

## REGIONAL OPERATIONAL SOIL SURVEY AND ANALYSIS TO BE MADE

At a special meeting on May 6, 1963, the SEWRPC approved a regional soil suitability study. This study will provide soil surveys for approximately one million acres of land in the Region. Interpretations of the surveys will be provided for planning and engineering purposes.

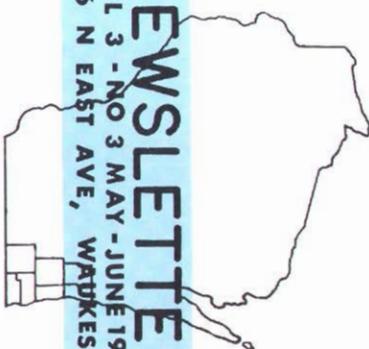
The study will be made in cooperation with the U. S. Department of Agriculture, Soil Conservation Service, which will not only perform the surveys but will also provide 50% of the \$260,000 cost. The balance is to be provided out of funds already set aside for natural resources studies in the Regional Land Use-Transportation Study now underway.

In approving the soils study the Commission recognizes the importance of knowledge of soil properties to intelligent planning. Soil properties exert a strong influence on the manner in which man uses land. Historically, soil studies have been directed primarily at single problems and situations and little attention has been given to soil potentials on a comprehensive, areawide basis. Soils are an irreplaceable resource and mounting pressures upon land are constantly making good soil more and more valuable. A need therefore exists in the regional planning program to examine not only how soils are used, but how they can be best used and

continued.....

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## **SOIL SURVEY (continued from page 1)**

managed. This requires a regional soil suitability study. The soil surveys will provide quantitative data on the physical properties of each soil type mapped - eg: depth of major soil horizons, depth to water table, estimated depth to bedrock, available moisture, infiltration rates, plasticity index, maximum dry density, optimum moisture content, mechanical analysis, pH, percolation rate, bearing strength, shrink-swell ratio, etc. These data will be based in part upon laboratory analyses of samples collected in the field.

The surveys will in addition provide agricultural and non-agricultural plant material, wildlife, water management, engineering, and urban and rural land use interpretations of these properties. The surveys and interpretations can therefore be used in selecting and developing spatial distribution patterns for industrial, commercial, residential, agricultural and recreational development; and in the selection of highway, railway, airport, pipeline and cable locations; and in the reservation of permanent agricultural and recreational green belts, wildlife areas, and open spaces. Estimates can be made of the suitability of the soils for private sewage disposal facilities, agricultural and urban drainage systems, foundations for buildings and structures including transportation facilities, water storage reservoirs and embankments and of the need for soil and water management practices such as erosion control and drainage.

The soil surveys will be used by the SEWRPC in comprehensive area-wide planning to ensure that planned regional settlement patterns are adapted to the natural resource base. The soil survey will in addition be extremely useful to local units of government and to private corporations and individuals in making decisions concerning land use development and management, both rural and urban.

### **This is a fact:**

From April 1, 1960 to April 1, 1963, the total U. S. population (including Alaska and Hawaii) increased from 179 million to 188 million or by 4.8 percent.

Source: Current Population Report No. 266 - May 22, 1963.

## **A TRIBUTE**

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The importance of obtaining complete and accurate information in the home-interview survey cannot be overemphasized. It follows, then, that the personnel engaged in the collection of this data -- the interviewers, editors and supervisors -- must be dedicated to the objective of obtaining a high degree of accuracy in their work.

The Regional Land Use-Transportation Study is fortunate in having secured just such a group for the interviewing teams. This is especially so when it is considered that these employees are hired on a temporary basis, and have a work schedule that is both rigid and demanding.

The daily routine of an interviewer is not particularly a smooth one. For example, the interviewer is required to complete an average of eight interviews daily and each individual interview must be completed within a three day period. This schedule is often complicated by such things as (1) not finding the respondent home despite repeated call backs, (2) respondent's refusals sometimes accompanied by rudeness, (3) incorrect address listings, and (4) bad weather (but like the mailman, neither rain nor snow can deter them). No doubt, the interviewers could add appreciably to this list of tribulations.

The editors and supervisors also have their share of difficulties since both have been called on repeatedly for double duty. They have substituted for interviews when necessary as well as maintained their regular office duties.

The Study's staff is aware of the problems of the interviewing teams and is appreciative of their continuing efforts to secure complete and accurate information.

## **CODING --**

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The facing page illustrates an example of trip coding and its end result -- a punch card containing all of the coded information for trip number one by person number one as shown on the internal trip report. The punch card has been "interpreted". This means that numbers have been printed along the top edge directly above and corresponding to the numerical value of the rectangular slots punched below. It may be seen that the first item punched is the "sample number" which is 212047. The next items punched are "sex and race" (code 1), age (code 7), occupation and industry (code 26), and so forth, tracing from left to right across the top line of the Internal Trip Report. Altogether about 46 separate bits of information have been coded and punched.

The coders who perform this work must have great skill and persistence. In cases where the interviewers are unable to get complete information, the coders must perform some detective work as well. In the example here, the reported origins and destinations are simply looked up in a "street address guide" and identified by town, range, section, and quarter section. These are represented by the 7-digit codes in columns 16-22 and columns 24-30. However, had the interviewers been able to determine only that the origins and destinations were at particular intersections, the coders would have had to use the "intersection guide". If this coding reference had not listed those intersections, a map "look-up" would have been required. Occasionally, there is even less information to go on and the coders have to resort to still other references -- origins and destinations are the most difficult of all coding.

Coding is a major production job. Imagine, if you will, that during the next four to six months, there will be well over 200,000 individual trips to be coded, not to mention the household history and personal opinion survey returns. This represents approximately 10,000,000 bits of travel information and another 5,000,000 bits of household and personal information - in other words, 15,000,000 "codes"! Moreover, extreme accuracy is required. For meaningful analysis, each of these codes must be exactly right. This is what good transportation studies are made of: sound facts accurately coded for ready reference and analysis.



## SEWRPC NOTES

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### New Appointment to Commission

Nick R. Didier, Route 1, Port Washington, has been appointed by Governor Reynolds as Commissioner for Ozaukee County to succeed Stephan Fischer, who resigned because of ill health. A lifetime resident of Ozaukee County, Mr. Didier attended the University of Wisconsin where he was on the boxing team for two years. He is presently engaged in farming, real estate and an auction service. He served as Clerk of the School Board for 8 years. His appointment will fill the unexpired term of Mr. Fischer, to September 15, 1964.

### Regional System Study Report Is Released

The first report of the regional study program under the Wis. P-6 grant was released in April. It is the Regional Planning System Study, made by Marquette University under contract for SEWRPC. This technical report will be distributed on a limited basis to technicians and local libraries. The five remaining studies, including the Regional Population Study, the Regional Utilities Study, the Regional Economic Study, the Regional Resources Inventory and the report on Regional Base Mapping, will be published in July.

### New Community Assistance Chief Named

William J. Kockelman assumed his duties on April 15 as head of the Community Assistance Division of the Commission's central staff, replacing Mr. Harlan E. Clinkenbeard who has been appointed Chief of the Land Use Planning Division of the Regional Land Use-Transportation Study.

## **QUESTION BOX**

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### WHAT IS A SOIL MAP?

Essential to a soil survey is both a soil map and a soil interpretation report. A soil map is an inventory of the soil resources of an area. Such a map is designed to show the distribution of soil types and slopes in relation to other prominent physical and cultural features of the earth's surface. If a basic soil map is made accurately and in sufficient detail, interpretative maps of many kinds can be readily made from time to time as needed. A soil map by itself, however, is useful only to a soil scientist unless accompanied by an interpretation, wherein the physical characteristics, use capabilities, and management requirements are included. Soil maps are of two kinds: (1) generalized and (2) operational (standard). The former maps only the broad soil associations covering relatively large areas of the earth's surface. Within these broad soil associations are included many small delineations of other soils differing significantly in their physical properties. The later maps the individual soil types as they occur on a landscape in great detail, down to as small as 0.5 acre areas. Of these two types of soil maps the second is the most useful and important for engineering and planning purposes, indeed is essential in a region such as Southeastern Wisconsin having a glacial geology wherein soil properties can vary radically within short distances.

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### About Our Newsletter Mailing List

Our mailing list for this bi-monthly newsletter is growing fast, and we are happy to comply with the new requests.

Will you help us keep our mailing list accurate and effective by returning the attached postage paid card with your comment. You will be continued on our mailing list if you do not return your card; however, if the newsletter is returned to us because of an incorrect address, we will be forced to drop your name from our mailing list. Your cooperation will be appreciated.

QUOTABLE QUOTE.....

"Many hard lessons have taught us the human waste that results from lack of planning. Here and there a few wise cities and counties have looked ahead and planned .....It is time to extend planning to a wider field.....

.....the resources of a river were not only to be 'envisioned in their entirety'; they were to be developed in that unity with which nature herself regards her resources - the waters, the land, and the forests together a 'seamless web'.....of which one strand cannot be touched without affecting every other strand for good or ill."

David E. Lilienthal, 1944

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