



**Figure 6. Plan View of the Finite Element Mesh**

In the river reach, material types within each element were categorized based on land use and roughness characteristics (dense vegetation, grassland, sandbars, etc.). The material types were assigned to each of the elements in the finite element mesh using aerial photography from the 1995 mapping effort conducted by the USACE and the 1997 Sacramento River Aerial Atlas developed by the Department of Water Resources, Northern District (DWR, 1997). A field visit was also made to confirm land usage. For each material type, a Manning's roughness coefficient ( $n$  value) was assigned to represent roughness types. These values were determined primarily from the previous modeling effort, and originally were derived using standard engineering protocols and references. Material types and corresponding Manning's  $n$  values used in the model are listed in **Table 1**. **Figures 10 – 13**, in the **Appendix** further describe the layout for each material type for the existing, proposed restoration conditions, proposed setback levee conditions, and the proposed east levee removal conditions, respectively.