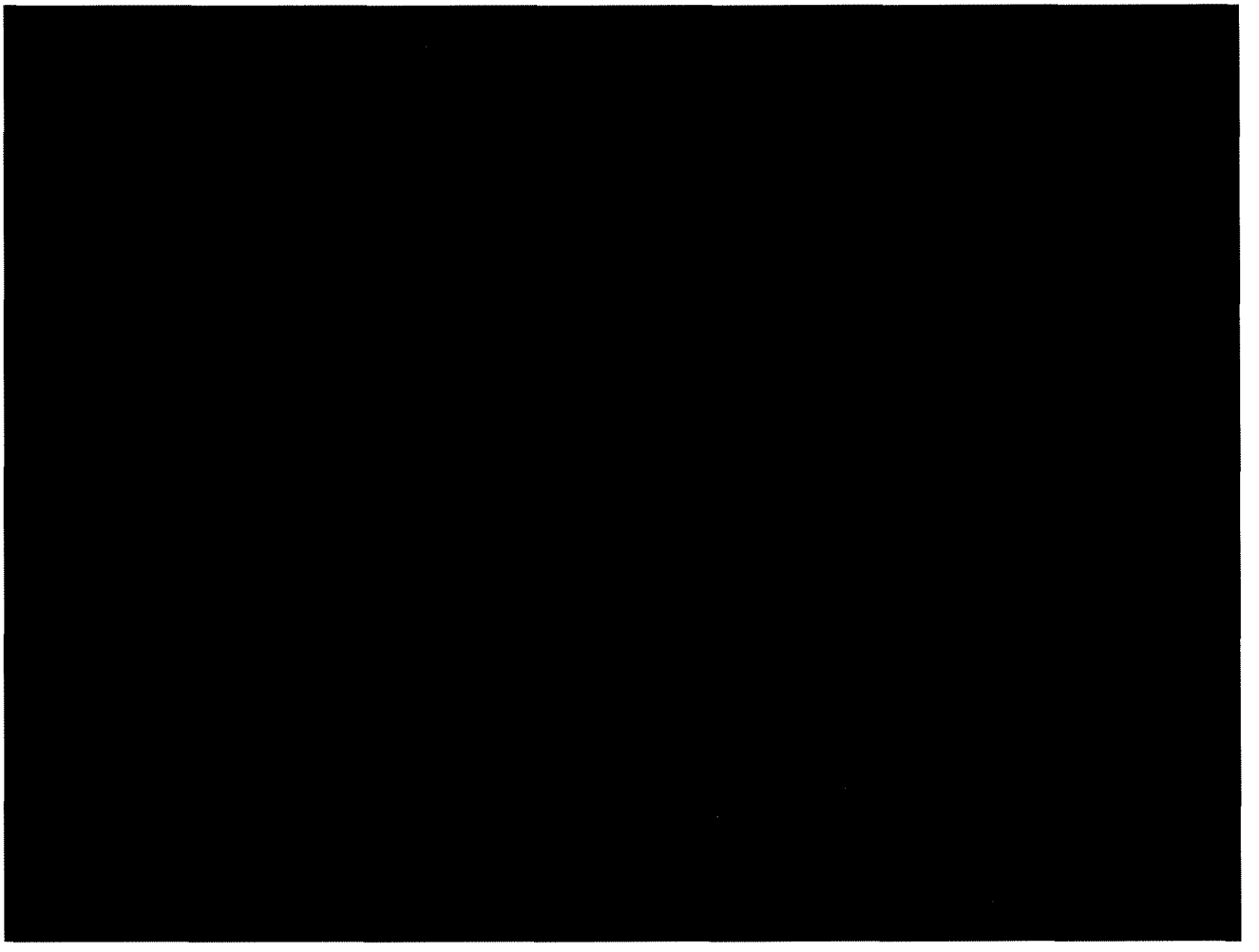
This map is focused on the area within half of a mile of the proposed Brown Site. There are 30 residences that will likely have a view of the tank if constructed at this location. However, there is an existing tank already located in the area and thus the visual impact may be lessened.

9. Site A



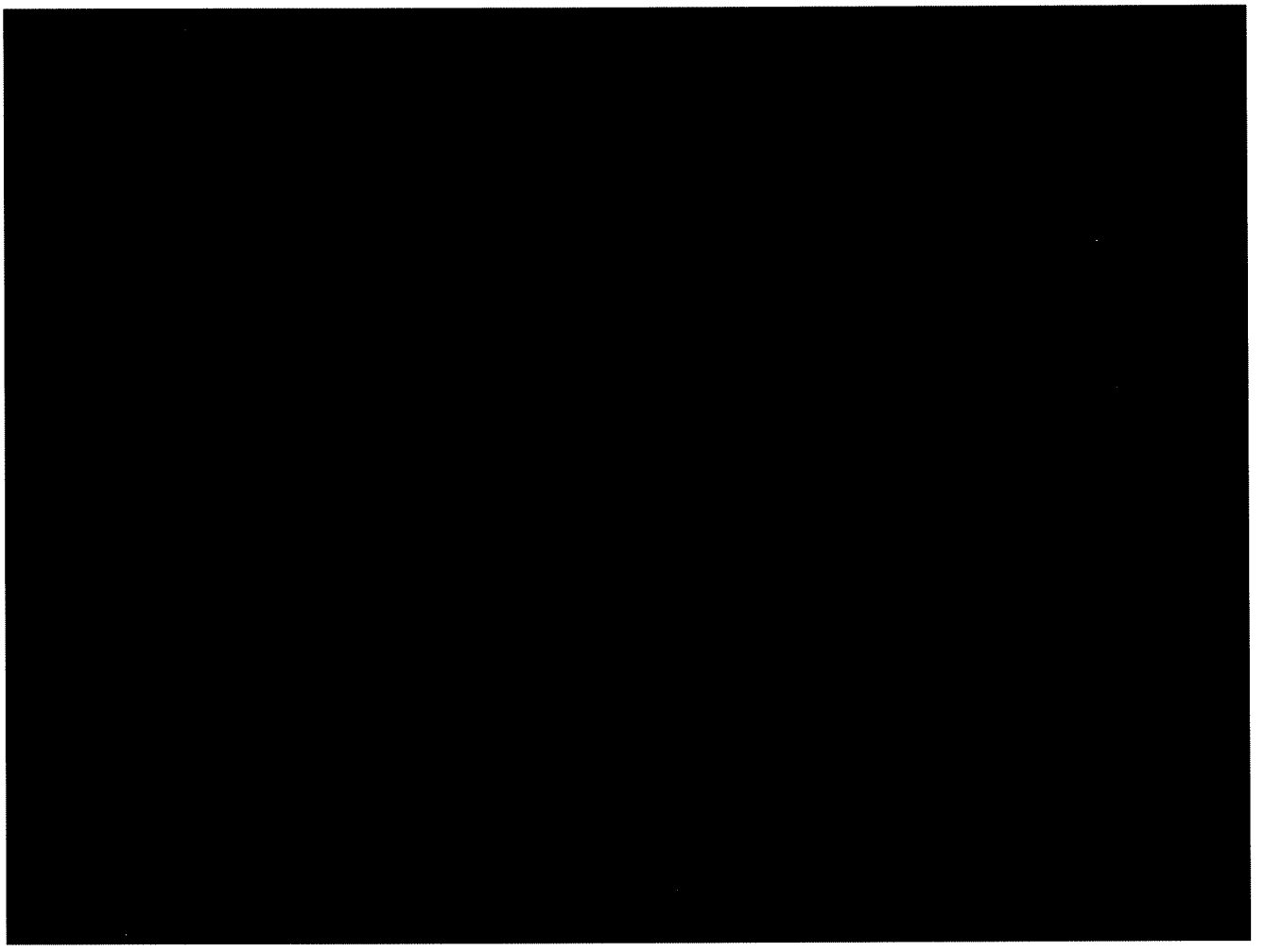
Site A is also located along the water project and it is likely that not a single residence would have a view of the tank at this location.

10. Site D



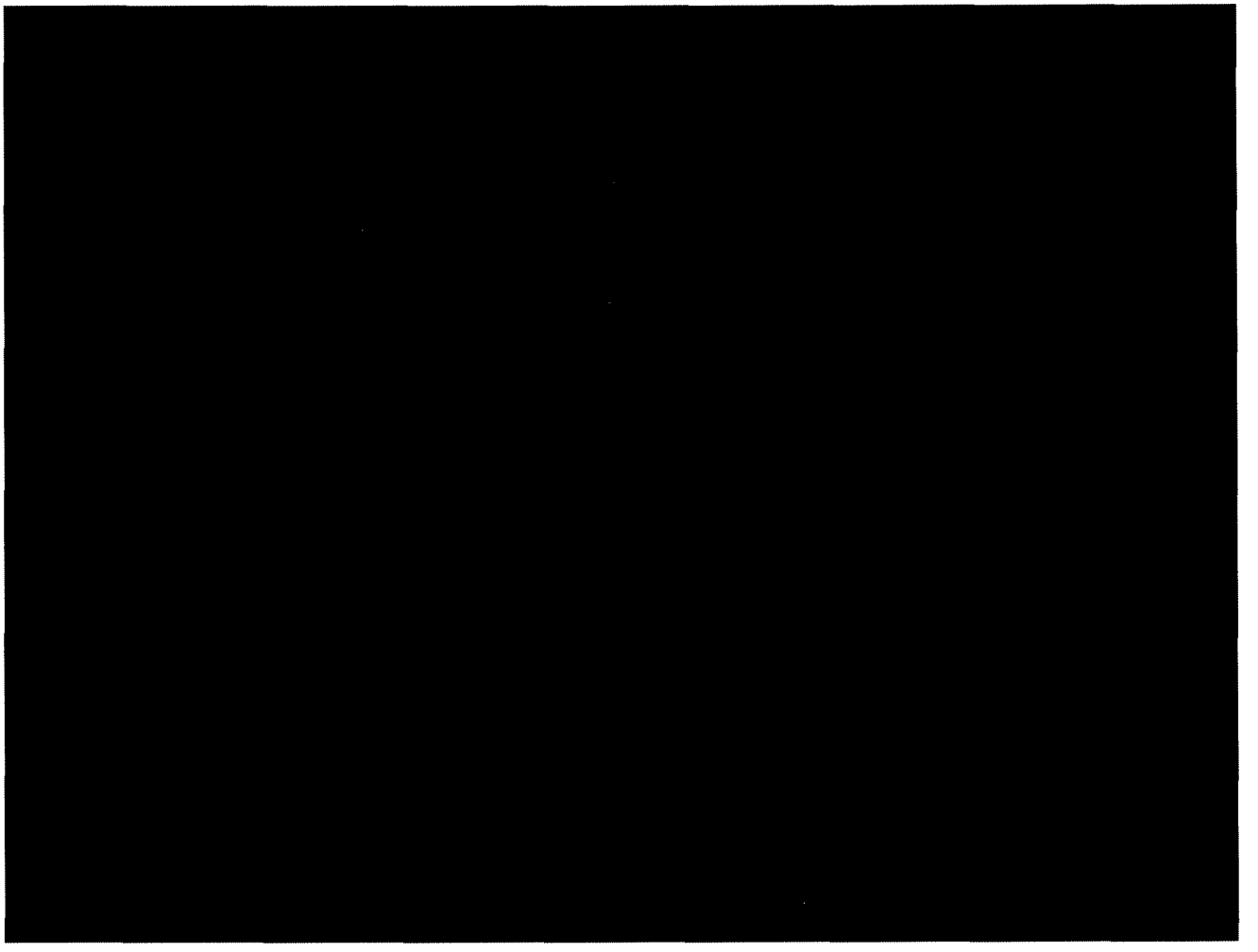
Site D is located on the property to the north of the McMillan Farm, also along the water project. Only five residences would likely have a view of the tank at this location.

11. Site E



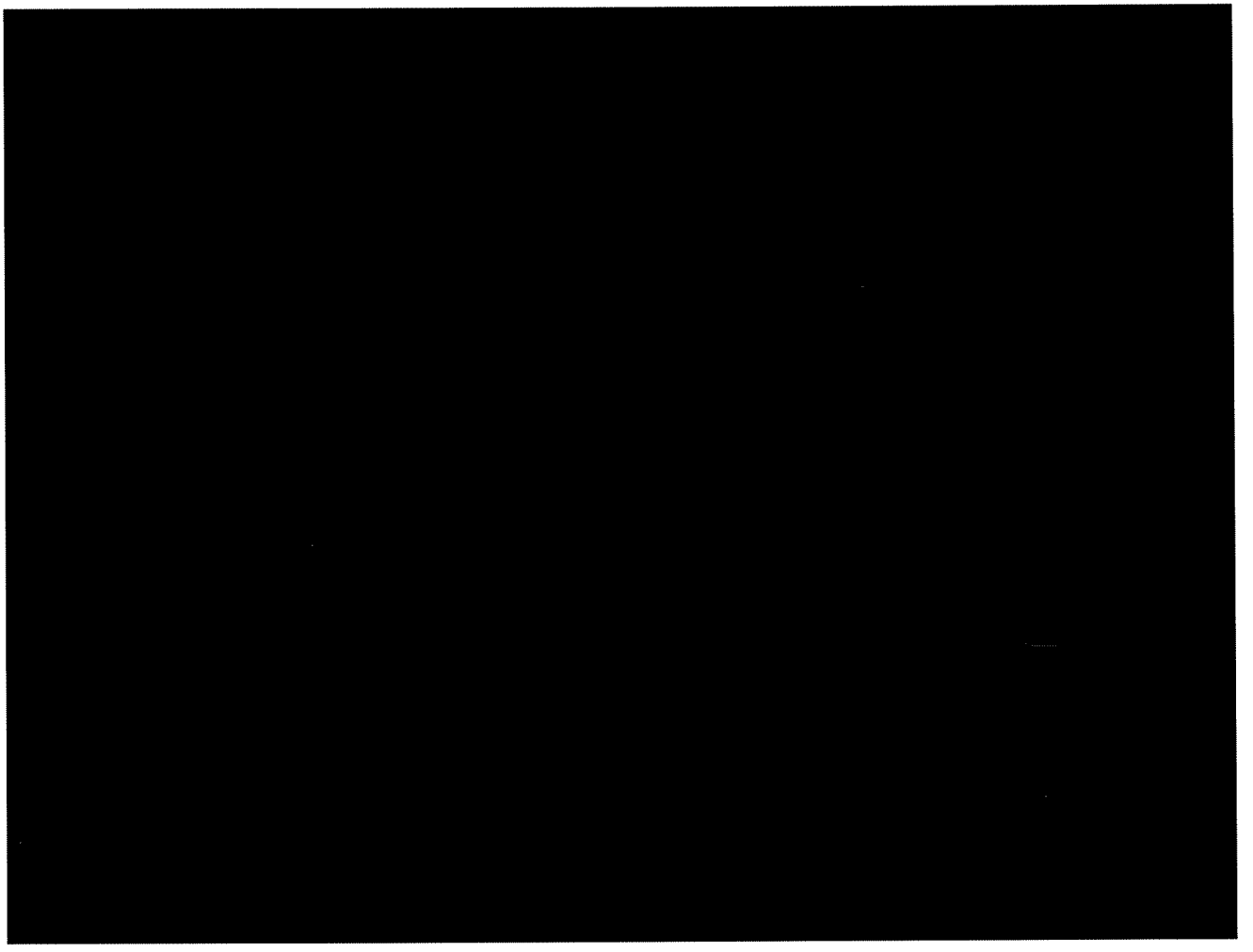
Site E is located on the northeastern corner of the McMillan Farm, adjacent to a water line project. Only six residences would likely have a view of the tank if located here.

12. Site F



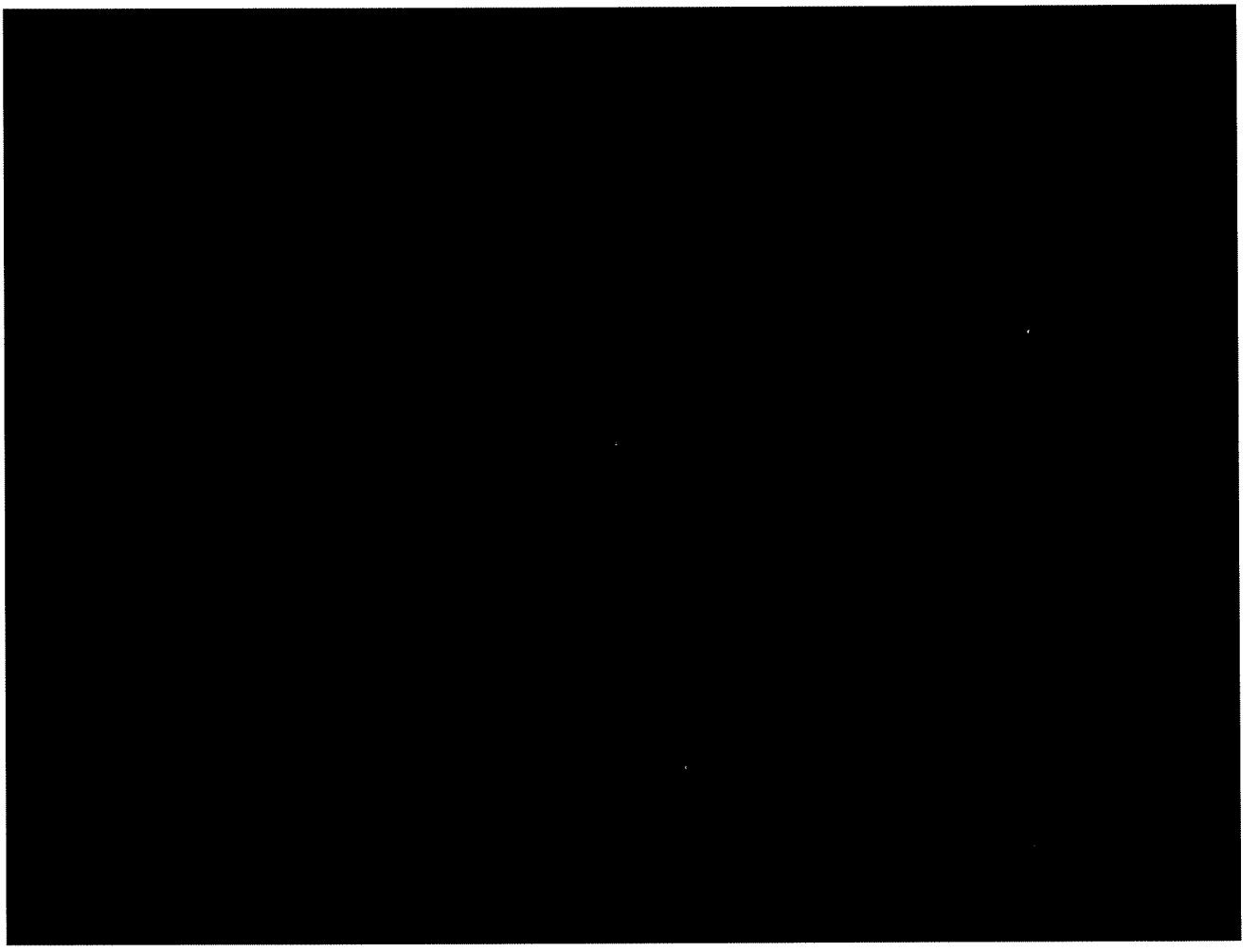
Site F is located on the McMillan Farm along Catnip Hill Road and adjacent to a water line project. 15 residences will likely have a view of the tank if located here.

13. Site G



Site G is also located near existing and proposed water lines and nine residences will likely have a view of the tank.

14. Site H



There are nine residences that will likely be able to view the tank at Site H. However, it is located adjacent to an existing electrical substation. It is also located in close proximity to existing and proposed water lines.

15. Statistics

	Site A	Site B (Brown Site)	Site C (Switzer Site)	Site D	Site E	Site F	Site G	Site H
Residences Within Viewshed	0	30	16	5	6	15	6	9
Residences Within 300'	0	0	0	0	0	0	1	0
Residences Within 600'	0	0	1	0	0	1	2	1
Residences Within 900'	0	0	4	0	0	2	3	5
Residences Within 1200'	0	0	6	1	1	5	5	8
Residences Within 0.5 Miles (2640')	1	46	26	6	8	25	6	16
Distance To Existing Water Main Line (Ft.)	2220	90	85	3100	3185	2772	41	305
Distance To Existing Distribution Line (Ft.)	2220	78	301	2781	2623	388	75	132
Distance To Proposed Water Lines (Ft.)	125	490	316	63	59	74	102	236
Distance To Public Road (Ft.)	2240	65	328	2752	2592	225	64	143
Distance To Private Road (Ft.)	1175	N/A	N/A	1102	1682	N/A	N/A	N/A
Elevation (Ft.)	1018	1021	1023	1037	1033	1066	986	987
Current Land Use	Agriculture	Open Land	Open Land	Agriculture	Agriculture	Agriculture	Agriculture	Agriculture

This table shows metrics used to compare the alternate sites.

16. Assumptions

1. The viewshed analysis from each site location assumed the object being viewed is located approximately 145' above the ground.
2. The viewshed analysis for each alternate site location addresses areas within ½ mile of the site only.
3. The study area for this study is 1.25 miles from the Switzer Site.

17. Data Sources

1. Historic Structures - National Register of Historic Places - http://www.nps.gov/nr/research/
2. Residences (Observer Buildings) – Photo Science - Aerial Imagery 03/10/12 – Spatial Accuracy 1 Ft.
3. Water Tanks - Kentucky Infrastructure Authority - http://kia.ky.gov/wris/data.htm
4. Proposed Water Line Projects - Kentucky Infrastructure Authority - http://kia.ky.gov/wris/data.htm
5. Existing Water Lines Greater Than 6" – Jessamine County Water District Map
6. Groundwater Wells – Kentucky Division of Water & Kentucky Geography Network - http://kygisserver.ky.gov/geoportal
7. Groundwater Springs – Kentucky Division of Water & Kentucky Geography Network - http://kygisserver.ky.gov/geoportal
8. Streams – University of Kentucky - http://www.uky.edu/KGS/gis/NHD24DOWN.html
9. USGS Waterbodies – US Geological Survey & Kentucky Geography Network - http://kygisserver.ky.gov/geoportal
10. NWI Wetlands – US Fish & Wildlife Service & Kentucky Geography Network - http://kygisserver.ky.gov/geoportal
11. DFIRM Floodplains – Federal Emergency Management Agency & Kentucky Geography Network - http://kygisserver.ky.gov/geoportal
12. All Roads – KYTC Center For Planning - ftp://ftp.kymartian.ky.gov/trans/statewide/shape/
13. Parcels – Jessamine County PVA, P.O. Box 530, Nicholasville, KY 40340
14. Viewshed Analysis – Lidar Data Collected 04/12/10 through 04/13/10 – 2' Contour Accuracy & Software – ArcGIS Desktop Version 10 Service Pack 4