

## Document Control Sheet

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18. abstract Households and industrial discharges are the main sources of bisphenol A (BPA), an environmental chemical suspected to cause severe effects on endocrine systems, in surface waters. The emissions are realised by waste water treatment plants (WWTP) and combined sewer systems as well as industrial direct discharges. It was estimated that the total inputs into the river system of Elbe are about 970 kg/a by WWTP, 70 kg/a by sewer systems and 510 by two industrial discharges in the Czech part of Elbe. The retention within the surface waters of Elbe is 790 kg/a or 51%. <i>Xenopus laevis</i> premetamorphic tadpoles at stages 48 and 51 were exposed to different BPA concentrations ranging from 223 ng/L to 223 µg/L to analyse effects on sexual differentiation and thyroid system. BPA caused moderate effects on thyroid system by interference with thyroid receptors but had adverse effects on sexual differentiation disrupting normal gonadal development particularly in males as shown by gross morphological and histological determinations.	
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