- August 14, 1967

Dr. H. F. Frolander Assistant Dean of Research Oregon State University Corvallis, Oregon

Dear Doctor Frolander:

I greatly appreciated receiving your letter concerning the review work your Oceanographers and Civil Engineer have done with the Highway Department, in regard to displaying for the public the <u>beach information required under MB 1601.</u> I am particularly pleased with your comment"....that the Highway Commission staff were doing a careful and good job...."

Your suggestion that "....an expanded study to include issues that are not spelled out in HB 1601... could best be conducted on a coordinated basis under a Covernor's Committee..." is under consideration by my staff. Your complete letter is being forwarded to the Highway Department for their information.

Sincerely,

Governor

TM: cj

OFFICE OF THE DEAN OF RESEARCH

Telephone 503 754-3437

August 9, 1967

Governor Tom L. McCall Office of the Governor State Capitol Building Salem, Oregon

Dear Governor McCall:

The photogrammetric section of the Oregon State Highway Department is using a unique and novel solution to the problem of displaying for the public the beach information which is currently being collected by aerial photographs and compiled with Kelsh stereoscopic plotting instruments. The technique being used is to make one information display sheet with an average scale of 1"=100' from a single distortion-free negative, the prints of which are rectified and enlarged.

Contours are placed on a manuscript in their true position in the Kelsh instrument which is oriented with an over abundance of ground control in the beach areas. These contours are traced directly on the information sheet which then contains both the contours and photographic detail. The product deviates from a true map in that images are not corrected for displacement due to perspective projection of the photographs. This is a theoretical problem which can be overcome at great increase in cost, but one that is not justified on this study. It is the opinion of the group of Oceanographers and Civil Engineer from Oregon State University who met on 3 August with members of the photogrammetric section of the Oregon State Highway Commission, that the Highway Commission staff were doing a careful and good job of displaying the public beach information.

One point in a study of this type which should not be overlooked is that the positions of the contours are entirely dependent upon the "Kelsh" operators ability to operate his machine. This is a difficult job when viewing white or bright beach sections. It is recommended, therefore, that ground profiles across the beach be taken the day the photographs are obtained and used to check the operator's work to be sure that it meets national mapping standards. The profile plotted against the interpolated values should show the final product. A check at least every twenty miles would be recommended.

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The interim study of the beach area as authorized by HB 1601 is for the most part, directed toward a study of physical description of land areas, access rights of the public and rights of the private land owner. It is quite possible that a number of important issues will be overlooked if the theme of the study is limited to these physical and legal issues. Since the beach is an extremely valuable but a definitely limited resource it is essential that a number of items be considered in addition to the above questions of land area, public rights and private ownership. A few of these considerations are the recreation potential in all its ramifications for both present and future generations; sports and commercial fisheries (both in fin fishes and shell fishes); the scientific and educational value of the beach area for students and research workers at all levels. Many other potential values can be cited.

Consideration of the above values will involve questions of marine biology, beach erosion, coastal hydraulics, oceanography and others during the next two years in addition to questions of land measurement, property ownership and public rights. It is extremely important to have information on all facets of the value of the beach including those discussed above in order that future legislatures will have good basic information upon which they can base their legislative decisions.

Needed information can be developed in the interim study directed by HB 1601. In order to accomplish this it will be necessary to expand the study to include issues that are not spelled out in HB 1601 but are implied by assigning great importance to preservation of the beach. Such an expanded study could best be conducted on a coordinated basis under a Governor's Committee or the information might possibly be developed through studies that are sponsored independently from the interim study. Whatever the mechanism, it is quite important that a body of knowledge be assembled prior to the 1969 meeting of the Oregon Legislature.

Please call if we may be of assistance in considering these or other matters related to the above issue.

Sincerely yours,

H. F. Frolander

Assistant Dean of Research

Staff members and co-authors visited on August 3: Dr. June Pattullo, Department of Oceanography; Dr. La Verne Kulm, Department of Oceanography; Professor Robert Schultz, Department of Civil Engineering, Dr. Herbert F. Frolander, Department of Oceanography. Additional co-author: Professor Frederick Burgess, Department of Civil Engineering.