
**UPPER DES PLAINES RIVER AND
TRIBUTARIES, ILLINOIS AND
WISCONSIN
FEASIBILITY STUDY**

APPENDIX I

REAL ESTATE PLAN

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Real Estate Division
Detroit District
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**UPPER DES PLAINES RIVER AND TRIBUTARIES,
ILLINOIS AND WISCONSIN
FEASIBILITY STUDY

REAL ESTATE PLAN**

1. PURPOSE

This report, prepared in accordance with ER 405-1-12, Real Estate Plan (REP), presents the real estate requirements for the Upper Des Plaines River and Tributaries Feasibility Study (Phase II Study), dated May 2013. This REP identifies and describes the real estate requirements for the needed Lands, Easements, Rights-of-Way, Relocations, and Disposal Areas (LERRD) for construction, operation and maintenance of the recommended features for this proposed project, which is the further reduction of flooding within the Upper Des Plaines River, reduction of tributary flooding, and environmental restoration of degraded ecosystems within the basin.

The final real property acquisition lines and estimates of value are subject to change even after approval of the Feasibility Study. All of the real estate information, boundaries, and LERRD estimates in this report subsequently replace any real estate information included in any prior dated Real Estate Plan.

2. PROJECT TYPE AND AUTHORITY

This proposed flood protection and ecosystem restoration project's study authorization is Section 419 of the Water Resources Development Act (WRDA) of 1999 (P.L. 106-53), and is identified as the Upper Des Plaines River and Tributaries, Illinois and Wisconsin. The authority provides the following:

“Sec. 419. Upper Des Plaines River and Tributaries, Illinois and Wisconsin

a) In General. –The Secretary shall conduct a study of the upper Des Plaines River and tributaries, Illinois and Wisconsin, upstream of the confluence with Salt Creek at Riverside, Illinois, to determine the feasibility of improvements in the interests of flood damage reduction, environmental restoration and protection, water quality, recreation, and related purposes.

b) Special Rule. –In conducting the study, the Secretary may not exclude from consideration and evaluation flood damage reduction measures based on restrictive policies regarding the frequency of flooding, the drainage area, and the amount of runoff.

c) Consultation and Use of Existing Data. –In carrying out this section, the Secretary shall– (1) consult with appropriate Federal and State agencies; and (2) make maximum use of data in existence on the date of enactment of this Act and ongoing programs and efforts of Federal agencies and States.”

The Upper Des Plaines River watershed originates in the Racine and Kenosha counties of

southeastern Wisconsin. The watershed then slopes south into Illinois through Lake County and then Cook County, where it converges with the Salt Creek watershed near Riverside, Illinois. The Des Plaines River then flows southwest on to its confluence with the Kankakee River, where the two rivers combine to form the Illinois River. The study area for this Feasibility Study includes the entire drainage area upstream of the confluence with Salt Creek, including 12 major tributaries to the river. The project area is primarily rural agricultural in Wisconsin then becoming more residential and urbanized further downstream.

Project features for the multipurpose plan will be cost-shared according to purpose. See Section 11 of the Feasibility Report for a discussion of cost sharing requirements and other non-Federal responsibilities. The Non-federal sponsor (NFS) is to provide all LERRD required for the project, with the cost of these real estate interests, along with any incidental administrative expenses in obtaining the LERRD, credited to the non-federal sponsor's 35% cost share obligation.

3. PROJECT DESCRIPTION

This study builds on the work completed in the Upper Des Plaines River Flood Damage Reduction Feasibility Study (Phase I Study), conducted under the Chicago – South End of Lake Michigan (C-SELM) Urban Water Damage Study Authority, contained in Section 206 of the 1958 Flood Control Act (P.L. 85-500). The Phase I Study was initiated to address severe overbank flooding along the Upper Des Plaines River. Two particularly severe events in 1986 and 1987 together caused over \$100 million in damages. Federal interest in flood risk management in the Upper Des Plaines watershed was established in a Reconnaissance Report that preceded the Phase I Study and was approved in 1989. The Phase I Study investigated plans for urban flood risk management in the Upper Des Plaines River watershed and recommended six projects to reduce the mainstem flooding. The Feasibility Report was approved in 1999 and the recommended projects were authorized in Section 101 of WRDA 1999. Project benefits only resulted in a 25% reduction in flood damages. This Upper Des Plaines River and Tributaries Feasibility Study (Phase II Study) provides an opportunity to develop a more comprehensive solution to ongoing occurrences of flooding in the Upper Des Plaines River watershed. Additionally, the study authorization directs the Chicago District to develop plans that include ecosystem restoration, water quality and recreation benefits.

Six flood risk management projects within the Upper Des Plaines River watershed have been authorized. These projects were identified as the Recommended Plan in the Phase I Study, and include:

Phase I PProProjects	
Projects	Location
Van Patton Woods Lateral Storage	Wadsworth and Russell, IL
North Fork Mill Creek Dam Modification	Old Mill Creek, IL
Buffalo Creek Reservoir Expansion	Buffalo Grove, IL
Big Bend Lake Reservoir Expansion	Des Plaines, IL
Levee 37	Prospect Heights and Mount Prospect, IL
Levee 50	Des Plaines, IL

The status of the authorized Phase I projects is discussed in Section 4 of the Feasibility Report. The Phase II Study has three primary objectives: further reduction of mainstem flooding, reduction of tributary flooding, and environmental restoration of degraded ecosystems within the basin. Secondary objectives are improving water quality and enhancing recreational opportunities throughout the basin. The study considers sites located within tributary watersheds and along the mainstem for both Flood Risk Management (FRM) and Ecosystem Restoration (ER) potential. The effects of FRM sites within tributary watersheds on mainstem flooding will also be evaluated.

This Real Estate Plan represents the real estate requirements for The Full Plan as referenced in Sec. 10 of the feasibility study. The Full Plan features include sites for which USACE will seek congressional authorization for implementation, projects that will be implemented under the USACE Continuing Authorities Program (CAP), and projects that are recommended for implementation by state and local agencies. The plan features include:

18 Ecosystem Restoration projects including

- 13 ecosystem restoration sites and
- 5 dam removals;

8 Flood Risk Management projects including

- 1 floodwater storage reservoir,
- 4 levees/floodwalls,
- 1 road raise,
- 1 modification to an existing structure, and
- 3 Non-structural flood risk management plans (non-structural measures to be implemented in Kenosha, Lake, and Cook Counties).

A summary table of the Full Plan is below:

Des Plaines II Full Plan					
Site ID	Site Name	Purpose	Plan	Measure	Municipality
Racine County, WI					
R04	Mt. Pleasant Wet Prairie	ER	NED/NER	Restoration, Rural Alternative 5	Sturtevant
Kenosha County, WI					
K09	Somers Marsh	ER	NED/NER	Restoration, Rural Alternative 9	Somers
K33	Paris Wet Prairie	ER	NED/NER	Restoration, Rural Alternative 9	Union Grove
K47	Bristol Marsh	ER	NED/NER	Restoration, Rural Alternative 9	Bristol
K41	Dutch Gap Forested Floodplain	ER	NED/NER	Restoration, Rural Alternative 6	Pikesville
	Kenosha County Non-structural	FRM	Full	Elevation, Floodproofing, Ring Levees, Buyouts	Salem, Britsol, Somers, Paddock Lake
Lake County, IL					
L41	Dutch Gap Aquatic Complex	ER	NED/NER	Restoration, Rural Alternative 9	Antioch
L43	Red Wing Slough & Deer Lake Wetland Complex	ER	NED/NER	Restoration, Rural Alternative 2	Antioch
L39	Pollack Lake & Hastings Creek Riparian Wetlands	ER	NED/NER	Restoration, Rural Alternative 6	Antioch
L33	Mill Creek Riparian Woodland	ER	NED/NER	Restoration, Rural Alternative 4	Old Mill Creek
L31	Gurnee Woods Riparian Wetland	ER	NED/NER	Restoration, Rural Alternative 4	Wadsworth
ACRS08	Aptakistic Creek Reservoir	FRM	NED/NER	Reservoir	Buffalo Grove
L05	Granger Woods Floodplain Forest	ER	CAP	Restoration, Urban Alternative 8	Mettawa
	Lake County Non-structural	FRM	NED/NER	Elevation, Floodproofing, Ring Levees, Buyouts	Riverwoods, Buffalo Grove, Gurnee
Cook County, IL					
C09	Northbrook Marsh	ER	NED/NER	Restoration, Urban Alternative 8	Wheeling
--	Dam #1 Removal	ER	CAP	Dam Removal	Wheeling
--	Dam #2 Removal	ER	CAP	Dam Removal	Des Plaines
C15	Beck Lake Meadow	ER	NED/NER	Restoration, Urban Alternative 8	Des Plaines/ Glenview
--	Dempster Ave Dam Removal	ER	CAP	Dam Removal	Des Plaines
FPCI01	Lake Mary Anne Pump Station	FRM	Full	Structure Modification	Maine
DPLV09	Ashland-Fargo Levee	FRM	NED/NER	Levee/Floodwall	Des Plaines
DPLV04	Fifth-CN Levee	FRM	NED/NER	Levee/Floodwall	River Grove
DPLV05	Belmont-Irving Park Levee	FRM	NED/NER	Levee/Floodwall	Schiller Park
--	Touhy Ave Dam Removal	ER	CAP	Dam Removal	Park Ridge
--	Dam #4 Removal	ER	CAP	Dam Removal	Park Ridge
DPBM04	First Ave Bridge Modification	FRM	Full	Bridge Modification	River Grove
DPLV01	Groveland Ave Levee	FRM	CAP	Levee	Riverside
	Cook County Non-structural	FRM	NED/NER	Elevation, Floodproofing, Ring Levees, Buyouts	Riverside, River Grove, Schiller Park, Rosemont, Des Plaines, Wheeling
	Park Ridge (Cook County) Non- structural	FRM	Full	Elevation, Floodproofing, Ring Levees, Buyouts	Park Ridge

4. LERRD REQUIREMENTS AND BASELINE COST ESTIMATE FOR REAL ESTATE

The recommended estates and acreage is summarized below:

Summary of Recommended Estates				
ID	Ecosystem Restoration Site Name	Standard Estates	Acres	Non-Standard Estates
R04	Mt. Pleasant Wet Prairie	Fee	724.00	None
K09	Somers Marsh	Fee	628.00	None
K33	Paris Wet Prairie	Fee	2134.00	None
K47	Bristol Marsh	Fee	1619.00	None
K41	Dutch Gap Forested Floodplain	Fee	689.00	None
L41	Dutch Gap Aquatic Complex	Fee	673.00	None
L43	Red Wing Slough and Deer Lake Wetland Complex	Fee	1653.00	None
L39	Pollack Lake and Hastings Creek Riparian Wetlands	Fee	439.00	None
L33	Mill Creek Riparian Woodland	Fee	434.00	None
L31	Gurnee Woods Riparian Wetland	Fee	697.00	None
L05	Granger Woods Floodplain Forest	Fee	381.50	None
C09	North Brook Marsh	Fee	815.00	None
	Dam #1 Removal	Temp. Work Area	0.56	None
	Dam #2 Removal	Temp. Work Area	0.88	None
C15	Beck Lake Meadow	Fee	1007.00	None
	Dempster Ave Dam Removal	Temp. Work Area	0.66	None
	Touhy Ave Dam Removal	Temp. Work Area	1.04	None
	Dam #4 Removal	Temp. Work Area	0.58	None
		Total ER	11,897.22	
ID	Flood Risk Management Site Name	Standard Estates	Acres	Non-Standard Estates
ACRS08	Aptakisic Creek Reservoir	Fee	93.1	None
		Utility Easement	0.8	
		Temp. Work Area	1.7	
DPLV09	Ashland Fargo Levee	Levee Easement	8.56	None
		Temp. Work Area	3.42	
DPLV01	Groveland Ave Levee	Levee Easement	2.4	None
		Temp. Work Area	1	
DPLV04	Fifth-CN Levee	Levee Easement	7.05	None
		Temp. Work Area	4.33	
DPLV05	Belmont-Irving Park Levee	Levee Easement	8.24	None
		Temp. Work Area	5.64	
FPCI01	Lake Mary Anne Pump Station	Fee	0.2	None
		Utility Easement	1.44	
		Temp. Work Area	1.25	
DPBM04	First Avenue Bridge Modification	Road Easement	8.7	None
		Temp. Work Area	2.3	
	Cook County Non-Structural - NED Plan (Elevation, Floodproofing, Ring Levees)	Standard Non-Structural	NA	None
	Lake County Non-Structural - NED Plan (Elevation, Floodproofing, Ring Levees)	Standard Non-Structural	NA	None
	Kenosha County Non-Structural - NED Plan (Elevation, Floodproofing, Ring Levees)	Standard Non-Structural	NA	None
		Total FRM	150.13	

Properties in Cook and Lake counties have been estimated based on previous reports and experience working with the Lake County Forest Preserve District and Forest Preserve District of Cook County. The majority of the proposed ecosystem restoration lands are in public ownership, are heavily restricted by zoning or other institutional controls. The remaining Ecosystem Restoration lands in Kenosha and Racine counties are large tracts currently in private ownership primarily for farming use. For FRM features a combination of levees, reservoirs, and structure modifications are being proposed. A summary of project sites as a percentage of land value to construction costs is detailed in the below chart:

LERRD Cost as % of Construction Costs Summary								
ID	Site Name	Purpose	Plan	County	Construction	Utility Cost	Total Construction & Utilities (\$1,000)	% LERRD
R04	Mt. Pleasant Wet Prairie	ER	NED/NER	Racine		\$ -		117%
K09	Somers Marsh	ER	NED/NER	Kenosha		\$ -		108%
K33	Paris Wet Prairie	ER	NED/NER	Kenosha		\$ -		122%
K47	Bristol Marsh	ER	NED/NER	Kenosha		\$ -		90%
K41	Dutch Gap Forested Floodplain	ER	NED/NER	Kenosha		\$ -		92%
L41	Dutch Gap Aquatic Complex	ER	NED/NER	Lake		\$ -		260%
L43	Red Wing Slough and Deer Lake Wetland Complex	ER	NED/NER	Lake		\$ -		175%
L39	Pollack Lake and Hastings Creek Riparian Wetlands	ER	NED/NER	Lake		\$ -		76%
L33	Mill Creek Riparian Woodland	ER	NED/NER	Lake		\$ -		159%
L31	Gurnee Woods Riparian Wetland	ER	NED/NER	Lake		\$ -		69%
L05	Granger Woods Floodplain Forest	ER	CAP	Lake		\$ -		134%
C09	North Brook Marsh	ER	NED/NER	Cook		\$ -		151%
	Dam #1 Removal	ER	CAP	Cook		\$ -		1%
	Dam #2 Removal	ER	CAP	Cook		\$ -		1%
C15	Beck Lake Meadow	ER	NED/NER	Cook		\$ -		215%
	Dempster Ave Dam Removal	ER	CAP	Cook		\$ -		2%
	Touhy Ave Dam Removal	ER	CAP	Cook		\$ -		1%
	Dam #4 Removal	ER	CAP	Cook		\$ -		1%
ACRS08	Aptakistic Creek Reservoir	FRM	NED/NER	Lake				63%
DPLV09	Ashland Fargo Levee	FRM	NED/NER	Cook				15%
DPLV04	Fifth-CN Levee	FRM	NED/NER	Cook				8%
DPLV05	Belmont-Irving Park Levee	FRM	NED/NER	Cook				9%
DPLV01	Groveland Ave Levee	FRM	NED/NER	Cook				15%
FPCI01	Lake Mary Anne Pump Station	FRM	Full	Cook				14%
DPBM04	First Avenue Bridge Modification	FRM	Full	Cook				5%
	Non-Structural - NED Plan (Elevation, Floodproofing, Ring Levees)	FRM	NED/NER	varies	\$ -	\$ -	\$ -	

A risk-based approach to prioritizing additional real estate LERRD value estimates has been utilized. Based on previous analyses of similar ecosystem restoration projects and the relative similarities in farmland values in Racine and Kenosha Counties the ER sites are lowest priority. Additional focus has been placed on sites that consist of FRM projects where land is of a high percentage compared to construction costs. Aptakistic Creek Reservoir, Ashland Fargo Levee, Fifth-CN Levee, and Belmont-Irving Park Levee were selected for further analysis.

Administration cost for the proposed project alternatives was determined using historical costs for labor, title, survey and mapping, legal, negotiations, closings, and miscellaneous costs. Final administration cost could exceed these estimates, but all fair and reasonable real estate administration costs are creditable to the NFS.

The Non-federal Sponsor (NFS) will certify or acquire the real estate interest in lands

required for the project. In order for the current design to be constructed, all property interests acquired in support of the proposed project must take priority over any third party interests that could defeat or impair the NFS' title to the property or interfere with construction, operation and maintenance of the project. The NFS will be notified in writing about the risks associated with procuring real estate interest in properties prior to execution of the Project Partnership Agreement (PPA). The Government's formal notice to proceed with acquisition will be generated for outstanding parcels once the PPA is fully executed.

The total LERRD costs are summarized on the table below.

LERRD Estimate Summary										
ID	Ecosystem Restoration Site Name	Purpose	Plan	County	Land	Improvements	Incremental Cost	Total	Rounded	Admin
R04	Mt. Pleasant Wet Prairie	ER	NED/NER	Racine		NA	NA			
K09	Somers Marsh	ER	NED/NER	Kenosha		NA	NA			
K33	Paris Wet Prairie	ER	NED/NER	Kenosha		NA	NA			
K47	Bristol Marsh	ER	NED/NER	Kenosha		NA	NA			
K41	Dutch Gap Forested Floodplain	ER	NED/NER	Kenosha		NA	NA			
L41	Dutch Gap Aquatic Complex	ER	NED/NER	Lake		NA	NA			
L43	Red Wing Slough and Deer Lake Wetland Complex	ER	NED/NER	Lake		NA	NA			
L39	Pollack Lake and Hastings Creek Riparian Wetlands	ER	NED/NER	Lake		NA	NA			
L33	Mill Creek Riparian Woodland	ER	NED/NER	Lake		NA	NA			
L31	Gumee Woods Riparian Wetland	ER	NED/NER	Lake		NA	NA			
L05	Granger Woods Floodplain Forest	ER	CAP	Lake		NA	NA			
C09	North Brook Marsh	ER	NED/NER	Cook		NA	NA			
	Dam #1 Removal	ER	CAP	Cook		NA	NA			
	Dam #2 Removal	ER	CAP	Cook		NA	NA			
C15	Beck Lake Meadow	ER	NED/NER	Cook		NA	NA			
	Dempster Ave Dam Removal	ER	CAP	Cook		NA	NA			
	Touhy Ave Dam Removal	ER	CAP	Cook		NA	NA			
	Dam #4 Removal	ER	CAP	Cook		NA	NA			
								Total Eco		
ID	Flood Risk Management Site Name	Purpose	Plan	County	Land	Improvements	Incremental Cost	Total	Rounded	Admin
ACRS08	Aptakisic Creek Reservoir	FRM	NED/NER	Lake		NA	1.10			
DPLV09	Ashland Fargo Levee	FRM	NED/NER	Cook			1.30			
DPLV04	Fifth-CN Levee	FRM	NED/NER	Cook		NA	1.10			
DPLV05	Belmont-Irving Park Levee	FRM	NED/NER	Cook		NA	1.10			
DPLV01	Groveland Ave Levee	FRM	CAP	Cook		NA	NA			
FPCI01	Lake Mary Anne Pump Station	FRM	Full	Cook		NA	NA			
DPBM04	First Avenue Bridge Modification	FRM	Full	Cook		NA	NA			
	Non-Structural - NED Plan (Elevation, Floodproofing, Ring Levees, Buyouts)	FRM	NED/NER	Cook, Lake, Kenosha	TBD	TBD	NA			
								Total FRM		
								Total Project		

The following sections provide a site specific analysis for LERRD requirements and associated costs for the FRM Features and the ER Features. The analysis includes information concerning parcel ownership, estate requirements, acreages, LERRD costs, and potential real estate negotiation issues.

FRM SITES

The Flood Risk Management (FRM) Plan identifies Levees, Reservoirs, Road Raises, and Structure Modifications, and Non-Structural Measures. The proposed FRM sites will be analyzed to determine the required LERRD, baseline cost estimate, and any real estate issues that could adversely affect implementation of the proposed project alternative.

ACRS08 – Aptakisic Creek, Lake County, IL

The proposed Aptakisic Creek Reservoir is located at the northeast corner of Aptakisic and Buffalo Grove in Buffalo Grove, Lake County, IL. (See ACRS08 Real Estate Map) The identified project area is approximately 93.1 acres. The reservoir is intended to protect commercial and residential structures and prevent roadway flooding. The project includes building two pipelines to assist in drainage. The project location is currently agricultural and located in an unincorporated section of Buffalo Grove. There are 10 parcels within this project site totaling 93.10 acres fee, 0.80 acre utility/pipeline easement, and 1.70 acres for temporary access and staging.

FPCI01 – Lake Mary Anne Pump Station, Maine, IL

The proposed project will link Lake Mary Anne to Dude Ranch Pond. The proposed connection will be underneath W Golf Road. (See FPCI01 Real Estate Map) One of the current property owners has expressed concerns about the project and may not be a willing participant. This should be considered at the time the PPA is signed because the NFS may have to condemn the required estate. The required estates for this project site include 0.02 acres of fee simple, 1.44 acres for utility/pipeline easement, and 1.25 acres for temporary access and staging.

Baseline Cost Estimate for Lands, Easements, Rights-of-way, Relocations, and Disposal Area

For valuation purposes, the analysis was based on valuing the following estates to determine the Sponsor's estimated LERRD credit. Those estates include Fee Simple, Utility/Pipeline Easement, and Temporary Work Area Easement. The per acre value for lands included in the project footprint is \$ [REDACTED]. This per acre value was used to determine the value of the required fee simple estate. The total value of the fee simple estate for the project footprint is \$ [REDACTED]. The value of the utility easement for this project footprint is \$ [REDACTED]. The value of the temporary estates for the project footprint is \$ [REDACTED].

DPLV09 – Ashland-Fargo Levee

Based upon analysis of available information and reporting within parameters for cost-estimate level of effort, the indicated Cost Estimate for project lands is: \$ [REDACTED]R which can be broken down as \$ [REDACTED] per acre for the 8.56 acres being acquired. The project total was increased by a 30% incremental cost (formerly contingencies) for unknown cost incurred for a total of \$1,500,000.00.

DPLV04 – Fifth-CN Levee

Based upon analysis of available information and reporting within parameters for cost-estimate level of effort, the indicated Cost Estimate for project lands is: \$ [REDACTED] which can be broken down as \$ [REDACTED] per acre for the forest preserve lands being acquired, and considering \$ [REDACTED] per acre for the commercial lands affected by the project. The project total was increased by a 10% incremental cost (formerly contingencies) for unknown cost incurred for a total of \$ [REDACTED].

DPLB05 – Belmont – Irving Park Levee

Based upon analysis of available information and reporting within parameters for cost-estimate level of effort, the indicated Cost Estimate for project lands is: \$ [REDACTED] which can be broken down as \$ [REDACTED] per acre for the forest preserve lands being acquired, and considering \$ [REDACTED] per acre for the commercial lands affected by the project.

DPLV01 – Groveland Ave Levee, Riverside, Cook County, IL

The proposed tie-back will be located along the east side of the Des Plaines River between Forest Ave and existing railroad tracks. (See DPLV01 Real Estate Map) The tie-back levee is an extension of an existing levee. The project will impact approximately 10 single family homes. There are 9 parcels within this project site totaling 2.40 acres for a perpetual levee easement and 1.0 acres for temporary access and staging.

DPBM04 – First Avenue Bridge Modification, Melrose Park, Cook County, IL

The proposed project will raise the First Avenue Bridge in Melrose Park. The bridge currently floods at the 2-year event and will be raised to the 500-year event level. (See DPBM04 Real Estate Map) The project is located near the intersection of Des Plaines River Road and 1st Avenue. A temporary work and storage area has been identified on the west side of 1st Avenue on vacant land. The bridge and road raising construction will be performed within the Des Plaines River Road and 1st Avenue public Right of Way. The required estates include 8.70 acres for a permanent road easement and 2.30 acres for temporary access and staging.

ER SITES

The Ecosystem Restoration (ER) Plan identifies Ecosystem Restoration opportunities within the Des Plaines River Basin. The proposed ER sites will be analyzed to determine the required LERRD, baseline cost estimate, and any real estate issues that could adversely affect implementation of the proposed project alternative. Ecosystem Restoration Projects require a fee

simple estate for permanent project features.

R04 – Mt. Pleasant Wet Prairie, Sturtevant, WI

The proposed ecosystem restoration consists of hydraulic restoration and riverine restoration within currently productive farmland in Racine County, WI. (See R04 Real Estate Map) The area is bounded by Braun Road to the north, County Line Road to the south, I-94 to the west, and County Road H to the east. The entire restoration area covers 724 acres. Fee Simple ownership is required for all parcels in the project footprint.

For valuation purposes, the analysis was based on valuing the following estates to determine the Sponsor's estimated LERRD credit. Those estates include Fee Simple.

The per acre value for lands included in the project footprint is \$ [REDACTED]. This per acre value was used to determine the value of the required fee simple estate. The total value of the permanent estates for the project footprint is \$ [REDACTED].

The administrative cost is estimated to be \$ [REDACTED] because negotiations with landowners could be extensive. The landowners may be unwilling to sell anything but the entire parcel for purposes of this project because the remaining parcel may have very little value. Negotiation time should be considered in developing the final project schedule.

Values in the Baseline Cost Estimate are estimates and not a final LERRD value for crediting purposes. The LERRD Credit for both permanent and temporary estates is \$ [REDACTED]. The total LERRD Credit including administrative costs is \$ [REDACTED].

K09 – Somers Marsh, Kenosha County, WI

The proposed ecosystem restoration consists of hydraulic restoration, riverine restoration, and plant community restoration within currently productive farmland in Kenosha County. (See K09 Real Estate Map) The area is bounded by County Line Road to the north, County Highway A to the south, I-94 to the west, and 100th Ave to the east. The entire restoration area covers 23 property owners and 628 acres. Fee Simple ownership is required for all parcels in the project footprint.

Baseline Cost Estimate for Lands, Easements, Rights-of-way, Relocations, and Disposal Area

For valuation purposes, the analysis was based on valuing the following estates to determine the Sponsor's estimated LERRD credit. Those estates include Fee Simple.

The per acre value for lands included in the project footprint is \$ [REDACTED]. This per acre value was used to determine the value of the required fee simple estate. The total value of the permanent estates for the project footprint is \$ [REDACTED].

The landowners may be unwilling to sell anything but the entire parcel for purposes of this project because the remaining parcel may have very little value. Negotiation time should be

considered in developing the final project schedule.

Values in the Baseline Cost Estimate are estimates and not a final LERRD value for crediting purposes. The LERRD Credit for both permanent and temporary estates is \$ [REDACTED]. The administrative cost estimate for the NFS is estimated at \$ [REDACTED]. The total LERRD Credit including administrative costs is \$ [REDACTED].

K33 – Paris Wet Prairie, Union Grove, WI

The proposed ecosystem restoration consists of hydraulic restoration, riverine restoration, and plant community restoration within currently productive farmland in Kenosha County. (See K33 Real Estate Map) The area is bounded by County Line Road to the north, Burlington Road to the south, 200th Ave to the west, and 180th Ave to the east. The entire restoration area covers 59 property owners and 2,134 acres. The Great Lakes Dragaway is located in the center of the restoration area. Fee Simple ownership is required for all parcels in the project footprint.

Baseline Cost Estimate for Lands, Easements, Rights-of-way, Relocations, and Disposal Area

For valuation purposes, the analysis was based on valuing the following estates to determine the Sponsor's estimated LERRD credit. Those estates include Fee Simple.

The per acre value for lands included in the project footprint is \$ [REDACTED]. This per acre value was used to determine the value of the required fee simple estate. The total value of the permanent estates for the project footprint is \$ [REDACTED].

The landowners may be unwilling to sell anything but the entire parcel for purposes of this project because the remaining parcel may have very little value. Negotiation time should be considered in developing the final project schedule.

Values in the Baseline Cost Estimate are estimates and not a final LERRD value for crediting purposes. The LERRD Credit for both permanent and temporary estates is \$ [REDACTED]. The administrative cost estimate for the NFS is estimated at \$ [REDACTED]. The total LERRD Credit including administrative costs is \$ [REDACTED].

K41 – Dutch Gap, Pikeville, WI

The proposed ecosystem restoration consists of hydraulic restoration, riverine restoration, and plant community restoration within currently productive farmland in Kenosha County. (See K41 Real Estate Map) The area is bounded by Horton Road to the north, W State Line Road to the south, 200th Ave to the west, and 152nd Ave to the east. The entire restoration area covers 689 acres. The proposed restoration area is located at the Wisconsin-Illinois border. Fee Simple ownership is required for all parcels in the project footprint.

Baseline Cost Estimate for Lands, Easements, Rights-of-way, Relocations, and Disposal Area

For valuation purposes, the analysis was based on valuing the following estates to determine the

Sponsor's estimated LERRD credit. Those estates include Fee Simple.

The per acre value for lands included in the project footprint is \$ [REDACTED]. This per acre value was used to determine the value of the required fee simple estate. The total value of the permanent estates for the project footprint is \$ [REDACTED].

The landowners may be unwilling to sell anything but the entire parcel for purposes of this project because the remaining parcel may have very little value. Negotiation time should be considered in developing the final project schedule.

Values in the Baseline Cost Estimate are estimates and not a final LERRD value for crediting purposes. The LERRD Credit for both permanent and temporary estates is \$ [REDACTED]. The administrative cost estimate for the NFS is estimated at \$ [REDACTED]. The Federal LERRD administrative cost was estimated at \$ [REDACTED]. The total LERRD Credit including administrative costs is \$ [REDACTED].

K47 – Bristol Marsh, Bristol, WI

The proposed ecosystem restoration consists of hydraulic restoration, riverine restoration, and plant community restoration within currently productive farmland in Kenosha County. (See K47 Real Estate Map) The area is bounded by Wilmot Road to the north, Winfield Road to the south, 200th Ave to the west, and 160th Ave to the east. The entire restoration area covers 42 property owners and 1,619 acres. Within the proposed restoration area are several productive farms, dense woodlands, Winfield Airport and Dutch Gap Airstrip. Fee Simple ownership is required for all parcels in the project footprint.

Baseline Cost Estimate for Lands, Easements, Rights-of-way, Relocations, and Disposal Area

For valuation purposes, the analysis was based on valuing the following estates to determine the Sponsor's estimated LERRD credit. Those estates include Fee Simple.

The per acre value for lands included in the project footprint is \$ [REDACTED]. This per acre value was used to determine the value of the required fee simple estate. The total value of the permanent estates for the project footprint is \$ [REDACTED].

The administrative cost is estimated to be \$ [REDACTED] because negotiations with landowners could be extensive. The landowners may be unwilling to sell anything but the entire parcel for purposes of this project because the remaining parcel may have very little value. Negotiation time should be considered in developing the final project schedule.

Values in the Baseline Cost Estimate are estimates and not a final LERRD value for crediting purposes. The LERRD Credit for both permanent and temporary estates is \$ [REDACTED]. The administrative cost estimate for the NFS is estimated at \$ [REDACTED]. The total LERRD Credit including administrative costs is \$ [REDACTED].

L41 – Dutch Gap Aquatic Complex, Antioch, IL

The proposed ecosystem restoration consists of hydraulic restoration, riverine restoration, and plant community restoration within currently productive farmland in Lake County at the Wisconsin-Illinois border. (See L41 Real Estate Map) The area is bounded by State Line Road to the north, Edwards Road to the south, Hwy 45 to the west, and Crawford Rd to the east. The entire restoration area covers 673 acres. Fee Simple ownership is required for all parcels in the project footprint.

Baseline Cost Estimate for Lands, Easements, Rights-of-way, Relocations, and Disposal Area

For valuation purposes, the analysis was based on valuing the following estates to determine the Sponsor's estimated LERRD credit. Those estates include Fee Simple.

The per acre value for lands included in the project footprint is \$[REDACTED]. This per acre value was used to determine the value of the required fee simple estate. The total value of the permanent estates for the project footprint is \$[REDACTED].

The administrative cost is estimated to be \$[REDACTED] because negotiations with landowners could be extensive. The landowners may be unwilling to sell anything but the entire parcel for purposes of this project because the remaining parcel may have very little value. Negotiation time should be considered in developing the final project schedule.

Values in the Baseline Cost Estimate are estimates and not a final LERRD value for crediting purposes. The LERRD Credit for both permanent and temporary estates is \$[REDACTED]. The administrative cost estimate for the NFS is estimated at \$[REDACTED]. The total LERRD Credit including administrative costs is \$[REDACTED].

L43 – Red Wing Slough and Deer Lake Wetland Complex

Red Wing Slough is within the Lake County Forest Preserve District. The estimated land cost is considered at \$[REDACTED] for 1653 acres of fee acquisition. This total value can be calculated at \$[REDACTED] per acre.

L39 – Pollack Lake and Hastings Creek Riparian Wetlands

Pollack Lake and Hastings Creek is within the Lake County Forest Preserve District. The estimated land cost is considered at \$[REDACTED] for 429 acres of fee acquisition. This total value can be calculated at \$[REDACTED] per acre.

L33 – Mill Creek Riparian Woodland

Mill Creek Riparian Woodland is within the Lake County Forest Preserve District. The estimated land cost is considered at \$[REDACTED] for 434 acres of fee acquisition. This total value can be calculated at \$[REDACTED] per acre

L31 – Gurney Woods Riparian Wetland

Gurney Woods Riparian Wetland is within the Lake County Forest Preserve District. The estimated land cost is considered at \$ [REDACTED] for 697 acres of fee acquisition. This total value can be calculated at \$ [REDACTED] per acre

L05 – Granger Woods Floodplain Forest

Granger Woods Floodplain Forest is within the Lake County Forest Preserve District. The estimated land cost is considered at \$ [REDACTED] for 381.5 acres of fee acquisition. This total value can be calculated at \$ [REDACTED] per acre

C09 – Northbrook Marsh, Wheeling, IL

The proposed ecosystem restoration consists of hydraulic compaction and plant community restoration within the Forest Preserve District of Cook County. (See C09 Real Estate Map) The area is bounded by Dundee Road to the north, Willow Road to the south, the Des Plaines River to the west, and I-294 to the east. The entire restoration area covers 815 acres. Within the restoration area is a small lake known as Lake Potawatomi. The existing Forest Preserve is heavily vegetated. Fee Simple ownership is required for all parcels in the project footprint.

Baseline Cost Estimate for Lands, Easements, Rights-of-way, Relocations, and Disposal Area

For valuation purposes, the analysis was based on valuing the following estates to determine the Sponsor's estimated LERRD credit. Those estates include Fee Simple. The Forest Preserve area has development restrictions which require valuation at a lesser value than the surrounding commercial and residential property.

The per acre value for lands included in the project footprint is \$ [REDACTED]. This per acre value was used to determine the value of the required fee simple estate. The total value of the permanent estates for the project footprint is \$ [REDACTED].

Values in the Baseline Cost Estimate are estimates and not a final LERRD value for crediting purposes. The LERRD Credit for both permanent and temporary estates is \$ [REDACTED]. The administrative cost estimate for the NFS is estimated at \$ [REDACTED]. The total LERRD Credit including administrative costs is \$ [REDACTED].

C15 – Beck Lake Meadow, Maine, IL

The proposed ecosystem restoration consists of hydraulic restoration and plant community restoration within the Forest Preserve District of Cook County. (See C15 Real Estate Map) The area is bounded by Lake to the north, Central Road to the south, the Des Plaines River to the west, and I-294 to the east. The entire restoration area covers 1,007 acres. The initial examination of parcel information shows a cemetery within the project footprint. An estimate of relocation cannot be made at this time. Removal of the parcel owned by the Catholic cemetery should be removed from the project footprint. Within the restoration area is a small lake known as Beck Lake. The existing Forest Preserve is heavily vegetated. Fee Simple ownership is required for all parcels in the project footprint.

Baseline Cost Estimate for Lands, Easements, Rights-of-way, Relocations, and Disposal Area

For valuation purposes, the analysis was based on valuing the following estates to determine the Sponsor’s estimated LERRD credit. Those estates include Fee Simple. The Forest Preserve area has development restrictions which require valuation at a lesser value than the surrounding commercial and residential property.

The per acre value for lands included in the project footprint is \$ [REDACTED]. This per acre value was used to determine the value of the required fee simple estate. The total value of the permanent estates for the project footprint is \$ [REDACTED].

Values in the Baseline Cost Estimate are estimates and not a final LERRD value for crediting purposes. The LERRD Credit for both permanent and temporary estates is \$ [REDACTED]. The administrative cost estimate for the NFS is estimated at \$ [REDACTED]. The total LERRD Credit including administrative costs is \$ [REDACTED].

Dam #1 Removal

The proposed Dam removal is located west of the intersection of Hintz Rd. and Milwaukee Ave. in Cook County, IL. (See Dam #1 Real Estate Map). Dam removals will not require any operation and maintenance; therefore all work will be performed under a temporary work easement. Lands below under ordinary high water may be subject to the jurisdiction of the Illinois Department of Natural Resources.

Baseline Cost Estimate for Lands, Easements, Rights-of-way, Relocations, and Disposal Area

For valuation purposes, the analysis was based on valuing the following estates to determine the Sponsor’s estimated LERRD credit. Those estates include Borrow Easement and Temporary Work Area Easement.

The per acre value for lands included in the project footprint is \$ [REDACTED]. The per acre values for the temporary estates were determined by calculating a two year rental value based on ±10% of the fee simple per acre value of \$ [REDACTED]. This two year rental value was used to calculate the value of the required temporary work area easements. There are three property owners that will require a temporary work area easement. The value of the temporary estates for the project footprint is \$ [REDACTED].

Values in the Baseline Cost Estimate are estimates and not a final LERRD value for crediting purposes. The LERRD Credit for both permanent and temporary estates is \$ [REDACTED]. The administrative cost estimate for the NFS is estimated at \$ [REDACTED].

Estate	Acres	Potential Land Cost	NFS LERD Admin. Costs	Total LERD (Lands+NFS costs)	Fed Costs
Temp. Work Area Dam 1	0.56	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
PROJECT TOTALS	0.56	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Dempster Ave. Dam Removal

The proposed Dam removal is located south of the Miner Street Bridge over the Des Plaines River between River Rd. and Chicago Ave. in Cook County, IL. (See Dempster Ave. Dam Real Estate Map) Dam removals will not require any operation and maintenance; therefore all work will be performed under a temporary work easement. Lands below under ordinary high water may be subject to the jurisdiction of the Illinois Department of Natural Resources.

Baseline Cost Estimate for Lands, Easements, Rights-of-way, Relocations, and Disposal Area

For valuation purposes, the analysis was based on valuing the following estates to determine the Sponsor’s estimated LERRD credit. Those estates include Borrow Easement and Temporary Work Area Easement.

The per acre values for the temporary estates were determined by calculating a two year rental value based ±10% of the fee simple per acre value of \$[REDACTED]. This two year rental value was used to calculate the value of the required temporary work area easements. There are 2 property owners requiring a temporary work area easement. The value of the temporary estates for the project footprint is \$[REDACTED].

The LERRD Credit for both permanent and temporary estates is \$[REDACTED]. The administrative cost estimate for the NFS is estimated at \$[REDACTED]. The total LERRD Credit including administrative costs is \$[REDACTED].

Estate	Acres	Potential Land Cost	NFS LERD Admin. Costs	Total LERD (Lands+NFS costs)	Fed Costs
Dempster Dam Temp. Work Area	0.66	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
PROJECT TOTALS	0.66	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Dam #2 Removal

The proposed Dam removal is located west of River Rd. in Cook County, IL. (See Dam #2 Real Estate Map). Dam removals will not require any operation and maintenance; therefore all work will be performed under a temporary work easement. Lands below under ordinary high water may be subject to the jurisdiction of the Illinois Department of Natural Resources.

Baseline Cost Estimate for Lands, Easements, Rights-of-way, Relocations, and Disposal Area

For valuation purposes, the analysis was based on valuing the following estates to determine the Sponsor’s estimated LERRD credit. The value of the temporary estates for the project footprint is \$[REDACTED].

The administrative cost estimate for the NFS is estimated at \$ [REDACTED]. The total LERRD Credit including administrative costs is \$ [REDACTED].

Estate	Acres	Potential Land Cost	NFS LERD Admin. Costs	Total LERD (Lands+NFS costs)	Fed Costs
Temp. Work Area Dam 2	0.88	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
PROJECT TOTALS		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Dam #4 Removal

The proposed Dam removal is located southeasterly along the Des Plaines River from the intersection of River Rd. and Devon Ave. in Cook County, IL. (See Dam #4 Real Estate Map). Dam removals will not require any operation and maintenance; therefore all work will be performed under a temporary work easement. Lands below under ordinary high water may be subject to the jurisdiction of the Illinois Department of Natural Resources.

Baseline Cost Estimate for Lands, Easements, Rights-of-way, Relocations, and Disposal Area

For valuation purposes, the analysis was based on valuing the following estates to determine the Sponsor’s estimated LERRD credit. Those estates include Borrow Easement and Temporary Work Area Easement.

The per acre value for lands included in the project footprint is \$ [REDACTED]. The per acre values for the temporary estates were determined by calculating a two year rental value based on ±10% of the fee simple per acre value of \$ [REDACTED]. This two year rental value was used to calculate the value of the required temporary work area easements. There are 3 property owners that require a temporary work area easement. The value of the temporary estates for the project footprint is \$ [REDACTED].

Values in the Baseline Cost Estimate are estimates and not a final LERRD value for crediting purposes. The LERRD Credit for both permanent and temporary estates is \$ [REDACTED]. The administrative cost estimate for the NFS is estimated at \$ [REDACTED].

Estate	Acres	Potential Land Cost	NFS LERD Admin. Costs	Total LERD (Lands+NFS costs)	Fed Costs
Temp. Work Area Dam 4	0.58	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
PROJECT TOTALS	0.58	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Touhy Ave. Dam Removal

The proposed Dam removal is located along the Des Plaines River between I-294 and Talcott Rd. in Cook County, IL. (See Touhy Ave. Dam Real Estate Map) Dam removals will not require any operation and maintenance; therefore all work will be performed under a temporary work

easement. Lands below under ordinary high water may be subject to the jurisdiction of the Illinois Department of Natural Resources.

Baseline Cost Estimate for Lands, Easements, Rights-of-way, Relocations, and Disposal Area

For valuation purposes, the analysis was based on valuing the following estates to determine the Sponsor’s estimated LERRD credit. Those estates include a Temporary Work Area Easement.

The per acre value for lands included in the project footprint is \$[REDACTED]. The per acre values for the temporary estates were determined by calculating a two year rental value based on ±10% of the fee simple per acre value of \$[REDACTED]. This two year rental value was used to calculate the value of the required temporary work area easements. There are four property owners that require a temporary work area easement. The value of the temporary estates for the project footprint is \$[REDACTED].

Values in the Baseline Cost Estimate are estimates and not a final LERRD value for crediting purposes. The LERRD Credit for both permanent and temporary estates is \$[REDACTED]. The administrative cost estimate for the NFS is estimated at \$[REDACTED].

Estate	Acres	Potential Land Cost	NFS LERD Admin. Costs	Total LERD (Lands+NFS costs)	Fed Costs
Touhy Avenue Dam Temp. Work Area	1.04	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
PROJECT TOTALS	1.04	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

NON-STRUCTURAL MEASURES

A detailed Non-Structural Real Estate Plan is included as Exhibit B. The plan calls for a combination of elevation, dry floodproofing, wet floodproofing, filling basements, ring levees, and full buyouts. All measures would be completely whereby the property owner enters into a contract to perform the modifications.

5. **STANDARD ESTATES**

This project will utilize standard estates as established by ER 405-1-12. Recommended estates are included in the LERRD requirements chart in Section 4. Standard Estates are included as Exhibit F.

6. **EXISTING FEDERAL LANDS AND PROJECTS**

There is no federally owned land within the work limits of this project. There are no other federal projects within the work limits of this project. Several project sites include State owned lands, and no determination has been had as to whether any of these lands were purchased using Federal funds.

7. NAVIGATION SERVITUDE

Navigational servitude does not apply to this project. None of the water-bodies involved in this Project fall within the definition of navigable waters. Jurisdiction of lands below ordinary high water is maintained by the Illinois Department of Natural Resources and the Wisconsin Department of Natural Resources.

8. PROJECT MAPS

Real Estate Maps were produced by Chicago District Design Branch. Real Estate Maps are included as Exhibit A.

9. POSSIBLE INDUCED FLOODING

Proposed projects were reviewed to determine whether any features might result in induced flooding. Ashland-Fargo Levee (DPLV09) when implemented alone, would result in stage increases that impact properties. A takings analysis of the induced damages is being finalized. The preliminary conclusion is that the minimal induced flooding caused by the proposed levee does not result in a taking of property under the 5th Amendment of the United States Constitution. If it is determined from the hydrologic models that induced flooding would occur; an appropriate flowage easement will be acquired by the NFS from affected landowners.

DPLV04 and DPLV05 have tentatively been analyzed and concluded that minimal induced flooding is caused and would likely not result in a taking of real property under the 5th Amendment. A detailed takings analysis will be provided during final feasibility phase.

10. UTILITIES AND FACILITIES RELOCATIONS

A preliminary search of impacted utilities has been conducted by Civil Design and has been based on publicly available information (Illinois JULIE). The utilities impacted are generally the type eligible for compensation under the substitute facilities doctrine. Ownership has been preliminarily identified through publicly available information. A table summarizing potential utility relocations is below. 5% of construction costs for FRM features has been estimated. There are no major utility or pipeline corridors impacted. Ecosystem Restoration projects will avoid impacts to utilities rather than perform relocations. Utility relocation costs are included as LERRD to be performed by the local sponsor.

Utility Relocation Summary						
ID	Ecosystem Restoration Site Name	Utility Summary	Likelihood of Utility Relocations	Estimated % of Costs	Attorney's Opinion of Compensability Required?	Utility Relocation Cost
R04	Mt. Pleasant Wet Prairie	None Impacted	Low	0%	No	\$ -
K09	Somers Marsh	None Impacted	Low	0%	No	\$ -
K33	Paris Wet Prairie	None Impacted	Low	0%	No	\$ -
K47	Bristol Marsh	None Impacted	Low	0%	No	\$ -
K41	Dutch Gap Forested Floodplain	None Impacted	Low	0%	No	\$ -
L41	Dutch Gap Aquatic Complex	None Impacted	Low	0%	No	\$ -
L43	Red Wing Slough and Deer Lake Wetland Complex	None Impacted	Low	0%	No	\$ -
L39	Pollack Lake and Hastings Creek Riparian Wetlands	None Impacted	Low	0%	No	\$ -
L33	Mill Creek Riparian Woodland	None Impacted	Low	0%	No	\$ -
L31	Gumee Woods Riparian Wetland	None Impacted	Low	0%	No	\$ -
L05	Granger Woods Floodplain Forest	None Impacted	Low	0%	No	\$ -
C09	North Brook Marsh	None Impacted	Low	0%	No	\$ -
	Dam #1 Removal	None Impacted	Low	0%	No	\$ -
	Dam #2 Removal	None Impacted	Low	0%	No	\$ -
C15	Beck Lake Meadow	None Impacted	Low	0%	No	\$ -
	Dempster Ave Dam Removal	None Impacted	Low	0%	No	\$ -
	Touhy Ave Dam Removal	None Impacted	Low	0%	No	\$ -
	Dam #4 Removal	None Impacted	Low	0%	No	\$ -
ID	Flood Risk Management Site Name	Utility Summary	Likelihood of Utility Relocations	Estimated % of Costs	Attorney's Opinion of Comensability Required?	Utility Relocation Cost
ACRS08	Aptakisic Creek Reservoir	High power electrical transmission lines and a 30" gas line.	High	5%	No	
DPLV09	Ashland Fargo Levee	Comed minor lines, street lights, minor residential gas, and telcom relocations likely. Could be a considerable quantity due to the urban area floodwall takes.	High	5%	No	
DPLV04	Fifth-CN Levee	Comed minor lines, street lights, minor residential gas, and telcom relocations likely. Could be a considerable quantity due to the urban area floodwall takes.	High	5%	No	
DPLV05	Belmont-Irving Park Levee	Comed minor lines, street lights, minor residential gas, and telcom relocations likely. Could be a considerable quantity due to the urban area floodwall takes.	High	5%	No	
DPLV01	Groveland Ave Levee	Street lights, small power lines	High	5%	No	
FPCI01	Lake Mary Anne Pump Station	Overhead power line (larger transmission lines) likely to be small amount of residential water/gas/etc.	Medium	5%	No	
DPBM04	First Avenue Bridge Modification	Likely sewer, water, and gas lines	High	5%	No	
	Non-Structural - NED Plan (Elevation, Floodproofing, Ring Levees)	Possible utility impacts - included as construction costs	Low	0%	No	
					Total	

11. RELOCATION ASSISTANCE BENEFITS

PL 91-646 relocation assistance benefits are not expected for FRM and ER projects. Further discussion of PL 91-646 benefits for the non-structural measures is in Exhibit B.

12. MINERAL/TIMBER ACTIVITY:

There is no mineral or timber activity in the immediate area.

13. SPONSORSHIP CAPABILITY

The proposed projects will include multiple sponsors. Each sponsor will be evaluated separately and a supplemental Sponsor Capability Checklist will become part of this Real Estate Plan. Below is a summary of proposed sponsors, their previous participation in USACE cost-shared projects, and a preliminary assessment of their capability prior to a formal Sponsor Capability Checklist.

Project Sponsors Summary					
ID	Ecosystem Restoration Site Name	Potential Sponsor(s)	Previous Partner?	Sponsor Capability Checklist Completed	Sponsor Capability
R04	Mt. Pleasant Wet Prairie	Racine County; Wisconsin Dept of Natural Resources (WDNR)	No	No	Likely Capable*
K09	Somers Marsh	Kenosha County; WDNR	No	No	Likely Capable*
K33	Paris Wet Prairie	Kenosha County; WDNR	No	No	Likely Capable*
K47	Bristol Marsh	Kenosha County; WDNR	No	No	Likely Capable*
K41	Dutch Gap Forested Floodplain	Kenosha County; WDNR	No	No	Likely Capable*
L41	Dutch Gap Aquatic Complex	Lake County Forest Preserve District (LCFPD)	Yes	No	Likely Capable
L43	Red Wing Slough and Deer Lake Wetland Complex	LCFPD	Yes	No	Likely Capable
L39	Pollack Lake and Hastings Creek Riparian Wetlands	LCFPD	Yes	No	Likely Capable
L33	Mill Creek Riparian Woodland	LCFPD	Yes	No	Likely Capable
L31	Gurnee Woods Riparian Wetland	LCFPD	Yes	No	Likely Capable
L05	Granger Woods Floodplain Forest	LCFPD	Yes	No	Likely Capable
C09	North Brook Marsh	Forest Preserve District of Cook County (FPDCC)	Yes	No	Likely Capable
	Dam #1 Removal	FPDCC; IDNR	Yes	No	Likely Capable
	Dam #2 Removal	FPDCC; IDNR	Yes	No	Likely Capable
C15	Beck Lake Meadow	FPDCC	Yes	No	Likely Capable
	Dempster Ave Dam Removal	FPDCC; IDNR	Yes	No	Likely Capable
	Touhy Ave Dam Removal	FPDCC; IDNR	Yes	No	Likely Capable
	Dam #4 Removal	FPDCC; IDNR	Yes	No	Likely Capable
ID	Flood Risk Management Site Name	Potential Sponsor	Previous Partner?	Sponsor Capability Checklist Completed	Sponsor Capability
ACRS08	Aptakisic Creek Reservoir	LCSMC; IDNR	Yes	No	Likely Capable
DPLV09	Ashland Fargo Levee	MWRDGC; IDNR	Yes	No	Likely Capable
DPLV04	Fifth-CN Levee	MWRDGC; IDNR	Yes	No	Likely Capable
DPLV05	Belmont-Irving Park Levee	MWRDGC; IDNR	Yes	No	Likely Capable
DPLV01	Groveland Ave Levee	MWRDGC; IDNR	Yes	No	Likely Capable
FPCI01	Lake Mary Anne Pump Station	MWRDGC; IDNR	Yes	No	Likely Capable
DPBM04	First Avenue Bridge Modification	Illinois Department of Transportation (IDOT); IDNR	Yes	No	Likely Capable
	Non-Structural - NED Plan (Elevation, Floodproofing, Ring Levees)	Various (to include municipalities and county agencies such as Kenosha County, LCSMC, MWRDGC)	Yes	No	Likely Capable*
*USACE acquisition on behalf of sponsor recommended					

The majority of the proposed sponsors have previously participated as cost sharing partners for USACE projects. Those that have not are local governmental agencies in Wisconsin. Due to

the land acquisition requirements of the Wisconsin Ecosystem Restoration sites it is anticipated USACE will recommend acquisition on behalf of the local sponsor if sponsor in-house capabilities are not sufficient to complete the necessary acquisitions. Further, non-structural flood proofing measures have been successfully implemented by other USACE districts on behalf of local sponsors. Due to the multiple municipalities it is likely USACE Real Estate will assist local sponsors in implementation of the non-structural FRM program.

14. ZONING ORDINANCES ENACTED

No zoning ordinances will be enacted to facilitate the proposed ecosystem restoration activities. Therefore, no takings are anticipated as a result of zoning ordinance changes. No zoning ordinances are proposed in lieu of, or to facilitate acquisition in connection with the project.

15. SCHEDULE

Real Estate Acquisition Schedule			
ID	Ecosystem Restoration Site Name	Ownership Summary	Acquisition Schedule
R04	Mt. Pleasant Wet Prairie	Private Residential	24-36 months
K09	Somers Marsh	Private Residential	24-36 months
K33	Paris Wet Prairie	Private Residential	24-36 months
K47	Bristol Marsh	Private Residential	24-36 months
K41	Dutch Gap Forested Floodplain	Private Residential	24-36 months
L41	Dutch Gap Aquatic Complex	Public - Forest Preserve District	3-6 months
L43	Red Wing Slough and Deer Lake Wetland Complex	Public - Forest Preserve District	3-6 months
L39	Pollack Lake and Hastings Creek Riparian Wetlands	Public - Forest Preserve District	3-6 months
L33	Mill Creek Riparian Woodland	Public - Forest Preserve District	3-6 months
L31	Gurnee Woods Riparian Wetland	Public - Forest Preserve District	3-6 months
L05	Granger Woods Floodplain Forest	Public - Forest Preserve District	3-6 months
C09	North Brook Marsh	Public / Private	12 - 18 months
	Dam #1 Removal	Public - Forest Preserve District	3-6 months
	Dam #2 Removal	Public - Forest Preserve District	3-6 months
C15	Beck Lake Meadow	Public / Private	12 - 18 months
	Dempster Ave Dam Removal	Public - Forest Preserve District	3-6 months
	Touhy Ave Dam Removal	Public - Forest Preserve District	3-6 months
	Dam #4 Removal	Public - Forest Preserve District	3-6 months
ID	Flood Risk Management Site Name	Ownership Summary	Acquisition Schedule
ACRS08	Aptakisic Creek Reservoir	Private Commercial	18-24 months
DPLV09	Ashland Fargo Levee	Private Residential and Commercial	24-36 months
DPLV04	Fifth-CN Levee	Commercial and Public	18-24 months
DPLV05	Belmont-Irving Park Levee	Commercial and Public	18-24 months
DPLV01	Groveland Ave Levee	Private Residential and Commercial	12-18 months
FPCI01	Lake Mary Anne Pump Station	Private Residential	3-6 months
DPBM04	First Avenue Bridge Modification	Public Right of Way	3-6 months
	Non-Structural - NED Plan (Elevation, Floodproofing, Ring Levees, Buyouts)	Private Residential and Commercial	24-36 months

16. HTRW CONSIDERATIONS:

The HTRW investigations included a preliminary screening followed by full Phase I investigations. The results of the Phase I HTRW investigations are included in Appendix H. A list of unresolved issues, short-term actions, and future project recommendations to resolve potential environmental concerns are provided in the Appendix and included in Section 9 of the Feasibility Report.

17. VIEWS OF FEDERAL, STATE, AND REGIONAL AGENCIES

The potential sponsors and project partners for this project represent major local and state agencies within the region. Support at the Local, State, and Federal levels is strong for this project.

18. VIEWS OF LOCAL RESIDENTS AND LANDOWNERS

The general views of the public at large or individual landowners are not known at this stage. As part of this feasibility study, comments will be gathered from the public and affected landowners to assess the support for the project.

19. SPONSOR NOTIFIED OF RISKS OF ADVANCED ACQUISITION:

Each sponsor will be notified of the risks of advanced acquisition following approval of the feasibility study.

20. ANY OTHER REAL ESTATE ISSUES:

There are some significant real estate acquisition challenges associated with the proposed ER projects primarily in Wisconsin. The lands are currently productive farms.

EXHIBIT A
REAL ESTATE MAPS

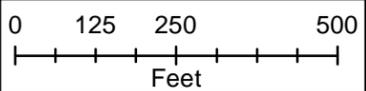
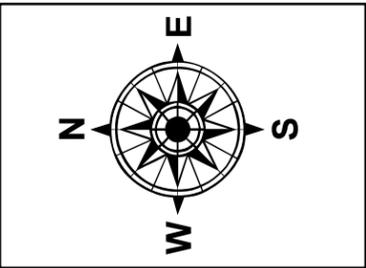


DPLV05 North Real Estate Map



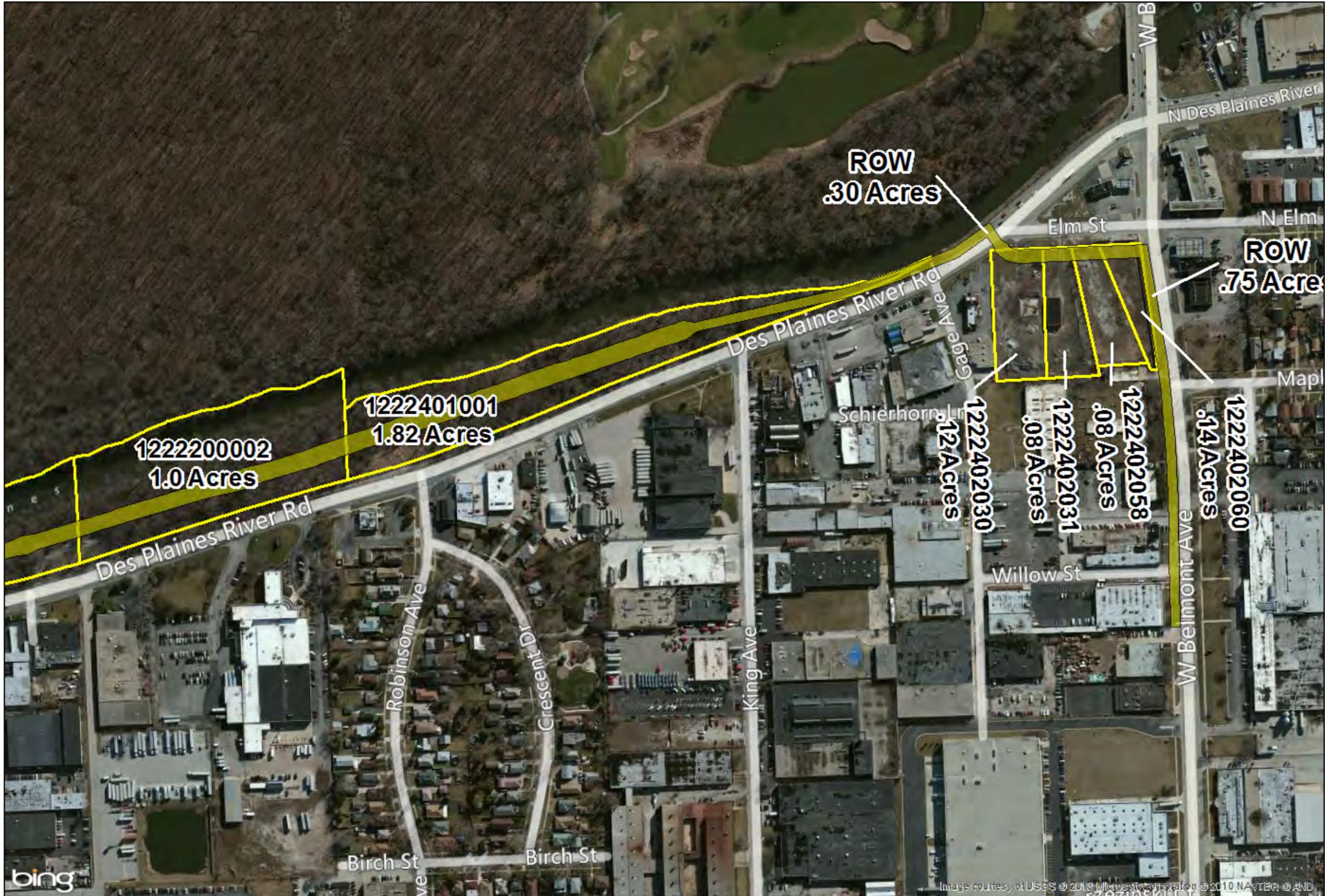
Legend

- Levee Easement
- Staging Area
- Parcel_Wdata



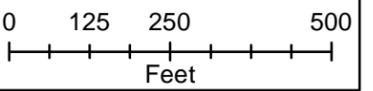
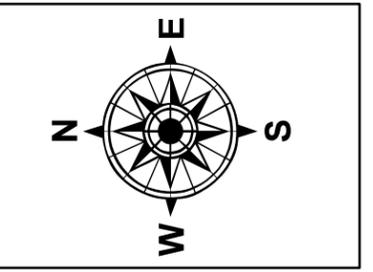


DPLV05 South Real Estate Map



Legend

- Levee Easement
- Staging Area
- Parcel_Wdata



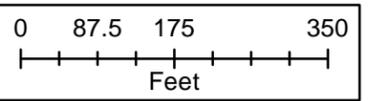
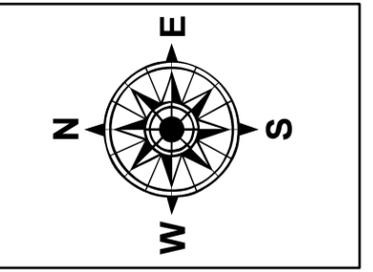


DPLV09 Segment 1 Real Estate Map



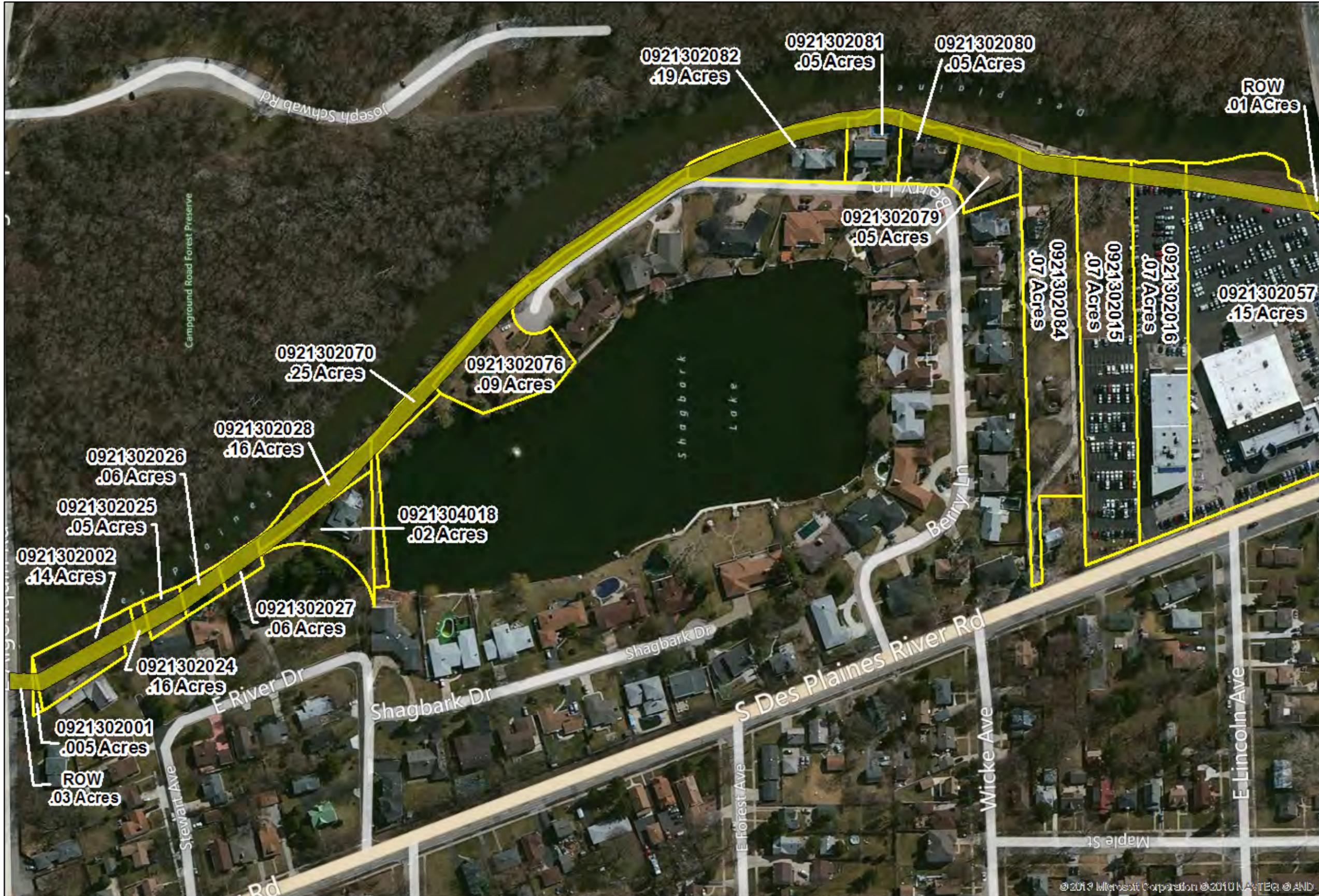
Legend

- Levee Easement
- Staging Area
- Parcels



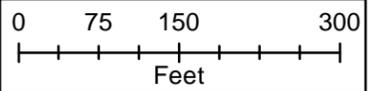
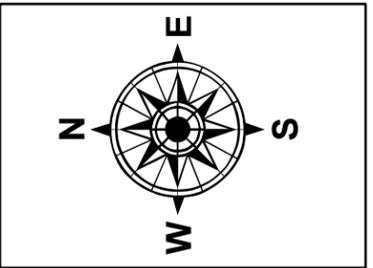


DPLV09 Segment 2 Real Estate Map



Legend

- Levee Easement
- Staging Area
- Parcels



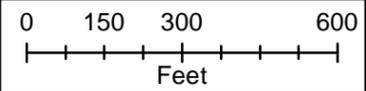
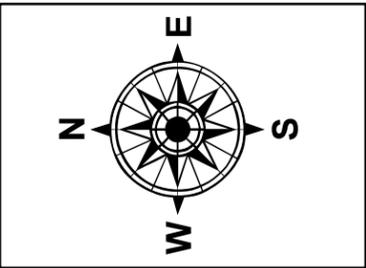


DPLV09 Segment 3 Real Estate Map



Legend

- Levee Easement
- Staging Area
- Parcels



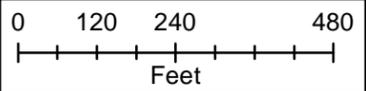
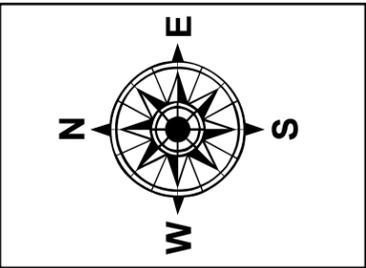


DPLV04 North Real Estate Map



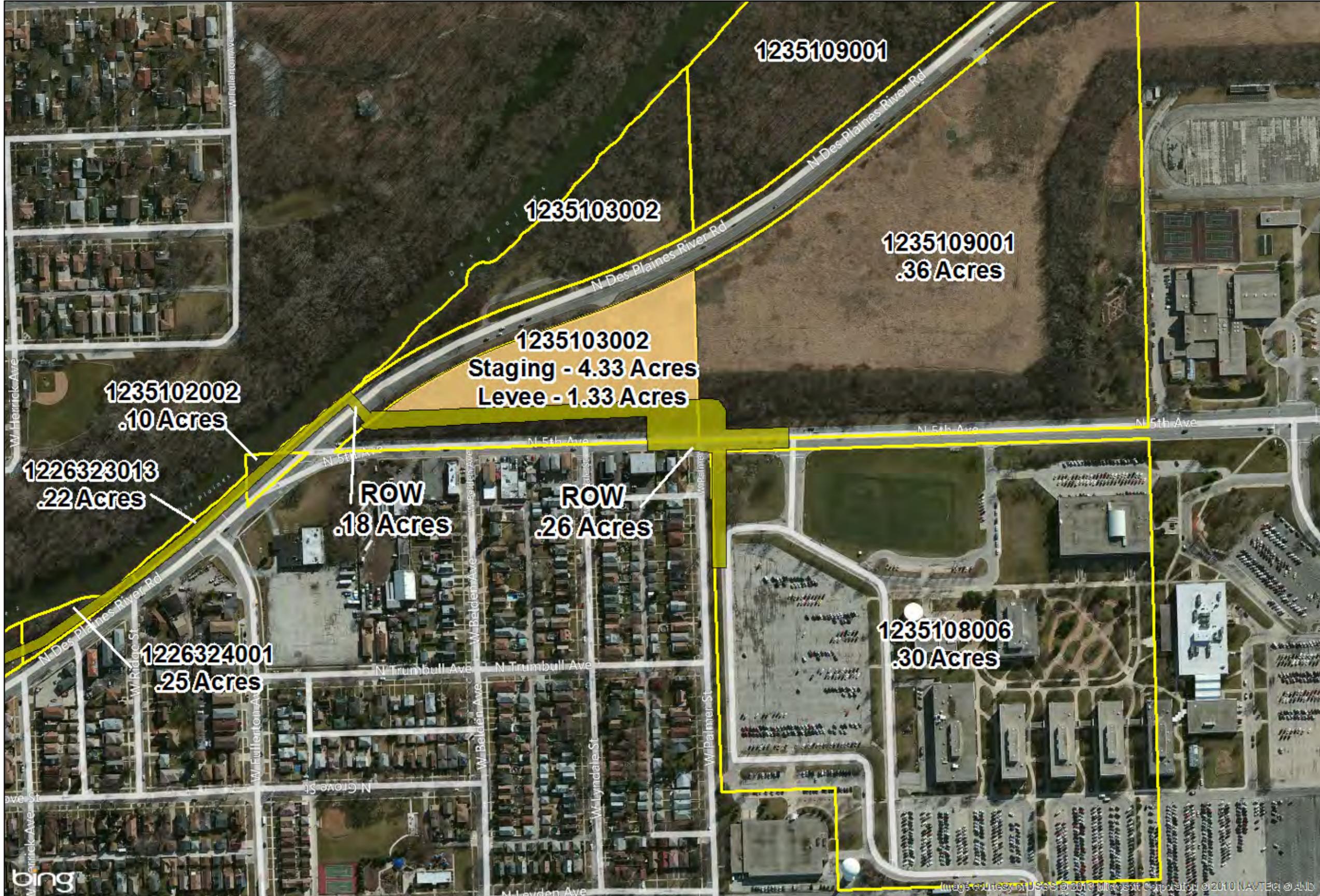
Legend

- Levee Easement
- Staging Area
- Parcel



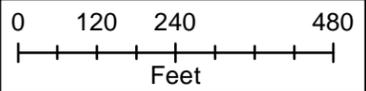
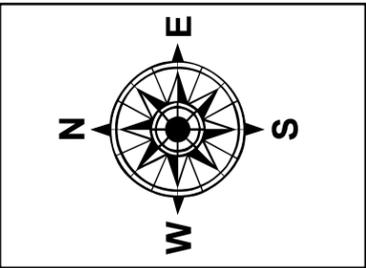


DPLV04 South Real Estate Map



Legend

- Levee Easement
- Staging Area
- Parcel





ACRS08 Real Estate Map

U.S. Army Corps
of Engineers
Chicago District



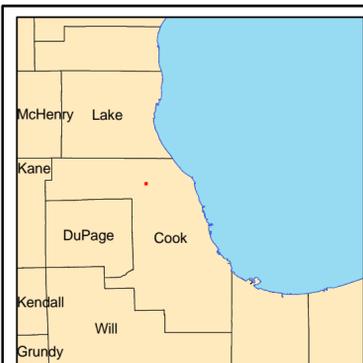
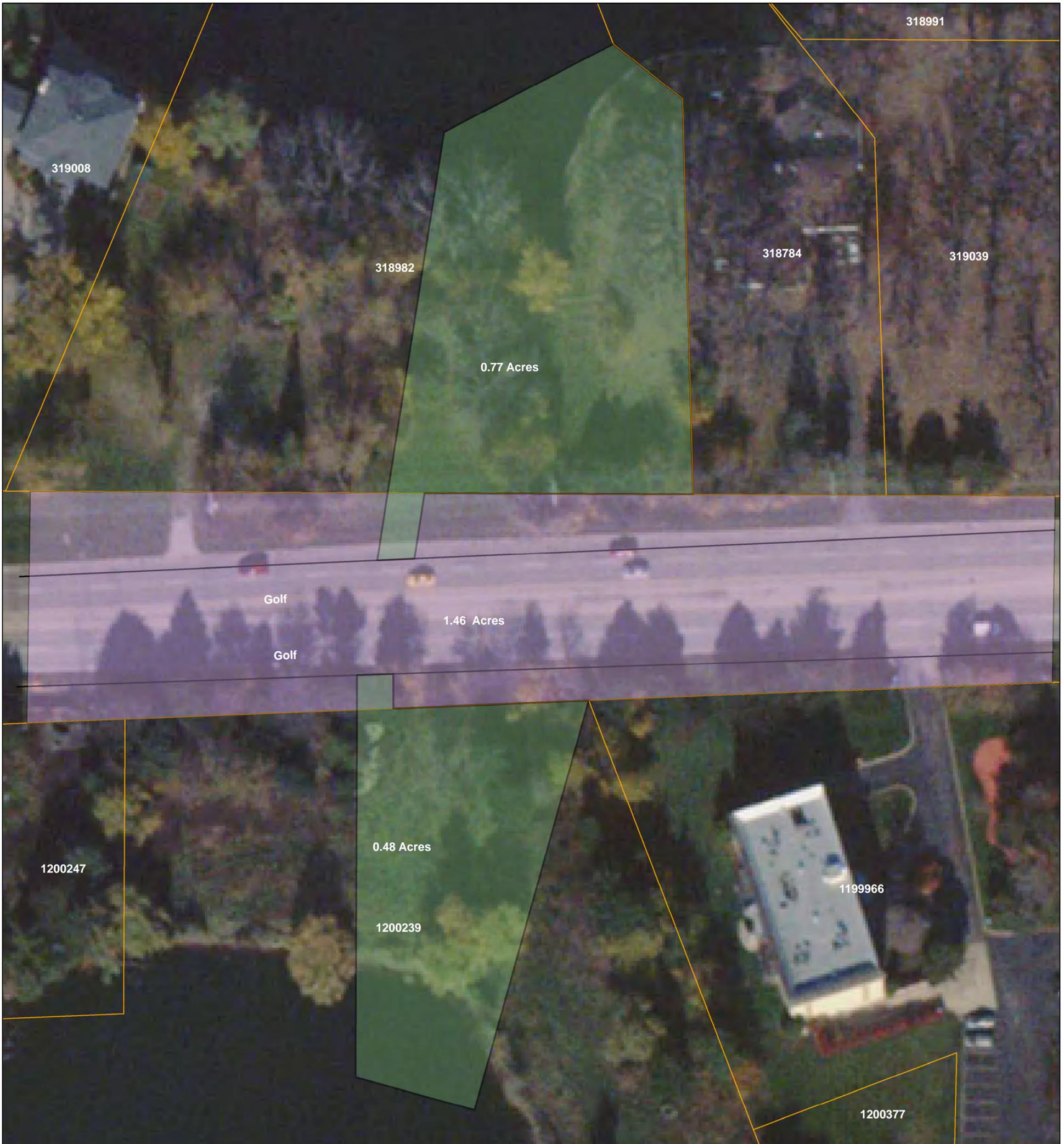
Legend

- Fee
- Pipeline Easement
- Temporary Easement
- Parcels10
- Reservoir
- Spoil Area 1
- Spoil Area 2

DISCLAIMER - While the United States Army Corps of Engineers, (hereinafter referred to USACE) has made a reasonable effort to insure the accuracy of the maps and associated data, it should be explicitly noted that USACE makes no warranty, representation or guaranty, either express or implied, as to the content, sequence, accuracy, timeliness or completeness of any of the data provided herein. The USACE, its officers, agents, employees or servants shall assume no liability for any reliance made or actions taken or not taken by the user of the maps and associated data in reliance upon any information or data furnished here. By using these maps and associated data the user does so entirely at their own risk and explicitly acknowledges that he/she is aware of and agrees to be bound by this disclaimer and agrees not to present any claim or demand of any nature against the USACE, its officers, agents, employees or servants in any form whatsoever for any damages of any nature whatsoever that may result from or may be caused in any way by the use of the maps and associated data.



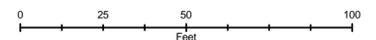
ACRS08 Reservoir



Legend

- Temporary Easement
- Road Easement
- Road Edge
- Parcels

DISCLAIMER - While the United States Army Corps of Engineers, (hereinafter referred to USACE) has made a reasonable effort to insure the accuracy of the maps and associated data, its should be explicitly noted that USACE makes no warranty, representation or guaranty, either express or implied, as to the content, sequence, accuracy, timeliness or completeness of any of the data provided herein. The USACE, its officers, agents, employees, or servants shall assume no liability of any nature for any errors, omissions, or inaccuracies in the information provided regardless of how caused. The USACE, its officers, agents, employees or servants shall assume no liability for any decisions made or actions taken or not taken by the user of the maps and associated data in reliance upon any information or data furnished here. By using these maps and associated data the user does so entirely at their own risk and explicitly acknowledges that he/she is aware of and agrees to be bound by this disclaimer and agrees not to present any claim or demand of any nature against the USACE, its officers, agents, employees or servants in any forum whatsoever for any damages of any nature whatsoever that may result from or may be caused in any way by the use of the maps and associated data.

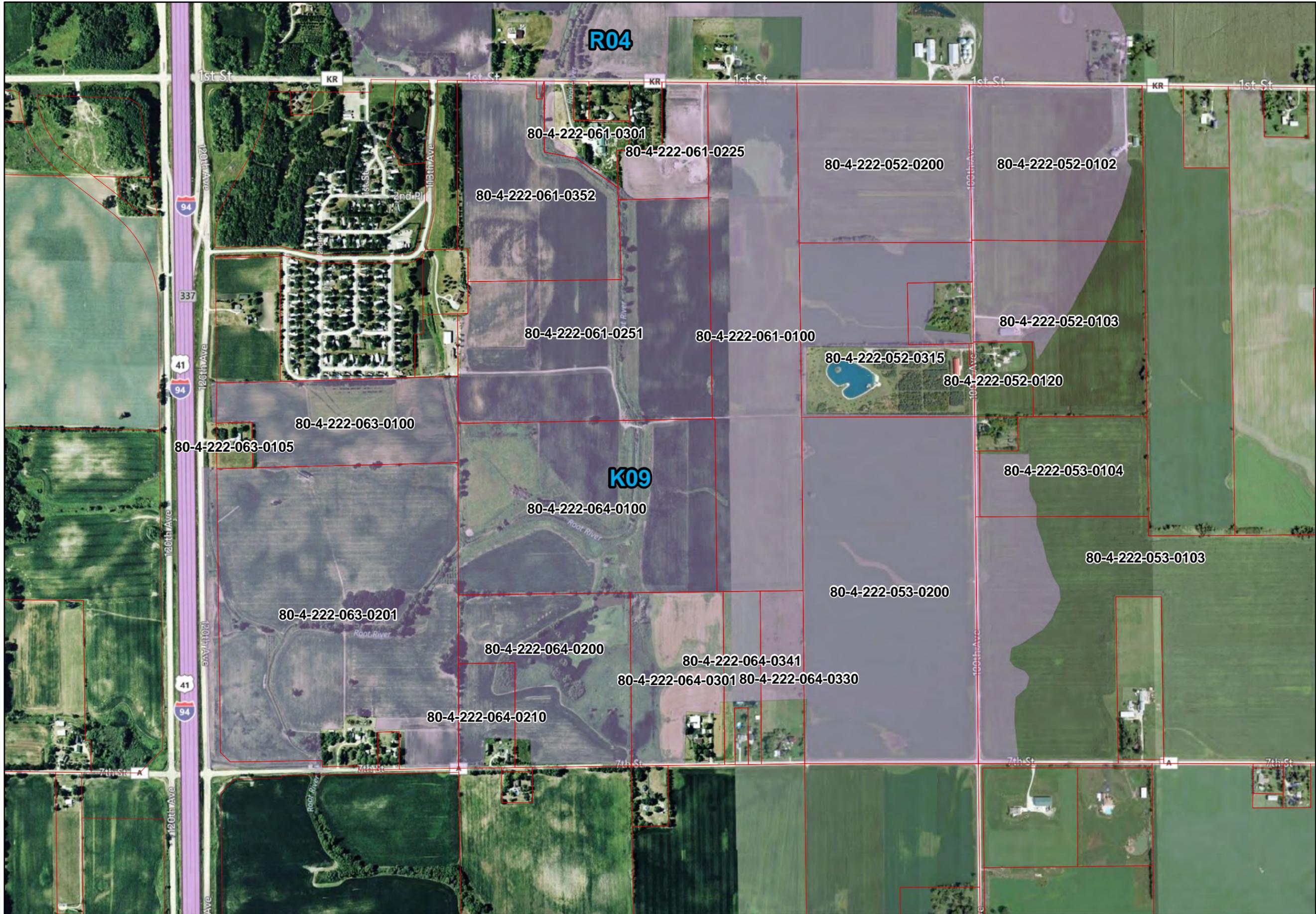


FPCI01 Road Raises & Bridge Modifications



REAL ESTATE - Des Plaines River (NER SITE K09 - SOMERS MARSH)

U.S. Army Corps
of Engineers
Chicago District



Legend

 SITE BOUNDARY



Date: 5/9/2012

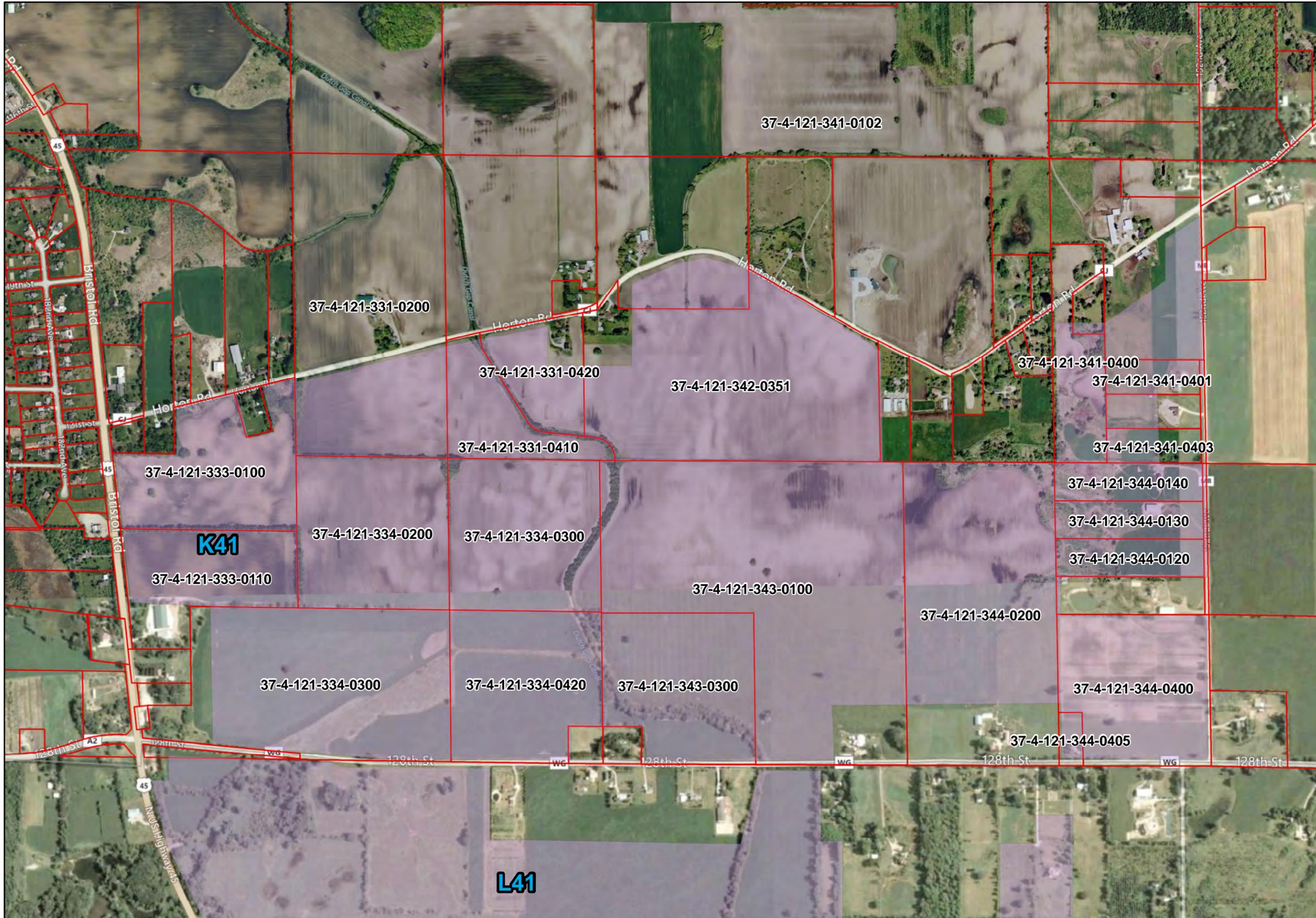


1 in = 700 ft



REAL ESTATE - Des Plaines River (NER SITE K41 - Dutch Gap Forested Floodplain)

U.S. Army Corps
of Engineers
Chicago District



Legend

 SITE BOUNDARY

Location Map



Date: 5/9/2012

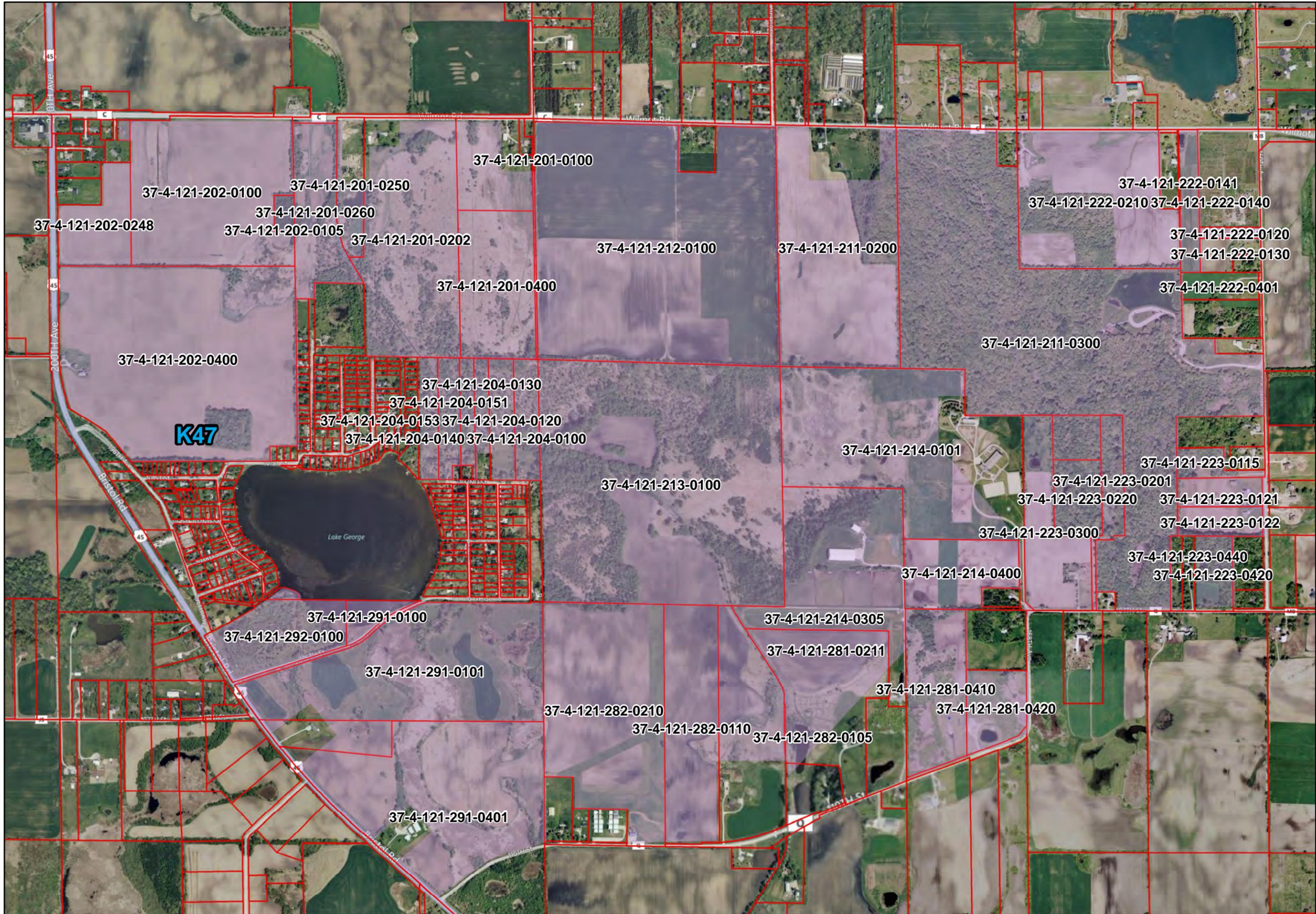


1 in = 800 ft



REAL ESTATE - Des Plaines River (NER SITE K47 - BRISTOL MARSH)

U.S. Army Corps
of Engineers
Chicago District



Legend

SITE BOUNDARY

Location Map



Date: 5/9/2012



1 in = 1,000 ft



REAL ESTATE - Des Plaines River (NER SITE R04 - Mt. Pleasant Wet Prairie)

U.S. Army Corps
of Engineers
Chicago District



Legend

SITE BOUNDARY

Location Map



Date: 5/9/2012

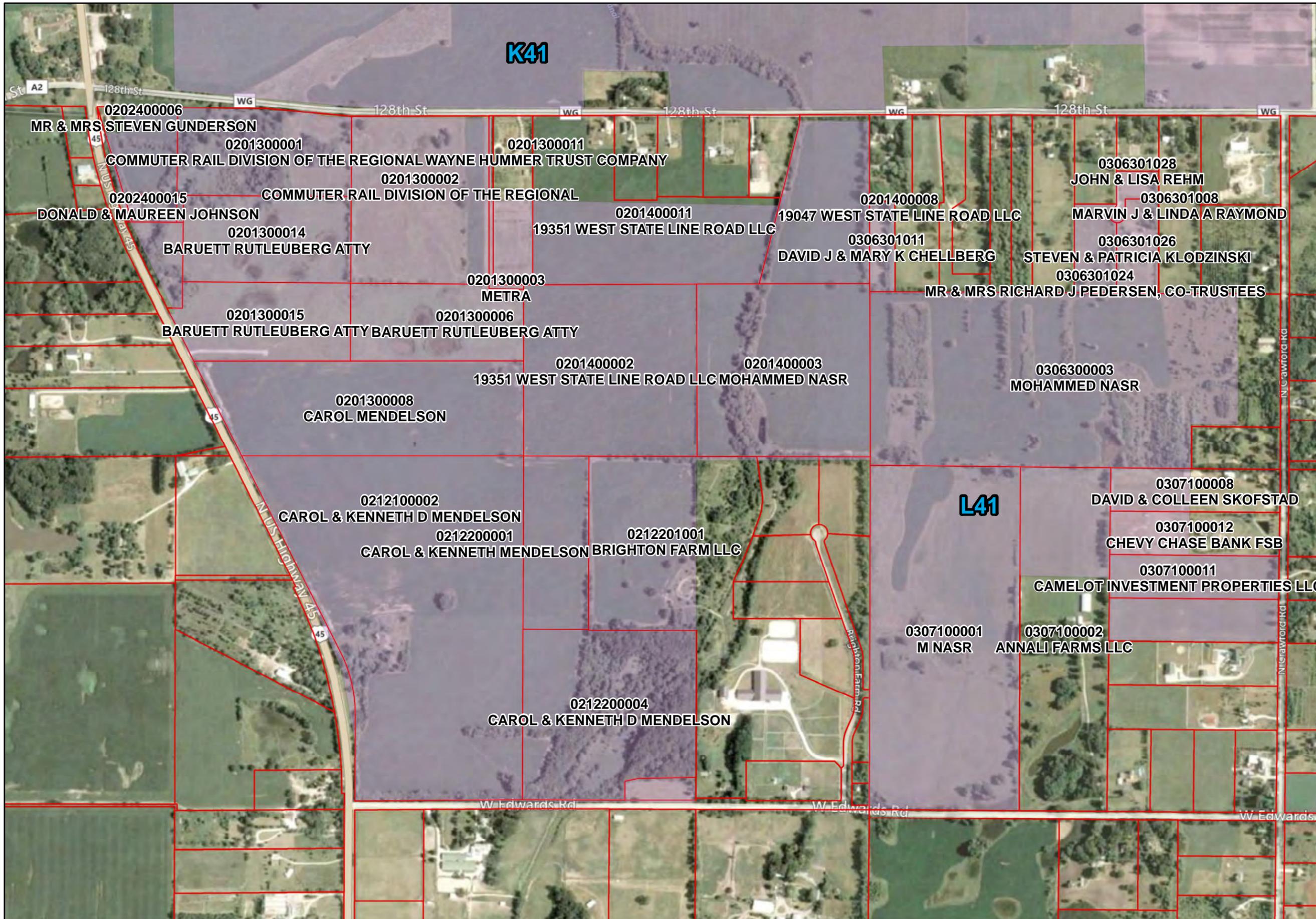


1 in = 700 ft



REAL ESTATE - Des Plaines River (NER SITE L41 - Dutch Gap Aquatic Complex)

U.S. Army Corps
of Engineers
Chicago District



Legend

SITE BOUNDARY



Date: 5/9/2012

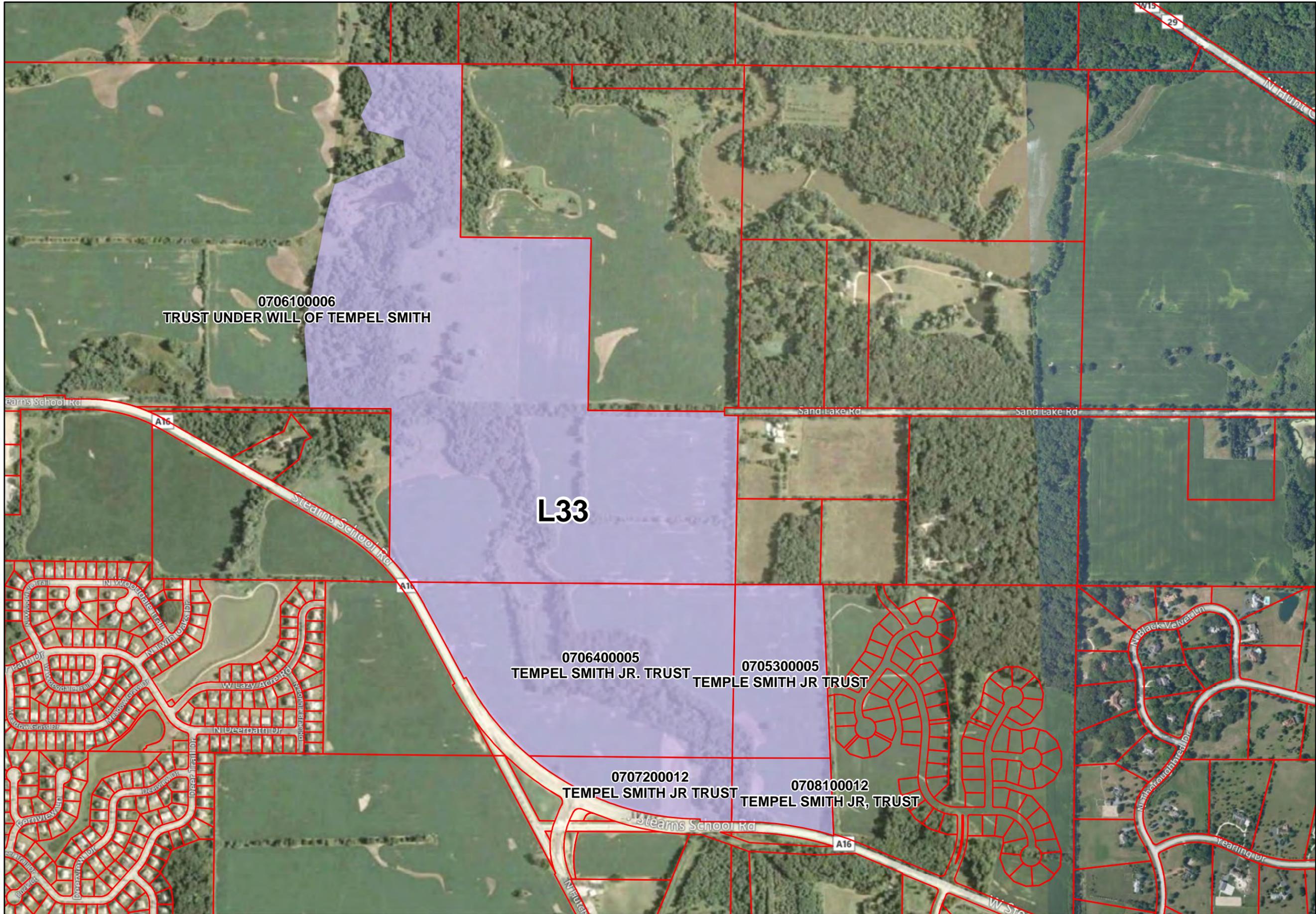


1 in = 700 ft



REAL ESTATE - Des Plaines River (NER SITE L33)

U.S. Army Corps
of Engineers
Chicago District



Legend

SITE BOUNDARY



Date: 5/10/2012

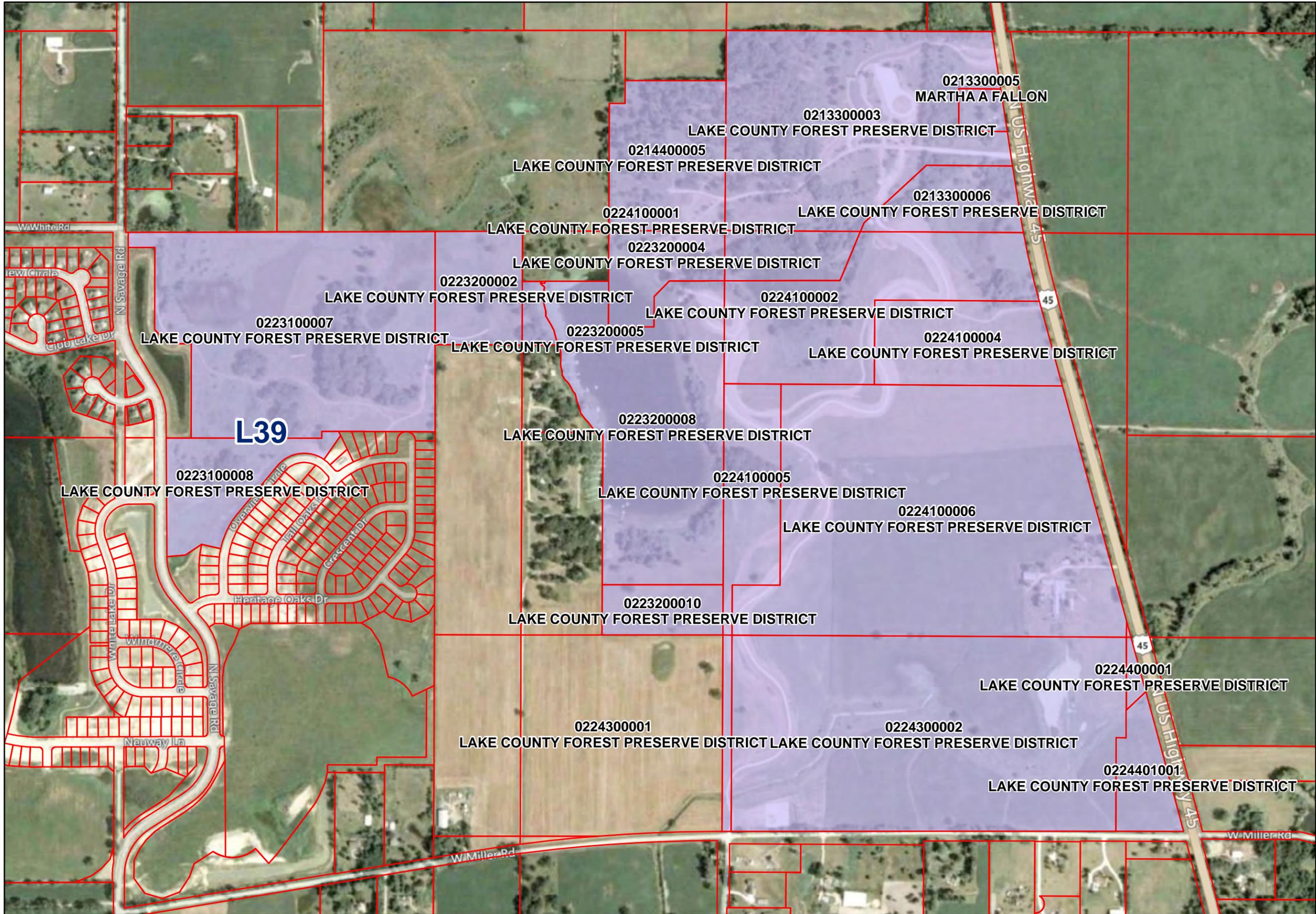


1 in = 699 ft



REAL ESTATE - Des Plaines River (NER SITE L39)

U.S. Army Corps
of Engineers
Chicago District



Legend

SITE BOUNDARY

Location Map



Date: 5/10/2012

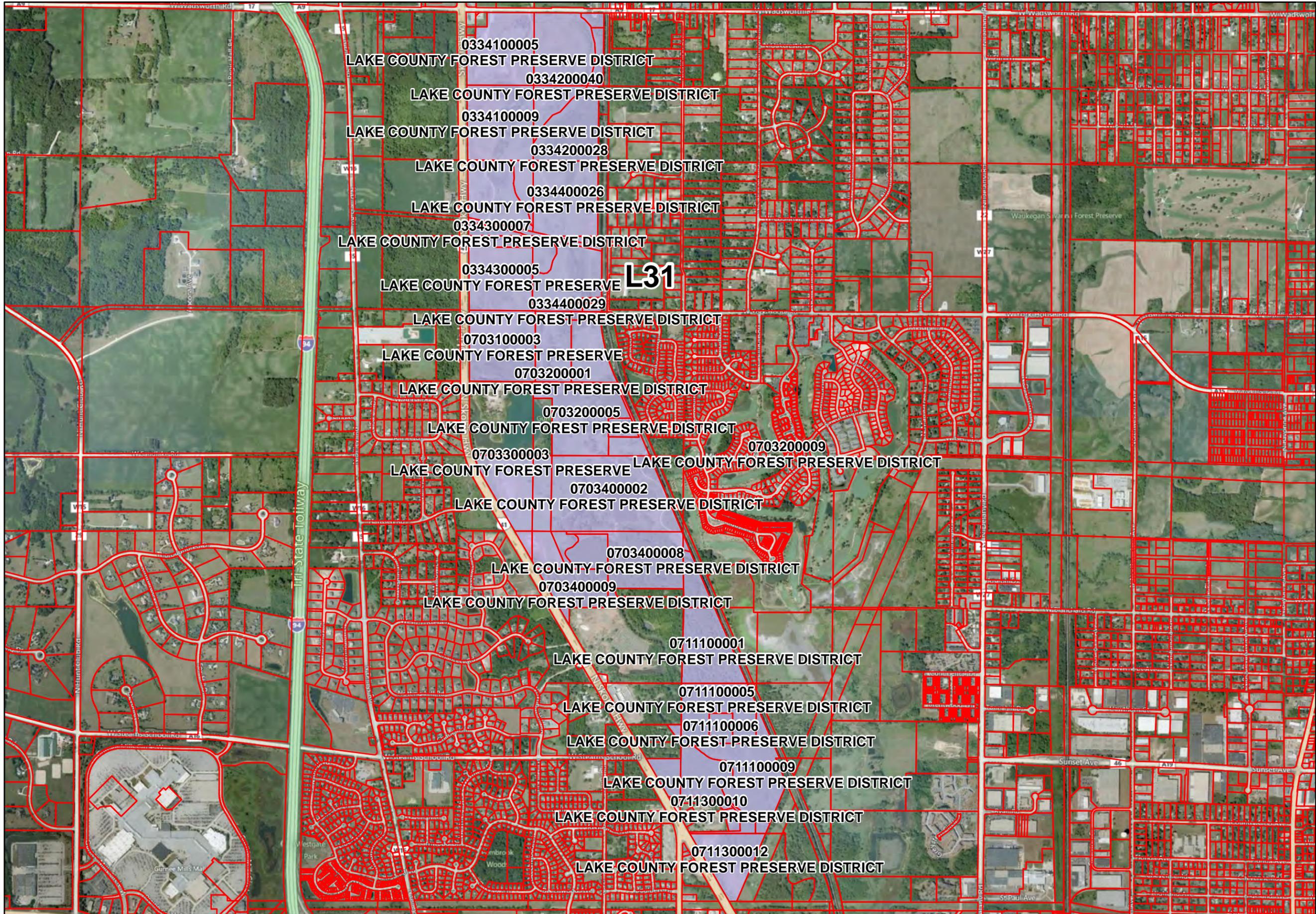


1 in = 600 ft



REAL ESTATE - Des Plaines River (NER SITE L31)

U.S. Army Corps
of Engineers
Chicago District



Legend

 SITE BOUNDARY

Location Map



Date: 5/10/2012

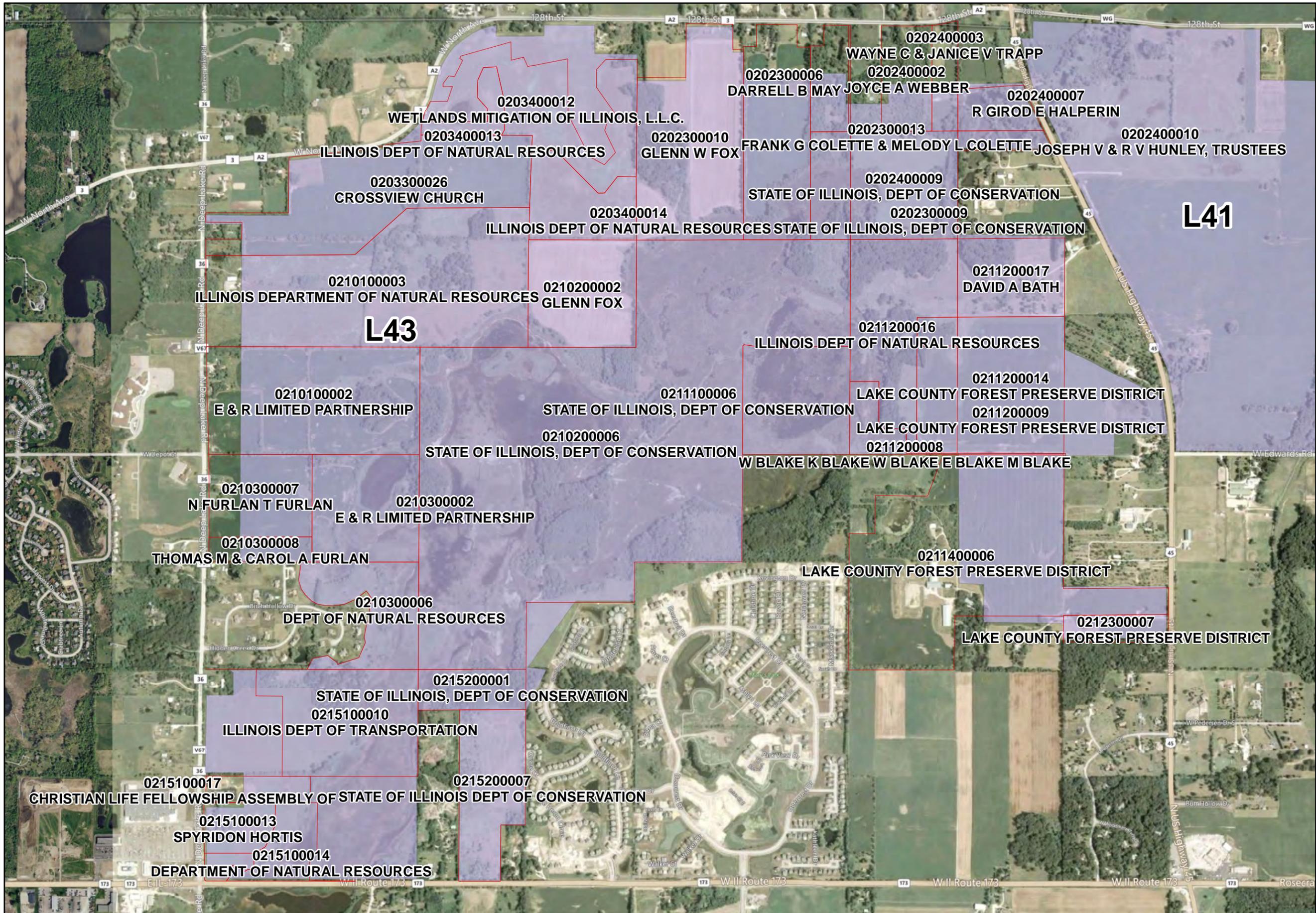


1 in = 1,600 ft



REAL ESTATE - Des Plaines River (NER SITE L43)

U.S. Army Corps
of Engineers
Chicago District



Legend

SITE BOUNDARY

L41

L43



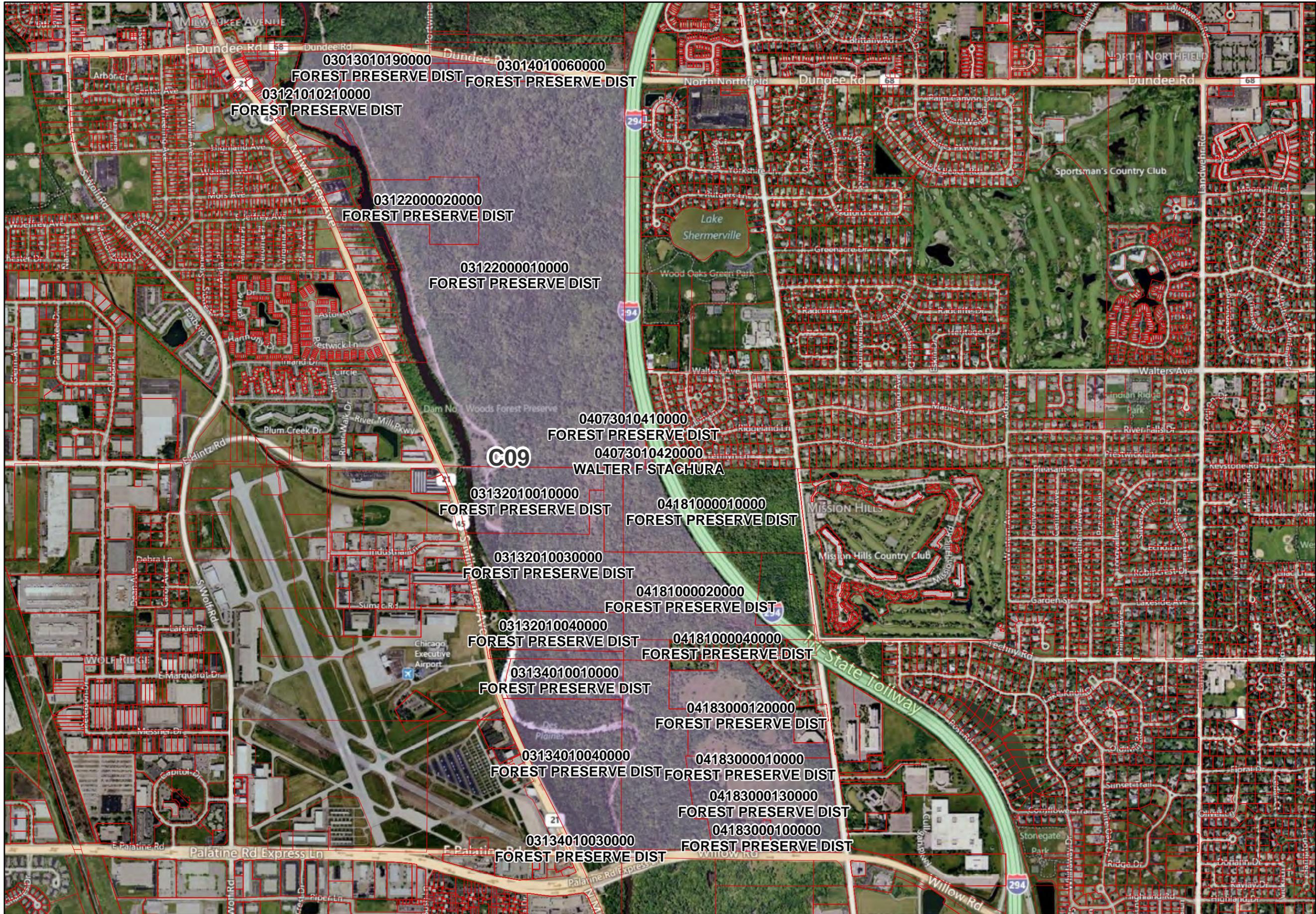
Date: 5/9/2012

1 in = 1,125 ft



REAL ESTATE - Des Plaines River (NER SITE C09 - NORTHBROOK MARSH)

U.S. Army Corps
of Engineers
Chicago District



Legend

 SITE BOUNDARY

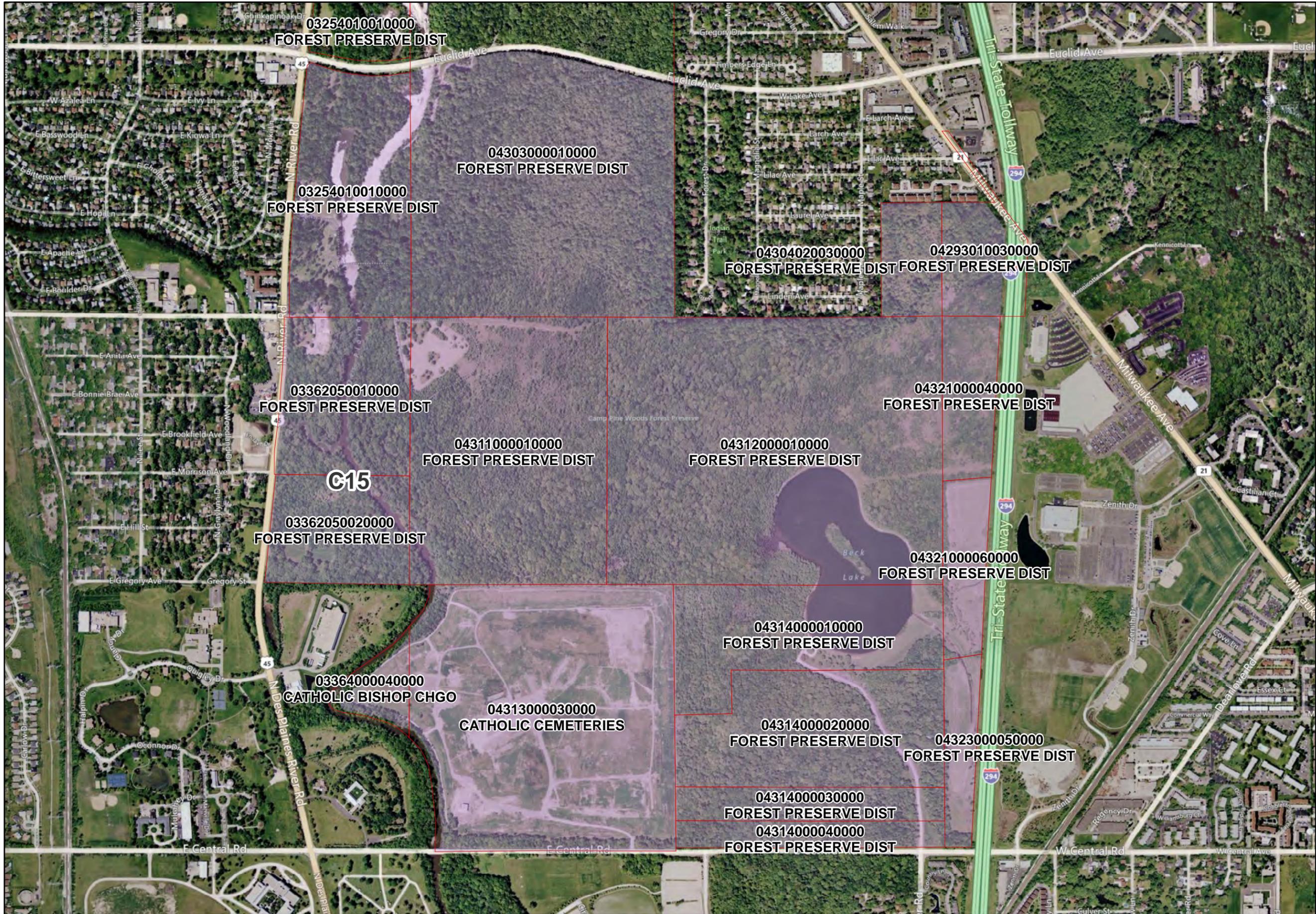


Date: 5/10/2012
1 in = 1,250 ft



REAL ESTATE - Des Plaines River (NER SITE C15 - Northbrook Marsh)

U.S. Army Corps
of Engineers
Chicago District



Legend

SITE BOUNDARY



Date: 5/10/2012



1 in = 900 ft



REAL ESTATE - Des Plaines River (Dam No.1 Removal)

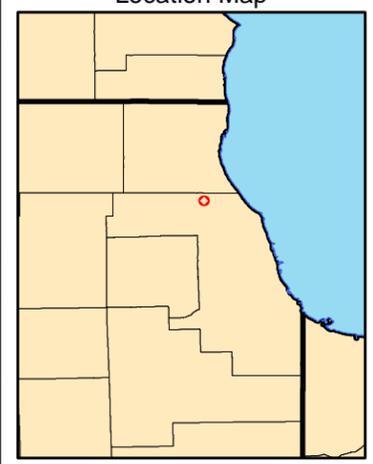
U.S. Army Corps
of Engineers
Chicago District



Legend

- Temp Easement - DAM
- Temporary Easement
- Staging Area

Location Map



Date: 5/10/2012



1 in = 100 ft



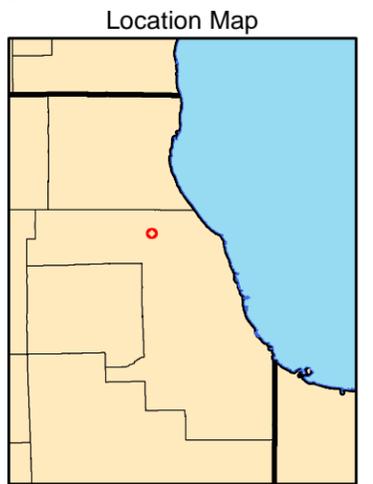
REAL ESTATE - Des Plaines River (Dam No.2 Removal)

U.S. Army Corps
of Engineers
Chicago District



Legend

- Temporary Easement - Dam
- Temporary Easement
- Staging Area



Date: 5/10/2012

1 in = 110 ft

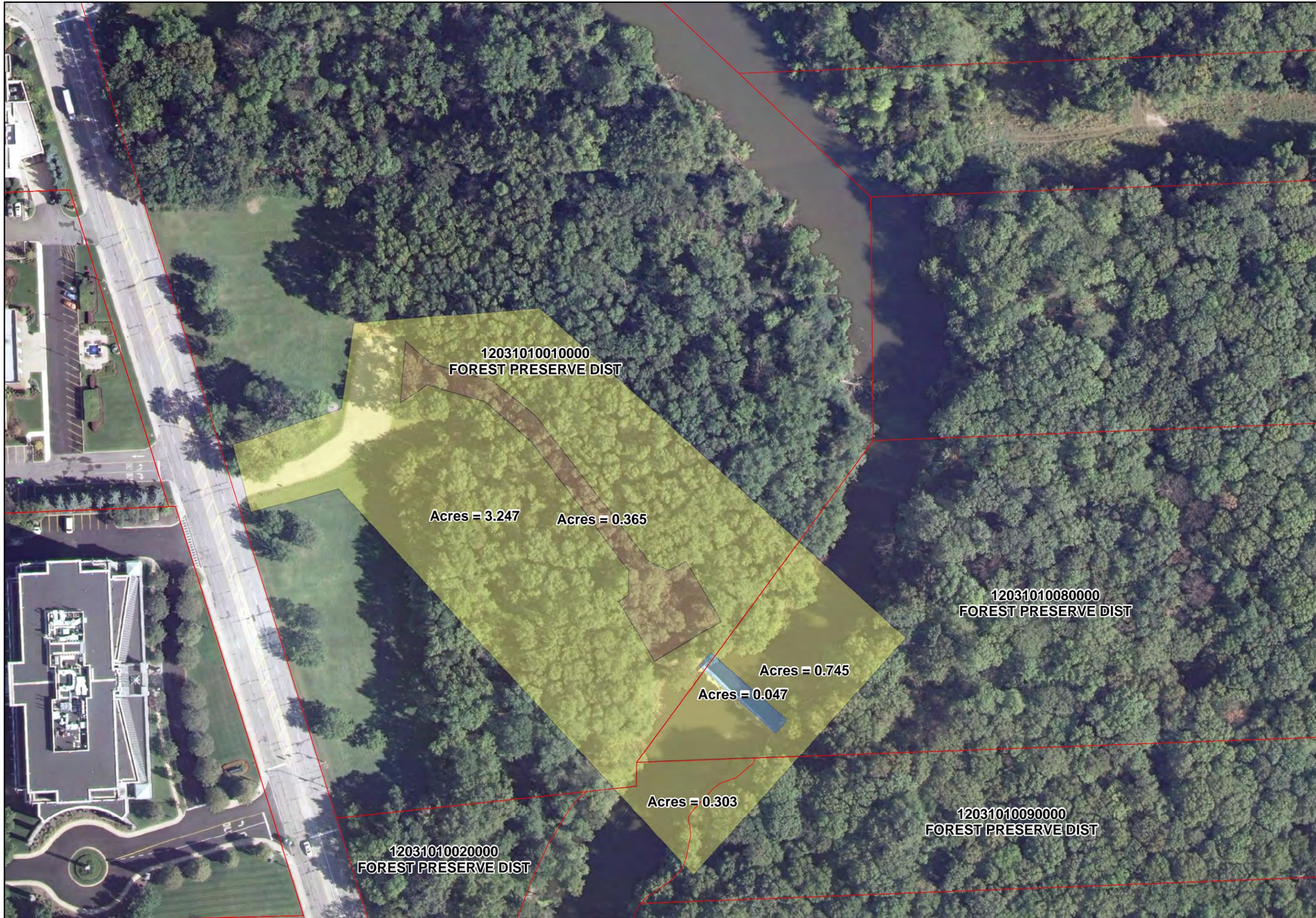


REAL ESTATE - Des Plaines River (Dam No.4 Removal)

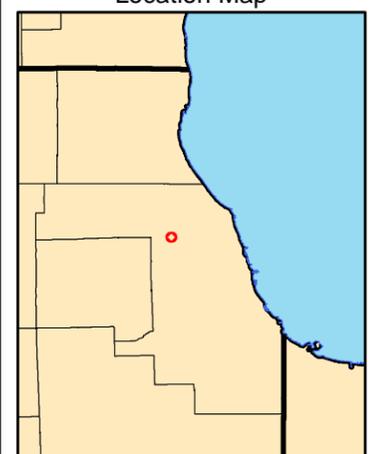
U.S. Army Corps
of Engineers
Chicago District

Legend

-  Temporary Easement
-  Temp Easement - Dam
-  Staging Area



Location Map



Date: 5/10/2012

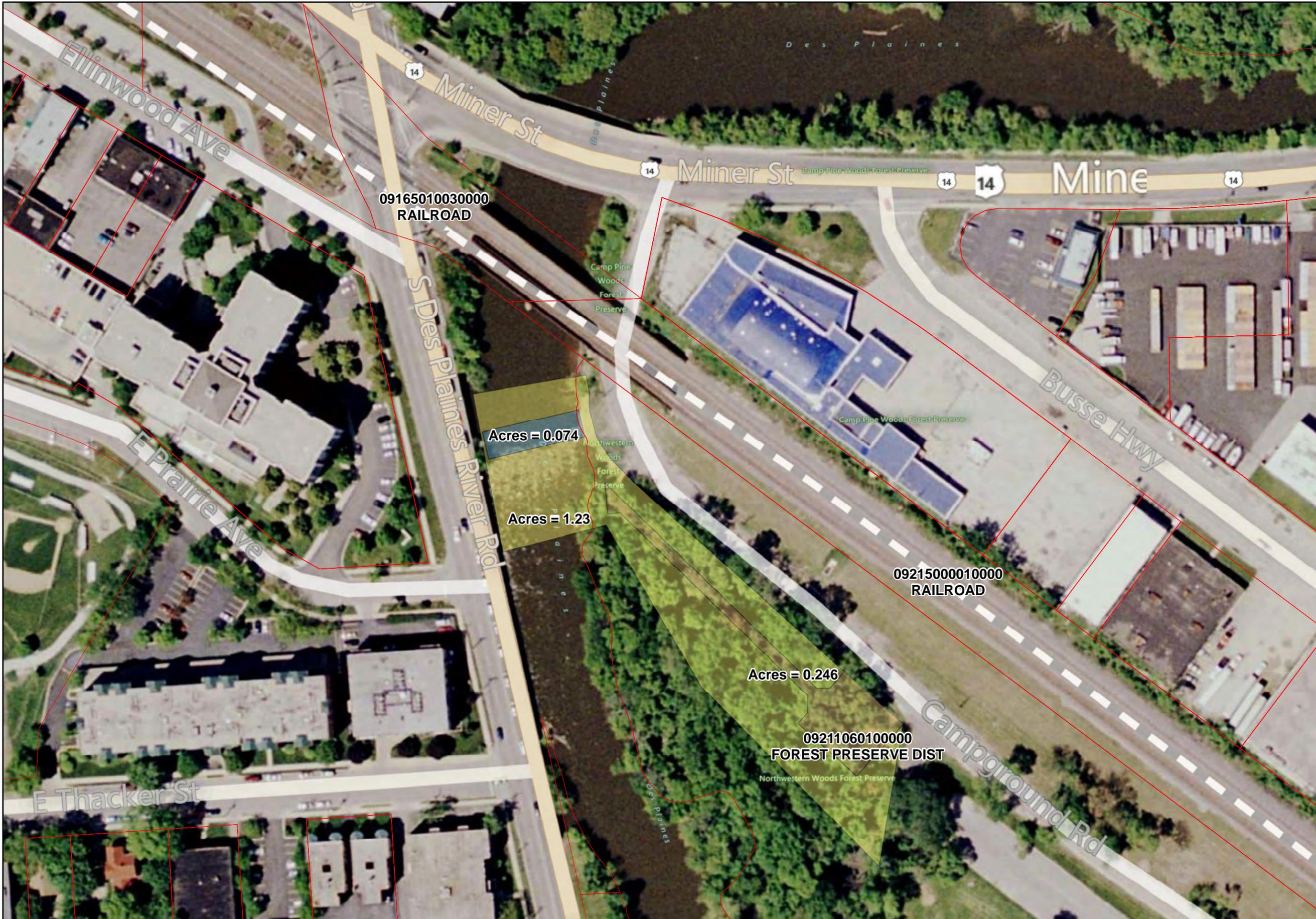


1 in = 100 ft



REAL ESTATE - Des Plaines River (Dempster Ave. Dam Removal)

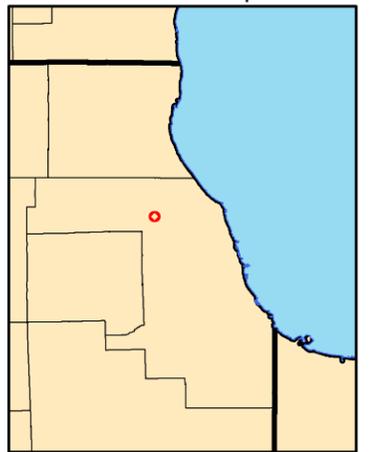
U.S. Army Corps
of Engineers
Chicago District



Legend

- Temporary Easement
- Temp Easement - Dam
- Staging Area

Location Map



Date: 5/10/2012



1 in = 100 ft



REAL ESTATE - Des Plaines River (Touhy Ave. Dam Removal)

U.S. Army Corps
of Engineers
Chicago District

Legend

- Temporary Easement
- Temp Easement - Dam
- Staging Area



Location Map



Date: 5/10/2012



1 in = 150 ft

EXHIBIT B
NON STRUCTURAL SUPPLEMENT

**SUPPLEMENTAL REAL ESTATE PLAN
FOR THE
NONSTRUCTURAL FLOOD RISK MANAGEMENT MEASURES**

**UPPER DES PLAINES RIVER AND TRIBUTRIES, ILLINOIS AND WISCONSIN
FEASIBILITY STUDY
APPENDIX I – EXHIBIT B**

1. PROJECT DESCRIPTION.

This supplemental Real Estate Plan (REP) covers the lands involved in the nonstructural plan for the Upper Des Plaines River and Tributaries Feasibility Study. This cost shared nonstructural project is a strictly voluntary program consisting of floodproofing that is generally accomplished by raising in place, making alterations to the structure or construction of a ring levee. The building characteristics such as structure type, first floor elevation, and low water entry point are used to determine the appropriate method for providing efficient and effective flood proofing. The least costly measure will be selected where feasible. This REP is to be considered tentative in nature and for planning purposes only. Both the final real property acquisition line and the estimate of cost are subject to change, even after this report is approved. Participation in the non-structural plan would be voluntary and implementation would be subject to verification of the structure characteristics, first floor elevation, and low water entry point.

These proposed measures are a portion of a larger flood protection and ecosystem restoration project. Authorization is Section 419 of the Water Resources Development Act (WRDA) of 1999 (P.L. 106-53), and is identified as the Upper Des Plaines River and Tributaries, Illinois and Wisconsin. The Illinois Department of Natural Resources in partnership with other local agencies is the likely Local Sponsor.

This project lies on both banks of the Des Plaines River in multiple municipalities in Cook, Lake, and Kenosha Counties. The project area is largely flat suburban residential single family homes with some light commercial areas.

In accordance with Chapter 12 of ER 405-1-12, this Real Estate Plan (REP) is being submitted as a supplement to Appendix I (Real Estate Plan) for the Des Plaines II Feasibility Study.

The recommended non structural portion of the project is summarized as follows:

County	Municipality	Structures in Municipality	County
Cook	Riverside	4	951
	River Grove	2	
	Rosemont	2	
	Des Plaines	273	
	Wheeling	239	
	Park Ridge	47	
Lake	Riverwoods	55	385
	Buffalo Grove	30	
	Libertyville	198	
	Gurnee	50	
Kenosha	Salem	6	42
	Bristol	12	
	Somers	1	
	Paddock Lake	23	

2. PROJECT AUTHORIZATION

“Sec. 419. Upper Des Plaines River and Tributaries, Illinois and Wisconsin

a) In General. –The Secretary shall conduct a study of the upper Des Plaines River and tributaries, Illinois and Wisconsin, upstream of the confluence with Salt Creek at Riverside, Illinois, to determine the feasibility of improvements in the interests of flood damage reduction, environmental restoration and protection, water quality, recreation, and related purposes.

b) Special Rule. –In conducting the study, the Secretary may not exclude from consideration and evaluation flood damage reduction measures based on restrictive policies regarding the frequency of flooding, the drainage area, and the amount of runoff.

c) Consultation and Use of Existing Data. –In carrying out this section, the Secretary shall– (1) consult with appropriate Federal and State agencies; and (2) make maximum use of data in existence on the date of enactment of this Act and ongoing programs and efforts of Federal agencies and States.”

3. GENERAL DESCRIPTION AND MAPS OF THE AREA.

The project is primarily located near the Upper Des Plaines River in multiple municipalities in Cook Lake Counties in Illinois and Kenosha County in Wisconsin. Mapping of the proposed areas will be included in future Real Estate Plans following public comment period. Due to the voluntary nature of the project there is not anticipated to be significant opposition.

4. GOVERNMENT- OR SPONSOR-OWNED LAND.

There is no known Government- or sponsor-owned land within the project area. The issue of navigational servitude is not applicable to this project.

5. FACILITIES TO BE RELOCATED.

It is not anticipated any public facilities will be relocated. No Attorney's Opinions of Compensability have been prepared. Final Attorney's Opinions will be prepared not later than entering into negotiations with the purported owners of the respective facilities. Cemeteries within the project area, if any, will remain, including any necessary access thereto

6. ACQUISITION CRITERIA.

6.1 Estates to be acquired.

To accomplish the nonstructural project buyouts it is proposed to acquire the standard fee estate, as set forth in Chapter 5 of ER 405-1-12. Minerals will normally be acquired with the surface; however, mineral interests found to be in third parties will be left outstanding. For structures floodproofed, owners must enter into a floodproofing agreement as required by Paragraph 5-4 of CEORDER 1105-2-4.

6.2 Lands, Easements, Rights-of-Ways, Relocations and Disposal of Lands (LERRD)

Typically, acquisition of lands, easements, rights-of-ways, relocations and disposal lands (LERRD) would be the responsibility of the non-federal sponsor. However, due to the multiple municipalities involved and complexity it may be recommended to the non-federal sponsor that the Corps should to perform the acquisitions on its behalf. Following execution of the Project Partnership Agreement (PPA), a Memorandum of Agreement (MOA) would be entered into between the Corps and the Non-Federal Sponsor which will provide for this acquisition service. Generally, all project lands will be acquired in the name of the Non-Federal Sponsor.

6.3 Project Phases

Due to the multiple counties and municipalities involved it is likely the project will be completed in multiple phases.

6.4 Structures Eligible for Acquisition

6.4a Category

Structures eligible for acquisition fall into one of the following two sub-categories:

1. Residential or non-residential structures which cannot be floodproofed due to their condition, the depth of flooding, location in the floodway, or because there is insufficient room for floodproofing.

2. Residential or nonresidential structures that preliminary cost estimates of floodproofing versus acquisition indicated it would be least costly to acquire than to floodproof.

6.4b Structure Type

There are multiple structures designated as acquisitions in this report. 90 percent are residential.

6.5 Condemnation

In this strictly voluntary program, condemnation procedures will be used if voluntary floodplain acquisition participants ask to have price disagreements settled by the courts or in cases where owners cannot convey clear title. Condemnation will not be used to clear encumbered titles when it would be possible for owners to take actions themselves to clear title.

6.6 Buy-Up to Floodproof Option

For those structures which originally qualified for floodproofing, but for which the floodproofing versus acquisition cost comparison indicated acquisition was the least costly alternative, the owner may pay the cost difference between acquisition and floodproofing in order to have the structure floodproofed. However, when floodproofing is the least costly alternative, owners cannot buy up to acquisition. This second case is based on the assumption that such a condition would amount to paying something less than fair market value for the property.

6.7 Structure/Land Eligibility

The scope of the project reported upon herein is limited to the residential and nonresidential structures outlined in the table above.

6.8 Replacement Housing/ DSS

If homeowners elect to participate in the acquisition program, they must relocate to DSS housing out of the floodplain in order to receive replacement housing benefits, since housing in the floodplain is not considered decent, safe and sanitary (DSS).

6.9 Demolition/ Restoration

Immediately after acquisitions are completed and floodplain residents have been relocated, acquired structures and appurtenant facilities will be removed. The floodplain area will be restored by seeding and grading to a natural appearance. While the Corps will perform the work as part of project cost, operation and maintenance of these lands immediately becomes the responsibility of the non-federal sponsor upon acquisition.

6.10 Structures Eligible for Floodproofing

6.10a Category

These are structures which can be floodproofed by raising in place, replacement on site, making alterations to the structure and for which floodproofing was the least costly alternative. Eligibility for floodproofing an individual structure is governed by several factors specific to the individual structure and flooding experience. These factors included the location of the structure in the floodplain and the condition of the structure. Any structures (including mobile homes) located within the regulatory floodway are not eligible for floodproofing. A cost comparison will be required to assure that floodproofing is the least costly alternative as compared to acquisition.

6.10b Structure Type

The majority (90 percent) are residential structures.

6.11 Sponsor Floodproofing Agreements

Floodproofing agreements will be executed for each eligible participant in the name of the non-federal sponsor.

7. P.L. 91-646 RELOCATION DATA.

Public Law 91-646, Title II, authorizes payment of relocation benefits to persons displaced from homes, businesses, or farms by federal and federally assisted programs. Ordinarily Public Law 91-646 benefits are not applied to voluntary acquisitions. Those benefits comprise moving expenses and replacement housing benefits. However, justification for PL-91-646 benefits includes a higher participation rate in the program which will ultimately make it more successful. The final feasibility report may recommend a waiver to extend Public Law 91-646 benefits under this voluntary program.

8. HAZARDOUS, TOXIC, OR RADIOACTIVE WASTE (HTRW)

See Full Real Estate Plan

9. ACQUISITION ESTIMATE AND SCHEDULE

The following assumptions have been made:

1. Administrative costs per property is estimated as \$4,000.
2. Buyout costs are estimated based on 2010 assessment data for Cook County, not inflated. Current assessed values were available for Lake and Kenosha and were utilized.

Non Structural Cost Estimate					
County	Municipality	Structures in Municipality	County	Relocations	Lands and Damages
Cook	Riverside	4	951		
	River Grove	2			
	Rosemont	2			
	Des Plaines	273			
	Wheeling	239			
	Park Ridge	47			
Lake	Riverwoods	55	385		
	Buffalo Grove	30			
	Libertyville	198			
	Gurnee	50			
Kenosha	Salem	6	42		
	Bristol	12			
	Somers	1			
	Paddock Lake	23			

Following approval of the Feasibility Study, execution of the PPA and acquisition MOA, the first landowners meeting will be conducted. Acquisition of project lands is scheduled to commence immediately thereafter. The anticipated acquisition schedule is 36 months.

10. OTHER REAL ESTATE ISSUES

A more detailed analysis including mapping, neighborhood descriptions, possible facility relocations, impacts to commercial properties, and more detailed cost estimating will be developed during the final feasibility phase in conjunction with the LRD Relocation RTS.

EXHIBIT C

STANDARD ESTATES

Fee Simple

The fee simple title to (the land described in Exhibit A) (Parcel #s), Subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Permanent Road Easement

A (perpetual [exclusive]) easement and right-of-way in, on, over and across (the land described in Exhibit A) (Parcel #s) for the location, construction, operation, maintenance, alteration replacement of (a) road(s) and appurtenances thereto; together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions and other vegetation, structures, or obstacles within the limits of the right-of-way; (reserving, however, to the owners, their heirs and assigns, the right to cross over or under the right-of-way as access to their adjoining land at the locations indicated in Exhibit A); subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Flood Protection Levee Easement

A perpetual and assignable right and easement in (the land described in Schedule A) (Tracts Nos, _____, _____ and _____) to construct, maintain, repair, operate, patrol and replace a flood protection (levee) (floodwall)(gate closure) (sandbag closure), including all appurtenances thereto; reserving, however, to the owners, their heirs and assigns, all such rights and privileges in the land as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Utility and/or Pipeline Easement

A perpetual and assignable easement and right-of-way in, on, over and across (the land described in Schedule A) (Tracts Nos. _____, _____ and _____), for the location, construction, operation, maintenance, alteration; repair and patrol of (overhead) (underground) (specifically name type of utility or pipeline); together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions and other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Temporary Work Area Easement

A temporary easement and right-of-way in, on, over and across (the land described in Exhibit A) (Parcel #s), for a period not to exceed _____, beginning with date possession of the land is granted to the United States, for use by the United States, its representatives, agents, and contractors as a (borrow area) (work area), including the right to (borrow and/or deposit fill,

spoil and waste material thereon) (move, store and remove equipment and supplies, and erect and remove temporary structures on the land and to perform any other work necessary and incident to the construction of the _____ Project, together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and any other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Flowage Easement (Permanent Flooding)

The perpetual right, power, privilege and easement permanently to overflow, flood and submerge (the land described in Schedule A) Tracts Nos. _____, _____ and _____), (and to maintain mosquito control) in connection with the operation maintenance of the project as authorized by the Act of Congress approved _____, and the continuing right to clear and remove and brush, debris and natural obstructions which, in the opinion of the representative of the United States in charge of the project, may be detrimental to the project, together with all right, title and interest in and to the timber, structures and improvements situate on the land (excepting _____, (here identify those structures not designed for human habitation which the District Engineer determines may remain on the land)); provided that no structures for human habitation shall be constructed or maintained on the land, that no other structures shall be constructed or maintained on the land except as may be approved in writing by the representative of the United States in charge of the project, and that no excavation shall be conducted and no landfill placed on the land without such approval as to the location and method of excavation and/or placement of. landfill; the above estate is taken subject to existing easements for public roads and highways, public utilities, railroads and pipelines; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used and enjoyed without interfering with the use of the project for the purposes authorized by Congress or abridging the rights and easement hereby acquired; provided further that any use of the land shall be subject to Federal and State laws with respect to pollution.

Channel Improvement Easement

A perpetual and assignable right and easement to construct, operate, and maintain channel improvement works on, over and across (the land described in Schedule A) (Tracts Nos. _____, _____ and _____) for the purposes as authorized by the Act of Congress approved _____, including the right to clear, cut, fell, remove and dispose of any and all timber, trees, underbrush, buildings, improvements and/or other obstructions therefrom; to excavate: dredge, cut away, and remove any or all of said land and to place thereon dredge or spoil material; and for such other purposes as may be required in connection with said work of improvement; reserving, however, to the owners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements far public roads and highways, public utilities, railroads and pipelines.

Drainage Ditch Easement

A perpetual and assignable easement and right-of-way in, over and across (the land described in Schedule A) (Tracts Nos. _____, _____ and _____) to construct, maintain, repair, operate, patrol and replace a drainage ditch, reserving, however, to the owners, their heirs and assigns, all such rights and privileges in the land as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.