The Process

"How do you go about selecting two or three 100 square mile sites from all the land in Western Alaska?" According to Willie Hensley this question is frequently addressed at public meetings. Considering that the area covers more than 540,000 square miles and represents one-fifth of the area of the rest of the 49 states, the selection is challenging and complex.

The CSSC and the CCC/HOK study team have devised a systematic method and organized a rigorous schedule. They have grouped all the problems and issues that must be closely examined into 5 major concerns...land availability, natural environmental factors, transportation access and utilities services, regional land use issues, and capital concept and program. Various related factors such as airport site suitability and wildlife sensitivity are included in these concerns.

Different aspects of the 5 major concerns are considered in 5 phases at different levels of detail: first, in Phase 1 at the scale of Western Alaska, then in Phase 2 at a regional level. A closer range was used in Phase 3 to examine zones or parts of regions. In Phase 4, a close-up range will be used which will show smaller zones at larger scale for the selection of two to three sites.

In early phases, land was rejected or screened on the basis of unsuitability. As suitable land continues to be re-examined in subsequent phases, the emphasis has changed to what is best qualified for development. In the early phases of the study, the focus was on the natural environment, transportation and utility requirements, and land availability. Subsequently, the criteria for the other concerns—regional activities and government requirements have been developed and are becoming increasingly important in the site selection process.

Natural environmental concerns were established so that the effects of capital development on the environment and the costs of overcoming natural building limitations would be minimized. In addition, an analysis of the technical, transportation and utilities factors established criteria aimed at keeping the State's building and operating costs as low as possible. For example, a site close to a major highway and rail line would rate high technically but, at the same time, could be unsuitable in terms of the natural environment. Conversely, a site with good foundation soils, water, terrain, and soil drainage, might be completely unsuitable if not reasonably close to essential services. Hensley points out, "With such serious scientific work, we can avoid some of the problems of other cities."

A Need for Public Opinion

Some of the major concerns that are the basis for the site selection process can be measured. Criteria can be developed to measure natural environment suitability, transportation access, utility service, and land available for potential sites. For these concerns, relative costs are the principal measure of development potential. For example, sites can be compared on the basis of the cost of overcoming certain building problems such as poor soils drainage. In this case, building an adequate drainage system could be enormous for an entire city, so such a site would be rejected.

Other concerns cannot be measured. For example, while most people would agree that a new capital should be located in a scenic area, it is difficult to select what everyone will agree is the most beautiful.

To understand how people feel about unmeasurable concerns, the site selection process is attempting to reach residents of Alaska through public opinion surveys, workshops, and hearings. Public involvement in the site selection process helps make certain that the concerns that cannot be measured will be discussed thoroughly in public.

Sources of Information

To date, the selection process has relied heavily on published material, particularly data provided by the Federal/State Land Use Planning Commission and the Arctic Environmental Information and Data Center and appropriate State and Federal governmental agencies such as U.S.G.S., Soil Conservation Service, Department of Fish and Game. Interviews have also provided a rich source of information. As the search narrows field investigations will begin. Available information can only give a general idea of the problems that might be encountered in the capital move at any one site so first-hand reconnaissance will be required.

The Screening Method

Comparing different areas of land is complicated, particularly when the areas do not have uniform size and shapes. To make comparisons, the study team developed a standard unit to measure each of the natural, transportation access, utility, and land availability factors. In this way, a unique rating system was devised to screen large land areas for potential capital development.

Screening Factors/Relative Importance Ranking

Each screening factor—like climate or airport site suitability, or wildlife sensitivity—was assigned a relative importance ranking with numerical values 3, 2, and 1 with 3 representing the greatest degree of importance in the site selection process and 1 representing the least. A separate map is prepared for each of the screening factors.

Unit Ranking

To determine the value of each unit of land, a grid of uniform squares, or units is placed over each of the factor maps. Each square is rated high, moderate or low in terms of the factor. These ratings are assigned a numerical value with high having a value of 3, moderate a value of 2, and low, a value of 1. Where development impact could be extreme or where land is entirely unsuited for development in terms of that factor, a value of 0 is assigned to indicate a virtual "no-build" situation.

Land Potential Ranking

The unit ranking of 3, 2, or 1 is multiplied by the factor's relative importance ranking—3, 2, 1, or 0 to determine the possible land potential ranking. This result is indicated on a map showing the relative potential of the land for capital development on a square-by-square, or unit, basis for each factor.

Once land potential rankings are determined for all the factors, a composite map is prepared to represent the total factor scores by unit. Adjoining squares with the highest ratings are combined and re-evaluated in greater detail in the next screening phase with a smaller grid, or unit of measure, and maps of a more local scale.

Screening Phases

1 March 1-25, 1975
2 March 25-May 6
3 May 6 - July 21
4 July 21-Oct 7
5 Oct 7-Dec 11
Election November 2, 1976

Public Hearings

2 to 3 Sites
100 Sq Miles each

4 Sub-zones
Healy/Clear
Susitna
Talkeetna
Willow
Area Evaluated
1,500 Sq Miles

7 Zones
Dunbar
Nenana
Big Delta
Susitna Valley
Mat Valley
Tyonek
Homer/Kenai
Area Evaluated
13,000 Sq Miles

3 Regions
Fairbanks-Tanana
Cook Inlet
Copper River
Area Evaluated
40,000 Sq Miles

Western Alaska
Area Evaluated
540,000 Sq Miles