concentrations over the period of record (from 2000-2007, see Table 11). These data strongly suggest that since the coal seams mined at the Spruce No. 1 mine are similar to those mined at Dal-Tex, the authorized project would likely have similar impacts.

Table 3. Selenium Concentrations (ug/l) Near Spruce No. 1 Project Area

Stream Name	Subbasin	Source and time period of data					
		PEIS (2000-2001)		WVDEP (2002-2003)		WVDEP (2005-2007)	
		Se (avg)	Se (range)	Se (avg)	Se (range)	Se (avg)	Se (range)
Average and Range of Se in Tribs to Spruce Fork that drain Spruce No. 1 project area							
White Oak Branch	Spruce Fork	<3 ND		<5 ND		NS	
Oldhouse Branch	Spruce Fork	<3 ND		<5 ND		NS	
Pigeonroost Branch	Spruce Fork	<3 ND		<5 ND		NS	
Seng Camp Creek	Spruce Fork	NS		<5 ND		NS	
Average and Range of Se in Tribs to Spruce Fork draining Dal-Tex Operation							
Beech Creek[2]	Spruce Fork	7.5	5.6-9.5	6	5.0-9.0	12.3	6.0-22.0
Left Fork of Beech Creek	Spruce Fork	22.7	15.3-31.1	22	5.0-53.0	NS	
Trace Branch	Spruce Fork	NS	NS	7	5.0-10.0	NS	
Rockhouse Branch	Spruce Fork	5.3	3.8-8.0	< 5 ND	< 5 ND	NS	

ND: Se not detected. Detection limit shown.
NS: Not sampled. Stream was not sampled for the study shown.

Beech Creek was sampled for selenium five times in 2000-2001 for the programmatic EIS on mountaintop mining. During this time period, selenium values ranged from 5.6 – 9.2 µg/L with an average of 7.5 µg/L. The 2002-2003 WVDEP sampling data (n=11) indicate that selenium in Beech Creek at the mouth ranged from less than 5 µg/L to 9 µg/L with an average of 6 µg/L and a median of less than 5 ug/l.

WVDEP sampled Beech Creek again for selenium between 2005 and 2007 as part of a research project to develop fish bioaccumulation factors for selenium (WVDEP 2009a). Water column selenium was monitored approximately monthly for a period of a year between November 2005 and April 2007. The average concentration in Beech Creek was 12.3 µg/L with a range of 6 µg/L to 22 µg/L(n=14).

These three datasets document that selenium water column concentrations are not decreasing over the period of record (1998-2006) within this adjacent mined watershed.

[2] In the WVDEP study on selenium bioconcentration factors, selenium was also found in fish tissue in Beech Creek (average 7.55 mg/kg).