

REGIONAL SOIL SURVEY TWO-THIRDS COMPLETED

In May, 1963, the SEWRPC approved a regional soil suitability study, which is one of the singularly most important contributions that could be made by any agency toward intelligent planning for the future development of the Region. Completion of the second year of that study finds progress on the survey and mapping of the approximately one million acres of unmapped soils in the Region ahead of schedule.

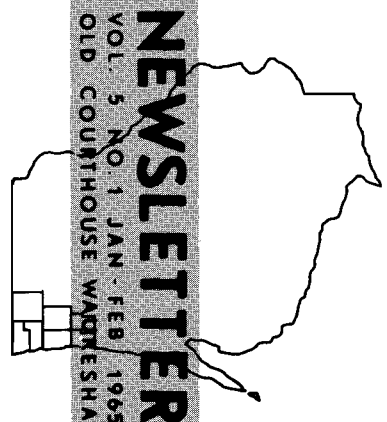
First in U. S. A.

The regional soil survey is the first effort in the United States to complete detailed soil surveys suitable for comprehensive planning purposes on an areawide basis over an entire region. This survey is being made by the SEWRPC in cooperation with the U. S. Department of Agriculture, Soil Conservation Service (SCS), which is not only performing the surveys but is providing 50 percent of the \$260,000 cost of the study. The SEWRPC portion of the cost is being provided from regional land use-transportation study funds set aside for natural resources studies.

The regional soil survey is being carried out in full conformance with the latest standard operational soil survey procedures of the SCS as set forth in the U. S. Department of Agriculture's Soil Survey Manual.

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SOUTHEASTERN
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SOILS ARE AN IRREPLACEABLE RESOURCE, and mounting pressures upon land are constantly making soil more and more valuable. Soil properties exert a strong influence on the manner in which man uses, and should use, land. A need, therefore, exists in any comprehensive planning program to examine not only how soils are used but how they can best be used and managed.

It should be emphasized that the completion of the detailed soil survey for any county in the Region should mark the beginning rather than the end of an important and continuing effort to better adjust rural and urban development within that county and the Region to the underlying and sustaining resource base. If the full value of the information collected in the soil surveys is to be realized and a full return on the investment of public funds involved achieved, the results of the survey must be applied to assist public officials and private investors in making more intelligent decisions concerning community development on a day-to-day basis. The proper application of the soil survey data to this end will require the cooperative efforts of local public officials, Soil Conservation Service technicians, county agents, and private investors.

If properly applied, the soil surveys can and should provide the basis for many development decisions by federal, state, and local units of government and by private investors throughout the Region. Soils data are essential to intelligent zoning, official mapping, and subdivision regulation at the local level just as they are essential to the preparation of a regional land use plan, a regional transportation plan, a comprehensive watershed plan, or to the preparation of an intelligent subdivision layout or farm conservation plan.

The manner in which land within the Region is developed will affect the people who have to occupy that land for generations to come. The importance of the soil surveys to the future development and welfare of the Region and its constituent counties cannot, therefore, be overemphasized.

K. W. Bauer
Executive Director

SOIL SURVEY - (continued)

Boundaries of the various soils as they occur in the field are identified on aerial photographs; and the physical, chemical, and biological properties of each layer of each mapped soil are determined by field and laboratory tests. These properties are then interpreted in terms of the suitability of the various soils for various agricultural and nonagricultural uses.

SOIL SURVEY PROGRESS CHART January 1965

	Acres Mapped ^a		Acres Converted ^b	
	To Date	Remaining	To Date	Remaining
Kenosha.	72,383	52,886	---	52,826
Milwaukee.	73,160	Completed	4,620	640
Ozaukee.	80,653	Completed	30,296	---
Racine	107,880	60,040	---	49,626
Walworth	102,840	Completed	19,080	9,260
Washington	132,961	114,908	27,137	30,863
Waukesha	156,080	133,626	23,915	81,940
Region	725,957	361,460	105,048	225,155

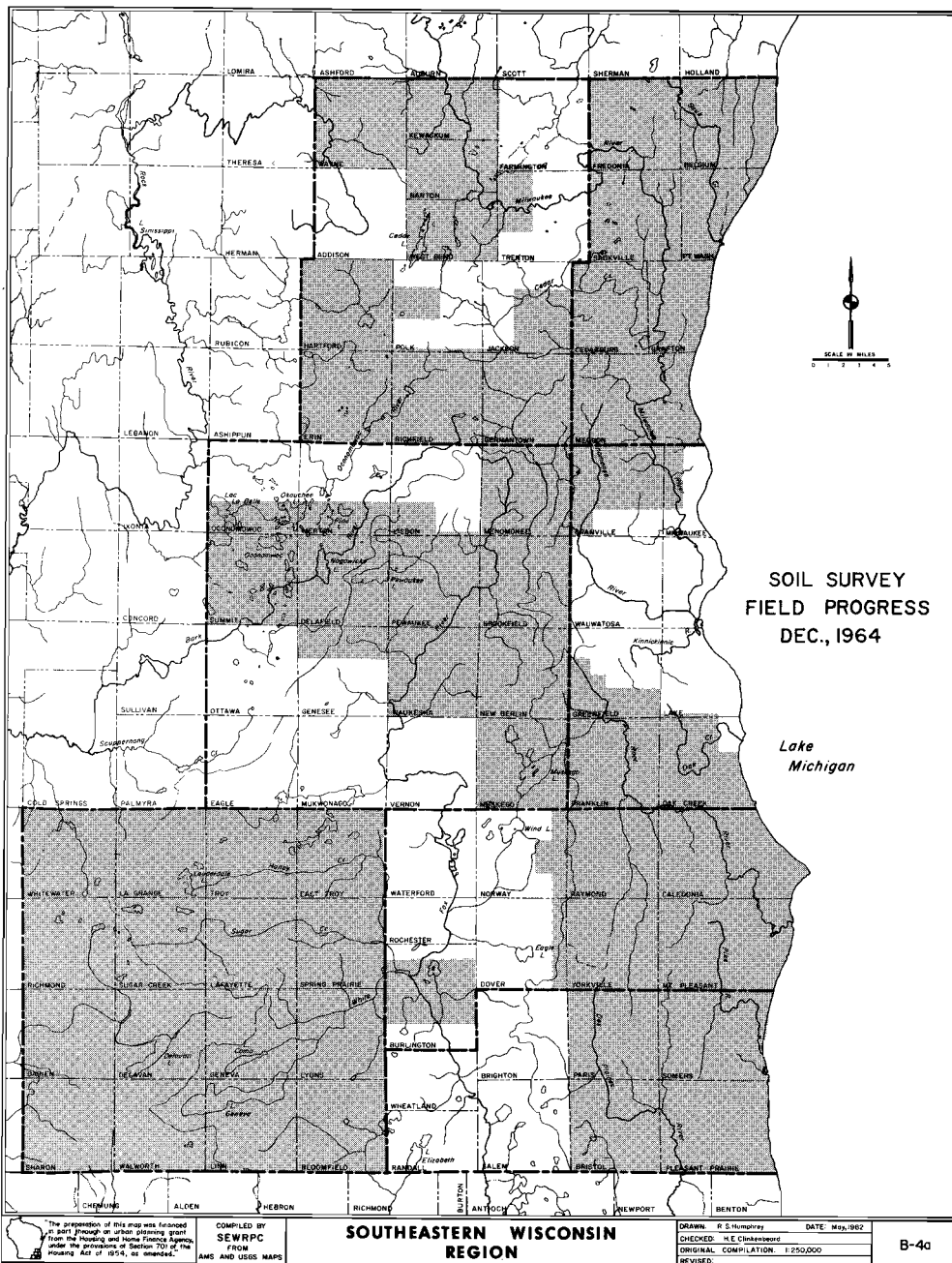
^a Entirely new mapping under SEWRPC - SCS contract.

^b Conversion of previous standard surveys under SEWRPC - SCS contract.

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SPRING QUARTERLY MEETING SET

The SEWRPC Quarterly meeting has been scheduled for March 4, 1965 at 3:00 p.m. in the County Board Room of the Kenosha County Courthouse, in Kenosha. The public is invited, and an agenda will be supplied upon request.



SOIL SURVEY (continued)

Three Counties Completed

Ozaukee County and Walworth County were two of the first counties in the state to recognize the importance of good soil information, and these counties in 1962 had begun an operational soil mapping program which was continued and accelerated by the SEWRPC in 1963 in the regional soil study. Previous to 1962, soil surveys in the Region had been prepared by the SCS only when requested by the individual landowners. Under previous mapping rates, Ozaukee County would not have been completely mapped until 1966, Walworth County until 1969, and the remaining five counties of the Region sometime after 1980.

The progress of the survey to date, the quality of work, and the enthusiasm demonstrated by the SCS soil scientists have not only been impressive but have given rise to a great deal of respect for the SCS on the part of the SEWRPC and local communities within the Region. In order to expedite this work, five field offices were established in the Region by the SCS and staffed by 15 experienced soil scientists working under the administrative direction of Mr. Howard C. Hass, SCS Area Conservationist.

Detailed operational soil surveys are an absolute prerequisite for sound development planning at any level of government. The glacial history of southeastern Wisconsin, which has created highly complex soil relationships and extreme variability and intermingling of soils within very small areas, makes such surveys even more important to sound planning and zoning. Over 20 percent of the estimated 250 soils series occurring within the Region are unsuitable or of questionable suitability for on-site sewage disposal systems. In some portions of the Region, up to one-third of the area lying within the immediate path of urbanization consists of poorly drained soils not suitable for urban development. To ignore such conditions in planning development can only lead to severe environmental problems, which will be very expensive to overcome.

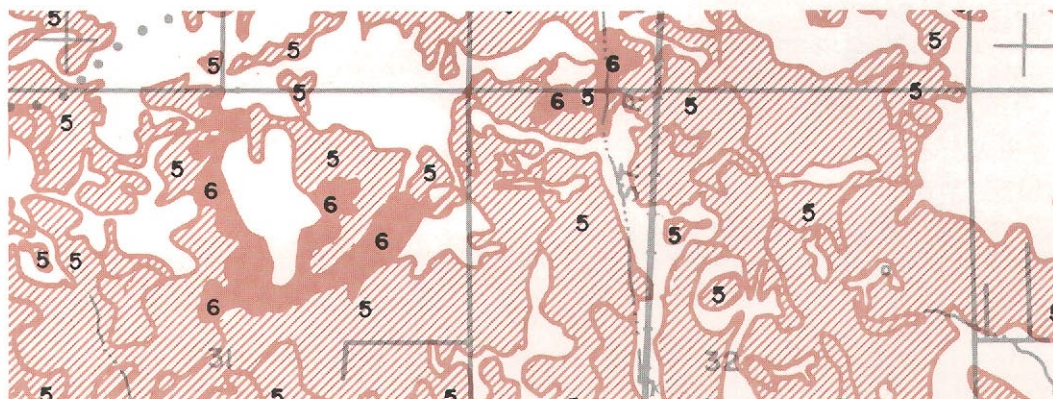
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SOIL SURVEY - MAPPING OF SOIL INTERPRETATIONS



EXAMPLE OF SOIL SUITABILITY RATING TABLE FOR PRIMARY LAND USES

Soil Types	Agriculture		Residential						Industry		Transportation		Recreation			
			With Sanitary Sewers		Less Than 1 Ac. Lots Without San. Sewers		1 Ac. Lots or Larger Without San. Sewers						Intensively Developed		Extensively Developed	
	Rating	Code No.	Rating	Code No.	Rating	Code No.	Rating	Code No.	Rating	Code No.	Rating	Code No.	Rating	Code No.		
297	Good	2	Good	2	Q	5	Poor	4	Fair	3	Poor	4	Good	2	Good	2
297X	Good	2	Good	2	Poor	4	Fair	3	Fair	3	Fair	3	Fair	3	Good	2
298	Good	2	Not Suitable	6	Not Suitable	6	Not Suitable	6	Poor	4	Poor	4	Poor	4	Not Suitable	5
299	Good	2	Fair	3	"	5	Q	5	Poor	4	Poor	4	Fair	3	Fair	3



SOIL SURVEY (continued)

Interpretative maps suitable for comprehensive planning purposes are being prepared by the SEWRPC from the results of the soil surveys. An example of such a map is shown on page 6. These maps will be prepared for eight potential uses: agriculture, large lot residence without public sanitary sewer service, small lot residence without public sanitary sewer service, industry, transportation route location, intensely developed recreation, and reservation type recreation. Each interpretative map will reflect the following six suitability ratings: (1) very good, (2) good, (3) fair, (4) poor, (5) questionable, and (6) very poor, according to a predetermined definition of the terms (see page 6).

Slope Maps

In addition to the interpretative maps, slope maps will be prepared to provide further definitive information useful in determining the best land uses for a given area. Seven slope groupings will be used, ranging from a 0 to 1 percent or nearly level, to an over 29 percent or very steep. Slope data is important to sound urban and rural development decisions. For example, most industrial uses seek comparatively level sites while certain types of residential development can be adapted to rolling terrain.

The soils data provided to date on a work progress basis are beginning to be put to use by engineers, planners, boards of assessment review, conservationists, sanitarians, land developers, plan commissions, farmers, and foresters throughout the Region, as well as by the Commission itself. The completed soil surveys provide valuable information needed for local urban land use planning, highway location and design, park and open-space planning, subdivision layout and design, planning and design of sewage disposal facilities, and for sound application of official mapping, zoning, and other land use controls as well as for agricultural and forest land-use planning and management. Since the soil surveys are a basic scientific inventory of permanent and widespread utility, they represent one of the soundest capital investments that could have been made by the seven counties.

SEWRPC NOTES

New Commissioners Appointed

Four new Commissioners were appointed by the Governor to replace former Commissioners whose terms expired in September, 1964. The new Commissioners are: Dario F. Madrigrano, Kenosha County; Frank D. Meyer, Ozaukee County; Sam Rizzo, Racine County; and Raymond Schmidt, Walworth County.

Commissioner Arthur E. Weiner, Washington County, was reappointed to a full six-year term by the Governor. Eugene Hollister, Walworth County, and Mervin L. Brandt, Waukesha County, were reappointed last September by their respective County Boards to six-year terms.

Chairman Names Standing Committees for 1965

Chairman Berteau has announced the following SEWRPC Standing Committee assignments for 1965:

Administrative Committee

James F. Egan, Chairman	Ozaukee County
Joseph A. Schmitz, Vice Chairman	Washington County
Lyle L. Link, SEWRPC Treas.	Waukesha County
Dario F. Madrigrano	Kenosha County
John D. Voss	Walworth County

Financial Subcommittee

James F. Egan, Chairman	Ozaukee County
Lyle L. Link	Waukesha County
Joseph A. Schmitz	Washington County

Intergovernmental and Public Relations Committee

Eugene Hollister, Chairman	Walworth County
John P. Murphy, Vice Chairman	Milwaukee County

SEWRPC NOTES - (continued)

George C. Berteau, SEWRPC Chmn.	Kenosha County
Ray F. Blank	Ozaukee County
Mervin L. Brandt	Waukesha County
Lyle L. Link, SEWRPC Treas.	Waukesha County
Wilfred Patrick	Racine County
George Schlitz	Kenosha County
Joseph A. Schmitz	Washington County

Planning and Research Committee

Maynard W. Meyer, Chairman	Waukesha County
George Schlitz, Vice Chairman	Kenosha County
George C. Berteau	Kenosha County
Richard W. Cutler	Milwaukee County
James G. Egan	Ozaukee County
Dr. Carlton Herman	Washington County
Milton F. LaPour	Racine County
Lyle L. Link	Waukesha County
Frank D. Meyer	Ozaukee County
Sam Rizzo	Racine County
Dr. Henry J. Schmandt	Milwaukee County
Raymond Schmidt	Walworth County
Arthur E. Weiner	Washington County

1965 Regional Planning Conference Announced

The 1965 Regional Planning Conference has been scheduled for May 12 at the Red Carpet Inn across from General Billy Mitchell Field. The regional planning conference will be sponsored by the SEWRPC and will this year present to the public Volume 1 of the three-volume Regional Land Use-Transportation Study Report.

Volume 1 contains the factual findings of the data collection phase of the Regional Land Use-Transportation Study, and the Conference should

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SEWRPC NOTES - (continued)

serve as an excellent opportunity for public officials and citizens interested in planning for the future development of the Region to become informed concerning the present status of the Region. Details of the one-day program will be announced.

Milwaukee Liaison Committee Visits SEWRPC Offices

The Milwaukee Common Council recently by resolution made its Streets and Zoning Committee the official liaison committee for SEWRPC affairs. Members of the Committee have since personally met with SEWRPC Chairman George C. Berteau and the staff, and have toured the offices and inspected the work in progress. The aldermen members of the Committee are: Robert L. Sulkowski, Stephen A. Galligan, Clarence M. Miller, Eugene L. Woehrer, and Robert A. Anderson. They were accompanied on their visit by Deputy Commissioner of Public Works, Walter H. Tacke, and Assistant City Engineer, Edwin Laszewski. Because of the advisory role of the Commission and the importance of local units of government to ultimate plan implementation, the Commission is pleased with the interest of the City of Milwaukee in the regional planning work as evidenced by this action by the Common Council.

PUBLICATIONS AVAILABLE RELATING TO THE SOIL SURVEY

The Soil Survey - A Guide to Rural and Urban Development, Nov. 1963, 16-page brochure, no charge.

Detailed Soils Photos covering 2 or 6 square miles where survey has been completed, 8 1/2 x 11, \$1.00.

Suitability of Major Soils in Southeastern Wisconsin for Rural and Urban Development, Table I, May 1964; 91 pages, \$1.50.

Suitability of Major Soils in Southeastern Wisconsin for Recreational Development, Table II, May 1964; 84 pages, \$1.50.

Suitability of Major Soils in Southeastern Wisconsin for Specific Engineering Purposes, Table III, June 1964; 74 pages, \$1.50.

Suitability of Major Soils in Southeastern Wisconsin for Agricultural Engineering Purposes, Table IV, June 1964; 65 pages, \$1.50.

QUESTION BOX

HOW IS A SOIL SURVEY MADE?

The detailed operational soil surveys being made in southeastern Wisconsin are possible only because the science of pedology--or study of soils--has advanced to the stage where soils can be identified on the basis of field inspections and tests, and classified into types and series having similar biological, chemical, and physical properties according to a national system.

Using a soil auger, spade, abney level, pH kit and reagent, Munsell color book and hand lens, an experienced soil scientist carefully examines the topsoil, subsoil, and underlying material for texture, color, structure, consistency, and other related features. Depending upon the characteristics found, he identifies each soil according to a national classification scheme.

The soil scientist then sketches the boundary of each soil mapping unit on an aerial photograph of the area to be mapped. This mapping unit is the smallest unit in the classification system and embodies the most detailed soil information about any particular area of land that can be used for interpretative purposes. Symbols are shown within each delineated area (mapping unit) to identify the type of soil, the percent of slope, and the degree of erosion on that parcel of land.

The field tests are supplemented by various laboratory tests on selected soil samples performed by the Soil Conservation Service soils mechanics laboratory at Lincoln, Nebraska; and by laboratories of the U. S. Bureau of Public Roads, the Wisconsin State Highway Commission, and the University of Wisconsin.

QUOTABLE QUOTE.....

"Planners in metropolitan areas and other urban-rural communities throughout the country are making practical 20th century application of the lesson taught by the Biblical story of the foolish man whose house built on the sand fell when the rain descended and the floods came and the wise man whose house built on a rock fell not. They have learned there need be no such "foolish" home builders in this day when scientific information is available to tell them beforehand if the footing for their houses is sound.

"This information being relied upon by more and more local planners, zoning and other authorities, and builders is contained in soil surveys. Long used primarily as guides for farmers in growing their crops, these diagnoses of soils, charted in detail on reference maps, are equally useful in showing whether a given piece of land is suitable for buildings, underground sanitary or other utility systems, for streets or highways, or for other essential facilities. If it is not suited to such uses, the soil surveys tell planners, landowners, and developers whether the soil properties, water-table level, slope, and other factors indicate the land may be used to better advantage for agricultural, recreational, or wildlife purposes."

Source: Soil Conservation
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Executive Director

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