

# Pembina County Soils Committee

November 4, 2021- 1:00 PM

Farmer's Room~ Pembina County Courthouse

## SOILS COMMITTEE UNOFFICIAL REVISED MINUTES:

A regular meeting of the Pembina County Soils Committee was held on Thursday, November 4, 2021 at 1:00 p.m. in the Farmer's Room of the Pembina County Courthouse. **Members Present:** Camburn Shepherd, Bill Gunderson, Robert Vivatson, Brad Schuster, Curtis Christenson and Nick Heuchert (Alternate) **Others Present:** Tax Equalization Director, Mikka Willits, Deputy Tax Director/GIS Specialist, Lisa Wieler, Casey Krieg, Certified Assessor/NDSU Extension, Commissioners, Manny Doyle and Nick Rutherford, Loren Estad, Jim Belanus, Zelda Hartje, Lyn Augustin and Ted Juhl

Member's Absent: none

Guest Speakers via Teleconference: Ron Haugen, Farm Management Specialist, Lance Duey, Assistant State Soil Scientist (and Jordaan Thompson), Dustin Bakken, Executive Vice President Kompleks Assessment Solutions, LLC **Others Present via Teleconference:** David Moquist, Anita Beauchamp and Dave Monson

Meeting was called to order by Chairman Camburn Shepherd at 1:04 p.m.

Ron Haugen, Farm Management Specialist, Dept. of Agribusiness and Applied Economics at NDSU gave a presentation on the ND Agricultural Land Valuation Model. Mr. Haugen discussed Century Code 57-02-27.2 which refers to the valuation and assessment of Agricultural lands. Mr. Haugen went over the calculations and how they are derived upon for cropland, non-cropland and native rangeland/pasture values (as well as the difference between rangeland and pastureland.) Agricultural value is defined as the "capitalized average annual gross return." Mr. Haugen went over the percentages for Ag land and explained how the data for the most recent 10 years are used with the high and low years dropped and the remaining 8 years averaged. Average landlords share of gross return is divided by the capitalization rate to derive land value. The data to estimate gross revenue for cropland are: 1. Acreage for each of the crops grown, prevent plant and fallow or idle for each county, 2. Yield per acre for each of the crops, and 3. Price for each of the crops. The source of data is NASS of the US Dept. of Ag, RMA of the USDA, and FSA of the USDA. Mr. Shepherd inquired whether or not CRP acres were considered cropland, and Mr. Haugen responded Yes. Mr. Haugen went over the procedure for estimating gross revenue from crop production in each county for each crop. The estimates of Native Rangeland and Pasture values are measured in animal unit months (AUM's). One AUM is assumed to be enough grazing capacity to support a 1,000 pound cow and her calf for one month. The data to estimate gross revenue for non-cropland in each county are: 1. Acreages of rangeland and pasture in each county. 2. Carrying capacity (in AUM's) and price calves and cull cows. The source of data used is NASS, NRCS as well as local livestock market reports. Mr. Haugen displayed and discussed several examples for non-cropland revenue for Pembina County, as well as the CRP and Government Program Payments Data. He explained the data used to develop the interest rate used to capitalize the landlord share of gross

revenue is the set of annual average interest rates. This is based on the last 12 years with the high and low year dropped. This information comes from AgriBank, FCB St. Paul, MN. Mr. Haugen also touched on minimal and historical capitalization rates, cost of production index which comes from the Economic Research Service (ERS) of the USDA, change in all ag land values 2020-2021 assessments, and what changes those values such as capitalization rate, cost of production index and crop revenue for both cropland and non-cropland and what changes those values. Mr. Haugen discussed the information sent to the State Tax Department based on county acres reported to NDSU of cropland, non-cropland and Inundated land if applicable and changes over recent years.

Minutes for both the October 21, 2021 and October 28, 2021 were presented. Mr. Shepherd said they would be approved later after questioning the committee if there were any additions, or changes. Minutes were never approved.

Discussion was continued from the Oct 28 meeting on adding a soils modifier to areas that are prone to flooding and what path they should take to get a modifier applied. Mr. Shepherd mentioned that he spoke with Linda Morris at the State Tax Dept., and she agreed a modifier should be applied across the board and Mr. Shepherd mentioned that they need to come up with a percentage to apply. Ms. Willits asked Mr. Shephard who he spoke with in Ward County in regard to the area near the Souris River/Minot that he referenced at the prior meeting, as they do not allow a modifier for this same issue. Ward County uses Land Use modifiers. If tilled to the edge of the water, it is cropland. If not, then it is non-cropland and adjusted with a land use modifier, similar to what we have been doing. Mr. Shephard responded he reviewed a map. Ms. Willits mentioned she spoke to the Grand Forks County Director as they have the Red River as well. Grand Forks County does not use modifiers. They use an Inundated Land application. Mr. Shephard felt other areas were irrelevant and further discussion was held on the percentage of modifier for this area. Mr. Schuster and Mr. Christenson felt a 20% reduction in PI was fair. Mr. Schuster questioned whether or not an overlay could be applied to our GIS mapping system. Ms. Krieg mentioned she had a discussion with LuAnn Kemp, Pembina County Water Resource Board in regards to the modifiers along the river, and whether or not the 2009 flooding could be overlaid on the GIS. Ms. Kemp felt this could be done, but there would more than likely be a cost to the county. Ms. Willits mentioned that another option would be to fill out an Application for Inundated Land. It was also mentioned by Ms. Willits that maybe they should wait to come up with a percentage until they heard what Mr. Duey had to present and that all the soil committee questions were answered that pertained to what they were discussing in regard to elevation and other concerns.

Lance Duey, Assistant State Soil Scientist reviewed flooding and ponding phases as well as the map units that were used when implementing the modifiers to the frequent soils within the Red River Valley corridor. He explained how the phases (frequent and occasional flooding) were applied to certain areas outside the norm. The areas in which modifiers were applied include the Red River, Pembina River, Cart Creek and Tongue River. Mr. Vivatson questioned whether or not the occasional flooding modifier had actually been discounted? Mr. Duey stated that is incorrect. Mr. Vivatson stated that when he looked at the soils type, that one was still listed at 90, so was it like 97 normally, or 95? Mr. Duey reviewed another map and there was discussion on specific soil types. Mr. Duey went over soil phases and this case. Mr. Duey stated that in this case at 0-2, it does not look like that at this stage, based on this data

that occasional has been reduced because the component PI is still 100, but when I look down here a very similar PI set at 95. You are correct. At this point it does not look like occasionally has been reduced when it comes to the PI. Frequently has. Mr. Vivatson agreed that frequently had been. He also stated that is just about in the river now, most of that stuff. Mr. Duey replied in the river, or directly adjacent to it. Mr. Vivatson agreed and added very little agricultural land in those soils. Mr. Schuster agreed. Mr. Shephard and Mr. Schuster stated mainly along bank and washed away. Mr. Shephard stated basically very little outside the immediate area along the river, the PI has not been adjusted. Mr. Shephard asked Mr. Duey if that was a fair assessment. Mr. Duey replied that according to this data, I would say that is a fair assessment. Mr. Shephard replied Thank you that is what we were looking for.

Mr. Vivatson asked Mr. Duey to pull up acres on the Red. Mr. Duey explained the rough drawing of the I29 corridor and Red River, a generalization of typical acres in the area of interest specific for Pembina County, but does cover multiple counties and the Minnesota side. He was able to separate and pull out Pembina County. Mr. Vivatson questioned the border and Mr. Duey replied it went down to Walsh County, or 1-2 miles above the Walsh County line because at this scale it's hard to pinpoint exactly where. This is a rough estimate of acres covered within that corridor. Mr. Vivatson was fine with a ballpark. Specific soils were discussed further in detail.

Mr. Heuchert questioned Mr. Duey that only the frequently flooded stuff has had soil PI adjusted in that area? The occasionally flooded – none of that PI has been reduced? Mr. Shephard stated yes. Ms. Krieg questioned Mr. Duey if he heard the question. Mr. Duey responded no, so Mr. Heuchert restated the question. Mr. Heuchert questioned if only the frequently flooded soil PI has been reduced in that area? The occasionally flooded, the soil type PI has not been reduced at all? Mr. Duey went over the data again, then stated it does not, that appears correct. It appears that the component PI of occasionally flooded soils does not appear to be reduced. Mr. Heuchert responded that if we had a modifier or did something in that occasionally flooded land down there, we would not be double dipping in modifiers? Mr. Duey pulled up additional data to review just to make sure that is a correct statement. Mr. Shephard asked if anyone had additional questions and the group replied that Mr. Duey was responding to Mr. Heuchert's question. Mr. Duey responded – According to that statement, that is a true statement. It does not appear that occasionally flooded has been reduced at the component PI level. Mr. Shephard questioned if that applied across the whole county. Mr. Duey responded that would be correct.

Acres were then discussed further, but Mr. Shephard stated they were insignificant at this point and asked if anyone had additional questions for Mr. Duey, but would like him to remain on the meeting for additional questions if need be.

Mr. Shephard opened for discussion the flooding issue, not in the PI, across the county in significant areas and locations as a response to a question from Ms. Hartje. There was further discussion on acres affected on if they were being farmed, inundated land, government easement, Walsh County and the flood frequency.

Mr. Schuster made a motion to apply a 20% reduction modifier to those areas prone to occasional flooding. Mr. Christenson seconded the motion. Roll Call Vote: Bill Gunderson – yes; Curt Christenson – yes; Brad Schuster – yes; Robert Vivatson – yes; Nick Heuchert – yes, but added he was still concerned

on how to apply the modifier. Mr. Shephard noted that this motion was just for the percentage. All in favor, motion carried.

Mr. Heuchert questioned Mr. Duey if he could review a specific parcel he had a question on. Ms. Willits sent information to Mr. Duey on parcel # 11-0020000, but thought his question was in regard to the Red River. Mr. Duey requested that his replacement Ms. Jordaan Thompson introduce herself since she will be taking his position while he transitions to his new position as assistant state soil scientist. Mr. Duey then noted they have definitions within the National Soils Survey Handbook on how they deal with surface fragments and things like that, as well as how they are applied. There was discussion on spot symbols of gravel pits, sand, gravel, rocks and where transition occurs on lag, or stone lines. He discussed particular soils that are highly productive as long as stones can be removed. He noted in Mr. Heuchert's case, it may be a little different. Further soil types, stone and depth was reviewed. Mr. Duey noted one of the questions Mr. Heuchert had was how did you map and were phases applied? Mr. Duey stated that in this case, it does appear that we do have a stony phase applied and we do have other soils within the region that can be fairly productive, but also have stones and gravel at surface, or below sub-surface. That's that answer. Mr. Heuchert responded that his question was if you compare it to the flooding thing, like occasional flooding. You said the PI had not been reduced, so do you have that same chart you had for that, like occasional flooding to see what the reduction has been reduced? Mr. Duey reviewed further data. Mr. Shephard asked if it was pasture/rangeland or did he crop it? Mr. Heuchert replied it was all pasture, but he had a specific parcel that there is only mention of stony. Mr. Shephard interrupted that no, because how we do those is a little bit different. When PI for pastureland – Lance the PI that we are using is based on wheat production, correct? Mr. Duey replied yes, because pastureland is a management decision. Again we map things across the board. We don't care how you use your land that is just how we apply. Productive soils. If there are any issues that like you guys have talked about addressing that particular land use modifier as non-cropland, that's not what modifiers are for. Mr. Shephard responded – It becomes non-cropland and went into a deeper discussion on soil types, PI and additional land use modifiers. He asked if there was somewhere to look at PI for just grasslands. Mr. Duey responded no.

Mr. Bakken, Komplex Assessment Solutions was available for questions. Mr. Bakken agreed that the 20% is ok. He also agreed that landowners know their soils better than anyone, and that the soils committee is doing what they need to do to make the proper adjustments. He also noted that the land use is more important than the modifiers themselves. A discussion was held on the formula for pastureland as that is different than the cropland formula with PI. It is based on AUMs and pounds per forgeable material, not PI.

Ms. Krieg gave example of Kip Jonasson's parcel that took acres from crop to pasture to get modifiers. Mr. Shephard understood, but wanted to get PI to establish consistent methodology across county using best info. His question was answered and brought attention back to Mr. Heuchert's question. Mr. Heuchert asked Mr. Duey again if there was a similar table that showed frequent and occasional flooding for rocks that would show what PI is actually adjusted. Mr. Vivatson noted that is for cropland only. Mr. Heuchert responded he knew that, but some is cropland, but is stony, but some is not. Mr. Duey responded that again, when mapping we don't look at management. Your producer has the ability to remove rocks or stones and crop it. A lot of our acres in North Dakota that was part of a plan when settled had lots of trees and rocks to remove. He understood there may be other situations not

addressed with some of those issues, so let's look at what was mapped. Specific soils and slopes were reviewed with PI that is part of the normal aspect they have in PI with reduction on surface texture and reduction on slope percentage. In this case a specific soil type was reviewed and Mr. Heuchert agreed with the review. Mr. Duey responded they were doing reductions. Mr. Shephard questioned the soil type just reviewed. Mr. Duey responded first you need to look at map units name and component level and percentage that is in there. He gave as an instance on a soil type and discussed the review process with individual components and the map unit PI. He noted weighted average is what determines the PI, individual components and what percentage there is in. They reviewed another soil type. After the review, he stated again that in this case, the very stony aspects we are definitely doing the reduction. Mr. Heuchert responded he understood, but his question is if he could bring up the specific parcel he had questioned just to see the reduction on it. Can you do that on the fly? Mr. Duey responded no, he could not do that. He doesn't have that ability. Mr. Heuchert said ok.

Mr. Shepherd asked if Mr. Bakken could do that. Mr. Bakken responded that you can do that from the Pembina parcel viewer to look up the specific parcel and then get soils from that. He then piggybacked off Mr. Duey's explanation. If there is a particular component off that map unit that is 50% or greater, there was documentation provided in that so it would be that predominant condition outlined or identify those predominant conditions. That would be work you would have to do on an individual parcel basis. Mr. Heuchert responded that's what he is wondering because we talked to Mr. Duey and saw some that might need to be done more in depth. This parcel I have there's a Lankin Gilby Loam only one listed as stony on there. Surety maps bring up soil type. That quarter is full of rock but none of the other soil types list anything about stony, rocks or anything. Mr. Duey responded that he would take another look. He stated that he thinks he understands the question and he has to do a little bit more research on that. He thinks what Mr. Heuchert is getting at is – Is this what he's understanding? – It's listed as a specific map unit name, but the data doesn't match that? Is that what I'm understanding? Mr. Heuchert responded the names are listed with slope, but in the map unit there is not list like Surety (Ex: 1578A) there is no mention of stones in it. I'm wondering if it's affecting the productivity on it, or any of it factored in because when you said there are 3 classes of stony and that affects PI. Examples of soil types given. Mr. Duey questioned the map unit number. Mr. Heuchert questioned parcel number and Mr. Vivatson responded soil number. Mr. Duey stated he would go back and get it. I think I'm understanding what you are getting at. Is stoniness applied to that particular map unit? Mr. Shephard responded correct. Mr. Heuchert responded yes and gave further example of a specific soil 1413A and asked if it had a stony classification the PI would drop, but it's not, correct? Mr. Duey responded I can't say that. He would have to look into this a little bit further, but he's getting from him that there is potentially an issue on how PI is being addressed on Lankin Gilby Loam or I568A. Which is listed as Lank Gilby Loam at 0-2% slope, stony. So, he has an understanding that there is a map unit he needs to investigate and see how they have that populated because there is a possibility that we may have an issue on it. Mr. Heuchert responded yes and it's kind of where that glacial deposit, rocks, pasture and stuff we were talking about earlier, but now when start looking at it, there is no mention in a lot of soil types. Mr. Shephard noted it is a problem across escarpment and not isolated to one area. Site inspection and look at soils you think more work needs to be done as doesn't match and change is rapid. Mr. Heuchert added that in knowing the area there will be some land that is pasture because of stones, then other side of fence is same soil type, but tilled easy. May have to pick piles once every couple years as frost pushes them up.

Mr. Bakken noted that what Mr. Heuchert brought up to Mr. Duey is a soils issue, list of modifiers for rocks. If not included in the stony phase in official soil survey, now same discussion as the river bed and what is frequent and occasionally flooded. Only now, talking about rocks. Is it a phase actually being included, addressing those issues of rocks, or not? If not, then think of % modifier and this is where local assessors, township officers and those farming the land can figure out how and where to apply. Mr. Shephard questioned the number one thing to figure out would be if it is cropland because range/pastureland is a whole different game. Mr. Bakken responded correct and referred to Mr. Heuchert's example of the area across the fence. One is pasture, one is cropland. Mr. Shephard stated there is a reason for that. Mr. Bakken responded yes, but that's just how deck is shuffled. We are trying to make this as equitable as possible, but in his opinion, land use is more important than the modifiers themselves. Mr. Bakken noted that Mr. Shephard made comment there was no real direction. Mr. Bakken will construct a one-page checklist to help further assist in streamlining the review process. First identify land use and then down to cropland and whatever is left, etc.

Mr. Shephard brought forth a conversation on the pipeline used as a land use modifier. Mr. Gunderson had contacted the Tax Equalization Office on how this modifier was applied. We believe the modifier was created when the pipelines were originally created, but Mr. Gunderson stated that most are now farmed. Mr. Christenson stated they were just an easement. They all agreed that if pipeline is found during review, that it should be cropland and not given the modifier.

Ms. Willits noted that Roy Paton resigned from the soils committee effective today at the County Board of Commission meeting and that they will need to find another individual to replace him. Mr. Shephard assigned the open district to alternate Mr. Heuchert. Mr. Heuchert had concerns on not knowing the district and a time period he may be gone to do the district justice. Mr. Shephard felt they could all pitch in to get District 2 completed and the group will search for a replacement. Mr. Shephard had attended the County Board of Commission meeting earlier in the day to present Reid Christenson's Letter of Resignation as an alternate. The board accepted the resignation. Mr. Shephard presented that Curt Christenson would like to apply for the open alternate position and the County Board approved Mr. Curt Christenson as the new alternate.

Motion was made by Mr. Vivatson to adjourn the meeting. Mr. Heuchert seconded the motion. All in favor, motion carried.

Meeting was adjourned at 4:00 p.m.

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Secretary of Tax Equalization

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Soils Committee Chairman