Soil nitrogen, phosphorous, and potassium concentrations accurately revealed spatial distribution maps and site-specific management-prone areas through inverse distance weighting (IDW) method in the Amik Plain, Turkey. Spatial mapping of soil nitrogen, phosphorous, and potassium is a very severe need to develop an economically and environmentally sound soil management plans. The objectives of this study were (a) to map spatial variability of total N, available P, and exchangeable-K content of Amik Plain’s soils and (b) to locate problematic areas requiring site specific management strategies for the nutrient elements. Spatial analyses of Kjeldahl-N, Olsen-P, and exchangeable-K concentrations of the soils were performed by the IDW method. Mean N content for surface soils (0-20 cm) was 1.38 g kg(-1), available P was 28.19 kg ha(-1) and exchangeable-K was 690 kg ha(-1) with the differences between maximum and minimum being 7.63 g N kg(-1), 242 kg P ha(-1), and 2,082 kg K ha(-1). For the surface soil, site-specific management-prone areas of Kjeldahl-N, Olsen-P, and exchangeable-K for "low and high + very high" classes were found to be 20.1-17.8%, 24.7-10.0%, and 4.1-39.6%, respectively. Consequently, lands with excessive nutrient elements require preventive-leaching practices, whereas nutrient-poor areas need fertilizer applications in favor of increasing plant production.