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Region Five 421 Walnut Street Philadelphia 6, Pa.

October 2, 1958

Menorandum

To: Director

From: Regional Director, Region Five

Subject: Report on Reconnaissance Survey Proposed Moraine National Park, disconsin, September 15 - 19, 1958

In accordance with the instructions contained in your memorandum of June 25, 1958, a brief reconnaissance of the area included in the proposed Moraine National Park as outlined in Congressman Henry Reuss' Bill H-R 13310, was made during the week of September 15. Members of the survey party throughout the entire five-day period were: Congressman Reuss; Raymond Zillmer, originator of the proposal; William Norris, feature writer for the <u>Milwaukee Sentinel</u>; Merrick Wing, Administrative Aid to Congressman Reuss; Messrs. Diederich, Edmunds, Rose and myself from the National Park Service. In addition to those named above, Mr. H. A. Svensen and Mr. George Frisbie of the Regional Office of the U. S. Forest Service and Mr. Robert Espeseth and Mr. Ervin Malin of the Wisconsin Conservation Department were with us two days each as well as newsmen from the <u>Milwaukee Journal</u> and local papers along the route.

3ACKGROUND

Immediately prior to our reconnaissance, Mr. Zillmer had spent some three weeks in the field, and driven over 2,500 miles, preparing for the survey to be made. He had traced out the Moraines and points of interest over the entire 500-mile distance and had located the roads which would lead to these features and areas of interest. He was thoroughly prepared with a most adequate background of study and personal observation of the results of the Wisconsin stage glacier. Congressman Reuss had also taken the time to inform himself of the findings of not only Mr. Zillmer but of the writings of some of the leading geologist specializing in this phase of the glaciation period. Both gentlemen were most enthusiastic over the proposal and had generated a great deal of interest on the part of the people of communities along the route outlined by Mr. Zillmer.

> PLEACE ACTIVITY MY TEMALECT

On Monday, September 15, at 9:00 a.m. we met in the office of Regional Supervisor Arthur Greeley of the U. S. Forest Service in Milwaukee for the purpose of outlining the procedure for the week's survey and giving a brief statement on the background of the proposal and reason for survey. Those in **attendance** at this meeting in addition to those named above, with the exception of Mr. Ervin Malin, were Mr. John Beal, chief Forester, Misconsin Conservation Department; Mr. Roman Koenigs, Superintendent of State Forests and Parks; Mr. George Hanson, State Geologist; Mr. Arthur Greeley, Regional Supervisor, U. S. Forest Service; and Lt. Commander Marcus %. Billson and Lt. James Sigman of the U. S. Coast Guard.

I briefly outlined to the group the background of the proposal and the reason for our brief survey. Policies concerning the establishment and financing of national parks were also given and our objectives for this survey were outlined. The group was informed that we desired to identify and inventory the outstanding features of the Moraine area and that an evaluation of these features would be made in our report to you!

Mr. Greeley indicated his support of the approach to the study and stated that he vished to be kept informed on type and extent of areas under consideration. He also mentioned that the U.S. Forest Service is authorized and equipped to administer recreation areas within National Forests.

Shortly after 10:00 a.m. we left for the airport and a flight over the proposed area. There were only seven seats available on the plane, which necessitated my making an assignment of personnel to make the flight. The four from the National Park Service, Congressman Reuss, and Mr. Zillmer were assigned and I asked Mr. Beal to also accompany us or designate a state representative. He deferred to Mr. Hanson, State Geologist, for the one remaining seat.

The weather was bad in Milwaukee but clear at the western extremity of the Moraine area so we flew directly from Milwaukee to St. Paul, Minnesota before following the serpentine course eastward and southward over the proposed area.

We obtained an exceptionally fine view of the lake area of northwest Wisconsin where the glacial lakes are being held back by the moraines. This is known as the Blue Hills section north of Rice Lake. The lakes are picturesque in a setting of good forest cover and rolling hills. Other good examples of the kettle holes as seen from the air were at Long Lake, northwest of Cornell, and at Gleason, north of Merrill. Views of contrast were seen in valley and hills section of Antigo, the driftless area near Sauk City and the picturesque Devils Lake and Wisconsin Dells.

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Mr. Hanson had to leave the plane at Madison, and it was decided to fly directly to Milwaukee from Madison as it was late afternoon and sufficient examples of the Moraine area had been viewed by that time.

Tuesday, September 16, the group left in three cars from Milwaukee driving directly to Greenbush, Misconsin. We were conducted through both the Northern and Southern Aurchase units of Mettle Moraine State Forest by Clyde Smith, Supervisor of the State area. Interviews were held at the request of Congressman Reuss by representatives of radio and TV stations, newspapers, etc. along the route.

The first day's survey ended at Janesville where a group representing the municipality, Chamber of Commerce, conservation agencies, sporting clubs, etc. was gathered for a dinner to discuss with the group the park proposal. Mr. Reuss and Mr. Zillner each spoke at some length concerning the importance of the glacial exhibits in Wisconsin, and then each of the National Park Service representatives was asked to speak briefly on the proposal or his work in the Service. We were, of course, very circumspect on making any comments concerning our thoughts on what we had seen or the value of the proposal. Following the brief talks, questions were asked by those present which were answered by the survey group.

Wednesday, September 17, was a day of searching for the more prominent exhibits of the glaciation period between Janesville and Stevens Point. That evening at Stevens Point again a dinner meeting had been arranged which followed in content and procedure the meeting of the evening before in Janesville.

Thursday, September 18, we drove through Portage and Marathon Counties, the Antigo section, the Chequamegon National Forest and the Long Lake section, to Rice Lake, Wisconsin where another evening meeting of interested conservationists of the three surrounding counties was held.

The following morning, September 19, was spent in the vicinity of Rice -ake observing certain canyons, and the area south of the Blue Hills section. Shortly after lunch, the group broke up to return home by various routes.

DESCRIPTION

The attached report by Mr. Rose incluses specific identifications and descriptions of features included in the area under consideration. For convenience, the moraine belt across disconsin has been subdivided into 11 sectors in the report. Some of the principal features of each sector are described.

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The reconnaissance party did not visit the most northeasterly sector, Sheboygan Marsh County Park. A brief description of this area, however, characterizes the marsh as a waning stage of glacial Lake Sheboygan.

It was our impression that the great kettle moraine in the 120 mile Settle Moraine State Forest sector is one of the most significant features of its type within the proposed park. It is well known in scientific circles and its cuality is quite evident in air and ground travel through it. In this sector a classic example of an esker is found, namely, the Parnell Esker.

In the several segments which form the southward extending loop of morainal deposits, other noteworthy glacial features abound. The attached report of Mr. Rose mentions, for example, the fringes of an unusual boulder train some 60 miles in length and about 50 miles in maximum width between Waterloo and Whitewater - Madison. In these sectors the moraine belt also defines the southern limits of a notable drumlin-covered area. Martin's "Physical Geography of Wisconsin" emphasizes the unusual character of this drumlin belt. This same portion of the proposed area also contains prominent evidence of outwash plains. Kames are present but, because of their relative obscureness, some question remains as to whether the reconnaissance party recognized more than two or three examples of them.

In that portion of the moraine belt flanking the driftless area, locations were examined where the moraines come into contact with bedrock in a manner indicating very clearly thickness of morainal deposits up to 200 feet. In another locality, places were visited marking the junction of Misconsin and Illinoisan stage terminal moraines.

In the Devils Lake locality, the party had glimpses of Baraboo Range where the losing battle waged by glaciers in their attempt to obliterate this massive obstacle was noted. Some indication was also seen of the changes in course of the Wisconsin River which have occurred in the Devils Lake area in past geological times.

During both air and ground travel, the party observed the sharp contrast in topography and drainage between the driftless area and the glaciated territory rearward from the moraines. The driftless area may be regarded as a "fossil landscape" in that it gives a clue to what the surface was like prior to the Great Ice Age, taking into account considerable normal erosion during the period.

Evidences of old Lake Misconsin were observed in Adams County. The sand and clay of the Lake bottom covered by the numerous icebergrafted boulders were seen. This lake lay at the margin of the driftless area and faint evidences of the old shoreline exist on both the terminal moraine and the projecting bedrock tablelands and monuments.

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Mr. Rose's report also contains descriptive notes on the Chequemagon National Forest and the Blue Hills sectors. Again, kettle moraine features are prominent and numerous lakes exist in the kettles and other undrained depressions upon and behind the moraine. The Blue Hills area also contains notable examples of the battle between Ice Age glaciers and erosion-resistant bedrock of quartzite and other metamorphics. Morainal lakes, bedrock monadnocks and a terrain covered by dense forests of northern hardwoods and conifers make these westerly sectors a zone of considerable variety, interest and charm.

While the group did not visit Interstate Park, moraine areas directly to the east and south were seen by air and during ground travel. The same qualities noted in the Blue Hills and Chequemagon Forest were observed here. The attached report contains additional references to the remarkable layered rocks and the notable potholes in the St. Croix River Channel which occur in the zone where the westernmost portion of the 500 mile moraine belt in Hisconsin is anchored.

CONCLUSIONS

The field examination made clear to us that the examples of glacial geology along the moraine belt across Wisconsin are of considerable scientific interest. We learned that outstanding evidences of the glacial period are already in public ownership on lands of several counties, the State, and the Federal government. We learned, too, that public ownership of some of the lands was purposely obtained to acquire exhibits of glacial geology.

This reconnaissance survey was undertaken as part of a long programmed study to locate and evaluate exhibits of natural and scientific interests of national significance in categories not now embraced within the National Park System. Eminent geologists established long ago that the State of Wisconsin contained in great abundance significant examples of Continental Glaciation. It is well known that the areas of Ice Age glaciation are not confined to Wisconsin. The National Park Service in its orderly review of such matters must examine a broad field before its studies of this category can be considered adequate for making final determinations.

We feel, however, that the reconnaissance reported herein revealed such favorable general information as to warrant the usual thorough field study that the Service undertakes to prepare recommendations on areas proposed for inclusion in the National Park System. We recommend that such a field study be made as personnel and other resources permit.

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Daniel J. Tobin Regional Director