Drainage Authority Considerations
Standards of Decision

• Repair/Maintenance
  • the drainage authority determines from the repair report and the evidence presented that the repairs recommended are necessary for the best interests of the affected property owners (103E.715)
Standards of Decision

• Drainage Project
  • The drainage authority must dismiss the proceedings and petition, by order, if it determines that:
    • the benefits of the proposed drainage project are less than the total cost, including damages awarded;
    • the proposed drainage project will not be of public benefit and utility; or
    • the proposed drainage project is not practicable after considering the environmental, land use, and multipurpose water management criteria in section 103E.015, subdivision 1.
  • The drainage authority shall establish, by order, a proposed drainage project if it determines that:
    • Report have been made and other proceedings have been completed;
    • the reports made or amended are complete and correct;
    • the estimated benefits are greater than the total estimated cost, including damages;
    • the proposed drainage project will be of public utility and benefit, and will promote the public health; and
    • the proposed drainage project is practicable.
Drainage Code Definitions

• 103E.005, Subd. 25. Public health.
  • "Public health" includes an act or thing that tends to improve the general sanitary condition of the community by drainage, relieving low wetland or stagnant and unhealthful conditions, or preventing the overflow of any property that produces or tends to produce unhealthful conditions.

• E.005, Subd. 27. Public welfare or public benefit.
  • "Public welfare" or "public benefit" includes an act or thing that tends to improve or benefit the general public, either as a whole or as to any particular community or part, including works contemplated by this chapter, that drain or protect roads from overflow, protect property from overflow, or reclaim and render property suitable for cultivation that is normally wet and needing drainage or subject to overflow.
Universal Finding (but is it?)

• “The proposed improvement will be of public utility and benefit, and will promote the public health and welfare. Public utility and benefit is achieved by providing more efficient drainage to agricultural properties and public roads within the drainage area. The improvement will protect property values and improve the economy of agricultural production. Public health and welfare is achieved by reducing the frequency of wet and overflowed land which will improve the general sanitary condition of the community, relieve low wet or stagnant and unhealthful conditions, and protect the overflowed property – just as was sought to be achieved in the original proceedings to establish CD ##.”
State Water Policy (103A)

• subject to existing rights, public waters are subject to the control of the state.

• the state shall control and supervise activity that changes or will change the course, current, or cross section of public waters. (103A.201).

• it is in the public interest to preserve the wetlands of the state to conserve surface waters, maintain and improve water quality, preserve wildlife habitat, reduce runoff, provide for floodwater retention, reduce stream sedimentation, contribute to improved subsurface moisture, enhance the natural beauty of the landscape, and promote comprehensive and total water management planning. (103A.202).
State Water Law Policy (103A)

• The Water Law of this state is contained in many statutes that must be considered as a whole to systematically administer water policy for the public welfare. Water law that seems contradictory as applied to a specific proceeding creates a need for a forum where the public interest conflicts involved can be presented and, by consideration of the whole body of water law, the controlling policy can be determined and apparent inconsistencies resolved. (103A.211).
Drainage Code Requirements

• In any proceeding to establish a drainage project, or in the construction or repair of or other work affecting a public drainage system under any law, the drainage authority or other authority having jurisdiction over the proceeding must give proper consideration to conservation of soil, water, wetlands, forests, wild animals, and related natural resources, and to other public interests affected, together with other material matters as provided by law in determining whether the project will be of public utility, benefit, or welfare. (103E.015, subd. 2).
Environmental Considerations

• Before establishing a drainage project, the drainage authority must consider each of the following criteria:
  • private and public benefits and costs of the proposed drainage project;
  • alternative measures, including measures identified in applicable state-approved and locally adopted water management plans, to:
    • conserve, allocate, and use drainage waters for agriculture, stream flow augmentation, or other beneficial uses;
    • reduce downstream peak flows and flooding;
    • provide adequate drainage system capacity;
    • reduce erosion and sedimentation; and
    • protect or improve water quality;
  • the present and anticipated land use within the drainage project or system, including compatibility of the project with local land use plans;
  • current and potential flooding characteristics of property in the drainage project or system and downstream for 5-, 10-, 25-, and 50-year flood events, including adequacy of the outlet for the drainage project;
  • the effects of the proposed drainage project on wetlands; water quality; fish and wildlife resources; shallow groundwater availability, distribution, and use; and
  • the overall environmental impact of all the above criteria.
Environmental Policy Requirements: Chapter 116D

• MEPA environmental review requirements (§ 116D.04 subd, 2a)
  • Where there is potential for significant environmental effects resulting from any major governmental action, the action shall be preceded by a detailed environmental impact statement prepared by the responsible governmental unit. Minnesota Ctr. for Env'l. Advocacy v. Big Stone Cty. Bd. of Comm'rs, 638 N.W.2d 198, 203 (Minn. Ct. App. 2002) (affirming district court reversal of MEPA negative declaration).
  • Coon Creek Watershed Dist. v. State Env'l. Quality Bd., 315 N.W.2d 604, 605 (Minn. 1982) (while the [drainage authority] is required to make necessary repairs, we disagree that the repair project is thereby exempt from the EPA. The requirement of an EIS does not preclude the repair but merely ensures that the environmental effects will be considered and that the repair will be done in the least harmful way”).
Environmental Policy Requirements: Chapter 116D

• MEPA least impact requirements (§ 116D.04 subd. 6)
  • No state action significantly affecting the quality of the environment shall be allowed, nor shall any permit for natural resources management and development be granted, where such action or permit has caused or is likely to cause pollution, impairment, or destruction of the air, water, land or other natural resources located within the state, so long as there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare and the state’s paramount concern for the protection of its air, water, land and other natural resources from pollution, impairment, or destruction.
  • Economic considerations alone shall not justify such conduct.
  • The least impact requirement directly connects to the alternative consideration requirements described above.
Court Perspectives

• Generally "the question of the necessity and propriety of proceedings of this character, including the necessity and propriety of draining particular tracts of land, is one that is addressed to the judgment and discretion of the tribunal having jurisdiction of the matter, whose conclusions will be disturbed by the courts only when the evidence, taken as a whole, furnishes no legal basis for the decision of such tribunal." *In re Judicial Ditch No. 10*, 156 Minn. 392, 394, 194 N.W. 875, 875 (1923). "[I]n matters involving construction and improvement of drainage facilities a substantial amount of discretion must of necessity remain with the county board or other governmental entity having jurisdiction over the matter." *In re County Ditch No. 13*, 289 Minn. 108, 110, 182 N.W.2d 715, 716 (Minn. 1971), overruled in part by *Schwermann v. Reinhart*, 296 Minn. 340, 345, 210 N.W.2d 33, 36 (1973).
"[N]othing in the statutory scheme governing ditch maintenance limits the county's discretion to the outset of a repair project." *Slama v. Pine County*, A07-1091, 2008 WL 1972914, at *4 (Minn. Ct. App. May 6, 2008) (unpublished opinion). In addition, the statute does set a standard by which certain evidence is to be given significantly more weight than other evidence. *See* MINN. STAT. § 103E.355, subd. 1.
Court Perspectives

• The Drainage Authority has a wide discretion when deciding whether to order repairs. §103E.705, subd. 3 ("The board shall consider the drainage inspection report at its next meeting and may repair all or any part of the drainage system as provided under this chapter."), See also In re County Ditch No. I3, Pope Cty., 308 Minn. 138, 142 (1976) ("the county board must have discretion to authorize abandonment of a ditch where it has ceased to function as intended and restoration is not practical.").
Case Studies of Environmental Compliance
Navigating Wetland Regulation is Challenging!
Environmental Regulations Affecting Public Drainage Work

- **Federal**
  - Clean Water Act
  - Swampbuster

- **State**
  - Wetland Conservation Act
  - Public Waters
  - Threatened and Endangered Species
“Typical” Regulatory Compliance Challenges

- Ditch repair through/in Public Waters
- Ditch repair through/along other wetlands (Wetland Conservation Act)
- Threatened and endangered Species
Public Waters Law (M.S. 103G)

- Administered by DNR
- Two primary types of public waters:
  1. Public watercourses (flowing water)
  2. Public water wetlands/basins (static water)
- Public drainage system repairs on public watercourses exempt (generally)
- No permit for repairs in public water basins if runout isn’t affected (generally)
- Repairs that affect runout of public water likely will trigger more significant DNR regulatory engagement
Case Study – Anoka County Ditch 53-62 Branch 1

- Ditch flowed through public water wetland
- Traditional repair would drain wetland
- Ditch realigned around public water in conjunction with repair proceeding
- Needed to demonstrate that hydrology would be sufficiently maintained
- **Permit condition – complete T&E species survey**
Case Study – Anoka County Ditch 53-62

- DNR identified note gap in database record, required plant survey along whole project, as a condition of permit
- Seven rare plant species identified along ditch
  - Greatest propagation where ditch had been disturbed
- Avoidance plan developed
- No takings permit required
Case Study – Lac Qui Parle County Ditch 24

- Ditch in disrepair at outlet of public water
- Repair to as-built would affect runout
- DNR disagreed with repair depth, indicated permit would be necessary
- Upstream of public water, moderate grade on ditch, surrounding land is high
- Completed stopped short of runout, avoided further public waters engagement
Wetland Conservation Act (WCA)

- Applies to all wetlands in state (except public waters)
- Administered by local government unit (LGU)
  - For rural lands, most often is a county or watershed district
  - Staff/board must wear multiple “hats” (drainage authority, LGU, watershed manager)
- On state-owned lands, DNR is the LGU
- Impacts to wetlands must be mitigated*
  - Replacement
  - Wetland Bank Credit Purchase
- “Impacts” may include
  - Placement of fill
  - Drainage of wetland

*Many exceptions/exemptions
Case Study – Lac Qui Parle CD 24

- Open ditch clean-out
- Through state land (DNR is LGU)
- Mostly Type 1 and 2 wetlands
- Less than 25 years since last clean-out
- No-loss application
  - DNR included condition that spoils be removed from site
- D.A. informed LGU of exemption

**LESSON** – Be watchful of conditional approvals
Case Study – Washington Judicial Ditch 2 Branch 2

- Wetlands adjacent to ditch potentially requiring mitigation
- Traditional means of determining “lateral effect” estimated significant impacts
- Compared ditch water level to wetland elevation
  - Wetland edge over 2.5’ higher than surveyed water level
  - Hydrology to wetland provided by other sources
  - Scope/effect of ditch does not extend past ditch bank
- Successful no-loss application to City for repair work eliminated costly mitigation

**LESSON** – Need to use multiple tools to demonstrate no impact
Case Study – Kanabec County Ditch 2

- Ditch repair, mostly along Type 1/2 wetlands (exempt)
- One Type 3 wetland, outlet is perched culvert in County Road (>25 years old)
  - No apparent exemption
  - Potentially 8-10 acres that may be drained by lowering culvert
- County elected to leave culvert in place
  - Eliminates mitigation requirement
  - Enables remaining project to continue
  - May pursue culvert modification later

**LESSON – Need to evaluate multiple alternatives for best fiscal decision**
Case Study – Rice Creek WD: Browns Preserve

- RCWD recognized long term need for wetland credits for ditch repairs
- Opportunity for wetland bank in conjunction with realigning ditch (JD 4)
- Credits created: 60.7 ac.
- Debits to date: 20.4 ac. for 6 repair efforts
What Can be Done to Mitigate Regulatory Risk?

- Reestablishment of Records is necessary if as-built condition is unclear/unavailable
- Most work is exempt
- Communication is critical (whole team…engineer, inspector, attorney, board, regulator…)
- May require additional investigation to demonstrate exemptions/no-loss
- Alternative repairs may need to be considered
Environmental Review

• Rule Part 4410.4300 MANDATORY EAWs
  • An EAW must be prepared for projects that meet or exceed the threshold of any of subparts 2 to 37, unless the project meets or exceeds any thresholds of part 4410.4400, in which case an EIS must be prepared.

• Subp. 27. Wetlands and public waters.
  • For projects that will change or diminish the course, current, or cross-section of one acre or more of any public water or public waters wetland \textcolor{red}{except for those to be drained without a permit pursuant to Minnesota Statutes, chapter 103G}, the local government unit shall be the RGU.
Environmental Review

• Rule Part 4410.4400 MANDATORY EISs
  • An EIS must be prepared for projects that meet or exceed the threshold of any of subparts 2 to 25

• Subp. 20. Wetlands and public waters.
  • For projects that will eliminate a public water or public waters wetland, the local government unit shall be the RGU.
Exempted Review

• **4410.4600 EXEMPTIONS.**
  • Projects within subparts 2 and 26 are exempt from parts 4410.0200 to 4410.6500. Projects within subparts 3 to 25 and 27 are exempt from parts 4410.0200 to 4410.6500, unless they have characteristics which meet or exceed any of the thresholds specified in part 4410.4300 or 4410.4400.

• **Subp. 17.Ditch maintenance or repair.**
  • Routine maintenance or repair of a drainage ditch within the limits of its original construction flow capacity, performed within 20 years of construction or major repair, is exempt.
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  - reduce erosion and sedimentation; and
  - protect or improve water quality;
- the present and anticipated land use within the drainage project or system, including compatibility of the project with local land use plans;
- current and potential flooding characteristics of property in the drainage project or system and downstream for 5-, 10-, 25-, and 50-year flood events, including adequacy of the outlet for the drainage project;
- the effects of the proposed drainage project on wetlands; water quality; fish and wildlife resources; shallow groundwater availability, distribution, and use; and
- the overall environmental impact of all the above criteria.
Environmental, land use, and multipurpose water management criteria

Nine criteria

Apply to Projects

New System

New Lateral

Improvement

Improvement of Outlet

Investigate potential use of external funding

Early coordination with SWCD and County/WD water planners

Applies to Projects and Petitioned Repairs
1. Private and Public Benefits/Cost

- Engineer’s Cost Estimate
- Viewer’s Report on Benefits
- Other costs?
2. Alternative Measures

- Address conservation, flooding, capacity, water quality
- Common alternatives considered:
  - Do-Nothing
  - Traditional Repair
  - Alternative sizing (e.g., 3/8” coefficient)
  - Storage
- Consider with regard to local water management plans (e.g., 1W1P and TMDL)
Challenges with Alternative Measures

- Must provide benefit to benefitting landowners
  - Does the additional cost (minus outside funding) exceed the landowner benefit?
- Is outside funding readily available?
- Can alternative measures be incorporated outside of the project and still be effective?
- Drainage authority has little/no control over land use practices
- How many alternatives/sites need to be considered?
  - Engineer needs to use judgement on what’s likely feasible
3. Present and Anticipated Land Use

- Consider land use plans
- State existing and future land use in Engineer’s Report
4. Flooding

- Within system and adequacy of the outlet
- Engineer evaluates single-event rainfalls (typically 24-hour)
  - 5-, 10-, 25-, and 50-year events
  - NOT annual rainfalls
- Modeling types/rigor vary depending on scope of project
- Evaluate potential for three types of downstream impact
  - Flooding
  - Scour
  - Drainage
Challenges

- How far downstream to do we look?
- What is an “impact”?
- How much detail in the model?
  - Incoming branches?
  - Intakes?
  - Existing deficiencies/failures?
- Addressing misconceptions regarding hydrologic/hydraulic effects of drainage

*Modeling iterations and addressing comments can come at substantial cost*
5. Effect on Wetlands

- Primarily addressed through compliance with:
  - Wetland Conservation Act (state)
  - Clean Water Act (federal)

- Impacts may be mitigated

- Need to inform landowners regarding Swampbuster provisions &
6. Water Quality

- Need to consider with regard to current (do-nothing conditions)
  - Current condition often unstable
  - Is it better for water to flow overland rather than through tile?
- Alternative intakes?
  - Easiest to locate at field edge
  - Won’t be successful w/o landowner buy-in
  - Leave to landowners?
7. Fish and Wildlife

- Fish passage can be a concern at culvert x-ings
- Threatened and endangered species
- Consult Natural Heritage Database
8. Shallow Groundwater Availability

- Are any adjacent landowners utilizing shallow groundwater?
- What is potential for project to affect availability?
9. Overall Environmental Impact

- Are multiple environmental aspects being impacted?
- Can the impacts potentially multiply?
Takeaways on Environmental Considerations

- Outside scrutiny is increasing
- If you are aware of potential outside concerns, inform Engineer ASAP (preferably prior to report development)
- “Considerations” are not “Zero Impact” or “Zero Change”
- Engage DNR and regulating entities early as possible
- Engage staff, engineer, legal counsel, and petitioner on options and associated cost
Questions?