

From: Susan Brantley
Sent: Sunday, March 30, 2014 8:38 AM
To: Hanlon, Edward
Subject: Article on water resource impacts during unconventional shale gas development published in International Journal of Coal Geology

Hi Ed: I sent you this paper before but this is a more finalized version of our paper. The citation for this paper is provided below; please post this citation on our SAB HF Panel's 11/20/13 teleconference website for the Panel's consideration. Thanks Sue

Brantley, S.L., Yoxtheimer, D., Arjmand, S., Grieve, P., Vidic, R., Pollak, J., Llewellyn, G.T., Abadb, J., Simon, C. Water resource impacts during unconventional shale gas development: The Pennsylvania experience. 2014. *International Journal of Coal Geology* 126: 140–156.