

UPPER OHIO NAVIGATION STUDY, PENNSYLVANIA
ENVIRONMENTAL APPENDIX

Upland Work Area Surveys

Final Natural Resources Assessment
Upper Ohio Navigation Study, Pennsylvania
Potential Work and Laydown Areas
Environmental and Cultural Resource Assessments
December 2009

Note to Reader:

A contractor to the Pittsburgh District performed an environmental (natural resources), cultural resources, and Phase I Environmental Site Assessment of each of the primary and secondary sites considered for work and laydown construction support. The following report addresses the environmental (natural resources) component of this study.

Please refer to the Cultural Resources Appendix for the cultural resources component report.

FINAL

NATURAL RESOURCES ASSESSMENT

**UPPER OHIO NAVIGATION STUDY, PENNSYLVANIA
POTENTIAL WORK AND LAYDOWN AREAS
ENVIRONMENTAL AND CULTURAL RESOURCE ASSESSMENTS**

CONTRACT NO.: W912QR-08-D-0009

DELIVERY ORDER: DV02

PREPARED FOR:



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Pittsburgh District
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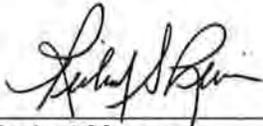
December 2009

Certification 4

CONTRACTOR STATEMENT OF INDEPENDENT TECHNICAL REVIEW

US Army Corps of Engineers PITTSBURGH DISTRICT

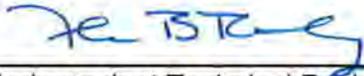
The firm of AEROSTAR has completed the technical review of the Final Natural Resources Assessment Report, for the Upper Ohio Navigation Study, Pennsylvania, Potential Work and Laydown Area, Environmental and Cultural Resources Assessment. Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project, as defined in the Quality Control Plan. During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of assumptions; methods, procedures and material used in analyses; the appropriateness of data used and level of data obtained; and reasonableness of the results including whether the product meets the customer's needs consistent with the law and existing USACE policy.



Project Manager
Rick Levin, P.G.

12/4/09

Date



Independent Technical Review Team Leader
Frank Redway

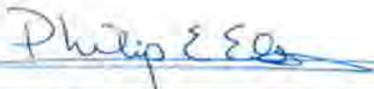
12/4/09

Date

Significant concerns and the explanation of the resolution are as follows:

See attached

As noted above, all concerns resulting from independent technical review of the project have been considered.



Principal
Philip E. Elson

12/4/09

Date

REVIEW COMMENTS
REVISED DRAFT (22 OCT 09)
NATURAL RESOURCES ASSESSMENT
UPPER OHIO NAVIGATION STUDY, PENNSYLVANIA
POTENTIAL WORK AND LAYDOWN AREA
ENVIRONMENTAL AND CULTURAL RESOURCE ASSESSMENTS

The revised draft report is a significant improvement over the initial draft submittal. Our significant review comments have been addressed, for the most part, satisfactorily. There remain a few issues and editorial corrections to be amended for finalizing the report. These are listed below and in the edited electronic report copy. There are page number differences between the electronic copy and the printed copy sent for review. The page numbers listed below refer to the printed copy.

For the final report, left justification of text is preferred, but not specified in the scope as being necessary.

AEROSTAR Response:

Report has been formatted with left justification.

For each of the sites, it is stated that further coordination with the USFWS (or PFBC) is in progress (pp. 10, 17, 19, 27, 31, 36, 38, 44, 48, 54, 57). In reviewing the PNDI forms, further review was required only for Dashields Primary, Montgomery Primary & Secondary, with either the PFBC or PGC. It is not clear what is being coordinated, but in the final report these references should be replaced with the results of the review.

AEROSTAR Response:

Text has been changed. Responses from the PFBC or PGC will be forwarded to the COE when received.

USFWS:

-GAI submitted the follow-up consultation letter with Pam Shellenberger (USFWS-State College) as requested in the email response received from Carol Copeyon on 11/10/09. The consultation was submitted via email on 11/12. I was notified by Pam on 11/16 that she logged the request into their system and it would be reviewed in the order it was received. Typical response time is 30-45 days.

PGC:

-Agency consultation letter was sent on 11/12/09 to the PGC for review. This hit is for a Voluntary Conservation Measure for the Prothonotary Warbler. A response from this agency typically takes 30-60 days for a response.

DCNR:

-This PNDI hit was also for a Voluntary Conservation Measure (sunflower species) at Dashields Secondary. I spoke with one of our contacts at the DCNR office via email and he indicated that they would recommend a survey be conducted during the appropriate flowering time if specific habitat types would be impacted. I have included language in the text reflecting this conversation.

PFBC:

-I spoke with our contact at PFBC regarding the PNDI hits for Dashields and Montgomery sites. Nevin indicated that as long as in-stream activities are avoided and appropriate BMP's are enacted during project activities, PFBC would likely not have any issues with use of these sites. However,

if in-stream activities cannot be avoided, additional consultation would be required. He requested that we submit formal consultation letter with project maps and SIR forms (Species Impact Review forms). These were emailed on 11/12. Typical response time on these is approximately 30 days.

The PNDI search documentation for Dashields Secondary site is not in Appendix B with the others.

AEROSTAR Response:

Dashields Secondary PNDI documentation has been included in Appendix B.

There are a number of statements such that “Any planned alternations to the Ohio River riverfront would require a USACE permit under Section 404....” These statements should be removed in keeping with the purpose of the report being to identify potentially significant natural resources, not speculate on potential impacts. Recommendations from the USFWS may remain as conditions of endangered species determinations.

AEROSTAR Response:

Text has been changed.

Different pool elevations for the Ohio River are stated in a number of places. This appears contradictory unless the name of the pool is included. Our editorial comments provide those pool names.

AEROSTAR Response:

Text has been changed.

The Methodology gives a habitat rating scale in terms of proper names, “Low Quality, ” Medium Quality,” etc. However, in the text these are not capitalized, and the text introduces the term “moderate,” as a quality rating which may or may not be equivalent to “medium” (p. 17). We suggest capitalizing the text references to be consistent with the ratings presented in the Methodology, and reviewing the text for consistency in use of terms.

AEROSTAR Response:

Text has been changed.

Dashields Primary Site, pp. 22-24. It appears to us that the most prominent historic land use activity affecting its present condition was slag disposal, but nothing is mentioned of this in the “historic records and interviews” paragraph. Is there no substantiation of this from the Phase I ESA to reference?

AEROSTAR Response:

Text has been changed to include reference for slag disposal.

In endangered species discussions, “rare” is not a formal classification. Please distinguish between “federal and state listed species,” and state designated “species of concern,” e.g. p. 17, 19.

AEROSTAR Response:

Text has been changed.

On p. 32, both the eastern and western components of the Dashields Secondary site are owned by Crescent Township. The Corps of Engineers owns the narrow property separating the two Secondary site components, and leases this property to the Township.

AEROSTAR Response:

Text has been changed.

Flood Plains.

Be consistent with terms - floodway is typically not capitalized. Example: “floodway” used on page 11 & 55 and “Floodway” used on page 55 - also shown as “Flood Way” on page 46. Suggest checking all places where term is used.

AEROSTAR Response:
Text has been changed throughout the text.

Comment on last sentence of Wetlands, Water Resources and Flood Plains Sections on Pages 11, 18, 29, 37 and second to last sentence on Page 55 (“It is recommended that storage containers,...”) – please revise the sentence to read “Storage containers, materials, and structures are not permitted within the floodway.” - to be a statement of fact rather than a recommendation. No encroachment is allowed within a computed floodway.

AEROSTAR Response:
Text has been changed.

p. 47. The location of Raccoon Twp is not shown on the mapping provided, and consequently it is not easy to determine what part of the site is being referred to; presumably it is the west end of the Montgomery Primary site.

AEROSTAR Response:
Figure has been changed.

p. 47. Contradictory info is provided for 7.4 acres within Raccoon Twp. If “available data identifies much of the area as Zone A” (the approximate 100-year flood plain), then field review and review of available FEMA mapping should not locate the majority of the site “beyond the limits of the 100-year and 500-year flood plains.” Please clarify and change accordingly.

AEROSTAR Response:
Figure has been changed.

Figures 4, 8, and 12:

Although FEMA FIRM’s show only the floodway line when the floodway and 100-year flood lines are too close for the map scale, it’s confusing when nothing is mentioned in the text legend or shown on the map. Suggest a thin green line be placed at the end of the floodway to better show the extent of the 100-year flood plain. Add 100-year flood to Legend where necessary.

AEROSTAR Response:
Figures have been changed.

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	METHODOLOGY	1
3.0	RESULTS	3
3.1	EMSWORTH PRIMARY SITE	3
3.1.1	Primary Site Description	3
3.1.1.1	Location and Topography	3
3.1.1.2	Present Land Use.....	3
3.1.1.3	Historic Land Use and Hazardous, Toxic and Radioactive Waste (HTRW) Issues.....	3
3.1.2	Natural Resources.....	4
3.1.2.1	Vegetative Cover and Wildlife Habitat.....	4
3.1.2.2	Wildlife.....	5
3.1.2.3	Threatened and Endangered Species.....	5
3.1.2.4	Wetlands, Water Resources and Flood Plains.....	5
3.1.3	Prime Farmland.....	6
3.1.4	Wild and Scenic Rivers	6
3.1.5	Conclusions	6
3.2	EMSWORTH SECONDARY SITE	7
3.2.1	Secondary Site Description	7
3.2.1.1	Location and Topography	7
3.2.1.2	Present Land Use.....	7
3.2.1.3	Historic Land Use and HTRW Issues	7
3.2.2	Natural Resources.....	8
3.2.2.1	Vegetative Cover and Wildlife Habitat.....	8
3.2.2.2	Wildlife.....	9
3.2.2.3	Threatened and Endangered Species.....	9
3.2.2.4	Wetlands, Water Resources and Flood Plains.....	9
3.2.3	Prime Farmland.....	9
3.2.4	Wild and Scenic Rivers	10
3.2.5	Conclusions	10
3.3	DASHIELDS PRIMARY SITE	11
3.3.1	Primary Site Description	11
3.3.1.1	Location and Topography	11
3.3.1.2	Present Land Use.....	11
3.3.1.3	Historic Land Use and HTRW Issues	12
3.3.2	Natural Resources.....	13

3.3.2.1	Vegetative Cover and Wildlife Habitat	13
3.3.2.2	Wildlife.....	14
3.3.2.3	Threatened and Endangered Species	14
3.3.2.4	Wetlands, Water Resources and Flood Plains.....	15
3.3.3	Prime Farmland	16
3.3.4	Wild and Scenic Rivers	16
3.3.5	Conclusions	16
3.4	DASHIELDS SECONDARY SITE	18
3.4.1	Secondary Site Description	18
3.4.1.1	Location and Topography	18
3.4.1.2	Present Land Use.....	18
3.4.1.3	Historical Land Use and HTRW Issues.....	18
3.4.2	Natural Resources.....	19
3.4.2.1	Vegetative Cover and Wildlife Habitat	19
3.4.2.2	Wildlife.....	19
3.4.2.3	Threatened and Endangered Species	20
3.4.2.4	Wetlands, Water Resources and Flood Plains.....	20
3.4.3	Prime Farmland	21
3.4.4	Wild and Scenic Rivers	21
3.4.5	Conclusions	21
3.5	MONTGOMERY PRIMARY SITE.....	22
3.5.1	Primary Site Description	22
3.5.1.1	Location and Topography	22
3.5.1.2	Present Land Use.....	22
3.5.1.3	Historical Land Use and HTRW Issues.....	23
3.5.2	Natural Resources.....	23
3.5.2.1	Vegetative Cover and Wildlife Habitat	23
3.5.2.2	Wildlife.....	24
3.5.2.3	Threatened and Endangered Species	24
3.5.2.4	Wetlands, Water Resources and Flood Plains.....	25
3.5.3	Prime Farmland	26
3.5.4	Wild and Scenic Rivers	26
3.5.5	Conclusions	26
3.6	MONTGOMERY SECONDARY SITE.....	27
3.6.1	Secondary Site Description	27
3.6.1.1	Location and Topography	27

3.6.1.2	Present Land Use.....	27
3.6.1.3	Historical Land Use and HTRW Issues.....	28
3.6.2	Natural Resources.....	28
3.6.2.1	Vegetative Cover and Wildlife Habitat.....	28
3.6.2.2	Wildlife.....	29
3.6.2.3	Threatened and Endangered Species.....	29
3.6.2.4	Wetland, Water Resources and Flood Plains.....	30
3.6.3	Prime Farmland.....	30
3.6.4	Wild and Scenic Rivers.....	30
3.6.5	Conclusions.....	30
4.0	CONCLUSIONS.....	32

TABLES

Table 1	Threatened and Endangered Species – Dashields Sites
Table 2	Threatened and Endangered Species – Montgomery Sites

FIGURES

Figure 1	Emsworth Sites- Site Boundary
Figure 2	Emsworth Sites- Topographic Site Location Map
Figure 3	Emsworth Sites - Land Use and Natural Habitats
Figure 4	Emsworth Sites - Flood Plain Map
Figure 5	Dashields Sites - Site Boundary
Figure 6	Dashields Sites - Topographic Site Location Map
Figure 7A	Dashields Eastern Site - Land Use and Natural Habitats
Figure 7B	Dashields Western Site - Land Use and Natural Habitats
Figure 8	Dashields Sites - Flood Plain Map
Figure 9	Montgomery Sites - Site Boundary
Figure 10	Montgomery Sites - Topographic Site Location Map
Figure 11A	Montgomery Western Site - Land Use and Natural Habitats
Figure 11B	Montgomery Eastern Site - Land Use and Natural Habitats
Figure 12	Montgomery Sites - Flood Plain Map

APPENDICES

Appendix A	Historical Aerials
Appendix B	PNDI Reports
Appendix C	NRCS Soils Surveys
Appendix D	NWI Maps
Appendix E	Prime Farmland Determination Letter
Appendix F	Photographic Documentation

LIST OF ABBREVIATIONS

AEROSTAR	Aerostar Environmental Services, Inc.
ASTs	Above Ground Storage Tanks
BMPs	Best Management Practices
CWA	Clean Water Act
EIS	Environmental Impact Statement
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GPS	Global Positioning System
HQ-TSF	High Quality Trout Stocked Fishery
HTRW	Hazardous, Toxic, and Radioactive Waste
MTBE	Methyl-tert-butyl-ether
NEPA	National Environmental Policy Act
NGVD	National Geodetic Vertical Datum
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
PA	Pennsylvania
PFBC	Pennsylvania Fish and Boat Commission
PNDI	Pennsylvania Natural Diversity Inventory
PNHP	Pennsylvania Natural Heritage Program
ROW	Right of Way
U.S.	United States
USACE	United States Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WWF	Warm Water Fishery

1.0 INTRODUCTION

Aerostar Environmental Services, Inc. (AEROSTAR) has been contracted by the US Army Corps of Engineers, Pittsburgh District (USACE) to conduct a Natural Resource Assessment of six potential work and laydown areas associated with *The Upper Ohio Navigation Study, Pennsylvania* (Study). The Study is a feasibility planning study for alternatives to modernize three lock and dam facilities located on the Ohio River in Allegheny and Beaver Counties, Pennsylvania. The study sites include Emsworth, Dashields and Montgomery Locks and Dams. The Study will examine and compare future conditions with and without modernization alternatives to determine the most cost effective, environmentally acceptable alternative. A National Environmental Policy Act (NEPA) Environmental Impact Statement (EIS) will be prepared for detailed planning analyses of these sites. The planning analyses will include the identification and suitability of lands necessary to conduct any proposed work at these navigation facilities. This Natural Resources Assessment has been prepared in support of this effort and was conducted concurrently by AEROSTAR with a Phase I Environmental Site Assessment (ESA) and Cultural Resources Phase I Assessment.

Six separate sites have been identified by the USACE - Pittsburgh District as potential work and staging areas, consisting of Primary and Secondary sites within the vicinity of each of the three navigation facilities (**Figures 1, 5 and 9**). The purpose of the Natural Resources Assessment is to determine the presence and approximate extent of significant natural resources at these sites. Significance is broadly defined to include resources protected under federal or state law, resources having public recognition as being important, and resources considered to have scientific or educational value.

2.0 METHODOLOGY

The study area for each site was defined to include the terrestrial areas that would potentially be used for work and laydown areas. Adjacent portions of the Ohio River are not included within the study area.

The methodology used to identify potential significant resources at each site for the natural resource assessment included field investigations; property owner interviews; review of United States Geological Survey (USGS) topographic maps; literature review, review of recent and historical aerial photographs (**Appendix A**); review of the Pennsylvania Natural Diversity Inventory (PNDI) reports (**Appendix B**); review of the Pennsylvania Natural Heritage Program species lists (PNHP); review of Natural Resources Conservation Service (NRCS) Soil Surveys (**Appendix C**); review of the National Wetlands Inventory (NWI) maps (**Appendix D**); Prime Farmland Determination by the NRCS (**Appendix E**); review of Federal Emergency Management Agency (FEMA) Flood Zone mapping, review of historical land use and Hazardous, Toxic, and Residual Waste (HTRW) issues from the Phase I ESA and Cultural Resources reports.

The field investigation included a physical reconnaissance of each of the six sites with photographic documentation (**Appendix F**). Field investigations were conducted by AEROSTAR field biologists from July 14 through July 26, 2009. There were no weather or

access constraints associated with the field investigation. Field investigations were limited to the terrestrial extent of the sites and not the adjacent Ohio River. Terrestrial habitats were searched for species of concern along 50-foot interval transects. Creeks were inspected along 20-foot interval transects. In addition, habitat quality on each site was qualitatively rated based on visual observations of habitat conditions both on the site and in surrounding areas. Quality was rated on a scale of no habitat value to high habitat value, as follows:

- No Habitat Value = Non-vegetated areas; urban or industrial uses
- Low Quality = Dominated by non-native or invasive species; extensive disturbance via vegetation clearing, frequent human activity, etc.; mowed areas; areas with overall small patch size.
- Medium Quality = Natural vegetation communities that are common in the immediate vicinity and that have minimal levels of human disturbance
- High Quality = Natural vegetation communities that are uncommon in the immediate vicinity and are not heavily disturbed; mature forest; forest areas greater than 100 acres in total size; wetlands and riparian habitats.

Wildlife observations were limited to the field views conducted at these times during summer 2009 and represent incidental observations during the breeding season for most terrestrial species in this area.

Each site was assessed in accordance with the USACE *Wetlands Delineation Manual*, 1987 for the potential presence of Jurisdictional Waters of the United States (U.S.) including wetlands. The wetland assessment included physical reconnaissance of the site, examination of on-site soil, vegetation, and hydrology, and review of USGS Maps and aerial photographs. As part of the wetland assessment, the boundaries of the wetlands and streams were delineated using flagging approximately every 50 to 100 feet. Each flag was located with a Trimble GeoXT Global Positioning System (GPS) unit with ± 1 meter accuracy.

3.0 RESULTS

3.1 EMSWORTH PRIMARY SITE

3.1.1 Primary Site Description

The site is owned and managed by Chevron, and is currently unoccupied. The site topography description is limited to USGS map information and was supplemented with field observations on slope and relief.

3.1.1.1 Location and Topography

The Emsworth Primary site consists of a 17.2-acre site on Neville Island in the Ohio River in Allegheny County, Pennsylvania (PA). The site is centered at 40° 30' 1.8" latitude North and 80° 5' 13.9" longitude West (**Figure 1**). The site is located on the *Emsworth and Pittsburgh West, Pennsylvania, 1993*, USGS topographic maps (**Figure 2**).

Based on contours identified on the topographic map, the site elevation is approximately 730 feet above the National Geodetic Vertical Datum (NGVD) of 1929. The Ohio River Emsworth normal pool elevation is 710 feet NGVD. Field observations indicate that the entire site is flat and vegetated with invasive and opportunistic shrub and tree species.

3.1.1.2 Present Land Use

The site currently consists of undeveloped wooded and grassy land (**Figure 3**). Access to the site is available via Grand Avenue and Neville Road to the south. The site is bordered by the Emsworth Lock/Dam to the northwest; the Ohio River to the north; wooded land and an aboveground petroleum storage and distribution facility to the east; an aboveground petroleum storage and distribution facility to the south; and a FedEx distribution center to the southwest. The areas surrounding the site are highly industrialized.

A dirt/gravel road enters the southwestern portion of the site from Grand Avenue and forms a circular path. In addition, a mowed pathway traverses east and west along the Ohio River which borders the site to the north. The pathway provides access to groundwater monitoring wells located on the northern portion of the site. A Buckeye Petroleum pipeline and a power line right-of-way (ROW) traverse east and west along the southern boundary of the site. The ROW is also utilized to access the monitoring wells located on the southern portion of the site. Grand Avenue borders the southern boundary of the site.

3.1.1.3 Historic Land Use and Hazardous, Toxic and Radioactive Waste (HTRW) Issues

Aerial photographs dating from 1939 to 2006 were reviewed (**Appendix A**). The vegetation on the site had been cleared and/or disturbed periodically throughout the last seven decades; therefore, invasive and opportunistic vegetation prevails at the site. The site was partially cleared on the western portion during the 1940s and remained so until the mid 1990s. In

addition, during the time between 1982 and early 1993, a portion of the site along the mid-river bank section, was cleared of vegetation, and in the early 2000s the eastern portion of the site was also cleared of vegetation. In the 1939 aerial, petroleum storage tanks are identified on sites located to the south.

Based on the review of historical records and interviews, the site has been commercially developed land with multiple aboveground storage tanks (ASTs) from at least 1939 to at least 1967; commercially developed land with multiple small buildings from at least 1967 to 2005; and wooded land since at least 2005.

Results of a Phase I ESA conducted by AEROSTAR identified two current or historical recognized HTRW environmental conditions in connection with the site:

- On-site concerns were noted from the historical operations of an oil refinery from the 1920s to the 1950s and the presence of petroleum contamination and hazardous waste stored on the site after Chevron purchased the site in the 1990s. Known contamination issues include the following: known methyl-tert-butyl-ether (MTBE) groundwater contamination; the site's current ACT 2 status (a deed designation indicating on-site contamination exists and concentrations are below site-specific levels); and groundwater monitoring wells located on the site.
- On-site concerns were noted from the current petroleum pipeline located along the southern boundary of the site.

3.1.2 Natural Resources

3.1.2.1 Vegetative Cover and Wildlife Habitat

The Emsworth Primary site is bordered to the north by the Ohio River and can be characterized as previously disturbed due to historical clearing and modification of the ground surface (**Appendix F, Photos 1-8**). The entire site is vegetated with opportunistic and invasive species (some areas are more dense than others) that include Tree of Heaven (*Ailanthus altissima*), smooth sumac (*Rhus glabra*), common buckthorn (*Rhamnus carthartica*), tall goldenrod (*Solidago canadensis*), Japanese knotweed (*Fallopia japonica*), common mullein (*Verbascum thapsus*), and Canada thistle (*Cirsium arvense*). Habitats present on the site include upland scrub/shrub and herbaceous/shrub habitats, a wooded riparian fringe, and maintained utility ROW. The upland shrub/scrub habitat on the site is comprised of the species mentioned above and totals approximately 11 acres. The herbaceous/shrub habitat comprised of sparse shrub vegetation and grasses (*Panicum spp.*, *Dicanthelium spp.*) totals 1.5 acres (**Figure 3**). The riparian area (0.5 acres) on the riverbank along the northern edge of the site is comprised of Tree of Heaven, sycamore (*Platanus occidentalis*), black locust (*Robinia pseudoacacia*), and red maple (*Acer rubrum*). The pipeline and powerline ROWs (1.19 acres) along the southern border of the site is periodically mowed as indicated by the dense groundcover of goldenrod, common mullein, and lack of dense stands of shrubs as observed on the rest of the site.

This site is subject to human activity on an occasional basis at this time, and is bordered to the east by similar type habitats; therefore, the site has connectivity to habitats on the adjacent property.

3.1.2.2 Wildlife

Evidence of wildlife utilization of the site was noted. Eastern Cottontail (*Sylvilagus floridanus*) was observed and bedding areas used by White-tailed Deer (*Odocoileus virginianus*) were observed on the eastern portion of the site. The shrub/scrub and ROW areas provide Medium Quality habitat in general, including migratory birds which forage on the berries from the shrubs. It also provides cover for Eastern Cottontail, mice (*Microtus spp.*), rats (*Rattus spp.*), snakes and deer due to the limited extent of natural areas on the heavily developed Neville Island. It also provides a foraging area for predatory birds. The riparian areas provide High Quality habitat for migratory birds, predatory birds, snakes and small mammals such as Opossum (*Didelphis marsupialis*), Raccoon (*Procyon lotor*), mice and rats.

Due to the limited natural areas available on Neville Island, development of this site should employ a conservation measure that would limit the amount of shrub/scrub clearing that is practical for the operation and footprint of the laydown area.

3.1.2.3 Threatened and Endangered Species

Threatened and endangered species were not identified during field observations of the Emsworth Primary site. According to the PNDI environmental review (**Appendix B**), no federal or state listed threatened or endangered species, or special concern species are known to exist within the Emsworth Primary site. The PNDI review includes the U.S. Fish and Wildlife Service's (USFWS) recommendation that a 100- to 300-foot buffer from the river's edge be retained as a conservation measure. The 100- to 300-foot buffer zones recommended along the river are to stabilize the riverbank and filter pollutants. Siltation and turbidity can decrease water quality, and in turn disrupt the life cycle of aquatic organisms. Additional consultation with the USFWS regarding potential tree clearing activities and the cumulative potential to impact threatened and endangered species for the project is currently underway.

3.1.2.4 Wetlands, Water Resources and Flood Plains

The wetland delineation and stream identification survey conducted for the site determined that no wetlands or streams occur within the Emsworth Primary site. The Ohio River borders the site to the north. According to the NRCS soil survey (**Appendix C**), the entire site is comprised of Urban Land Series soils which are not considered hydric (an indicator used to determine wetlands). In addition, the NWI map (**Appendix D**) indicates that wetlands do not occur within the site. Any planned alterations to the Ohio River riverfront would require a USACE permit under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. The Ohio River is classified as a Warm Water Fishery (WWF) by the Pennsylvania Department of Environmental Protection (PaDEP, PA Code Title 25 Chapter 93).

FEMA's Flood Insurance Rate Map (FIRM) Panels 189 & 327 for Allegheny County, PA dated 10/4/1995 (**Figure 4**), indicate that the river bank and up to 100 feet inland from the site boundary is within the Ohio River floodway. The remaining portion of the site lies outside of the 100- and 500-year flood zones. Use of designated floodway area is not permitted for storage of project materials or structures. No encroachment of the computed floodway is allowed at this site.

3.1.3 Prime Farmland

Prime farmland soils are not located on the Emsworth Primary site. The NRCS-United States Department of Agriculture (USDA) Prime Farmlands Determination letter is presented in **Appendix E**.

3.1.4 Wild and Scenic Rivers

The Ohio River is not a component of the National Wild and Scenic Rivers System or the Pennsylvania Scenic Rivers System (<http://www.dcnr.state.pa.us/brc/rivers/scenicrivers/locationmap.aspx>).

3.1.5 Conclusions

Emsworth Primary consists of a former industrialized area that has known contamination issues related to industrial activities that occurred at the site from approximately 1920's thru 1990's. Groundwater monitoring wells along the perimeter of the site would limit use of the immediate area.

The existing habitat present on the Emsworth Primary site consists of upland scrub-shrub and upland emergent vegetation with a majority of the vegetation comprising invasive species. Although much of the vegetation would be considered invasive, the site provides suitable habitat for many species of birds and mammals within an industrialized area. No federal or state-listed threatened or endangered species were identified within the site during the PNDI review. Additional consultation with the USFWS regarding tree clearing activities and the cumulative potential to impact any federally-listed species is currently underway. The USFWS recommended that a 100-foot to 300-foot buffer be maintained adjacent to the Ohio River to limit sedimentation from affecting this aquatic resource.

The northern portion of the site (up to approximately 100 feet south along the northern edge) is identified by FEMA's FIRM mapping as being within the floodway for the Ohio River at this location. The remaining portion of the site is identified as being beyond the limits of both the 100-year and 500-year flood elevations. Use of the designated floodway area is not permitted for storage of project materials or structures. No encroachment of the computed floodway is allowed at this site.

3.2 EMSWORTH SECONDARY SITE

3.2.1 Secondary Site Description

The property is owned, managed, and occupied by Pittsburgh Terminal Corporation. The site topography description is limited to USGS map information and was supplemented with field observations on slope and relief.

3.2.1.1 Location and Topography

The Emsworth Secondary site consists of a 12.5-acre site located on Neville Island in the Ohio River at 2702 and 2760 Neville Road, Emsworth, Allegheny County, PA (**Figure 1**). The site is centered at 40° 30' 5.0" latitude North and 80° 5' 35.59 longitude West. The site is located on the USGS *Emsworth and Pittsburgh West, Pennsylvania, 1993*, USGS topographic maps (**Figure 2**).

Based on contours identified on the topographic map, the site elevation is approximately 740 feet NGVD. The Ohio River Dashields normal pool elevation is 692 feet NGVD. From field observations, the entire site is relatively flat and vegetated with invasive and opportunistic shrub and tree species.

3.2.1.2 Present Land Use

The site is presently developed with an approximate 250,000-gallon bulk storage tank, a railroad ROW, a driveway and areas of construction staging (**Figure 3**). The bulk storage tank was constructed subsequent to the aerial photograph utilized for **Figure 3**. Two additional bulk storage tanks were being constructed and four ASTs were discarded or staged throughout the site at the time of the field investigation. In addition, during the field investigation, a large portion of the site contained the remnants of a concrete pad (approximately one acre in size) from a previous industrial operation. Access to the site is available via driveways extending from Neville Road to the southwest and Grand Avenue to the southeast. The site is bordered by the Ohio River and the Emsworth Lock/Dam to the northeast; a FedEx distribution center, a bulk storage facility, and a CSX rail line to the east; vacant property and commercial businesses to the south; and Pittsburgh Terminal Corporation to the west.

Vegetated areas within the site occur on the northern boundary of the site and in the southern portion of the site. The Emsworth Secondary site is bordered to the north by the forested edge of the Ohio River; bordered to the east and west by industry; and bordered to the south by vacant land and railroad. The areas surrounding the site are highly industrialized or vacant.

3.2.1.3 Historic Land Use and HTRW Issues

Aerial photographs dating from 1939 to 2006 were reviewed (**Appendix A**). The river bank is comprised of fill material in the 1939 aerial photograph. The island was severely eroded by the 1936 flood, backfilled with dredge material from the river and capped with stone along the river bank. The site was farmland in 1939, and the railroad was already in place in its current location. The site remained cultivated through the 1940s. Sometime prior to 1967, the site

activity changed, new roads were constructed and areas in the middle of the 12.5-acre site were altered or cleared. Those areas remained cleared according to aerials from 1973 through 2006. Industrial activity surrounding the site began sometime between 1973 and 1982. Large storage tanks are visible on the property to the west in the 1982 aerial.

Based on the review of historical records and interviews, the site was developed with farmland, residences and a railroad from at least 1908 to at least 1949; residentially developed from at least 1953 to at least 1967; primarily vacant from at least 1973 to at least 1982; developed with additional railroads from at least 1990 to at least 1993; and was vacant and partially cleared since at least 2005. The site was developed as part of the Exxon Bulk Storage facility from at least 1985 to at least 2002.

Results of a Phase I ESA conducted by AEROSTAR revealed evidence of four current or historical recognized HTRW environmental conditions in connection with the site:

- On-site concerns were noted from the five ASTs and the large dirt mounds observed at the site, and strong petroleum odors detected during the site inspection.
- On-site concerns were noted from the fill material visible along the river bank in the 1939 aerial photograph.
- On-site concerns were noted from the presence of a railroad located on the site since at least 1908.
- On-site concerns were noted from large dirt piles observed in the northwestern portion of the site.

3.2.2 Natural Resources

3.2.2.1 Vegetative Cover and Wildlife Habitat

The Emsworth Secondary site is largely disturbed and comprised of cleared areas where staging and storage of materials and fluid containers occur (**Appendix F, Photos 9-13**). Vegetated areas occur in the southern and northern portions of the site (**Figure 3**). Herbaceous/shrub habitat (0.78 acres) in southern portion of the site is primarily comprised of goldenrod, common ragweed (*Ambrosia spp.*), common buckthorn, common burdock (*Arctium lappa*), grasses (*Aristida, spp., Panicum spp.*), broomsedge (*Andropogon virginicus*), and asters (*Aster spp.*). The shrub/scrub habitat (1.08 acres) located along the northern portion of the site is comprised primarily of Japanese knotweed, barberry, common buckthorn, Tree of Heaven, box elder, and smooth sumac.

The southern portion of the Emsworth Secondary site consists primarily of the railroad and adjacent vegetation adapted to disturbed areas including blackberries (*Rubus spp.*), goldenrods, common buckthorn, Tree of Heaven, smooth sumac, and Johnson grass (*Sorghum halepense*) (**Appendix F, Photo 14**).

This site is subjected to heavy equipment and other vehicular movement, noise from the roads, and businesses surrounding the site. This site is not contiguous with a low impact area.

3.2.2.2 Wildlife

No wildlife was observed on the Emsworth Secondary site during the field view and no evidence of usage of the site such as scat, tracks, or bedding areas were observed. This may be due to the rail and industrial activity in the immediate area. The shrub/scrub area on the northern portion of the site likely provides Low to Medium Quality habitat for migratory and predatory birds, raccoons, opossum, rabbit, mice, rats, and snakes. The herbaceous and shrub area in the southern portion of the site likely provides Low to Medium Quality foraging habitat for birds and habitat for small mammals (mice, rats, voles).

3.2.2.3 Threatened and Endangered Species

Threatened and endangered species were not identified on the Emsworth Secondary site. According to the PNDI environmental review (**Appendix B**) no federal or state listed species of concern are known to occur within the Emsworth Secondary site. PNDI response includes the USFWS recommendation that a 100- to 300-foot buffer be retained from the river's edge as a conservation measure. The 100- to 300-foot buffer zones recommended along the river to stabilize the riverbank and filter pollutants during development. Siltation and turbidity can decrease water quality, and in turn disrupt the life cycle of aquatic organisms. Additional consultation with the USFWS regarding Project tree clearing activities and the cumulative potential to impact threatened and endangered species is currently underway.

3.2.2.4 Wetlands, Water Resources and Flood Plains

No wetlands or streams were identified within the Emsworth Secondary site; however, the Ohio River borders the site to the north. The Ohio River is classified as a WWF (PA Code Title 25 Chapter 93). According to the NRCS soil survey (**Appendix C**), the site is comprised of Urban Land Series soils which are not considered hydric (an indicator used to determine wetlands). In addition, the NWI map (**Appendix D**), illustrates that wetlands do not occur within the site.

FEMA's FIRM Panels 189 & 327 for Allegheny County, PA dated 10/4/1995 (**Figure 4**) indicates that the edge of the 12.5-acre site is within the 100-year flood zone. The remaining portion of the site lies outside of the 100- and 500-year flood zones. Use of designated floodway areas is not permitted for storage of project materials or structures. No encroachment of the computed floodway is allowed at this site.

3.2.3 Prime Farmland

Prime farmland soils are not located on the Emsworth Secondary site. The NRCS-USDA Prime Farmlands Determination letter is presented in **Appendix E**.

3.2.4 Wild and Scenic Rivers

The Ohio River is not a component of the National Wild and Scenic Rivers System or the Pennsylvania Scenic Rivers System (<http://www.dcnr.state.pa.us/brc/rivers/scenicrivers/locationmap.aspx>).

3.2.5 Conclusions

Emsworth Secondary is located within a former industrialized area that has potential for groundwater contamination issues related to its use as a petroleum storage facility and previous industrial activities that occurred on site.

The existing habitat present includes small areas of vegetation, including narrow tree lines and scattered shrubs growing in non-concrete areas. Vegetation coverage is minimal due to industrial activities ongoing at the site. The site provides minimal potential habitat suitable for mammals or avian species. No federal or state-listed threatened or endangered species were identified within the site during the PNDI online review. Additional consultation with the USFWS regarding cumulative impacts that may result from project tree clearing activities is currently underway. The USFWS recommended that a 100- to 300-foot buffer be maintained adjacent to the Ohio River to limit sedimentation from affecting this aquatic resource.

A narrow strip along the northern edge of the site along the Ohio River is identified by FEMA FIRM mapping as being within the 100-year flood elevation. The remainder of the site is located outside the limits of the 100- and 500-year flood elevations.

3.3 DASHIELDS PRIMARY SITE

The Dashields Primary site is comprised of two sites: Dashields Primary eastern site consisting of 19.2 acres and Dashields Primary western site consisting of 5.2 acres.

3.3.1 Primary Site Description

The property is owned and managed by the Borough of Edgeworth, the Municipal Authority of the Borough of Leetsdale, the United States of America, and The Buncher Company. Both sites are currently unoccupied. The site topography description is limited to USGS map information and was supplemented with field observations on slope and relief.

3.3.1.1 Location and Topography

The Dashields Primary sites are located along Ohio River Boulevard in Leetsdale and Edgeworth, Allegheny County, Pennsylvania. The site is centered at 40° 33' 17.3" latitude North and 80° 12' 56.3" longitude West (**Figure 5**). The sites are located on the *Ambridge, Pennsylvania, 1990* USGS topographic map (**Figure 6**).

Based on contours identified on the topographic map, the site elevation for the Dashields Primary eastern site is approximately 722 feet NGVD and the site elevation for the Dashields Primary western site is approximately 700 feet NGVD. The Ohio River Dashields normal pool elevation is 692 feet NGVD. From field observations, the entire site is relatively flat and vegetated with invasive and opportunistic shrub and tree species. The southern boundary that abuts the Ohio River has a steep bluff that drops almost vertically to the river.

3.3.1.2 Present Land Use

The eastern and western sites currently consist of two non-contiguous sites of wooded and grassy land and cleared land, respectively (**Figure 7A**). Storage piles of rock, wood, and composting leaves and wood chips maintained by the Borough of Edgeworth were observed throughout the eastern site. Storage piles of wood, miscellaneous debris, steel, railroad ties, and asphalt were observed on the western site along with two small mobile construction containers. In addition, a railroad spur and a coal off-loading facility and a concrete retaining wall adjacent to the river and railroad track were observed in the southwestern portion of the Primary Western site. The two sites are located along Ohio River Boulevard and the western and eastern sites are 5.2 and 19.2 acres, respectively. Access to the site is available via Ohio River Boulevard to the east and Avenues A, B, and C to the north. Current vehicular access to the Primary Eastern site is gained via an existing private road through Marrow-Pontefract Park, a 10-acre recreational area owned and maintained by Edgeworth Borough. An existing sanitary sewer line and lift station is located along the northwestern boundary of the site.

The eastern site is bordered by Rudd Equipment Company to the north; railroads to the east; the Ohio River to the southwest; wooded land to the west; and NCE, Inc. to the northwest. The western site is bordered by Mol-Dok to the northeast; wooded land to the southeast; the Ohio

River to the southwest; and Hormann Flexon to the northwest. The areas surrounding the sites are highly industrialized.

The eastern 19.2-acre site is relatively flat and triangular in shape. A road enters the site from the northwest corner. The site is comprised of areas where compost and demolition materials are staged in piles among scattered scrub/shrub vegetation. There are wooded areas in the northwestern portion and within the midsection along the waterfront. The site is bordered to the south by the Ohio River; to the northwest by Little Sewickley Creek; and to the east by a railroad. The northwestern portion of the site is bisected by the railroad and is partially vegetated with shrub growth. Little Sewickley Creek also bisects this area.

The western 5.2-acre site is also relatively flat, and is mostly open with a treeline along the southeastern boundary. The site was being used to stage piles of dirt and crushed concrete, trailers, railroad ties, and other material. The site is bordered to the south by the Ohio River; to the north by commercial business; to the west by commercial and industrial development; and to the east by a wooded ridge adjacent to the Little Sewickley Creek.

3.3.1.3 Historic Land Use and HTRW Issues

Aerial photographs dating from 1938 to 2006 were reviewed (**Appendix A**). The eastern 19.2-acre site was cleared of vegetation in 1938. At this time a road traversed the middle of the site in a northwest to southeast direction and a road ran along the river bank. The site became re-vegetated on the southwestern and northwestern portions during the 1940s and the vegetation matured until the 1970s. Portions of the site along the southwestern border adjacent to the river were cleared in the late 1970s or early 1980s. The 2006 aerial photograph shows the road in the middle of the site was modified, but the river bank road remains in its original location. The river bank, southwestern and northwestern portions of the site, is currently forested with mature trees.

Aerial photographs from 1938 show that the western 5.2-acre site was partially cleared of vegetation at this time. A drainage feature runs from northwest to southeast on the site and the southeastern corner is forested. The 1959 aerial photograph indicates that the drainage feature had been removed (filled), and trails or roads were constructed on the property and some vegetation matured in the middle of the site. The site remained in this condition until late 1980s or early 1990s when the site was cleared for industrial use. The 2006 aerial reveals that part of the mid-section of the site is comprised of a fallow field, and that some mature trees comprise the southeastern boundary.

Based on the review of historical records and interviews, the eastern site was undeveloped in 1908; wooded and grassy with piles of unknown material from at least 1938 to at least 1939; and developed with dirt roads since at least 1947. The northern portion was developed with a railroad since at least 1960.

Based on the review of historical records and interviews, the western site was undeveloped in 1908; wooded, grassy, and cleared land from at least 1939 to at least 1959; developed with piles of unknown material from at least 1967 to at least 1982; and has been developed with small

buildings since at least 1993. According to Mr. Marty McDaniel, Edgeworth Borough Manager, the site was historically used for slag disposal by Bethlehem Steel prior to 1945.

Results of a Phase I ESA conducted by AEROSTAR identified three current or historical recognized HTRW environmental conditions in connection with the site:

- On-site concerns were noted from the discharge of a thick black substance from the five-gallon buckets labeled motor oil observed on the western site.
- On-site concerns were noted from the site's past operations as a slag disposal area (correspondence with Marty McDaniel) and the presence of petroleum products and hazardous waste located on the site, including an unregistered AST and numerous drums observed on the site.
- On- and off-site concerns were noted from the railroads located on the eastern site, the eastern adjoining property of the eastern site, and the northwestern adjoining property of the western site since at least 1960 and 1967, respectively.

3.3.2 Natural Resources

3.3.2.1 Vegetative Cover and Wildlife Habitat

Dashiels Primary eastern site:

The site is bordered to the south by the Ohio River and is currently used by the Borough of Edgeworth for storing compost. The on-site inspection revealed that demolition materials such as brick and concrete have been dumped at this site (**Appendix F, Photos 15-23**). Several piles of debris were found within the wooded areas and contained brick, concrete, tile, bathroom porcelain materials, etc. Vegetated areas identified onsite include forested uplands (7.1 acres), the riparian zone adjacent to the Little Sewickley Creek (0.1 acres), and the riparian zone adjacent to the Ohio River (0.7 acres) illustrated in **Figure 7A**. The vegetation in the forested upland areas (7.11 acres) is primarily comprised of Norway maple (*Acer platanoides*), mockernut hickory (*Carya tomentosa*), box elder (*Acer negundo*), Tree of Heaven, smooth sumac, common privet (*Ligustrum vulgare*), and common buckthorn. Some of the trees, located along the river, (Norway maples and hickories) are at least 70 years of age, as indicated by review of historical aerials and on-site inspection. The riparian zone is comprised primarily of sycamore, silver maples, black locust, Tree of Heaven and Japanese knotweed. In addition to these areas, non-forested areas (8.49 acres) where storage of compost and demolition materials occur on the site include shrubs (common buckthorn, common privet, barberry), herbaceous and forb species (Japanese knotweed, Joe-pye weed, thistles, ragweed [*Ambrosia spp.*], goldenrod), and grass species (broom sedge, *Panicum sp.*, Johnson grass etc.), typical of disturbed areas. This site is subjected to irregular industrial equipment activity, and vehicular traffic due to compost and material storage. Habitat connectivity would occur with the riparian habitat adjacent to Little Sewickley Creek located to the west.

Dashields Primary western site:

The site is currently used to store two small trailers and equipment, and to stage piles of soil crushed concrete and railroad ties on the southwest portion of the site (**Appendix F, Photos 10-14**). Surface material such as gravel is an indication that this site has been prepared for industrial purposes in the past. The areas that are vegetated occur on the southeast portion of the site, which is comprised of an open fallow field (0.79 acres) and a tree-line (0.37 acres) adjacent to Little Sewickley Creek. Vegetation in this area consists primarily of Tree of Heaven, smooth sumac, sycamore, box elder, goldenrod, and Japanese knotweed.

This site is located in close proximity to industrial activity, and subjected to earth moving, equipment maintenance and vehicular traffic. Habitat connectivity would occur with the riparian habitat adjacent to Little Sewickley Creek located to the east.

3.3.2.2 Wildlife

Wildlife observed on the Dashields Primary eastern and western sites includes: Common Grackle (*Quiscalus quiscula*), Red-Tailed Hawk (*Buteo jamaicensis*), and Eastern Cottontail. The forested and riparian areas provide Medium Quality roosting and nesting habitat for migratory and predatory birds; cover and nesting habitat for snakes, rabbit, opossum, raccoon, mice, rats, and squirrels. The non-forested area where compost activity occurs among the scattered shrubs provide Low Quality foraging habitat for migratory birds and provides cover for rabbits and other small mammals such as mice and rats. The fallow field areas provide Low Quality foraging habitat for migratory birds, mice, rats, and snakes. It also provides a foraging area for predatory birds.

3.3.2.3 Threatened and Endangered Species

No threatened or endangered species were identified on the Primary sites during the surveys conducted July 14 through July 26, 2009. According to the PNDI environmental review (**Appendix B**) several aquatic species of concern have the potential to occur in the area (**Table 1**). These include one PA listed threatened species, Skipjack Herring (*Alosa Chrysochloris*), and three special concern mussel species. Further coordination with the Pennsylvania Fish and Boat Commission (PFBC) is currently underway. Preliminary conversations with the PFBC indicated that implementation of appropriate Best Management Practices regarding erosion and sedimentation control will prevent impacts to aquatic species adjacent to the site. Any in-stream activities associated with the Project would require additional consultation with PFBC. The PNDI response includes the USFWS recommendation that a 100- to 300-foot buffer be retained from the streams as a conservation measure. The 100 to 300-foot buffer zones recommended along the river are to stabilize the stream bank and filter pollutants. Siltation and turbidity can decrease water quality, and in turn disrupt the life cycle of aquatic species, including protected mussels and fish that might be in the area. Additional coordination with the USFWS regarding Project tree clearing activities and the cumulative potential to impact threatened and endangered species is currently underway.

Table 1 – Threatened and Endangered Species – Dashields Sites

Scientific Name	Common Name	Current State Status	Proposed State Status	Federal Status
<i>Alosa Chrysochloris</i>	Skipjack herring	Threatened	Threatened	None
<i>Leptodea fragilis</i>	Fragile papershell	Special Concern Species	Special Concern Species	None
<i>Potamilus alatus</i>	Pink Heelsplitter	Special Concern Species	Special Concern Species	None
<i>Vilosa iris</i>	Rainbow mussel	Special Concern Species	Endangered	None
<i>Helianthus hirsutus</i>	Sunflower*	Special Concern Species	Special Concern Species	None

*Sunflower is only a concern for the Dashields Secondary Site.

3.3.2.4 Wetlands, Water Resources and Flood Plains

The wetland delineation and stream identification survey conducted for the site determined that no wetlands were found within any part for this site; however, Little Sewickley Creek bisects the northwest out-parcel of the eastern site. The creek has been delineated to establish its proximity to the site.

The Ohio River is classified as a WWF and Little Sewickley Creek is classified as a High Quality Trout Stocked Fishery (HQ-TSF) (PA Code Title 25 Chapter 93). According to the NRCS soil survey (**Appendix C**), both sites are comprised of Urban Land Series soils and are not considered hydric, (an indicator used to determine wetlands). In addition, the NWI map (**Appendix D**), shows no wetlands within the Primary sites.

FEMA’s FIRM Panel 162 for Allegheny County, PA dated 10/4/1995 (**Figure 8**) illustrates that the river bank of the western 5.2-acre site extending landward approximately 100 feet is within the floodway. The remaining area of the 5.2-acre site is within the 100-Year Flood Zone. The northern corner and a narrow strip (approximately 50 feet) of the river bank within the 19.2-acre eastern site are also within the 100-year flood zone. The remaining area within the eastern site is within the 500-year flood zone. Use of designated floodway areas is not permitted for storage of project materials or structures. No encroachment of the computed floodway is allowed at this site.

3.3.3 Prime Farmland

The eastern and western Dashields Primary sites are not considered Prime Farmland. The NRCS-USDA Prime Farmlands Determination letter is presented in **Appendix E**.

3.3.4 Wild and Scenic Rivers

Neither the Ohio River nor the Little Sewickley Creek are components of the National Wild and Scenic Rivers System or the Pennsylvania Scenic Rivers System (<http://www.dcnr.state.pa.us/brc/rivers/scenicrivers/locationmap.aspx>).

3.3.5 Conclusions

Dashields Primary consists of two sites of industrial land totaling approximately 24.4 acres. The western site (approximately 5.2 acres) poses potential contamination issues related to current and previous industrial activities on the site and adjacent properties. A railroad spur borders the site to the southwest corner along the Ohio River. The eastern parcel (approximately 19.2 acres) poses potential contamination issues as much of the site was used for slag disposal from steel making activities as well as disposal of miscellaneous building materials.

The existing habitat present at Dashields Primary western parcel consists of industrial activities, soil stockpile areas, gravel and railroad related debris. Minimal vegetation occurs onsite with the exception of scattered shrub and herbaceous vegetation intermixed with the industrial activities as well as an area of riparian corridor along Little Sewickley Creek. No potential habitat exists along the bank of the Ohio River at this location due to the concrete retaining wall constructed to allow docking of barge traffic at this location.

The eastern parcel consists of approximately 19.2 acres of former industrial land. Scattered areas of shrub and tree cover are present throughout the site including riparian corridors along the Ohio River and Little Sewickley Creek. Current vehicular access to this parcel is gained via an existing private road through Marrow-Pontefract Park, a 10-acre recreational area owned and maintained by Edgeworth Borough.

The USFWS recommended a 100-foot to 300-foot buffer be maintained between disturbed areas and water resources (Ohio River and Little Sewickley Creek) to limit potential impacts from siltation on federal and state listed threatened or endangered species that occur within these waterbodies. Little Sewickley Creek is also listed as a HQ-TSF within this site. Further consultation regarding potential impacts to state-listed species is underway with the PFBC regarding freshwater mussel and fish species that may occur adjacent to this location. Preliminary conversations with the PFBC indicated that implementation of appropriate Best Management Practices regarding erosion and sedimentation control will prevent impacts to aquatic species adjacent to the site. Any in-stream activities associated with the Project would require additional consultation with PFBC. Additional coordination with the USFWS regarding Project tree clearing activities and the cumulative potential to impact threatened and endangered species is currently underway.

The western parcel for Dashiels Primary is identified by FEMA FIRM mapping as within the 100-year flood elevation. A portion of this site (an approximate 100-foot wide strip of land from the steel and concrete retaining wall to the north of the railroad spur) is identified as being within the floodway for the Ohio River. The entire eastern parcel is located within the 500-year flood zone. A narrow corridor along the bank of the Ohio River is identified as within the 100-year flood zone. Use of designated floodway areas is not permitted for storage of project materials or structures. No encroachment of the computed floodway is allowed at this site.

3.4 DASHIELDS SECONDARY SITE

3.4.1 Secondary Site Description

The Dashields Secondary site is comprised of two sites owned by Crescent Township and includes the narrow parcel of land separating the two sites which is owned by the United States of America (i.e. USACE) and leased to Crescent Township. The non-federal sites are the Dashields Secondary eastern site consisting of 2.2 acres and Dashields Secondary western site consisting of 1.3 acres. The site topography description is limited to USGS map information and was supplemented with field observations on slope and relief.

3.4.1.1 Location and Topography

The Dashields Secondary site is located at 1389 McCutcheon Way, Crescent Township, Allegheny County, PA. The site is centered at 40° 33' 17.3" latitude North and 80° 12' 56.5" longitude West (**Figure 5**). The sites are located on the *Ambridge, Pennsylvania, 1990* USGS topographic map (**Figure 6**).

Based on contours identified on the topographic map, the site elevation for the Dashields Secondary eastern site ranges from 700 feet to 740 feet NGVD and the site elevation for the Dashields Secondary western site is approximately 740 feet NGVD. The Ohio River Dashields pool elevation is 692 feet NGVD. From field observations, the entire site is relatively flat. The northern boundary that abuts the Ohio River has a steep bluff that drops almost vertically to the river.

3.4.1.2 Present Land Use

At the time of AEROSTAR's investigation, the site was developed with a ball park (western area), a playground, picnic facility, and a Crescent Township road maintenance facility (eastern area) (**Figures 5 and 7B**). The immediate vicinity surrounding the site is primarily characterized by undeveloped, commercial, light industrial and residential properties. The site is bordered to the north by the Ohio River; to the south by Dashields Lock Road; to the east by Dashields Lock Road and the river bank; and to the west by woods, a swale and residential property. McCutcheon Road enters the northwestern end of the site from the south.

3.4.1.3 Historical Land Use and HTRW Issues

Aerial photographs dating from 1938 to 2006 were reviewed (**Appendix A**). The 1938 photograph indicates the majority of the site was cleared of trees at that time except for the river bank, and that a road is visible in the center of the site. The 1949 aerial shows that the western portion of the site remained clear, but the eastern portion was re-vegetated. The 1967 aerial shows residential use and that the majority of the vegetation on the western portion of the site remained cleared, and that some undetermined activity had occurred in the eastern portion where clearing had occurred. The 1975 aerial shows a wastewater treatment plant on the eastern portion of the site; the central portion of the site was forested; and the western portion was still

mostly cleared of trees. The treatment plant is visible in the 2005 aerial, but not in the 2006 aerial.

Based on the review of historical records and interviews, the site was residentially developed from at least 1908 to at least 1959, residentially and commercially developed with two ASTs in 1967; developed with a sewage treatment plant from at least 1975 to at least 2005; and was developed with the pavilions since at least 1982, a ball park since at least 1993, and the road maintenance facility since at least 2006.

Results of a Phase I ESA conducted by AEROSTAR revealed evidence of three current or historical recognized HTRW environmental conditions in connection with the site:

- On-site concerns were noted from the sewage treatment plant located at the site from at least 1975 to at least 2005.
- On-site concerns were noted from the two ASTs visible on the site in the 1967 aerial photograph.
- On-site concerns were noted from the approximate 500-gallon AST and the container used for heating asphalt sealant associated with the road maintenance facility observed at the site.

3.4.2 Natural Resources

3.4.2.1 Vegetative Cover and Wildlife Habitat

The site is bordered to the north by the Ohio River, and is primarily used as a ball park on the western site and playground/picnic area, road maintenance center, and an equipment staging area on the eastern site (**Appendix F, Photos 29-36**). The playground/picnic area (parkland habitat) has been landscaped to incorporate large shade trees comprised of American basswood (*Tilia americana*), hickory (*Carya sp.*) and sugar maple (*Acer saccharum*) that are approximately 60-70 years of age (**Figure 7B**). The river bank is comprised of a 0.80 acre scrub/shrub habitat primarily vegetated by Japanese knotweed and the 0.45 acre riparian area is comprised of sycamore, black locust tree, and red maple. Forested areas on the northeast border of the western site (0.38 acres) and in the southeastern portion of the eastern site (0.85 acres) consist of Japanese knotweed, sycamores, red oak (*Quercus falcata*), black locust, red maple, Tree of Heaven, common buckthorn, and common privet.

These sites are frequently disturbed by road maintenance operations, vehicular traffic, and human activity in the ball park and picnic area. The railroad and roads may serve to disrupt habitat continuity with forested areas locate to the south of the sites.

3.4.2.2 Wildlife

Wildlife observed at the Dashields Secondary eastern and western sites include Northern Mockingbird (*Mimus polyglottos*), Common Grackle, and American Robin (*Turdus migratorius*).

The forested and shrub edges of the sites may provide Medium Quality habitat for migratory and predatory birds, and small mammals such as rabbits, opossum, raccoon, mice and rats. The Picnic area provides Medium Quality habitats for migratory birds, chipmunks and squirrels. The riparian areas provide birds with High Quality habitat for foraging and nesting.

3.4.2.3 Threatened and Endangered Species

No threatened and endangered species were identified on the secondary sites during the surveys July 14 through 26, 2009. According to the PNDI review (**Appendix B**) the PFBC has identified the aquatic species listed in **Table 1** as potentially occurring in the site vicinity. These include one PA listed threatened species Skipjack Herring and three special concern mussel species. Further consultation regarding potential impacts to state-listed species is underway with the PFBC regarding freshwater mussel and fish species that may occur adjacent to this location. Preliminary conversations with the PFBC indicated that implementation of appropriate Best Management Practices regarding erosion and sedimentation control will prevent impacts to aquatic species adjacent to the site. Any in-stream activities associated with the Project would require additional consultation with PFBC. The PADCNr identified a species of Sunflower (*Helianthus hirsutus*) as a Special Concern Species under their jurisdiction that may occur on this site. Correspondence with the DCNR indicated that this species is typically found on shaly slopes, upland meadows, or dry roadside banks and that surveys are recommended if any of those habitats occur within the site. Any activity conducted regarding this species would be conducted as a Voluntary Conservation Measure only. The PNDI response includes the USFWS recommendation that a 100- to 300-foot buffer be retained from the river as a conservation measure. The 100 to 300-foot buffer zones recommended along the river are to stabilize the bank and filter pollutants. Siltation and turbidity can decrease water quality, and in turn disrupt the life cycle of aquatic species, including protected mussels and fish that might be in the area. Additional coordination with the USFWS regarding Project tree clearing activities and the cumulative potential to impact threatened and endangered species is currently underway.

3.4.2.4 Wetlands, Water Resources and Flood Plains

The wetland delineation and stream identification survey conducted for the site determined that no wetlands or streams were located within the site. The Ohio River is classified as a WWF at this location according to the PA Code Title 25 Chapter 93. According to the NRCS soils survey (**Appendix C**), both sites are comprised of Urban Land and Rainsboro Silt Loam Series soils, and the soils are not considered hydric (an indicator used to determine wetlands). In addition, the NWI mapping (**Appendix E**) did not indicate that wetlands occur within the Secondary site.

FEMA's FIRM Panel 162 for Allegheny County, PA dated 10/4/1995 (**Figure 8**) illustrates that the floodway extends 150 feet into the secondary eastern site. The remainder of the site is outside of the 100 and 500-year flood zones. Use of designated floodway areas is not permitted for storage of project materials or structures. No encroachment of the computed floodway is allowed at this site.

3.4.3 Prime Farmland

The eastern and western Dashields Secondary sites are not considered Prime Farmland. The NRCS-USDA Prime Farmlands Determination letter is presented in **Appendix E**.

3.4.4 Wild and Scenic Rivers

The Ohio River is not a component of the National Wild and Scenic Rivers System or the Pennsylvania Scenic Rivers System (<http://www.dcnr.state.pa.us/brc/rivers/scenicrivers/locationmap.aspx>).

3.4.5 Conclusions

The Dashields Secondary consists of two sites totaling approximately 3.5 acres overlooking the Ohio River. The area is maintained by Crescent Township for road maintenance equipment storage (eastern site) and also for the Shouse Park (western site), a recreational area for Crescent Township. The park has operated by Crescent Township since it was dedicated on July 4, 1976. The ball field appeared to be well maintained and frequently used by local residents. A pavilion, picnic area and children's play area are also maintained at this site. Potential concerns regarding the site's use for equipment storage as well as past operation of a sewage treatment facility pose potential contamination issues on the site.

Further consultation regarding potential impacts to threatened, endangered, and special concern species is ongoing with the PFBC. However, based on conversations with representatives of the PFBC, implementation of appropriate BMP's and avoidance of any in-stream activities associated with the project would limit the concerns of the PFBC at this location. USFWS recommended that a 100-foot to 300-foot buffer be maintained between the Ohio River and project work limits to minimize potential impacts to sensitive aquatic resources. Additional consultation with the USFWS regarding Project tree clearing activities and the cumulative potential to impact threatened and endangered species is currently underway.

A corridor approximately 130 feet in width along Dashields Secondary Eastern site is identified within the FEMA FIRM mapping as being located within the floodway for the Ohio River at this location. The western site is located beyond the limits of both the 100-year and 500-year flood zones as is the remaining portion of the eastern site. Use of designated floodway areas is not permitted for storage of project materials or structures. No encroachment of the computed floodway is allowed at this site.

3.5 MONTGOMERY PRIMARY SITE

3.5.1 Primary Site Description

The property is owned by John P. and Jerome P. Oliver, and CSX Transportation, Inc. and is unoccupied. The site topography description is limited to USGS map information and was supplemented with field observations on slope and relief.

3.5.1.1 Location and Topography

The Montgomery Primary site is located at Montgomery Dam Road, Monaca, Beaver County, PA. The site is centered at 40° 38' 48.6" latitude North and 80° 23' 21.3" longitude West (**Figure 9**). The site is located on the *Beaver and Midland, Pennsylvania, 1979* USGS topographic maps (**Figure 10**).

Based on contours identified on the topographic map, the elevation for the Montgomery Primary site ranges from 680 feet to 740 feet NGVD. The Ohio River New Cumberland pool elevation is 665 feet NGVD. From field observations, the site exhibits steep sloped ridges (approximately 85 degrees) along both sides of Squirrel Run and a more moderately sloped ridge (approximately 40 degrees) along the Ohio River. The site is forested with mature hardwood trees (hickories, maples and oaks).

3.5.1.2 Present Land Use

The site includes eastern and western portions consisting of two contiguous sites (separated by Squirrel Run) totaling 18.5-acres of primarily wooded land developed with an abandoned garage, an abandoned mobile home, and an active CSX rail line (**Figure 11A**).

The Montgomery Primary site west of Squirrel Run is densely forested and bordered to the north by the Ohio River; bordered to the south by a railroad and forested land; bordered to the east by Squirrel Run; and bordered to the west by forested land. The river bank is characterized with a sandy beach zone, and slopes up at an incline of approximately 15 degrees to the edge of the forest.

The Montgomery Primary site east of Squirrel Run is mostly forested, with an open fallow area in the area of the abandoned garage and abandoned mobile home. This site is bordered to the north by a wooded area and industrial use associated with the Montgomery lock and dam facility; to the east by Montgomery Dam Road; to the west by Squirrel Run; and to the south by a CSX railroad line.

James Oliver, current owner of the site, purchased the property from the previous owners Mr. and Ms. Keresty in 2000. There is an abandoned garage and an abandoned mobile home on the eastern portion of the site. The site is wooded and currently not occupied. The CSX railroad is located on the southern boundary of the site.

3.5.1.3 Historical Land Use and HTRW Issues

Aerial photographs dating from 1938 to 2006 were reviewed (**Appendix A**). A review of the site west of Squirrel Run indicates that it has remained forested from 1939 to present. The railroad has been present since at least 1952.

Aerial photographs from 1939 aerial illustrate that the area east of Squirrel Run was cleared of trees on the east half of the site and an area of trees was cleared on the west side of the site. A road enters the cleared area from the south and a road enters the east cleared area from the south. The railroad has been developed since 1952. No major clearing has occurred since 1939. The 1967 and 2006 aerials indicate that the previously cleared areas have become re-forested.

Based on the review of historical records and interviews, the site was undeveloped in 1904 and has been residentially developed since at least 1939. The railroad has been present since at least 1952.

Results of a Phase I ESA conducted by AEROSTAR revealed HTRW environmental concerns noted from the presence of the railroad located along the site's southern portion since at least 1952.

3.5.2 Natural Resources

3.5.2.1 Vegetative Cover and Wildlife Habitat

West of Squirrel Run

The Primary site west of Squirrel Run is comprised of approximately 6 acres of mature hardwood forest vegetated primarily by American elm (*Ulmus americana*), blue beech (*Carpinus americana*), red maple (*Acer rubrum*), Norway maple, American elm, hickories (*Carya sp.*), witch hazel (*Hammamelis virginiana*), and ferns (*Thelypteris spp.*) (**Appendix F, Photos 37-45**). Riparian zones (2.27 acres) include the river bank and the edges of Squirrel Run. The slope adjacent to the Ohio River (the riparian zone) is primarily vegetated by sycamore, sweet gum (*Liquidambar styraciflua*), black locust, eastern hophornbeam (*Ostrya virginiana*), Japanese knotweed, and *Sesbania spp.* The riparian zone adjacent to Squirrel Run is primarily comprised of sycamore, silver maple, hickories, blue beech and American elm with a very dense understory component primarily comprised of Japanese knotweed. The hardwood forest is approximately 70 years of age or greater, as determined from the 1939 aerial and onsite inspection.

East of Squirrel Run

The primary site east of Squirrel Run is comprised of a mature hardwood forest (approximately 6 acres), with trees as old as 70 years or older. Approximately 0.91 acres of area were cleared of trees at one time, but are presently overgrown with fallow field species such as goldenrod, Joe-pye weed, American burnweed (*Erechtites hieracifolia*), and common mullein.

The Montgomery Primary site is contiguous with adjacent forested land that is of Medium to High Quality. Based on the age of trees, vegetation composition, abundance of wildlife and

proximity to water resources, the Montgomery Primary site provides Medium to High Quality forested habitat for wildlife.

3.5.2.2 Wildlife

Wildlife observed on the Montgomery Primary site includes: chipmunks (*Tamias striatus*), Gray Squirrel (*Sciurus carolinensis*), deer, Eastern Cottontail, several species of birds including Blue Jay (*Cyanocitta cristata*), Northern Cardinal (*Cardinalis cardinalis*), American Robin, Carolina Chickadee (*Poecile carolinensis*), Carolina Wren (*Thryothorus ludovicianus*), and several rainbow darters (*Etheostoma caeruleum*) and crayfish (*Cabarus sp.*) within Squirrel Run.

The hardwood forest provides moderate to High Quality habitat for chipmunks, squirrels, rabbits, raccoons, opossum, weasels, red and grey fox, snakes, migratory birds, birds of prey and deer. The riverfront and beach front provide High Quality foraging and nesting habitat for predatory and migratory birds, small mammals and nesting areas for turtles. Squirrel Run provides a water source for wildlife in general and spawning habitat for fish, reptiles and amphibians. In addition, the fallow field area and areas around the old house may provide Medium Quality habitat for small mammals and foraging areas for predatory birds.

3.5.2.3 Threatened and Endangered Species

No threatened or endangered species were observed within the Primary site during field surveys conducted July 14 through 26, 2009. According to the PNDI environmental review (**Appendix B**) several aquatic and terrestrial species identified in **Table 2** have the potential to occur near or within the area of the Montgomery site boundaries. These include one state-listed endangered species (Black Bullhead *Ameiurus melas*), one state-listed threatened species (Skipjack herring), three state-listed special concern mussels, and one state-listed special concern avian species (Prothonotary Warbler). Further consultations with PFBC and the Pennsylvania Game Commission (PGC) are currently underway. Informal conversations with the PFBC regarding the Project's potential to impact threatened, endangered, and special concern species under their jurisdiction indicate that implementation of appropriate BMPs and avoidance of any in-stream activities at this site will limit the potential to impact aquatic species. The Prothonotary Warbler inhabits forested areas adjacent to waterbodies for foraging and nesting activities. Therefore, avoidance of tree clearing activities along waterfront areas would reduce potential impacts to this species. This would be consistent with the USFWS recommendation that a 100- to 300-foot buffer be retained from the streams as a conservation measure. The 100- to 300-foot buffer zones recommended along the river are to stabilize the stream bank and filter pollutants. Siltation and turbidity can decrease water quality, and in turn disrupt the life cycle of aquatic species, including protected mussels and fish that might be in the area. These buffer areas along the riverfront can be considered High Quality habitat areas due to the proximity to the river, age of trees, and habitat that it provides. Additional consultation with the USFWS regarding Project tree clearing activities and the cumulative potential to impact threatened and endangered species is currently underway.

Table 2 – Threatened and Endangered Species – Montgomery Sites

Scientific Name	Common Name	Current State Status	Proposed State Status	Federal Status
<i>Alosa Chrysochloris</i>	Skipjack herring	Threatened	Threatened	None
<i>Amerius melas</i>	Black Bullhead	Endangered	Endangered	None
<i>Leptodea fragilis</i>	Fragile papershell	Special Concern Species	Special Concern Species	None
<i>Potamilus alatus</i>	Pink Heelsplitter	Special Concern Species	Special Concern Species	None
<i>Quadrula quadrula</i>	Mapleleaf	Special Concern Species	Threatened	None
<i>Prothonotaria citria</i>	Prothonotary Warbler*	Special Concern Species	Special Concern Species	None

* Prothonotary Warbler a concern only at the Montgomery Primary Site

3.5.2.4 Wetlands, Water Resources and Flood Plains

Squirrel Run was delineated within the Montgomery Primary site and is an intermittent stream (**Figure 11A**). Squirrel Run exhibited very low flow, clear water, a rocky substrate, with few pools. The wetland delineation and stream identification survey conducted for the site determined that no other surface waters or wetlands occur within the Primary site. Both the Ohio River and Squirrel Run are classified as a WWF waters.

According to the NRCS soil survey (**Appendix C**), the site is comprised of Conotton Gravelly Loam Series soil and the soils are not considered hydric (an indicator used to determine wetlands). In addition, the NWI map (**Appendix D**) does not indicate wetlands occurring within the Primary site.

FEMA's FIRM Panel 1 of 2 (Potter Township, Beaver County, PA) dated 12/2/1988 and Flood Hazard Boundary Map (Raccoon Township, Beaver County, PA) dated 8/20/76 for the 18.5-acre Montgomery Primary site (**Figure 12**) indicate that portions of the site along the river are located within the floodway, fringe area of the 100-year flood plain, and the 500-year flood plain. The FIRM map for the area within Potter Township (approximately 11.1 acres) indicates that the portion of the site bordering the Ohio River is located within the 100-year Flood Zone (Zone AE) and within the delineated floodway. The area designated as Zone AE protrudes south into the site along Squirrel Run for a distance of approximately 300 feet. Squirrel Run, an intermittent tributary to the Ohio River, serves as the boundary line between Potter and Raccoon Townships. Although no detailed information (such as a FIRM map) was available for the portion of the site

within Raccoon Township (approximately 7.4 acres), a Flood Hazard Boundary Map, dated 8/20/76, was available for this portion of the site. This map identifies much of this area as Zone "A" (Special Flood Hazard Areas). Use of designated floodway areas is not permitted for storage of project materials or structures. No encroachment of the computed floodway is allowed at this site.

3.5.3 Prime Farmland

The Montgomery Primary site is not considered Prime Farmland. The NRCS-USDA Prime Farmlands Determination letter is presented in **Appendix E**.

3.5.4 Wild and Scenic Rivers

The Ohio River is not a component of the National Wild and Scenic Rivers System or the Pennsylvania Scenic Rivers System (<http://www.dcnr.state.pa.us/brc/rivers/scenicrivers/locationmap.aspx>).

3.5.5 Conclusions

The Montgomery Primary consists of two sites totaling approximately 18.5 acres. Much of the area is covered by mature woodland with a few abandoned residential structures present.

Informal conversations with the PFBC regarding the Project's potential to impact threatened and endangered species or species of concern under their jurisdiction indicate that implementation of appropriate BMPs and avoidance of any in-stream activities at this site will limit the potential to impact aquatic species. Further consultation regarding the PGC concerns for the Prothonotary Warbler is ongoing. The USFWS recommended a 100-foot to 300-foot buffer be maintained between disturbed areas and water resources (Ohio River and Squirrel Run) to limit potential impacts from siltation on sensitive species that occur within these water bodies. Additional consultation with the USFWS regarding Project tree clearing activities and the cumulative potential to impact threatened and endangered species is currently underway.

The FEMA FIRM mapping for the site indicates that portions of the site along the river are located within the 100-year Flood Zone, Floodway Areas, Other Flood Areas, or within Special Flood Hazard Areas. Use of designated floodway areas is not permitted for storage of project materials or structures. No encroachment of the computed floodway is allowed at this site.

3.6 MONTGOMERY SECONDARY SITE

3.6.1 Secondary Site Description

The Montgomery Secondary site is comprised of two sites; Montgomery Secondary eastern site consisting of 32.3 acres and Montgomery Secondary western site consisting of 3.7 acres. The sites are owned, managed, and occupied by PF Technologies, Inc.

3.6.1.1 Location and Topography

The eastern site is located at 89 Montgomery Dam Road, Monaca, Beaver County, PA, and the western site is located along Montgomery Dam Road, Monaca, Beaver County, PA. The eastern site is centered at 40° 39' 6.1" latitude North, and 80° 21' 52.9" longitude West and the western site is centered at 40° 38' 52.6" latitude North, and 80° 22' 53.8" longitude West (**Figure 9**). The sites are located on the *Beaver and Midland, Pennsylvania, 1979*, USGS topographic maps (**Figure 10**).

Based on contours identified on the topographic map, the elevation for the Montgomery Secondary site ranges from 700 feet to 740 feet NGVD. The Montgomery Secondary eastern site topography varies from the southern boundary to the northern boundary along the Ohio River. The highest elevation occurs on the southern portion where it is wooded and slopes down to where a gypsum pile and synthetic gypsum plant facility are located. The gypsum pile is at a higher elevation than the synthetic gypsum plant facility. The elevation increases from the synthetic gypsum plant facility on the eastern portion of the site to the river bluff on the northeast portion of the site. The Ohio River Montgomery pool elevation is 682 feet NGVD.

3.6.1.2 Present Land Use

The eastern and western sites presently consist of two non-contiguous sites of industrial and wooded land, respectively (**Figures 11A and 11B**).

The eastern site (32.3-acres) is owned, managed, and occupied by PF Technologies, Inc. and is developed with a synthetic gypsum plant. Barge moorings were observed along the river bank. The immediate vicinity surrounding the site is primarily characterized by undeveloped land and industrial properties. The site is bordered to the north by the Ohio River; to the east by industry; to the south by a railroad and forest; and to the west by wooded land and industry.

The western site (3.7-acres) is forested, relatively flat, and is surrounded primarily by undeveloped forested land and residential property. The site is bordered to the north by forested land; to the east by forested and residential property; to the south by a railroad and nearby Montgomery Dam Road; and to the west side by Montgomery Dam Road.

3.6.1.3 Historical Land Use and HTRW Issues

Aerial photographs dating from 1938 to 2006 were reviewed (**Appendix A**). A review of the eastern 32.3-acre site aerials photograph indicate that in 1939, the western half was cleared of trees with a homestead located in the northwestern corner of the site. A road is visible entering the site from the south. The aerial photographs illustrate that the majority of the site had been commercially and industrially developed since 1952. The southeastern portion of the site, however, was not developed but cleared sometime in the 1940s. This area was also excavated according to the topographic map.

A review of the western 3.7 acre site aerial photograph indicates that in 1939 the site had been cleared and a road entered the site from the south (where the railroad is today). The site remained in the same condition (unaltered, and no development) until the cleared area became re-vegetated by the time of the 1967 aerial. The 2006 aerial shows the site remained undisturbed and is completely re-forested.

Based on the review of historical records and interviews, the Montgomery Secondary site was primarily undeveloped land with a road from at least 1904 to at least 1939; commercially/industrially developed from at least 1952 to at least 1967; developed with an excavation from at least 1969 to at least 1979; and has been developed with a synthetic gypsum plant since at least 1977.

Results of a Phase I ESA conducted by AEROSTAR identified evidence of four current or historical recognized HTRW environmental conditions in connection with the site:

- On-site concerns were noted from the PF Enviro Tech AST facility located at the site.
- On-site concerns were noted from the synthetic gypsum plant operations conducted at the site since at least 1977.
- On-site concerns were noted from the commercial/industrial operations visible in the 1952 and 1960 aerial photographs on the eastern Secondary site.
- On-site concerns were noted from a pit and fill material along the river's shore depicted on the 1969 and 1979 topographic maps on the eastern Secondary site.

3.6.2 Natural Resources

3.6.2.1 Vegetative Cover and Wildlife Habitat

Eastern 32.3-Acre Site

Habitats identified on the 32.3-acre Secondary site include the riparian zone on the river bank, the palustrine forested wetlands around the pond, and forested areas along the ridge (**Appendix F, Photos 46-56**). The gypsum piles are used by bank swallows for nesting. The river bank (2.33-acres) riparian vegetation includes sycamore, black locust, American elm, silver maples, barberry, and common buckthorn. Vegetation on the forested ridge along the railroad is

comprised of Tree of Heaven, smooth sumac, common buckthorn, and common privet. The forested areas (10.66 acres) are comprised of Norway maples, blue beech, hickories, box elder, witch hazel, tulip poplar (*Liriodendron tulipifera*), American elm, silver maple, redbud (*Cercis canadensis*) and dogwood (*Cornus spp.*). The bottomland hardwoods (1.56 acres) adjacent to the river (0.75 acres) is comprised of American elm, shellbark hickory, sugar maple, black willow, *Viburnum spp.*, beauty berry (*Callicarpa americana*), lizard's tail (*Saururus cernuus*) and sensitive fern (*Onoclea sensibilis*). The forested wetland and pond area on the site may provide habitat for reptiles and amphibians as well as for water birds, birds of prey, migratory birds and the mammals mentioned above.

The site is subjected to activity associated with movement and storage of the synthetic gypsum, and vehicle traffic from the industry located to the east and railroad noise to the south. However, the site is contiguous with mature forest lands to the west and south across the railroad and Montgomery Dam Road.

Western 3.7-Acre Site

This is a forested (3.7-acre) site with trees that are approximately 60-70 years or older. The primary overstory components are Norway maple, hickories, and blue beech. Understory components include redbud, *Viburnum spp.*, dogwood, and ferns.

3.6.2.2 Wildlife

Wildlife observed on the Montgomery Secondary site include: Bank Swallows (*Riparia riparia*) that nest in the synthetic gypsum mound, Brown Thrasher (*Toxostoma rufum*), and Common Grackle. The forested uplands are considered moderate to High Quality habitat and provide habitat for deer, red and grey fox, small mammals (weasels, chipmunks, squirrel, mice, voles, rats, raccoon, opossum), snakes, migratory birds, and birds of prey. The forested waterfront edge (riparian zone) is considered High Quality habitat and may provide habitat and roosting areas for predatory and migratory birds. The wetland and pond area (described in Section 3.6.2.4) are considered High Quality habitat and may provide habitat for reptiles and amphibians as well as for water birds, birds of prey, migratory birds and the mammals previously mentioned.

3.6.2.3 Threatened and Endangered Species

No threatened or endangered species were observed within the Secondary sites during the surveys July 14 through 26, 2009. According to the PNDI environmental review (**Appendix B**), four aquatic species under the jurisdiction of the PFBC may potentially occur near or within the area of the Montgomery site boundaries (**Table 2**). These include one PA listed endangered species (Black Bullhead), one PA listed threatened species (Skipjack herring), and three special concern mussel species. Further coordination with PFBC is currently underway. Informal conversations with the PFBC regarding the Project's potential to impact threatened and endangered species or species of concern indicate that implementation of appropriate BMPs and avoidance of any in-stream activities at this site will limit the potential to impact these aquatic species. The USFWS recommends that a 100- to 300-foot buffer be retained from the river's edge as a conservation measure. The buffer zones recommended along the river are to stabilize the streambank and filter pollutants. Siltation and turbidity can decrease water quality, and in

turn disrupt the life cycle of protected mussels and fish that might be in the area. This buffer area along the Secondary eastern site contains High Quality riparian areas, especially on the eastern half of the riverfront. That area is higher in elevation than the western half which is subjected to disturbance from river traffic and onsite activities. Additional consultation with the USFWS regarding Project tree clearing activities and the cumulative potential to impact threatened and endangered species is currently underway.

3.6.2.4 Wetland, Water Resources and Flood Plains

An isolated wetland and pond (approximately 2.3 acres total) were delineated on the Montgomery Secondary 32.3-acre eastern site (**Figure 11B**). This site was excavated over 30 years ago and is recorded on the 1979 USGS topographic map of the site. No wetlands or streams were found within the Montgomery Secondary western site.

According to the NRCS soil survey (**Appendix C**), the 32.3-acre site is comprised of Urban Land-Conotton Complex Series Soils and is considered partially hydric (an indicator used to determine wetlands). The Secondary western site is comprised of Conotton Gravelly Loam Series soils and is not considered hydric. The NWI map (**Appendix D**) does not indicate wetlands occurring within the site but, does show an open water/pond in the area where the pond and wetland were delineated by AEROSTAR. The Ohio River adjacent to the site is classified as a WWF (PA Code Title 25 Chapter 93).

FEMA's FIRM Panel 1 of 2 for Potter Township, Beaver County, PA dated 12/2/1988 (**Figure 12**) illustrates that Secondary western site is outside of the 100- and 500-year flood zone. The river bank and bluff along the entire length of the Secondary eastern site is located within the floodway. In addition, a small strip on the east and west side adjacent to the floodway is located within the 500-year flood zone. The majority of the eastern site is located outside of the 100- and 500-year flood zone. Use of designated floodway areas is not permitted for storage of project materials or structures. No encroachment of the computed floodway is allowed at this site.

3.6.3 Prime Farmland

The eastern and western Montgomery Secondary sites are not considered Prime Farmland. The NRCS-USDA Prime Farmlands Determination letter is presented in **Appendix E**.

3.6.4 Wild and Scenic Rivers

The Ohio River, that abuts the site, is not a component of the National Wild and Scenic Rivers System or the Pennsylvania Scenic Rivers System (<http://www.dcnr.state.pa.us/brc/rivers/scenicrivers/locationmap.aspx>).

3.6.5 Conclusions

The Montgomery Secondary site consists of an active industrial area and woodland area covering approximately 32.3 acres. Barge moorings were observed within the developed portion of the

site along the bank of the Ohio River. Existing wetlands and open water areas were identified within undeveloped southeast corner of the parcel. Forested and wetland areas provide suitable habitat for various species of mammal and avian species.

Potential impacts to state-listed species were identified by the PFBC. Informal conversations with the PFBC regarding the project's potential to impact threatened, endangered, and special concern species indicate that implementation of appropriate BMPs and avoidance of any in-stream activities at this site will limit the potential to impact the aquatic species. Although no impacts to federal species were identified, the USFWS recommended a 100-foot to 300-foot buffer be maintained between the Ohio River and Project work limits to minimize potential impacts to sensitive aquatic resources. Additional consultation with the USFWS regarding Project tree clearing activities and the cumulative potential to impact threatened and endangered species is currently underway.

A small portion of the site, near the mouth of Squirrel Run, is located within the floodway for the Ohio River. The majority of the site, however, is located beyond the limits of the 100-year and 500-year flood zones. Use of designated floodway areas is not permitted for storage of project materials or structures. No encroachment of the computed floodway is allowed at this site.

4.0 CONCLUSIONS

The natural resources assessment revealed that the proposed Emsworth Primary site contains Medium to High Quality shrub/scrub habitat that could be important to the wildlife due to the limited natural resources on Neville Island. The Emsworth Secondary site provides lower habitat value than the Primary site because it is surrounded by high-intensity human activity.

Emsworth Primary, Dashields Primary and Secondary, Montgomery Primary and Secondary sites contain High Quality habitat riparian areas along the riverfront. To protect this habitat and buffer potential impacts of upland activities on potential riverine species of concern, the USFWS recommends a 100- to 300- foot buffer be established from the river's edge as a conservation measure.

The forested and riparian areas on the Dashields Primary East site provides Medium to High Quality habitat and should be preserved to the extent practicable during development. The Dashields Primary West site provides lower habitat value than the Primary East site due to on site and surrounding human activity.

The Montgomery Primary site contains Medium to High Quality forested habitat and an intermittent stream. These resources should be protected to the maximum extent practicable during development of the site for laydown areas. A 100- to 300-foot buffer should be established from the stream's edge as a conservation measure along with erosion and sediment control.

The Montgomery Secondary site contains Medium to High Quality forest habitat and wetlands. These areas provide habitat for a variety of species. This area should be protected to the extent feasible.

Figures



Secondary Site

Primary Site

CSX Railway

Grand Ave.

1 inch = 200 feet

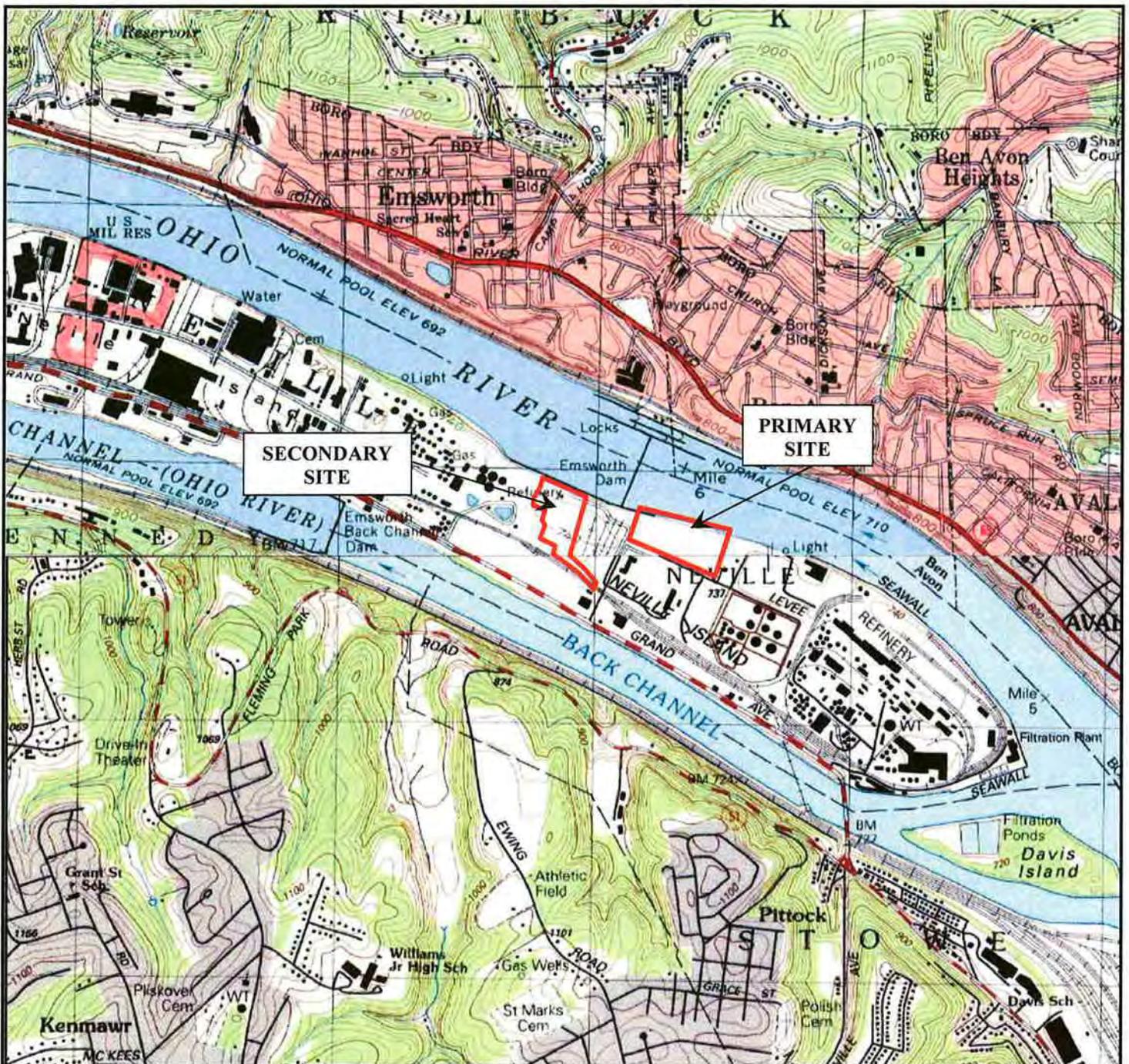
0 200 400 800 Feet



Figure 1 - Emsworth Sites - Site Boundary

Legend
Site Boundary



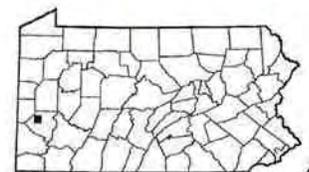


EMSWORTH AND PITTSBURGH
WEST, PENNSYLVANIA

7.5 MINUTE SERIES
(TOPOGRAPHIC)

DATE 1993

CONTOUR INTERVAL 20 FEET



NATIONAL GEODETIC VERTICAL DATUM OF 1929

QUADRANGLE LOCATION



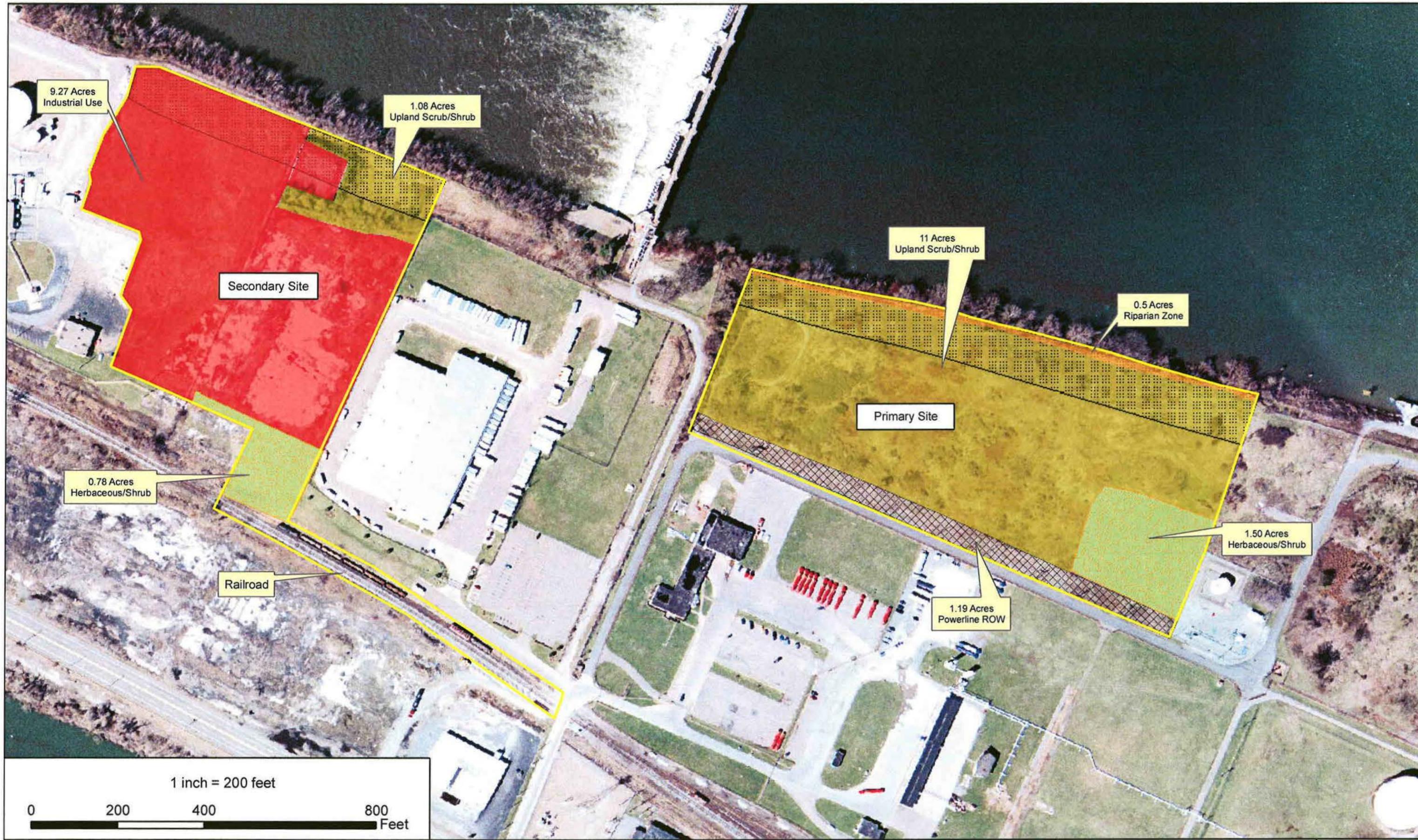
FIGURE 2. TOPOGRAPHIC SITE LOCATION MAP



EMSWORTH PRIMARY AND
SECONDARY SITES
ALLEGHENY COUNTY, PENNSYLVANIA

DRAWN BY: EDB

REFERENCE: MAP OF
EMSWORTH AND PITTSBURGH
WEST, PENNSYLVANIA
PREPARED BY: U. S.
GEOLOGICAL SURVEY



9.27 Acres
Industrial Use

1.08 Acres
Upland Scrub/Shrub

Secondary Site

11 Acres
Upland Scrub/Shrub

0.5 Acres
Riparian Zone

Primary Site

0.78 Acres
Herbaceous/Shrub

Railroad

1.50 Acres
Herbaceous/Shrub

1.19 Acres
Powerline ROW

1 inch = 200 feet

0 200 400 800 Feet



Figure 3 - Emsworth Sites - Land Use and Natural Habitats

Legend	
	Site Boundary
	Upland Scrub/Shrub
	Herbaceous / Shrub
	Industrial Use
	Riparian Zone
	Powerline
	Waterbody 100' Buffer





Secondary Site

Primary Site

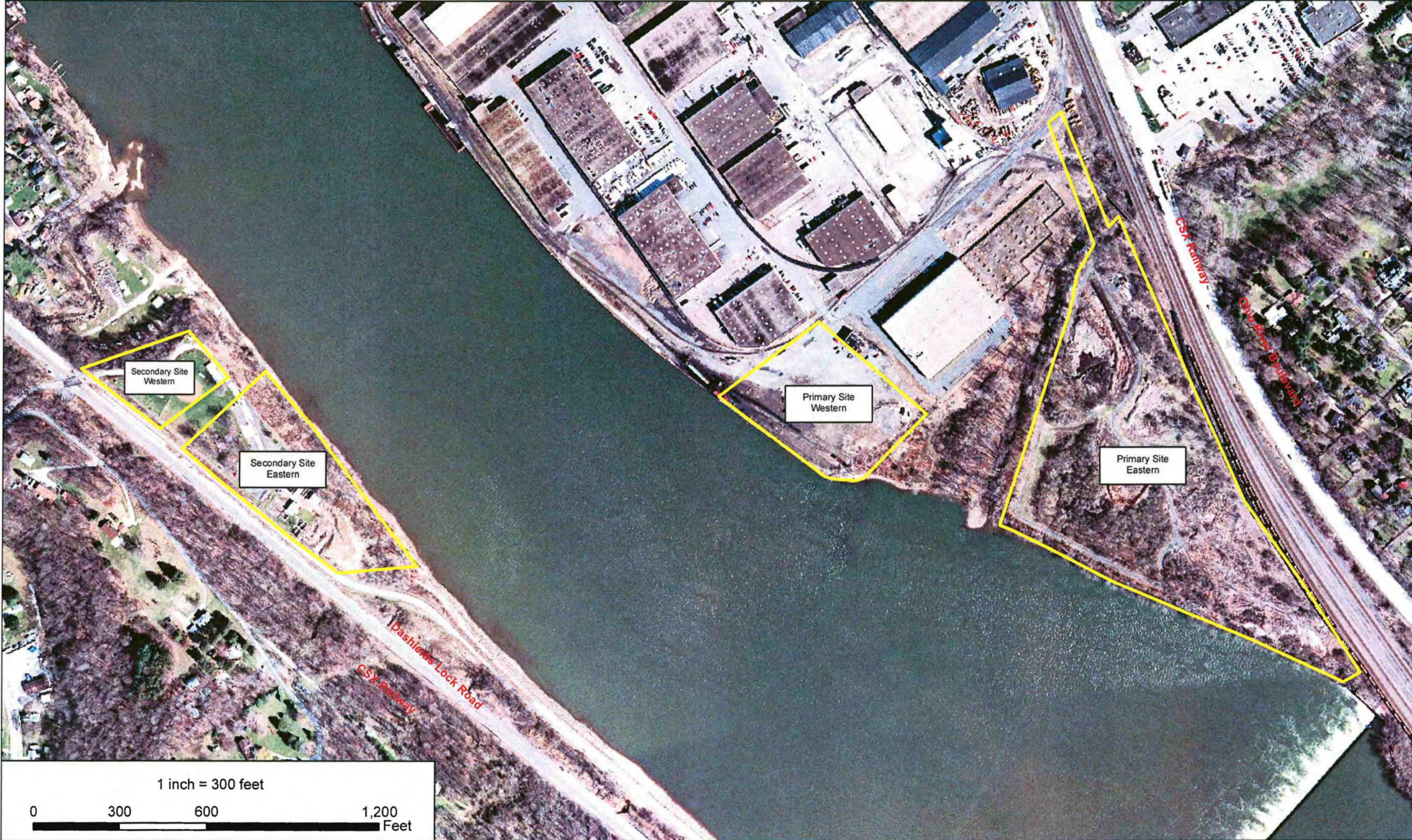
1 inch = 250 feet
 0 250 500 1,000 Feet

Figure 4 - Emsworth Sites - Flood Plain Map

Legend

 Site Boundary	 Floodway
 500-Year Flood	FEMA's FIRM Panels 189 and 327 for Allegheny County, PA dated 10/4/1995
 100-Year Flood	





1 inch = 300 feet

0 300 600 1,200 Feet



Figure 5 - Dashields Sites - Site Boundary

Legend
Site Boundary



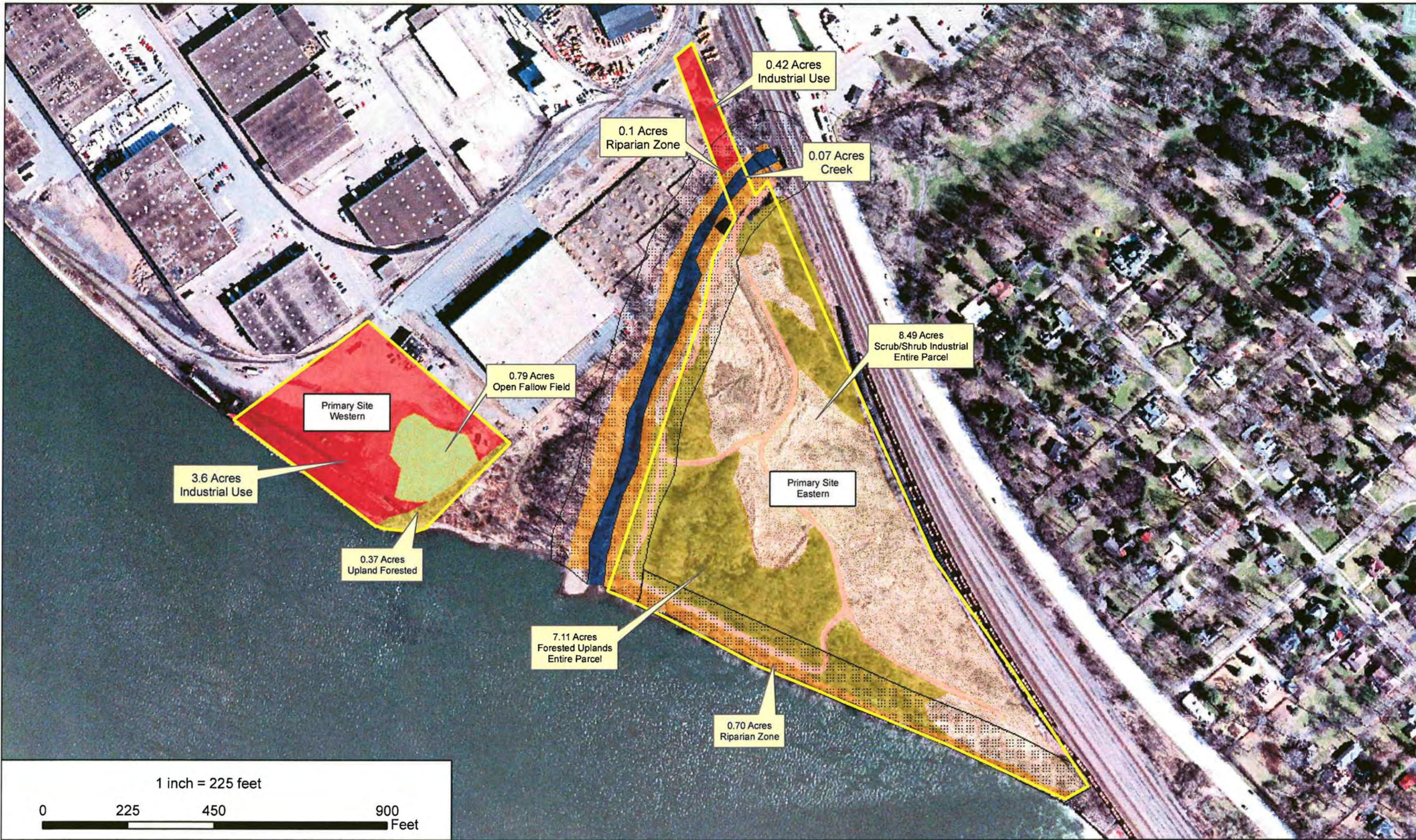


Figure 7A - Dashields Eastern Site - Land Use and Natural Habitats



0.38 Acres
Forested Upland

Secondary Site
Western

1.3 Acres Parkland
Entire Parcel

0.80 Acres
Scrub/Shrub

0.45 Acres
Riparian Zone

Secondary Site
Eastern

0.85 Acres
Forested Upland
Entire Parcel

1.1 Acres Parkland
Entire Parcel

0.2 Acres Upland Industrial
Entire Parcel

0.9 Acres
Equipment Staging

1 inch = 150 feet

0 150 300 600 Feet

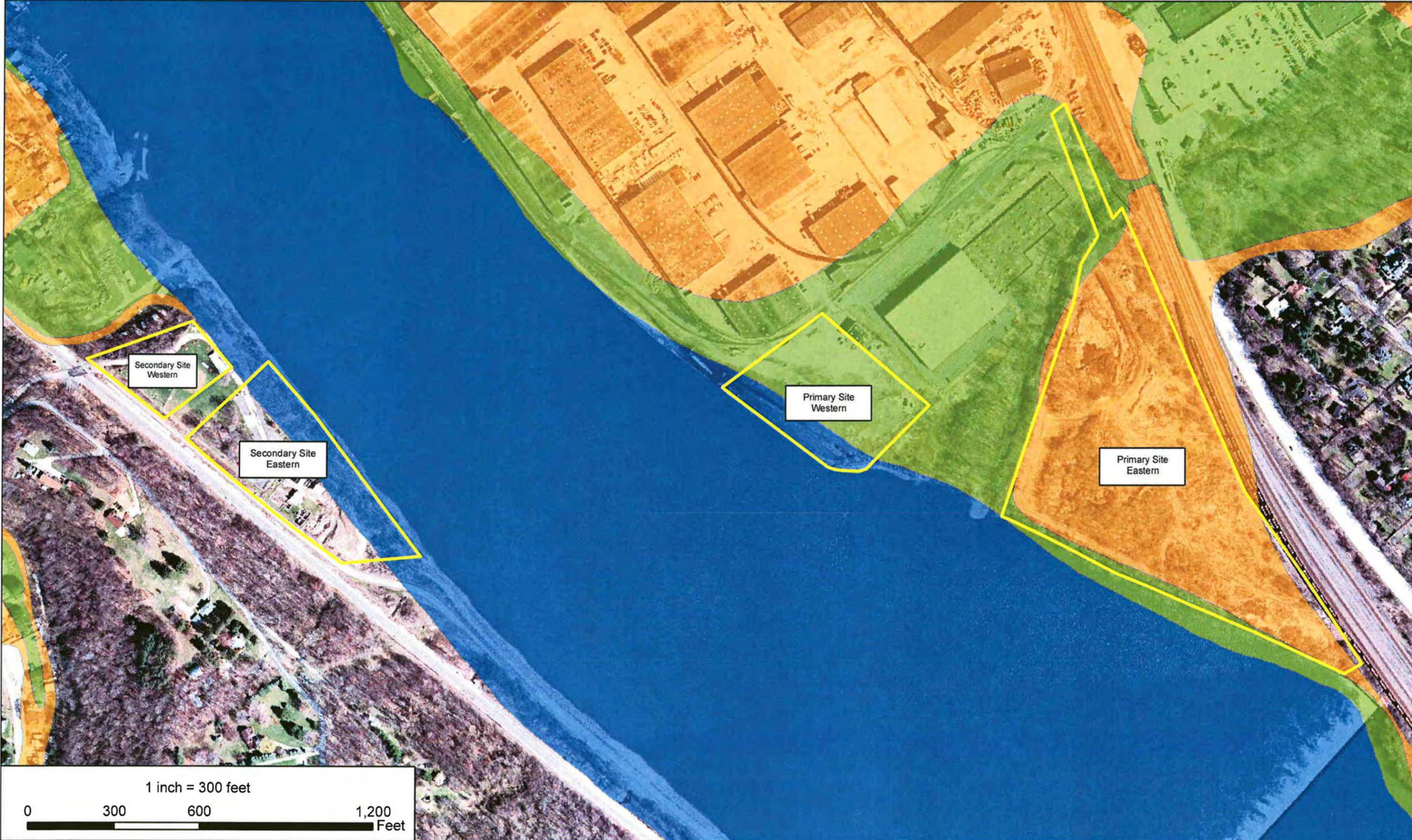


Figure 7B - Dashields Western Site -
Land Use and Natural Habitats

Legend

- Site Boundary
- Building
- Waterbody 100' Buffer
- Scrub/Shrub
- Parkland
- Upland Industrial
- Equipment Staging
- Road/Parking
- Riparian Zone
- Forested Upland





Secondary Site Western

Secondary Site Eastern

Primary Site Western

Primary Site Eastern

1 inch = 300 feet

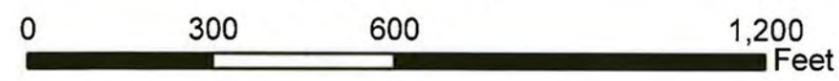
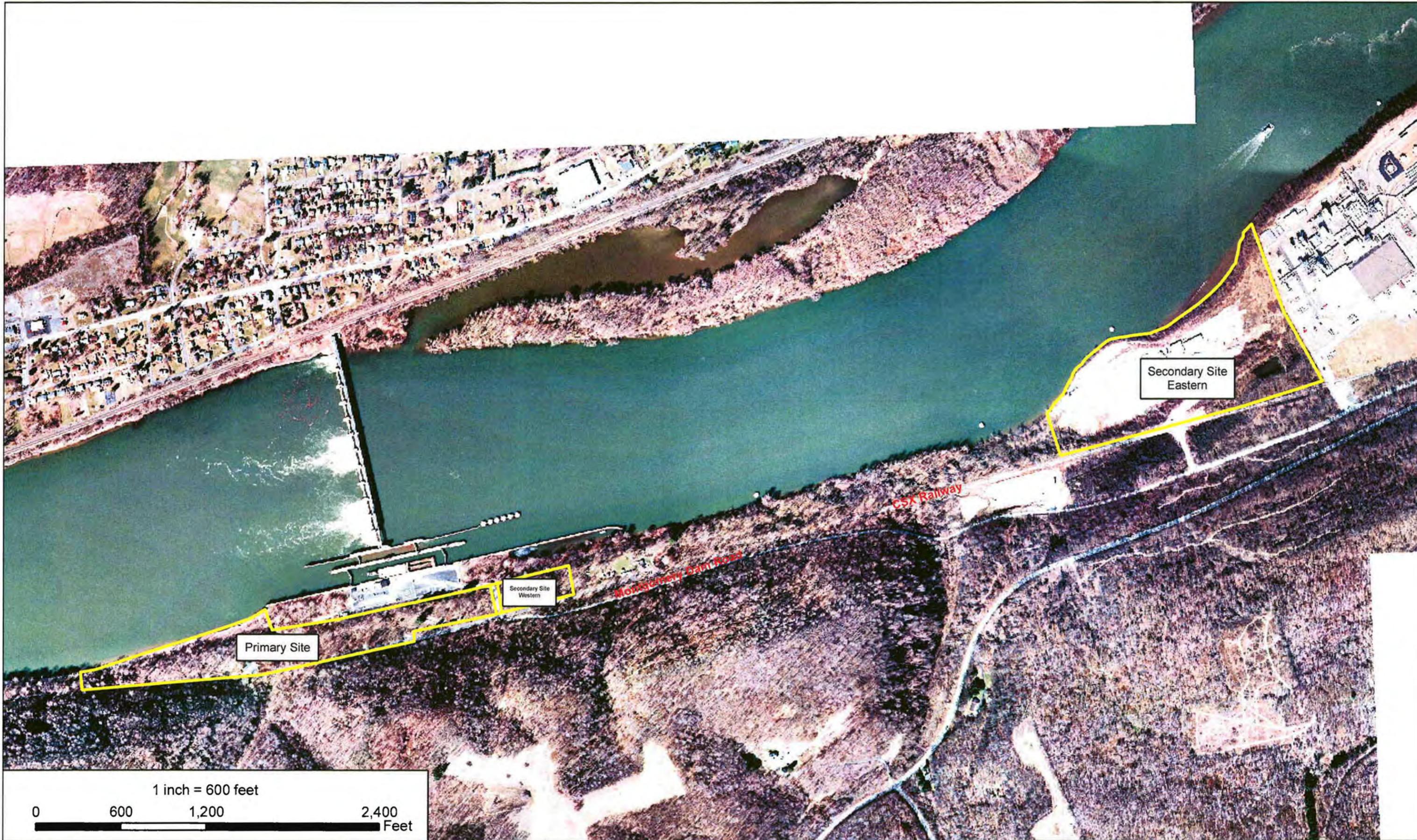


Figure 8 - Dashiels Sites-
Flood Plain Map

Site Boundary	Floodway
100-Year Flood	FEMA's FIRM Panel 162 for Allegheny County, PA dated 10/4/1995
500-Year Flood	





Primary Site

Secondary Site Western

Secondary Site Eastern

CSX Railway

Montgomery Dam Area

1 inch = 600 feet

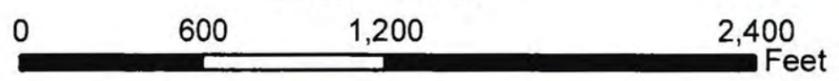
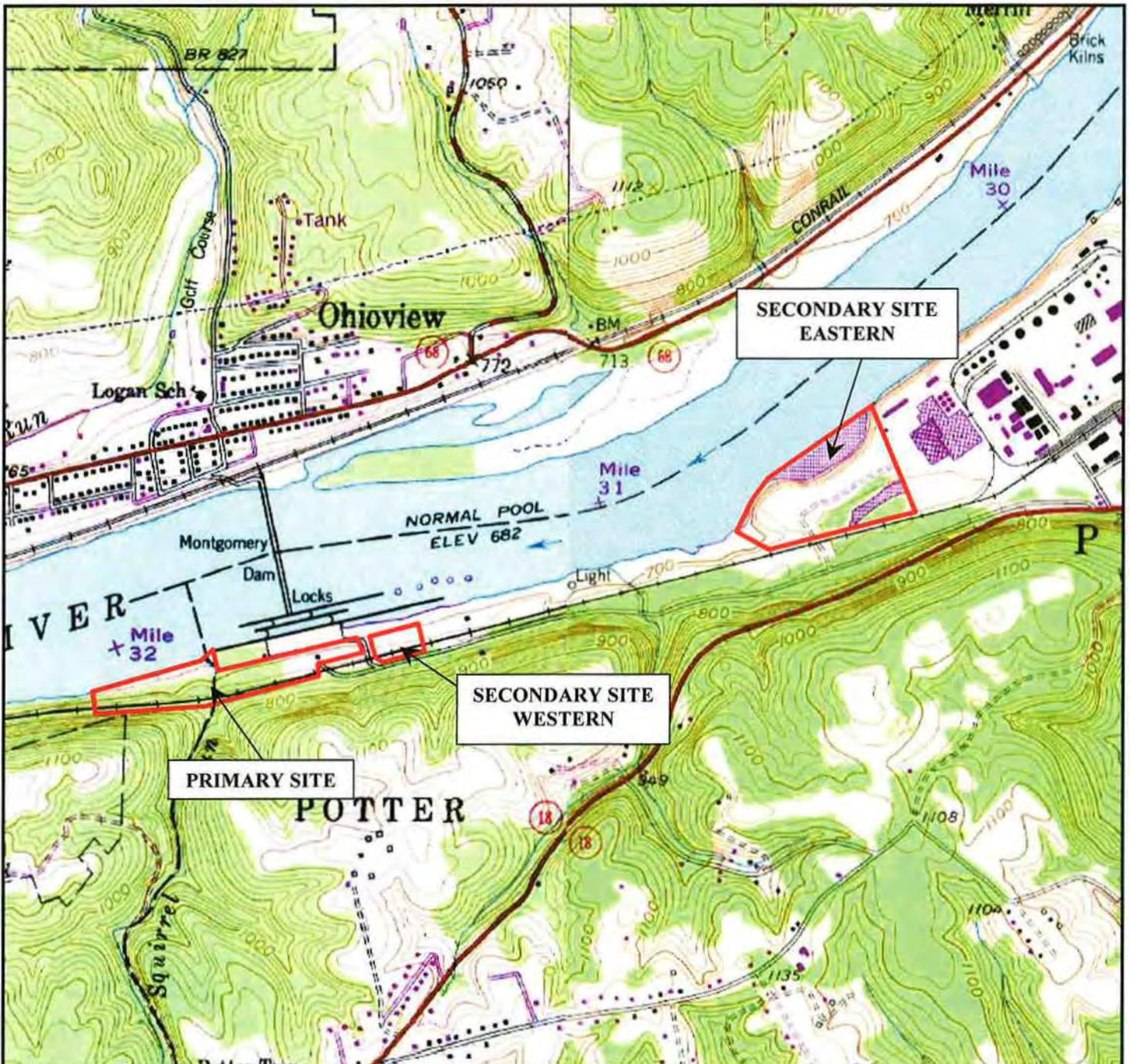


Figure 9 - Montgomery Sites - Site Boundary

Legend

Site Boundary





BEAVER AND MIDLAND,
PENNSYLVANIA

DATE 1979

7.5 MINUTE SERIES
(TOPOGRAPHIC)

CONTOUR INTERVAL 20 FEET



NATIONAL GEODETIC VERTICAL DATUM OF 1929

QUADRANGLE LOCATION



FIGURE 10. TOPOGRAPHIC SITE LOCATION MAP



MONTGOMERY PRIMARY AND
SECONDARY SITES
BEAVER COUNTY, PENNSYLVANIA

DRAWN BY: EDB

REFERENCE: MAP OF
BEAVER AND MIDLAND,
PENNSYLVANIA
PREPARED BY: U. S.
GEOLOGICAL SURVEY

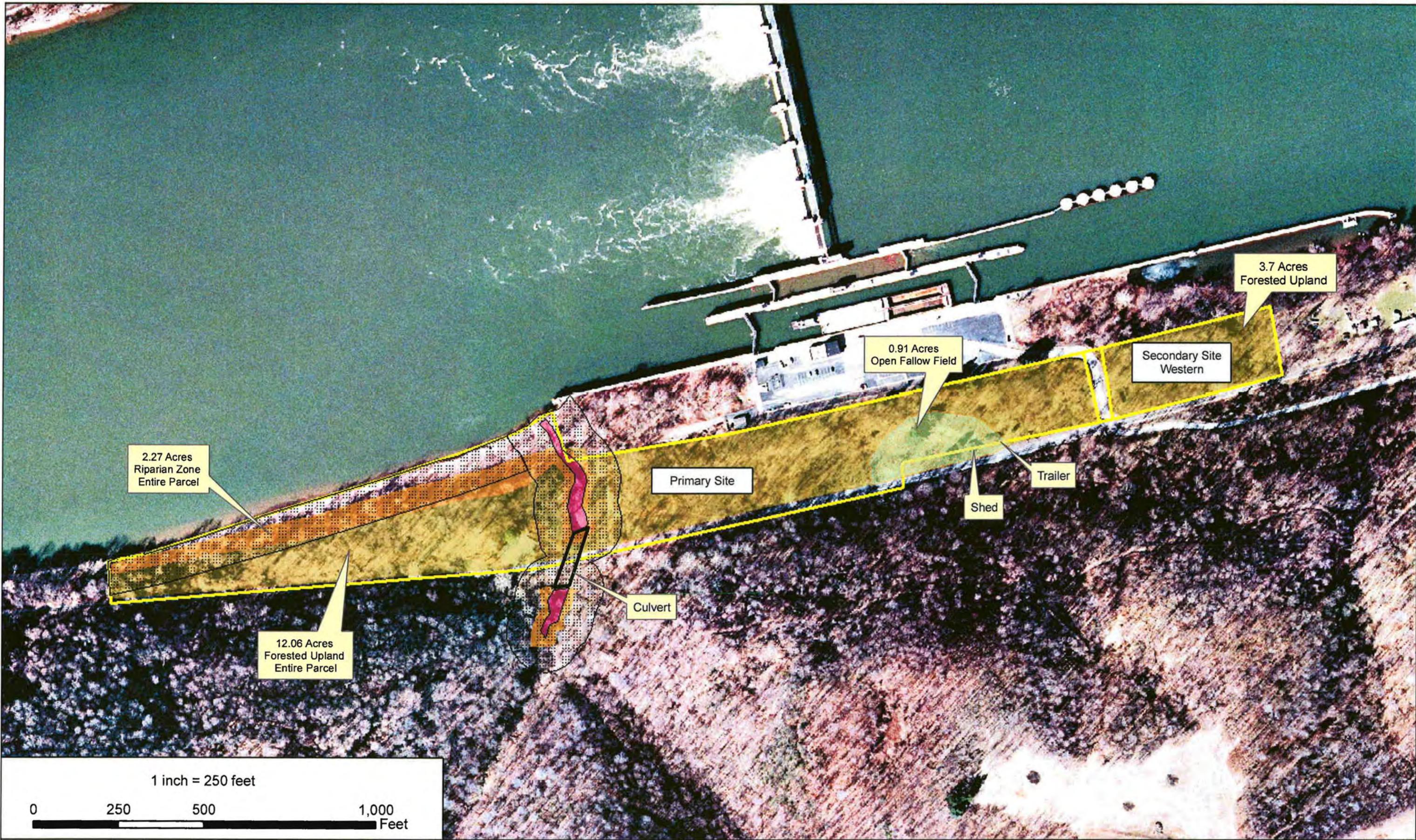
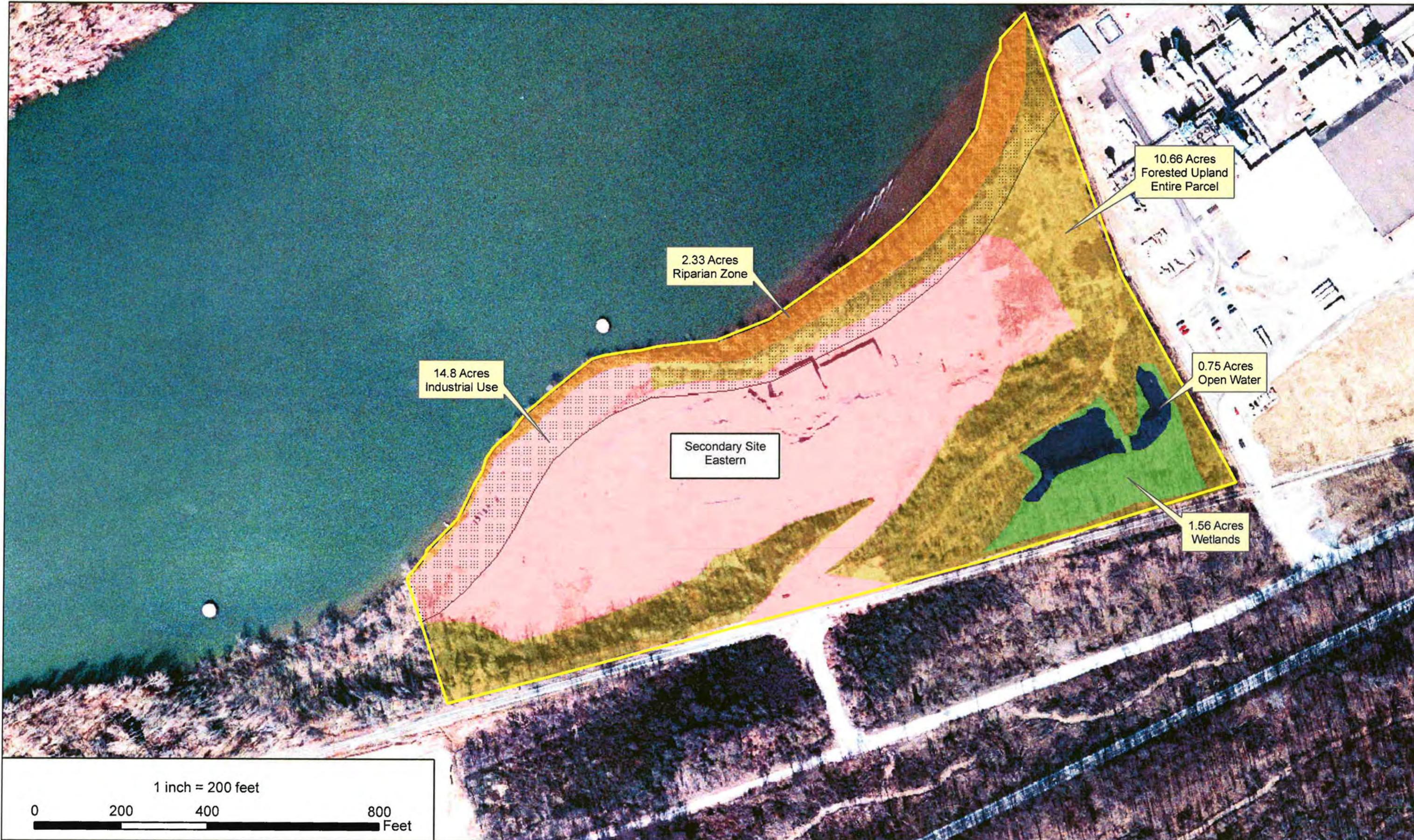


Figure 11A - Montgomery Western Site - Land Use and Natural Habitats



1 inch = 200 feet

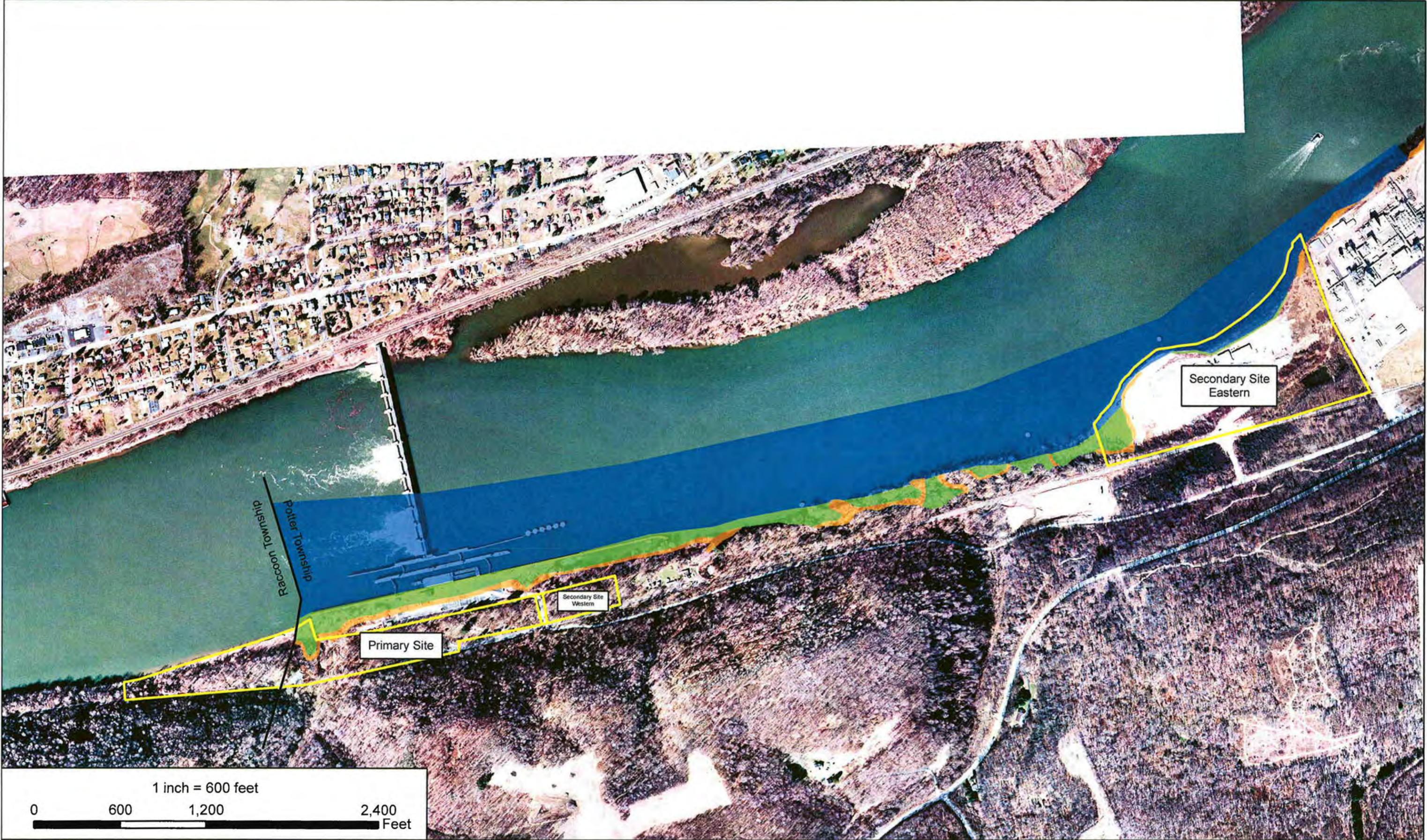
0 200 400 800 Feet

Figure 11B - Montgomery Eastern Site - Land Use and Natural Habitats



Legend	
	Site Boundary
	Industrial Use
	Open Water
	Intermittent
	Riparian Zone
	Forested Upland
	Ohio River
	Wetland
	Waterbody 100' Buffer





1 inch = 600 feet
 0 600 1,200 2,400
 Feet



Figure 12 - Montgomery Sites - Flood Plain Map

Legend	Floodway
Site Boundary	100-Year Flood
500-Year Flood	FEMA's FIRM Panel 1 for Potter Township, Beaver County, PA dated 12/2/1988



Appendices

Appendix A

Historical Aerials



Emsworth Lock/Dam Primary

2702 Neville Road

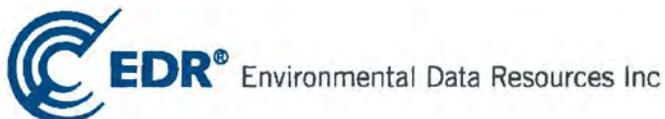
Pittsburgh, PA 15225

Inquiry Number: 2532742.5

July 06, 2009



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Pittsburgh, PA 15225

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1939	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-E1/Flight Date: May 17, 1939	EDR
1949	Aerial Photograph. Scale: 1"=500'	Panel #: 2440080-E1/Flight Date: November 07, 1949	EDR
1967	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-E1/Flight Date: May 26, 1967	EDR
1973	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-E1/Flight Date: April 14, 1973	EDR
1982	Aerial Photograph. Scale: 1"=1000'	Panel #: 2440080-E1/Flight Date: November 07, 1982	EDR
1990	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-E1/Flight Date: August 31, 1990	EDR
1993	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-E1/Flight Date: April 07, 1993	EDR
2005	Aerial Photograph. 1" = 604'	Flight Year: 2005	EDR
2006	Aerial Photograph. 1" = 604'	Flight Year: 2006	EDR

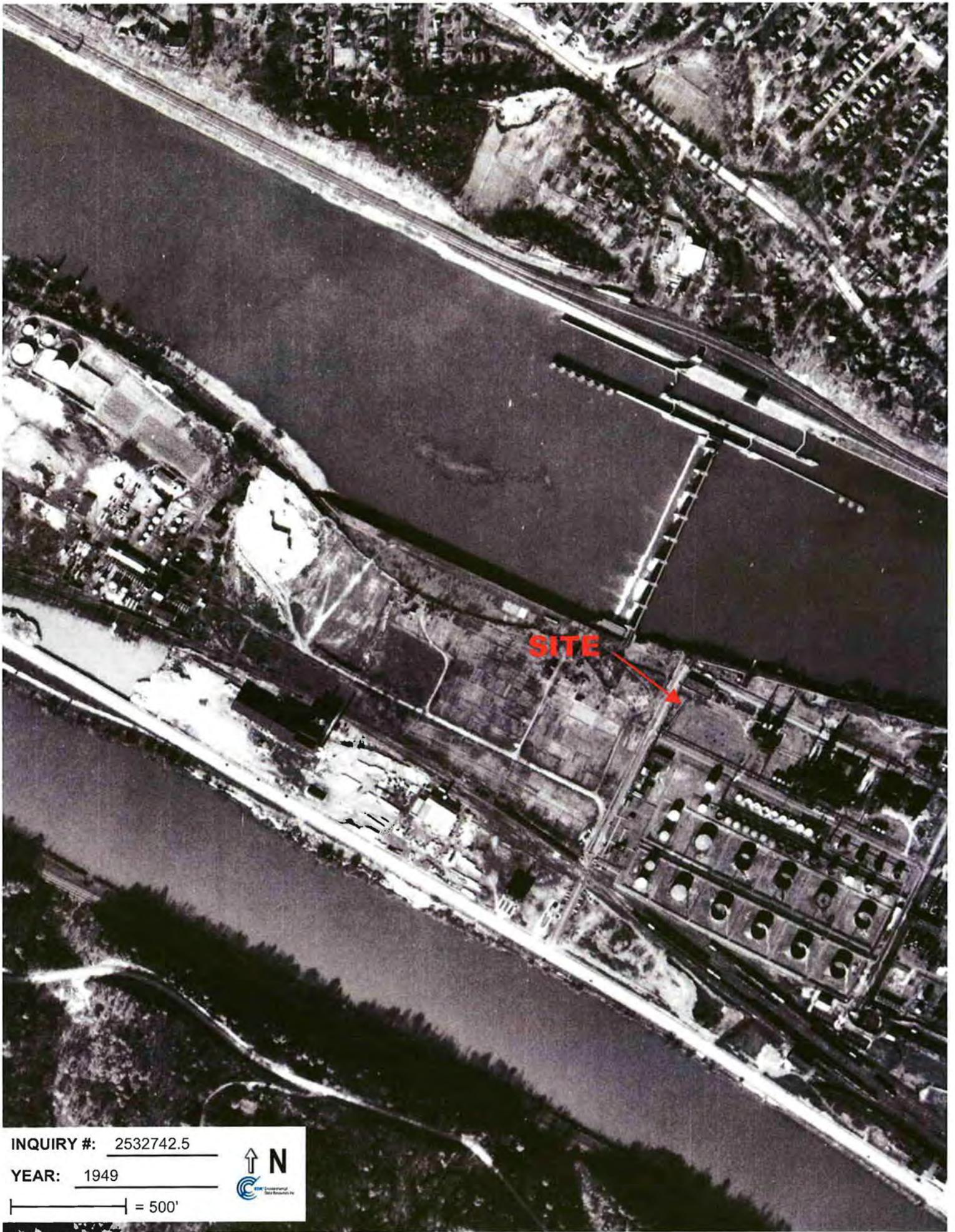


INQUIRY #: 2532742.5

YEAR: 1939

| = 750'



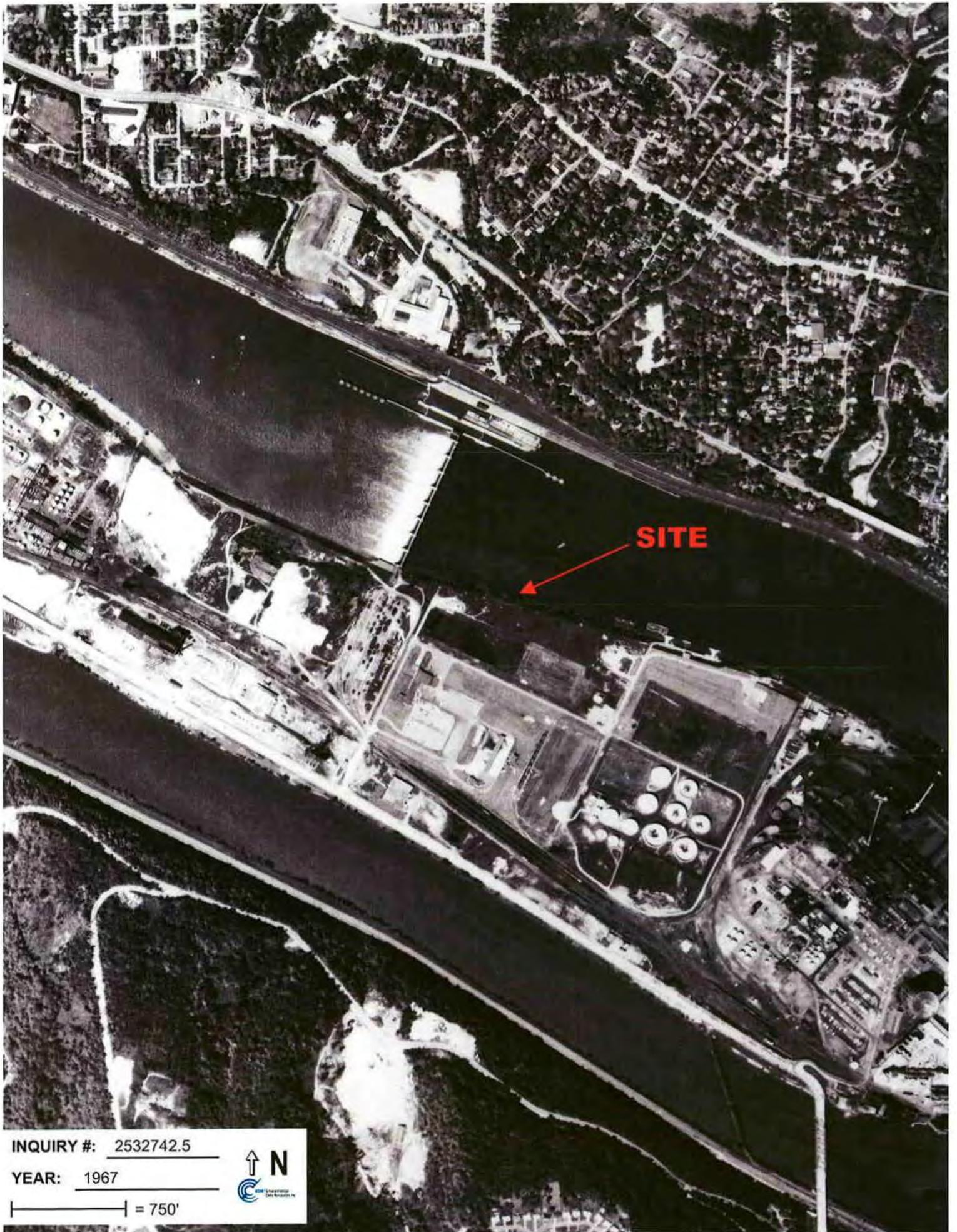


INQUIRY #: 2532742.5

YEAR: 1949

— = 500'





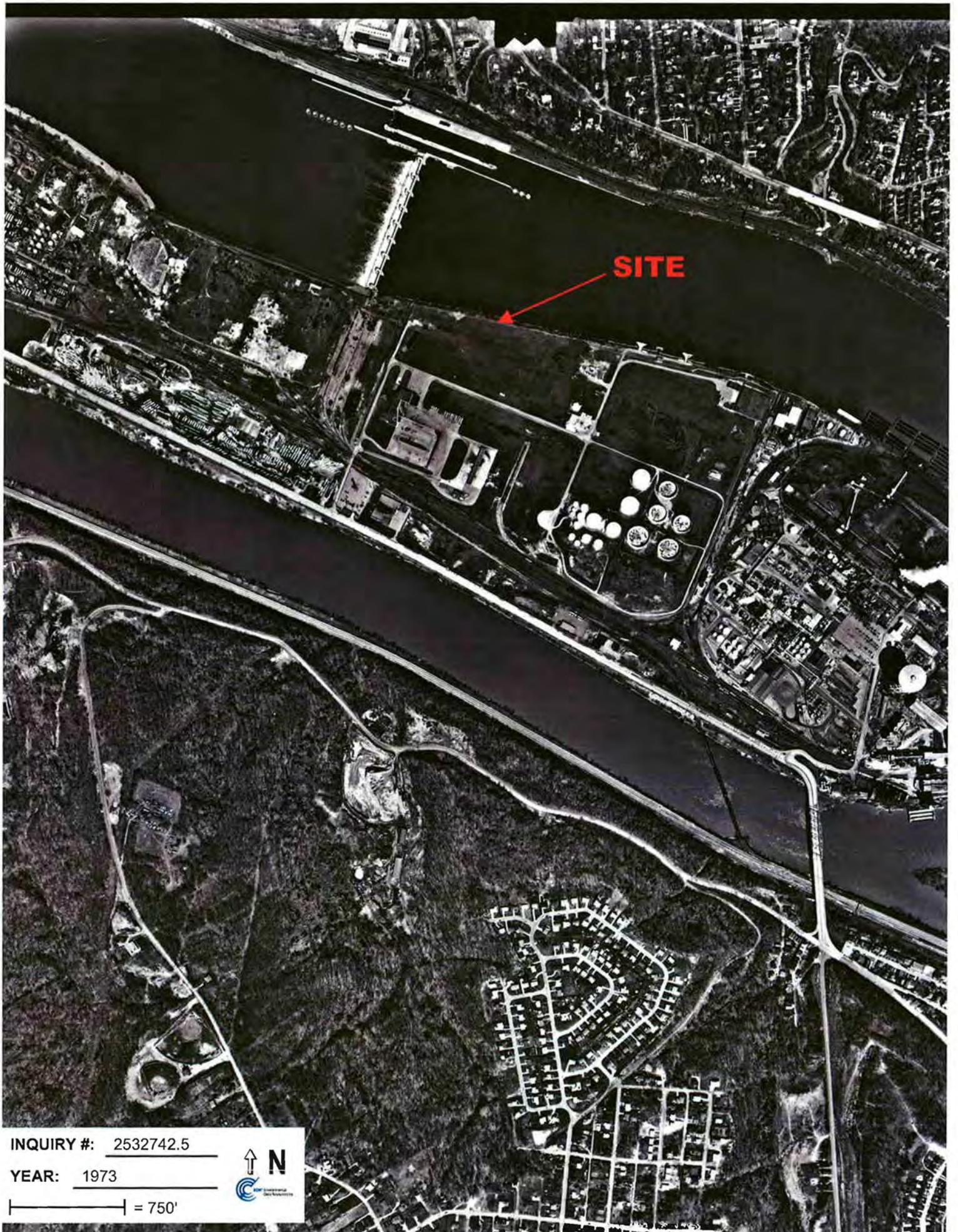
SITE

INQUIRY #: 2532742.5

YEAR: 1967

| = 750'





INQUIRY #: 2532742.5

YEAR: 1973

— = 750'



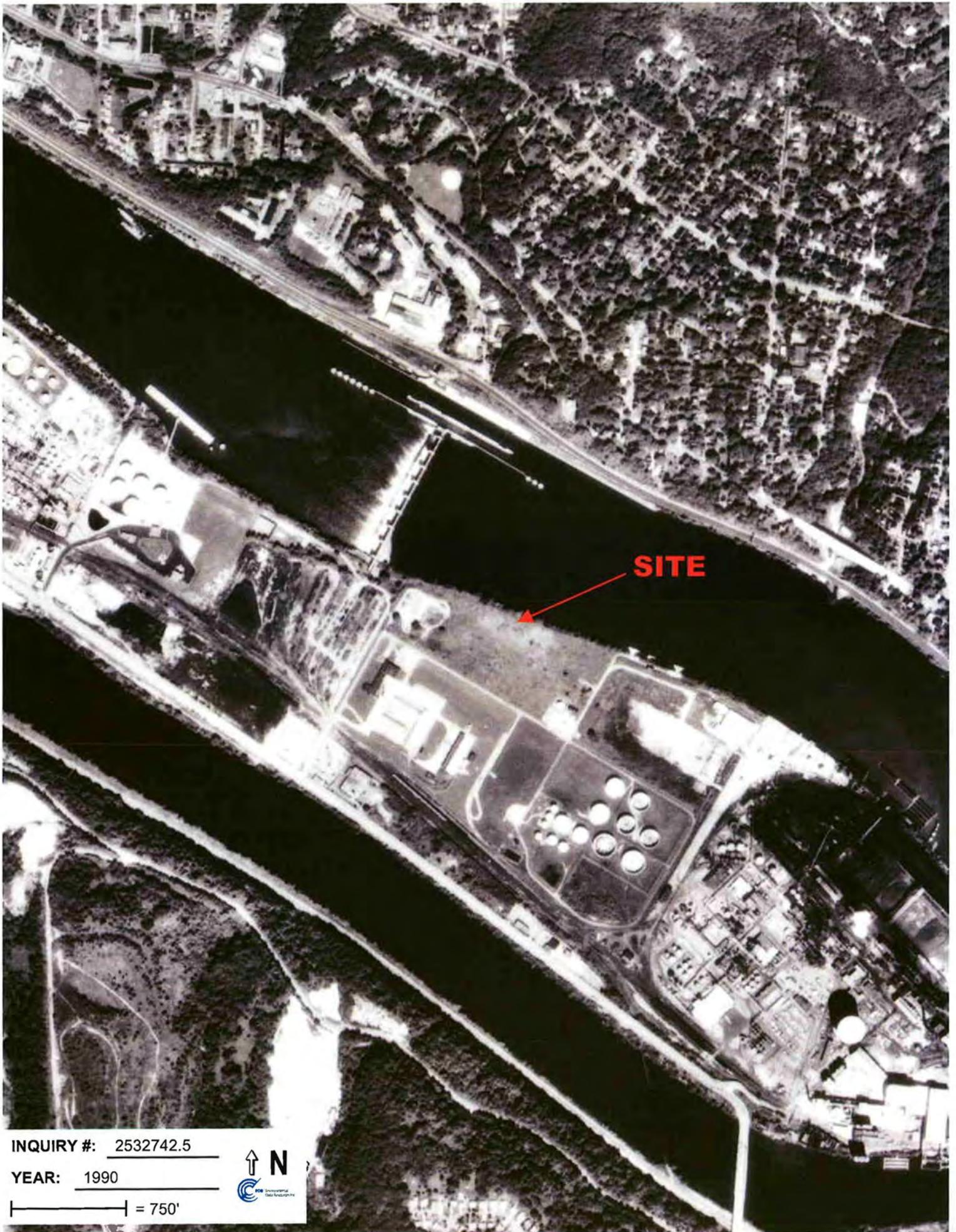


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YEAR: 1982

| = 1000'



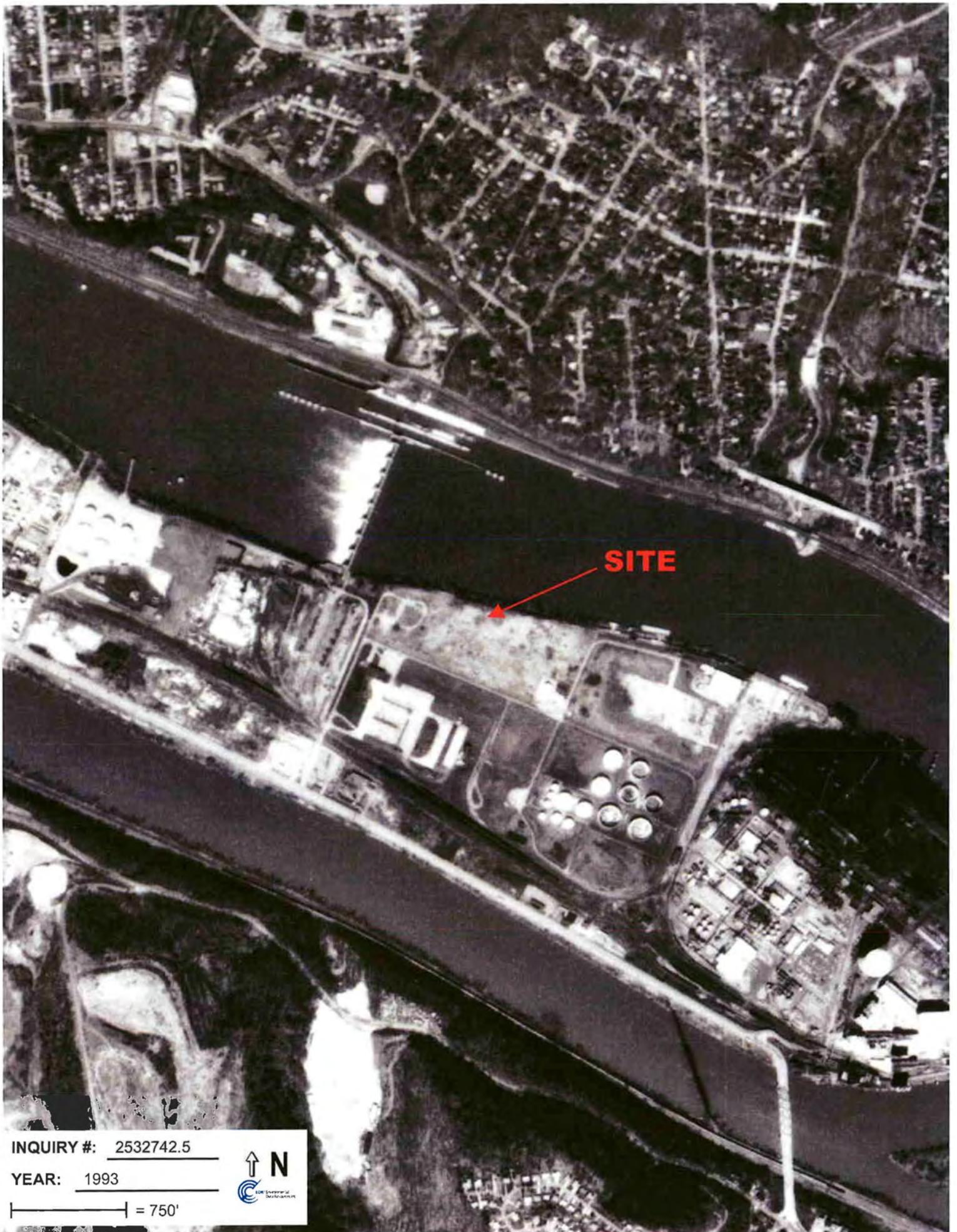


INQUIRY #: 2532742.5

YEAR: 1990

| = 750'





INQUIRY #: 2532742.5

YEAR: 1993

| = 750'



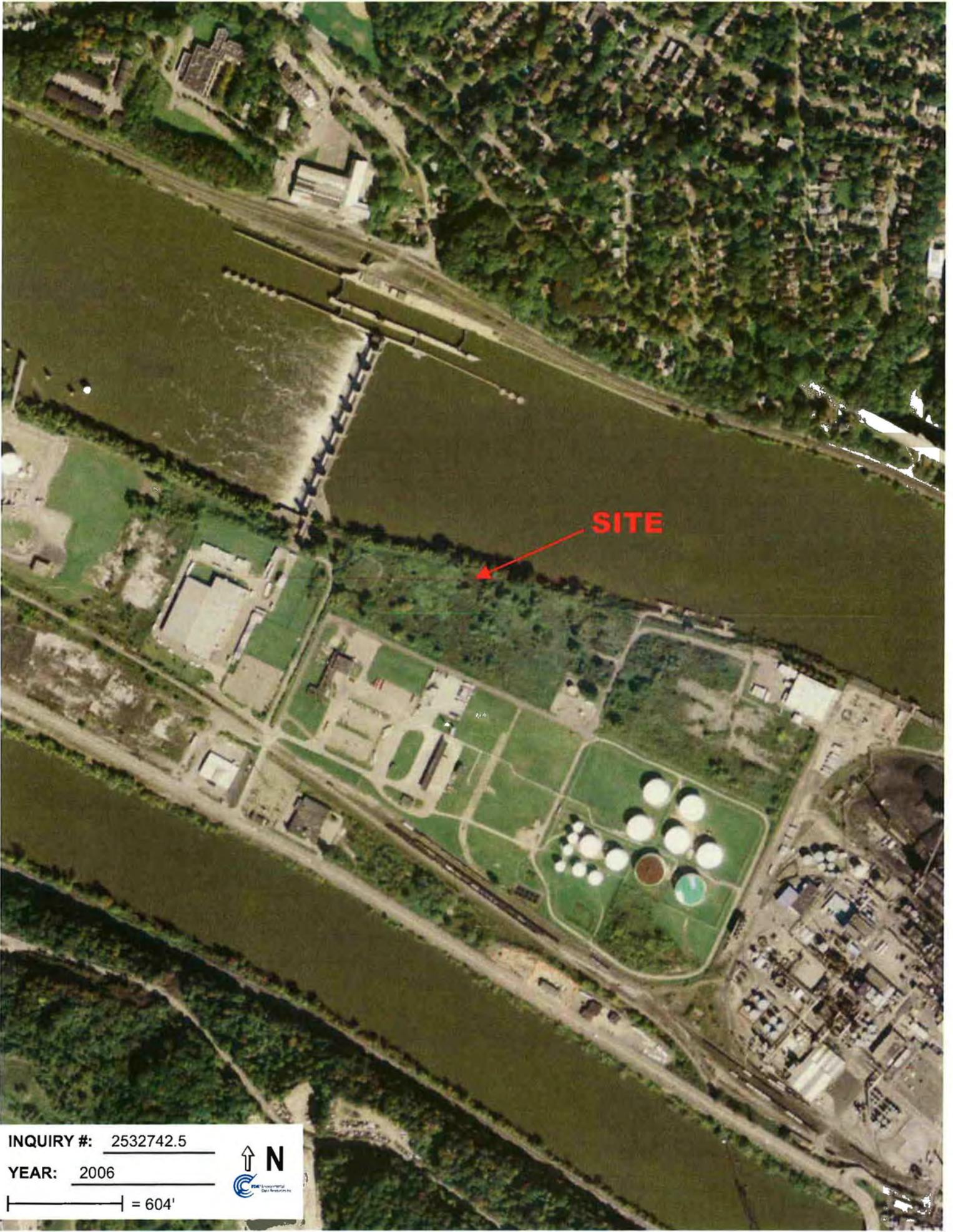


INQUIRY #: 2532742.5

YEAR: 2005

| = 604'





INQUIRY #: 2532742.5

YEAR: 2006

|—————| = 604'





Emsworth Lock/Dam Secondary

2702 Neville Road
Pittsburg, PA 15225

Inquiry Number: 2532742.13

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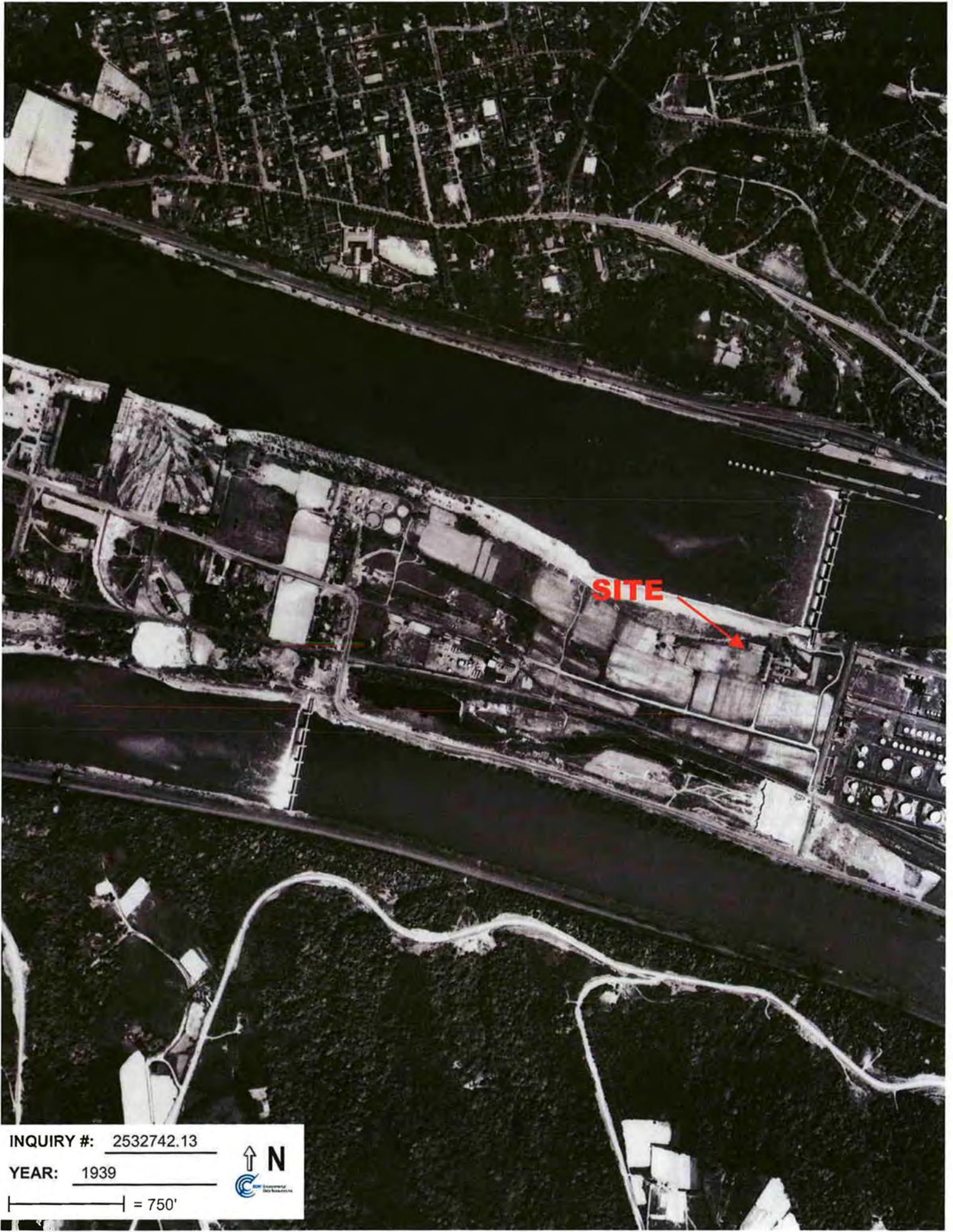
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2005	Aerial Photograph. 1" = 604'	Flight Year: 2005	EDR
2006	Aerial Photograph. 1" = 604'	Flight Year: 2006	EDR

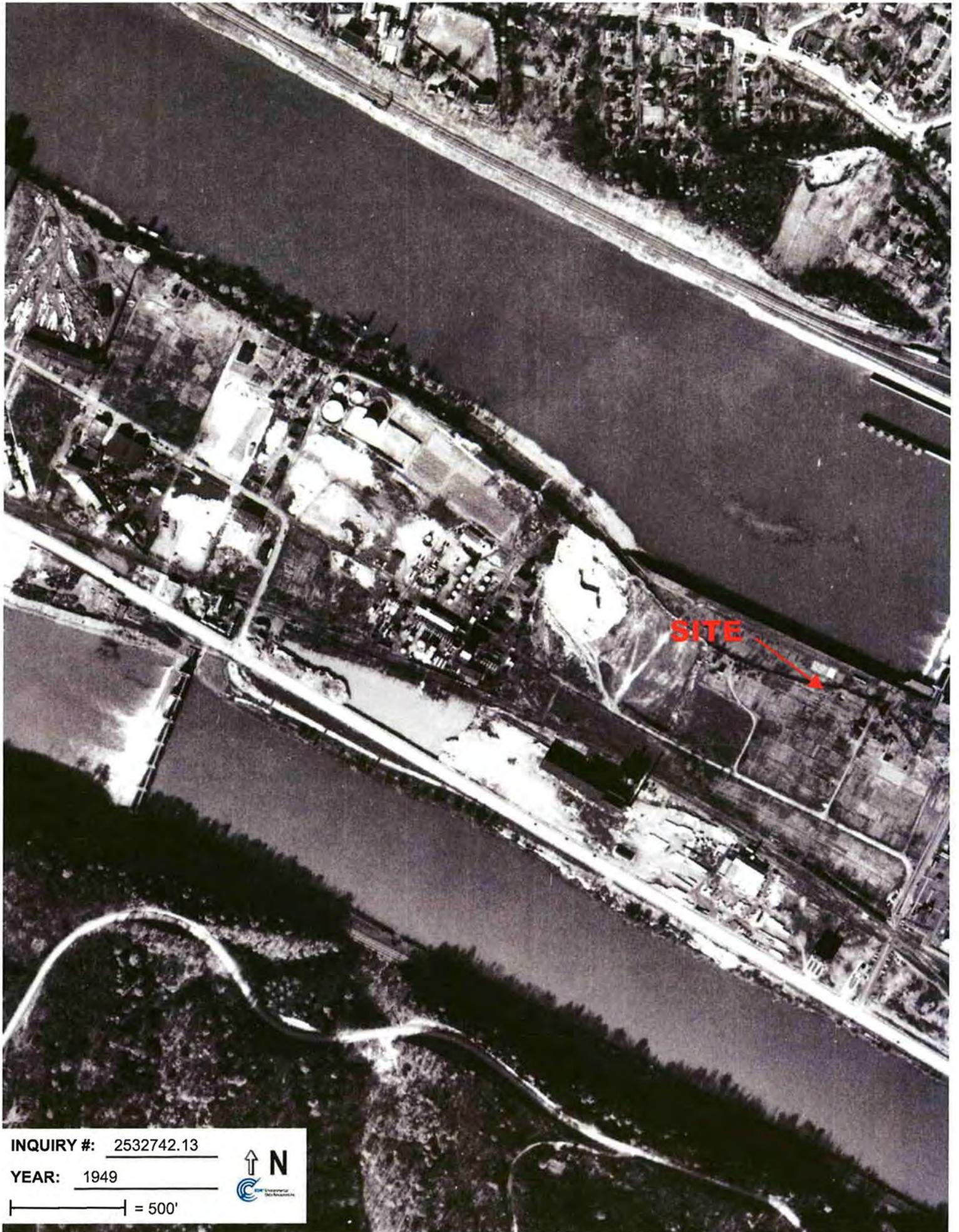


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YEAR: 1939

| = 750'



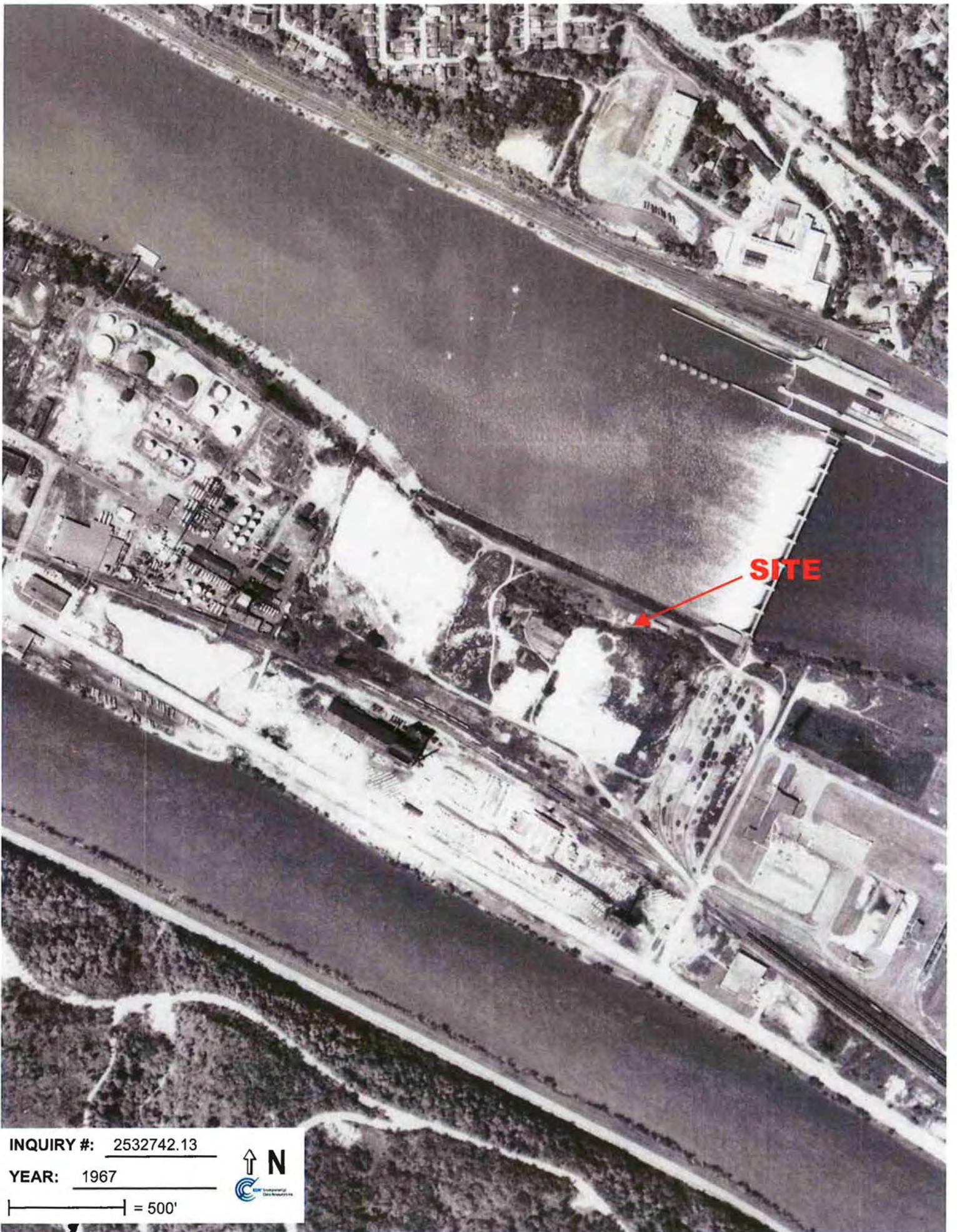


INQUIRY #: 2532742.13

YEAR: 1949

| = 500'



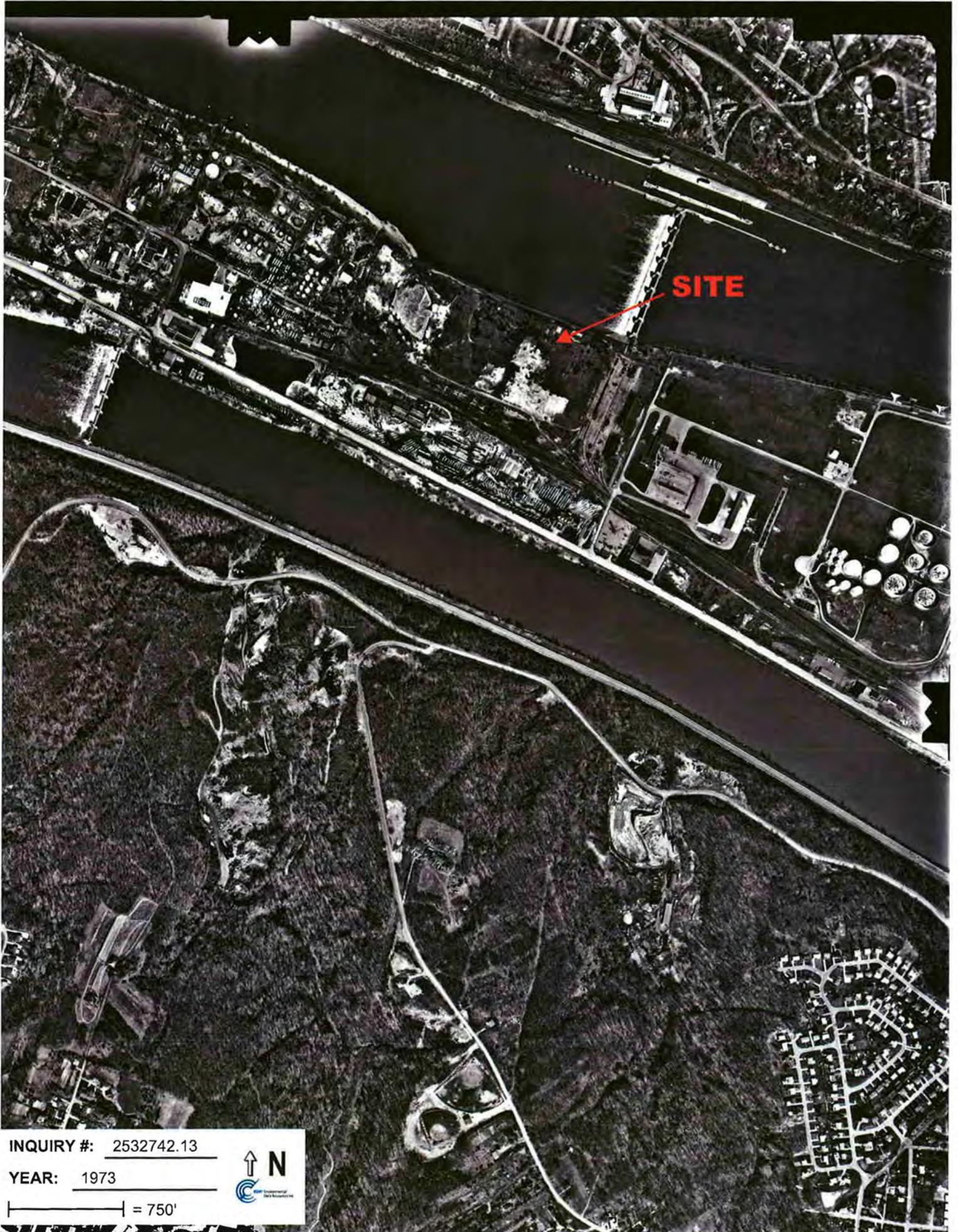


INQUIRY #: 2532742.13

YEAR: 1967

— = 500'





INQUIRY #: 2532742.13

YEAR: 1973

| = 750'



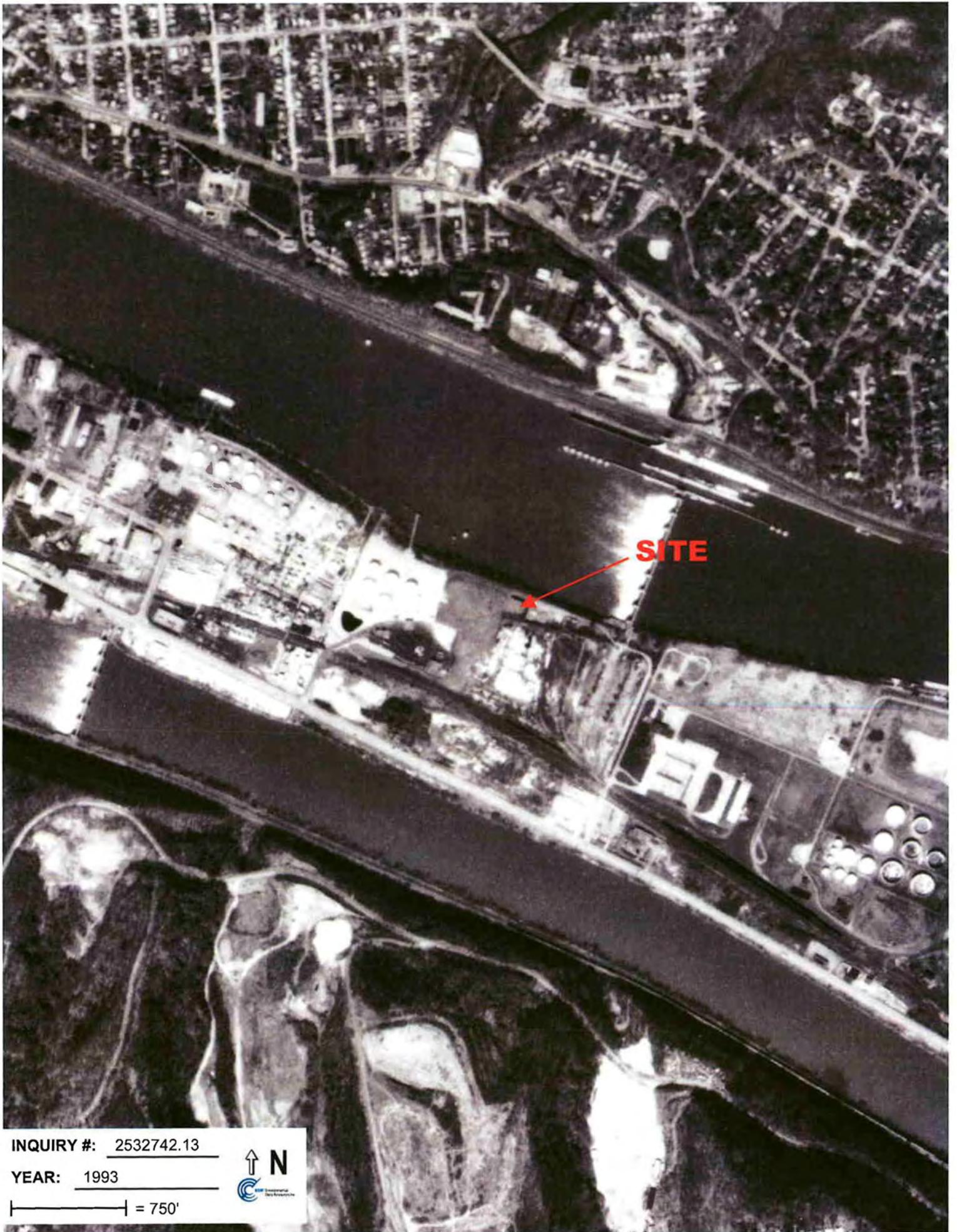


INQUIRY #: 2532742.13

YEAR: 1982

— = 1000'





INQUIRY #: 2532742.13

YEAR: 1993

| = 750'





INQUIRY #: 2532742.13

YEAR: 2005

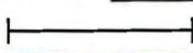
|—————| = 604'





INQUIRY #: 2532742.13

YEAR: 2006

 = 604'





Dashiels Lock/Dam Primary

Ferry Street

Pittsburgh, PA 15143

Inquiry Number: 2532742.21

July 06, 2009

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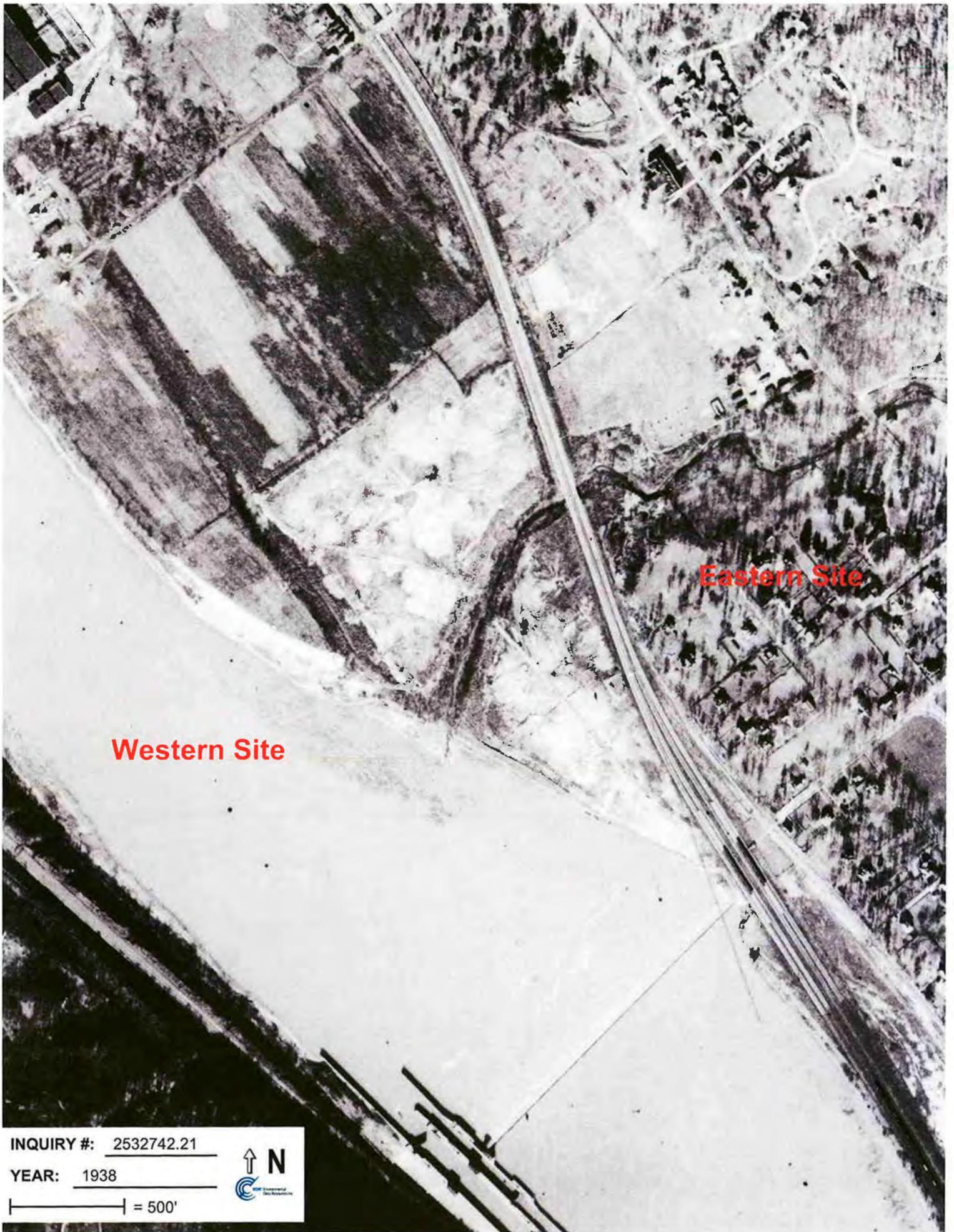
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Pittsburgh, PA 15143

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1939	Aerial Photograph. Scale: 1"=500'	Panel #: 2440080-E2/Flight Date: November 09, 1939	EDR
1949	Aerial Photograph. Scale: 1"=500'	Panel #: 2440080-E2/Flight Date: October 23, 1949	EDR
1959	Aerial Photograph. Scale: 1"=1000'	Panel #: 2440080-E2/Flight Date: October 29, 1959	EDR
1967	Aerial Photograph. Scale: 1"=500'	Panel #: 2440080-E2/Flight Date: May 26, 1967	EDR
1975	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-E2/Flight Date: May 11, 1975	EDR
1977	Aerial Photograph. Scale: 1"=1000'	Panel #: 2440080-E2/Flight Date: June 04, 1977	EDR
1982	Aerial Photograph. Scale: 1"=1000'	Panel #: 2440080-E2/Flight Date: November 07, 1982	EDR
1993	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-E2/Flight Date: April 07, 1993	EDR
2005	Aerial Photograph. 1" = 604'	Flight Year: 2005	EDR
2006	Aerial Photograph. 1" = 604'	Flight Year: 2006	EDR



Western Site

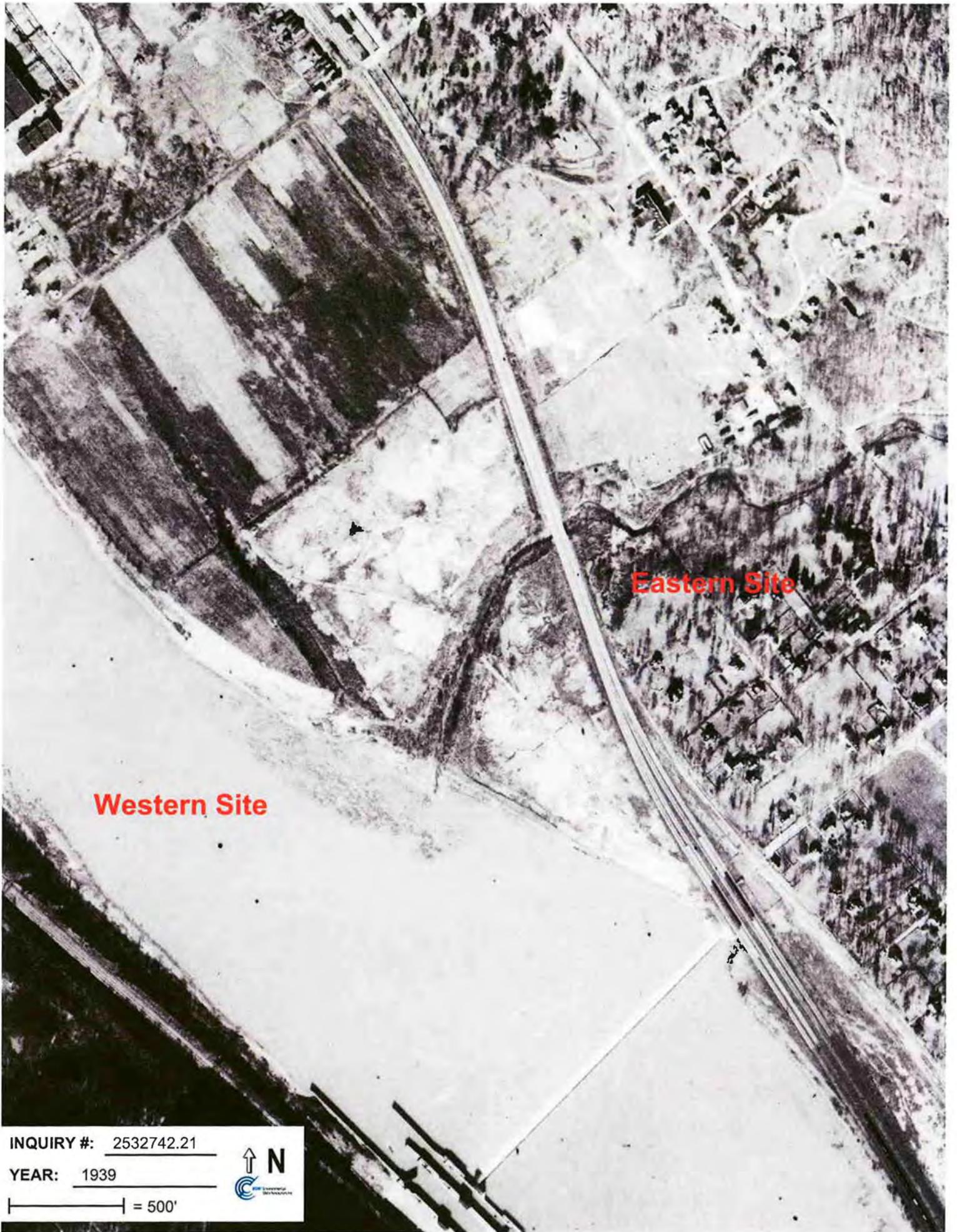
Eastern Site

INQUIRY #: 2532742.21

YEAR: 1938

— = 500'





Western Site

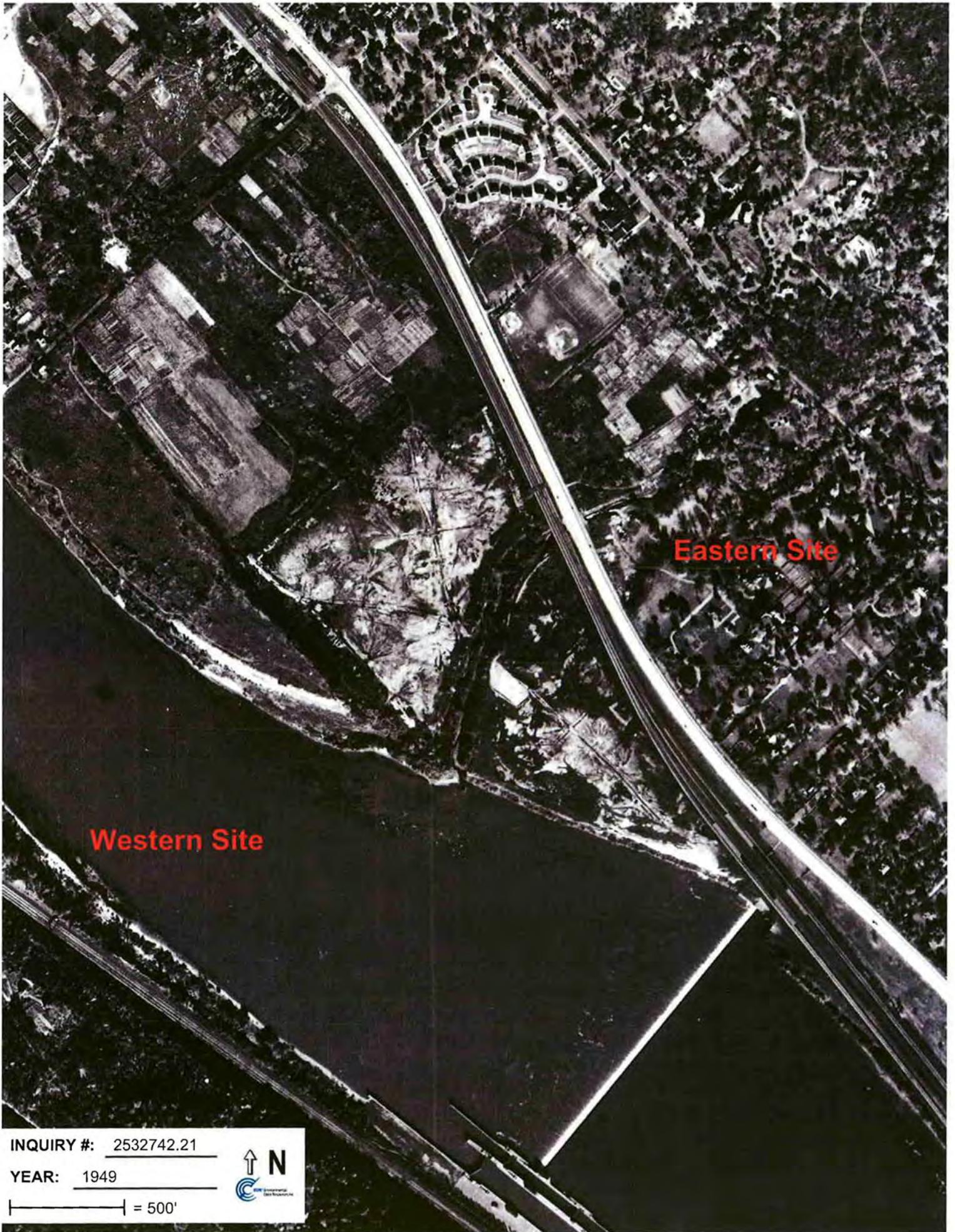
Eastern Site

INQUIRY #: 2532742.21

YEAR: 1939

| = 500'





Western Site

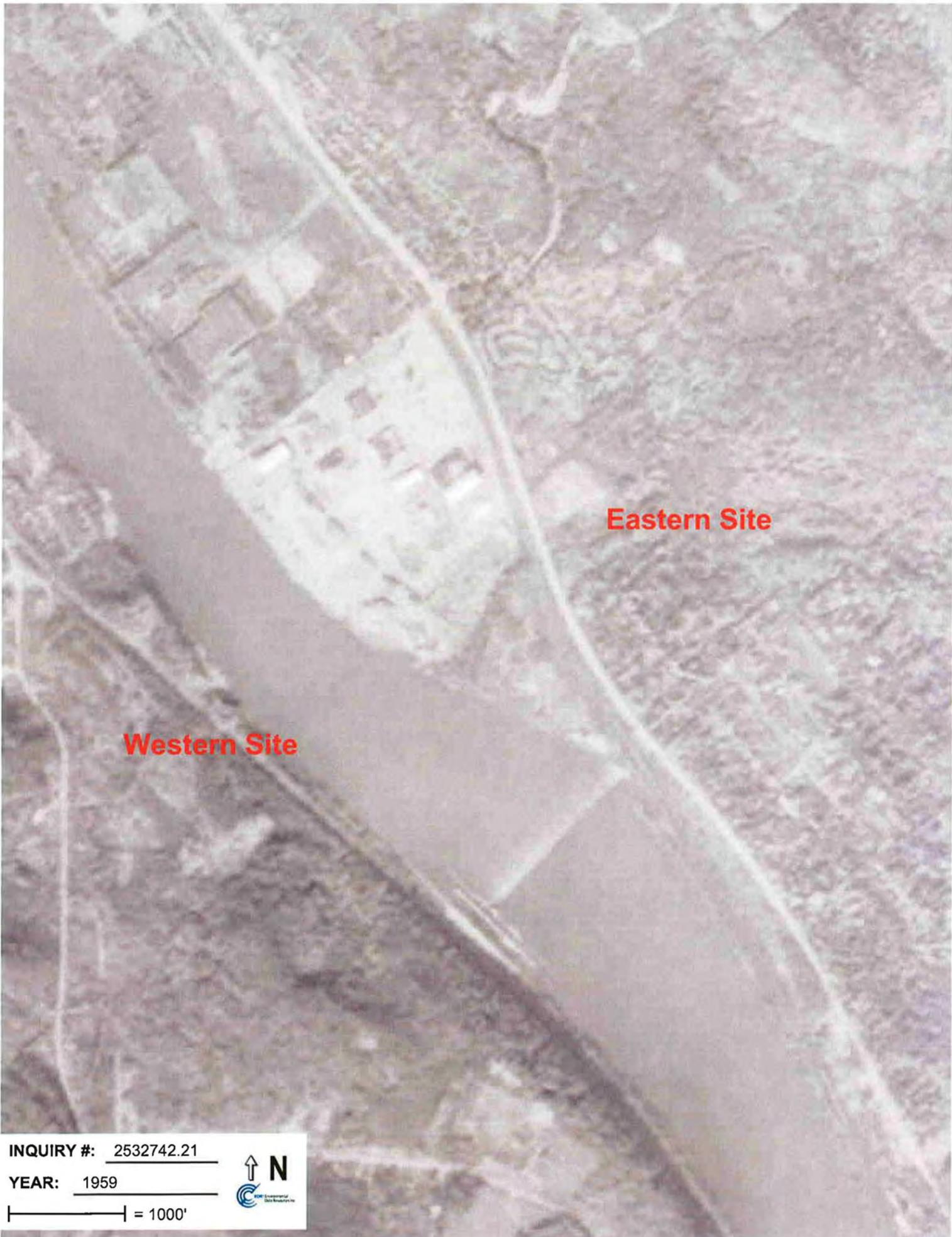
Eastern Site

INQUIRY #: 2532742.21

YEAR: 1949

| = 500'





Eastern Site

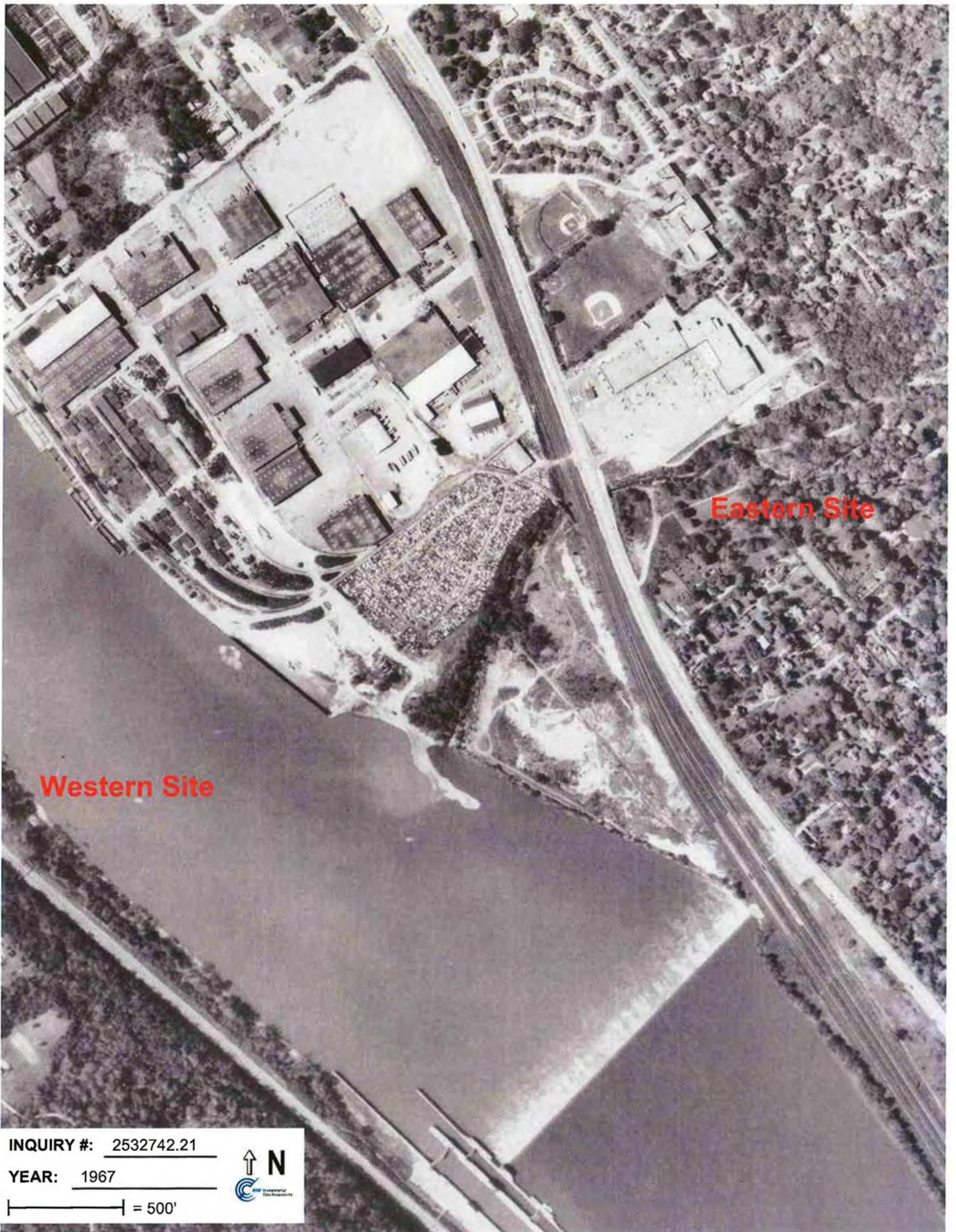
Western Site

INQUIRY #: 2532742.21

YEAR: 1959

| = 1000'





Eastern Site

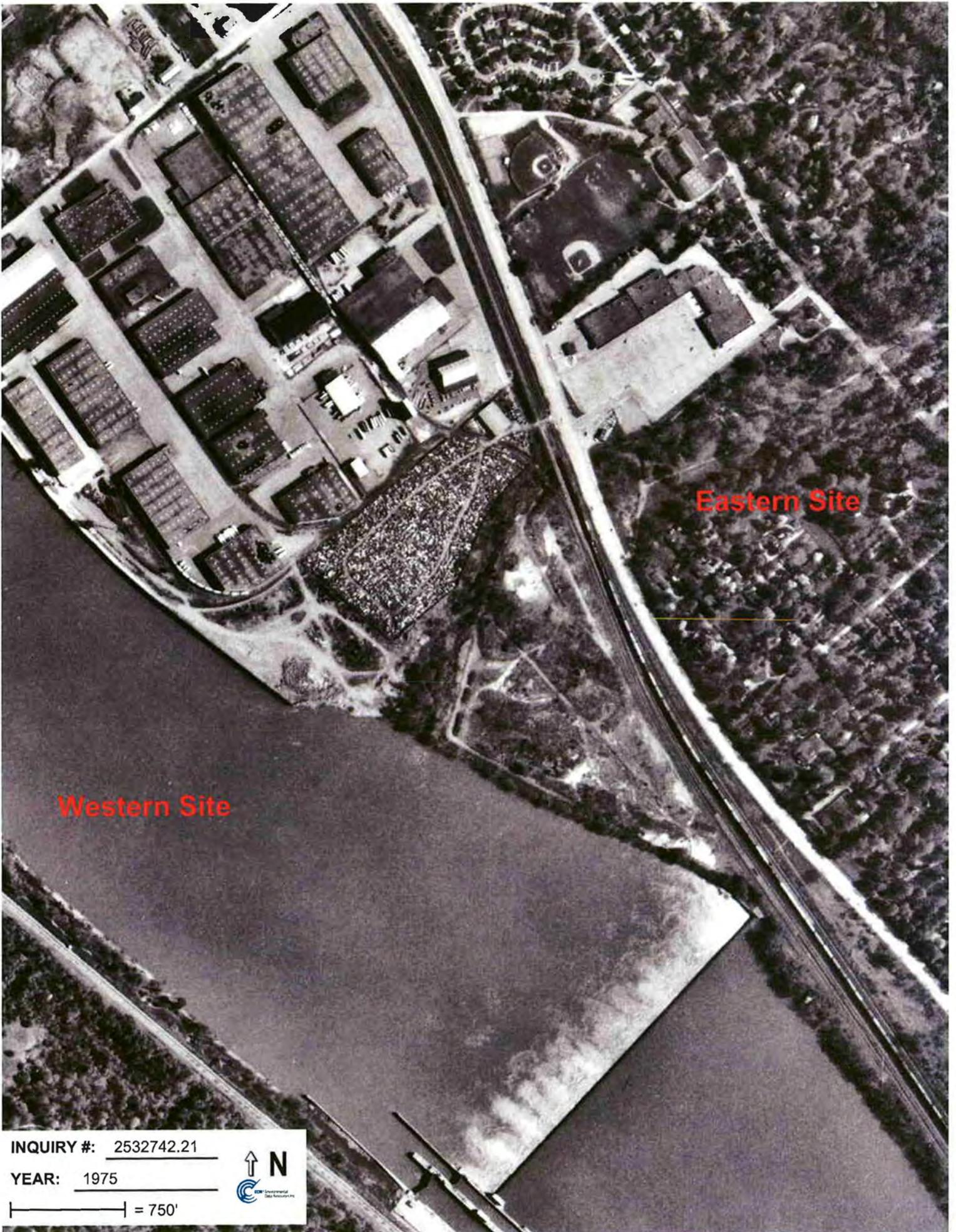
Western Site

INQUIRY #: 2532742.21

YEAR: 1967

| = 500'





Western Site

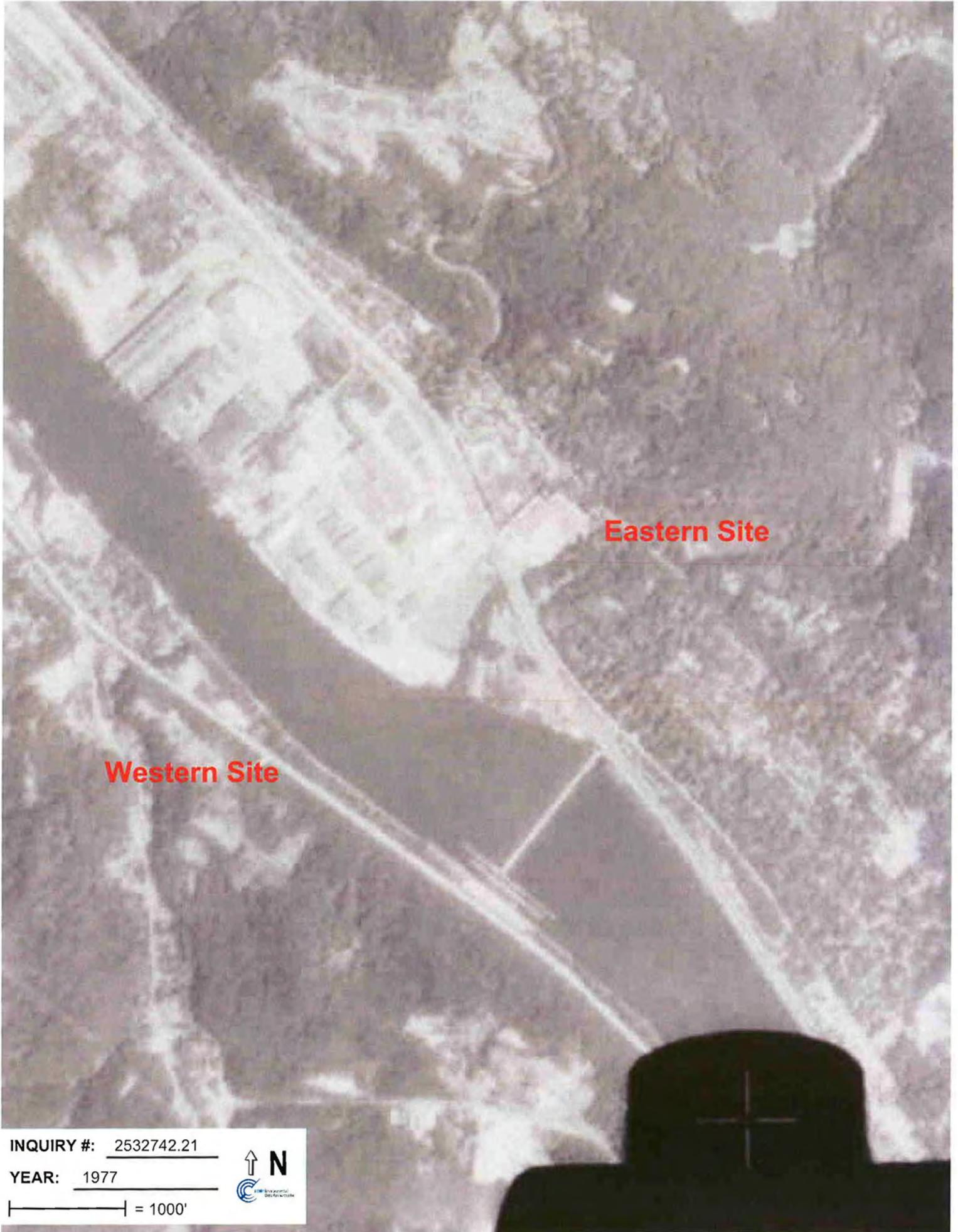
Eastern Site

INQUIRY #: 2532742.21

YEAR: 1975

| = 750'





Eastern Site

Western Site

INQUIRY #: 2532742.21
YEAR: 1977
| = 1000'



The logo consists of a stylized 'N' with an upward-pointing arrow to its left, and a circular emblem below it containing a globe and the text 'Environmental Data Institute'.



Eastern Site

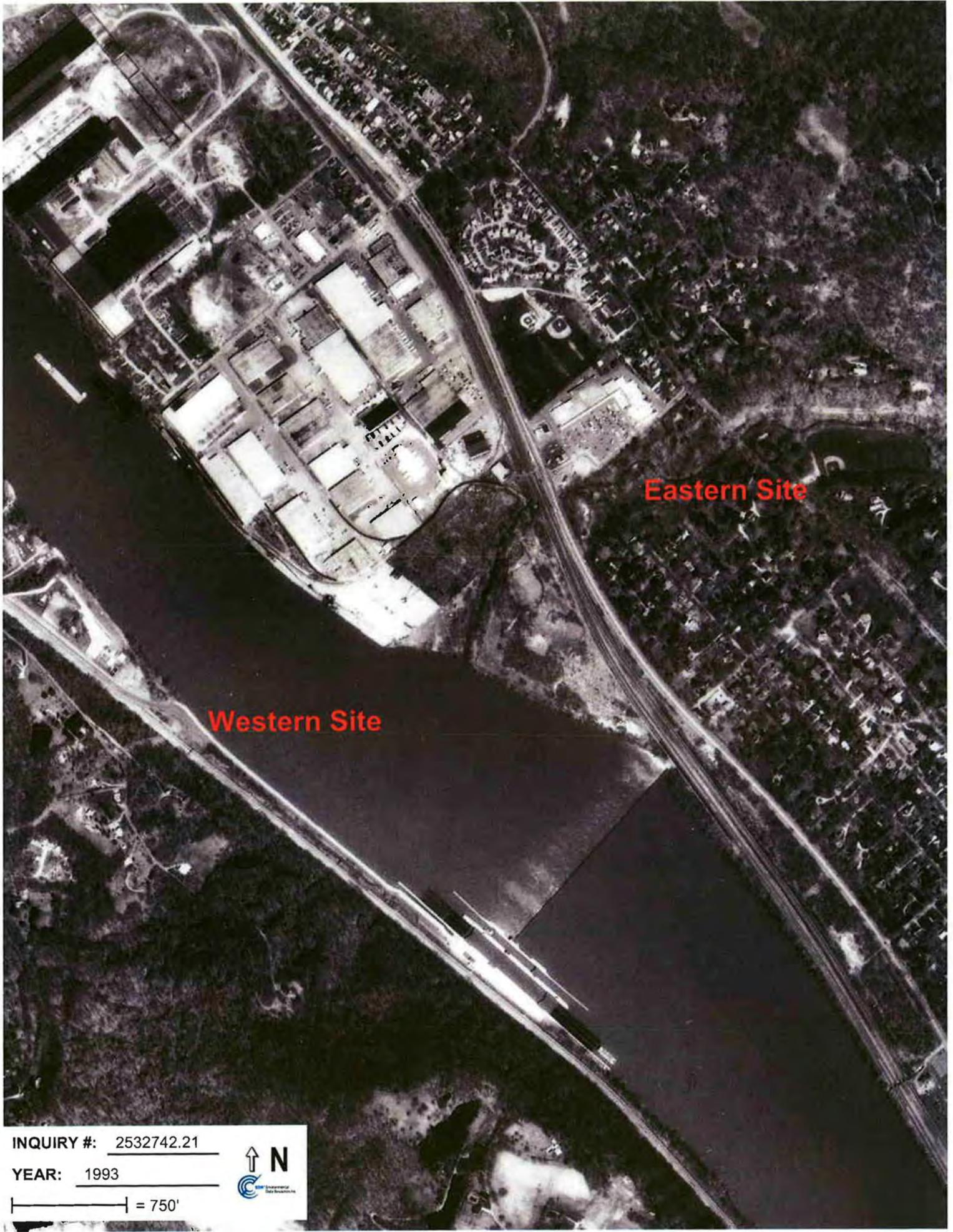
Western Site

INQUIRY #: 2532742.21

YEAR: 1982

| = 1000'





Eastern Site

Western Site

INQUIRY #: 2532742.21

YEAR: 1993

| = 750'





Western Site

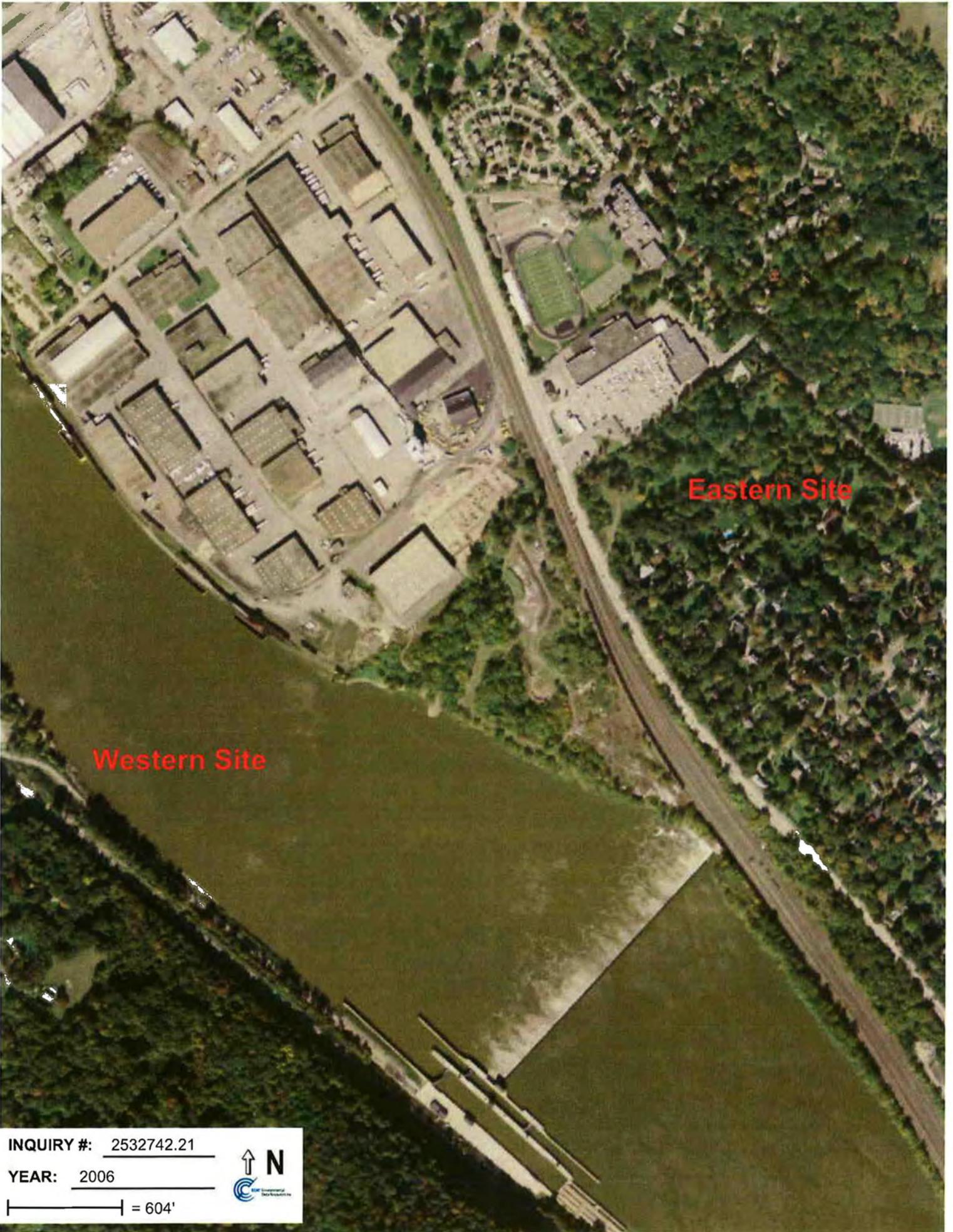
Eastern Site

INQUIRY #: 2532742.21

YEAR: 2005

| = 604'





Western Site

Eastern Site

INQUIRY #: 2532742.21

YEAR: 2006

| = 604'





Dashields Lock/Dam Secondary

Riverview Road

Pittsburgh, PA 15108

Inquiry Number: 2532742.29

July 06, 2009



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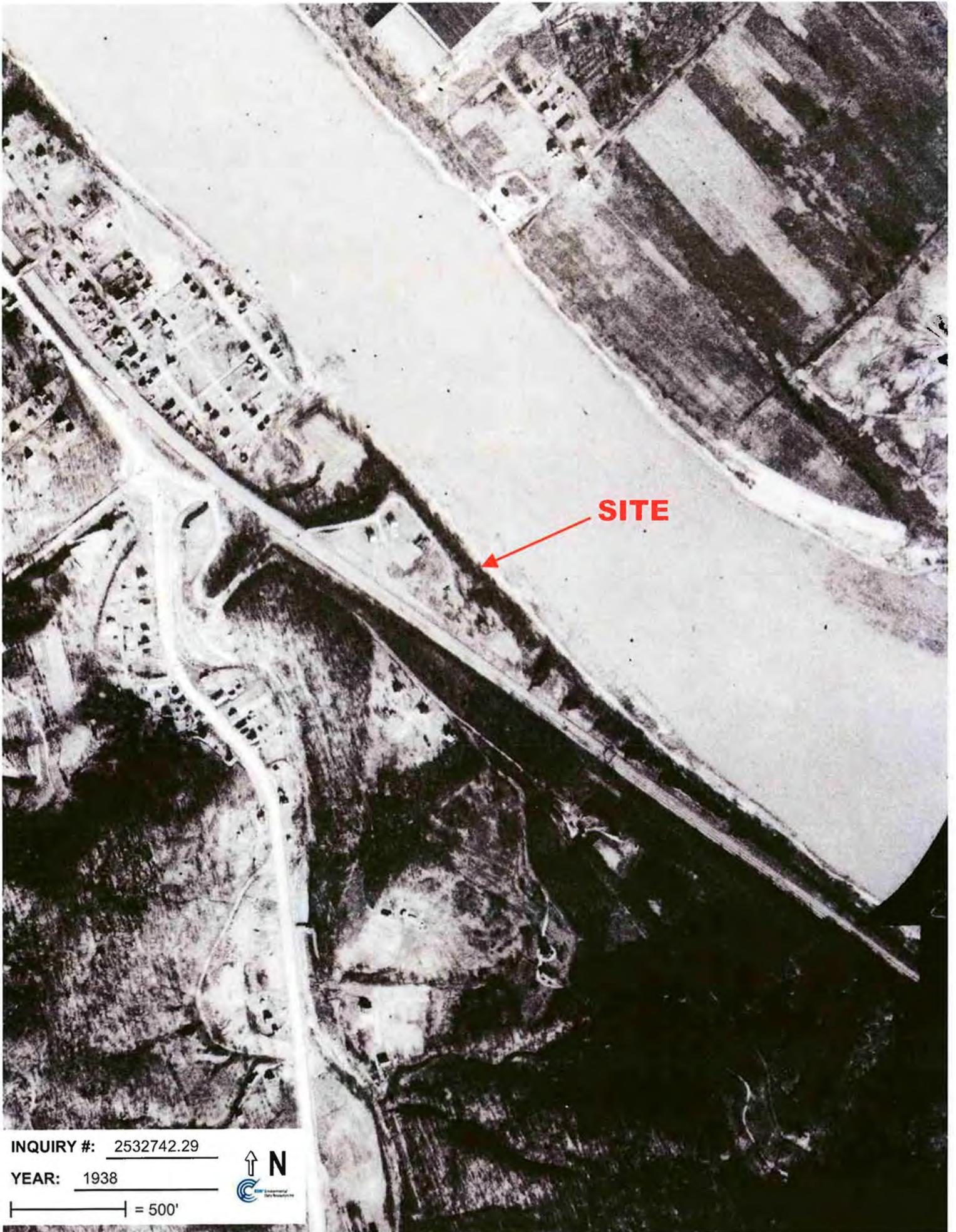
Aerial Photography July 06, 2009

Target Property:

Riverview Road

Pittsburgh, PA 15108

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1938	Aerial Photograph. Scale: 1"=500'	Panel #: 2440080-E2/Flight Date: November 09, 1938	EDR
1939	Aerial Photograph. Scale: 1"=500'	Panel #: 2440080-E2/Flight Date: November 09, 1939	EDR
1949	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-E2/Flight Date: October 23, 1949	EDR
1959	Aerial Photograph. Scale: 1"=1000'	Panel #: 2440080-E2/Flight Date: October 29, 1959	EDR
1967	Aerial Photograph. Scale: 1"=500'	Panel #: 2440080-E2/Flight Date: May 26, 1967	EDR
1975	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-E2/Flight Date: May 11, 1975	EDR
1977	Aerial Photograph. Scale: 1"=1000'	Panel #: 2440080-E2/Flight Date: June 04, 1977	EDR
1982	Aerial Photograph. Scale: 1"=1000'	Panel #: 2440080-E2/Flight Date: November 07, 1982	EDR
1985	Aerial Photograph. Scale: 1"=1000'	Panel #: 2440080-E2/Flight Date: November 07, 1985	EDR
1993	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-E2/Flight Date: April 07, 1993	EDR
2005	Aerial Photograph, 1" = 604'	Flight Year: 2005	EDR
2006	Aerial Photograph, 1" = 604'	Flight Year: 2006	EDR



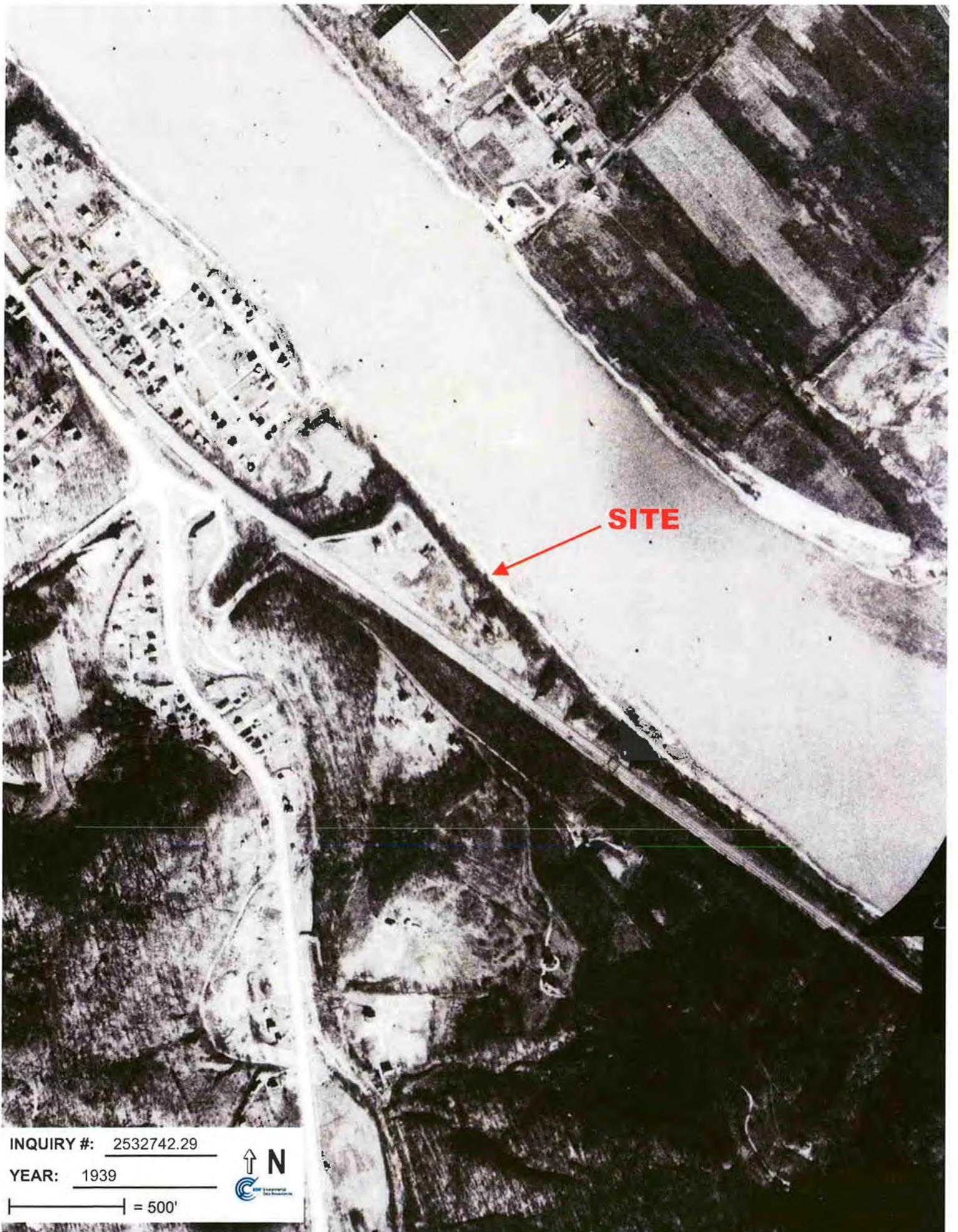
SITE

INQUIRY #: 2532742.29

YEAR: 1938

| = 500'



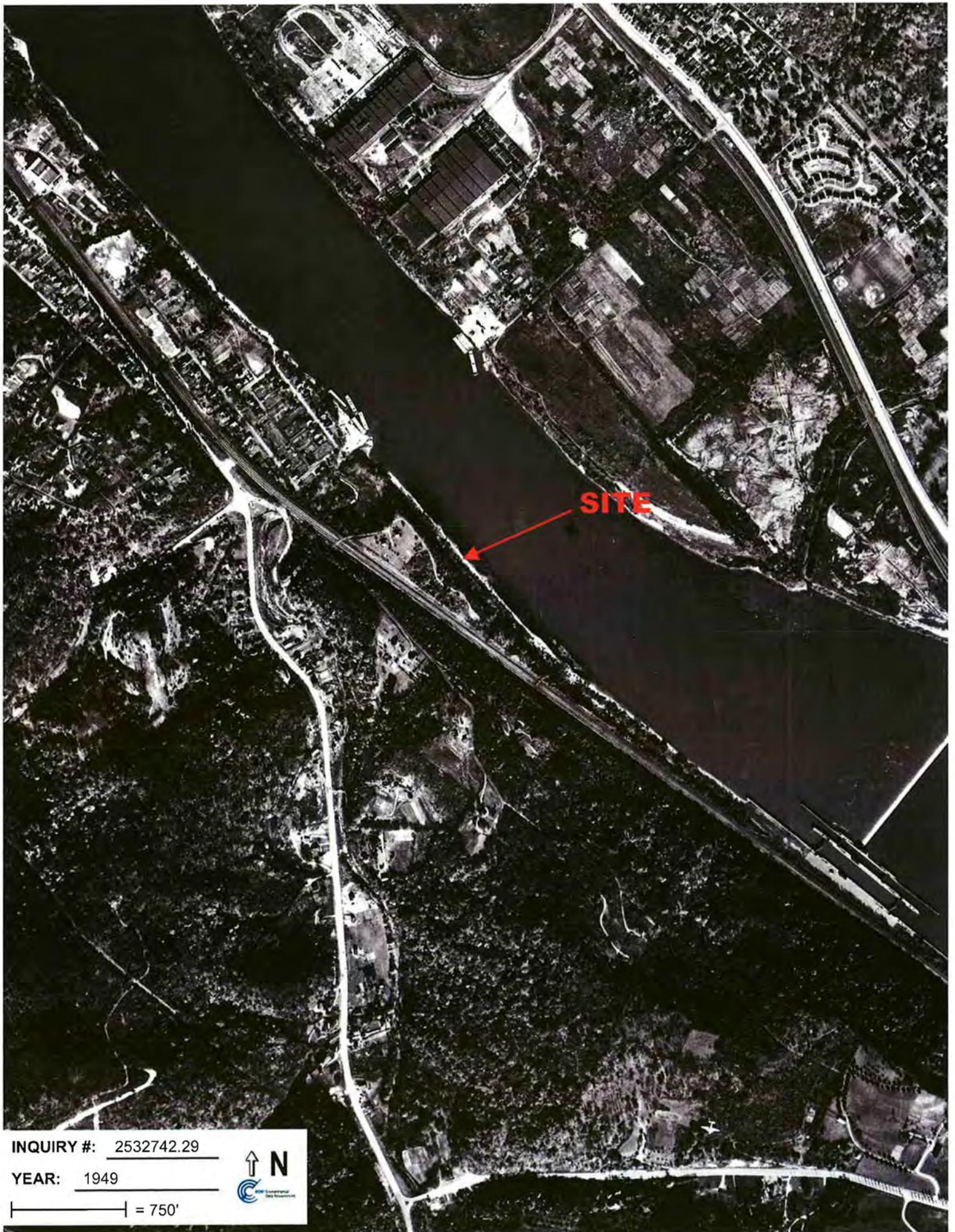


INQUIRY #: 2532742.29

YEAR: 1939

| = 500'





INQUIRY #: 2532742.29

YEAR: 1949

| = 750'





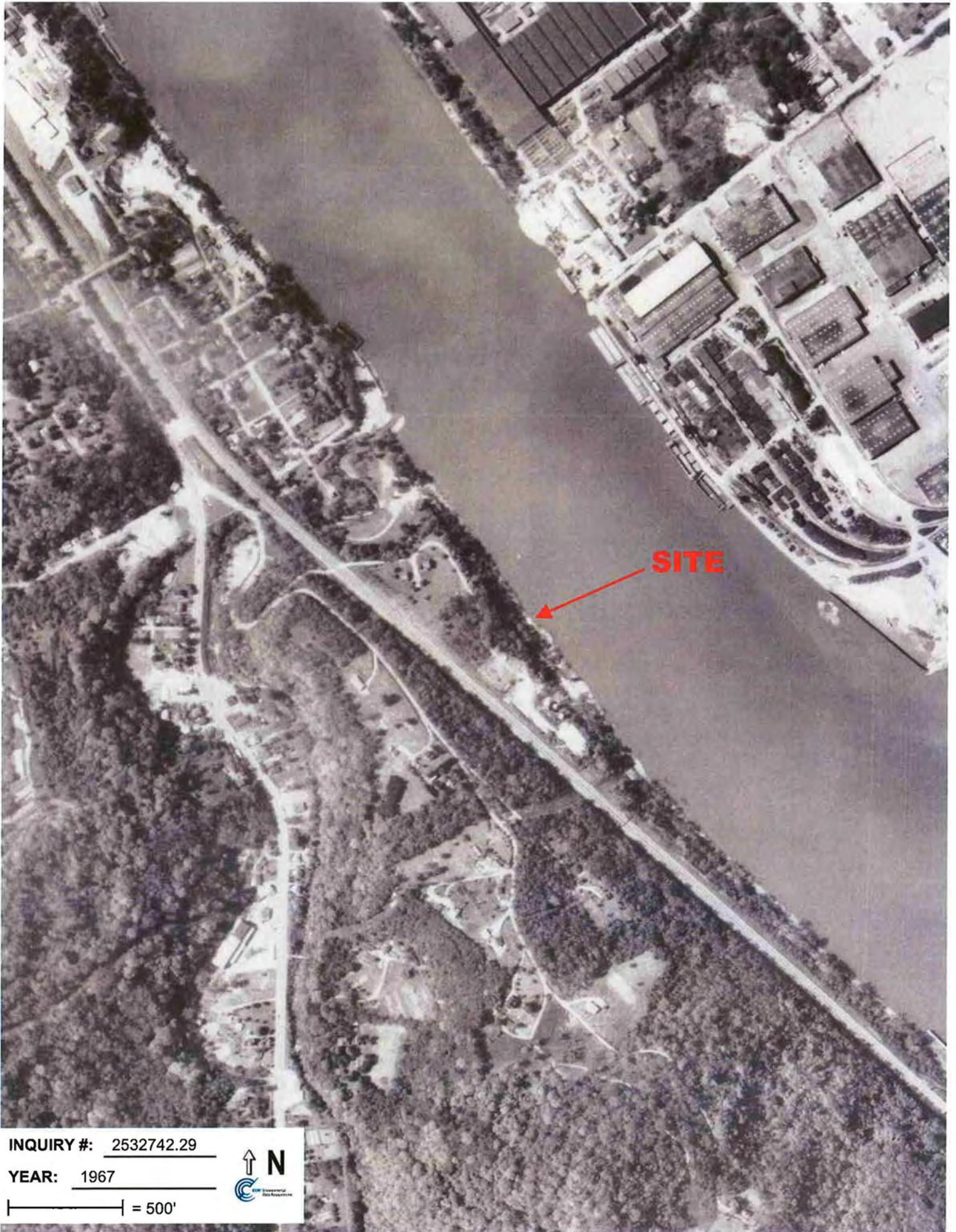
SITE

INQUIRY #: 2532742.29

YEAR: 1959

| = 1000'



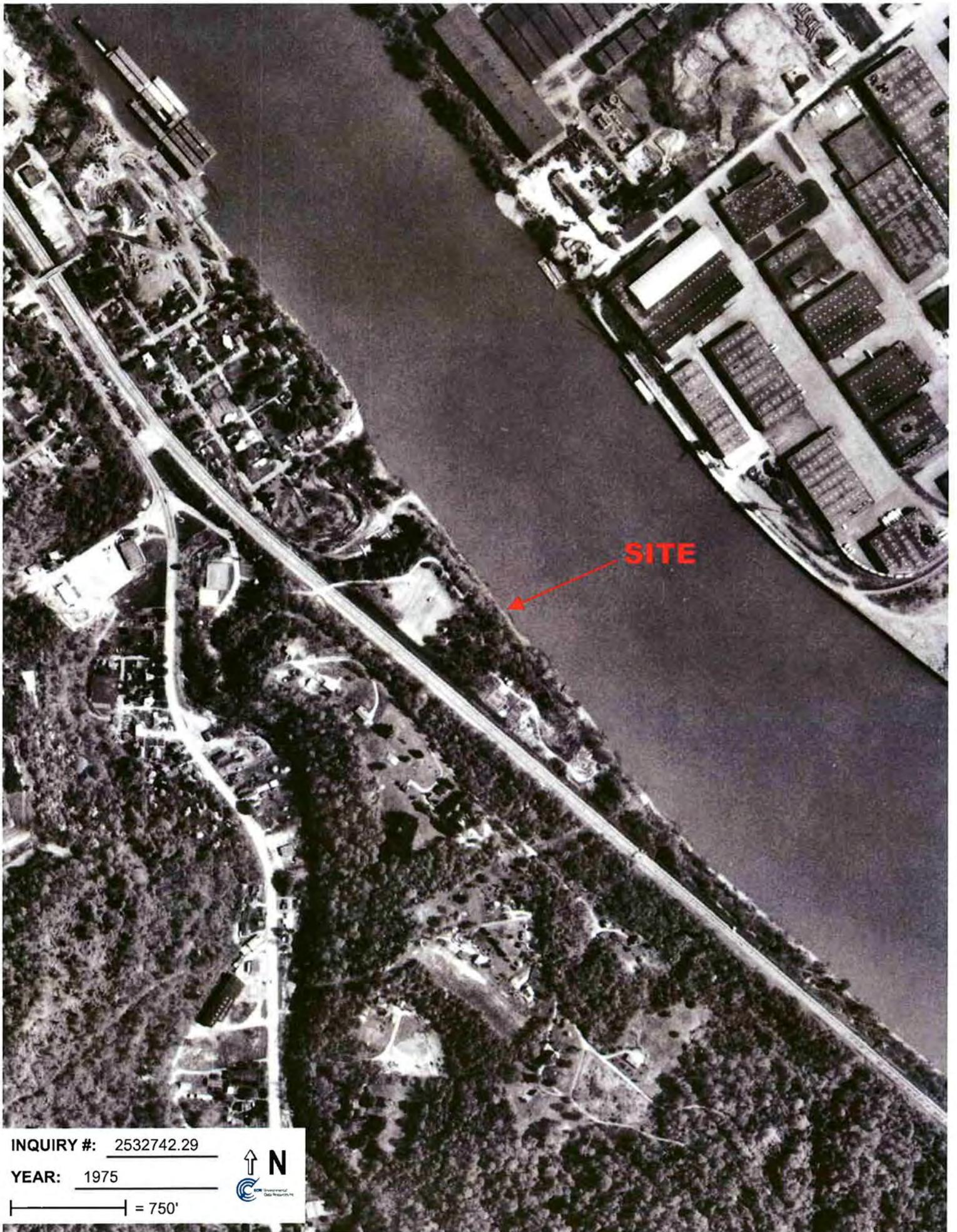


INQUIRY #: 2532742.29

YEAR: 1967

| = 500'





SITE

INQUIRY #: 2532742.29

YEAR: 1975

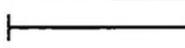
| = 750'





INQUIRY #: 2532742.29

YEAR: 1977

 = 1000'



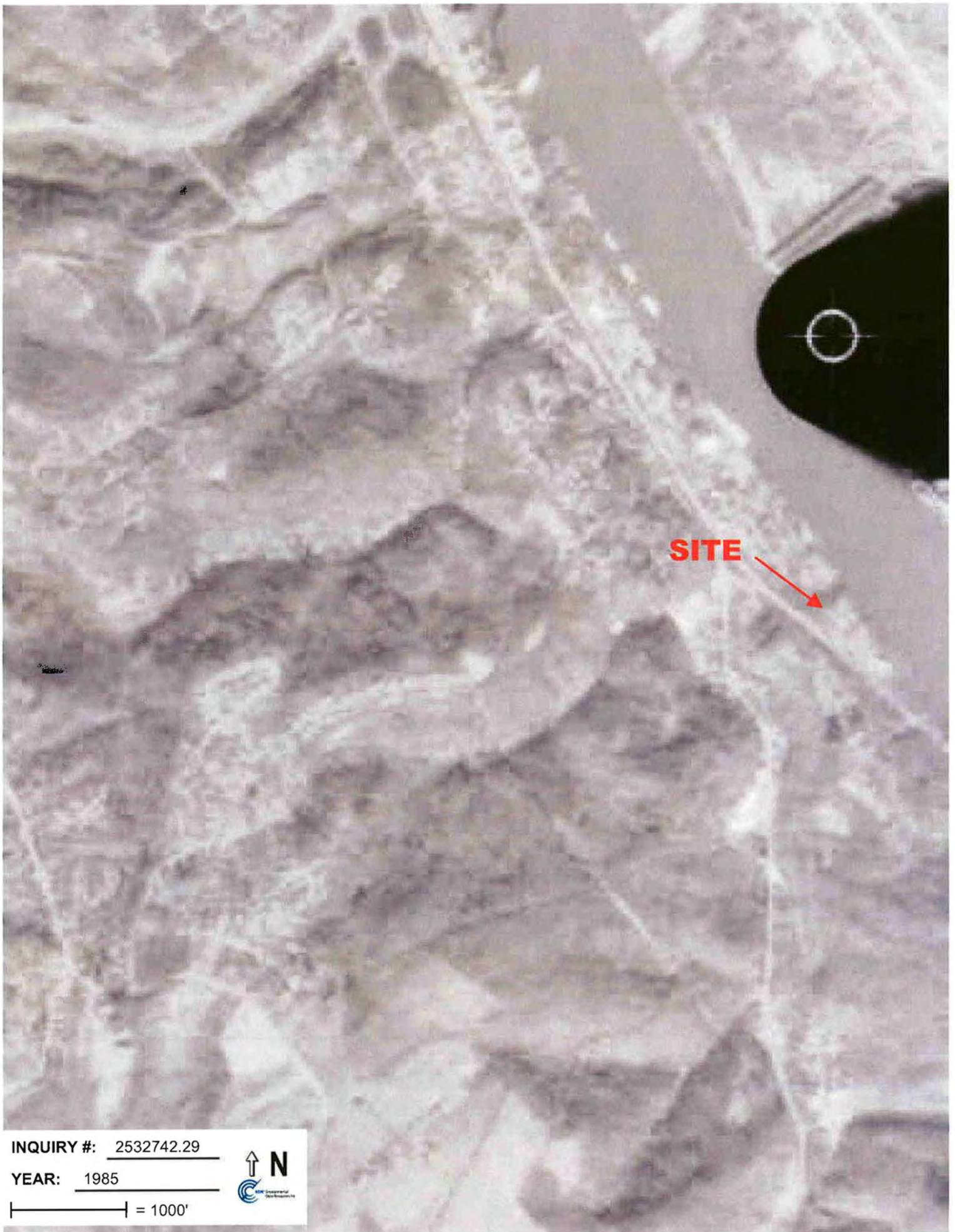


INQUIRY #: 2532742.29

YEAR: 1982

—| = 1000'



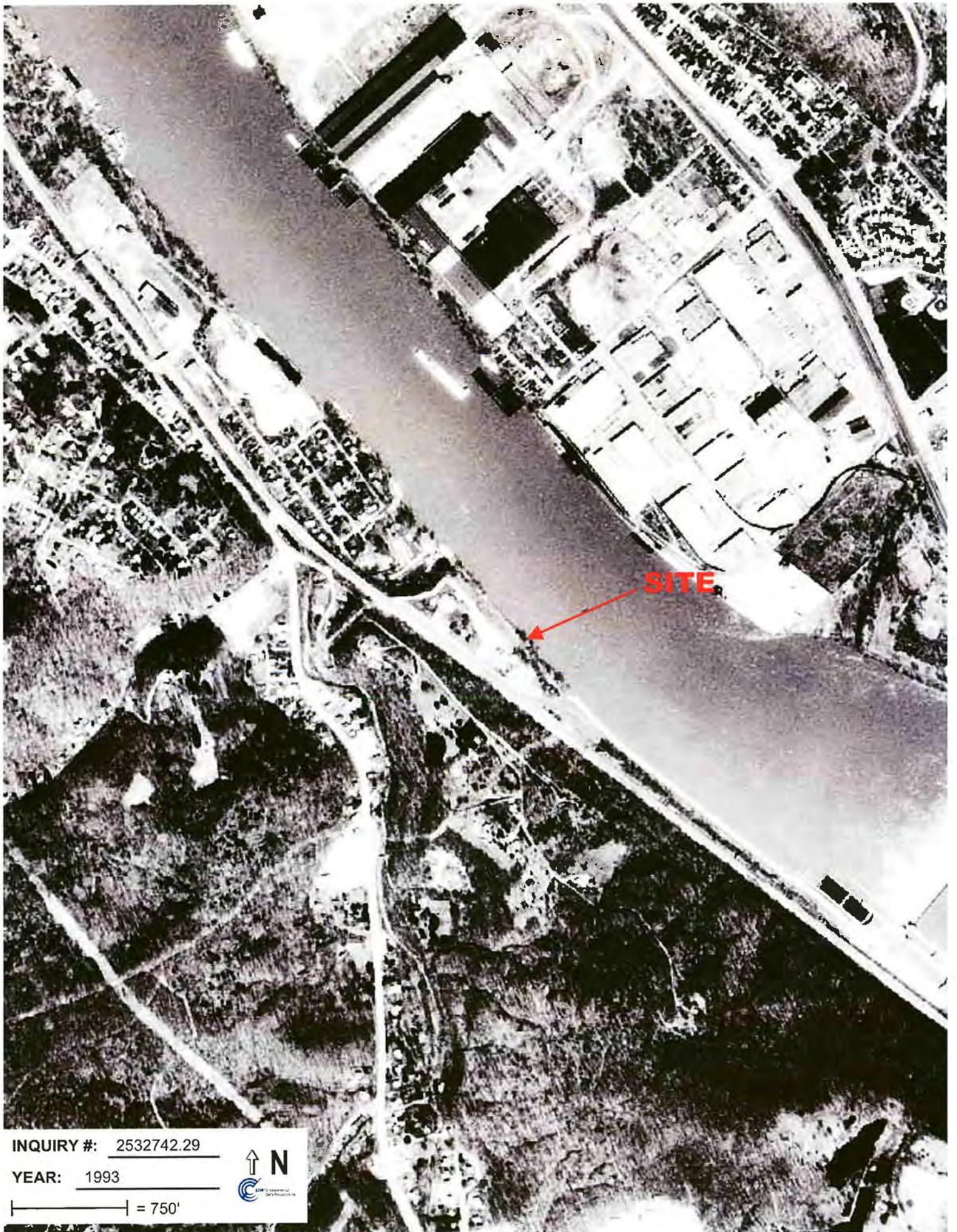


INQUIRY #: 2532742.29

YEAR: 1985

| = 1000'





INQUIRY #: 2532742.29

YEAR: 1993

| = 750'





INQUIRY #: 2532742.29

YEAR: 2005

| = 604'





SITE

INQUIRY #: 2532742.29

YEAR: 2006

| = 604'





Montgomery Lock/Dam Primary

Montgomery Dam Road

Pittsburgh, PA 15061

Inquiry Number: 2532742.37

July 06, 2009

The EDR Aerial Photo Decade Package



440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

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Please contact EDR at 1-800-352-0050
with any questions or comments.

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Date EDR Searched Historical Sources:

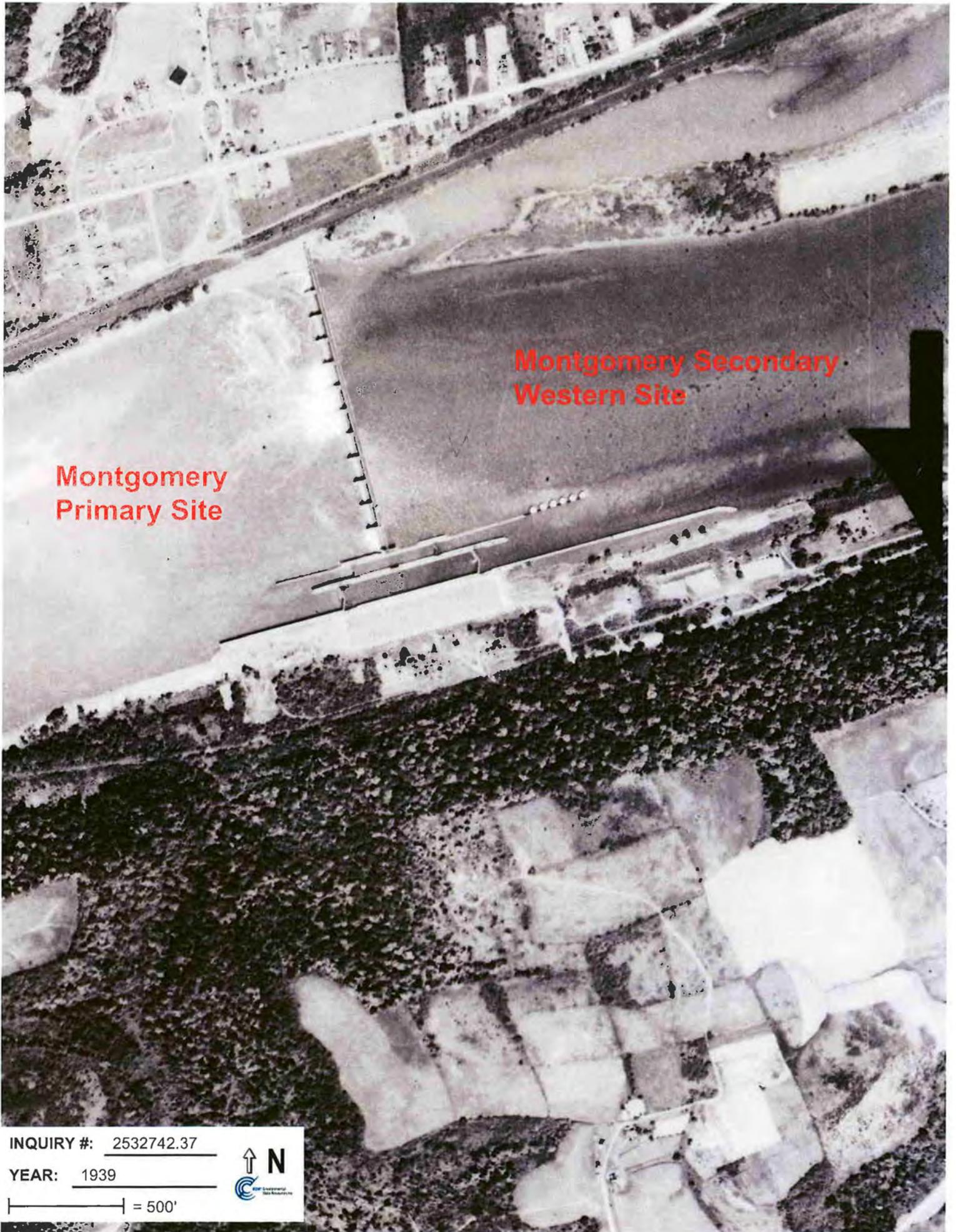
Aerial Photography July 06, 2009

Target Property:

Montgomery Dam Road

Pittsburgh, PA 15061

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1939	Aerial Photograph. Scale: 1"=500'	Panel #: 2440080-F4/Flight Date: May 24, 1939	EDR
1952	Aerial Photograph. Scale: 1"=500'	Panel #: 2440080-F4/Flight Date: June 18, 1952	EDR
1960	Aerial Photograph. Scale: 1"=1000'	Panel #: 2440080-F4/Flight Date: May 03, 1960	EDR
1967	Aerial Photograph. Scale: 1"=500'	Panel #: 2440080-F4/Flight Date: September 15, 1967	EDR
1975	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-F4/Flight Date: December 07, 1975	EDR
1977	Aerial Photograph. Scale: 1"=1000'	Panel #: 2440080-F4/Flight Date: April 30, 1977	EDR
1982	Aerial Photograph. Scale: 1"=1000'	Panel #: 2440080-F4/Flight Date: November 07, 1982	EDR
1988	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-F4/Flight Date: June 13, 1988	EDR
1993	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-F4/Flight Date: April 07, 1993	EDR
1995	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-F4/Flight Date: March 14, 1995	EDR
2006	Aerial Photograph. 1" = 604'	Flight Year: 2006	EDR



Montgomery
Primary Site

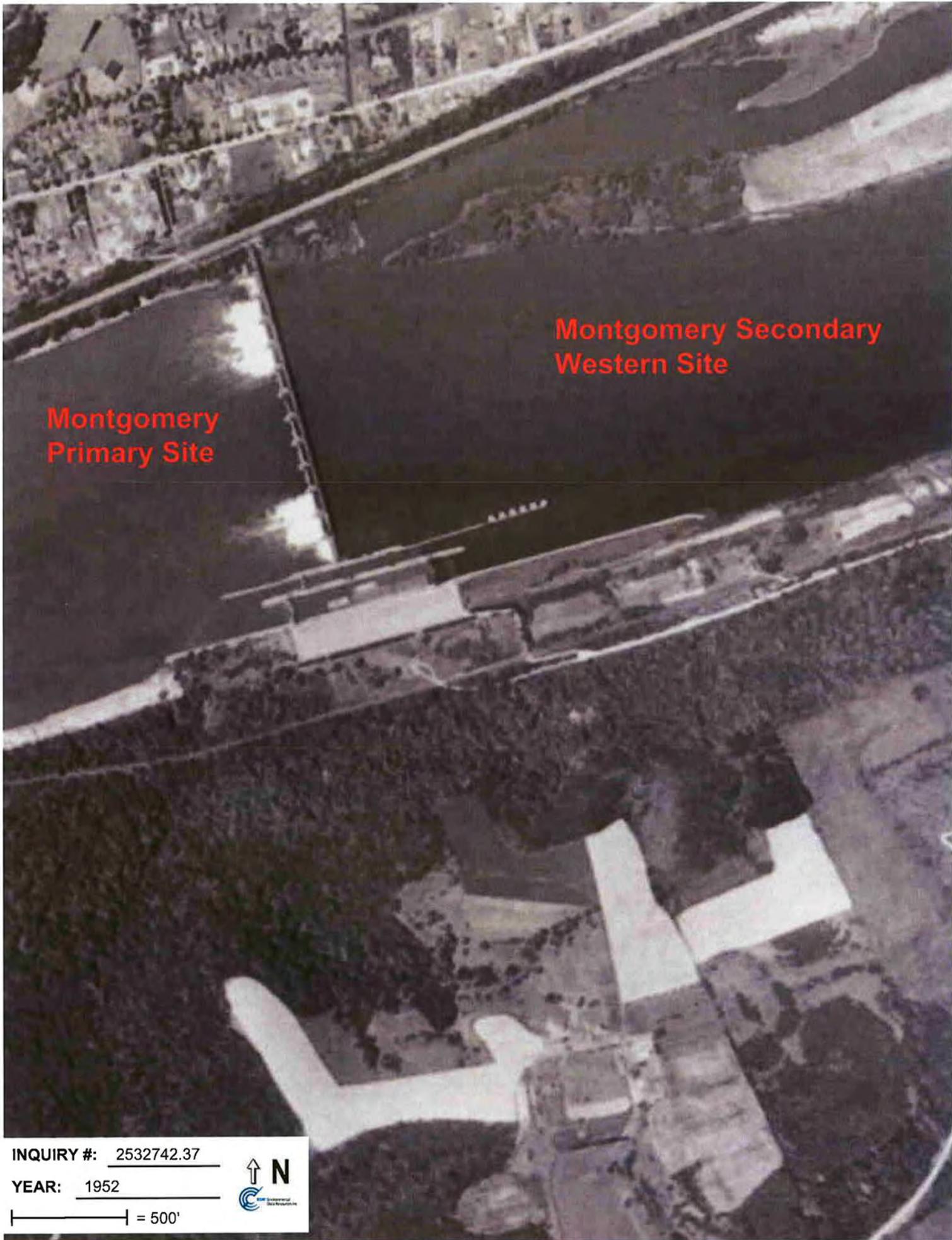
Montgomery Secondary
Western Site

INQUIRY #: 2532742.37

YEAR: 1939

 = 500'





Montgomery
Primary Site

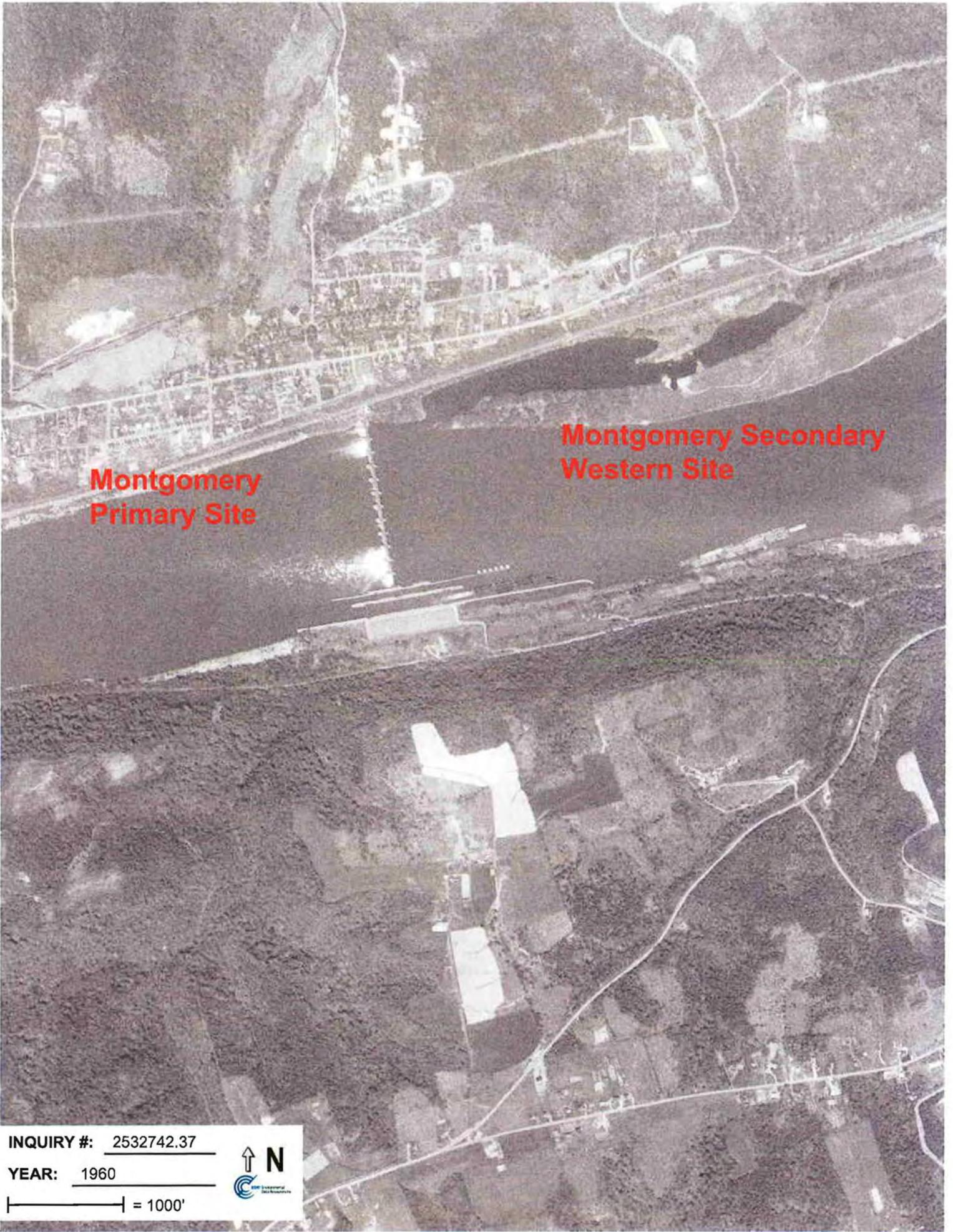
Montgomery Secondary
Western Site

INQUIRY #: 2532742.37

YEAR: 1952

| = 500'





**Montgomery
Primary Site**

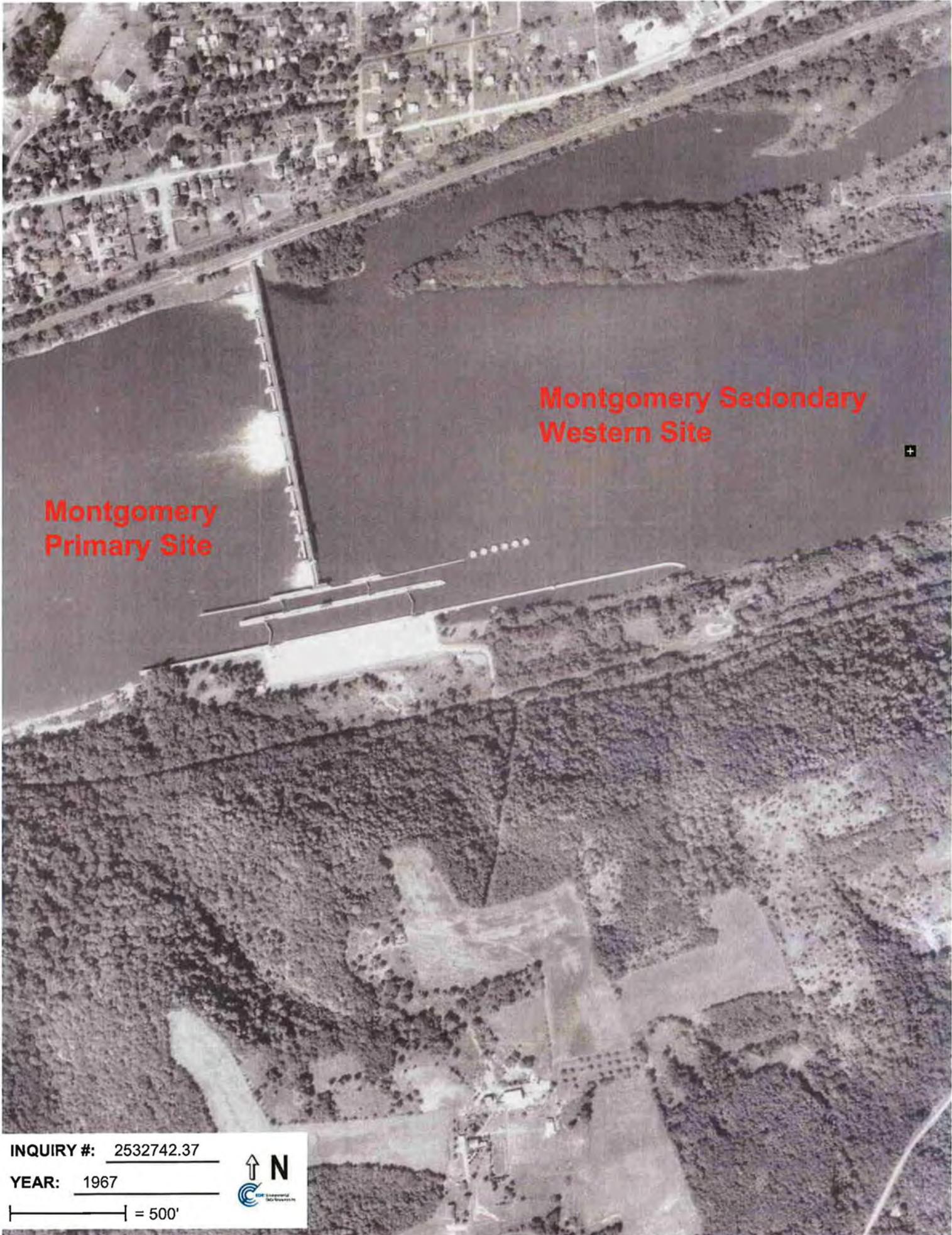
**Montgomery Secondary
Western Site**

INQUIRY #: 2532742.37

YEAR: 1960

| = 1000'





Montgomery Sedondary
Western Site

Montgomery
Primary Site

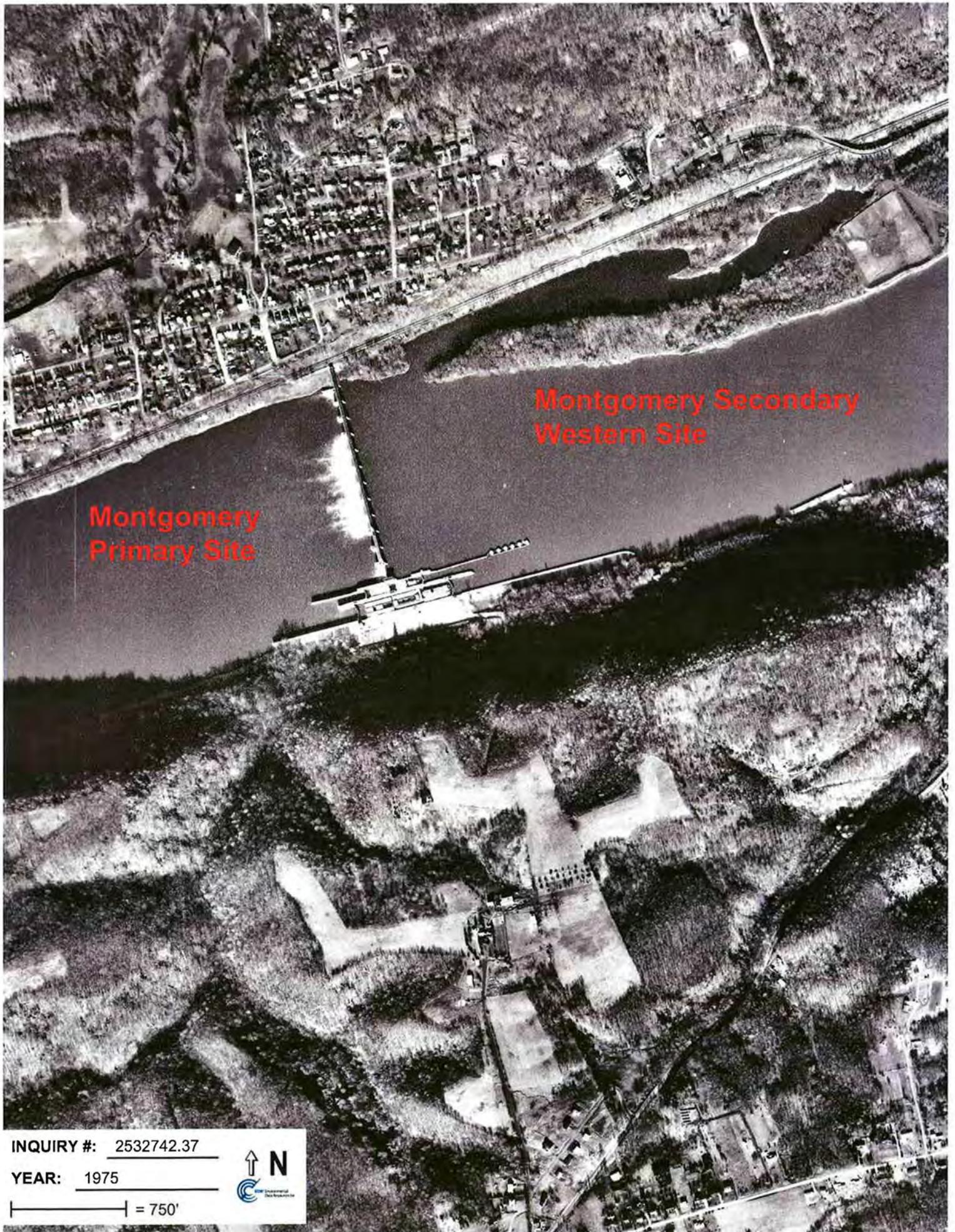


INQUIRY #: 2532742.37

YEAR: 1967

| = 500'





Montgomery Secondary
Western Site

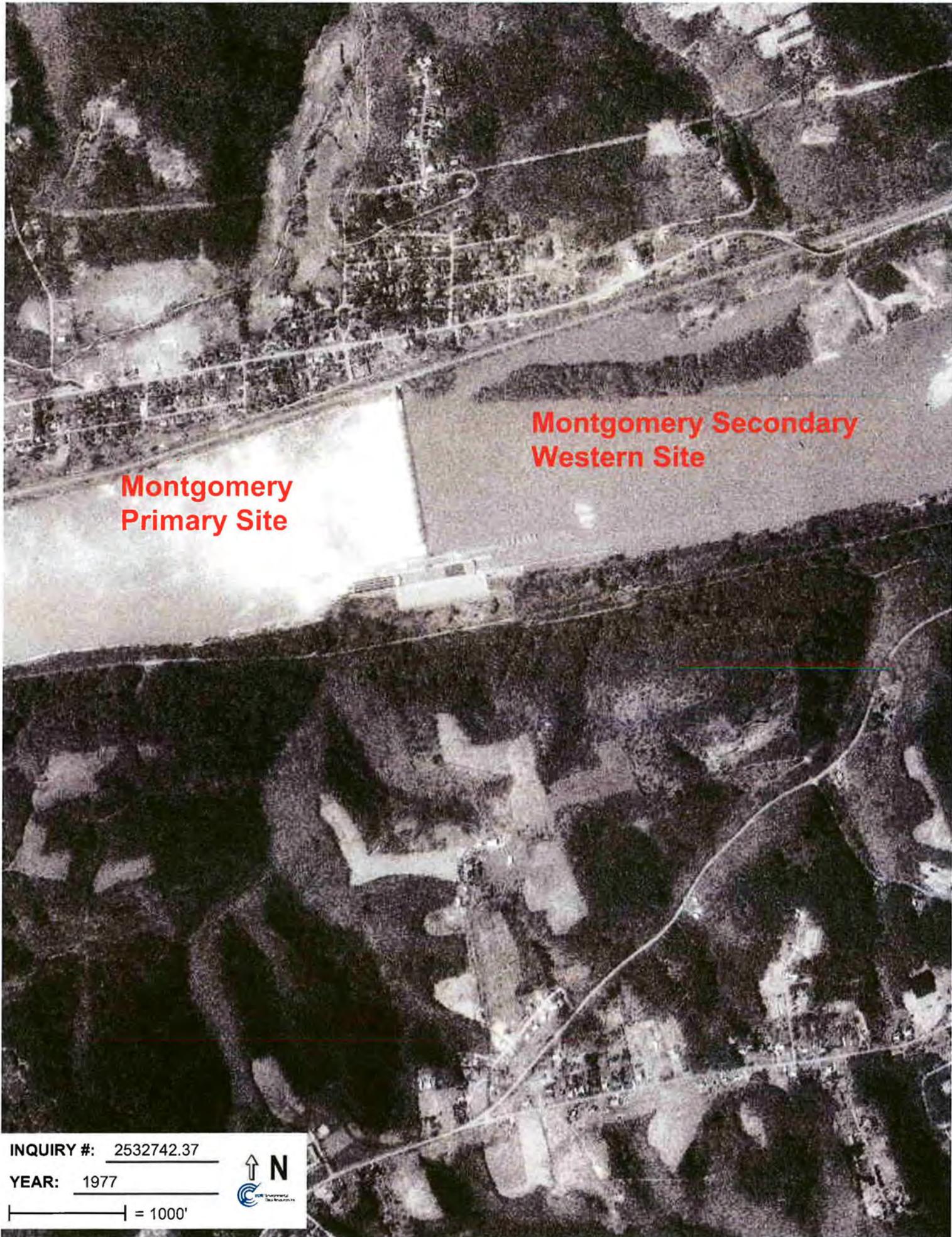
Montgomery
Primary Site

INQUIRY #: 2532742.37

YEAR: 1975

| = 750'





**Montgomery
Primary Site**

**Montgomery Secondary
Western Site**

INQUIRY #: 2532742.37

YEAR: 1977

— = 1000'





**Montgomery
Primary Site**

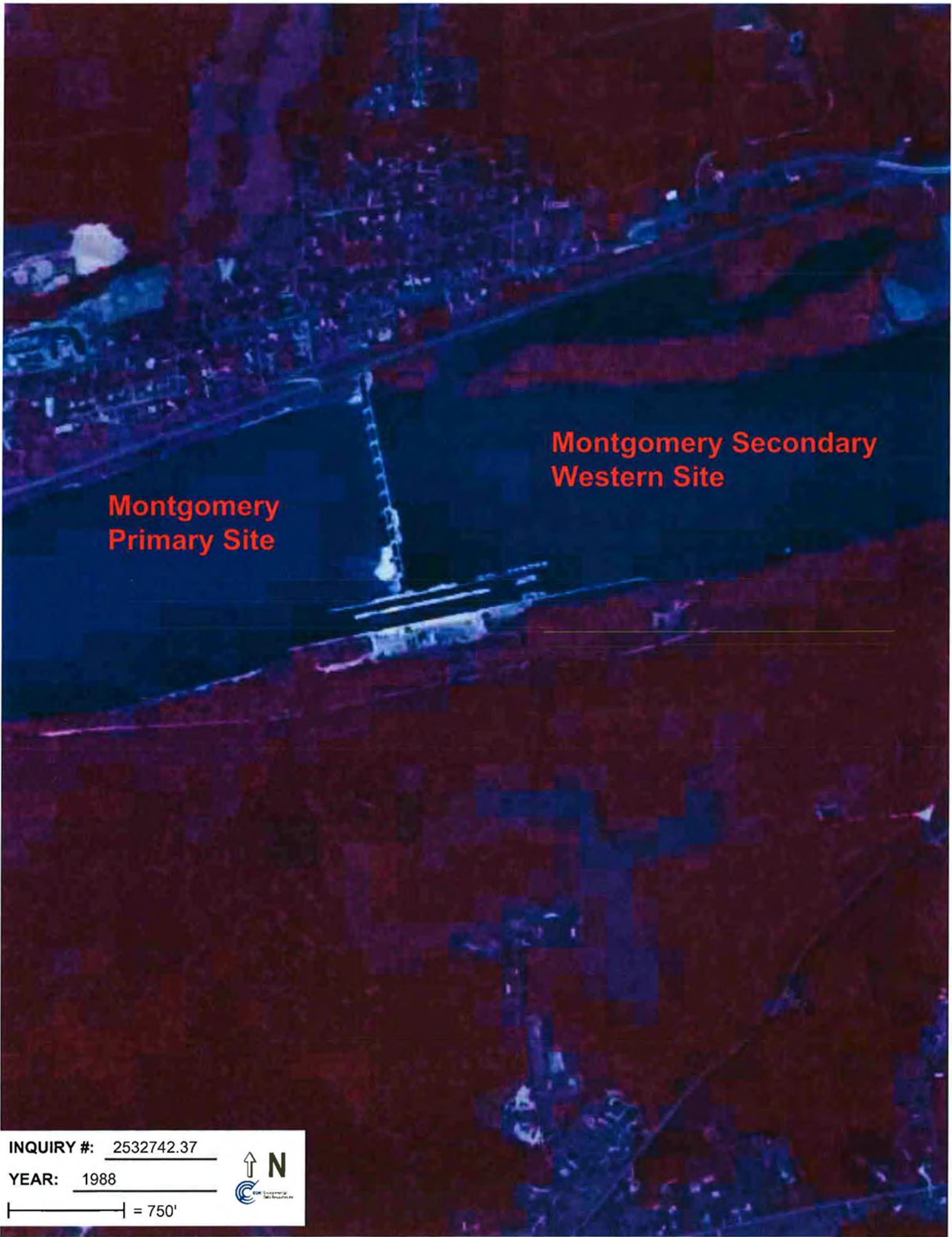
**Montgomery Secondary
Western Site**

INQUIRY #: 2532742.37

YEAR: 1982

| = 1000'





Montgomery
Primary Site

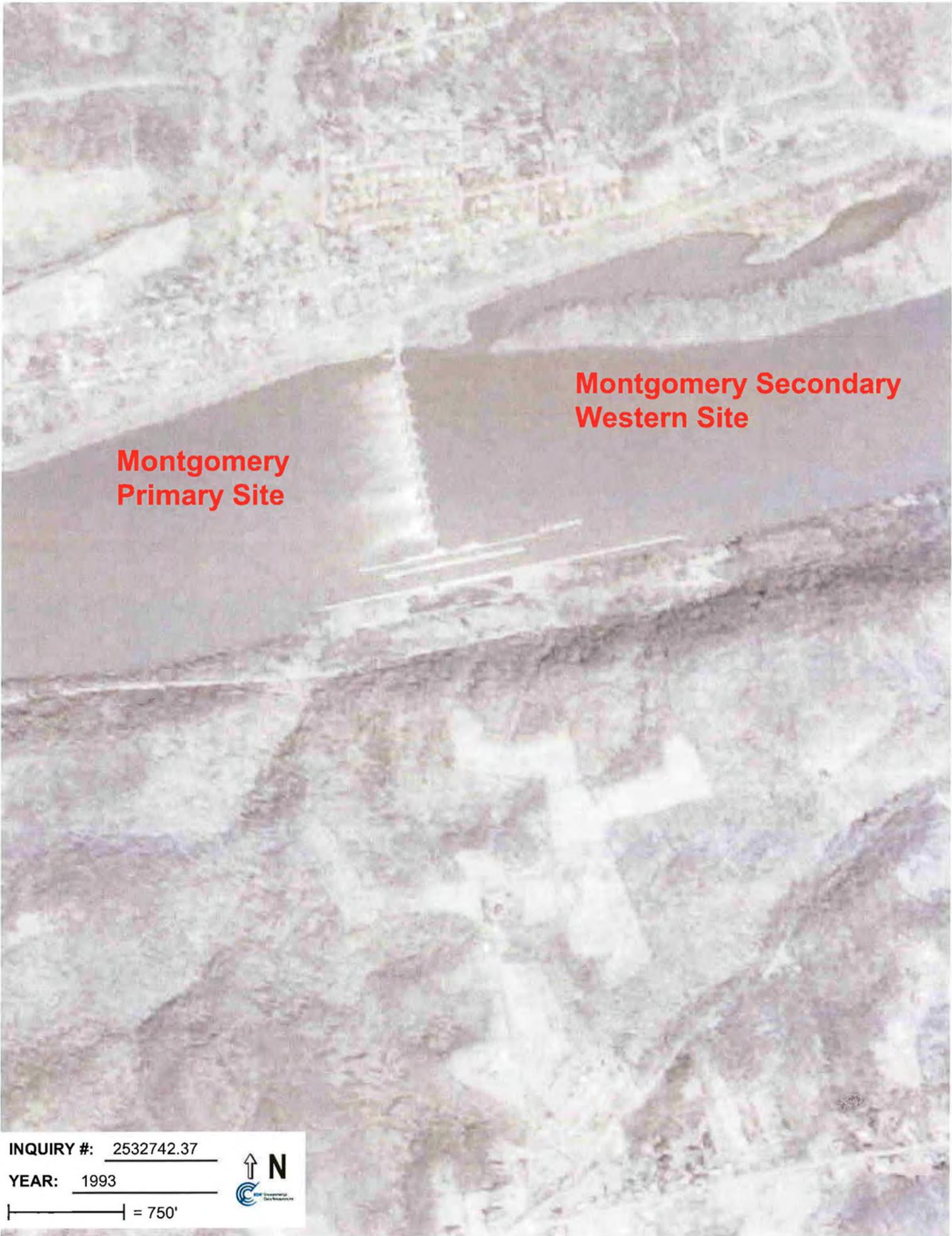
Montgomery Secondary
Western Site

INQUIRY #: 2532742.37

YEAR: 1988

|—————| = 750'





**Montgomery
Primary Site**

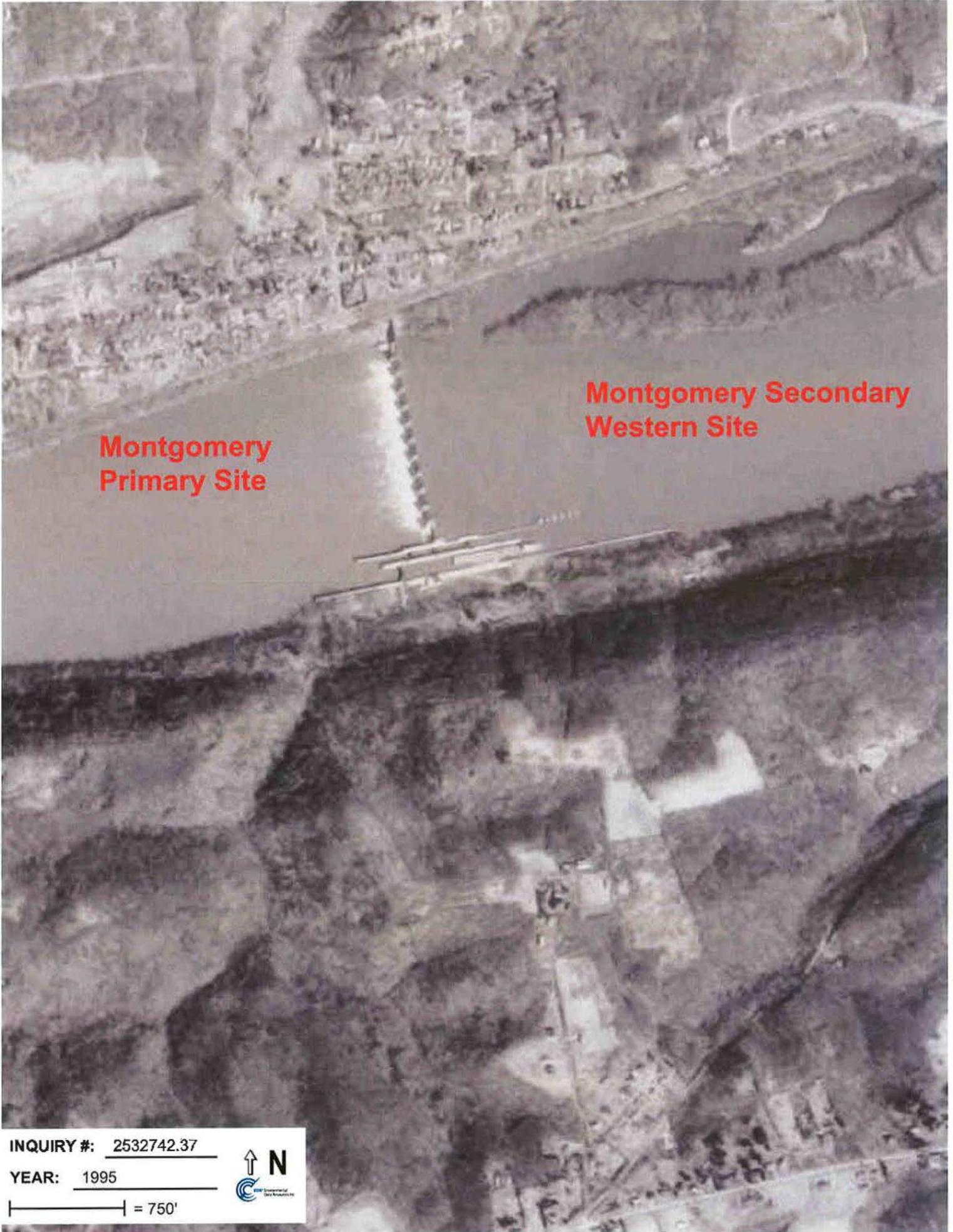
**Montgomery Secondary
Western Site**

INQUIRY #: 2532742.37

YEAR: 1993

| = 750'





**Montgomery
Primary Site**

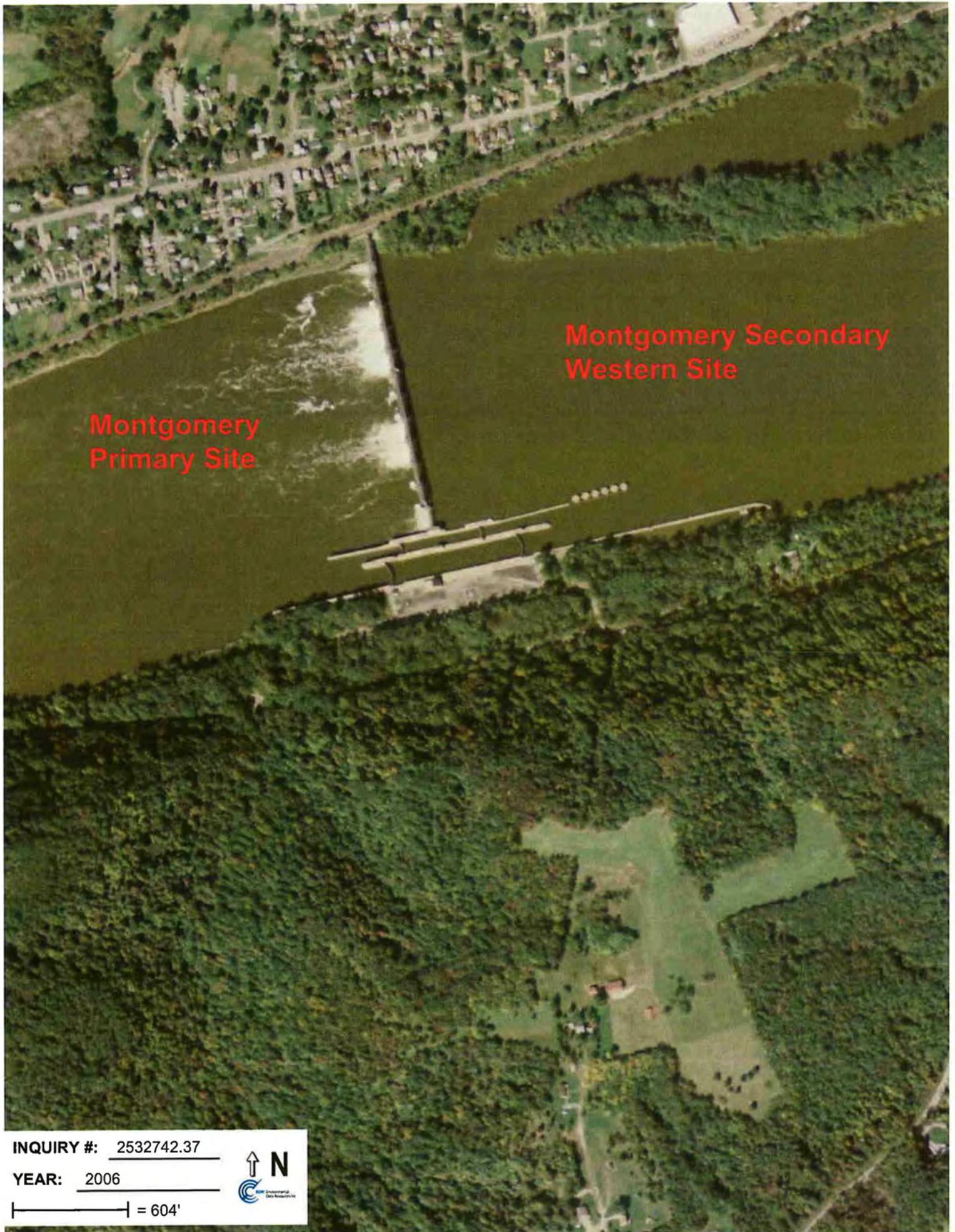
**Montgomery Secondary
Western Site**

INQUIRY #: 2532742.37

YEAR: 1995

|—————| = 750'





Montgomery
Primary Site

Montgomery Secondary
Western Site

INQUIRY #: 2532742.37

YEAR: 2006

— = 604'





Montgomery Lock/Dam Secondary

Montgomery Dam Road

Pittsburgh, PA 15061

Inquiry Number: 2532742.45

July 06, 2009



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Date EDR Searched Historical Sources:

Aerial Photography July 06, 2009

Target Property:

Montgomery Dam Road

Pittsburgh, PA 15061

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1939	Aerial Photograph. Scale: 1"=500'	Panel #: 2440080-F3/Flight Date: May 31, 1939	EDR
1952	Aerial Photograph. Scale: 1"=500'	Panel #: 2440080-F3/Flight Date: June 18, 1952	EDR
1960	Aerial Photograph. Scale: 1"=1000'	Panel #: 2440080-F3/Flight Date: May 03, 1960	EDR
1967	Aerial Photograph. Scale: 1"=500'	Panel #: 2440080-F3/Flight Date: September 15, 1967	EDR
1975	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-F3/Flight Date: December 07, 1975	EDR
1977	Aerial Photograph. Scale: 1"=1000'	Panel #: 2440080-F3/Flight Date: April 30, 1977	EDR
1982	Aerial Photograph. Scale: 1"=1000'	Panel #: 2440080-F3/Flight Date: November 07, 1982	EDR
1988	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-F3/Flight Date: June 13, 1988	EDR
1993	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-F3/Flight Date: April 07, 1993	EDR
1995	Aerial Photograph. Scale: 1"=750'	Panel #: 2440080-F3/Flight Date: March 14, 1995	EDR
2006	Aerial Photograph. 1" = 604'	Flight Year: 2006	EDR

**MONTGOMERY
SECONDARY EASTERN
SITE**

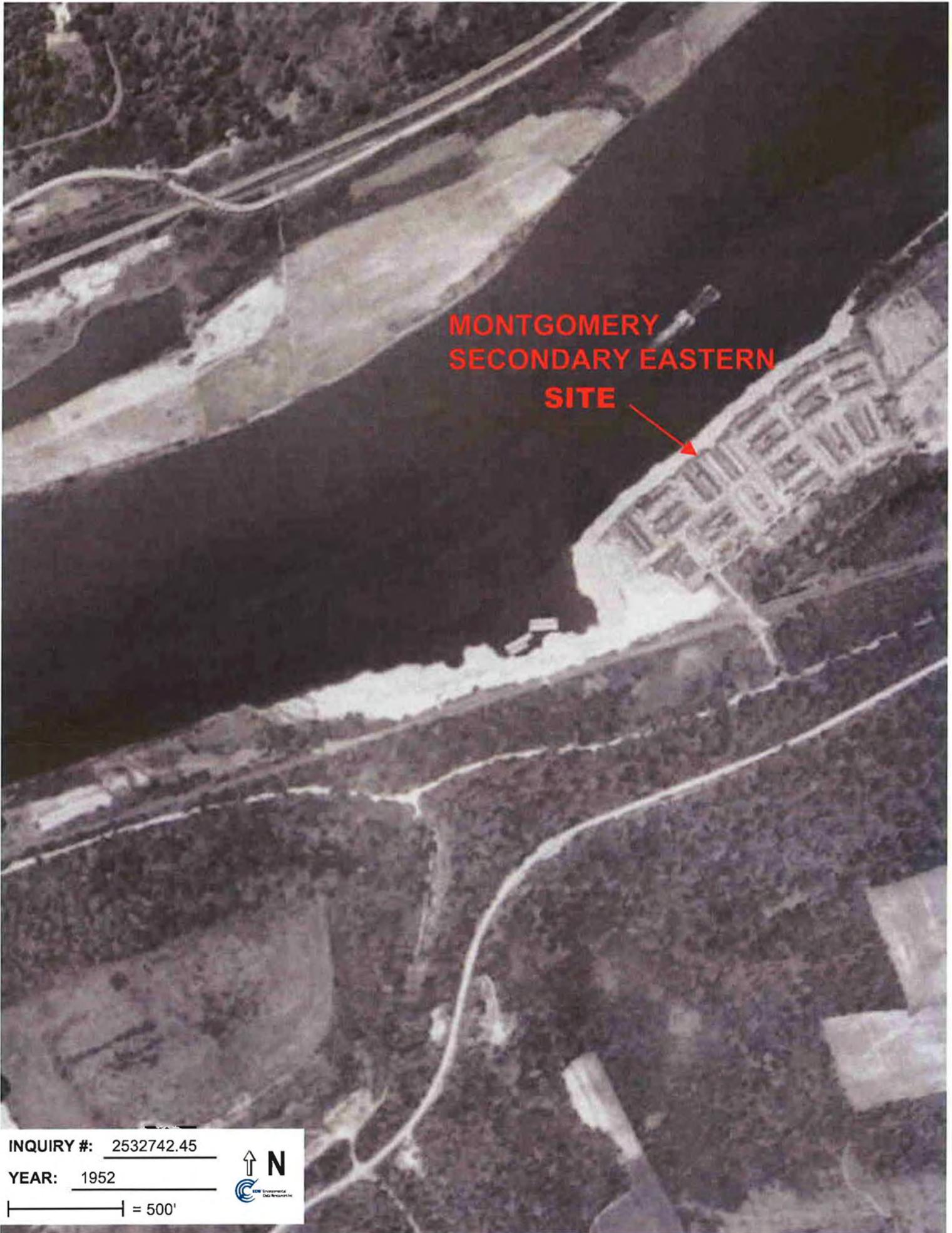


INQUIRY #: 2532742.45

YEAR: 1939

 = 500'





**MONTGOMERY
SECONDARY EASTERN
SITE**

INQUIRY #: 2532742.45

YEAR: 1952

|—————| = 500'



**MONTGOMERY
SECONDARY EASTERN
SITE**



INQUIRY #: 2532742.45

YEAR: 1960

| = 1000'



**MONTGOMERY
SECONDARY EASTERN
SITE**



INQUIRY #: 2532742.45

YEAR: 1967

— = 500'



3-110

**MONTGOMERY
SECONDARY EASTERN
SITE**



INQUIRY #: 2532742.45

YEAR: 1975

| = 750'



**MONTGOMERY
SECONDARY EASTERN
SITE**



INQUIRY #: 2532742.45

YEAR: 1977

| = 1000'



**MONTGOMERY
SECONDARY EASTERN
SITE**



INQUIRY #: 2532742.45

YEAR: 1982

| = 1000'



**MONTGOMERY
SECONDARY EASTERN
SITE**



INQUIRY #: 2532742.45

YEAR: 1988

 = 750'



**MONTGOMERY
SECONDARY EASTERN
SITE**



INQUIRY #: 2532742.45

YEAR: 1993

— = 750'





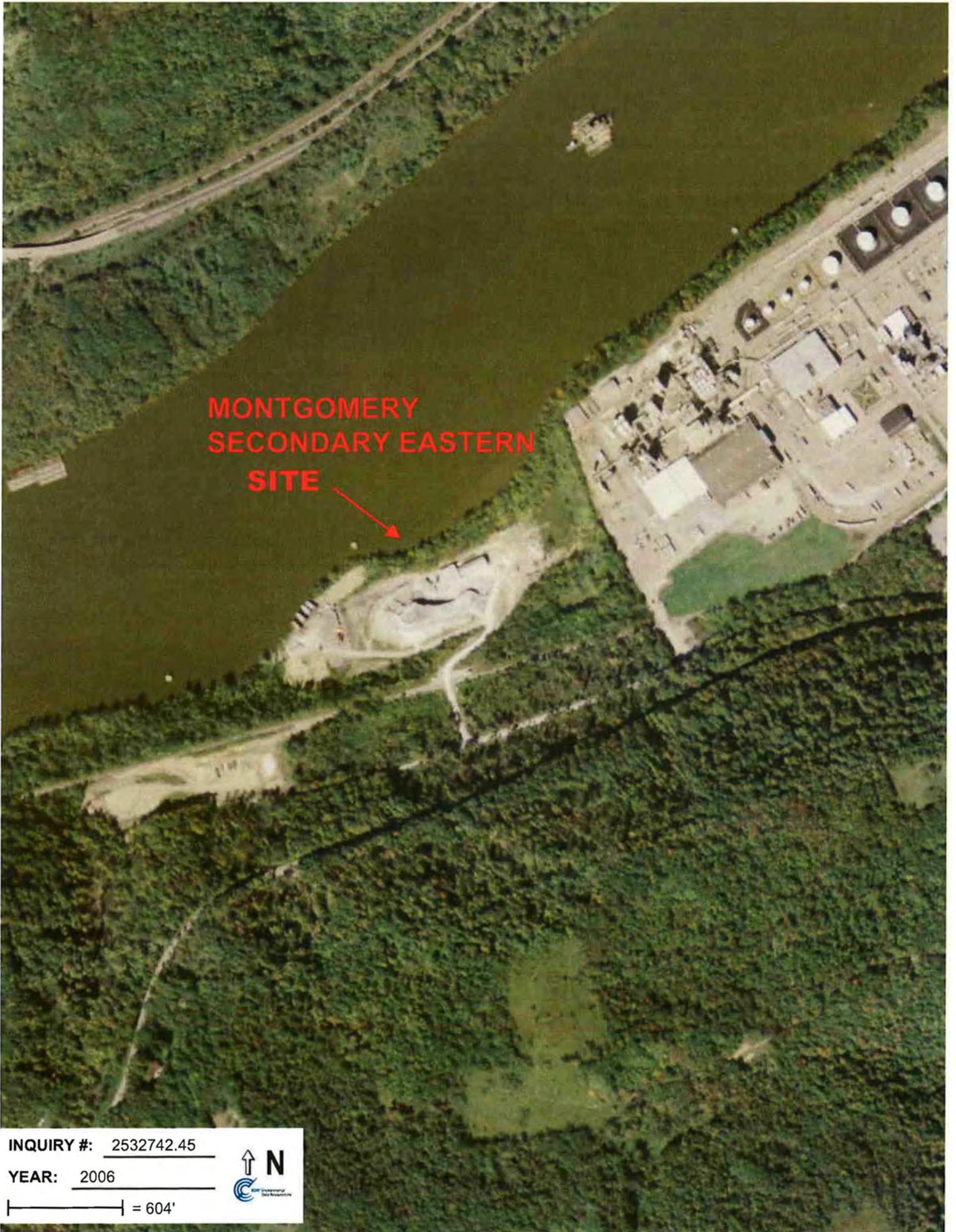
**MONTGOMERY
SECONDARY EASTERN
SITE**

INQUIRY #: 2532742.45

YEAR: 1995

| = 750'





**MONTGOMERY
SECONDARY EASTERN
SITE**

INQUIRY #: 2532742.45

YEAR: 2006

| = 604'

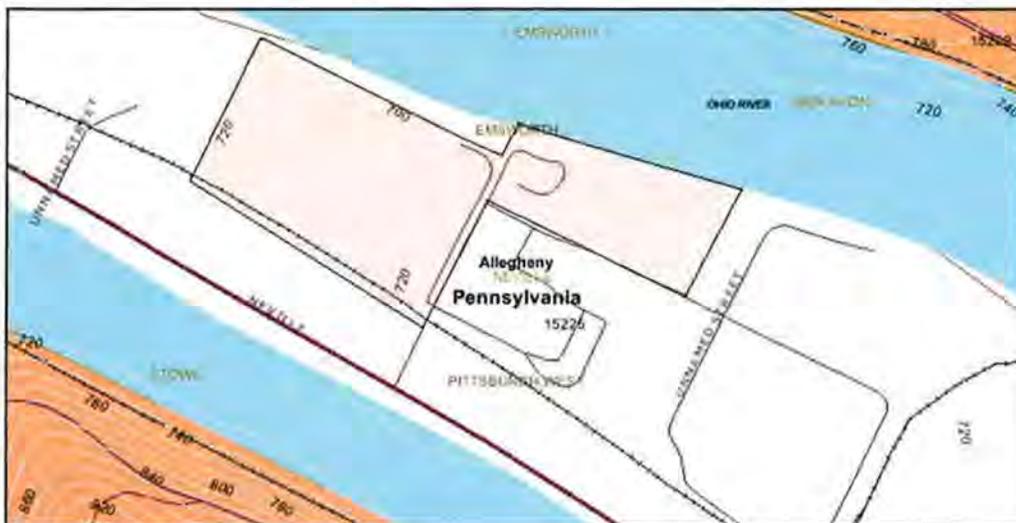


Appendix B

PNDI Reports

1. PROJECT INFORMATION

Project Name: **Upper Ohio River Nav Proj**
 Date of review: **7/30/2009 10:35:03 AM**
 Project Category: **Development,Other**
 Project Area: **47.9** acres
 County: **Allegheny** Township/Municipality: **Neville**
 Quadrangle Name: **PITTSBURGH WEST**
 ZIP Code: **15225**
 Decimal Degrees: **40.50291 N, --80.09424 W**
 Degrees Minutes Seconds: **40° 30' 10.5" N, -80° 5' 39.3" W**



2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	Conservation Measure	No Further Review Required, See Agency Comments

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate that while threatened and endangered and/or special concern species and resources are in the project vicinity, no adverse impacts are anticipated. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. However, the jurisdictional agency/agencies recommend the project proponent/applicant follow the Conservation Measures indicated in their entirety. If a DEP permit is required for this project, DEP has the discretion to incorporate one or more Conservation Measures into its permit. This response does not reflect potential agency concerns regarding potential impacts to other ecological resources, such as wetlands.

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for one year** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt.

PA Game Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE: Conservation Measure: Voluntary implementation of the following recommendations will contribute to the conservation and recovery of endangered and threatened species. -- In order to maintain or improve water quality for endangered aquatic species, retain (or restore, if not already present) a 100- to 300-foot wide buffer on each side of the waterway (river, stream, creek) or waterbody (lake). Avoid construction, earth disturbance, and chemical application in this buffer. The buffer should be vegetated with native plant species. When adequately vegetated, this upland buffer will act to stabilize the streambanks (preventing or minimizing erosion), and filter pollutants (e.g., sediment, fertilizers, pesticides, road salt, oil). Where streambanks have become badly eroded (e.g., due to removal of native riparian vegetation), streambank fencing and/or bioengineering restoration techniques are recommended (geotextile, root wads, vegetative stabilization), rather than riprapping the streambanks; removing gravel bars; or attempting to dredge, ditch, channelize, or widen the stream.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. For cases where a "Potential Impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application should not be submitted until the impact has been resolved. For cases where "Potential Impact" to special

concern species and resources has been identified before the application has been submitted, the application should be submitted to DEP along with the PNDI receipt, a completed PNDI form and a USGS 7.5 minute quadrangle map with the project boundaries delineated on the map. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <http://www.naturalheritage.state.pa.us>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a **preliminary** screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552, Harrisburg, PA.
17105-8552
Fax:(717) 772-0271

U.S. Fish and Wildlife Service
Endangered Species Section
315 South Allen Street, Suite 322, State College, PA.
16801-4851
NO Faxes Please.

PA Fish and Boat Commission
Division of Environmental Services
450 Robinson Lane, Bellefonte, PA. 16823-7437
NO Faxes Please

PA Game Commission
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA. 17110-9797
Fax:(717) 787-6957

7. PROJECT CONTACT INFORMATION

Name: _____
Company/Business Name: _____
Address: _____
City, State, Zip: _____
Phone:(_____) _____ Fax:(_____) _____
Email: _____

8. CERTIFICATION

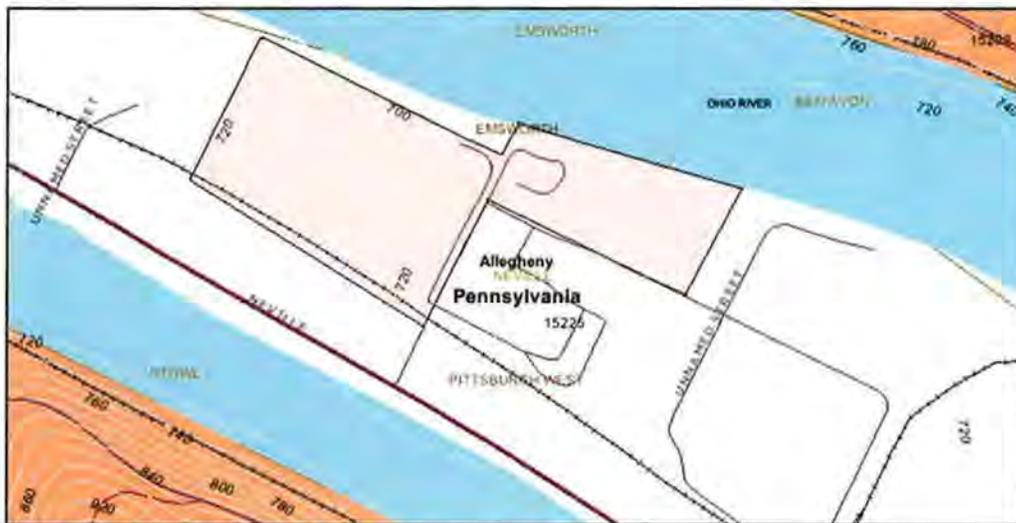
I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

applicant/project proponent signature

date

1. PROJECT INFORMATION

Project Name: **Upper Ohio River Nav Proj**
 Date of review: **7/30/2009 10:35:03 AM**
 Project Category: **Development,Other**
 Project Area: **47.9** acres
 County: **Allegheny** Township/Municipality: **Neville**
 Quadrangle Name: **PITTSBURGH WEST**
 ZIP Code: **15225**
 Decimal Degrees: **40.50291 N, --80.09424 W**
 Degrees Minutes Seconds: **40° 30' 10.5" N, -80° 5' 39.3" W**



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PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	Conservation Measure	No Further Review Required, See Agency Comments

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PA Fish and Boat Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE: Conservation Measure: Voluntary implementation of the following recommendations will contribute to the conservation and recovery of endangered and threatened species. -- In order to maintain or improve water quality for endangered aquatic species, retain (or restore, if not already present) a 100- to 300-foot wide buffer on each side of the waterway (river, stream, creek) or waterbody (lake). Avoid construction, earth disturbance, and chemical application in this buffer. The buffer should be vegetated with native plant species. When adequately vegetated, this upland buffer will act to stabilize the streambanks (preventing or minimizing erosion), and filter pollutants (e.g., sediment, fertilizers, pesticides, road salt, oil). Where streambanks have become badly eroded (e.g., due to removal of native riparian vegetation), streambank fencing and/or bioengineering restoration techniques are recommended (geotextile, root wads, vegetative stabilization), rather than riprapping the streambanks; removing gravel bars; or attempting to dredge, ditch, channelize, or widen the stream.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. For cases where a "Potential Impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application should not be submitted until the impact has been resolved. For cases where "Potential Impact" to special

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5. ADDITIONAL INFORMATION

The PNDI environmental review website is a **preliminary** screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552, Harrisburg, PA.
17105-8552
Fax:(717) 772-0271

U.S. Fish and Wildlife Service
Endangered Species Section
315 South Allen Street, Suite 322, State College, PA.
16801-4851
NO Faxes Please.

PA Fish and Boat Commission
Division of Environmental Services
450 Robinson Lane, Bellefonte, PA. 16823-7437
NO Faxes Please

PA Game Commission
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA. 17110-9797
Fax:(717) 787-6957

7. PROJECT CONTACT INFORMATION

Name: _____
Company/Business Name: _____
Address: _____
City, State, Zip: _____
Phone:(____) _____ Fax:(____) _____
Email: _____

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

_____ date
applicant/project proponent signature

1. PROJECT INFORMATION

Project Name: **Upper Ohio River Nav Proj**
 Date of review: **7/30/2009 10:35:03 AM**
 Project Category: **Development,Other**
 Project Area: **47.9** acres
 County: **Allegheny** Township/Municipality: **Neville**
 Quadrangle Name: **PITTSBURGH WEST**
 ZIP Code: **15225**
 Decimal Degrees: **40.50291 N, --80.09424 W**
 Degrees Minutes Seconds: **40° 30' 10.5" N, -80° 5' 39.3" W**



2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	Conservation Measure	No Further Review Required, See Agency Comments

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate that while threatened and endangered and/or special concern species and resources are in the project vicinity, no adverse impacts are anticipated. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. However, the jurisdictional agency/agencies recommend the project proponent/applicant follow the Conservation Measures indicated in their entirety. If a DEP permit is required for this project, DEP has the discretion to incorporate one or more Conservation Measures into its permit. This response does not reflect potential agency concerns regarding potential impacts to other ecological resources, such as wetlands.

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Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for one year** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt.

PA Game Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

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7. PROJECT CONTACT INFORMATION

Name: _____
Company/Business Name: _____
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Phone:(_____) _____ Fax:(_____) _____
Email: _____

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applicant/project proponent signature

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Agency	Results	Response
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PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	Conservation Measure	No Further Review Required, See Agency Comments

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate that while threatened and endangered and/or special concern species and resources are in the project vicinity, no adverse impacts are anticipated. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. However, the jurisdictional agency/agencies recommend the project proponent/applicant follow the Conservation Measures indicated in their entirety. If a DEP permit is required for this project, DEP has the discretion to incorporate one or more Conservation Measures into its permit. This response does not reflect potential agency concerns regarding potential impacts to other ecological resources, such as wetlands.

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PA Game Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE: Conservation Measure: Voluntary implementation of the following recommendations will contribute to the conservation and recovery of endangered and threatened species. -- In order to maintain or improve water quality for endangered aquatic species, retain (or restore, if not already present) a 100- to 300-foot wide buffer on each side of the waterway (river, stream, creek) or waterbody (lake). Avoid construction, earth disturbance, and chemical application in this buffer. The buffer should be vegetated with native plant species. When adequately vegetated, this upland buffer will act to stabilize the streambanks (preventing or minimizing erosion), and filter pollutants (e.g., sediment, fertilizers, pesticides, road salt, oil). Where streambanks have become badly eroded (e.g., due to removal of native riparian vegetation), streambank fencing and/or bioengineering restoration techniques are recommended (geotextile, root wads, vegetative stabilization), rather than riprapping the streambanks; removing gravel bars; or attempting to dredge, ditch, channelize, or widen the stream.

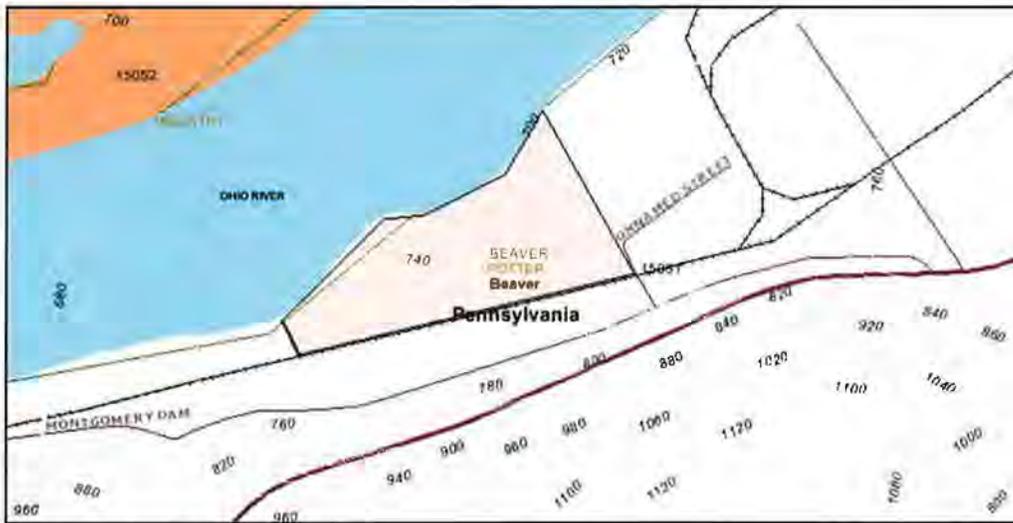
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1. PROJECT INFORMATION

Project Name: **Montgomery Secondary**
 Date of review: **7/30/2009 10:49:09 AM**
 Project Category: **Development,Other**
 Project Area: **30.8** acres
 County: **Beaver** Township/Municipality: **Potter**
 Quadrangle Name: **BEAVER**
 ZIP Code: **15061**
 Decimal Degrees: **40.65069 N, --80.36906 W**
 Degrees Minutes Seconds: **40° 39' 2.5" N, -80° 22' 8.6" W**



2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
U.S. Fish and Wildlife Service	Conservation Measure	No Further Review Required, See Agency Comments

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for one year** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt.

PA Game Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

PFBC Species:

Scientific Name: *Alosa chrysochloris*

Common Name: Skipjack Herring

Current Status: Threatened

Proposed Status: Threatened

Scientific Name: *Ameiurus melas*

Common Name: Black Bullhead

Current Status: Endangered

Proposed Status: Endangered

Scientific Name: *Leptodea fragilis*

Common Name: Fragile Papershell

Current Status: Special Concern Species*

Proposed Status: Special Concern Species*

Scientific Name: *Potamilus alatus*

Common Name: Pink Heelsplitter

Current Status: Special Concern Species*

Proposed Status: Special Concern Species*

Scientific Name: *Quadrula quadrula*
Common Name: Mapleleaf
Current Status: Special Concern Species*
Proposed Status: Threatened

RESPONSE: Further review of this project is necessary to resolve the potential impacts(s). Please send project information to this agency for review (see WHAT TO SEND).

U.S. Fish and Wildlife Service

RESPONSE: Conservation Measure: Voluntary implementation of the following recommendations will contribute to the conservation and recovery of endangered and threatened species. -- In order to maintain or improve water quality for endangered aquatic species, retain (or restore, if not already present) a 100- to 300-foot wide buffer on each side of the waterway (river, stream, creek) or waterbody (lake). Avoid construction, earth disturbance, and chemical application in this buffer. The buffer should be vegetated with native plant species. When adequately vegetated, this upland buffer will act to stabilize the streambanks (preventing or minimizing erosion), and filter pollutants (e.g., sediment, fertilizers, pesticides, road salt, oil). Where streambanks have become badly eroded (e.g., due to removal of native riparian vegetation), streambank fencing and/or bioengineering restoration techniques are recommended (geotextile, root wads, vegetative stabilization), rather than riprapping the streambanks; removing gravel bars; or attempting to dredge, ditch, channelize, or widen the stream.

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, send the following information to the agency(s) seeking this information (see AGENCY CONTACT INFORMATION).

Check-list of Minimum Materials to be submitted:

- ___ **SIGNED** copy of this Project Environmental Review Receipt
- ___ Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.
- ___ Project location information (name of USGS Quadrangle, Township/Municipality, and County)
- ___ USGS 7.5-minute Quadrangle with project boundary clearly indicated, and quad name on the map

The inclusion of the following information may expedite the review process.

- ___ A basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)
- ___ Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)
- ___ Information about the presence and location of wetlands in the project area, and how this was determined

(e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams

____ The DEP permit(s) required for this project

4. DEP INFORMATION

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COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA GAME COMMISSION
2001 ELMERTON AVENUE, HARRISBURG, PA 17110

*"TO MANAGE ALL WILD BIRDS, MAMMALS AND THEIR HABITATS
FOR CURRENT AND FUTURE GENERATIONS."*

November 25, 2009

PNDI Number: 20090730203959

George Reese
GAI Consultants
385 East Waterfront Drive
Homestead, PA 15120

RECEIVED
NOV 30 2009
GAI CONSULTANTS INC.
PROJ. NO _____

PNDI Number: 20090730203959
Re: Upper Ohio Navigation Study
Potter and Raccoon Townships, Beaver Counties, PA

Dear Mr. Reese,

Thank you for submitting the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number 20090730203959 for review. The Pennsylvania Game Commission (PGC) screened this project for potential impacts to species and resources of concern under PGC responsibility, which includes birds and mammals only.

No Impact Anticipated

PNDI records indicate species or resources of concern are located in the vicinity of the project. However, based on the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, the PGC has determined that no impact is likely. Therefore, no further coordination with the PGC will be necessary for this project at this time.

This response represents the most up-to-date summary of the PNDI data files and is valid for one (1) year from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

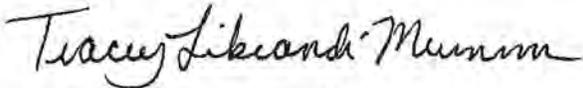
Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). If the proposed work has not changed and no additional information concerning listed species is found, the project will be cleared for PNDI requirements under this agency for an additional year.

ADMINISTRATIVE BUREAUS:
PERSONNEL: 717-787-7836 ADMINISTRATION: 717-787-5870 AUTOMOTIVE AND PROCUREMENT DIVISION: 717-787-6594
LICENSE DIVISION: 717-787-2084 WILDLIFE MANAGEMENT: 717-787-5529 INFORMATION & EDUCATION: 717-787-6286 WILDLIFE PROTECTION: 717-787-5740
WILDLIFE HABITAT MANAGEMENT: 717-787-6818 REAL ESTATE DIVISION: 717-787-6568 AUTOMATED TECHNOLOGY SYSTEMS: 717-787-4076
FAX: 717-772-2411
WWW.PGC.STATE.PA.US

AN EQUAL OPPORTUNITY EMPLOYER

This finding applies to impacts to birds and mammals only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure that the U.S. Fish and Wildlife Service, the PA Department of Conservation and Natural Resources, and/or the PA Fish and Boat Commission have been contacted regarding this project as directed by the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Sincerely,



Tracey Librandi Mumma
Division of Environmental Planning & Habitat Protection
Bureau of Wildlife Habitat Management
Phone: 717-787-4250, Extension 3614
Fax: 717-787-6957
E-mail: tlibrandi@state.pa.us

A PNHP Partner



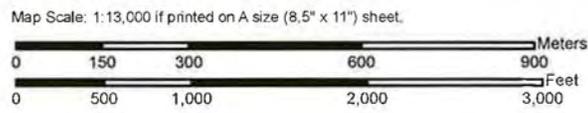
Pennsylvania Natural Heritage Program

cc: Hough
Trusso

Appendix C

NRCS Soils Surveys

Hydric Rating by Map Unit—Allegheny County, Pennsylvania
(Emsworth L/D Soil Report)



Hydric Rating by Map Unit—Allegheny County, Pennsylvania
(Emsworth L/D Soil Report)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Units

Soil Ratings

 All Hydric

 Partially Hydric

 Not Hydric

 Unknown Hydric

 Not rated or not available

Political Features

 Cities

Water Features

 Oceans

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

MAP INFORMATION

Map Scale: 1:13,000 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Allegheny County, Pennsylvania
Survey Area Data: Version 5, Mar 3, 2009

Date(s) aerial images were photographed: 4/7/1993

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

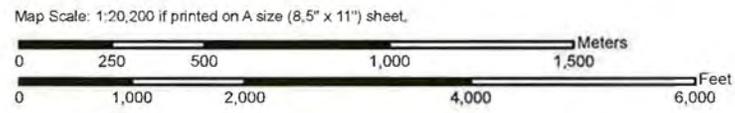
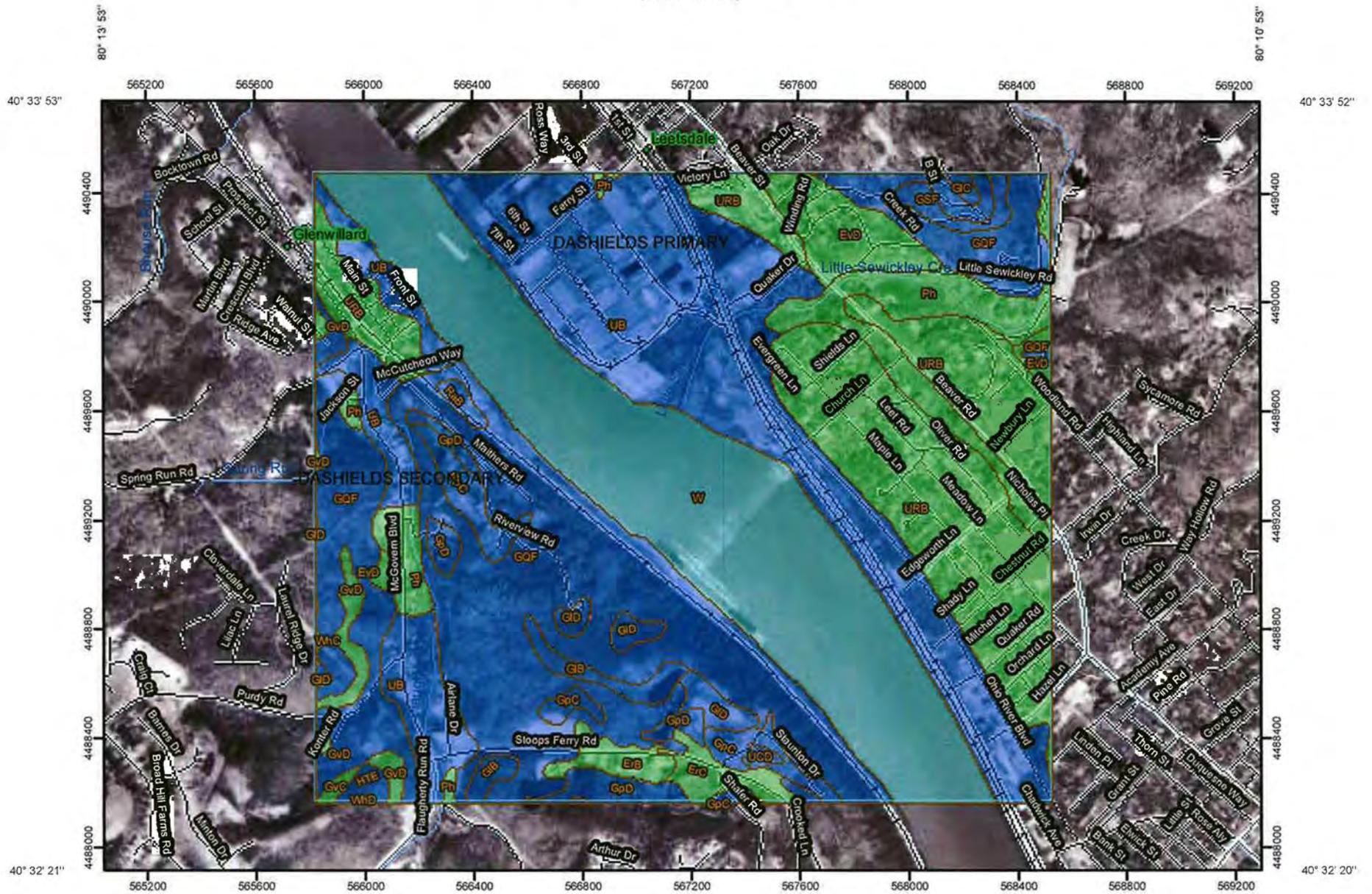
Hydric Rating by Map Unit— Summary by Map Unit — Allegheny County, Pennsylvania				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
At	Atkins silt loam	All Hydric	8.3	1.1%
GQF	Gilpin-Upshur complex, very steep	Not Hydric	80.6	10.6%
GvC	Guernsey-Vandergrift silt loams, 8 to 15 percent slopes	Partially Hydric	0.3	0.0%
UB	Urban land	Not Hydric	280.2	37.0%
UCB	Urban land-Culleoka complex, gently sloping	Not Hydric	10.9	1.4%
UCD	Urban land-Culleoka complex, moderately steep	Not Hydric	24.6	3.2%
URB	Urban land-Rainsboro complex, gently sloping	Partially Hydric	99.3	13.1%
URC	Urban land-Rainsboro complex, sloping	Not Hydric	33.7	4.4%
W	Water	Unknown Hydric	220.1	29.0%
Totals for Area of Interest			758.0	100.0%

Rating Options

Aggregation Method: Absence/Presence

Tie-break Rule: Lower

Hydric Rating by Map Unit—Allegheny County, Pennsylvania
(Dashields L/D)



Hydric Rating by Map Unit--Allegheny County, Pennsylvania
(Dashields L/D)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Units

Soil Ratings

 All Hydric

 Partially Hydric

 Not Hydric

 Unknown Hydric

 Not rated or not available

Political Features

 Cities

Water Features

 Oceans

 Streams and Canals

Transportation

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 Major Roads

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Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Allegheny County, Pennsylvania
Survey Area Data: Version 5, Mar 3, 2009

Date(s) aerial images were photographed: 4/7/1993

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

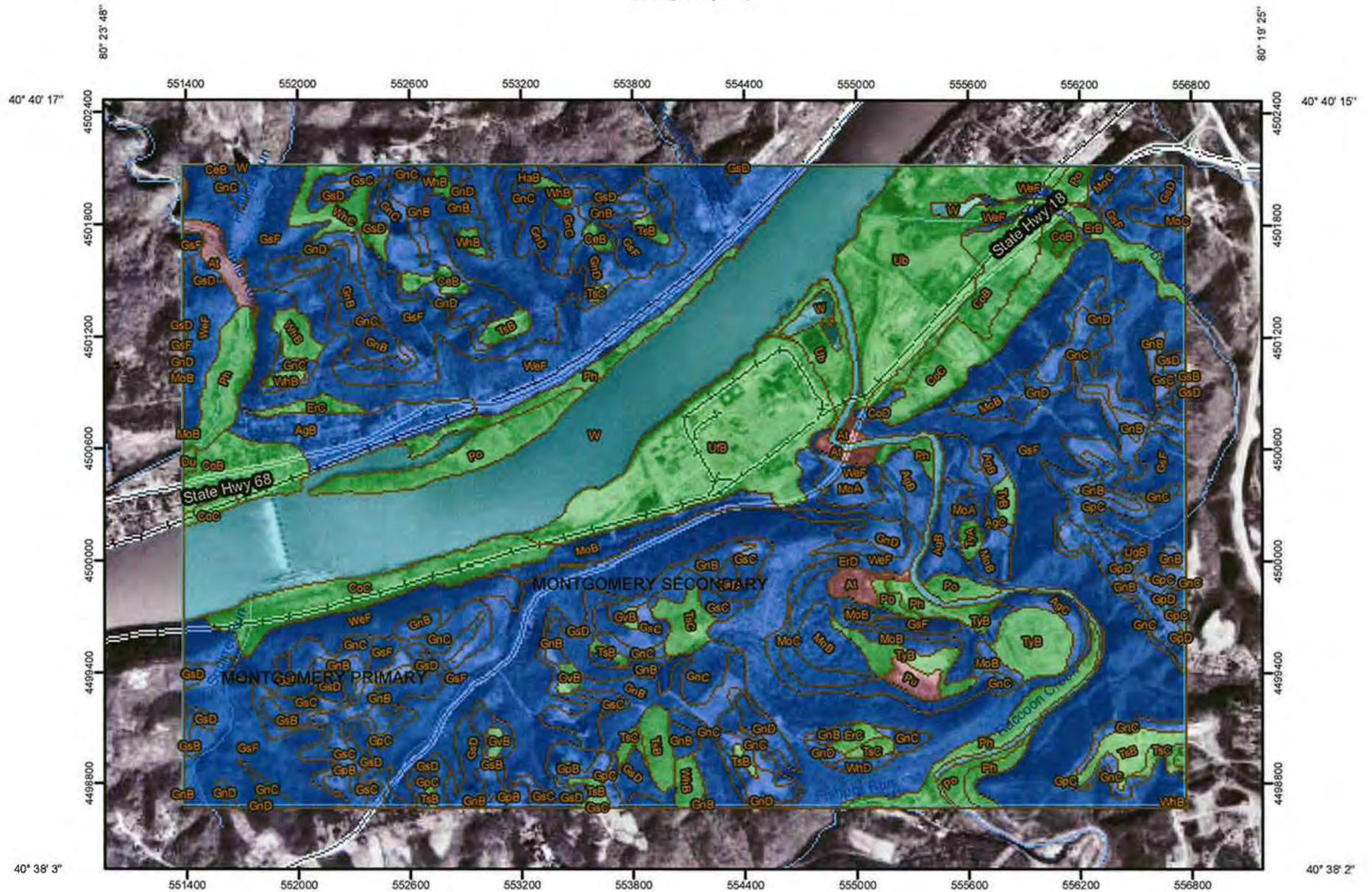
Hydric Rating by Map Unit— Summary by Map Unit — Allegheny County, Pennsylvania				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
ErB	Ernest silt loam, 2 to 8 percent slopes	Partially Hydric	12.3	0.8%
ErC	Ernest silt loam, 8 to 15 percent slopes	Partially Hydric	14.1	0.9%
EvD	Ernest-Vandergrift silt loams, 15 to 25 percent slopes	Partially Hydric	40.2	2.6%
GIB	Gilpin silt loam, 2 to 8 percent slopes	Not Hydric	15.4	1.0%
GIC	Gilpin silt loam, 8 to 15 percent slopes	Not Hydric	2.3	0.1%
GID	Gilpin silt loam, 15 to 25 percent slopes	Not Hydric	16.2	1.0%
GpC	Gilpin-Upshur complex, 8 to 15 percent slopes	Not Hydric	31.7	2.1%
GpD	Gilpin-Upshur complex, 15 to 25 percent slopes	Not Hydric	23.5	1.5%
GQF	Gilpin-Upshur complex, very steep	Not Hydric	378.4	24.5%
GSF	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	Not Hydric	8.8	0.6%
GvC	Guernsey-Vandergrift silt loams, 8 to 15 percent slopes	Partially Hydric	2.0	0.1%
GvD	Guernsey-Vandergrift silt loams, 15 to 25 percent slopes	Partially Hydric	14.5	0.9%
HTE	Hazleton loam, steep	Not Hydric	4.5	0.3%
Ph	Philo silt loam	Partially Hydric	77.0	5.0%
RaB	Rainsboro silt loam, 3 to 8 percent slopes	Not Hydric	3.7	0.2%
UB	Urban land	Not Hydric	342.1	22.2%
UCD	Urban land-Culleoka complex, moderately steep	Not Hydric	2.0	0.1%
URB	Urban land-Rainsboro complex, gently sloping	Partially Hydric	246.0	15.9%
W	Water	Unknown Hydric	308.4	20.0%
WhC	Wharton silt loam, 8 to 15 percent slopes	Partially Hydric	0.6	0.0%
WhD	Wharton silt loam, 15 to 25 percent slopes	Not Hydric	0.4	0.0%
Totals for Area of Interest			1,543.8	100.0%

Rating Options

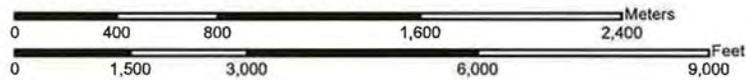
Aggregation Method: Absence/Presence

Tie-break Rule: Lower

Hydric Rating by Map Unit—Beaver and Lawrence Counties, Pennsylvania
(Montgomery L/D)



Map Scale: 1:29,500 if printed on A size (8.5" x 11") sheet.



Hydric Rating by Map Unit—Beaver and Lawrence Counties, Pennsylvania
(Montgomery L/D)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Units

Soil Ratings

 All Hydric

 Partially Hydric

 Not Hydric

 Unknown Hydric

 Not rated or not available

Political Features

 Cities

Water Features

 Oceans

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

MAP INFORMATION

Map Scale: 1:29,500 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Beaver and Lawrence Counties, Pennsylvania
Survey Area Data: Version 6, Dec 3, 2008

Date(s) aerial images were photographed: 3/14/1995; 4/7/1993

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Hydric Rating by Map Unit— Summary by Map Unit — Beaver and Lawrence Counties, Pennsylvania				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AgB	Allegheny silt loam, 3 to 8 percent slopes	Not Hydric	106.4	2.3%
AgC	Allegheny silt loam, 8 to 15 percent slopes	Not Hydric	18.0	0.4%
At	Atkins silt loam	All Hydric	36.4	0.8%
CeB	Cavode silt loam, 3 to 8 percent slopes	Partially Hydric	12.4	0.3%
CoB	Conotton gravelly loam, 3 to 8 percent slopes	Partially Hydric	97.6	2.1%
CoC	Conotton gravelly loam, 8 to 15 percent slopes	Partially Hydric	139.9	3.1%
CoD	Conotton gravelly loam, 15 to 25 percent slopes	Not Hydric	4.6	0.1%
Du	Dumps	Partially Hydric	2.2	0.0%
ErB	Ernest silt loam, 3 to 8 percent slopes	Partially Hydric	23.2	0.5%
ErC	Ernest silt loam, 8 to 15 percent slopes	Partially Hydric	14.3	0.3%
ErD	Ernest silt loam, 15 to 25 percent slopes	Not Hydric	31.7	0.7%
GnB	Gilpin silt loam, 3 to 8 percent slopes	Not Hydric	196.5	4.3%
GnC	Gilpin silt loam, 8 to 15 percent slopes	Not Hydric	265.1	5.8%
GnD	Gilpin silt loam, 15 to 25 percent slopes	Not Hydric	125.3	2.7%
GpB	Gilpin-Upshur complex, 3 to 8 percent slopes	Not Hydric	30.5	0.7%
GpC	Gilpin-Upshur complex, 8 to 15 percent slopes	Not Hydric	65.2	1.4%
GpD	Gilpin-Upshur complex, 15 to 25 percent slopes	Not Hydric	5.7	0.1%
GsB	Gilpin-Weikert complex, 3 to 8 percent slopes	Not Hydric	19.6	0.4%
GsC	Gilpin-Weikert complex, 8 to 15 percent slopes	Not Hydric	97.3	2.1%
GsD	Gilpin-Weikert complex, 15 to 25 percent slopes	Not Hydric	154.3	3.4%
GsF	Gilpin-Weikert complex, 25 to 70 percent slopes	Not Hydric	1,186.9	25.9%
GvB	Guernsey-Vandergrift complex, 3 to 8 percent slopes	Partially Hydric	9.4	0.2%

Hydric Rating by Map Unit— Summary by Map Unit — Beaver and Lawrence Counties, Pennsylvania				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HaB	Hazleton channery loam, 3 to 8 percent slopes	Not Hydric	3.1	0.1%
MoA	Monongahela silt loam, 0 to 3 percent slopes	Not Hydric	17.6	0.4%
MoB	Monongahela silt loam, 3 to 8 percent slopes	Not Hydric	128.5	2.8%
MoC	Monongahela silt loam, 8 to 15 percent slopes	Not Hydric	56.9	1.2%
Ph	Philo silt loam	Partially Hydric	128.1	2.8%
Po	Pope silt loam	Partially Hydric	77.8	1.7%
Pu	Purdy silt loam	All Hydric	9.8	0.2%
TsB	Tilsit silt loam, 3 to 8 percent slopes	Partially Hydric	59.1	1.3%
TsC	Tilsit silt loam, 8 to 15 percent slopes	Partially Hydric	34.3	0.8%
TyA	Tyler silt loam, 0 to 3 percent slopes	Partially Hydric	5.2	0.1%
TyB	Tyler silt loam, 3 to 8 percent slopes	Partially Hydric	59.4	1.3%
Ub	Urban land-Arents complex	Partially Hydric	194.4	4.2%
UfB	Urban land-Conotton complex, 0 to 8 percent slopes	Partially Hydric	190.1	4.2%
UgB	Urban land-Gilpin complex, 0 to 8 percent slopes	Not Hydric	1.9	0.0%
W	Water	Unknown Hydric	539.9	11.8%
WeF	Weikert-Rock outcrop complex, 25 to 80 percent slopes	Not Hydric	359.9	7.9%
WhB	Wharton silt loam, 3 to 8 percent slopes	Partially Hydric	37.2	0.8%
WhC	Wharton silt loam, 8 to 15 percent slopes	Partially Hydric	25.2	0.6%
WnD	Wharton-Gilpin silt loams, 15 to 25 percent slopes	Not Hydric	5.1	0.1%
Totals for Area of Interest			4,575.7	100.0%

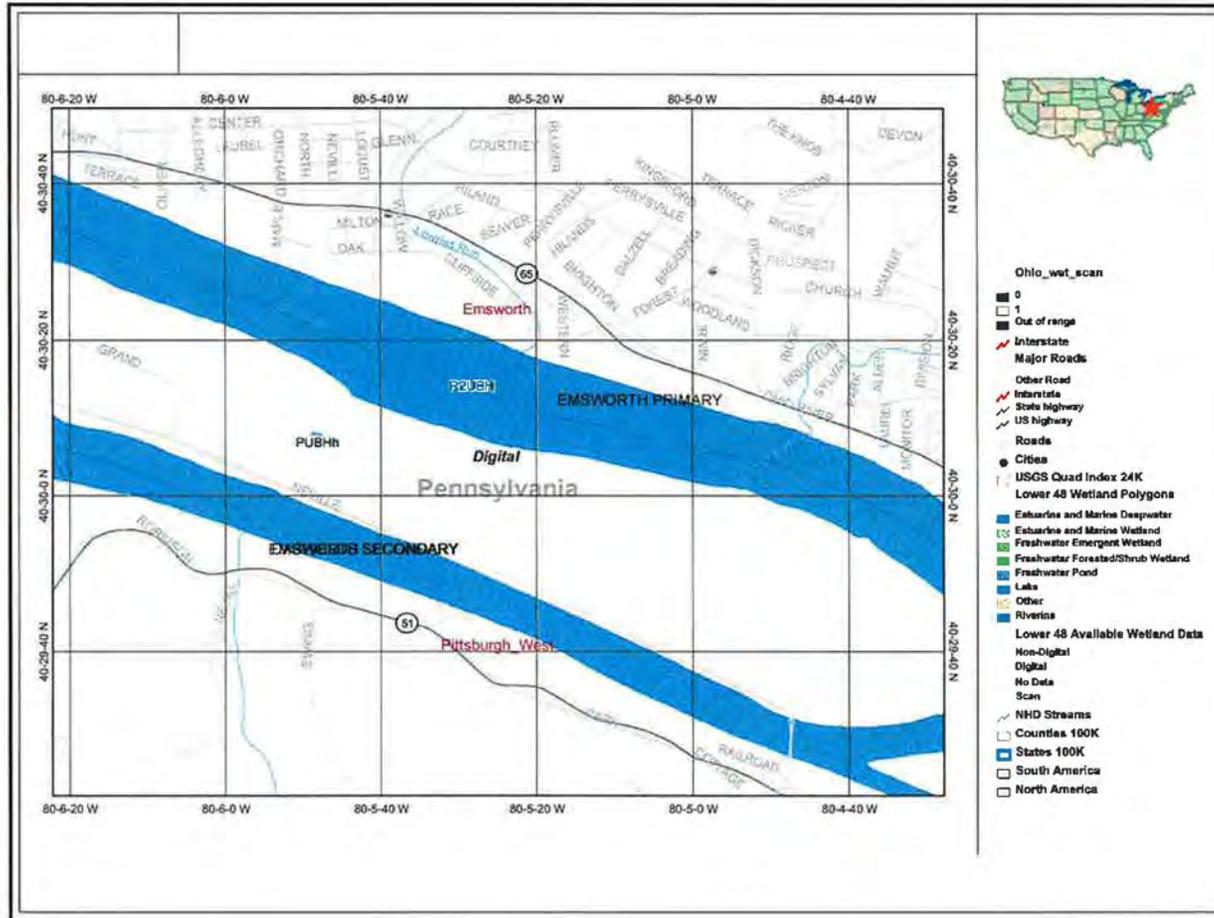
Rating Options

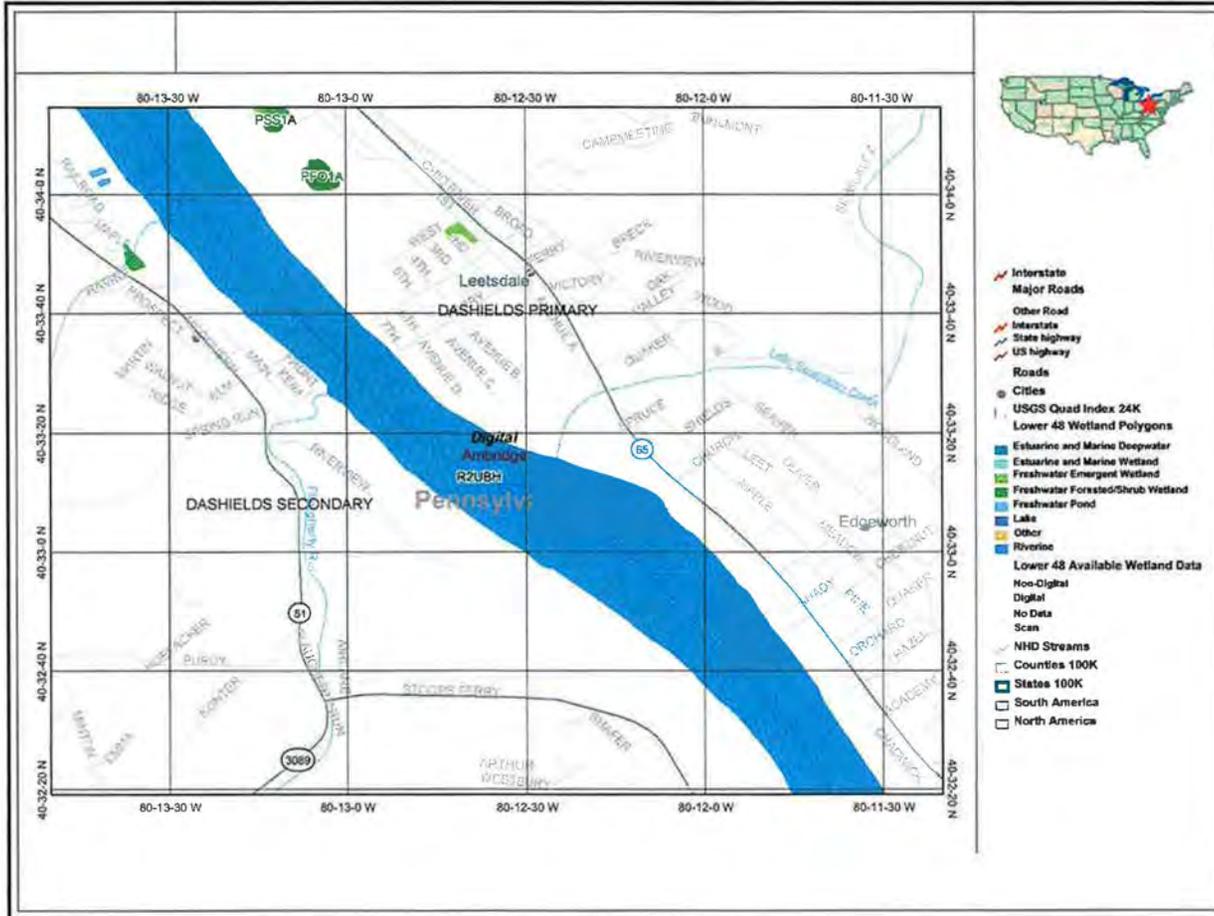
Aggregation Method: Absence/Presence

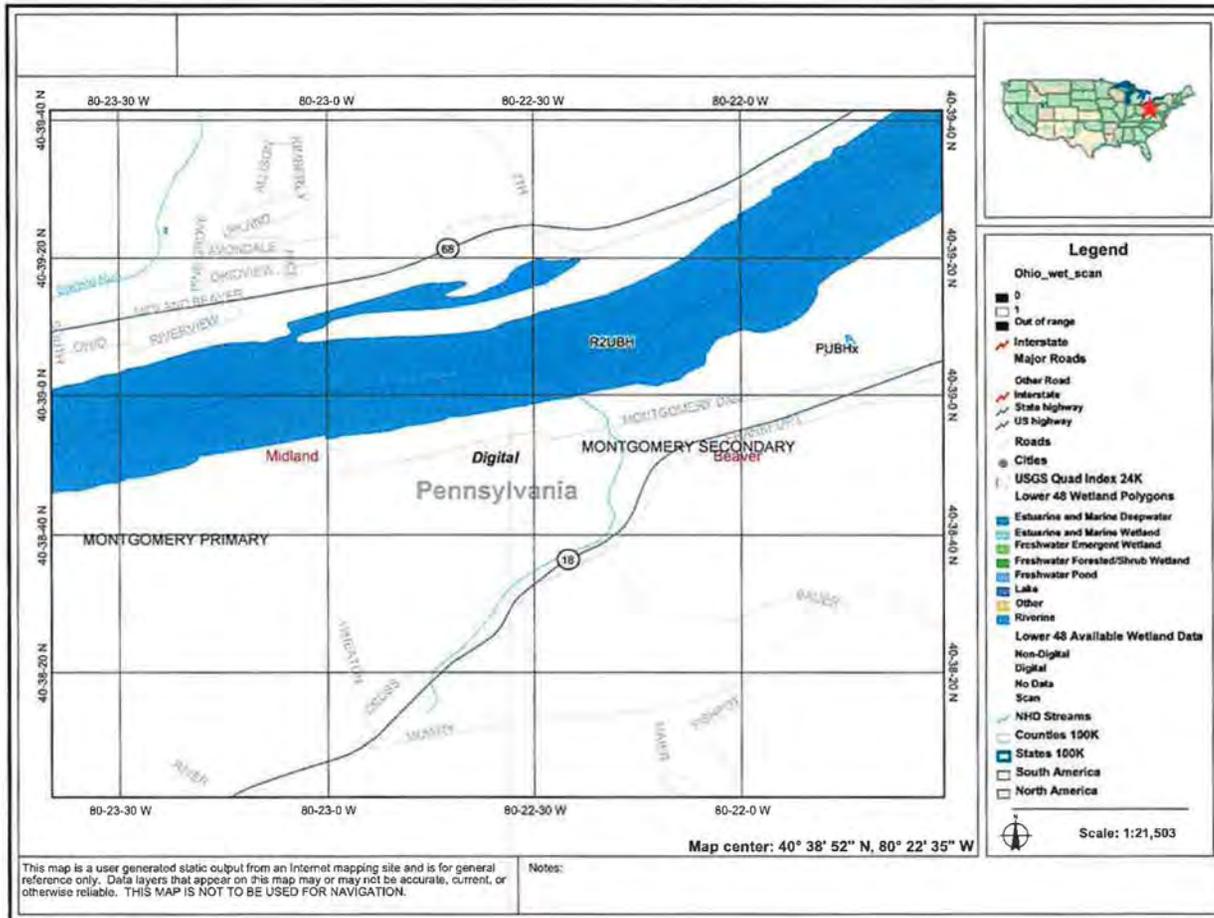
Tie-break Rule: Lower

Appendix D

NWI Maps







Appendix E

Prime Farmland Determination Letter



Suite 102, 625 Evans City Rd., Butler, PA 16001
724-482-4800 724-482-4826 fax

December 4, 2009

Angela Rangel, M.S., Biologist
Senior Project Manager
Aerostar Environmental Services, Inc.
803 Government Street, Suite A
Mobile, Alabama 36602

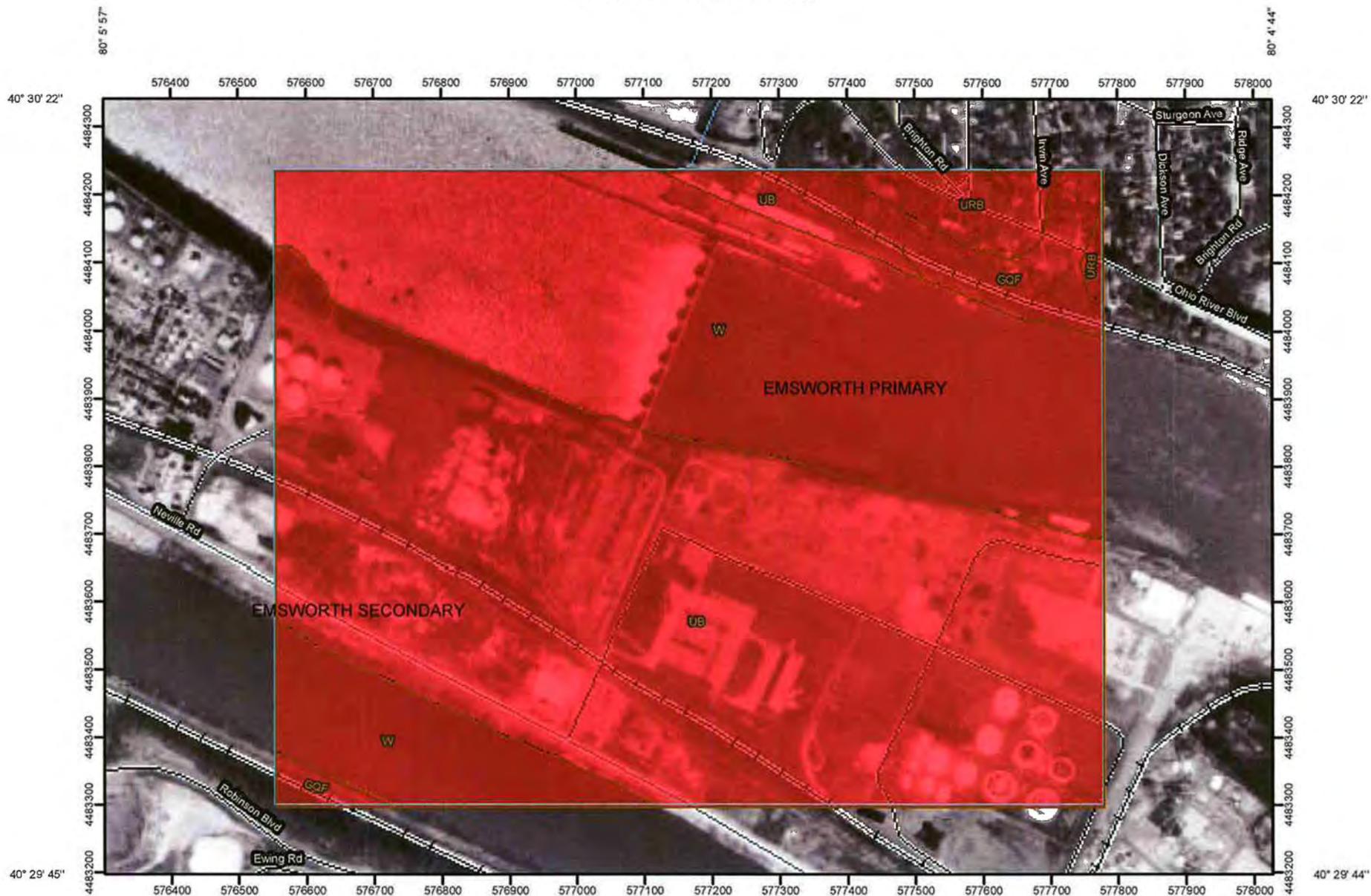
Ms. Rangel,

I have reviewed the soils information for the Dashfields, Emsworth and Montgomery lock and dam projects in Allegheny and Beaver counties and I have found no prime farmland will be impacted by the project.

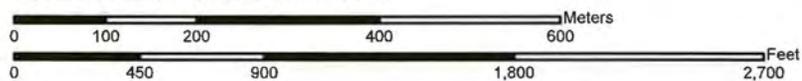
Sincerely,

Andy Gaver
District Conservationist

Farmland Classification—Allegheny County, Pennsylvania
(Emsworth Primary and Secondary)



Map Scale: 1:8,190 if printed on A size (8.5" x 11") sheet.



Farmland Classification—Allegheny County, Pennsylvania
(Emsworth Primary and Secondary)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Units

Soil Ratings

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available

Political Features

 Cities

Water Features

-  Oceans
-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways

-  US Routes
-  Major Roads
-  Local Roads

MAP INFORMATION

Map Scale: 1:8,190 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Allegheny County, Pennsylvania
Survey Area Data: Version 5, Mar 3, 2009

Date(s) aerial images were photographed: 4/7/1993

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Farmland Classification

Farmland Classification— Summary by Map Unit — Allegheny County, Pennsylvania				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
GQF	Gilpin-Upshur complex, very steep	Not prime farmland	12.6	4.4%
UB	Urban land	Not prime farmland	155.0	54.7%
URB	Urban land-Rainsboro complex, gently sloping	Not prime farmland	7.1	2.5%
W	Water	Not prime farmland	108.7	38.4%
Totals for Area of Interest			283.3	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

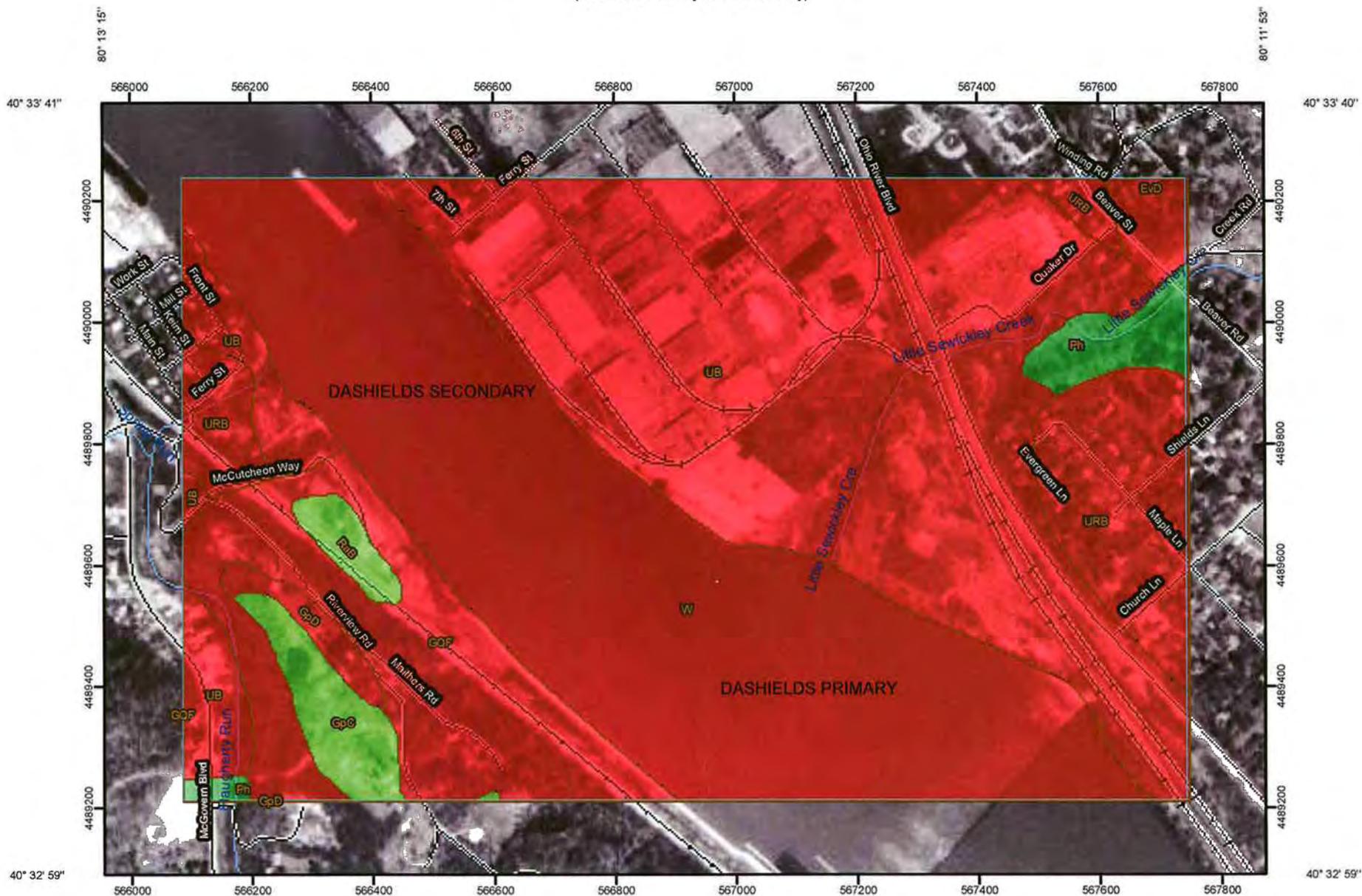
Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower



Farmland Classification—Allegheny County, Pennsylvania
(Dashields Primary and Secondary)



Map Scale: 1:9,100 if printed on A size (8.5" x 11") sheet.



Farmland Classification--Allegheny County, Pennsylvania
(Dashields Primary and Secondary)

MAP LEGEND

MAP INFORMATION

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Units

Soil Ratings

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available

Political Features

 Cities

Water Features

-  Oceans
-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways

-  US Routes
-  Major Roads
-  Local Roads

Map Scale: 1:9,100 if printed on A size (8.5" x 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:15,840.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Allegheny County, Pennsylvania
Survey Area Data: Version 5, Mar 3, 2009

Date(s) aerial images were photographed: 4/7/1993

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Farmland Classification— Summary by Map Unit — Allegheny County, Pennsylvania				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
EvD	Ernest-Vandergrift silt loams, 15 to 25 percent slopes	Not prime farmland	4.5	1.1%
GpC	Gilpin-Upshur complex, 8 to 15 percent slopes	Farmland of statewide importance	9.2	2.2%
GpD	Gilpin-Upshur complex, 15 to 25 percent slopes	Not prime farmland	3.5	0.8%
GQF	Gilpin-Upshur complex, very steep	Not prime farmland	46.0	11.0%
Ph	Philo silt loam	All areas are prime farmland	8.2	2.0%
RaB	Rainsboro silt loam, 3 to 8 percent slopes	Farmland of statewide importance	3.7	0.9%
UB	Urban land	Not prime farmland	169.8	40.5%
URB	Urban land-Rainsboro complex, gently sloping	Not prime farmland	32.6	7.8%
W	Water	Not prime farmland	141.9	33.8%
Totals for Area of Interest			419.3	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

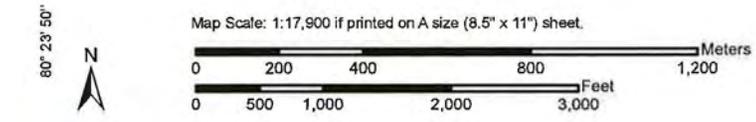
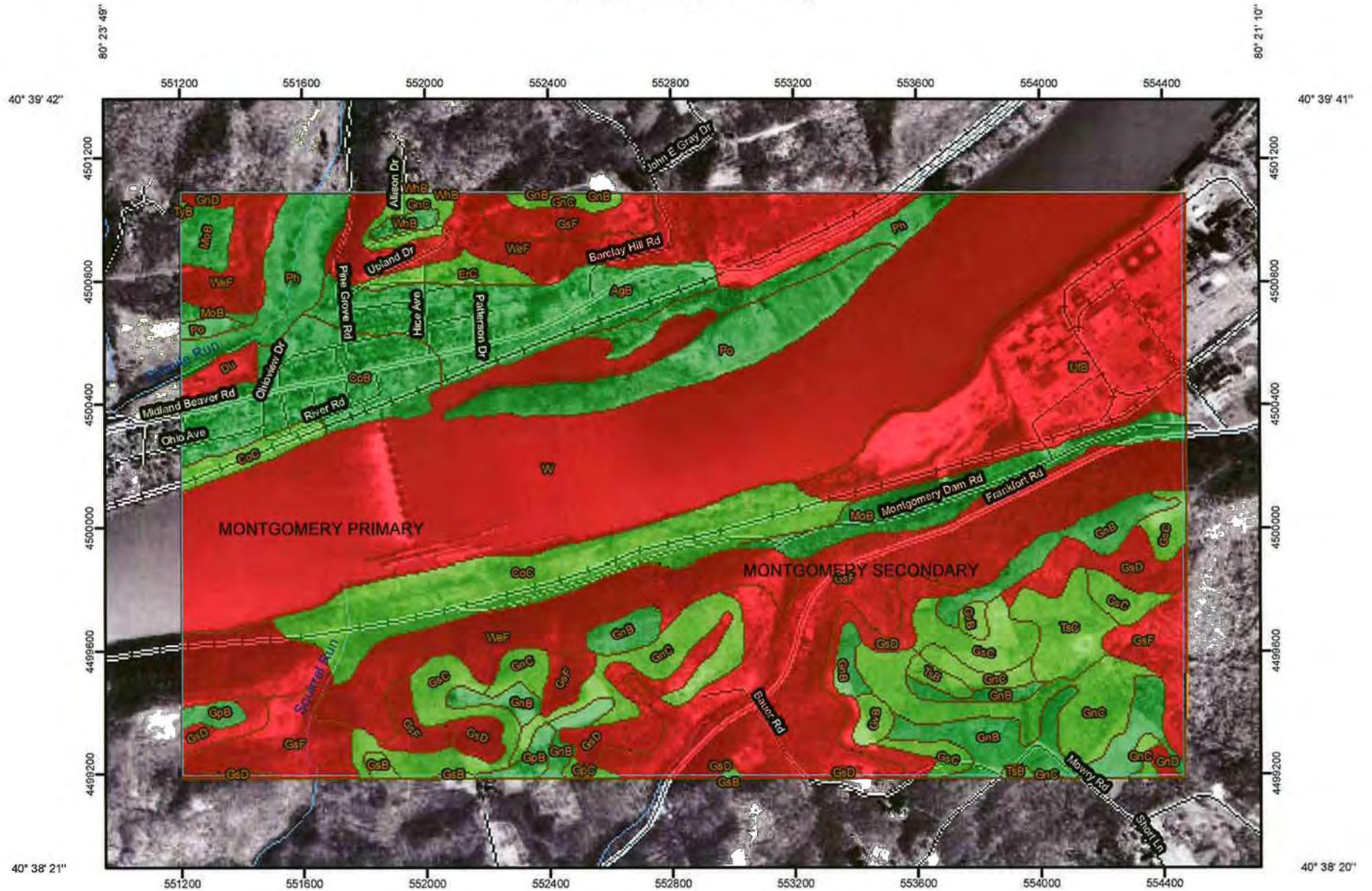
Rating Options

Aggregation Method: No Aggregation Necessary

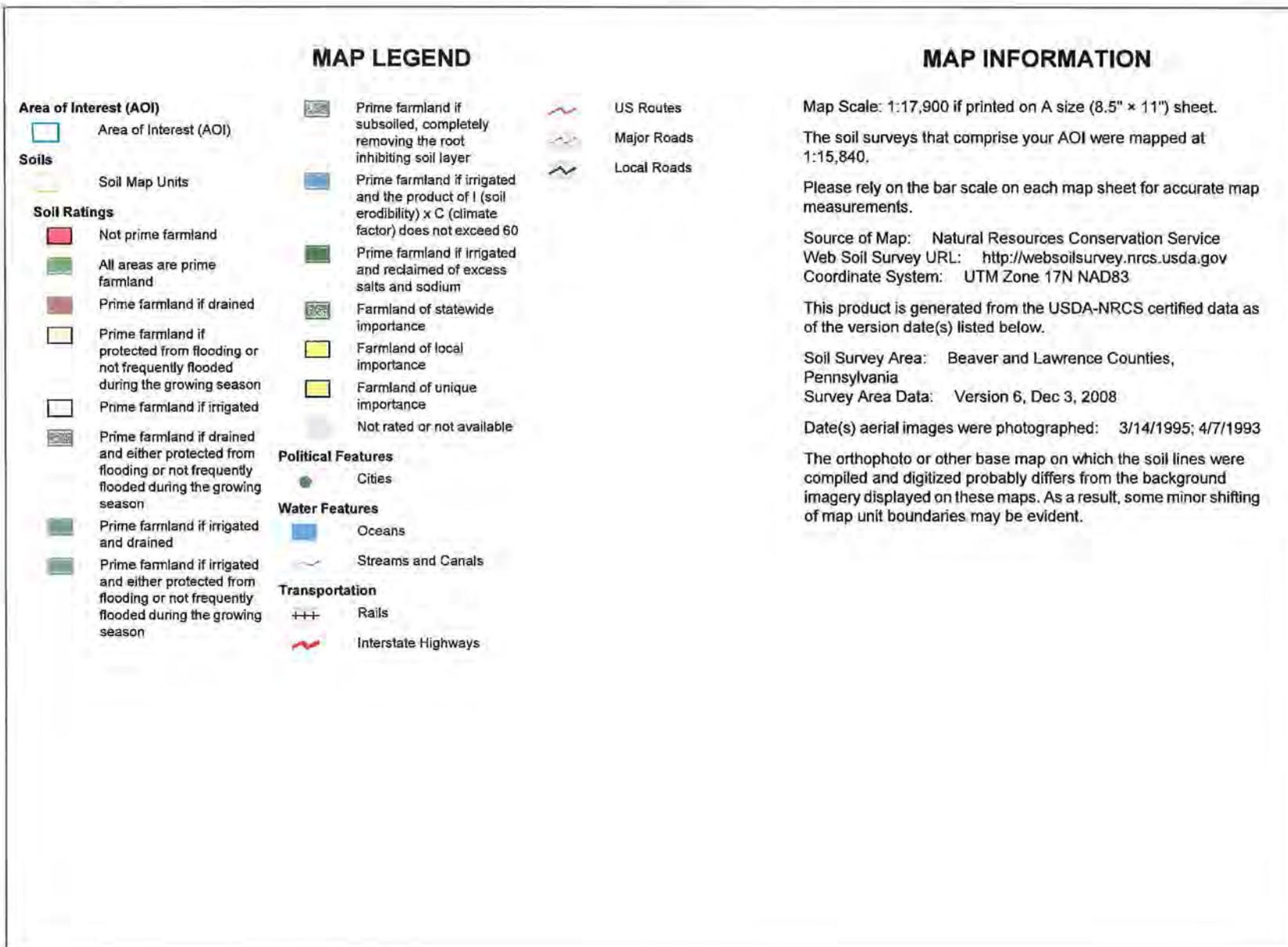
Tie-break Rule: Lower



Farmland Classification—Beaver and Lawrence Counties, Pennsylvania
(Montgomery Primary and Secondary)



Farmland Classification—Beaver and Lawrence Counties, Pennsylvania
(Montgomery Primary and Secondary)



Farmland Classification

Farmland Classification— Summary by Map Unit — Beaver and Lawrence Counties, Pennsylvania				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AgB	Allegheny silt loam, 3 to 8 percent slopes	All areas are prime farmland	62.7	4.1%
CoB	Conotton gravelly loam, 3 to 8 percent slopes	All areas are prime farmland	55.5	3.6%
CoC	Conotton gravelly loam, 8 to 15 percent slopes	Farmland of statewide importance	82.2	5.4%
Du	Dumps	Not prime farmland	6.4	0.4%
ErC	Ernest silt loam, 8 to 15 percent slopes	Farmland of statewide importance	8.7	0.6%
GnB	Gilpin silt loam, 3 to 8 percent slopes	All areas are prime farmland	70.8	4.6%
GnC	Gilpin silt loam, 8 to 15 percent slopes	Farmland of statewide importance	80.7	5.3%
GnD	Gilpin silt loam, 15 to 25 percent slopes	Not prime farmland	3.6	0.2%
GpB	Gilpin-Upshur complex, 3 to 8 percent slopes	All areas are prime farmland	7.7	0.5%
GpC	Gilpin-Upshur complex, 8 to 15 percent slopes	Farmland of statewide importance	1.6	0.1%
GsB	Gilpin-Weikert complex, 3 to 8 percent slopes	Farmland of statewide importance	2.5	0.2%
GsC	Gilpin-Weikert complex, 8 to 15 percent slopes	Farmland of statewide importance	50.9	3.3%
GsD	Gilpin-Weikert complex, 15 to 25 percent slopes	Not prime farmland	58.7	3.8%
GsF	Gilpin-Weikert complex, 25 to 70 percent slopes	Not prime farmland	202.4	13.2%
GvB	Guernsey-Vandergrift complex, 3 to 8 percent slopes	Farmland of statewide importance	6.4	0.4%
MoB	Monongahela silt loam, 3 to 8 percent slopes	All areas are prime farmland	41.9	2.7%
Ph	Philo silt loam	All areas are prime farmland	47.8	3.1%
Po	Pope silt loam	All areas are prime farmland	48.2	3.1%
TsB	Tilsit silt loam, 3 to 8 percent slopes	Farmland of statewide importance	4.3	0.3%
TsC	Tilsit silt loam, 8 to 15 percent slopes	Farmland of statewide importance	17.8	1.2%
TyB	Tyler silt loam, 3 to 8 percent slopes	Farmland of statewide importance	0.3	0.0%
UfB	Urban land-Conotton complex, 0 to 8 percent slopes	Not prime farmland	125.9	8.2%
W	Water	Not prime farmland	360.9	23.6%



Farmland Classification— Summary by Map Unit — Beaver and Lawrence Counties, Pennsylvania				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
WeF	Weikert-Rock outcrop complex, 25 to 80 percent slopes	Not prime farmland	179.0	11.7%
WhB	Wharton silt loam, 3 to 8 percent slopes	All areas are prime farmland	3.3	0.2%
Totals for Area of Interest			1,530.0	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower



Appendix F

Photographic Documentation



Photo 1 – Emsworth Primary: View of the eastern boundary at the riverfront.



Photo 2 – Emsworth Primary: View to the east along the riverfront.



Photo 3 – Emsworth Primary: View to the east of the southern boundary along the powerline and pipeline ROW.



Photo 4 – Emsworth Primary: View of trail in middle west portion of this parcel.



Photo 5 – Emsworth Primary: View of the vegetation and gravel material found throughout the middle of the parcel.



Photo 6 – Emsworth Primary: View of the vegetation the middle of the parcel.



Photo 7 – Emsworth Primary: View of the vegetation on the western portion of the parcel.



Photo 8 – Emsworth Primary 17.2 Acres: View of one of 6 monitoring wells on site.



Photo 9 – Emsworth Secondary: View of the dirt pile and staging area in the middle of the parcel.



Photo 10 – Emsworth Secondary: View of an aboveground storage tank on the northwestern portion of the parcel.



Photo 11 – Emsworth Secondary: View of the south-middle portion of the parcel.



Photo 12 – Emsworth Secondary: View of vegetation in the 0.4-acre parcel.



Photo 13 – Emsworth Secondary: View of the 1.6 acre parcel along the railroad.



Photo 14 – Emsworth Secondary: View to the northwest of the site.



Photo 15 – Dashields Primary East: View to north of trail and vegetation on the river front.



Photo 16 – Dashields Primary East: View to southwest of the road in the mid section of the parcel.



Photo 17 – Dashields Primary East: View to south of the compost piles and wooded area in the middle of the site.



Photo 18 – Dashields Primary East: View to south of the compost piles and wooded area in the middle of the site.



Photo 19– Dashields Primary East: View of the vegetation in the middle of the parcel.



Photo 20 – Dashields Primary East: View of piles of logs on the parcel.



Photo 21 – Dashields Primary East: View of concrete debris on the parcel.



Photo 22 – Dashields Primary East: An example of debris piles found throughout the vegetated areas of the parcel.



Photo 23– Dashiels Primary East: View of vegetation on this parcel next to a ditch and railroad in the northwestern section.



Photo 24 – Dashiels Primary West: View to the north of concrete rubble pile.



Photo 25– Dashiels Primary West: View to the southeast along the Ohio River.



Photo 26 – Dashiels Primary West: View to the northwest of storage trailers, railroad ties, and bucket claw.



Photo 27 – Dashields Primary West:View to the east of the vegetation and dirt piles on the parcel.



Photo 28– Dashields Primary West: View to the southeast of fill material and vegetation along riverfront.



Photo 29– Dashields Secondary West: View to the north of the entrance into the ball park.



Photo 30 – Dashields Secondary West: View to the west of the ball field.



Photo 31– Dashiels Secondary East: View to the southwest of the picnic area.



Photo 32 – Dashiels Secondary East: View to the southeast of the maintenance area.



Photo 33– Dashields Secondary East: View to the east of the fence line along the river front.



Photo 34 – Dashields Secondary East: View to the southwest of the stockpile of gravel and cinder like material.



Photo 35 – Dashields Secondary East: View to the south.



Photo 36 – Dashields Secondary East: View to the south of the surface material.



Photo 37 – Montgomery Primary: View to the west of the riverfront west of Squirrel Run.



Photo 38 – Montgomery Primary (West of Squirrel Run): View to the south of the forest.



Photo 39 – Montgomery Primary (East of Squirrel Run): View to the north of the forested area behind the riverfront.



Photo 40 – Montgomery Primary: View to the south of Squirrel Run creek and the culvert that goes under the railroad (north of the railroad).



Photo 41 – Montgomery Primary: View to the south of Squirrel Run creek south of the railroad.

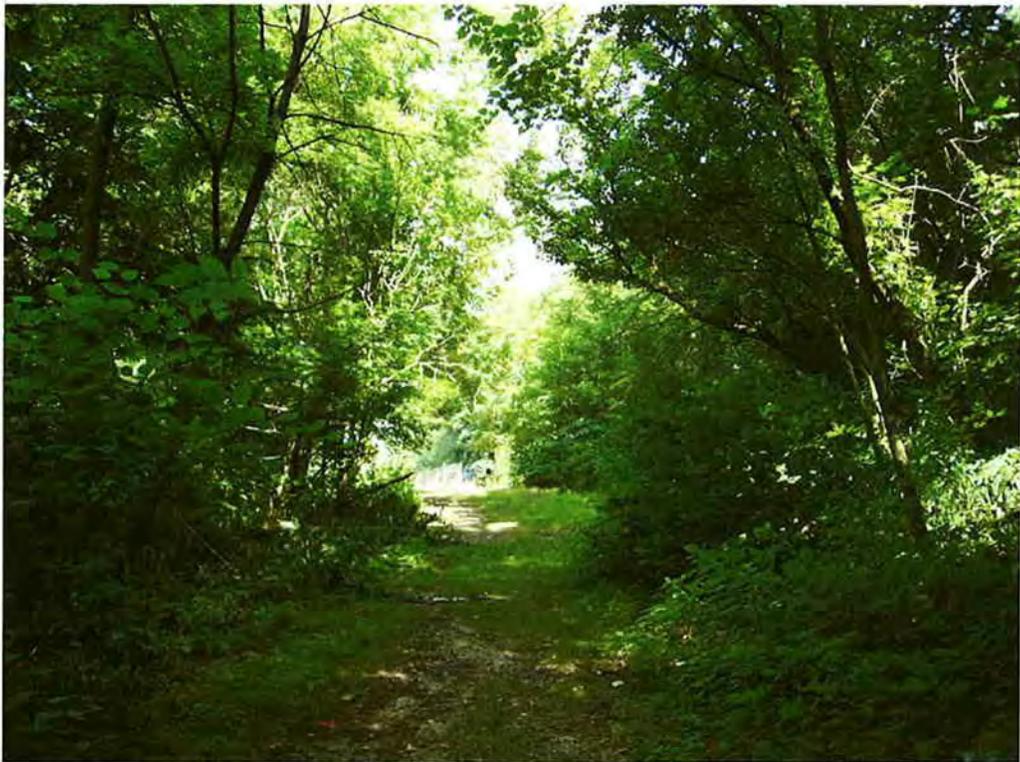


Photo 42 – Montgomery Primary (East of Squirrel Run): View to the east of the woods and trail going into this parcel.



Photo 43 – Montgomery Primary (East of Squirrel Run): View to the north of the vegetation in the open area adjacent to the old shed.



Photo 44 – Montgomery Primary (East of Squirrel Run): View to the east of the abandoned garage on this parcel.



Photo 45– Montgomery Primary (East of Squirrel Run): View to the north of the abandoned mobile home just east of the abandoned garage.



Photo 46 – Montgomery Secondary West: View to the north of the forested area on this parcel.



Photo 47 – Montgomery Secondary West: View to the west of the forest area.



Photo 48 – Montgomery Secondary East: View to the north of the entrance into the parcel.



Photo 49 – Montgomery Secondary East: View to the east of the railroad track on the south boundary.



Photo 50 – Montgomery Secondary East: View to the east of the bottomland hardwoods and pond isolated on the parcel.



Photo 51 – Montgomery Secondary East: View to the west of the gypsum pile and surrounding vegetation.



Photo 52 – Montgomery Secondary East: View to the south of the hillside and vegetation.



Photo 53 – Montgomery Secondary East: View to the northeast of the top of the gypsum pile and adjacent industry.

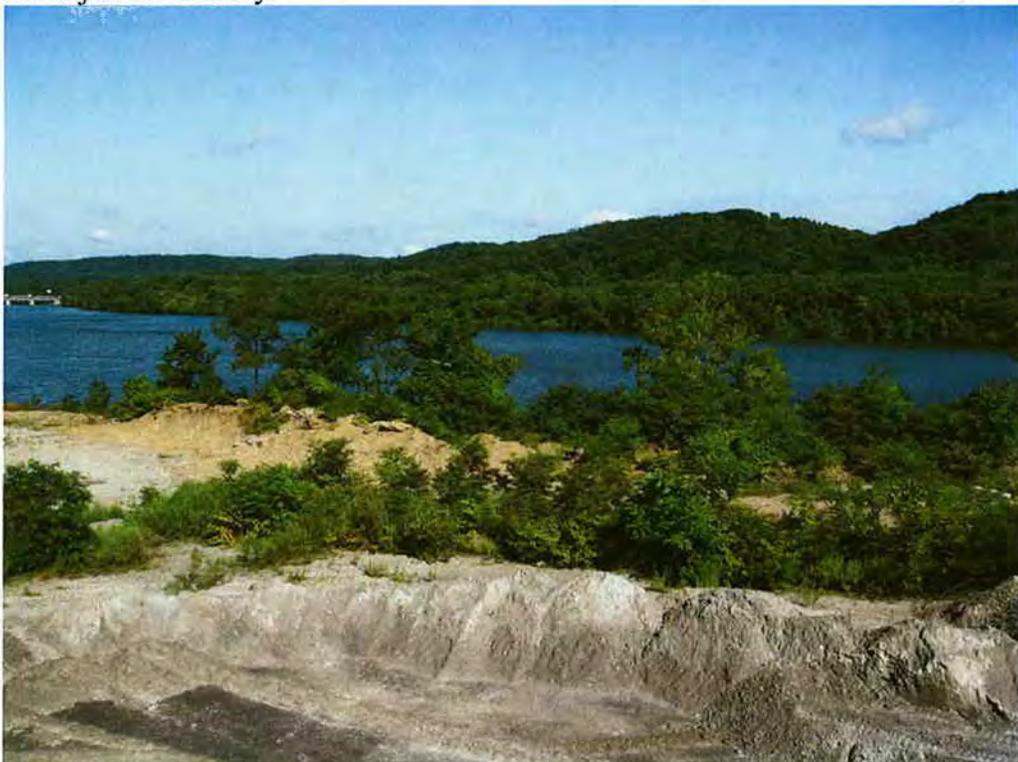


Photo 54 – Montgomery Secondary East: View to the north of the riverfront from the gypsum pile.



Photo 55 – Montgomery Secondary East: View to the north of the storage shed at the base of the gypsum pile.



Photo 56 – Montgomery Secondary East: View to the southeast of the vegetation from the gypsum pile.



Photo 57 – Montgomery Primary: Male Rainbow Darter (*Etheostoma caeruleum*) caught via dip net from Squirrel Run creek north of the railroad.



Photo 58 – Montgomery Primary: Female Rainbow Darter and crayfish (*Cambarus sp.*) caught with dip net from Squirrel Run creek north of the railroad.



Photo 59 – Montgomery Primary: Either a young long-tailed weasel (*Mustela* sp.) or a mature short-tailed weasel found dead with a bite mark on its neck.



Photo 60 – Montgomery Secondary East: Bank Swallows nesting in the gypsum pile.