ABSTRACT. A characterization is given of those proximinal subspaces of a normed linear space whose (set-valued) metric projections admit linear selections. This characterization is applied in each of the classical Banach spaces $C_0(T)$ and $L_p(1 \leq p < \infty)$, resulting in an intrinsic characterization of those one-dimensional subspaces whose metric projections admit linear selections.