(a) Observed, predicted, and flow-normalized trends  $NO_2^-/\,NO_3^{2-}\,(mg\,L^{-1})$  $\mathrm{NH}_4^+\,(\mathrm{mg}\,\mathrm{L}^{-1})$ 2 -3 -2 **-**Predicted Normalized  $NO_2^-/NO_3^{2-} (mg L^{-1})$ 0.5 2.0  $\mathrm{NH}_4^+\,(\mathrm{mg}\,\mathrm{L}^{-1})$ 0.4 1.5 -0.3 1.0 0.2 0.1 1990 2000 2010 1980 1990 2000 1980 2010 (b) Nutrient/flow relationships over time 1980 1990 2000 2010 April January April January 1.5 3. 1.0 2 - $NO_2^-/\,NO_3^{2-}\,(mg\,L^{-1})$ 0.5 - $NH_4^+\,(mg\,L^{-1})$ 0.0 -July July October October 3 -1.5 -1.0 2 -0.5 1 -0.0 5 5  $ln-Flow (m^3 s^{-1})$  $ln\text{--}Flow~(m^3~s^{-1})$