We consider predictive density estimation under integrated L1 and L2 loss for p-dimensional location parameter problems. Among the topics considered are the form of Bayes estimators, and minimum risk equivariant estimators (MRE’s) for integrated L2 loss. In particular, Bayes estimators for integrated squared error loss agree with those for Kullback-Leibler loss as do MRE’s. Comparison of risks for plug-in estimators is facilitated in certain problems (particularly normal ones) by exhibiting a duality with a corresponding point estimation problem wherein the loss is a concave function of squared error loss. Using this duality we find improvements over the MRE in high dimensions. Similar duality results are developed for integrated L1 loss in the spherically symmetric case.