Supplementary Materials

Table S1. Classes of bottom sediments quality for Strzyża Stream and Oliwski Stream with reference to LAWA classification [36].

Retention Tank	Point	Classes of Bottom Sediments Quality for Strzyża Stream Depending on HM Concentrations					
		Cu	Zn	Pb	Cd	Cr	Ni
Strzyża Stream							
Nowiec	IN	I	I	I	I	I	I
	OUT	I	I	I	I	I	I
Ogrodowa	IN	I	I	I	I	I	I
	OUT	I-II	II	I-II	I-II	I	I
Potokowa	IN	**III**	**II-III**	**II-III**	I	I	I
	OUT	**II-III**	**II-III**	I-II	II	I	I
Oliwski Stream							
Grunwaldzka	IN	I-II	II	I-II	I	I	I
	OUT	II	**II-III**	**II-III**	II	I	I
Chłopska	IN	II	I	I	I	I	I
	OUT	**II-III**	I-II	I-II	I	I	I
Ogrodowa	IN	**IV**	I-II	**II-III**	I	I	I
	OUT	II	I	I-II	I	I	I

Note: Class I refers to uncontaminated sediment; class I-II:sediments unpolluted or with very small anthropogenic interference. Class II corresponds to moderately polluted sediments, and it is a reference for the other levels of pollution. Class II-III—twice the class II—defines moderate to significant contamination of sediments; class III—four times class II—defines significant pollution; class III-IV—eight times class II refers to a very strong pollution; class IV—means more than eight times exceeding class II—is an ultimate pollution. Comparative value is the average contents of HM expressed in mg/kg. **Bold**—cleanliness classes above moderate.

Table S2. Denotation of geochemical classification I_{geo} for bottom sediments [37–41].

Class	I_{geo} Value	Description
0	$I_{geo} \leq 0$	uncontaminated sediments
1	$0 < I_{geo} \leq 1$	uncontaminated to moderately contaminated
2	$1 < I_{geo} \leq 2$	moderately contaminated
3	$2 < I_{geo} \leq 3$	moderately to strongly contaminated
4	$3 < I_{geo} \leq 4$	strongly contaminated
5	$4 < I_{geo} \leq 5$	strongly to extremally contaminated
6	$I_{geo} > 5$	extremally contaminated

Table S3. Concentration of HMs in soils of analysed districts of Strzyża Stream and Oliwski Stream: GB [mg/kg d.w.] [43].

Element	Concentrations in Strzyża Stream			Concentrations in Oliwski Stream		
	Min	Max	Mean	Min	Max	Mean
Cu	3.30	5.10	4.20	14.7	19.1	16.9
Zn	35.0	55.0	45.0	108	135	121
Pb	12.4	20.6	16.5	33.5	44.5	39.0
Cd	0.00	0.50	0.25	0.75	1.00	0.88
Ni	4.10	7.20	5.65	4.10	7.20	5.65
Cr	4.30	5.10	4.70	6.90	11.0	8.95

Table S4. Degrees of ecological risk (E_j^i) (for single element) [23, 32, 34, 37, 38] and ecological risk (RI) for all factors HM contaminated sediments [32].

Category	Description of Risk
Ecological Risk for single element (E_j^i)	
$E_j^i < 40$	low risk
$40 \leq E_j^i < 80$	moderate risk
$80 \leq E_j^i < 160$	considerable risk
$160 \leq E_j^i < 320$	high risk
$E_j^i \geq 320$	very high risk
Ecological risk for all factors (RI)	
RI < 95	low risk
95 ≤ RI <190	moderate risk
190 ≤ RI <380	considerable risk
RI≥ 380	very high risk