Revisions to the LTVSPA Assessment Report – Section 5
Revisions related to Wheatley Microcystin Issue

White Cells- original text
Grey cells- new text
Yellow highlight- area of original text to be changed
Bright Green highlight- area of new text

Section 4 – Vulnerability Assessment

Section	Page	Text	Reason For Change	Changes Made
5.2 Impact of Identifying an Issue	5-6	Should an *issue* be identified as per Technical Rule 114, the *issue* contributing area must be delineated as per Rule 115. Also as per rule 115, activities that contribute to the *issue* within the *issue* contributing area must be identified and are deemed to be a *significant risk* to the source of drinking water for those systems included in the Terms of Reference for the LTVSPA. *Significant risks* must be mitigated through the *source protection plan*. As per Technical Rules 68, 130 and 131, a third intake protection zone (*IPZ-3*) for surface water intakes may be delineated to include the activity and area known to contribute to the drinking water quality *issue*. These tasks are yet to be completed and will be part of an amended Assessment Report.	To document the potential for an issue under the Act and differentiate it from an Issue under the Rules	
		Should an *issue* be identified as per Technical Rule 114, the *issue* contributing area must be delineated as per Rule 115. Also as per rule 115, activities that contribute to the *issue* within the *issue* contributing area must be identified and are deemed to be a *significant risk* to the source of drinking water for those systems included in the Terms of Reference for the LTVSPA. *Significant risks* must be mitigated through the *source protection plan*. If the information required to delineate the ICA and identify the activities contributing to an issue are not readily ascertained, rule 116 allows for a work schedule to be identified to ascertain the information specified in rule 115. As per Technical Rules 68, 130 and 131, a third intake protection zone (*IPZ-3*) for surface water intakes may be delineated to include the activity and area known to contribute to the drinking water quality *issue*. These tasks are yet to be completed and will be part of an amended Assessment Report In addition to the identification of an issue by rule 114, rule 115.1 allows for the identification of an issue which is not identified in accordance with rule 114. This is often referred to as an issue identified under that Act to differentiate it from an issue identified under the Rules (specifically rule 114). Issues identified as per rule 115.1 do not require the delineation of an ICA and cannot have significant threats identified which contribute to the issue. They may however be addressed through specify action policies and be the subject of monitoring and reporting.		
	5-6	*Significant risks* must be mitigated through the *source protection plan*.	Consistent capitalization of terms	
		Significant risks must be mitigated through the *Source Protection Plan*.		

Section	Page	Text	Reason For Change	Changes Made
5.3 Issues Evaluation Methodology	5-6	Identifying *issues* is a key step in the overall process of protecting drinking water quality. *Issues* were identified in the Lower Thames Valley Source Protection Area by following the Thames-Sydenham and Region Issues Evaluation Methodology (May 14, 2009), depicted in Figure 5-1. The methodology is provided in Appendix 8.	To document the potential for an issue under the Act and differentiate it from an Issue under the Rules	
		Identifying *issues* is a key step in the overall process of protecting drinking water quality. *Issues* were identified in the Lower Thames Valley Source Protection Area by following the Thames-Sydenham and Region Issues Evaluation Methodology (May 14, 2009), depicted in Figure 5-1. This methodology was developed to guide the technical work to assess an issue under the Rules (rule 114). The methodology is provided in Appendix 8.		
Table 5-5		Update to add reference to ERCA microcystin work	to add reference to ERCA microcystin work	
		Add text describing ERCA work (SPC reports), Thames-Sydenham and Region discussion paper. Names of documents pending.		
Table 5.6		Add Microcystin issue		
		System: Wheathley Issue: Microcystin Brief Description: Microcystin, a neurotoxin, is released, when certain cyanobacteria (primarily microcystis) break down. If left intact, the algae is able to be removed through common filtration methods with the microcystin remaining contained in the cells. Changes to water treatment processes are made to reduce the likelihood that cells would be ruptured before being removed from the water. For the past few years raw and treated water are tested during the algae bloom season for microcystin. Phosphorous is the limiting nutrient for algae growth and as such contributes to the growth of algae. Microcystin levels were reviewed for Wheatley and other intakes in the western basin of Lake Erie. In the 3 years of data reviewed, a single exceedance and some levels approaching the half MAC were measured in the raw water while treated water levels remain barely detectable at Wheatley. Although available data does not allow for a trend to be established, it is commonly thought that the frequency and severity of algae blooms are getting worse. Although the levels did not satisfy the issues evaluation process developed to satisfy rule 114, Microcystin was however identified as an issue under the CWA as per rule 115.1. It is recommended that monitoring efforts be continued and improved to coordinate the various monitoring programs. Further, it is recommended that monitoring and research be continued into the relationship between microsystin and phosphorous levels. Natural or Anthropogenic: Anthropogenic factors (local and international) contribute excessive phosphorous which make it possible for excessive algae growth.		
System Summary, Wheatley		Update to reflect microcystin		

Section	Page	Text	Reason For Change	Changes Made
Issues Section Summary		Update to reflect microcystin		