

1 the one that is presently most widely distributed. He indicated that the scale of the 1982 soil survey
2 maps is 4 inches to the mile, and not ½ inch per mile. He said that 69 map units are featured in the
3 1982 version and much more detail and accuracy, as compared to the 1918 report.
4

5 Mr. McLeese said that the complete inventory of the State's soil resources was completed in 1995, but
6 prior to completion the NRCS started to look at 'where do we need to go with the soil survey program
7 – what is the next generation?' He said that the next generation was identified as the digital soil survey
8 with GIS technology, and that based on the uses that people were putting the soil survey to, an updated
9 and digitized soil survey was needed. He said that Champaign County is one of the 43 counties now
10 that has an updated and digitized soil survey. He said the 2003 update of the soil survey is different:
11 the maps have been rectified to the 2003 digital orthophotos available from the USGS and the map
12 scale is now 5.25 inches per mile (an improvement from the 1982 scale of 4 inches to the mile) which
13 allows for more detail. He said the Champaign County Soil Survey now features 74 map units. He
14 indicated that the updated soil survey is available both in digital form and as a hard copy. He said that
15 a CD called 'Soil View' is available from the NRCS for anyone who has a computer and desires access
16 to updated soil survey information.
17

18 Mr. McLeese addressed the question of how accurate the updated Champaign County Soil Survey is.
19 He said the updated information is not 100% accurate in every location. He said that at the map scale
20 of 5.25 inches per mile, the detail that can be delineated is about 1-1/2 acres in size. He said that the
21 map scale dictates cartographically the minimum delineation that can be shown. He used, as an
22 example, an 80 acre field, on which the Soil Survey units shown are Drummer, Flannigan, Blackberry,
23 and perhaps Brenton. He said there could be a small one-acre pot hole of Peotone in a Drummer unit.
24 He indicated that because it's just one acre in size, it will not show up on the Soil Survey because the
25 scale dictates the detail that can be shown. He said these are referred to as 'inclusions'. He said that
26 the Soil Survey narrative indicates that the Drummer map unit in Champaign County are typically 90%
27 Drummer and similar type soils, with a 10% 'inclusion' rate. He said that with Drummer, those
28 inclusions are typically the Flannigan soils, the Peotone soils, and the Brenton soils and they occur in
29 the pothole or on a little ridge. He said that 'inclusions' are inherent in the mapped soil survey units.
30

31 Mr. Moser said that the Supervisor of Assessments, Curt Deedrich, is involved in updating maps used
32 for assessments with the updated soil survey information available from the County GIS Consortium
33 for four townships in the northeastern corner of the County. He said there has been much confusion
34 regarding the Bulletin 810 changes and how assessments are affected. He noted that several changes
35 are expected to the Assessor's maps for these four townships based on the updated digital soil survey
36 information that is now available.
37

38 Ms. Monte indicated that the Assessor's office will be or is in the process of switching from the mylar
39 hard copy maps which are based on the 1982 Champaign County soil survey and that is based on soils
40 data collected during the 1970's, to the updated 2003 digitized Champaign County Soil Survey data.
41

42 Ms. Busboom asked why the County should waste its money with the services from Mr. McLeese's
43 agency.
44

45 Mr. McLeese pointed out that the offering of his agency is just one GIS data layer and that the County
46 and/or City governments need a lot of different data layers in GIS. He said that the 2003 digital soil
47 survey was delivered to the County for use by the County GIS Consortium. He noted that the digital
48 soils GIS layer is just one data layer that the Supervisor of Assessments, for instance, would need; and
49 that he would also need land use data along with other data layers, such as roads and streams, in order
50 to be more accurate with rural farmland assessments. He stated that the digital data provided is the
51 soils data that is a certified database that goes through a strict certification process by the NRCS.

1
2 Mr. McLeese explained the meaning of Bulletin 810, noting that in his opinion Bulletin 810 is not
3 receiving favorable press around the state. He explained that Bulletin 810 is a publication by the
4 University of Illinois of the soil productivity indices of the soils of Illinois. He stated that the
5 Department of Revenue has passed down a mandate to the Supervisor of Assessments to update those
6 soil productivity indices instead of the information contained in a previous Circular 1156 that all
7 counties were using, which is 30 to 40 years old. He further explained that the data contained in
8 Bulletin 810 is soils data that the professors at the U of I collected throughout the State over a ten-year
9 period, did computer modeling, and have updated soils productivity information. He stated that the
10 mandate from the Department of Revenue is that all counties are to incorporate modern soil survey
11 information into their rural farmland assessment process.

12
13 Concerning a question on slopes information, Mr. McLeese explained that soil maps show the different
14 soil types, or map units, that are based on soil series, or individual soil slope, whether it is a 0 to 2%
15 slope, 2 to 5%, 5 to 10%. He stated that those are shown on the soil maps and you take where the soil
16 is distributed across the landscape with the map. As an example, noting that Bulletin 810 may indicate
17 the productivity index for Drummer is 128, he explained that the Supervisor of Assessments has to
18 merge the productivity information where the Drummer is located on the landscape. He further
19 explained that instead of just saying the predominant soil on an 80-acre parcel is Drummer, which
20 would have been taxed as such, with the GIS technology, this same parcel would include, for example,
21 20 acres of Drummer, 30 of Flannigan, 5 of Brenton, and a weighted average with the productivity
22 would be done with the outcome being a truer picture of what is the productivity of that 80 acres,
23 which would be more equitable.

24
25 Mr. Langenheim asked how truthful the digitized map information is as compared to actual soil types.
26 He inquired about the process by which information was updated.

27
28 Mr. McLeese responded that borings were completed in the course of producing the soil survey
29 published in 1982. He stated that for the 1982 report, there was a crew in Champaign County over the
30 course of 4 to 5 years and they walked 4 to 5 miles each day doing boring samples. He said that the
31 2003 update of the soil survey involved rectifying the survey to current aerial photography, and a
32 subsequent analysis and update of the survey was based on the additional details and visual tones
33 available from the aerial photography.

34
35 Mr. Langenheim asked how much gradation was observed in the rises and how were rises determined.

36
37 Mr. McLeese said that in the United States, there are 20,000 soil series recognized and 650 of those are
38 in the State of Illinois. He said that each of those soil series has an established description with an
39 established range of characteristics that soil scientists have to know. He stated that gradation will
40 determine where soil differences begin, where some are gradual gradation, and that the National Map
41 Accuracy Standards are utilized, which are plus or minus 10 meters.

42
43 Mr. Langenheim asked if soil differences could be disputed from the map information and Mr.
44 McLeese responded that NRCS soil scientists investigate soil questions upon request.

45
46 Ms. Greenwalt said that we are proposing to protect the best prime farmland from any subdivision
47 development and asked if someone wanted to dispute the classification of soils on their property,
48 would there be an appeals process.

49
50 Mr. McLeese said that this question has come up in other counties and that the NRCS response is that
51 we stand behind our maps unless someone can show us they are wrong. He said that it is typical that

1 every time a new soil survey is published and the supervisor of assessments starts using them, a flood
2 of questions and appeals to the NRCS are plentiful. He said that unwritten NRCS policy is that the
3 landowner appeals to a Board of Review and indicates they don't agree with the soil types, the NRCS
4 is not going to visit the site and look at the soil. If a landowner wants to hire a consultant and have
5 that consultant go out and look at it and provide a report to the NRCS, and if the consultant looks at it
6 with the same scale as the NRCS does, and their report shows different data, then the NRCS will
7 review the soils on a particular property.
8

9 Ms. Monte requested a summarization of the 1982 and 2003 hard copy differences and improvements.
10

11 Mr. McLeese explained that the digital orthophotos for 2003 and the base map that was used is
12 rectified aerial photography. He said the 2003 digital soils data are based on USGS orthophotos that
13 could be matched up with other GIS information layers. He said the 2003 update features a different
14 soil legend based on improved knowledge of soil types. He stated that the line work didn't change
15 drastically and that it showed the spatial distribution nearly the same as the previous information. He
16 said the major difference is that it is now compiled on a different base. He pointed out that soils are
17 stable to at least 1,000 years and the soil survey information is likely to be accurate for many years. He
18 said that with erosion factors, the soil type would remain the same but soil productivity is likely to
19 decrease.
20

21 Mr. Langenheim noted that the soil survey map may best be used as a guide to judgment and not a
22 determination of the judgment.
23

24 Mr. McLeese said the 2003 Soil Survey would be a very good tool for land use assessment.
25

26 Ms. Monte thanked Mr. McLeese for his presentation.
27

28 **5. Revisions to Selected Champaign County Land Use Regulatory Policies – Rural Districts based on**
29 **results of ad hoc Working Group Discussions Held on April 20, 2005 and May 04, 2005**
30

31 Ms. Monte said the policies are designed to be considered as a whole and coordinated as such and that
32 providing an exception clause for each policy is not advised.
33

34 Regarding Policy 1.1, Highest and Best Use of Farmland, Ms. Monte said that this policy addresses the
35 question 'when demands for farmland conflict, what use should take precedence?'

36 She said in Policy 1.1.1, a proposed change is to indicate the County is not obliged to allow further
37 development to occur unless it occurs on land that is not best prime farmland. She said that other land
38 uses can be accommodated only in areas of less productive soils and only under very unique
39 conditions.
40

41 Mr. Langenheim suggested changing the language to include "only in areas of less productive soils or
42 only under very unique conditions".
43

44 Regarding Policy 1.2, Preserving Unique Soil Resources, Ms. Monte said the policy addresses the
45 question 'should farmland preservation focus only on the most productive soils, or apply to all prime
46 farmland?' She noted that a distinction is proposed between prime farmland and best prime farmland.
47 She said that 'prime farmland' comprises approximately 94.6% of the County and includes soils in Ag
48 Value Groups 1 through 6. She said that 'best prime farmland' is less inclusive and comprises
49 approximately 80% of the County and includes soils in Ag Value Groups 1 through 4 only. She said
50 the proposed policy states that 'best prime farmland' will be preserved for agricultural use.
51

1
2 Regarding Policy 1.3, Protection of Property Rights, Ms. Monte stated the policy statements under this
3 heading deal with the protection of property rights and to what extent should landowners be guaranteed
4 the right to sell land or lots for rural development. She said that under this policy heading we are
5 proposing a significant change in policy. She noted that Policy 1.3 is divided into three sections and
6 the first one deals with guaranteeing the minimum basic development right. She said the direction
7 provided from the *Ad Hoc* Working Group is to still guarantee a minimum basic development right of
8 at least one house, so that if the tract is less than 40 acres and it does not have a house on it, then one
9 house can be allowed on that tract of land. She indicated, however, that if a house already exists, an
10 additional house on that tract will not be allowed. She said the bottom line is that the policy needs to
11 clarify that a basic development right will be allowed on all land, however that tracts that are less than
12 40 acres may not get a development right if there is already one house on that tract.

13
14 Ms. Monte explained that Policy 1.3.2 is a policy statement that is proposed to be adjusted to mesh
15 with the recommended direction of 'one dwelling per 40 acres' ratio and that additional clarification in
16 the explanatory text for this policy statement would be helpful.

17
18 Concerning Policy 1.3.3, Ms. Monte pointed out that one significant change to be proposed is that the
19 County will not allow residential development of rural subdivisions beyond a basic development right
20 on tracts or sites with a Land Evaluation (LE) score of 85 or higher. She said that the proposed
21 restriction concerning residential subdivisions on LE soils of 85 or higher is a very significant change
22 to the adopted land use regulatory policies, and it is based on the recommendation of the *Ad Hoc*
23 Working Group.

24
25 Ms. Monte said no changes are proposed to existing Policy 1.4, which addresses whether restrictions
26 should be imposed on rural land uses that may negatively affect or be affected by agriculture.

27
28 Regarding Policy 1.5, Site Suitability for Development, Ms. Monte said that policy addresses the
29 question: 'To what extent should rural development be restricted based on site suitability concerns?'
30 She said this policy is divided into three separate sections and the only proposed change is to eliminate
31 the second section which states 'On the best prime farmland development will not be permitted unless
32 the site is well suited, overall, for the proposed land use.' Ms. Monte said this proposed change is
33 based on discussions of the *ad hoc* working group, as are all the proposed changes to selected policies.

34
35 Ms. Monte said that staff had forwarded a question to the State's Attorney regarding Policy 1.8. She
36 said that policy deals with the agricultural exemption to zoning restrictions. She explained that under
37 the current policy 'all full-time and part-time farmers, and retired farmers, will be assured receiving the
38 benefits of the agriculture exemption-- even if some non-farmers receive the same benefits.' She said
39 that the staff's question to the State's Attorney regarded what leeway staff might have to implement
40 this policy, for example, what proof could be required, if any, to allow a landowner the agricultural
41 exemption from zoning restrictions? She said this is a very difficult exemption to administer over the
42 counter and that staff only has the word of the person requesting the exemption. She stated that staff is
43 still awaiting advice from the State's Attorney on this point.

44
45 Ms. Busboom requested that staff investigate the property across the road from her farm concerning the
46 agricultural exemption granted previously. She said that there should be acreage and usage involved in
47 the proof of the land being used for farmland purposes. Ms. Monte said that these questions have been
48 posed to the State's Attorney and to personnel at the Champaign County Farm Bureau. She pointed
49 out that the farm bureau staff has received direction from the State Farm Bureau Office and there was
50 nothing new to consider at this point. Ms. Monte has been in contact with other counties around the
51 state including the northern counties in the greater Chicago metropolitan area which deal with the

1 agricultural exemption somewhat differently based on a specific state statute for them. She
2 emphasized that the downstate counties, including Champaign County, are restricted on what can be
3 done to implement this policy.
4

5 Ms. Greenwalt stated that when taxes are filed, one would assume there is income from the property
6 and the federal government does not check to see if what you indicated on your forms is true. She
7 asked if staff is asking for direction concerning proof of proper land use. Ms. Monte stated that the
8 policy as it states presently is very liberal and extending out to anyone claiming to be a farmer, retired
9 or otherwise. She explained that at the next meeting, staff would bring forward arguments for possibly
10 altering this policy, making it more restrictive or not, or keeping it the way it reads based on the advice
11 of the State's Attorney. Mr. Moser requested that the State's Attorney be asked to explain the
12 classification of a landlord that is at risk with some type of lease, whether it be custom farm lease or
13 cash rent lease, where there is some kind of risk involved, or whether it is a crop share lease. Ms.
14 Monte stated that this is the type of question that has been posed to the State's Attorney.
15

16 Ms. Monte announced that the next meeting would be Thursday, July 27th at 9:00 a.m.
17

18 Mr. Moser requested that this committee invite Mr. Mark Toalson, GIS Manager, and Mr. Curt
19 Deedrich, Supervisor of Assessments, to explain the GIS project on the four townships in the northern
20 portion of the County.
21

22 **6. Other business – None**

23
24 **7. Adjournment**

25
26 The meeting was adjourned at 10:00 a.m.
27

28 Respectfully submitted,
29

30 Secretary to the Environment and Land Use Subcommittee