

WATERWAYS

A Quarterly Publication of the Iowa Drainage District Association

Volume 2, 2014

History repeats itself

This article is reprinted by permission. It appeared in the November 2013 Issue of "Drainage Contractor" and is a reprint of an article originally published in 1973 by founding editor Peter Lewington. For more information on the magazine, you can check out drainagecontractor.com. The magazine is based on Ontario, Canada. Even though Canada based, many of the observations hold true for drainage in Iowa.

Drainage technology has come of age with more innovations in recent years than in all-previous history. Many astute farmers, having acquired additional land, ensure that the land drainage is good before they plant a crop. But, some farmers have yet to appreciate the profit that drainage can bring. The Ontario Select Committee on land drainage even found it necessary in 1973 to advocate additional drainage demonstrations. Despite instant electronic communications, the good news about drainage has taken a long time percolate.

The Mesopotamians of 9,000 years ago were probably the first farmers to appreciate the value of water management.

The Romans, before the birth of Christ, knew that poor drainage meant poor crops; they left behind them evidence of open and covered stone and clay drain tiles.

But somehow, the world forgot about drainage benefits until the subject was revived by the initiative of the British Parliament in the 18th Century.

The "Rudimentary Treatise On The Drainage of Lands" published in 1854 describe drainage as "A new branch of practical art, based upon principles of science and essential to the health, life and morality of our race."

The author well understood the relationship between drainage, root development and crop yields. He warned that vermin could destroy drain outlets and recorded the essential specifications for successful drainage systems.

"The Canadian Home, Farm and Business Cyclopeda," published long before the prairie provinces became part of Canada, had sound advice which is relevant today. The authors, writing when only a fraction of Canada had been developed for agriculture, advocated environment controlled livestock buildings, hospital pens for sick animals and even advice on handling liquid manure.

The authors noted the depth and intervals between tile drains that are desirable to various soil types; they dwelt on the functions of laterals, mains and drainage outlets.

And, if you wasted your time hunting for a drain, remember this advice given the better part of a century ago; "on the completion of every kind of drainage works, means should at once be taken to have the lines of drains accurately laid down upon a plan, having a scale of not less than 100 feet to the inch. The plans connected with each farm ought to be bound up as a book of reference."

The Cyclopeda's "Practical Benefits due to land drainage" are so appropriate today that they could have been written yesterday. Effective drainage means not only an earlier harvest but also a more abundant harvest. Good drainage makes it possible for timely tillage and the spreading of manure without compacting the land. Well-drained soils produce better quality crops and give a wider choice of crops.

The way in which drainage improves soil aeration and the ways in which it benefits crops in diverse seasons were included in the formidable list of drainage benefits. These benefits also included better germination, which reduced the amount of seed required.

Your own checklist of drainage benefits might include aeration of the soil, the paradox that drains are beneficial in both wet and dry years, the relationship of drains to tillage, even ripening and winter survival of such crops as alfalfa.

History does indeed repeat itself; the world learned the lessons of drainage, forgot them – only to learn them afresh. With the delicate balance between population and food supplies, the world of the latter part of the 20th century must seize all of the benefits that drainage brings to both productive soils – and some currently unprofitable soils.

Mark your calendars

The IDDA annual meeting will be on Friday, December 5 at the Starlite in Fort Dodge. We will have a full agenda in our next newsletter.

Waterways is a quarterly publication of the Iowa Drainage District Association. Comments can be directed to the association at:

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Drainage Wells closed through cost-sharing

It seemed like a good idea at the time.

But, in the past 20 years, hundreds of ag drainage wells built in the early 1900s have been quietly, successfully closed — from more than 300 in Iowa down to about 48 this summer.

The wells were constructed to drain land with limited access to streams or ditches. They also carried bacteria, nitrates and, in some cases, household septic drainage straight to drinking water aquifers and the groundwater supply.

Testing for pollutants began in the 1980s.

Pressure from environmental groups in Iowa pushed the Legislature to make ag drainage wells illegal, said Michael Anderson with the water supply engineering section of the Iowa Department of Natural Resources.

“We didn’t want to punish farmers for decisions made by their grandparents,” he said.

So, to help spread the burden of closing them down, the Iowa Legislature in 1997 established the Agricultural Drainage Well Water Quality Assistance fund — a 75 percent cost-share for individual or groups of farmers in drainage districts.

The DNR works with the USDA’s NRCS and Iowa Department of Agriculture’s Water Resources Bureau, which administers the fund.

Bureau Chief Jake Hansen said 300 of the wells built in Iowa still existed at in the late ’90s, mostly in North Central Iowa. The cost-share program has helped close 153.

Ninety-nine have been closed independently by landowners or deemed non-functioning. Twelve of the 48 remaining are in the process of closure.

That leaves 36 permitted working wells.

“Permits for those that remain run through 2019 or 2020,” Hansen said. “There’s a decent possibility those permits would not be renewed at that time.”

By Zoe Martin, Iowa Farmer Today. Reprinted with permission



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Shifting blame to farmers is not improving water quality

This past winter was one for the record books. It was the ninth coldest in 141 years according to the state climatologist. Persistent below-normal temperatures since mid-October allowed the soil to freeze as far down as three feet in most places, and as deep as five and one-half feet in some. Water main breaks were commonplace. But by mid-February, some parts of Iowa were starting to see rising temperature again. Spring was around the corner.

This freeze-thaw cycle is a part of living in Iowa. Plants grow in the spring and summer, wither in the fall and go dormant or decay in winter.

This cycle contributes to our world-renowned, productive soil organic matter. This cycle also contributes to our water quality as the snow and ice melts, moving some of this organic matter – leaves, wood and protective crop residue – across the landscape and into streams.

Most water quality engineers that know will tell you that a combination of this organic matter for ag and urban storm water and drainage contributes to this season cycle, and they say it's nearly impossible to sort out the specific sources.

Not Science Supported – That's why the recent comments by letter writers and by Des Moines Waterworks general manager Bill Stowe, claiming Iowa farmers are solely to blame for the recently-announced drinking water standard violation of Total Trihalomethanes (TTHM) are as chilling as the polar vortex; they're not supported by science.

Dennis Alt, the supervisor of Iowa's water supply engineering section at the Iowa Department of Natural Resources, who is delegated by the Environmental Protection Agency (EPA) for implementation of the safe drinking water act, says there are a number of sources for the chemicals that cause the formation of TTHM.

Alt says the problem is more likely created in an attempt to treat for the different sources of seasonal ammonia in the surface water.

"As winter ice melts and moves, it carries existing organic material such as dead leaves, tree branches and crop residue downstream. Our unusually harsh winter created more "scouring" of the riverbeds, stirring up and forcing more organic matter downstream. That organic matter naturally produces ammonia, but it takes the addition of chlorine to create TTHM."

Alt says he's never heard of agricultural practices being the sole cause of TTHM; "It just doesn't work that way."

Alt says one way that TTHM can be eliminated is by adding activated carbon to the drinking water supply. Simple monitoring of the water and the use of activated carbon, either in granulated or in powder form, could've

solved the problem, he says.

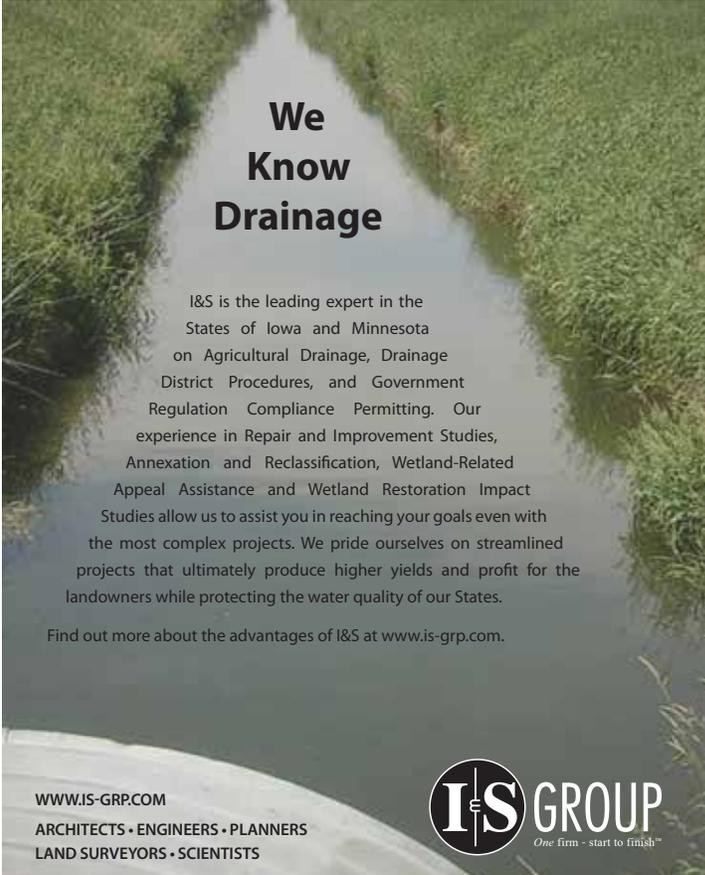
Shifting blame – But, rather than accept some of the responsibility for possibly inadvertently creating that temporary problem with its drinking water, Stowe continued his path of publicly assigning blame outward, pointing his finger at Iowa farmers.

It's a good thing that farmers are solution seekers. That's why they spent this summer learning how to add new conservation measures to their farms.

The job is far from done, yet Iowans need to know that our farmers are being praised across the nation for not just growing food better than any other state but leading the nation in developing a plan to improve water quality for all.

Responsible Iowa farmers know that conservation is a year round job that produces results over the course of years, not a single season. It takes accountability, not finger pointing, to plant and nurture the seeds of change.

–By Rick Robinson, environmental policy advisor for the Iowa Farm Bureau Federation.



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Legislative report for 2014

Here is a full reporting and summary of bills that passed the legislature this year that have an impact on drainage. IDDA had a very successful year in terms of issues for which we had advocated. Questions on these bills can be forwarded to the IDDA office.

SF 2191 – This bill relates to drainage warrants. Currently, in Chapter 468.100 of the Code, there is a \$1,000 limit placed on the size of drainage warrants. Effective July 1st, that limit will increase to \$5,000. IDDA position – This bill was part of our legislative packet this year and was requested by IDDA. Status – The Governor signed the bill on March 26th and the bill will take effect on July 1st.

SF 2273 – This bill relates to the qualifications that individuals must meet to be eligible to be an elected trustee of drainage district. The bill expands the eligibility language to include other forms of Ag land ownership. IDDA position – This bill was part of our legislative packet and was requested by IDDA. Status – The Governor signed the bill on April 3rd and the bill will take effect on July 1st.

SF 2363 – This bill was sort of a “catch-all” appropriations bill enacted very late in the session. Two appropriations in the bill are of interest to IDDA – 1) The Ag Drainage Well Closure fund receives an appropriation of \$1.240 million and, 2) The state Water Quality Initiative receives an appropriation of \$3.5 million. IDDA position - IDDA supported both these appropriations. Status – This bill was vetoed in its entirety on May 30th. The Governor in his veto message said that he did not want to use “one-time dollars for special projects and to pay down bonds.” So, at least for the 2014-15 fiscal year, the Ag drainage well closure program is dead.

HF 2273 – This bill has a number of miscellaneous sections relating to the county treasurer duties. The bill makes two changes relating to drainage. First of all, it

allows county treasurers to destroy levee and drainage assessment records and accompanying documents after 10 years have elapsed from the end of the fiscal year that the assessment was paid off. Secondly, it removes a provision that requires that levee and drainage assessments of \$20 or less be paid in cash. IDDA position – This bill was not requested by IDDA and we did not take an official position on it. Status – The bill was signed by the Governor on May 23rd and will take effect on July 1st.

HF 2458 – This is the Ag appropriations bill. Of interest to IDDA was the following; 1) \$1 million appropriated to the Conservation Reserve Enhancement Program, 2) \$4.4 million appropriated to the state Water Quality Initiative and, 3) \$1.325 million appropriated to the Nutrient Research Center at Iowa State University. IDDA position – IDDA supported these appropriations. Status – This bill was signed on May 30th. The Governor did item veto a portion of this bill but that item veto was in a funding area unrelated to drainage. The approved portions of the bill will take effect on July 1st.

HF 2344 – This is a major drainage bill. It had its origin with a work group from western Iowa that met in the summer of 2012 to decide how to rebuild drainage infrastructure that was damaged or destroyed by the earlier flooding of the Missouri River. The legislation addresses the merger of existing districts, bidding procedures, annexed land and liability. Due to the comprehensive nature of the bill, I am incorporating a section-by-section description that was written by IDDA legal counsel Doug Struyk.

Section 1 – Purpose

New Section 468.262 - this clarifies that the provisions are only applicable towards drainage or levee districts participating in a merger

Section 2 - General

New Section 468.263 - this section provides that a merger has to have two or more participating drainage or levee districts and they must be participating voluntarily. Also specifies the one district will survive the merger and one or more other districts will be dissolved by the merger. The proposed merger must be approved by the board of trustees of the participating dominant district and at least one of the boards of the servient districts. In order to be eligible to merge, the districts must adjoin all or part of another participating district. However, they may also be separated by land that is included via an annexation as provided for in existing code sections. The provision also provides the dis-

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district participating in the merger does not have to be eligible for dissolution under part 6 of this subchapter.

Section 3 – Board Participation Initiated

New Section 468.264 - this section addresses the action of the board necessary to implement the process. In order to participate in a merger the board of the drainage or levee district must determine that the merger will substantially benefit the owners of the land situated within the district and after making that determination the board must enter an order to conduct a public hearing on the proposed merger.

Section 4 – Public Hearing

New Section 468.265 - this section addresses the public hearing. The hearing must be held within 45 days of the last date the board enters an order with the auditor of the county where the drainage or levee district is situated. The section provides a detailed list of individuals who will receive notice and a description of the proposed merger. Additionally, it clarifies that specific notice needs to be sent to individuals who will have land annexed. It also clarifies that all notice in this section shall be provided by ordinary mail. It also provides for publication in the newspaper of general circulation in a county containing a district participating in the merger. The boards may conduct their hearing jointly.

Section 5 – Meeting and Vote

New Section 468.266 - the section clarifies that each board participating shall meet to vote on the resolution and determine whether or not to approve the merger. They must vote within 45 days of the last public hearing. It also clarifies who will bear the fees for conducting any joint meeting and that the board shall only consider written objections to the proposed merger that are filed with the county auditor.

Section 6 – Joint Order

New Section 468.267 - if a resolution to merge is approved by participating drainage districts, a joint order for the merger shall be entered by those boards. This order needs to be filed with the auditors of the respective counties involved and the auditor will place the order into the drainage record. The auditor must verify that the land is contiguous and includes any land required to be annexed as a condition of the merger and provides for the transfer of title to real estate involved to the merged district. The order also directs the auditor of the county designated by the board governing the merger to file with the recorder of each county all appropriate conveyances and other documents necessary to effect the transfer. Finally, the merged drainage or levee district assumes all existing obligations of a participating drainage or levee district subject to the joint order.

Section 7 – Effect of the Merger

New Section 468.268 - this section clarifies the effect of the merger on any legal or equitable proceeding against a participating drainage district. The proceeding shall continue as if the merger did not occur. However, the merged drainage or levee district shall be substituted for the participating drainage or levee district. The board governing the merged district may apportion the cost of legal or equitable proceedings against the landowners of the participating drainage or levee district based upon the classification and assessments applicable to the participating drainage or levee district prior to the merger. The section clarifies that subject to 468.269, the merger does not affect the classification of land or the levee of assessment.

Section 8 – Special Assessment – Merged Land

New Section 468.269 - this section provides the surviving board with the ability to impose a special assessment on land situated in what was a participating servient district prior to the merger. It is only applicable to improvements made within the participating dominant district for not longer than five years prior to the date of the joint order. In order to impose a special assessment the board must approve the report by the engineer appointed by the board stating that the improvements directly benefiting the land situated in the participating dominant district were

Continued on page 6 ▶

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made in the past five years and that notice was provided during the hearing process of the merger stating that a special assessment may be made. Additionally, the board shall not impose a special assessment under this section on land was annexed.

Section 9 – Directions to Code Editor

Division II

Section 10 – Liability

New Section 468.526A – Addresses liability of trustees that are not county supervisors (elected trustees). The new section clarifies that the trustees are not personally liable for a claim which is exempt under section 670.4 except for claims for punitive damages. A trustee is not liable for punitive damages as a result of acts in the performance of a duty unless actual malice or willful, wanton and reckless misconduct is proven. Section 670.4(3) addressed claims based upon an act or omission of an officer or employee of the municipality exercising due care, in the execution of a statute, ordinance, or regulation whether the statute, ordinance or regulation is valid, or based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty on the part of the municipality or an officer or employee of the municipality, whether or not the discretion is abused. Note: This change does not require the municipality/drainage district to defend and indemnify the trustees as section 670.8 requires for county supervisor.

Division III

Section 11 – Bidding Procedures

468.3 (9). Adds the term minor repair into the general definitions section of Iowa Code section 468.3. The definition of “minor repair” is a repair that is not in excess of the competitive bid threshold established in Iowa Code section 26.3. This threshold is \$100,000.

Section 12 - Strikes for 468.34 and inserts new language.
– Bidding Procedures –

The effect of this is to remove the current bidding procedures and tie drainage and levy district construction to the public construction bidding laws in Iowa Code Chapter 26.

Section 13 - Bids Required 468.66

This section addresses when bids are required by making changes to Iowa Code section 468.66. Striking the requirement that bids are required for an expenditure of \$20,000 or more. The bill changes this to reflect the thresholds of the competitive bid requirements of Iowa Chapter 26. If a project involves initial construction, reconstruction or improvement to a city or county highway, bridge or culvert the current bid threshold is \$49,000. The bid threshold for

repair and maintenance is \$100,000. For construction, reconstruction, or improvement projects, not involving a city or county highway, bridge or culvert, the competitive bid threshold is currently \$130,000 with a competitive quote threshold of \$50,000.

Section 14 – 468.126, (1), paragraph c

This section of the bill amends Iowa Code section 468.126(1) c by striking the paragraph and inserting language that addresses when ordering repair work the board and any bidders shall comply with a competitive bid requirements in chapter 26. The language sets out that if a repair is more than \$50,000 but less than the competitive bid threshold the board must have a hearing on the repair and notice as provided in sections 468.14 through 468.18. The competitive bid threshold for repairs is \$100,000.

Section 15 – Section 468.126, (2)

Code editor changes related to minor repairs.

Section 16 - 468.126(4) a - Improvements

Amends 468.126 allowing “improvements” as necessary intended to expand, enlarge, or increase the capacity of the drainage ditch. When the board determines it is necessary, the board shall appoint an engineer to define the need and file a report with estimated costs. The board shall not divide proposed improvements into separate programs to avoid compliance with paragraph “b”. If a hearing is required by section 26.12, such hearing shall be had and the board shall order the improvements made.

468.126 (4) b provides that the board when ordering an improvement shall comply with competitive bid requirements under chapter 26. If the improvement is more than \$50,000 but less than the competitive bid threshold in section 26.3 the board shall conduct a hearing. Notice shall be provided as per section 468.14 through 468.18. For construction, reconstruction, or improvement projects, not involving a city or county highway, bridge or culvert, the competitive bid threshold is currently \$130,000 with a competitive quote threshold of \$50,000. If a city or county bridge is involved the threshold is \$49,000.

468.126(4) c is amended to reflect the use of Iowa Code chapter 26 for bidding procedures. This significantly changes the rights of remonstrance. In most cases, remonstrance would only be available to improvements that exceed \$130,000.

Section 17 – Repeal

Repeals sections 468.35 and 468.36 as they are no longer needed due to the incorporation of Iowa Code chapter 26.

IDDA position – IDDA supported the bill. Status – The bill was signed by the Governor on April 3 and will take effect on July 1.

IDDA/MIDAS to host special meeting on EPA proposal

The United States Environmental Protection Agency has proposed regulations that would greatly expand their jurisdiction over waters of the United States (WOTUS). Potentially included under the new rules would be ditches, ponds and even temporary wet spots in farm fields, even if they are miles from navigable waters. This regulatory overreach will result in more confusion, costs and the headache of fighting your way through the federal regulatory bureaucracy. It will have negative effects on conservation efforts, erode private property rights and force individuals and governments to get permits for many activities that do not currently require a permit. The regulations are currently open for public comment. The comment period closes on October 20th.

The EPA is basically saying that the rule is no big deal and that the ag community is overreacting – calling some of the claims made against the rule as “silly” and

“ludicrous.” It is important to separate out what EPA says about the rule and what the rule itself says. What is the truth?

IDDA and the MIDAS Council of Governments in Fort Dodge are jointly sponsoring a special meeting to provide information on this proposal. At this meeting, we will have two Iowa water policy experts discuss the proposed rule. Dean Lemke is formally a bureau chief from IDALS and is currently with the Agribusiness Association of Iowa. He has been involved with Iowa water policy issues for more than 40 years and is an active farmer. Shawn Richmond is a program manager with IDALS/DSC.

At this session, you will learn about the proposed rule and its impact. You will also be shown how to submit a public comment on the rule.

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Executive Director Notes

Elsewhere in this newsletter is information and a registration form for a special meeting on the EPA Waters of the United States proposal. This is an extremely important meeting and I would urge all of you to attend. The rules if they go into effect as written could have profound impacts in the agricultural sector. I talked with the IDDA board about this in July and they felt so strongly about it that they directed me to pull together a special meeting. This is first time in my tenure with IDDA that we have ever held a meeting other than our annual meeting which should demonstrate to you the importance we are attaching to it. The meeting is being co-hosted by the MIDAS Council of Governments in Fort Dodge. Please find a way to attend. It will be worth your while. Earlier this week, I visited with the Woodbury County Board of Supervisors to give my annual report to the board. That concludes my membership visits for the year.

Visiting with member counties is my favorite part of my job as I get to see all you face-to-face and let you know what is going on in IDDA with regards to drainage issues. Emails and phone contact are fine but it does not replace good old fashioned personal contact. Also, plans are well under way for our annual meeting in December. We will have a full agenda and registration form in our next newsletter. And of course, dues notices for this fiscal year have been sent out to all county, individual and corporate members. We appreciate your prompt payment of dues and also urge your support for the mutual protection fund.
-JT

Unattributed Wisdom

“Anger is but one letter away from danger.”

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