East Bluff Vegetation Monitoring Results

Annual monitoring surveys were conducted in 2004-2005 and 2007-2011. Monitoring of the site showed that within the first year of the project average native vegetation cover was at 27%, and had increased to 41% in 2005. The dramatic increase in native vegetation in the second year was probably due to the large amount of seed produced during this first year under irrigated conditions combined with above average rainfall in 2005. The monitoring transects were revised in 2007 to include the newly planted areas and to monitor vegetation at every three meters rather than every ten meters (as had been done in 2004 and 2005) to improve our assessment of the site. In transect A native cover has steadily increased to an average of ~80% since 2009. Vegetation in this transect was planted in 2003 and was not disturbed during the 2006 Electrical Infrastructure Renewal Project; therefore, it is well established. Transects B and C were more sparse until 2009 because they were disturbed in 2006 and had to be replanted. Since 2010, however, transect B has achieved a higher native cover. Transect C covers an area that was planted without added topsoil in order to retain bare patches for foraging habitat for the Belding's Savannah Sparrow.

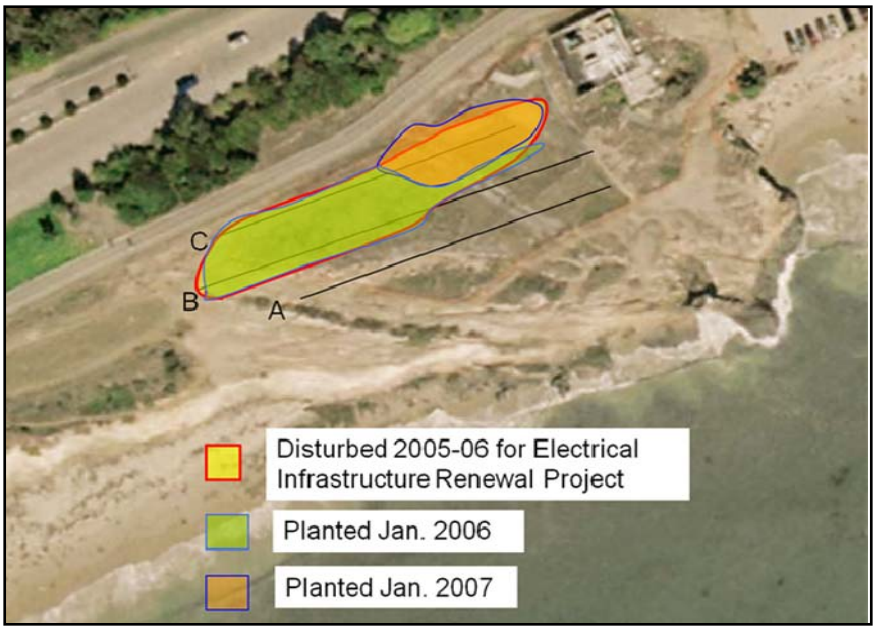

Figure 1: Transect locations on at East Bluff and the areas that were impacted by the Electrical Infrastructure Renewal Project and replanted in 2006 and 2007.

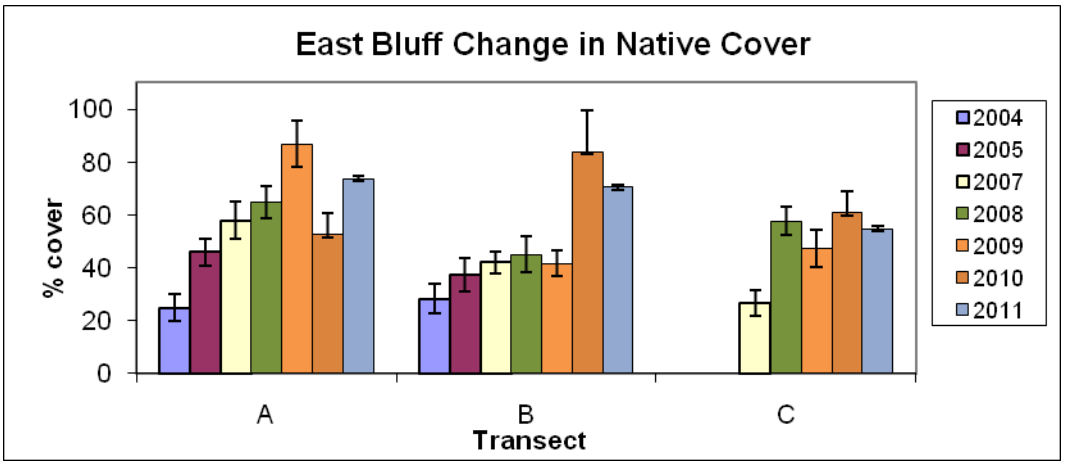

Chart 1: The Change in percent native cover at East Bluff from 2004 to 2011.

The increase in non-native cover along transect C may reflect the susceptibility of bare areas to invasion combined with a decrease funding for site maintenance. However, the amount of non-native cover is still very low for a restoration site.

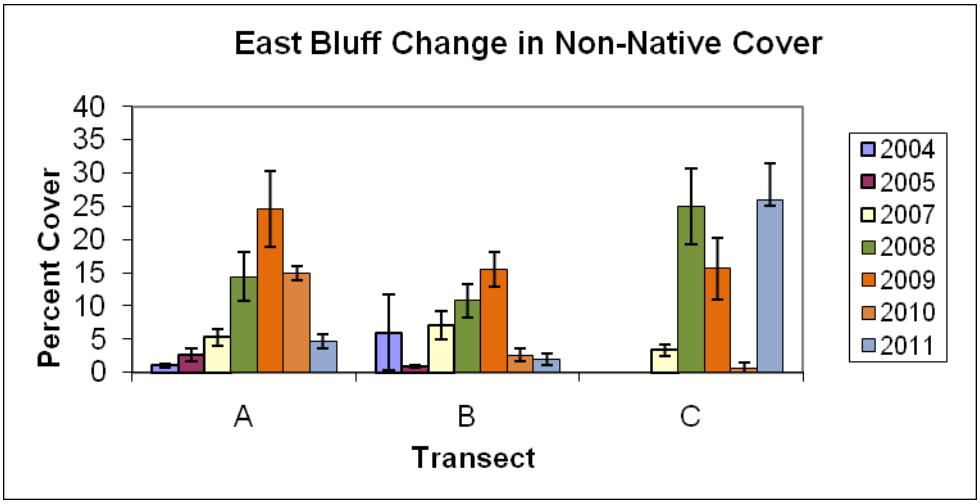

Chart 2: The change in percent non-native cover at East bluff from 2004 to 2011

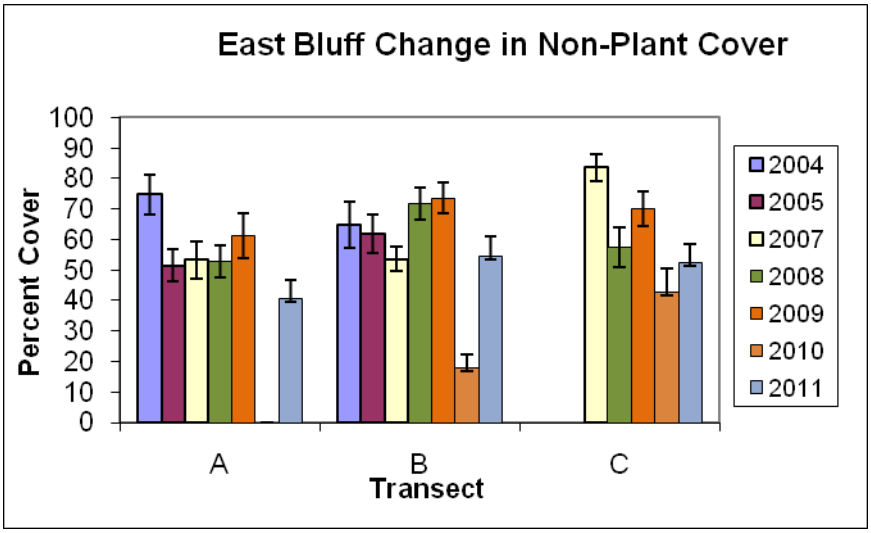

Chart 3: The change in percent bare ground at East Bluff from 2004 to 2011

The high percentage of bare ground across all transects, especially in transect C, indicates that restoration has been successful at maintaining bare foraging habitat for the Belding's Savannah Sparrow.

Figure 3: East Bluff in prior to planting in January 2004

Figure 4: East Bluff in July 2007