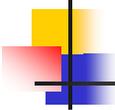


## **Ag Law Potpourri** **Women in Agriculture** **Kearney, February 23, 2017**

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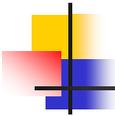
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### **topics**

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- federal portability rule: make ag estate planning easier
- Des Moines nitrate lawsuit: farmers liable for nitrate pollution of city water supplies?
- Nebraska livestock development matrix: make county zoning laws more livestock friendly?
- climate change & ground water management



## Portability rule

- issue: before portability rule, families had to do estate planning in order for married couple to get double estate tax exemption
- Portability rule: any federal estate tax exemption not used in first spouse's estate can be used in second spouse's estate
- in 2017, federal exempt amount is \$5.49 million
  - up from \$5.45 million in 2016
  - basically is \$5 million indexed for inflation
  - will assume \$5 million exemption in my examples ☺

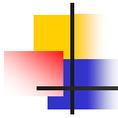
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## portability examples

- (1) no portability & no estate planning
  - dad dies, leaves \$8 million farm to mom
  - mom pays no federal estate tax—spouse exemption
  - mom dies, leaves \$8 million farm to kids
  - kids pay about \$1.1 million in federal estate taxes
- (2) no portability with estate planning
  - mom & dad divide their estate, and each leaves their share in trust to kids with income to surviving spouse

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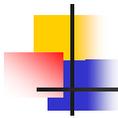


## portability

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- (2) estate planning, no portability con't
  - dad dies, leaves his \$4 million share of farm in trust to kids with income to mom
    - no federal estate tax due—exemption is \$5 million
  - mom dies, leaves her \$4 million share in farm to kids
    - no federal estate tax due—exemption is \$5 million
  - trust is dissolved and kids have \$8 million farm with no federal estate taxes paid
- estate planning saves kids \$1.1 million from #1

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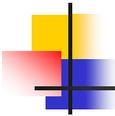


## portability

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- (3) no estate planning with portability
  - dad dies, leaves \$8 million farm to mom
  - no federal estate tax due—spousal exemption—so dad's entire \$5 million credit available when mom dies
  - mom dies—leaves \$8 million farm to kids
    - no federal estate tax due--\$5 million exempt for mom plus \$5 million unused exemption from dad
    - actually \$10.98 million exempt in 2017

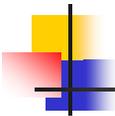
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## portability, con't

- need to have attorney work with you to make sure your estate qualifies for both exemptions!
  - must file federal estate tax return for first spouse's estate even though no federal estate taxes paid
- may need help in working through business succession plan for operation and in determining what is fair for farm and off-farm heirs—not simple!
  - if left up to kids & they can't agree when mom & dad both gone, likely auction the farm/ranch
- also important--planning for long term care expenses

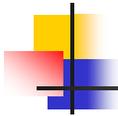
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## Des Moines nitrates lawsuit

- Des Moines water works (DMWW) suing Iowa ag drainage districts for high-nitrate water pollution of Des Moines, Raccoon rivers (DMWW sources of drinking water)
  - lawsuit filed after Iowa Gov Branstad vetoed extra funding for ag conservation cost-share program to reduce nitrate runoff
- general issues (1) are drainage districts liable for DMWW costs to remove nitrates from drinking water and (2) are drainage districts subject to Clean Water Act (CWA) permitting & water treatment requirements

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## nitrates

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- January 2017 Iowa Supreme Court ruled that drainage districts not liable to DMWW for water treatment costs
  - governmental immunity
- trial in federal court later 2017 will determine whether drainage districts are subject to CWA permitting & water treatment requirements
- issue important because nitrate issues from ag runoff is a common corn belt drinking water quality issue that needs to be addressed sooner or later

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## nitrates

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- if drainage districts subject to CWA, what could it mean?
- how can farmers reduce high-nutrient runoff?
  - vegetative buffers between fields & streams
  - cover crops to increase off-season nitrate uptake
  - “bioreactors” to clean nitrates out of field runoff
  - nutrient management plans to limit nutrient application to crop requirements
    - report soil tests, nutrient application, crop yield etc.
  - reduce or stop fertilizer application to fields with high phosphorous or nitrogen levels

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## Denitrifying Bioreactors

- Removes nitrate-N from field tiles
- Divert water through wood chips
- 30 – 100 acre drainage areas
- Small footprint
- 10 – 15 year lifespan

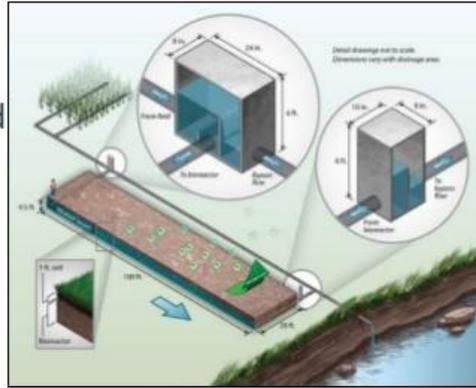
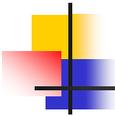


Image from John Petersen





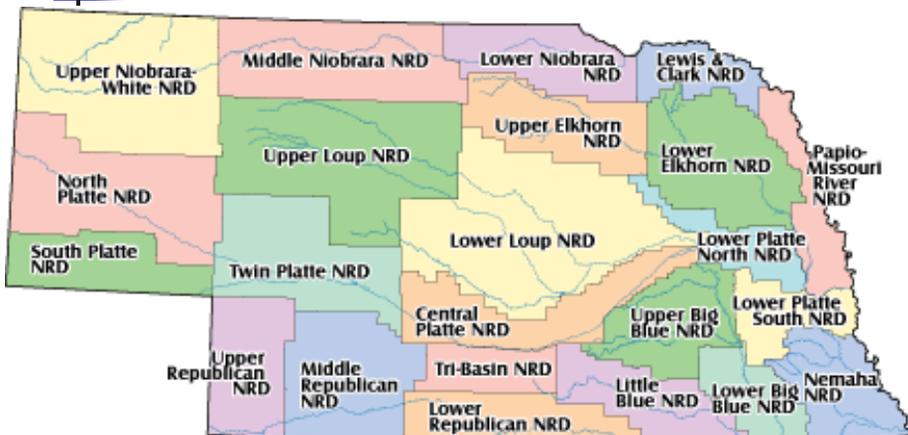
## NRD fertilizer use regulations

- most Natural Resource Districts (NRDs) have 1-3 or 1-4 phases with increasing restrictions as nitrate levels in ground water increase
  - 10 ppm EPA drinking water limit for nitrates
- Phase I (0-5 ppm nitrate): voluntary best management practices (BMPs) & fertilizer use certification (education)
- Phase II (5-9 ppm nitrate): mandatory certification
  - required soil sampling for nutrient content
  - required reports on fertilizer application & crop yield
- Phase III (over 9 ppm nitrate): restrictions on fall, winter fertilizer application—often inhibitor use required

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## Natural Resource Districts (NRDs)



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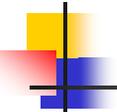
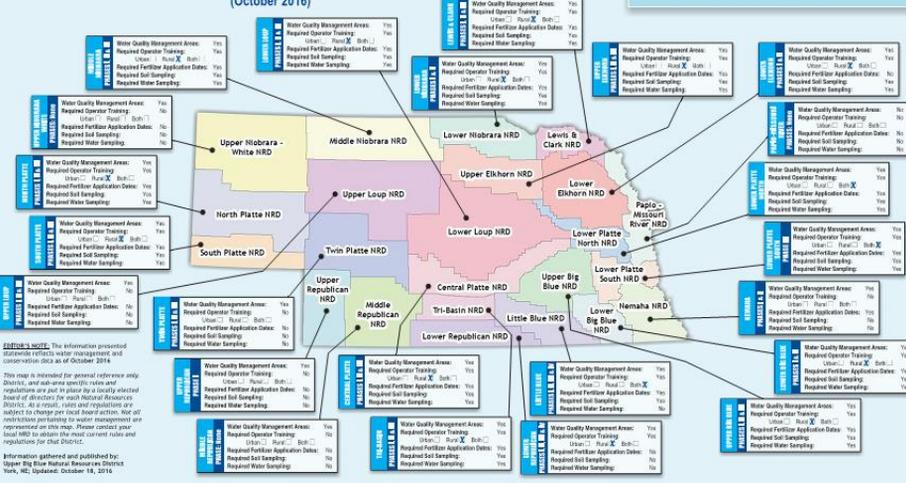
**NRDs Are Managing Water Statewide:**

Nebraska's 23 Natural Resources Districts (NRDs) are uniquely positioned to manage the conservation of the state's natural resources through local governance. Because of Nebraska's diverse geology, climatology, and hydrology, each NRD—and its locally elected board of directors—are able to enact rules, regulations, and programs that can assist its District's citizens and protect local natural resources for future generations to share. Water management regulations in particular include allocating groundwater, augmenting surface water, requiring flow meters, installing well drilling moratoriums, requiring water use reports, and restricting the expansion of irrigated areas. Individual NRDs use these regulations in different combinations and to different degrees depending on their respective geographic areas of concern. Below is a map showing all 23 NRDs and their most recent status of water management techniques.

So why does this matter to you? Quite simply, Nebraska's NRDs are working to ensure that you and future generations can continue to share in the use and enjoyment of our natural resources. Nebraska's NRDs: Protecting Lives, Protecting Property, and Protecting the Future...

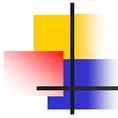
**NRD GROUNDWATER QUALITY REGULATIONS ACROSS NEBRASKA**  
(October 2016)

In reference to Phase I, II, III and IV areas, NRDs utilize trigger points signifying specific levels of nitrate in groundwater through monitoring well testing. These triggers are put in place to protect the drinking water supply. Trigger points may vary within the individual NRD boundary, but are relative to the safe drinking water standards mandated federally. A district may have all, none, or part of its districts designated as Phase I, II, III and IV areas, or any combination. The higher the Phase, the more implementation of management efforts for protection is required. It is best to consult with your local NRD to identify with their programs. The phases listed here are only the phases currently triggered.



**livestock zoning matrix**

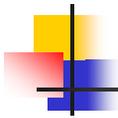
- many in ag would like to see additional livestock production in Nebraska
- state DEQ environmental permitting not a real limitation
- county zoning regulation of new or expanded operations has been a limitation in some counties
- state livestock zoning matrix—state guidelines for counties to consider in evaluating livestock zoning permit applications



## livestock zoning

- based on Madison county zoning matrix for livestock operations
- basically a checklist where application gets points based on how well the application meets county zoning requirements
- e.g. 30 points for meeting county setback requirements or default separation distance if county doesn't have one
- can get bonus points for exceeding county minimum requirements
  - e.g. for doing extra to reduce odors

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## zoning matrix

- matrix does not override county zoning requirements
- matrix is state recommendation, not state requirements
- matrix is very good checklist of what county livestock zoning regulations should address
- matrix does not require counties to change their separation distances—would have been much more controversial
- county can adopt matrix, can modify matrix before adopting it, or can not have anything to do with matrix

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**Nebraska Animal Feeding Operation Siting Matrix**

A. Livestock Operation Size		Number	Points	Score
1	Number of animals (for multiple species or production phases, record separately)			
2	Animal Units (see Animal Units tab for calculator)			
		Yes	No	
1	Large livestock operation (1,000 animal units or more)			
2	Medium livestock operation (300 animal units to 999 animal units)			
3	Small livestock operation (less than 300 animal units)			

B. NDEQ STATUS					
Environmental Protection Plans		Yes	No	Points	Score
1	NDEQ has issued letter that no construction and/or operating permit is required			30	0
2	All NDEQ construction and operating permit(s) will be in place prior to operation, as required, including the following (if not applicable, write N/A):			30	0
	Nutrient Management Plan				
	Animal Mortality Management Plan				
4	Request for Inspection of Animal Feeding Operation (Title 130 - Form A)				
5	Permit Application (Title 130 - Form B)				
6	Applicant Disclosure (Title 130 - Form C)				
7	Livestock Feeding Operation Narrative				
8	Livestock Feeding Operation Site Plan, Construction Drawings, and Maps				
9	Construction Quality Assurance Plan				
10	Manure Production and Storage/Treatment Calculations				
11	Operation and Maintenance Plan				
12	Chemical Management Plan				
13	Emergency Response Plan				
14	Sludge Management Plan				
15	Livestock Operation Closure Plan				
16	Best Management Practices for Odor Control				
17	<b>SUBTOTAL (subtotal not to exceed 30 points for this section)</b>				0

C. SETBACKS/SEPARATION DISTANCES					
Siting relative to dwellings and public places (refer to Separation Distances tab)		Yes	No	Points	Score
1	Separation meets or exceeds county setbacks, or an impact easement / distance waiver is in place			30	0
	If YES, move to Section D. If NO, answer questions C2-C7.				
	Enter number of dwellings (Formula may be used to calculate points, number = N)	Number	Formula		
2	Within 1.5 times the separation distance for odor and the separation distance for odor		$D_{15} \times 2$	0	0
3	Within the separation distance for odor and 1/2 the separation distance for odor		$1.5 \times D_{15}$	0	0
4	Within 1/2 the separation distance of odor		$0.5 \times D_{15}$	0	0
		Yes	No	Points	Score
5	If dwellings or public places exist within 1.5 times the separation distance for odor, have verified that none are located downwind of the site for prevailing wind direction(s) - via representative wind rose (see tab) or documented local weather data			5	0
6	If dwellings or public places exist within the county setback (or separation distance for odor if no county setback), have verified that none are located downwind of the site for prevailing wind direction(s) - via representative wind rose or documented local weather data			15	0
7	Was the Nebraska Odor Footprint Tool or other third-party, science-based tool used to assess siting relative to impacts on private dwellings and public places?			2	0
	<b>SUBTOTAL (total not to exceed 30 points for this section)</b>				0

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## zoning matrix

- livestock groups may encourage county officials to adopt, similar to the livestock friendly program
- possible unanticipated consequence: if a county has a point system for proposed livestock developments and a proposal has more than the minimum points required
  - makes it harder for county to turn the proposal down
  - if it is turned down, gives the operator a better shot in court of overturning the adverse zoning decision
  - e.g. if minimum is 75 points and your proposal has 85 points, can argue denial is "arbitrary and capricious"

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## climate change & irrigation

- **Dr Don Wilhite, UNL professor emeritus, said very possible that 2012 drought conditions could become the new norm in Nebraska by 2041-2070**
- Temperatures have already increased 1991-2012 compared to 1901-1960 and will continue to increase—issue is how much will they increase
- Projected temperature increases from 4-5°F in low emission scenarios to 8-9°F in high emission scenario (2071-2099)
  - Low emission scenario—significantly reduce GHG emissions through more wind, solar power generation, energy conservation requirements, etc.
  - High emission scenario—business as usual (no significant GHG reductions)—most likely outcome ☹

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## climate change & irrigation

- **climate models predict dramatic increase in high temperature days in both high & low emission scenarios**
- Current high temperature days of 100°F or above:
  - Omaha 2.1 days/yr                  Lincoln 4.6 days/yr
  - Grand Island 3.5 days/yr        McCook 10.9 days/yr
  - Scottsbluff 5.3 days/yr
- **High temperature days would increase from 13-16 additional days/yr (low emission scenario) to 22-25 days/yr (high emission scenario) by 2041-2070!**
- 2012 drought had 10-21 high temp days in eastern Neb and 21-37 high temp days in western & southwestern Neb

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## climate change & irrigation

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- Could lead to ground water policy choice between maintaining current cropping pattern of continuous irrigated corn/soybeans and ground water depletion
- If crop ET (evapotranspiration) rates increase (due to increased temperature and many more very hot days), continuous irrigated corn/soybean production would likely lead to falling ground water levels
  - unless development of more drought-resistant crop varieties keep pace with climate changes
- Possibly avoid long-term depletion by ground water allocations that force an irrigated-dryland crop rotation
  - Drip irrigation? Other irrigation improvements?
- Or else pump what is needed even if depletion occurs

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any questions? 😊

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