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(57) Abstract :  
 A method for the creation and use of a model for the purpose of predicting changes in the level of shallow groundwater is the subject of this invention. Using site-specific groundwater observations, this method first determines the rate of decline due to infiltration and the rate of rising due to precipitation for the groundwater level at a site. Next, using those rates in conjunction with historical precipitation records, the method estimates the extent of historical periods of saturation and inundation at the site. After then, such information might be used for the delineation of jurisdictional wetlands as well as other uses that are quite comparable. The following is a list of the stages of the process: 1. On-site measurements made over a shorter period of time of the groundwater level and rainfall 2. A statistical analysis to identify the response of rainfall and the infiltration rates so that a site model can be developed. 3. Estimation of groundwater levels using the region's historical rainfall data in order to make projections about the past 4.

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