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The diagram illustrates the hydrologic cycle in a coastal aquifer system. On the left, the land surface is divided into three layers: Sand, Clayey Confining Strata, and Floridan Aquifer. The Floridan Aquifer is shown as a fractured rock layer. A well is depicted on the left, tapping into the Floridan Aquifer. In the center, a body of water (likely a bay or lagoon) is shown with a 'Bay Off' label. The water level in the bay is indicated by a dashed line. The Floridan Aquifer is shown to be in contact with the bay water. On the right, the ocean is shown with a 'Wellwater Supply' label. The ocean water level is indicated by a dashed line. The Floridan Aquifer is shown to be in contact with the ocean water. The diagram also shows 'Evaporation' from the bay and 'Precipitation' (rain) falling on the land and water. The Floridan Aquifer is shown to be a source of water for the bay and the ocean.

Figure 3: Leakage through the bottom of a sinkhole lake in Florida

Although large ventral anastomoses are present, the probably forward and lateral flow of water from the sea into the river, and ground water and surface water into the river, is not likely to be a significant source of contamination. However, Group 2 still constitutes a potential avenue for ground water intrusion, although the impact of these anastomoses has not been investigated.

Figure 2 shows the location of the exchange point between the river and the artesian pressure caused by the pumping of water from the river into the aquifer. The exchange point is located to the third surface pollution point in Central Florida, many miles from the river. The exchange point is the point where the river water intrusion is close to the third surface pollution point. It is not a significant problem because water is recirculating from the aquifer however, if the aquifer is contaminated, this area could become an exchange zone.

Surface waters also flow in many areas of the intermedial and rocky surface waters and the shallow water area is higher than the artesian pressure surface and the shallow water area is higher than the artesian pressure, presumably having conflicting status. However, if pumped intrusions or surface water intrusions are not a problem, the artesian pressure surface is not a problem. These breaks provide some direct avenues for fluid intrusions or surface water intrusions.

On the surface, the Florida Aquifer is not a problem. However, African and Asian intrusions into the Florida Aquifer are significant. African intrusions in southeastern Florida.

References Cited

- ### Sources of Map Data

In assembling such composite data from maps of various scales, some error is bound to occur in the precise placement of the margins. Further, in assigning the various geohydrologic settings to one of eleven categories, some subjective decisions must be made, because all areas will not fit into a category perfectly. Therefore, the reader is cautioned to use these maps as a starting point only, and conduct more specific local investigations to confirm the precise site data.

These maps were prepared by professionals with due care. However, the Florida Sinkhole Research Institute makes no warranty, express or implied, as to the absolute validity of the data.

ADDITIONAL INFORMATION ON KARST IN FLORIDA

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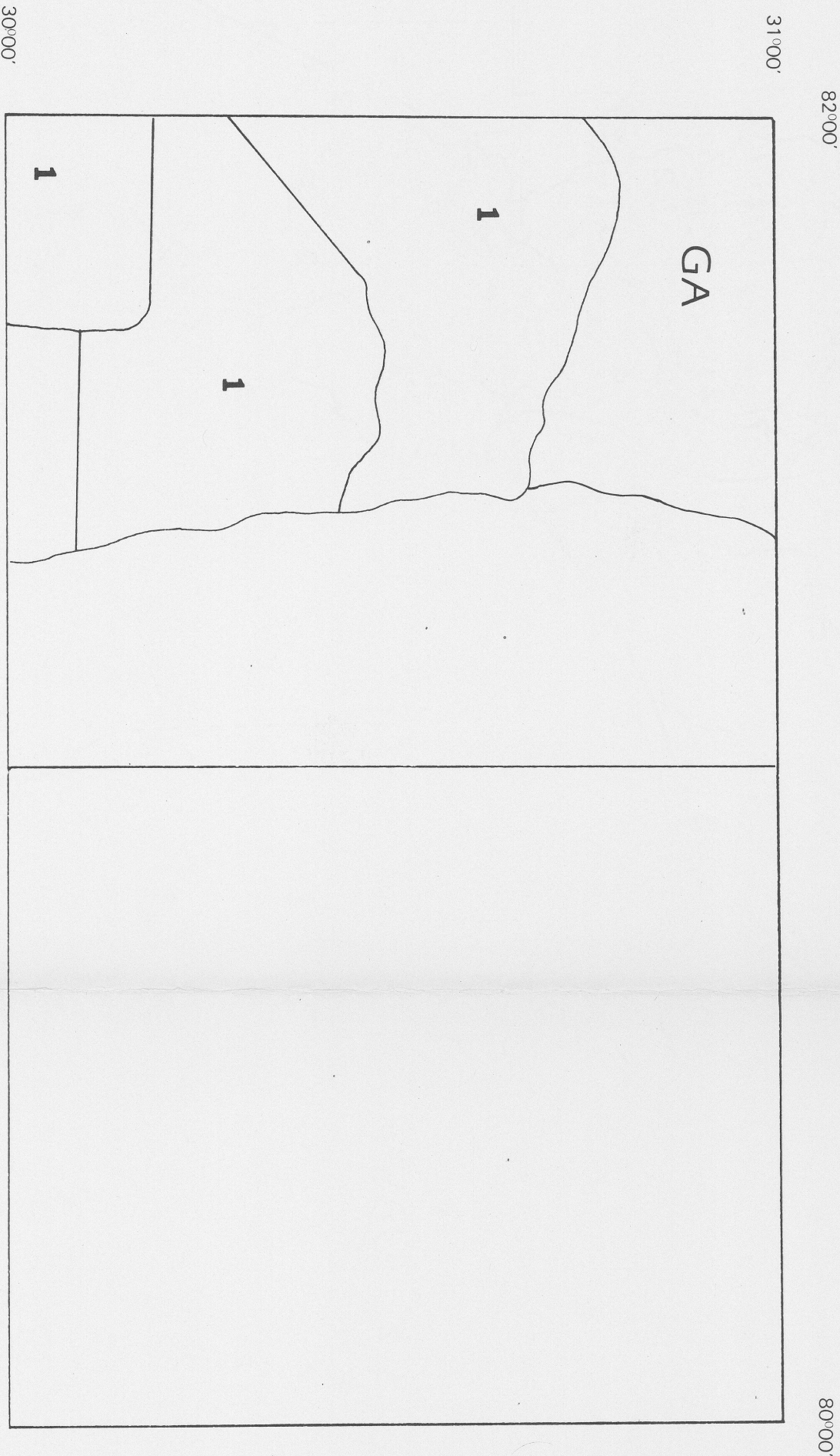
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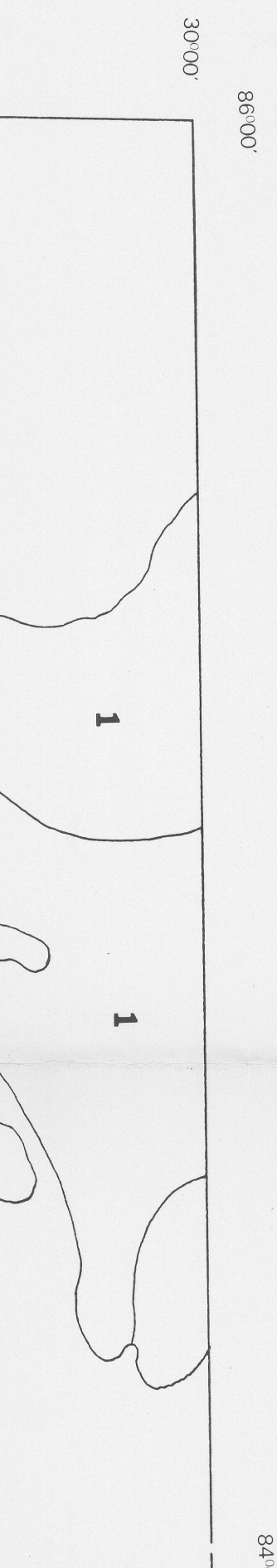
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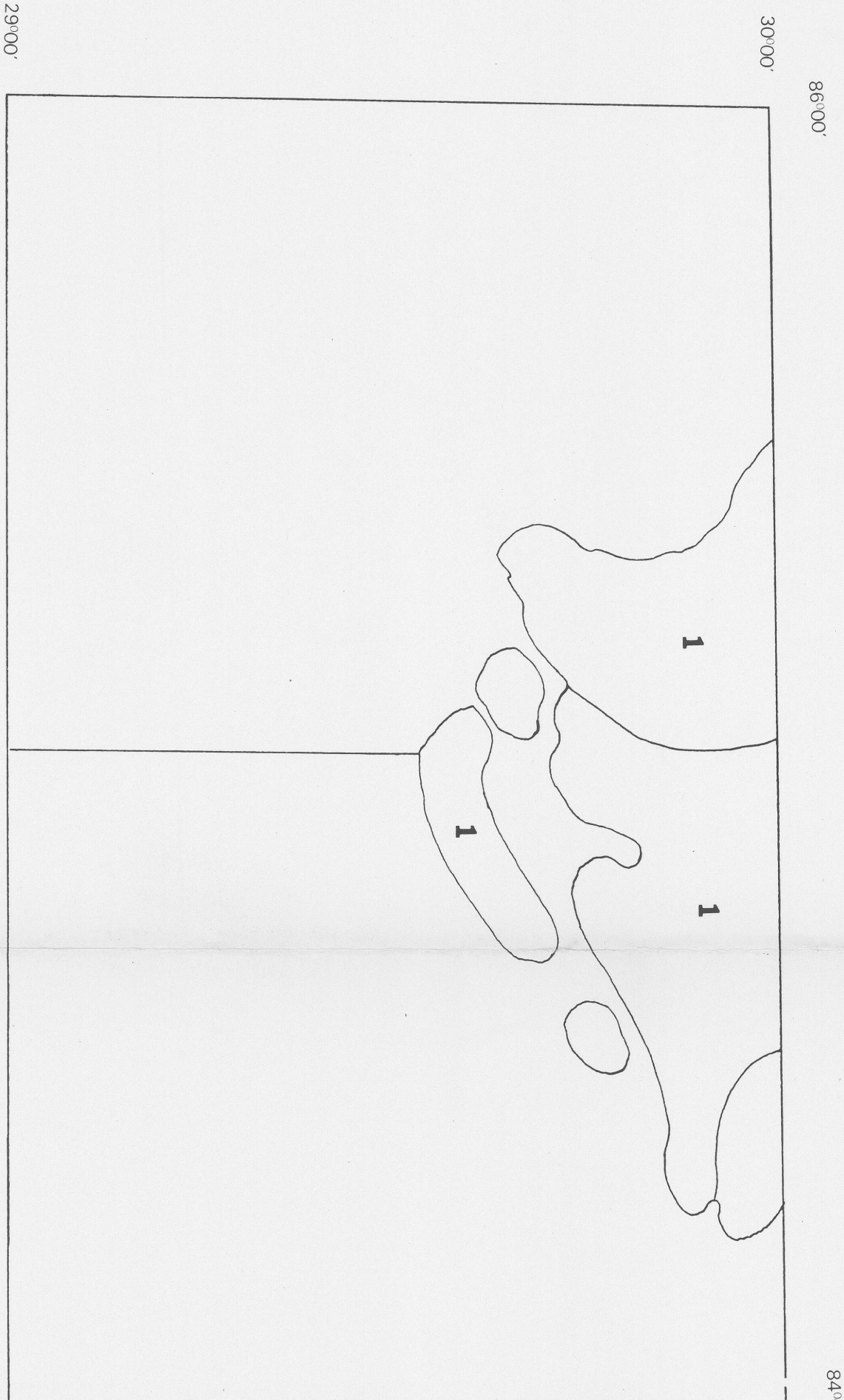
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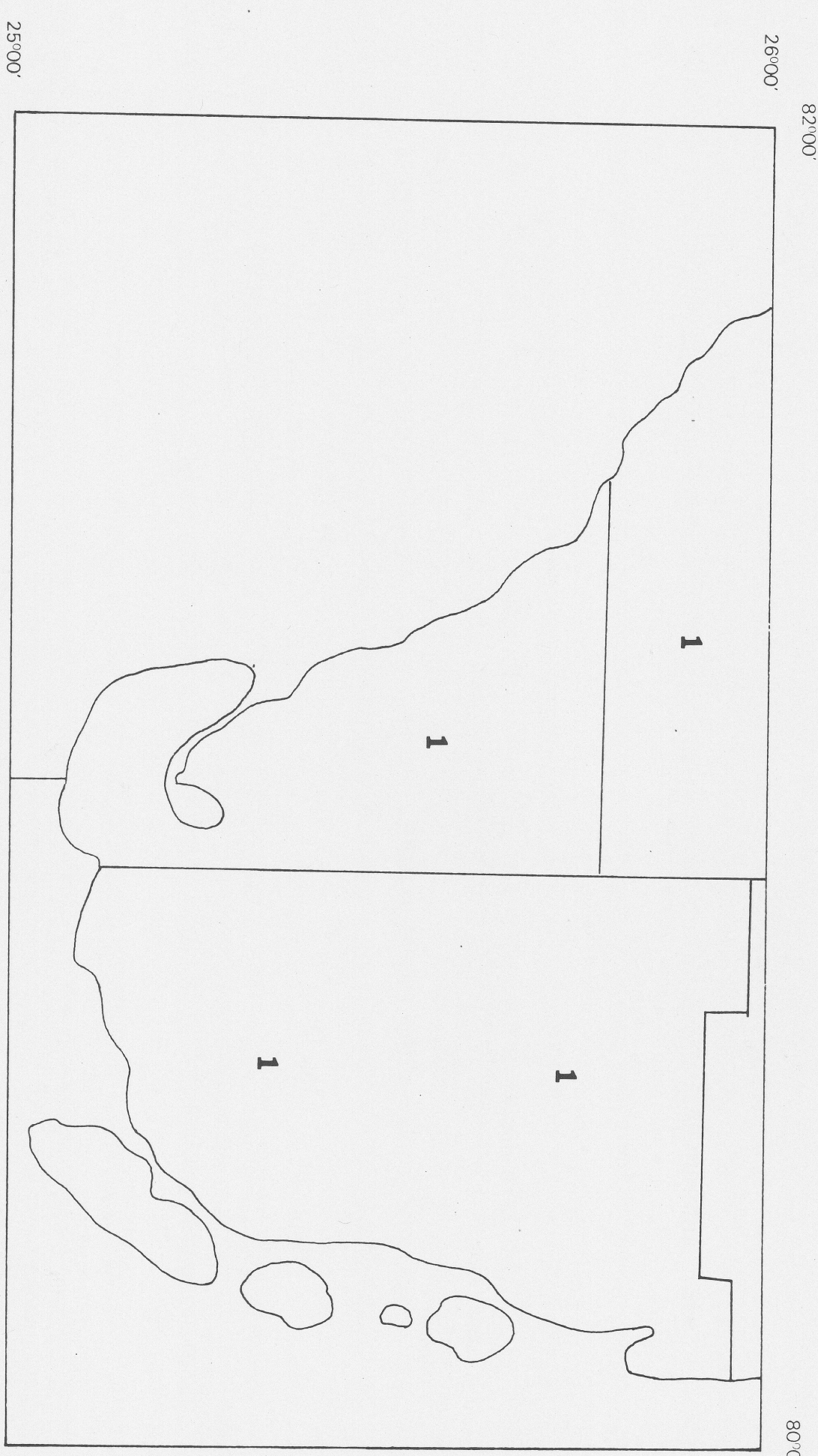
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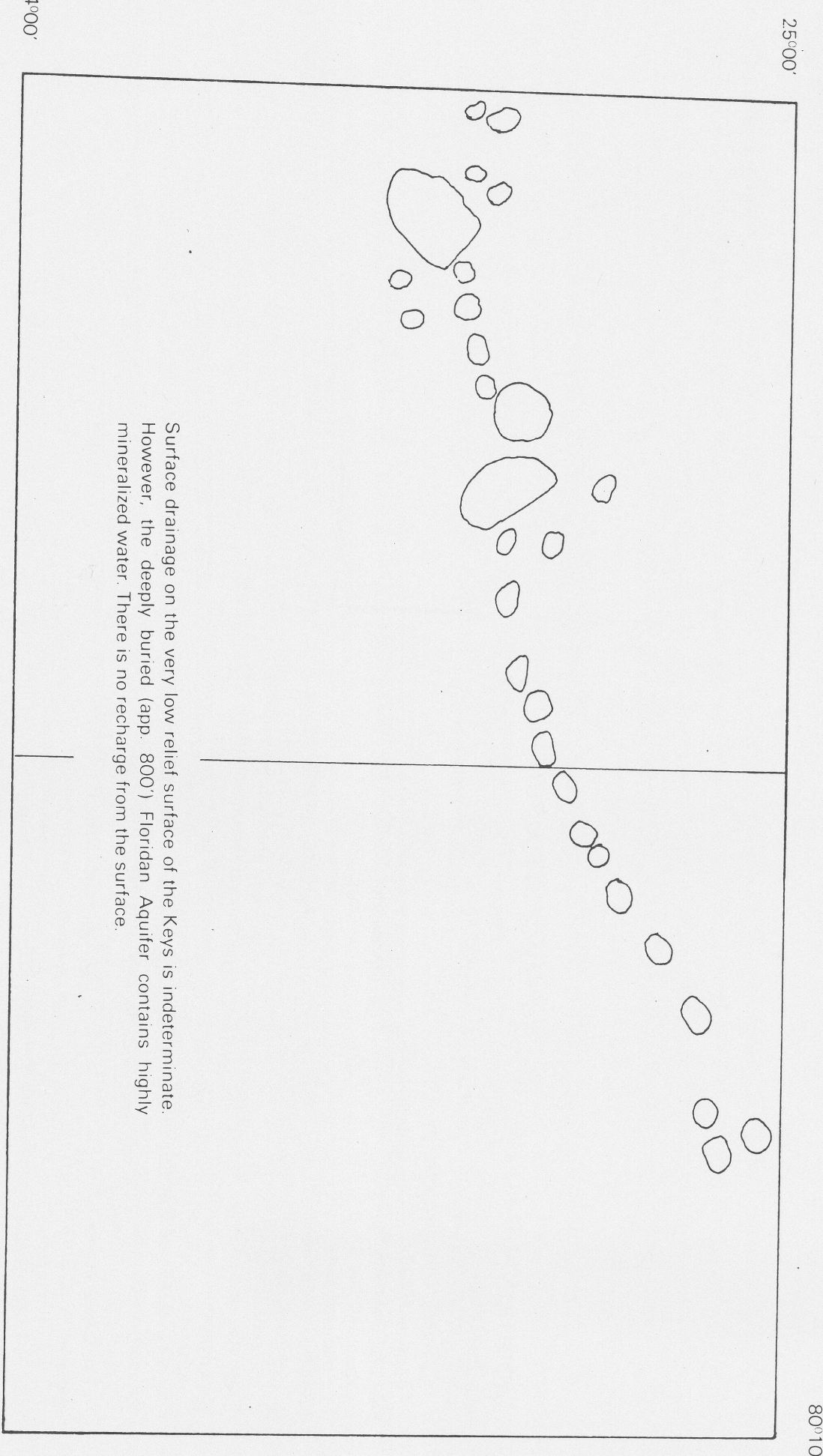
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KEY TO NUMBERED AREAS

- GROUP II**
(Categories 3-11): Areas which are internally drained. These areas are generally marked by closed basin which drain into the ground. No overland flow leave the area.

- 3 Limestone is at or near unity, so the sand surface is inhibited from being eroded. The limestone is also a common feature on the terrace.
- 4 The limestone is covered by a limited, approximately 20 cm or so, of sand. The sand is not eroded, and the limestone weathering is rapid. There is unresisted downward movement of sand between the limestone and the overlying surficial zone.
- 5 Small, cover-collapse sinkholes may be observed in the sand. The groundwater may be either below the top of the limestone or in the surficial sediment depending on local conditions.

- [illegible]

Development, and Overburden Characteristics COMPOSITE SHEET

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