Within-Sample S-TS Model Fit Proctor Creek, GA Paint Branch, MD 5 6 4 4 3 2 2 Jan 2015 APr 2015 Jan 2010 Jul 2015 Oct 2015 Jan 2016 APr 2010 Oct 2010 Jan 2011 Jul 2010 Beaty Creek, OK S. Br. Potomac River, WV 6 15 GPP (g  $O_2 m^{-2} d^{-1}$ ) 4 10 2 5 Oct 2009 APr 2012 Jan 2013 Jan 2009 Jul 2009 Jan 2010 Jan 2012 Oct 2012 APr 2009 Jul 2012 Pecos River, TX Santa Margarita River, CA 12.5 25 10.0 20 7.5 15 5.0 10 2.5 0.0 Oct 2015 Jan 2015 Apr 2015 Jul 2015 Jan 2012 APr 2012 Jul 2012 oct 2012 Jan 2013 Jan 2016