(DISTRICT USE ONLY) **Permit No.** _____

Bois de Sioux Watershed District Permit Application Form (Amended July 31, 2015)

Instructions: *For all permits complete "Section1–GeneralInformation", "Section8–ExistingCulvertInformation", "Section9–PermitCertificationandSignature", and anyadditionalsections that are applicable to your project. The District will begin processing this application once a **complete** application is submitted. Failure to provide all information requested will delay processing. Inaccurate information may be cause for denial.*

Mapping: *This application must be accompanied by FSA aerial photo or equivalent map showing all pertinent features.*

☐ **yes** An FSA aerial photo or equivalent map has been included with this application.

Section 1 – General Information

A. Applicant Information:

1. Applicant Name …… _____
2. Applicant Mailing Address…… _____

   City… _____ State… _____ Zip Code…. _____
3. Applicant Mobile Phone No. _____ Applicant Telephone No. _____
4. Applicant E-mail…… _____
5. Landowner Name…….. _____

B. Project Location:

1. County _____ Township Name _____
2. Twp # _____ Range # _____ Section # _____ Quarter _____ (i.e. N ½ of SW ¼, etc.)
3. E-911 Address of Property if Applicable _____

C. Project Type: Check all below that apply & complete selected sections in following pages

1. ☐ Tiling/including surface inlets (Section 2)
2. ☐ Surface Drainage / Ditching (Section 3)
3. ☐ Culvert, Bridge, and Road Improvements (Section 4)
4. ☐ Ring Dikes and Levees (Section 5)
5. ☐ River, Stream, Wetland, Lake, Shoreline Alterations (Section 6)
6. ☐ Traps/Flap Gates (Section 7)
7. ☐ Land forming (Section 7)
8. ☐ Other (Section 7) _____

D. Describe in detail the purpose for the project and work to be performed. Use additional sheets if needed.

_____

_____

_____

_____

_____

Section 2 – Tiling

Notice: *The District encourages gate or pump controls on all tile projects. Tile projects that include controls which allow for the tile system to be "shutoff" when necessary are not restricted by drainage coefficient (D_c) limitations. Tile projects that do not include controls are restricted to a ¼ inch per day D_c. The D_c limitation applies to the design of the project outlet only.*

Drainage coefficient = (design flow at the outlet in cfs) / (acres drained) / (0.042)

A. Project Type (check all that apply):

1. ☐ Gravity pattern tile with control structures (i.e. gates, stop-logs, etc.)
2. ☐ Gravity pattern tile without control structures (limited to ¼ inch per day drainage coefficient)
3. ☐ Pattern tile project with pumped outlet
4. ☐ Random tile project with control structures
5. ☐ Random tile project without control structures (limited to ¼ inch per day drainage coefficient)
6. ☐ Surface inlets (limited to 1 inch per day drainage coefficient)

B. Project Map

☐ **yes** The required accurate to scale map showing the following project features is included:

1. Date of the tile design is required on the map
2. Location and spacing of all tile lines including mains and individual laterals
3. Diameter of all tile lines including mains and individual laterals
4. Location and type of all surface inlets
5. Location of any man-made dikes or diversions intended to direct water to surface inlets
6. Location of all tile outlets
7. Location of control structures such as gate structures and lift stations
8. Description of tile material (i.e. plastic, concrete, metal, etc.)
9. Description of tile type (perforated, non-perforated, single wall, dual wall, etc.)
10. Trace the flow path for the first mile downstream of all project outlets and include location and size of culverts along the flow path (may require a separate map)

Note: Providing a digital map showing the above information is required when using contractors and will expedite processing.

C. Contractor Information

1. Name, address, e-mail and phone number of designer/installer if other than applicant

_____

_____

D. General Project Information

1. ☐ yes ☐ no Does the project include a lift/pump station?
2. ☐ yes ☐ no ☐ n/a For gravity outlet projects, does the project include control structures or gates?
3. ☐ yes ☐ no Does the project include surface inlets?

   a. If yes, what type of surface inlets (i.e. French, Hickenbottom, open inlet w/trash guard):

   _____

   b. ☐ yes ☐ no Does the project include dikes to direct flow to surface inlets?

4. Date of the tile design (required to also be shown on project map)_____
5. How many tile outlets are there?_____

E. Subsurface Tile Design Information | **Outlet 1** | **Outlet 2** | **Outlet 3**

1. Subsurface area drained by the project, acres……..... _____ _____ _____
2. Design flow at the outlet, cfs……..... _____ _____ _____
3. Drainage coefficient, in/day (D_c = cfs / acres / 0.042)……..... _____ _____ _____
4. Diameter of outlet tile line, inches……..... _____ _____ _____
5. Gradient (slope) of outlet tile line, %..... _____ _____ _____
6. Elevation of outlet tile line invert, NAVD 88 datum……..... _____ _____ _____
7. Elevation of highest tile line invert, NAVD 88 datum……..... _____ _____ _____
8. Overflow elevation of outlet control structure or pump……..... _____ _____ _____

Note: The overflow elevation of control structures must be higher than the highest tile line elevation as measured at the tile invert to meet the definition of "controlled". Label outlets and surface inlets accordingly on the project map.

F. Surface Inlet Design Information | **Inlet 1** | **Inlet 2** | **Inlet 3**

1. Surface area (watershed) drained by the surface inlet, acres.. _____ _____ _____
2. Design flow of receiving tile line at the inlet, cfs…….. _____ _____ _____
3. Drainage coefficient, in/day (D_c = cfs / acres / 0.042)……. _____ _____ _____

G. Standard Permit Conditions:

1. Proper sizing of the first culvert downstream of the project is required. The applicant agrees to modify the downstream culvert to comply with the District's surface water management goals. Assistance will be provided by the District Engineer.
2. Erosion protection at the outlet in the form of riprap or equivalent is required. Any damage caused to public facilities (including legal assessment drains) shall be paid for and remedied by the applicant.
3. Projects that do not include lift stations or gated controls are limited to 1/4 inch per day drainage coefficient at the outlet.
4. Surface inlets are limited to 1 inch per day drainage coefficient
5. All pumps must be turned off, and gates closed, during all times the district determines flood conditions exist downstream. Determinations that flood conditions exist shall be shown on the District's website, www.bdswd.com. All pump/gate owners and operators are required to either check the website daily, or telephone the District office during the spring runoff and in the event of summer heavy rains.
6. Projects with pump outlets must be "shut-off" if downstream culverts are being impacted by ice-buildup due to freezing of tile discharge water

I accept and agree to comply with the above Standard Permit Conditions:

Applicant Signature_____

Landowner Signature_____

To sign up to receive flooding alerts via text messages visit the BdSWD website or scan the QR Code above

Section 3 – Surface Drainage (ditching)

Notice: *Excavation of ditches may cause problems with soil erosion. Applicant is encouraged to take steps to minimize the potential for erosion. Applicant must also complete "Section 2" if the project includes tile or surface inlets and "Section 4" if the project includes culvert replacements or improvements.*

Reminder: The applicant must also complete Section 8 "Existing Culvert Information".

A. Project Map

☐ **yes** The required accurate to scale map showing the following project features is included:

1. A date is required on the map
2. Location of all surface drains to be constructed
3. Location of any man-made dikes intended to re-direct water
4. Location of control structures such as sluice gats, flap gates, etc.
5. Trace the flow path for the first mile downstream of all project outlets and include location and size of culverts along the flow path (may require a separate map)

B. Contractor Information

1. Name, address, e-mail, and phone number of contractor if other than applicant

_____

_____

C. General Project Information

1. What will you do with the spoil (how will it be used)?

_____

D. Design Information

1. Watershed area drained by the project, acres……..……._____
2. Channel bottom width, ft…..…….……_____
3. Channel profile grade, % (vertical ft / horizontal ft x 100)...._____
4. Average channel depth from field elevation, ft…….._____
5. Channel side slopes, Horizontal:Vertical (i.e. 3:1)……..._____

E. Standard Surface Drain Permit Condition:

1. Proper sizing of the first culvert downstream of the project is required. The applicant agrees to modify the downstream culvert to comply with the District's surface water management goals. Assistance will be provided by the District Engineer.

I accept and agree to comply with the above Standard Permit Conditions:

Applicant Signature_____

Landowner Signature_____

Section 4 – Culvert, Bridge, and Road Improvements

Notice: *District policy requires that culvert sizing conforms to the District's surface water management goals. As such, proposed culverts will be reviewed by the District Engineer for conformance with District policy and objectives. Applicant must contact proper authority when working in public right-of-way.*

The District may provide cost share for private crossings when culverts are larger than 24 inches in diameter if they are located along the course of legal drains defined by Minnesota Statutes Chapter 103E. Check with the District Administrator to determine eligibility for cost share.

Changes to road elevations or construction of new roads can significantly impact flooding. The District may require the applicant to submit additional technical information in order to assess impacts.

A. Project Map

☐ **yes** The required accurate to scale map showing the following project features is included:

1. Location of all proposed culverts/bridges to be added, replaced, or improved
2. Label size and type of all proposed culvert replacements/additions (i.e. round, arch, CMP, etc.)
3. Location of control structures such as sluice gats, flap gates, etc.
4. Location and length of road grading or road construction project (if applicable)
5. Trace the flow path for the first mile downstream of project, include location and size of culverts along the flow path (may require a separate map)
6. A date is required on the map

B. Contractor Information

1. Name, address, e-mail, and phone number of contractor if other than applicant

   _____

C. Culvert Design Information

1. Watershed upstream of proposed culvert, acres…….____
2. Proposed upstream culvert invert elevation if known, NAVD 88 datum……____
3. Proposed downstream culvert invert elevation if known, NAVD 88 datum…...____
4. Size of proposed culvert……..……..____

D. Road Design Information (This section is for road improvement projects only)

1. Describe the road project (start and stop locations, re-grade, overlay, complete reconstruction, new road)

   _____

   _____

2. Length of Road Project, feet……..____
3. Existing road centerline elevation at the lowest point, NAVD 88 datum……....____
4. Proposed road centerline elevation at the lowest point, NAVD 88 datum…....____

5. ☐ yes ☐ no Does the road construction project include re-grading or reconstruction of ditches?

6. ☐ **yes** Construction plans showing profiles, cross-sections, plan views, and culverts are included

Section 5 – Ring Dikes and Levees

Notice: *The District supports ring dike and levee projects that reduce flood risks to developed properties. However, proposed levee projects designed to protect undeveloped lands from flooding tend to cause adverse flood impacts in other areas and therefore will generally not be permitted.*

Levees placed along channels or river banks are susceptible to failure. The district strongly recommends that applicants consult with a geotechnical engineer for the design and testing of their ring dike or levee.

The applicant must notify the local land use Zoning Office or Minnesota Department of Natural Resources when seeking to construct a ring dike or levee. Floodplain regulations may apply to your project.

A. Project Map

☐ **yes** The required accurate to scale map showing the following project features is included:

1. Location of the proposed levee or ring dike
2. Location of culverts & closure structures (gates) through levee
3. Clearly identify the area you are trying to protect and the flooded area
4. Location of Flood Insurance Rate Map (FIRM) 100-yr floodplain and floodway (if it exists)
5. A date is required on the map

B. Contractor Information

1. Name, address, e-mail, and phone number of contractor if other than applicant

   _____

   _____

C. Ring Dike or Levee Design Information

1. Length of the levee or ring dike project, feet.……._____
2. Proposed top of levee elevation, NAVD 88 datum……._____
3. Proposed top width of levee, feet……...._____
4. Proposed levee side slopes , H:V……..…….._____
5. 100-yr flood elevation (if known), NAVD 88 datum……..._____
6. Source for determining 100-yr flood elevation (USGS gage, FIRM, etc.)…..…_____
7. Approximate flood of record elevation (if known), NAVD 88 datum…….._____
8. ☐ yes ☐ no Are you using any public roads as a part of your levee or ring dike? If yes, contact road authority for permission
9. ☐ yes ☐ no Have you determined if a Flood Insurance Rate Map (FIRM) exists for the project area?
10. ☐ yes Construction plans showing profiles, cross-sections, plan views, and culverts are included
11. ☐ yes ☐ no A geotechnical engineer was utilized for the design of the ring dike or levee

Section 6 – River, Stream, Wetland, Lake, and Shoreline Alterations

Notice: *In addition to this permit application, the applicant may need to notify the proper Federal, State and County officials when planning work in and around rivers, streams, wetlands, lakes, and shorelines.*

A. Project Map

☐ **yes** The required accurate to scale map showing the following project features is included:

1. Location and extents of the intended work area
2. Location and extents of excavation areas
3. Location and extents of fill areas
4. Location of riprap, culverts, and any other installations
5. A date is required on the map

B. Contractor Information

1. Name, address, e-mail, and phone number of contractor if other than applicant

_____

_____

C. Project Design Information

1. ☐ yes A survey was completed for the project and survey drawings are included
2. ☐ yes Construction plans showing profiles, cross-sections, plan views, and culverts are included
3. ☐ yes A design date is included on the construction plans

D. Adjacent landowner Information

a. Please provide the names and addresses of neighboring landowners on the space provided below

1. _____
2. _____
3. _____
4. _____
5. _____

Section 7 – Other (Including Culvert Traps / Flap Gates, Land Forming, Misc.)

Notice: *The use of culvert traps and flap gates may cause adverse downstream flood impacts because they remove floodplain storage. The District will review flap gate installations from the standpoint of potential downstream adverse impacts.*

A. Project Map

☐ **yes** An accurate to scale map showing relevant project features has been included

1. Location and extents of the intended work area
2. Location and extents of excavation areas
3. Location and extents of fill areas
4. Location of all relevant culverts and proposed flap gate installations (gates)
5. Clearing identify the area you are trying to protect from flooding if applicable
6. Trace the flow path for the first mile downstream of project, include location and size of culverts along the flow path (may require a separate map)
7. A date is required on the map

B. Contractor Information

a. Name, address, e-mail, and phone number of contractor if other than applicant

_____

_____

C. Project Design (use this section for land forming or other projects requiring major excavations & fills)

a. ☐ yes A survey was completed for the project and survey drawings are included (if applicable)

b. ☐ yes Construction plans showing profiles, cross-sections, plan views, and culverts are included

c. ☐ yes A design date is included on the construction plans (if applicable)

D. Project Information

a. Describe the purpose for the project and the work to be completed

_____

_____

_____

_____

_____

_____

_____

Section 8 – Existing Culvert Information

Notice: *You must provide any and all culvert/bridge information for culverts/bridges that are above, below, or associated with the project area. Be sure to include all culverts affecting the property even if not directly up or down stream. You must describe the culvert/bridge as instructed below. Measure all culverts/bridges to insure accuracy. Incorrect information may result in an invalid permit.*

Number the culverts on the required map and place the description information here. Use additional sheets if necessary:

1. *a.* Type: ☐ ***Round*** ☐ ***Arch*** ☐ ***Box*** ☐ ***Other***_____

b. Material: ☐ ***Concrete*** ☐ ***Metal*** ☐ ***Plastic*** ☐ ***Other***_____

c. Dimensions, inches: **Diameter (round culverts only)**_____ **Height x Width**_____

d. Owner: ☐ ***Township*** ☐ ***County*** ☐ ***State*** ☐ ***Other***_____

e. Application: ☐ ***Centerline*** ☐ ***Approach*** ☐ ***Other***_____

f. Direction of flow:_____ Approx. drainage area, acres_____

g. Does this culvert have a flap gate/trap? ☐ yes ☐ no

2. *a.* Type: ☐ ***Round*** ☐ ***Arch*** ☐ ***Box*** ☐ ***Other***_____

b. Material: ☐ ***Concrete*** ☐ ***Metal*** ☐ ***Plastic*** ☐ ***Other***_____

c. Dimensions, inches: **Diameter (round culverts only)**_____ **Height x Width**_____

d. Owner: ☐ ***Township*** ☐ ***County*** ☐ ***State*** ☐ ***Other***_____

e. Application: ☐ ***Centerline*** ☐ ***Approach*** ☐ ***Other***_____

f. Direction of flow:_____ Approx. drainage area, acres_____

g. Does this culvert have a flap gate/trap? ☐ yes ☐ no

3. *a.* Type: ☐ ***Round*** ☐ ***Arch*** ☐ ***Box*** ☐ ***Other***_____

b. Material: ☐ ***Concrete*** ☐ ***Metal*** ☐ ***Plastic*** ☐ ***Other***_____

c. Dimensions, inches: **Diameter (round culverts only)**_____ **Height x Width**_____

d. Owner: ☐ ***Township*** ☐ ***County*** ☐ ***State*** ☐ ***Other***_____

e. Application: ☐ ***Centerline*** ☐ ***Approach*** ☐ ***Other***_____

f. Direction of flow:_____ Approx. drainage area, acres_____

g. Does this culvert have a flap gate/trap? ☐ yes ☐ no

4. *a.* Type: ☐ ***Round*** ☐ ***Arch*** ☐ ***Box*** ☐ ***Other***_____

b. Material: ☐ ***Concrete*** ☐ ***Metal*** ☐ ***Plastic*** ☐ ***Other***_____

c. Dimensions, inches: **Diameter (round culverts only)**_____ **Height x Width**_____

d. Owner: ☐ ***Township*** ☐ ***County*** ☐ ***State*** ☐ ***Other***_____

e. Application: ☐ ***Centerline*** ☐ ***Approach*** ☐ ***Other***_____

f. Direction of flow:_____ Approx. Drainage area, acres_____

g. Does this culvert have a flap gate/trap? ☐ yes ☐ no

Section 9 – Permit Certification & Signature

Notice: *Watershed rules are not designed to resolve all issues between neighbors. Therefore, it remains your responsibility to resolve any issues with your neighbors that result from any work which you perform with a permit. If you have not contacted your neighbors about your project, or if you have neighbors that object to your project, you may have to attend a Bois de Sioux Watershed District board meeting with the objecting neighbors present to seek approval for your permit and this may delay processing of your application.*

A. List any and all other landowners and/or their addresses that may be affected by this work. Use additional sheets if necessary.

1. _____
2. _____
3. _____

B. Have you notified your neighbors that may be affected by this project? ☐ **yes** ☐ **no**

Checking no or not answering question B (above) may significantly delay a decision on this application.

C. Do any of your neighbors object to this project? ☐ **yes** ☐ **no**

D. If neighbors object, explain why you do not consider the objection valid

_____

_____

_____

E. Date you intend to start work:_____

F. Certification

I believe that the work described above is in accordance with the general purposes and Overall Plan of the Bois de Sioux Watershed District. I certify that all information on this application is complete and accurate. I understand that if said information is found to be incomplete or inaccurate, the permit application will be denied or considered "invalid" should a permit be approved. Upon completion of the work I will fill out and return the completion report post card attached to my approved permit. Starting work prior to receipt of an approved permit may subject me to "after the fact" fees which includes $250.00 plus engineer and/or attorney fees incurred in processing this application.

I understand that this application only satisfies Bois de Sioux Watershed District permitting requirements and that I may need additional permits from County, State, Federal, or other agencies.

Are you (the applicant) the: ☐ **Owner** ☐ **Operator** ☐ **Contractor**

Signature of Applicant_____ Date_____

Signature of Landowner **(Required)** _____ Date_____

Submit completed application and all supporting data to: Bois de Sioux Watershed District, 704 Highway 75 South, Wheaton, MN 56296. Any questions or concerns regarding the filing of this permit application should be directed to the Bois de Sioux Watershed District Office at 320-563-4185.

Applications may be filled out electronically but a copy must be printed and submitted. Electronic copies will NOT be accepted.