



# University of Hawaii at Manoa

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**SB 620**  
**RELATING TO FOREST RESERVATIONS**

**Statement for**  
**Senate Committee on**  
**Economic Development**  
**Public Hearing - 4 March 1985**

**By**  
**Doak C. Cox, Director**

SB 620 would amend five of the sections of HRS 183 that deal with forest reserves. The first section of the bill indicates that the intent of the amendments is to clarify the management powers of the Department of Land and Natural Resources with respect to these reserves and to require the cooperation of other agencies with DLNR in its exercise of those powers. The bill would also expand the powers of DLNR in certain particulars. This statement on the bill does not represent an institutional position of the University of Hawaii.

In general the amendments proposed in SB 620 seem quite appropriate. However, the revision of the definition of watershed proposed on page 3 of the bill (lines 21 et seq) would, we are certain, have consequences much greater than those intended by the drafters of the bill.

By the present definition in HRS 183-31 (see page 12 of the bill, lines 7-12), a watershed is an area from which a domestic water supply is derived, either directly by way of runoff or by way of groundwater flow. Inclusion of areas from which water supplies more generally are or might be desired seems intended in the proposed amendment. By the proposed definition, however, all lands of the State would be watersheds.

The criterion for recognizing a watershed in the proposed definition is the periodic excess of precipitation over evaporation so that there is either periodic or continuous runoff or infiltration. By evaporation we assume is meant the combination of direct evaporation and evapotranspiration. (Evapotranspiration means the withdrawal of water from the soil by plants). Although there are characteristic seasonal variations in the rates of precipitation, evapotranspiration, runoff, and infiltration that are actually periodic, we assume that intermittent is intended in place of periodic, because there are random variations in these rates that are as large or larger than the strictly periodic ones. However, there are no lands of the State in which at some times there is not an excess of precipitation over evapotranspiration, and from which at some times there is not runoff, infiltration, or both.

We have not attempted to identify all of the sections of HRS 183 in which the term watershed is used, but by the provisions of HRS 183-32, DLNR is empowered to acquire by purchase or exchange any land within a watershed or to condemn a forest reserve easement over such land. It seems certain that it was not intended to give DLNR such powers on all lands of the State. Hence the use of the term watershed in this section alone indicates that the proposed definition of watershed is broader than was intended.

Without knowing the actual intent, we cannot suggest a definition of watershed appropriate to that intent. For the present we can recommend merely that the present definition in HRS 183-31 be transferred to HRS 183-1 in place of the definition proposed in the bill.