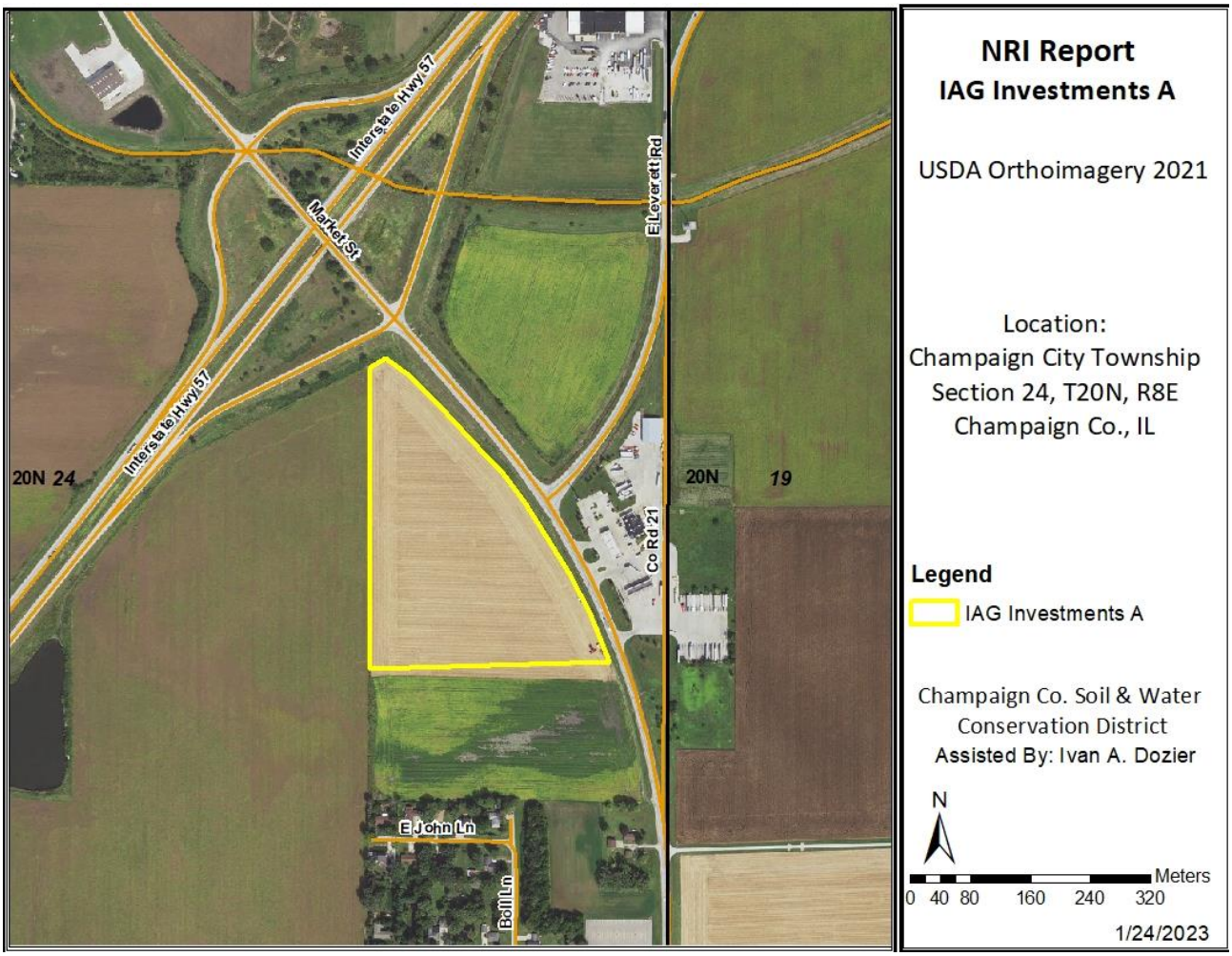
JANUARY 24, 2023






PREPARED BY: CHAMPAIGN COUNTY SOIL & WATER CONSERVATION DISTRICT
2110 W PARK CT, STE C, CHAMPAIGN, IL 61821
(217) 352-3536 EXT 3 | WWW.CCSWCD.COM

# Champaign County Soil and Water Conservation District Natural Resource Information Report (NRI)

| | |
|---|---|
| Date District Board Reviewed Application | January 24, 2023 |
| Applicant's Name | IAG Investments/Donato Solar |
| Contact Person | Anthony Grilo |
| Size of Subject Property | 20.64 |
| Present Zoning | AG-1 |
| Proposed Zoning | AG-2 |
| Present Land Use | Agricultural |
| Proposed Land Use | Solar Farm |

| ***Copies of this report or notification of the proposed land-use change were provided to:*** | ***Yes*** | ***No*** |
|---|---|---|
| The Applicant | x | |
| The Contact Person | x | |
| The Local/Township Planning Commission | n/a | n/a |
| The Village/City/County Planning & Zoning Department | x | |
| The Champaign County Soil & Water Conservation District Files | x | |

Report Prepared By: Morgan Cauble, Conservation Coordinator

# Table of Contents

## Forward

Soil and Water Conservation Districts are required to prepare Natural Resource Information (NRI) Reports under the Illinois Soil and Water Conservation Act of 1977, Illinois Revised Statutes, Chapter Five.

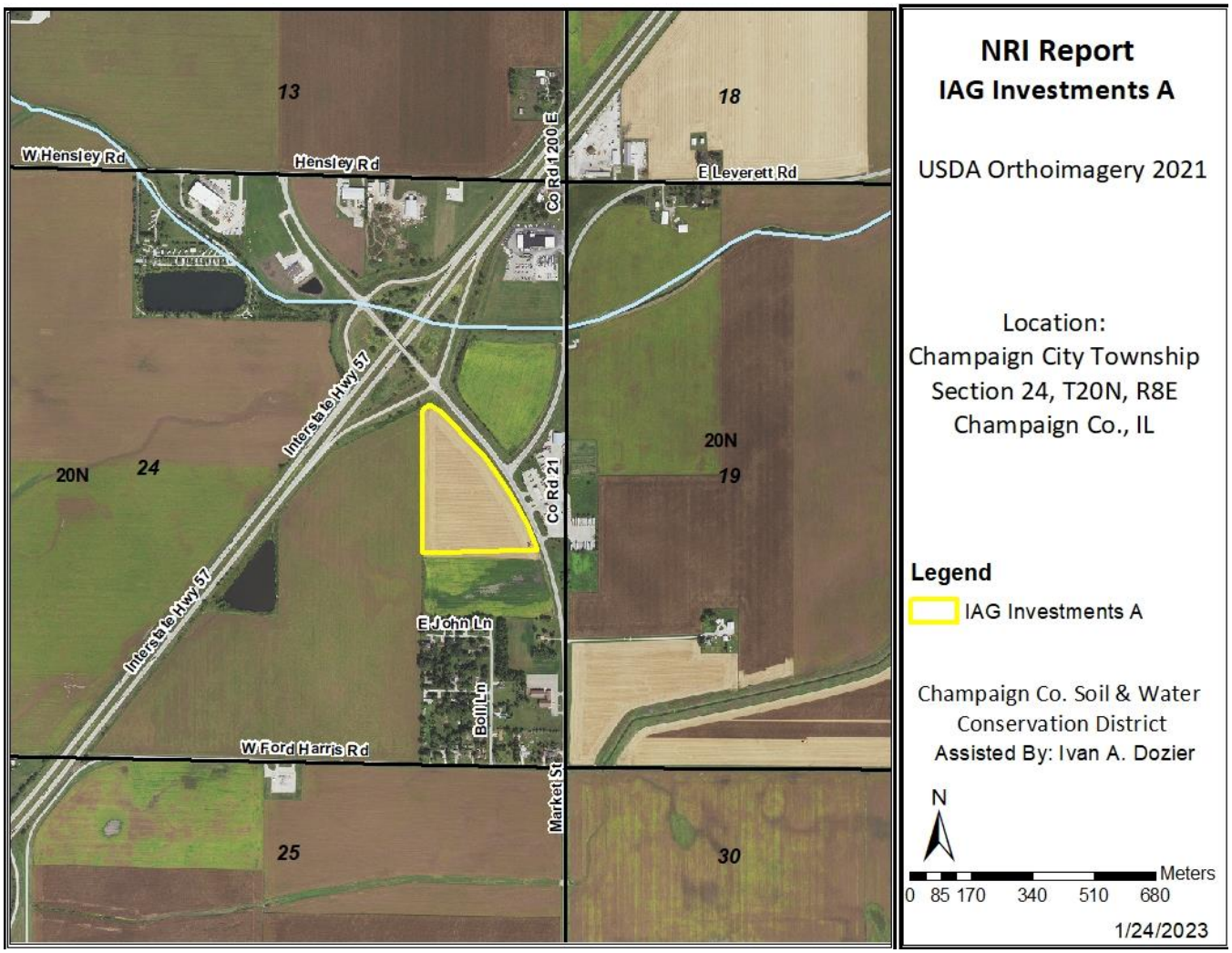
Section 22.02a The Soil and Water Conservation District shall make all natural resource information available to the appropriate county agency or municipality in the promulgation of zoning, ordinances or variances. Any person who petitions any municipality or county agency in the district for variation, amendment, or other relief from municipality's or county's zoning ordinance or who proposes to sub-divide vacant or agricultural lands therein shall furnish a copy of such petition or proposal to the Soil and Water Conservation District. The Soil and Water Conservation District shall be given not more than thirty days from the time of receipt of the petition or proposal to issue its written opinion concerning the petition or proposal and submit the same to the appropriate county agency or municipality for further action. Added by Act approved December 3, 1971.

This report provides technical data necessary to evaluate the natural resources of a specific area and the impacts or limitations associated with the proposed land use change. The report is limited to information researched by the Champaign County Soil and Water Conservation District staff. (Technical information is obtained from several different sources and may be subject to modification based on detailed site investigations or new technical information.) The information gathered in this report comes from several key reference materials and are cited throughout this report and listed in the Reference section. Any questions on the information contained in this report can be directed to:

Champaign County Soil and Water Conservation District
2110 W. Park Court, Suite C
Champaign, IL 61821
Phone 217-352-3536 ext. 3

## Subject Property Location

Location Map for Natural Resources Information Report for the Donato Solar Farm located in Champaign. The property is located in the northeast and southeast quarter of Section 24, Township 20N, Range 8E in Champaign County, Illinois.



## Summary and Concerns of the Board

The Champaign County Soil and Water Conservation District has reviewed the proposed land use change and has the following concerns relevant to the impact on the area's natural resources.

1. All soils on the subject property are not suitable sanitary facilities or dwellings. It is advised to perform onsite investigations with a professional to determine construction strategy before moving forward. See pages 7-9.
2. A portion of the soils on the subject property are not suitable for dwellings or small commercial buildings. It is advised to consult with a professional to determine safety and quality of current and future construction projects. See pages 7-9.
3. The subject property is located in the *Beaver Lake Main* drainage district. Please contact drainage district officials for questions or concerns regarding drainage management.
4. The average Land Evaluation (LE) score for this site is: 98.5. See pages 13-14.

## Soil Information

The soil information comes from the United States Department of Agriculture Natural Resources Conservation Service (USDA-NRCS) Soil Survey of Champaign County. This information is important to all parties involved in determining the suitability of the proposed land use change. Each polygon is given a number with letters, which represents its soil type, slope, flooding, etc., and is then called a map unit. Each soil map unit has limitations for a variety of land uses, which are explained using interpretations.

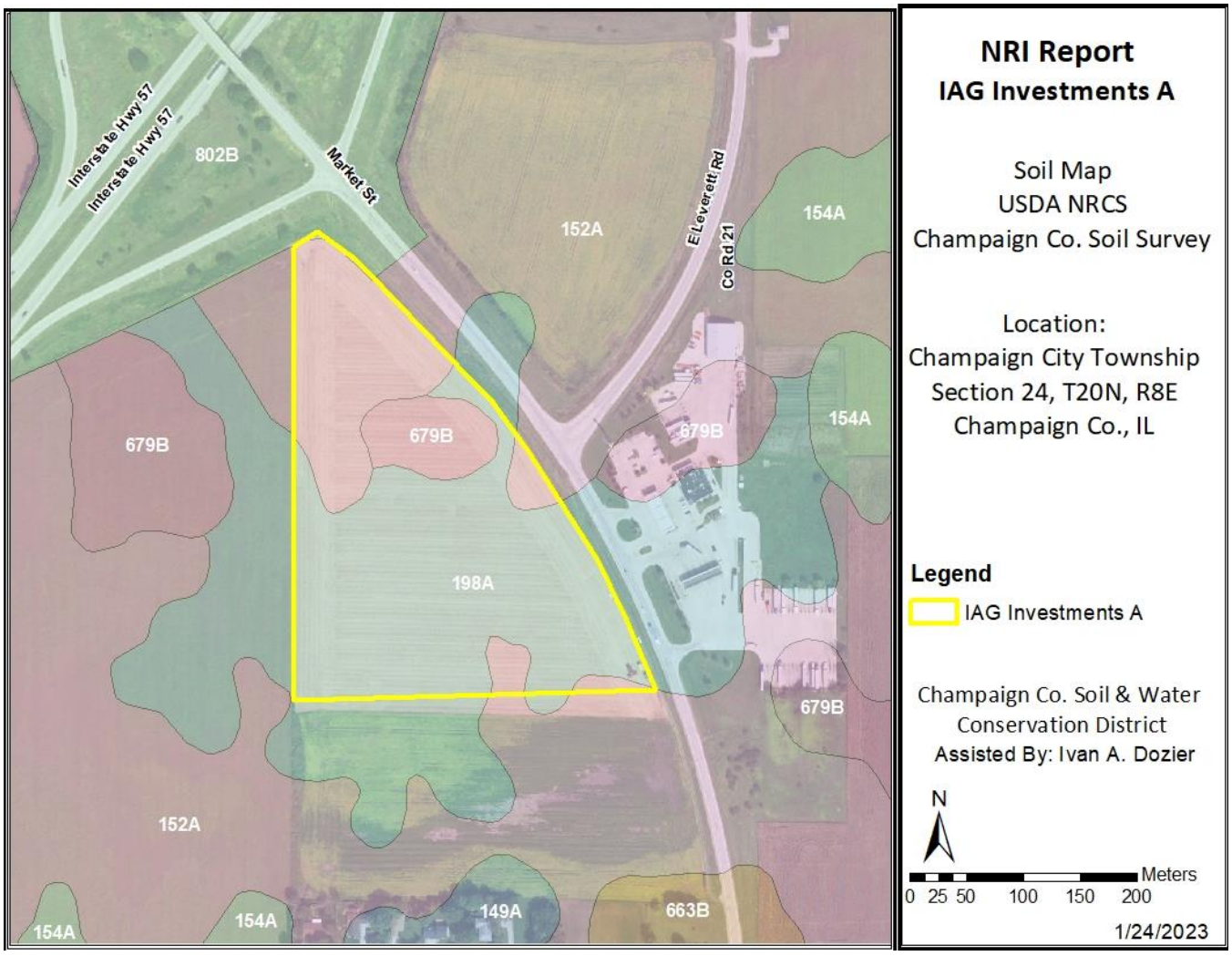



Table 1. Soil map unit descriptions.

| Map Unit Symbol | Description | Acres | Percent of Area |
|---|---|---|---|
| 198A | Elburn silt loam, 0-2% slopes | 12.4 | 60.1% |
| 152A | Drummer silty clay loam, 0-2% slopes | 6.2 | 30.2% |
| 679B | Blackberry silt loam, 2-5% slopes | 1.7 | 8.4% |
| 802B | Orthents, loamy, 1-7% slopes | 0.3 | 1.3% |

**Introduction to Soil Interpretations**

Non-agricultural soil interpretations are ratings that help engineers, planners, and others understand how soil properties influence behavior when used for nonagricultural uses such as building site development or construction materials. This report gives ratings for proposed uses in terms of limitations and restrictive

features. The tables list only the most restrictive features. Other features may need treatment to overcome soil limitations for a specific purpose.

Ratings come from the soil's "natural" state, that is, no unusual modification occurs other than that which is considered normal practice for the rated use. Even though soils may have limitations, an engineer may alter soil features or adjust building plans for a structure to compensate for most degrees of limitations. However, most of these practices are costly. The final decision in selecting a site for a land use generally involves weighing the costs for site preparation and maintenance.

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Soil limitation ratings of slight, moderate, and severe are given for the types of proposed improvements that are listed or inferred by the petitioner as entered on the report application and/or zoning petition. The most common type of building limitation this report gives limitations ratings for is septic systems. It is understood that engineering practices can overcome most limitations for buildings with and without basements, and small commercial buildings. Organic soils, when present on the subject property, are referenced in the hydric soils section of the report.

The area of development will be susceptible to erosion both during and after construction. Any areas left bare for more than 7 days should be temporarily seeded or mulched and permanent vegetation needs to be established as soon as possible.

*Limitation Ratings*

1. *Not limited*- This soil has favorable properties for the intended use. The degree of limitation is minor and easy to overcome. Those involved can expect good performance and low maintenance.
2. *Somewhat limited*- This soil has moderately favorable properties for the intended use. Special planning, design, or maintenance can overcome this degree of limitation. During some part of the year, the expected performance is less desirable than for soils rated "*not limited*."
3. *Very limited*- This soil has one or more properties that are unfavorable for the rated use. These may include the following: steep slopes, bedrock near the surface, flooding, high shrink-swell potential, a seasonally high water table, or low strength. This degree of limitation generally requires major soil reclamation, special design, or intensive maintenance, which in most situations is difficult and costly.

**Soil Interpretations**

*Sanitary Facilities*

The table below shows the degree and kind of soil limitations that affect septic tank absorption fields and sewage lagoons.

Septic Tank Absorption Fields: Areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. The ratings are based on soil properties, site features, and observed performance of the soils. Permeability, high water table, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Large stones and bedrock or a cemented pan interfere with installation. Unsatisfactory performance of septic tank absorption fields, including excessively slow absorption of effluent, surfacing of effluent, and hillside seepage can affect public health. There must be unsaturated soil material beneath the absorption field to filter the effluent effectively.

Table 2. Septic tank absorption fields.

| Map Unit Symbol | Septic Tank Absorption Fields | Acres | Percent of Area |
|---|---|---|---|
| 198A | Very limited; depth to saturated zone, seepage, slow water movement | 12.4 | 60.1% |
| 152A | Very limited; ponding, depth to saturated zone, slow water movement | 6.2 | 30.2% |
| 679B | Very limited; depth to saturated zone, slow water movement | 1.7 | 8.4% |
| 802B | Very limited; slow water movement, depth to saturated zone | 0.3 | 1.3% |

For the subject property: 100% of the soils on the property are very limited for the use of septic tank absorption fields and special design is required for any septic tank absorption field.

*Building Site Development*

The table below shows the degree and the kind of soil limitations that affect dwellings with or without basements and small commercial buildings.

Dwellings and Small Commercial Buildings: Structures built on a shallow foundation on undisturbed soil that are three stories or less. The ratings are based on soil properties, site features, and observed performance of the soils. High water table, depth to bedrock or to a cemented pan, large stones, slope, and flooding effect the ease of excavation, construction, and maintenance.

Table 3. Dwellings and small commercial buildings limitations.

| Map Unit Symbol | Dwellings with Basements | Dwellings without Basements | Small Commercial Buildings | Acres | Percent of Area |
|---|---|---|---|---|---|
| 198A | Very limited: depth to saturated zone, shrink-swell | Somewhat limited; depth to saturated zone, shrink-swell | Somewhat limited: depth to saturated zone, shrink-swell | 12.4 | 60.1% |
| 152A | Very limited: ponding, depth to saturated zone, shrink-swell | Very limited: ponding, depth to saturated zone, shrink-swell | Very limited: ponding, depth to saturated zone, shrink-swell | 6.2 | 30.2% |
| 679B | Somewhat limited: depth to saturated zone, shrink-swell | Somewhat limited: shrink-swell | Somewhat limited: shrink-swell | 1.7 | 8.4% |
| 802B | Somewhat limited; depth to saturated zone, shrink-swell | Not limited | Somewhat limited; depth to saturated zone, shrink-swell | 0.3 | 1.3% |

## Soil Water (Wetness) Features

This section gives estimates of various soil water (wetness) features that should be taken into consideration when reviewing engineering for a land use project.

Hydrologic Soil Groups (HSGs): The groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

- Group A: Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.
- Group B: Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

- Group C: Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.
- Group D: Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Note: if a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D) the first letter is for drained areas and the second is for undrained areas.

Surface Runoff: Refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based upon slope, climate, and vegetative cover and indicates relative runoff for very specific conditions (it is assumed that the surface of the soil is bare and that the retention of surface water resulting from the irregularities in the ground surface is minimal). The classes are negligible, very low, low, medium, high, and very high.

Water Table: Refers to a saturated zone in the soil and the data indicates, by month, depth to the top (upper limit) and base (lower limit) of the saturated zone in most years. These estimates are based upon observations of the water table at selected sites and on evidence of a saturated zone (grayish colors or mottles, called redoximorphic features) in the soil. Note: a saturated zone that lasts for less than a month is not considered a water table.

Ponding: Refers to standing water in a closed depression and the data indicates duration and frequency of ponding.

- Duration: expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days and *very long* if more than 30 days.
- Frequency: expressed as *none* (ponding is not possible), *rare* (unlikely but possible under unusual weather conditions), *occasional* (occurs, on average, once or less in 2 years), *frequent* (occurs, on average, more than once in 2 years).

Flooding: The temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

- Duration: Expressed as *extremely brief* if 0.1 hour to 4 hours; *very brief* if 4 hours to 2 days; *brief* if 2 to 7 days; *long* if 7 to 30 days; and *very long* if more than 30 days.
- Frequency: Expressed as *none* (flooding is not probable), *very rare* (very unlikely but possible under extremely unusual weather conditions (chance of flooding is less than 1% in any year)), *rare* (unlikely but possible under unusual weather conditions (chance of flooding is 1 to 5% in any year)), *occasional* (occurs infrequently under normal weather conditions (chance of flooding is 5 to 50% in any year but is less than 50% in all months in any year)), and *very frequent* (likely to occur very often under normal weather conditions (chance of flooding is more than 50% in all months of any year)).

Note: The information is based on evidence in the soil profile. In addition, consideration is also given to local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Table 4. Soil water (wetness) features.

| Map Unit Symbol | HSG | Surface Runoff | Depth to Water Table (ft) | | | Ponding | | Flooding | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Upper Limit | Lower Limit | Kind | Duration | Frequency | Duration | Frequency |
| 198A | B/D | Low | 1.0-2.0 | 6.0 | Apparent | - | None | - | None |
| 152A | B/D | Neg | 0.0-1.0 | 6.0 | Apparent | Brief | Frequent | - | None |
| 679B | C | Low | 2.0-3.5 | 6.0 | Apparent | - | None | - | None |
| 802B | C | Low | 3.3-6.0 | 6.0 | Apparent | - | None | - | None |

**Hydric Soils**

Hydric soils by definition have seasonal high water at or near the soil surface and/or have potential flooding or ponding problems. All hydric soils range from poorly suited to unsuitable for building. Soil maps may not be small enough to show inclusions of hydric soils, so it is important to consult a soil scientist if building residential areas on hydric soils or soils with hydric inclusions.

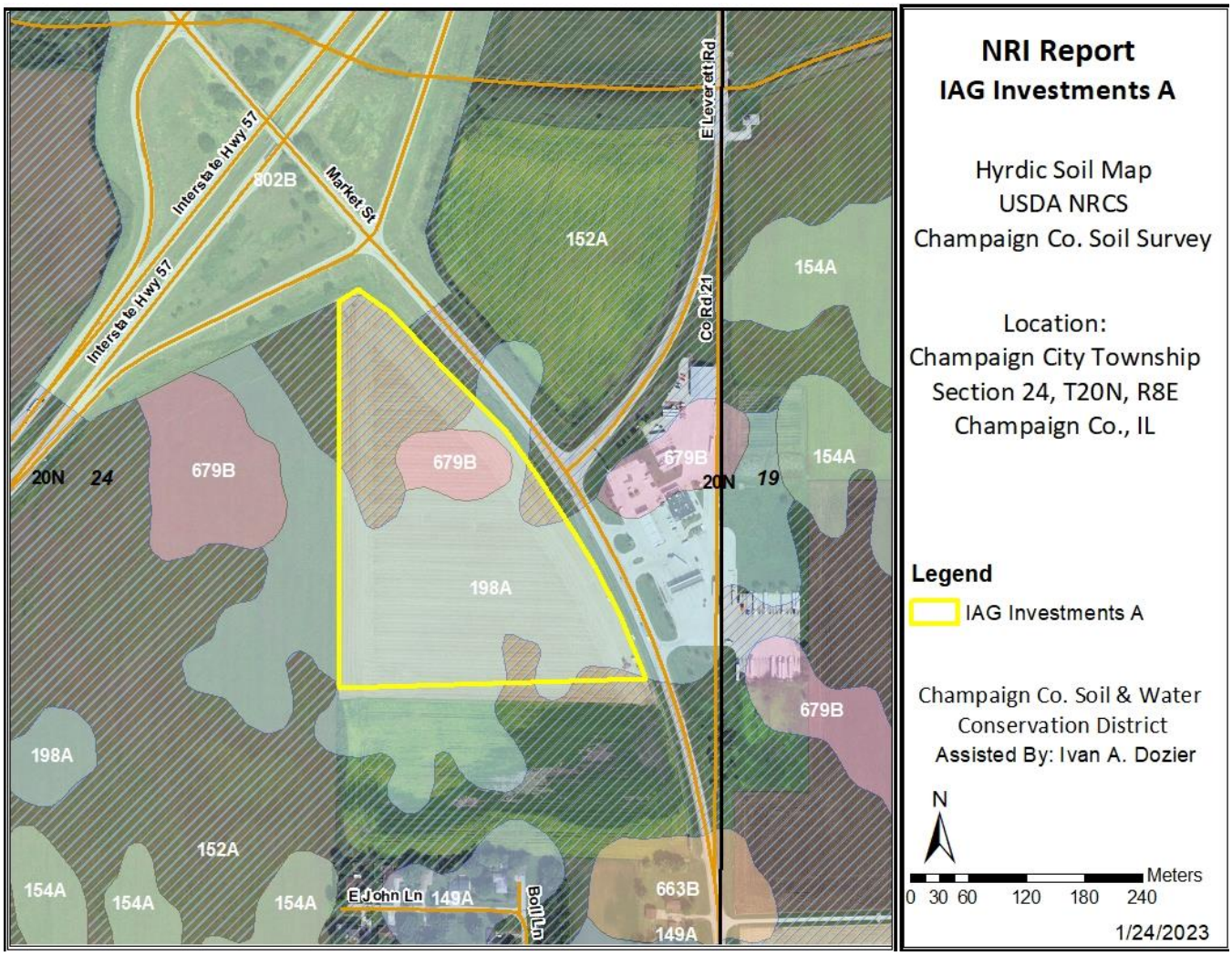
On most agricultural soils in the county that are poorly or somewhat poorly drained, subsurface agriculture drainage tile occurs. This expedites drainage but must be maintained and undisturbed so the soil does not return to its original hydrologic condition.

The Champaign County SWCD recommends the following for an intense land use, such as a subdivision:

1. A topographical survey with 1-foot contour intervals to define the flood area.
2. An intensive soil survey to define locations of hydric inclusions.
3. A drainage tile survey to locate tiles that must be preserved.

Table 5. Hydric soils.

| Map Unit Symbol | Drainage Class | Hydric Designation | Acres | Percent of Area |
|---|---|---|---|---|
| 198A | Somewhat poorly drained | Non-hydric | 12.4 | 60.1% |
| 152A | Poorly drained | Hydric | 6.2 | 30.2% |
| 679B | Moderately well drained | Non-hydric | 1.7 | 8.4% |
| 802B | Well drained | Non-hydric | 0.3 | 1.3% |
| | | | **Percent Hydric** | **30.2%** |




## Soil Erosion and Sediment Control

Erosion is the wearing away of the soil by water, wind, and other forces and a soil's erodibility is mainly determined by the following properties: soil texture, slope, soil structure, soil organic matter content. Soil erosion threatens the nation's soil productivity and contributes to pollutants in waterways. Sediment entering creeks, rivers, and lakes degrade water quality and reduce capacity, which increases the risk of flooding and disrupts ecosystems. Sediment also carries other possible pollutants, such as chemicals and metals, by adhering to the sediment's surface.

### Erosion Control at Construction Sites

Construction sites can experience 20 to 200 tons/acre/year of soil loss, which is greater than other land uses, like agriculture, averaging 4-5 tons/acre/year. It is extremely important that the developer employ Best Management Practices, like the ones listed below, to help reduce soil erosion and protect water quality during and after construction.

- **Silt Fencing:** A woven geotextile fabric stretched across and attached to supporting posts used to intercept sediment-laden runoff from small drainage areas of disturbed soil. The purpose is to filter out sediment from runoff before it enters a water body.
- **Construction Road Stabilization:** The stabilization of temporary construction access routes, subdivision roads, on-site vehicle transportation routes, and construction parking areas with stone immediately after grading the area to reduce erosion.

- **Vegetative Cover:** One of the most important means to control runoff is to plant temporary vegetation around the perimeter of the construction site. This provides a natural buffer to filter sediment and chemicals. The CCSWCD recommends that temporary grass be planted (i.e. smooth bromegrass, oats, cereal rye) to help protect soil from erosion during construction.

**EPA Stormwater Pollution Prevention Plan (SWPPP) Reference Tool**

EPA requires a plan to control storm water pollution for all construction sites over 1 acre in size. *A Guide for Construction Sites* is a reference tool for construction site operators who must prepare a SWPPP to obtain NPDES permit coverage for their storm water discharges. More information at the following website: http://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources.

Table 6. Soil erosion potential.

| Map Unit Symbol | Slope | Rating | Acres | Percent of Area |
|---|---|---|---|---|
| 198A | 0.5% | Slight | 12.4 | 60.1% |
| 152A | 1.0% | Slight | 6.2 | 30.2% |
| 679B | 3.5% | Moderate | 1.7 | 8.4% |
| 802B | 4.0% | Moderate | 0.3 | 1.3% |

## Prime Farmland Soils

Prime farmland soils are an important resource to Champaign County. Some of the most productive soils in the world occur locally. Each soil map unit in the United States is assigned a prime or non-prime rating. Urban or built-up land on prime farmland soils is not prime farmland.

Table 7. Prime farmland designation.

| Map Unit Symbol | Prime Designation | Acres | Percent of Area |
|---|---|---|---|
| 198A | All areas are prime farmland | 12.4 | 60.1% |
| 152A | Prime farmland if drained | 6.2 | 30.2% |
| 679B | All areas are prime farmland | 1.7 | 8.4% |
| 802B | Not prime farmland | 0.3 | 1.3% |
| | **Percent Prime Farmland** | | **98.7%** |

## The Land Evaluation and Site Assessment System

Decision-makers in Champaign County use the Land Evaluation and Site Assessment (LESA) system to determine the suitability of a land use change and/or a zoning request as it relates to agricultural land. The LESA system was developed by the USDA-NRCS and takes into consideration local conditions, such as physical characteristics of the land, compatibility of surrounding land uses, and urban growth factors. The LESA system is a two-step procedure:

- Land Evaluation (LE) – the soils of a given area are rated and placed in groups ranging from the best to worst suited for a stated agricultural use. The best group is assigned a value of 100 and is based on data from the Champaign County Soil Survey. The Champaign County LE designates soils with a score of 91 to 100 as best prime farmland, as reported in Bulletin 811 Optimum Crop Productivity Ratings for Illinois Soils. Best Prime Farmland consists of:
  a) Soils identified as agricultural value groups 1, 2, 3, and/or 4
  b) Soils that, in combination on a subject site, have an average LE of 91 or higher
  c) Any site that includes a significant amount (10% or more of the area proposed to be developed) of agriculture value groups 1, 2, 3, and/or 4

- Site Assessment (SA) – the site is numerically evaluated according to important factors that contribute to the quality of the site. Each factor selected is assigned values in accordance with the local needs and objectives.

The Champaign County LESA system is designed to provide officials with a systematic objective means to numerically rate a site in terms of its agricultural importance.

- To assist officials in evaluating the proposed conversion of farmland on a parcel or site in zoning cases that include farmland conversion to a non-agricultural land use.
- To assist in the review of state and federal projects for compliance with the Illinois Farmland Preservation Act and the Federal Farmland Protection Policy Act in terms of their impact on important farmland.

Note: A land evaluation (LE) score will be compiled for every project property, but a site assessment score is not applicable in most cases, making the full LESA score unavailable.

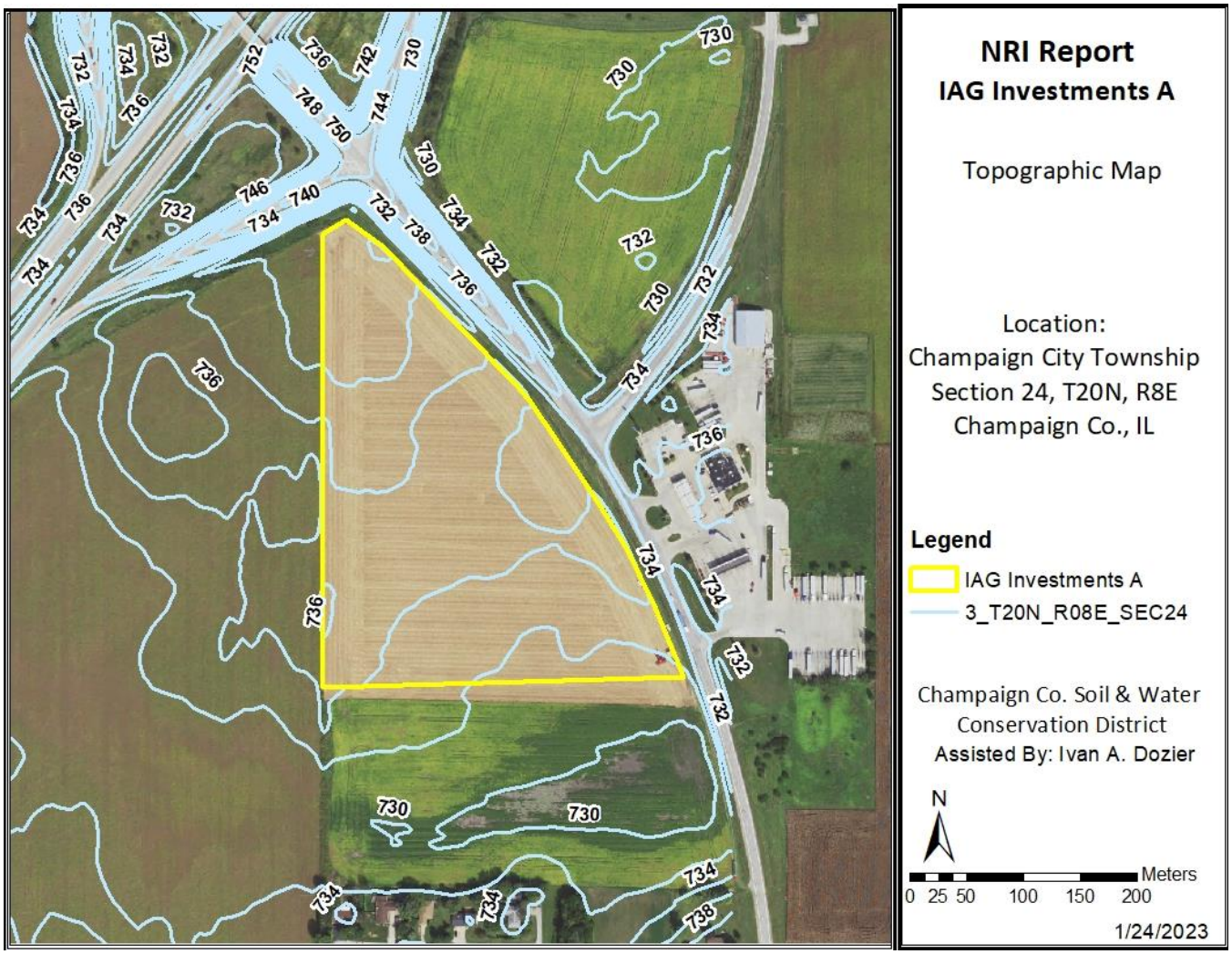
Table 8. Land Evaluation and Site Assessment System score.

| Map Unit Symbol | Value Group | Relative Value | Acres | Product (Relative Value*Acres) |
|---|---|---|---|---|
| 198A | 1 | 100 | 12.4 | 1240 |
| 152A | 2 | 100 | 6.2 | 620 |
| 679B | 2 | 100 | 1.7 | 170 |
| 802B | 18 | N/A | 0.3 | 0 |
| Totals | | | 20.6 | 2030 |
| LE Score | | | LE=2030/20.6 | **LE = 98.5** |

For the subject property: the overall Land Evaluation (LE) score is 98.5.

## Topographic Information

United States Geologic Survey (USGA) topographic maps give information on elevation, which are important mostly to determine slope, drainage direction, and watershed information. Elevation determines the area of impact of floods. Slope information determines steepness and erosion potential. Drainage directions determine where water leaves the subject property, possibly impacting surrounding natural resources.




## Watershed Information

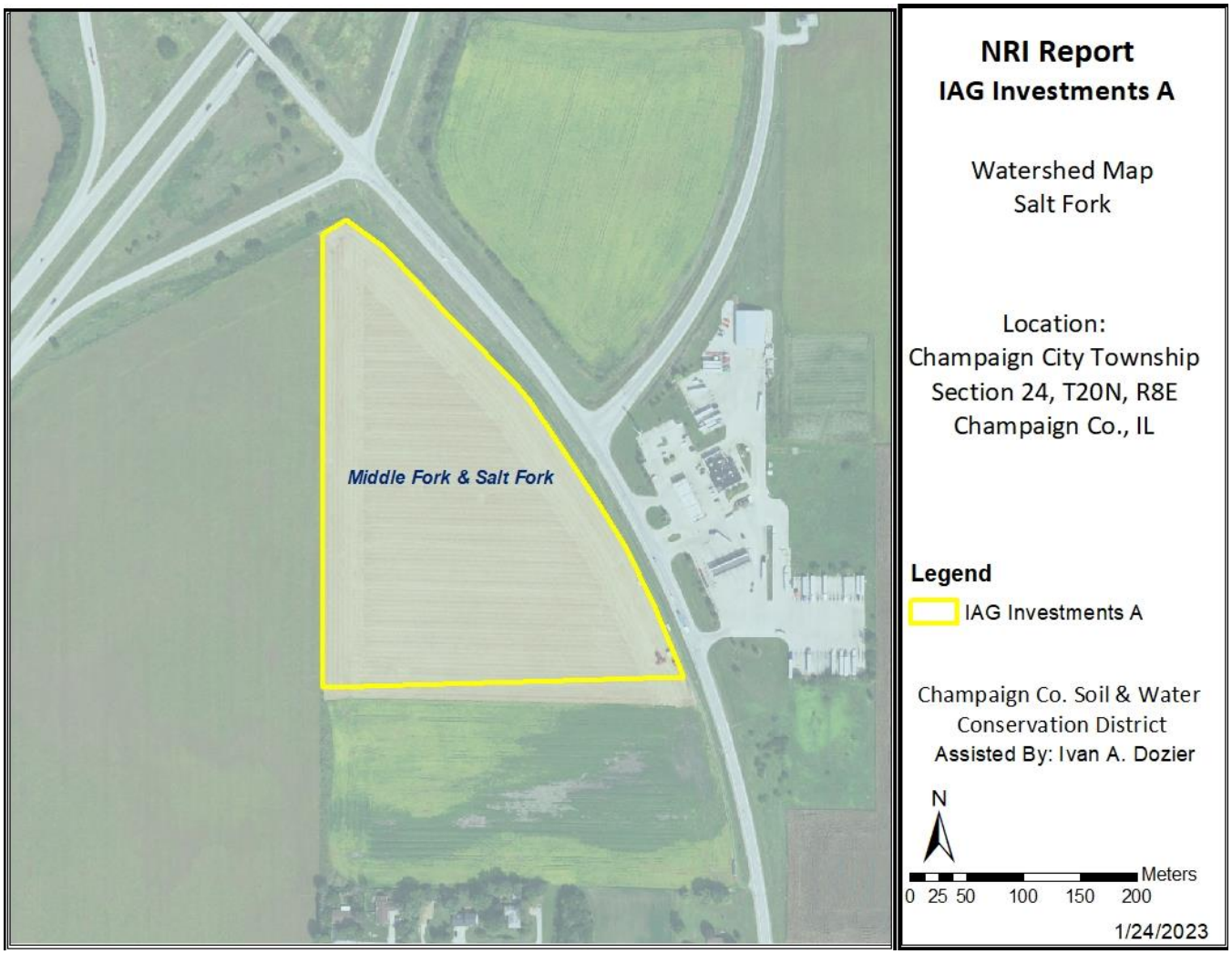
Watershed information is given when land use is changed to a subdivision type of development on parcels greater than 10 acres. A watershed is an area of land that drains to an associated water resource, such as a wetland, river, or lake. Rainwater carries pollutants through watersheds, impacting natural resources and people living downstream. Residents can minimize this impact by being aware of their environment and implications of their activities.

The following are recommendations to developers for protection of watersheds:

- Preserve open space
- Maintain wetlands as part of development
- Use natural water management
- Prevent soil from leaving construction sites
- Protect subsurface drainage
- Use native vegetation

- Retain natural features
- Mix housing and style types
- Decrease impervious surfaces
- Reduce area disturbed by mass grading
- Treat water where it falls

For the subject property: the property is located in the Middle Fork/Salt Fork Watershed.




## Floodplain and Wetland Information

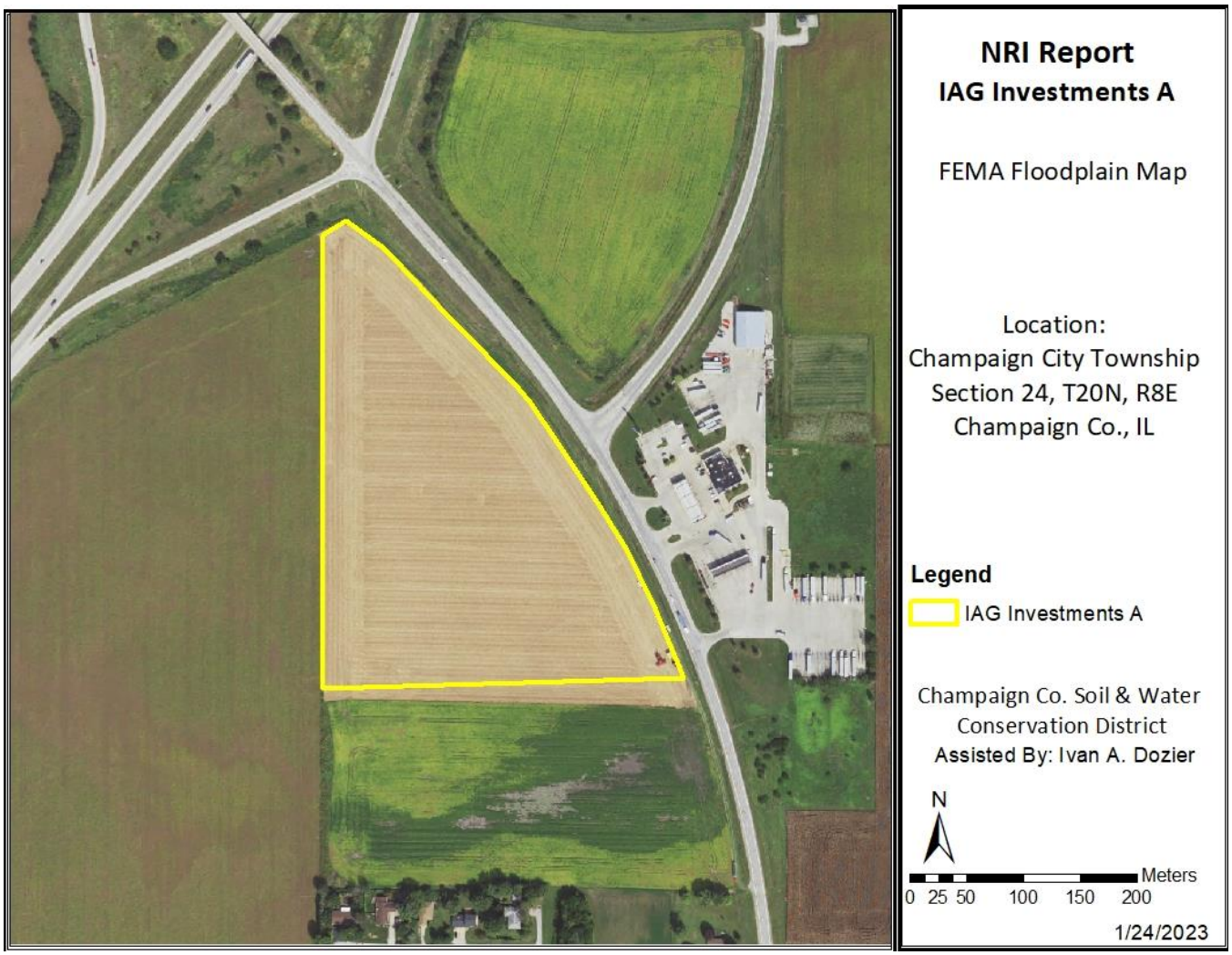
**Floodplain Information**

A floodplain is defined as land adjoining a watercourse (riverine) or an inland depression (non-riverine) that is subject to periodic inundation by high water. Floodplains are important areas that demand protection since they have water storage and conveyance functions that affect upstream and downstream flows, water quality and quantity, and suitability of the land for human activity. Since floodplains play distinct and vital roles in the hydrologic cycle, development that interferes with their hydrologic and biologic functions should be carefully considered.

Flooding is dangerous to people and destructive to their properties. The following map can help developers and future homeowners to “sidestep” potential flooding or ponding problems. The Flood Insurance Rate

Map (FIRM) was produced by the Federal Emergency Management Agency (FEMA) to define flood elevation adjacent to tributaries and major bodies of water that are superimposed onto a simplified USGS topographic map.

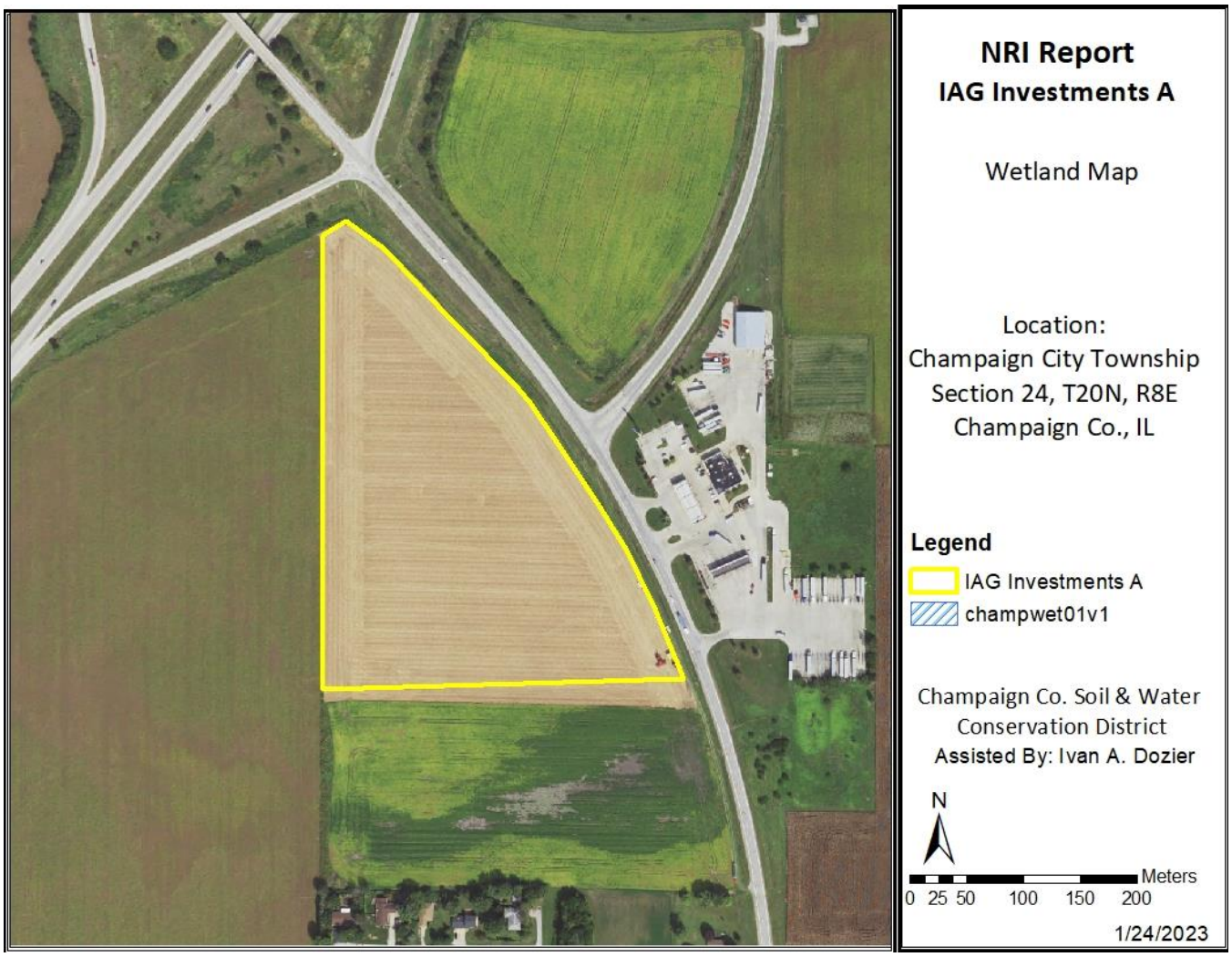
For the subject property: the property is not located within a floodplain.




**Wetland Information**

Wetlands function in many ways to provide numerous benefits to society and the environment, including flood control, cleanse water, recharge groundwater, and provide a wildlife habitat. However, approximately 95% of the wetlands that were historically present in Illinois have been destroyed. It is crucial that we take steps to conserve current wetlands and reestablish new wetlands where once destroyed. Wetland determinations are made by a certified NRCS staff.

For the subject property: a wetland is not present near the subject property.




**Wetland and Floodplain Regulations**

Please read the following if you are planning to do any work near a stream, lake, wetland, or floodway, including: dredge, fill, rip rap, or otherwise alter the banks or beds of, or construct, operate, or maintain any dock, pier, wharf, sluice, dam, piling, wall, fence, utility, flood plain, or floodway subject to State or Federal regulatory jurisdiction.

The laws of the United States and the State of Illinois assign certain agencies specific and different regulatory roles to protect the waters within the State's boundaries. These roles, when considered together, include protection of navigation channels and harbors, protection against flood way encroachments, maintenance and enhancement of water quality, protection of fish and wildlife habitat and recreational resources, and, in general, the protection of total public interest. Unregulated used of the waters within the State of Illinois could permanently destroy and adversely impact the public. Therefore, please contact the proper authorities when planning any work associated with Illinois waters so that proper consideration and approval can be obtained.

Regulatory Agencies:

- Wetlands or U.S. Waters: U.S. Army Corps of Engineers
- Floodplains: Illinois Department of Natural Resources/Office of Water Resources, Natural Resources Way, Springfield, IL
- Water Quality/Erosion Control: Illinois Environmental Protection Agency

Coordination: we recommend early coordination with the agencies BEFORE finalizing work plans. This allows the agencies to recommend measures to mitigate or compensate for adverse impacts. This could reduce time required to process necessary approvals and reduce expense.

## Cultural and Animal Resources

### Cultural Resources

The most common cultural resources found during changes in land use are historical properties or non-structural archaeological sites. These sites often extend below the soil surface and must be protected against disruption by development or other earth moving activity if possible. Cultural resources are non-renewable because there is no way to grow a site to replace a disrupted site. Landowners with historical properties on their land have ownership of that historical property. However, the State of Illinois owns all of the following: human remains, grave markers, burial mounds, and artifacts associated with graves and human remains. Non-grave artifacts from archaeological sites and historical buildings are the property of the landowner. The landowner may choose to disturb a historical property but may not receive federal or state assistance to do so. If an earth-moving activity disturbs human remains, the landowner must contact the county coroner within 48 hours.

The Illinois Historic Preservation Agency may require a Phase 1 Archaeological review to identify any cultural resources that may be on the site. The IHPA has not been contacted by the Champaign County SWCD. The applicant may need to contact the IHPA according to current Illinois law.

### Animal Resources

According to the Illinois Endangered Species Protection Act & Illinois Natural Areas Preservation Act, state agencies or local units of government must consult Illinois Department of Natural Resources (IDNR) about proposed actions that they will authorize, fund, or perform. Private parties do not have to consult, but they are liable for prohibited taking of state-listed plants and animals or for adversely modifying a Nature Preserve or a Land and Water Preserve. Home rule governments may delegate this responsibility through duly enacted ordinances to the parties seeking authorization or funding of the action.

### Ecologically Sensitive Areas

Biodiversity is the sum of total of all the plants, animals, fungi, and microorganisms in the world, or in a particular area that make up the fabric of the Earth and allow it to function. Biodiversity must be protected, as it is diminishing, which weakens entire natural systems. It is intrinsically valuable for an ecosystem to be biologically diverse to sustain ecosystem health and support life.

As part of the Natural Resources Information Report, staff checks if any nature preserves are in the general vicinity of the subject property. If there is a nature preserve in the area, then that resource will be identified as part of the report. The SWCD recommends that every effort be made to protect that resource. Such efforts should include but are not limited to erosion control, sediment control, stormwater management, and groundwater monitoring.

For the subject property: as shown on the below EcoCAT, there is no record of sensitive areas or endangered species in or near the subject property.

EcoCAT
Ecological Compliance Assessment Tool

| | | | |
|---|---|---|---|
| *Applicant:* | NRCS Champaign County Field Office | *IDNR Project Number:* | 2309202 |
| *Contact:* | Taylor Shedd | *Date:* | 01/20/2023 |
| *Address:* | 2110 W. Park court suite C<br>Champaign , IL 61821 | | |
| *Project:* | Champaign | | |
| *Address:* | Champaign, Champaign | | |

*Description:* Champaign

## Natural Resource Review Results

*This project was submitted for information only. It is not a consultation under Part 1075.*

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

### Location

The applicant is responsible for the accuracy of the location submitted for the project.

*County:* Champaign

*Township, Range, Section:*
20N, 8E, 24

**IL Department of Natural Resources Contact**
Impact Assessment Section
217-785-5500
Division of Ecosystems & Environment

**Government Jurisdiction**
U.S. Department of Agriculture

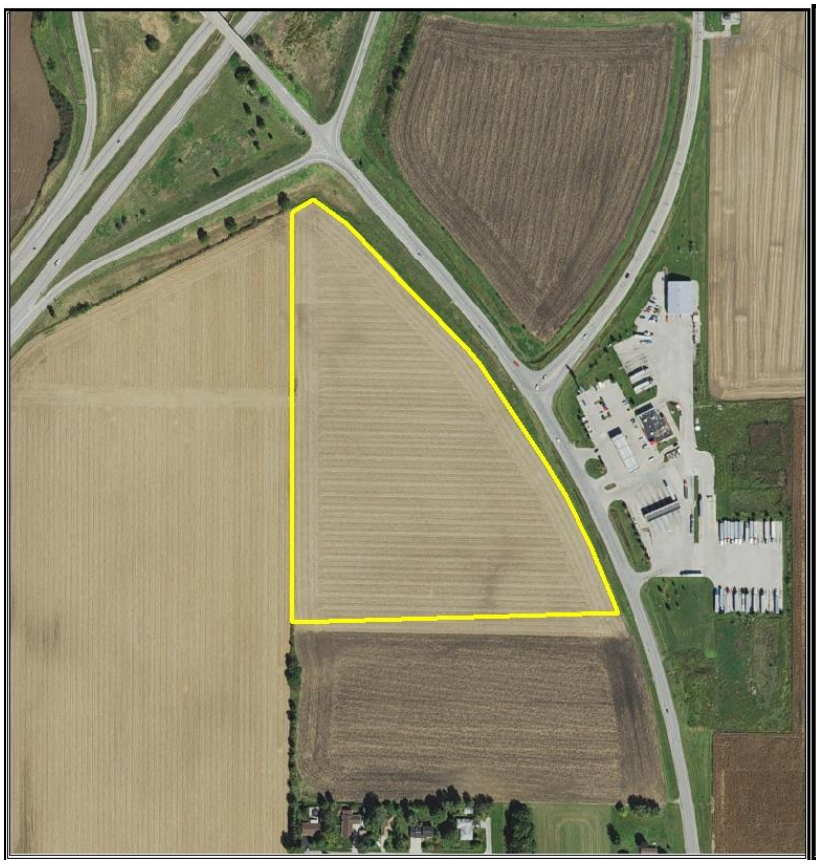
### Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

### Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

# Historic Aerial Photos



**NRI Report**
**IAG Investments A**

USDA Orthoimagery 2015

Location:
Champaign City Township
Section 24, T20N, R8E
Champaign Co., IL

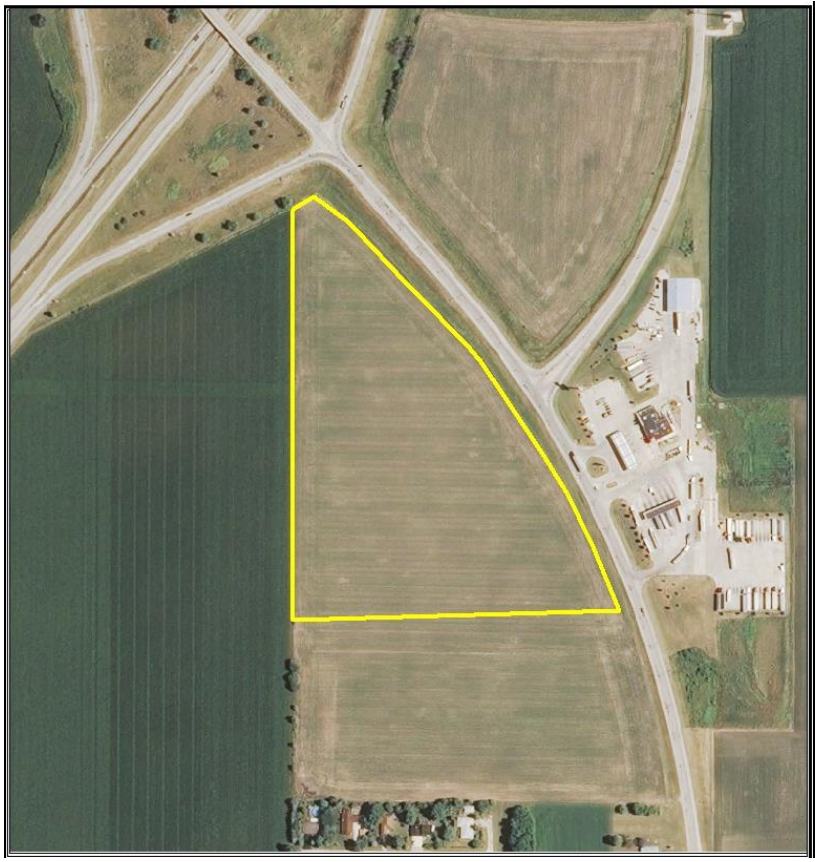
**Legend**
IAG Investments A

Champaign Co. Soil & Water Conservation District
Assisted By: Ivan A. Dozier

N

0 25 50 100 150 200 Meters

1/24/2023



**NRI Report**
**IAG Investments A**

USDA Orthoimagery 2012

Location:
Champaign City Township
Section 24, T20N, R8E
Champaign Co., IL

**Legend**
IAG Investments A

Champaign Co. Soil & Water Conservation District
Assisted By: Ivan A. Dozier

N

0 25 50 100 150 200 Meters

1/24/2023

**NRI Report**
**IAG Investments A**

USDA Orthoimagery 2006

Location:
Champaign City Township
Section 24, T20N, R8E
Champaign Co., IL

**Legend**
IAG Investments A

Champaign Co. Soil & Water Conservation District
Assisted By: Ivan A. Dozier

N

0 25 50 100 150 200 Meters

1/24/2023

# Glossary and Acronyms

Agriculture – The growing, harvesting, and storing of crops, including legumes, hay, grain, fruit; and truck or vegetables, including dairy, poultry, swine, sheep, beef cattle, pony and horse, fur, and fish and wildlife; farm buildings used for growing, harvesting, and preparing crop products for market, or for use on the farm; roadside stands, farm buildings for storing and protecting farm machinery and equipment from the elements, or for housing livestock or poultry and for preparing livestock or poultry products for market; farm dwellings occupied by farm owners, operators, tenants, or seasonal or year around hired farm workers.

ADT – average daily traffic that a local road normally receives, based upon records by the County Superintendent of Highways.

B.G. – below grade. Under the surface of the Earth.

Bedrock – indicates depth at which bedrock occurs. Also lists hardness as rippable or hard.

Flooding – indicates frequency, duration, and period during year when floods are likely to occur.

High Level Management – the application of effective practices adapted to different crops, soils, and climatic conditions. Such practices include providing for adequate soil drainage, protection from flooding, erosion and runoff control, near optimum tillage, and planting the correct kind and amount of high-quality seed. Weeds, diseases, and harmful insects are controlled. Favorable soil reaction and near-optimum levels of available nitrogen, phosphorus, and potassium for individual crops are maintained. Efficient sue is made of available crop residues, barnyard manure, and/or green manure crops. All operations, when combined efficiently and timely, can create favorable growing conditions and reduce harvesting losses (within limits imposed by weather).

High Water Table – a seasonal highwater table is a zone of saturation at the highest average depth during the wettest part of the year. May be apparent, perched, or artesian.

Water Table, Apparent – a thick zone of free water in the soil indicated by the level at which water stands in an uncased borehole after adequate time is allowed for adjustment in the surrounding soil.

Water Table, Artesian – a water table under hydrostatic head, generally beneath an impermeable layer. When layer is penetrated, the water level rises in the uncased borehole.

Water Table, Perched – a water table standing above an unsaturated zone, often separated from a lower wet zone by a dry zone.

Delineation – (for wetlands) a series of orange flags placed on the ground by a certified professional that outlines the wetland boundary on a parcel.

Determination – (for wetlands) a polygon drawn on a map using map information that gives an outline of a wetland.

Hydric Soil – soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part (USDA Natural Resources Conservation Service, 1987).

Intensive Soil Mapping – mapping done on a small, intensive scale than a modern soil survey to determine soil properties of a specific site, i.e. mapping for septic suitability.

Land Evaluation Site Assessment (L.E.S.A.) – LESA is a systematic approach for evaluating a parcel of land and to determine a numerical value for the parcel for farmland preservation purposes.

Modern Soil Survey – a soil survey is a field investigation of the soils of a specific area, supported by information from other sources. The kinds of soil in the survey area are identified and their extent is shown on a map. An accompanying report describes, defines, classifies, and interprets the soils. Interpretations predict the behavior of soils under different uses and the soils' response to management. Predictions are made for areas of soil at specific places. Soil information collected in a soil survey are useful in developing land use plans and alternatives.

Palustrine – name given to inland fresh water wetlands.

Permeability – values listed estimate the range of time it takes for downward movement of water in the major soil layers when saturated but allowed to drain freely. The estimates are based on soil texture,

soil structure, available data on permeability and infiltration tests, and observation of water movement through soils or other geologic materials.

PIQ – parcel in question

Potential Frost Action – damage that may occur to structures and roads due to ice lens formation, causing upward and lateral soil movement. Based primarily on soil texture and wetness.

Prime Farmland – lands that are best suited for food, feed, forage, fiber, and oilseed crops. It may be cropland, pasture, woodland, or other land, but it is not urban, built up land, or water areas. When well-managed, the soil qualities and moisture supply provide a sustained high yield of crops with minimum inputs of energy and economic resources in the least damage to the environment. Prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable. The level of acidity or alkalinity is acceptable. Prime farmland has few or no rocks and is permeable to water and air. It is not excessively erodible or saturated with water for long periods and is not frequently flooding during the growing season. The slope ranges from 0 to 5 percent. (USDA Natural Resources Conservation Service)

Productivity Indexes – express the estimated yields of the major grain crops in Illinois as a single percentage of the average yields obtained under basic management from several of the more productive soils in the state (Muscatine, Ipava, Sable, Lisbon, Drummer, Flanagan, Littleton, Elburn, Joy soil series). See Circular 1156 from the Illinois Cooperative Extension Service.

Seasonal – when used in reference to wetlands, indicates the area flooded only during a portion of the year.

Shrink-Swell Potential – indicates volume changes to be expected for the specific soil material with changes in moisture content.

Soil Mapping Unit – collection of soil and miscellaneous areas delineated in mapping. Generally, an aggregate of the delineations of many different bodies of a kind of soil or miscellaneous area but may consist of only one delineated body. Taxonomic class names and accompanying terms are used to name soil map units. They are described in terms of ranges of soil properties within the limits defined for tax and in terms of ranges of tax adjuncts and inclusions.

Soil Series – a group of soils formed from a type of parent material, having horizons that, except for texture of the surface horizon, are similar in all profile characteristics and in arrangement in the soil profile. Among these characteristics are color, texture, structure, reaction, consistence, mineralogy, and chemical composition.

Subsidence – applies mainly to organic soils after drainage. Soil material subsides due to shrinkage and oxidation.

Terrain – the area or surface over which a particular rock or group of rocks is prevalent.

Topsoil – portion of the soil profile where higher concentrations or organic material, fertility, bacterial activity, and plant growth take place. Depths of topsoil vary between soil types.

Watershed – an area of land that drains to an associated water resource, such as a wetland, river, or lake. Depending on the size and topography, watersheds can contain numerous tributaries, such as streams, ditches, and ponding areas, such as detention structures, natural ponds, or wetlands.

Wetland – an area that has a predominance of hydric soils that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophilic vegetation typically adapted for life in saturated soil conditions.

# References

Field Office Technical Guide. USDA Natural Resources Conservation Service.

Flood Insurance Rate Map. National Flood Insurance Program, Federal Emergency Management Agency.

Illinois Urban Manual. 2016. Association of Illinois Soil & Water Conservation Districts.

Soil Survey of Champaign County. USDA Natural Resources Conservation Service.

Wetlands Inventory Maps. Department of the Interior.

Potential for Contamination of Shallow Aquifers in Illinois. Illinois Department of Energy and Natural Resources, State Geological Survey Division.

Land Evaluation and Site Assessment System. The Kendall County Department of Planning, Building, and Zoning, and the Champaign County Soil and Water Conservation District. In cooperation with USDA Natural Resources Conservation Service.