



# State of North Dakota

## Office of the State Engineer

900 EAST BOULEVARD AVE. • BISMARCK, ND 58505-0850  
701-328-2750 • FAX 701-328-3696 • <http://swc.nd.gov>

June 19, 2014

Keith Berndt, Cass County Administrator  
Metro Flood Diversion Authority  
211 Ninth Street South  
P.O. Box 2806  
Fargo, ND 58108-2806

RE: Oxbow, Hickson, Bakke Subdivision Construction Permits

Dear Mr. Berndt:

The Office of the State Engineer has reviewed your construction applications, pursuant to North Dakota Century Code § 61-16.1-38. The State Engineer has approved your applications and signed Construction Permit Nos. 2427 and 2429, enclosed.

The permits issued are subject to the conditions listed on the permits. Our office suggests that you file the permits with the county recorder's office.

If you have any questions, please contact me at 701-328-4813 or by email at [acarranza@nd.gov](mailto:acarranza@nd.gov).

Sincerely,

Aaron Carranza, P.E.  
Water Resource Engineer  
Regulatory Section

Enclosure: Permit to Construct or Modify Nos. 2427 and 2429

cc: City of Oxbow  
Cass County Joint Water Resource Board

AJC/1271/1928

**COPY**

TODD SANDO, P.E.  
STATE ENGINEER

**State of North Dakota**  
**Permit to Construct or Modify**

Permit No. 2427

This permit authorizes the permittee to construct or modify a structure, pursuant to North Dakota Century Code § 61-16.1-38.

Name of Permittee:       **Metro Flood Diversion Authority**  
                                  **211 9th Street South**  
                                  **Fargo, ND 58108-2806**

Structure Type:           **Ring Dike**  
Purpose:                   **Flood Control**

Location and Waterway on which Project will be constructed:

Location:                 **Sections 13, 14, 23, and 24, Township 137 North, Range 49**  
                                  **West, Pleasant Township, Cass County**

Stream:                   **Red River**

Basin:                     **Red River of the North**

Design Data:

**Cumulative Project:**

a. Length	<b>24,078.0</b>	Feet
b. Top Width	<b>10.0</b>	Feet
c. Maximum Height	<b>20.5</b>	Feet
d. Minimum Height	<b>8.0</b>	Feet
e. Side Slopes	<b>4:1</b>	Dry
	<b>4:1</b>	Wet

**Phase 43A (current phase):**

a. Length	<b>5,500</b>	Feet
b. Top Width	<b>10.0</b>	Feet
c. Maximum Height	<b>20.5</b>	Feet

**Construction must be completed within two years of approval date.**

This permit can be extended by the State Engineer. The permittee must request an extension in writing.

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d. Minimum Height	<b>8.0</b>	Feet
e. Side Slopes	<b>4:1</b>	Dry
	<b>4:1</b>	Wet

**Phase 43B (future phase):**

a. Length	<b>N/A</b>	Feet
b. Top Width	<b>N/A</b>	Feet
c. Maximum Height	<b>N/A</b>	Feet
d. Minimum Height	<b>N/A</b>	Feet
e. Side Slopes	<b>N/A</b>	Dry
	<b>N/A</b>	Wet

**Phase 43C (future phase):**

a. Length	<b>N/A</b>	Feet
b. Top Width	<b>N/A</b>	Feet
c. Maximum Height	<b>N/A</b>	Feet
d. Minimum Height	<b>N/A</b>	Feet
e. Side Slopes	<b>N/A</b>	Dry
	<b>N/A</b>	Wet

**Phase 43D (future phase):**

a. Length	<b>N/A</b>	Feet
b. Top Width	<b>N/A</b>	Feet
c. Maximum Height	<b>N/A</b>	Feet
d. Minimum Height	<b>N/A</b>	Feet
e. Side Slopes	<b>N/A</b>	Dry
	<b>N/A</b>	Wet

**\*N/A:** Information currently not available

Location Map: **See Attachment A**

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**Conditions**

1. That by granting this permit no liability for damages caused by improper design, construction, operation, or maintenance, or failure in materials, or workmanship is assumed by or transferred to the State Engineer, the State Water Commission, or their employees, agents, or assigns.
2. Access to the project for the purpose of inspection shall not be denied to either the State Engineer Staff, or State Water Commission staff.
3. Prior to construction, the foundation must be stripped to remove topsoil, all vegetation and other unsuitable materials. This includes the borrow area.
4. Fill material must not be frozen, and shall be free of sod, brush, or other organic material and rock larger than 3-inch in diameter. Fill material shall be of a non-permeable type soil and be able to maintain the constructed permeability. Topsoil shall not be allowed as fill, but may be used to aid in establishment of vegetative cover.
5. Fill material shall contain enough moisture so when kneaded by hand will form a ball and shall be placed in approximately horizontal layers not to exceed six inches. Passage of heavy equipment or powered mechanical hand tamping equipment over each layer is required to compact the fill material to a permeability of  $3.6 \times 10^{-4}$  ft/d or less.
6. A sustainable vegetative cover must be reestablished as soon as possible upon completion of construction. No trees, shrubs, or other woody vegetation shall be allowed on the embankment.
7. By constructing this structure, the Permittee acknowledges responsibility for its safety and maintenance. This maintenance will include correction of slumping or erosion problems, removal of all woody vegetation and maintenance of vegetative cover.
8. If prior to or during construction, items of substantial archeological value are discovered or a deposit of such items are disturbed, the Permittee shall cease construction activities in the area so affected. The State Engineer shall be promptly notified of the discovery and construction will not resume until the State Engineer gives written permission.
9. The Permittee must have land rights, easements, or fee title to any land impacted as a result of this project. Copies of the easement documents if applicable, are to be sent to the Office of the State Engineer.
10. The permit applies to the specific site described on the permit application.

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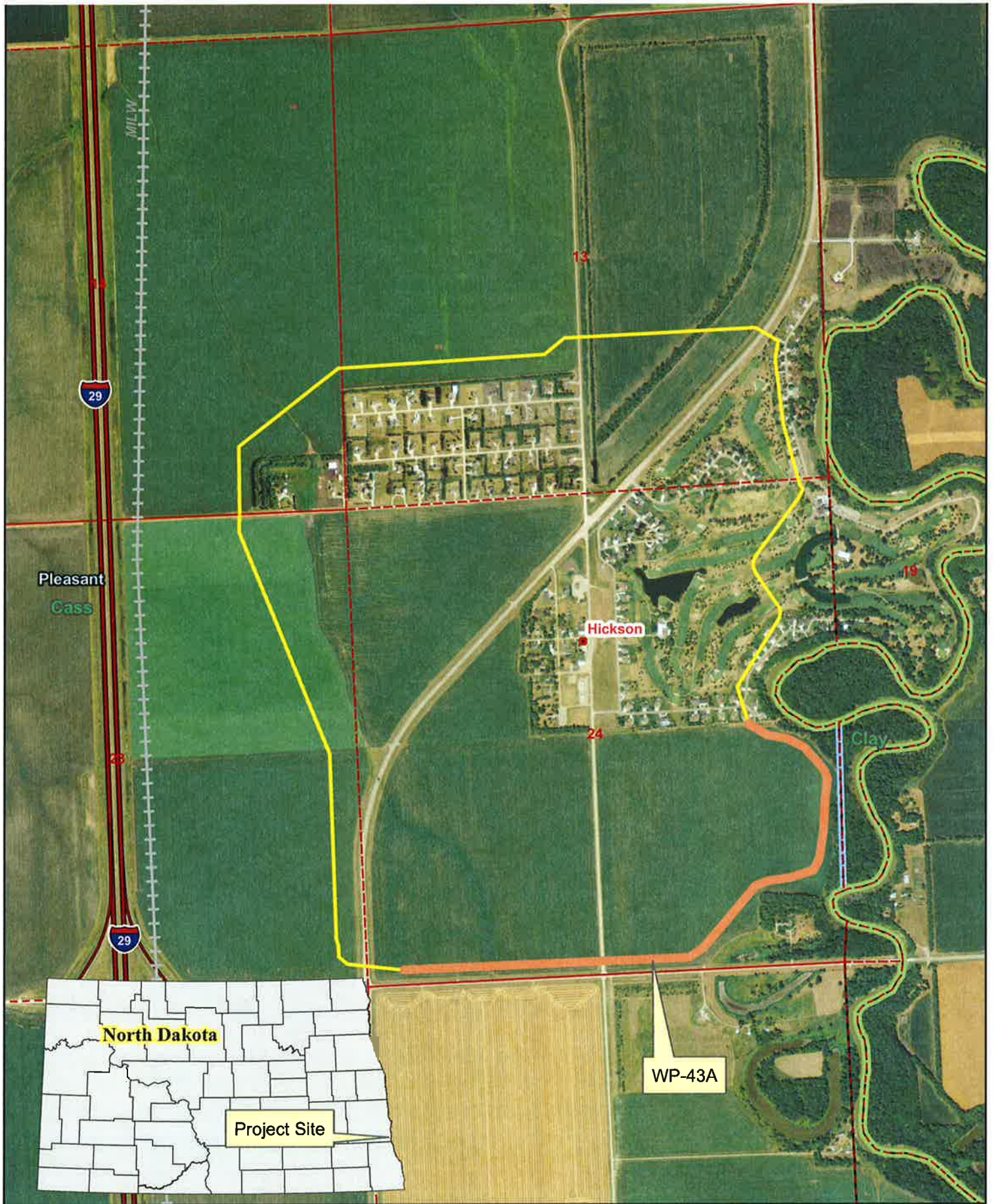
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11. The Permittee is responsible for obtaining any other local, state, or federal permits or approvals that may be necessary prior to construction.
12. In accordance with North Dakota Administrative Code § 89-08-03-06, the Permittee shall provide the State Engineer with As-Built plans after the dam, dike or other device has been constructed.
13. At the discretion of the State Engineer, in accordance with North Dakota Century Code §§ 61-03 and 61-04-11, the project is subject to modification at the expense of the owner.
14. The Permittee must provide to the State Engineer updated plans and land rights for consideration and approval for work packages 43B, 43C, 43D, and 43E. State Engineer approval of each work package is required prior to construction.



Todd Sando, P.E.  
State Engineer

Date: 6/19/14



**Metro Flood Diversion Authority**  
 OHB Ring Dike - Dike System  
 Sections 13, 14, 23 & 24, T137N, R49W

**Cass County**  
 Permit No. 2427



**State of North Dakota**  
**Permit to Construct or Modify**

Permit No. **2429**

This permit authorizes the permittee to construct or modify a structure, pursuant to North Dakota Century Code § 61-16.1-38.

Name of Permittee: **Metro Flood Diversion Authority**  
**211 9th Street South**  
**Fargo, ND 58108-2806**

Structure Type: **Ponds**

Purpose: **Stormwater management**

Location and Waterway on which Project will be constructed:

Location: **Sections 13, 23, and 24, Township 137 North, Range 49 West,  
Pleasant Township, Cass County**

Stream: **Red River**

Basin: **Red River of the North**

Design Data:

**North Pond (SE ¼ of Section 13):**

Top

Storage	<b>284.5</b>	Acre-Feet
Surface Area	<b>23.8</b>	Acres
Depth of Water	<b>12.5</b>	Feet

Service Level

Storage	<b>N/A</b>	Acre-Feet
Surface Area	<b>N/A</b>	Acres
Depth of Water	<b>N/A</b>	Feet

Embankment

Maximum Height	<b>N/A</b>	Feet
Top Width	<b>N/A</b>	Feet
Freeboard	<b>N/A</b>	Feet
Side Slopes	<b>N/A</b>	Interior/Exterior

**Construction must be completed within two years of approval date.**

This permit can be extended by the State Engineer. The permittee must request an extension in writing.

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**West Pond (NE ¼ of Section 23 and NW ¼ of Section 24):**

Top

Storage	<b>387.8</b>	Acre-Feet
Surface Area	<b>32.5</b>	Acres
Depth of Water	<b>10.0</b>	Feet

Service Level

Storage	<b>187.6</b>	Acre-Feet
Surface Area	<b>26.1</b>	Acres
Depth of Water	<b>8.0</b>	Feet

Embankment

Maximum Height	<b>N/A</b>	Feet
Top Width	<b>N/A</b>	Feet
Freeboard	<b>N/A</b>	Feet
Side Slopes	<b>N/A</b>	Interior/Exterior

**Golf Course Pond 1 (S ½ of Section 24):**

Top

Storage	<b>209.2</b>	Acre-Feet
Surface Area	<b>27.7</b>	Acres
Depth of Water	<b>12.5</b>	Feet

Service Level

Storage	<b>143.2</b>	Acre-Feet
Surface Area	<b>22.7</b>	Acres
Depth of Water	<b>10.0</b>	Feet

Embankment

Maximum Height	<b>N/A</b>	Feet
Top Width	<b>N/A</b>	Feet
Freeboard	<b>N/A</b>	Feet
Side Slopes	<b>N/A</b>	Interior/Exterior



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**Golf Course Pond 2 (NE ¼ SE ¼ of Section 24):**

Top

Storage	<b>66.5</b>	Acre-Feet
Surface Area	<b>8.0</b>	Acres
Depth of Water	<b>12.5</b>	Feet

Service Level

Storage	<b>48.2</b>	Acre-Feet
Surface Area	<b>6.6</b>	Acres
Depth of Water	<b>10.0</b>	Feet

Embankment

Maximum Height	<b>N/A</b>	Feet
Top Width	<b>N/A</b>	Feet
Freeboard	<b>N/A</b>	Feet
Side Slopes	<b>N/A</b>	Interior/Exterior

**Golf Course Pond 3 (S ½ SE ¼ of Section 24):**

Top

Storage	<b>36.0</b>	Acre-Feet
Surface Area	<b>4.5</b>	Acres
Depth of Water	<b>12.5</b>	Feet

Service Level

Storage	<b>25.9</b>	Acre-Feet
Surface Area	<b>3.6</b>	Acres
Depth of Water	<b>10.0</b>	Feet

Embankment

Maximum Height	<b>N/A</b>	Feet
Top Width	<b>N/A</b>	Feet
Freeboard	<b>N/A</b>	Feet
Side Slopes	<b>N/A</b>	Interior/Exterior

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**Golf Course Pond 4 (SW ¼ SW ¼ of Section 24):**

Top

Storage	<b>196.8</b>	Acre-Feet
Surface Area	<b>14.2</b>	Acres
Depth of Water	<b>15.5</b>	Feet

Service Level

Storage	<b>133.2</b>	Acre-Feet
Surface Area	<b>12.0</b>	Acres
Depth of Water	<b>13.5</b>	Feet

Embankment

Maximum Height	<b>N/A</b>	Feet
Top Width	<b>N/A</b>	Feet
Freeboard	<b>N/A</b>	Feet
Side Slopes	<b>N/A</b>	Interior/Exterior

Location Map: **See Attachment A**

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**Conditions**

1. That by granting this permit no liability for damages caused by improper design, construction, operation, or maintenance, or failure in materials, or workmanship is assumed by or transferred to the State Engineer, the State Water Commission, or their employees, agents, or assigns.
2. Access to the project for the purpose of inspection shall not be denied to either the State Engineer Staff, or State Water Commission staff.
3. A sustainable vegetative cover must be reestablished as soon as possible upon completion of construction.
4. Construction of this project does not grant a water right. Any use of water associated with this project is subject to use from the source by senior appropriators. The State Engineer may require that any inflows be passed downstream for senior appropriators at the expense of the owner.
5. By constructing this structure, the Permittee acknowledges responsibility for its safety and maintenance. This maintenance will include correction of slumping or erosion problems, removal of all woody vegetation and maintenance of vegetative cover.
6. If prior to or during construction, items of substantial archeological value are discovered or a deposit of such items are disturbed, the Permittee shall cease construction activities in the area so affected. The State Engineer shall be promptly notified of the discovery and construction will not resume until the State Engineer gives written permission.
7. The Permittee must have land rights, easements, or fee title to any land impacted as a result of this project. Copies of the easement documents if applicable, are to be sent to the Office of the State Engineer.
8. The permit applies to the specific site described on the permit application.
9. The Permittee is responsible for obtaining any other local, state, or federal permits or approvals that may be necessary prior to construction.
10. In accordance with North Dakota Administrative Code § 89-08-03-06, the Permittee shall provide the State Engineer with As-Built plans after the dam, dike or other device has been constructed.
11. At the discretion of the State Engineer, in accordance with North Dakota Century Code §§ 61-03 and 61-04-11, the project is subject to modification at the expense of the owner.

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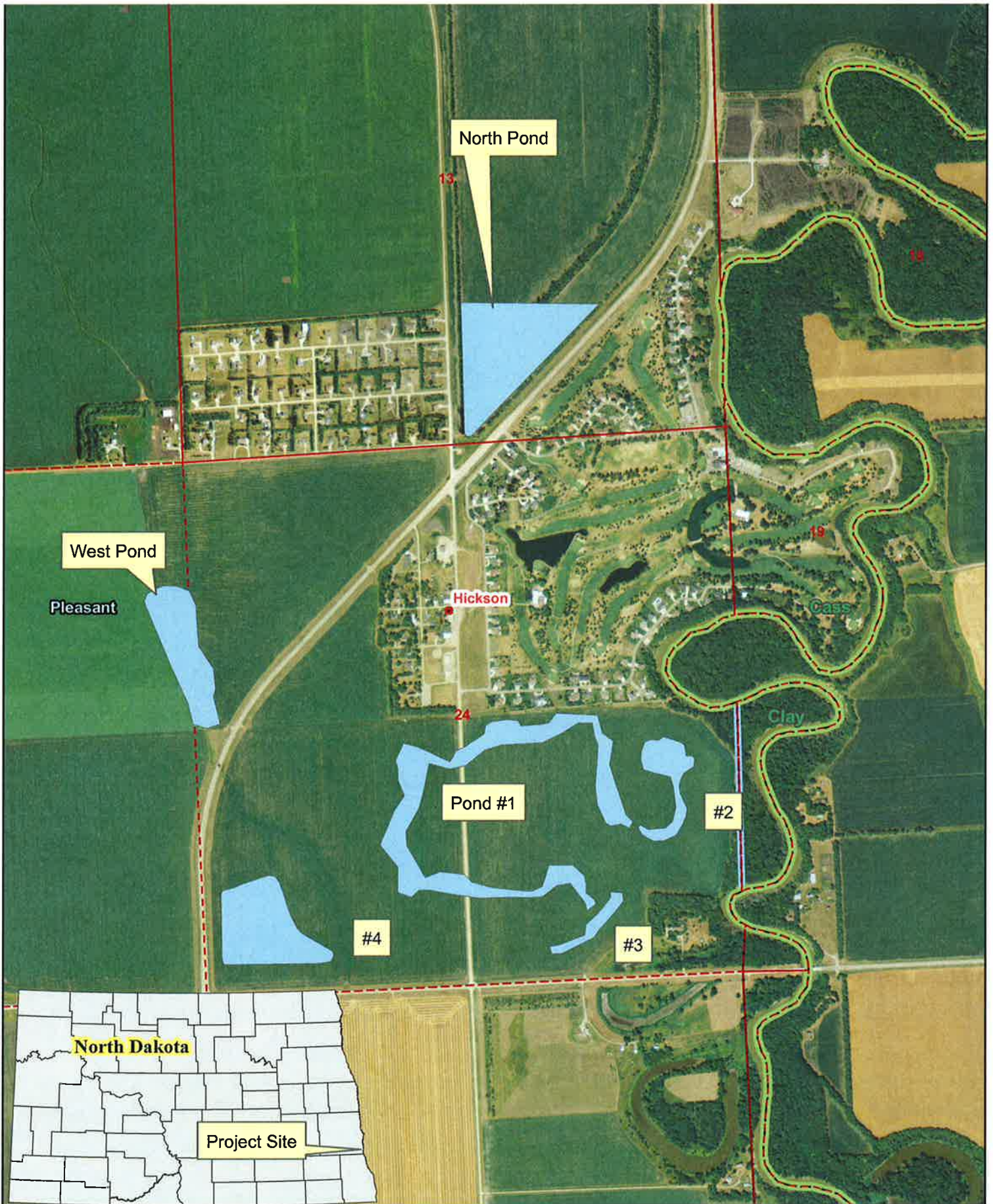
12. The Permittee must provide to the State Engineer land rights prior to the construction of the West Pond.



Todd Sando

Todd Sando, P.E.  
State Engineer

Date: 6/19/14



**Metro Flood Diversion Authority**  
 OHB Ring Dike - Pond System  
 SE1/4 Section 13,S1/2 & NW1/4 Section 24,  
 & NE1/4 Section 23,T137N, R49W

**Cass County**  
 Permit No. 2429

