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Sean Sather-Wagstaff* (sean.sather-wagstaff@ndsu.edu), **Neil Epstein** and **Karl Schwede**. *Semidualizing modules over certain Veronese subrings*. Preliminary report.

Let R be a local Cohen-Macaulay ring. A finitely generated R -module C is *semidualizing* if $\mathrm{Hom}_R(C, C) \cong R$ and $\mathrm{Ext}_R^i(C, C) = 0$ for all $i \geq 1$. A free R -module of rank 1 is semidualizing, as is a dualizing R -module. The existence of nontrivial semidualizing R -modules implies that R satisfies certain structural and numerical conditions. Hence, we are interested in describing all the semidualizing modules over certain classes of rings. In this talk, we will show that if k is a field and $R = k[[X^d, X^{d-1}Y, \dots, Y^d]]$, then R has exactly two semidualizing modules, namely R and the dualizing module for R . (Received August 24, 2009)