



Baltic Marine Environment Protection Commission

Ninth Meeting of the Seventh Baltic Sea Pollution Load
Compilation (PLC-7) Project Implementation Group

PLC-7 IG 9-2019

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Document title	Status of the 2017 periodic PLC data reporting
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Background

This document contains a revision of the Updated results of periodic reporting – diffuse discharges and indirect point sources into the fresh water, nutrient retention and source apportionment (loads by source) into the Baltic Sea.

Contracting Parties are invited to inform about major obstacles in timely reporting the data.

Action requested

The Meeting is invited to take note of the information and discuss the implementation of the agreements.

STATUS OF THE 2017 DATA REPORTING ON INDIRECT SOURCES

INDIRECT SOURCES of 2017 to be reported

The following indirect sources should have been reported on 2017 data:

- Discharges of Ntot and Ptot by sources into the fresh water of monitored subcatchments, unmonitored and transboundary areas (Diffuse sources, source orientated approach)
- Nutrient discharges (Ntot and Ptot) of indirect point sources
- Retention of nutrients (Ntot and Ptot) in the catchment of monitored subcatchments, unmonitored and transboundary areas
- Discharges of Ntot and Ptot by sources into the Baltic Sea of monitored subcatchments, unmonitored and transboundary areas (Source apportionment, load orientated approach)

Deadline for reporting the discharges of indirect sources of 2017 was the 31th December 2018.

Reporting procedure

Tentative reporting templates with background information were provided to the CPs for revision. The CPs were supposed to correct and update the templates and the data manager to insert the updated templates, respectively, in the HELCOM Pollution Load User System (PLUS) Application http://apps.nest.su.se/helcom_plus/

The procedure has been partially conducted. Some CPs neither updated nor returned the template, but just reported data. Negligence of the procedure caused additional revisions and corrections.

Data verification and approval

All CPs have inserted data in the database. In insertion the PLUS (HELCOM Pollution Load User System) conducts automatically a preliminary (QA1: format, data type, etc.) and a statistical check (QA2: statistical testing of the data with the existing data) of the data. After the insertion, data can be retrieved in the Application for further verification. This enables the reporter or data quality assurer to correct, reject or approve the retrieved data in the Application. The data reporter approves the data at the QA level 3 and the national data assurer/data manager at the QA level 4, respectively. Once the data have been approved at the level of 3 or 4, further revision of the data cannot be conducted. Quality assurance procedure and the status of data approval have been described in more details at the end of the document.

The state of the periodic reporting of 2017 data by CP on indirect sources, including upload, insertion and verification final approval of the data, has been presented in Table 2.

Table 1. The state of the 2017 periodic data reporting by Contracting Party (by 30 Nov 2019)

COUNTRY	UPLOADED	INSERT	FINAL APPROVAL (QA)
DE	x	X	COMPLETED
DK	X	X	COMPLETED
EE	X	X ⁽¹⁾	PARTLY APPROVED ⁽¹⁾
FI	X	X	COMPLETED
LT	X	X ⁽¹⁾	PARTLY APPROVED ⁽¹⁾
LV	X	X	COMPLETED
PL	X	X ⁽²⁾	CONSULTATION NEEDED ⁽²⁾
RU	X	X	PARTLY APPROVED ⁽³⁾
SE	X	X	COMPLETED

- ⁽¹⁾ Diffuse losses, retention and source apportionment loads to be approved
 - ⁽²⁾ Indirect point sources should urgently be verified throughout the database due to incorrect insertion
 - ⁽³⁾ Some values have been rejected and need to be corrected
- 'PARTLY APPROVED' (=partial approval conducted)
 'TO BE CONDUCTED' (=final approval to be started)
 'CONSULTATION NEEDED' (=Many discrepant data in the database to be sorted out)

Inserted direct data and the reporting status by country

Most of the 2017 periodic data have been inserted in the data base. The quality assurance of the reported data have been carried out as in the Application, and manual verification of the data have been completed by most of the CPs (Table 1). In the tables 2-10 have been indicated the number of sources to be reported and the parameters (Ntot and Ptot) which have been reported on the listed sources. Value '1' indicates reporting and value '0' not reported.

Success of reporting by CP and by source have been compiled here in the tables 2-10, but more detailed information on reported sources can be downloaded at:

<https://portal.helcom.fi/workspaces/PLC-7-142/default.aspx>

Table 2. Reported Danish periodic data of 2017

COUNTRY	SOURCE	TOTAL	PRAM	TO BE REP	AGS	ATS	DIS	MFS	NBS	SCS	SWS	TRS	UKS							
DENMARK	DIFFUSE LOSSES	TOTAL	PTOT	125	125	125	0	0	125	125	125	0	0							
		TOTAL	NTOT	125	125	125	0	0	125	125	125	0	0							
COUNTRY	SOURCE			TO BE REP	Ntot	Ptot														
	RETENTION	TOTAL		125	125	125														
COUNTRY	SOURCE			TO BE REP	AGL	ATL	DIL	DUL	MFL	NBL	SCL	SWL	AQL	INL	MWL	OTL	PIL	TRL	UKL	
	SOURCE APPORTIONM	TOTAL	PTOT	125	125	125	0	0	0	125	125	125	125	125	125	0	0	0	0	
		TOTAL	NTOT	125	125	125	0	0	0	125	125	125	125	125	125	0	0	0	0	
COUNTRY				TO BE REP	FLOW	Ntot	Ptot													
	INDIR MWWTWP	TOTAL		441	441	441	441													
				TO BE REP	FLOW	Ntot	Ptot													
	INDIR INDUSTRY	TOTAL		29	29	12	11													
				TO BE REP	FLOW	Ntot	Ptot													
	INDIR AQUACULTURE	TOTAL		90	0	90	90													

Notifications on the reported data:

All data have been reported, some missing Ntot and Ptot values of Industrial plants.

Table 3. Reported Estonian periodic data of 2017

COUNTRY	SOURCE	TOTAL	PRAM	TO BE REP	AGS	ATS	DIS	MFS	NBS	SCS	SWS	TRS	UKS							
ESTONIA	DIFFUSE LOSSES	TOTAL	PTOT	21	19	19	18	19	19	0	0	0	0							
		TOTAL	NTOT	21	21	20	19	19	19	0	0	0	0							
COUNTRY	SOURCE			TO BE REP	Ntot	Ptot														
	RETENTION	TOTAL		21	21	21														
COUNTRY	SOURCE			TO BE REP	AGL	ATL	DIL	DUL	MFL	NBL	SCL	SWL	AQL	INL	MWL	OTL	PIL	TRL	UKL	
	SOURCE APPORTIONM	TOTAL	PTOT	21	21	20	18	0	19	19	0	0	0	3	11	0	0	0	0	
		TOTAL	NTOT	21	21	20	19	0	19	19	0	0	0	3	11	0	0	0	0	
COUNTRY				TO BE REP	FLOW	Ntot	Ptot													
	INDIR MWWTWP	TOTAL		43	43	43	43													
				TO BE REP	FLOW	Ntot	Ptot													
	INDIR INDUSTRY	TOTAL		12	12	12	12													
				TO BE REP	FLOW	Ntot	Ptot													
	INDIR AQUACULTURE	TOTAL		0	0	0	0													

Notifications on the reported data:

Diffuse source data on Daugava and Salaca are partly missing and Ptot value of scattered dwellings and storm water and overflow of Pühajõgi. Discharge value of scattered dwellings and storm water and overflows reported as a sum (DIS).

Indirect point sources have been reported, but some of the point sources have double catchments and subbasins.

Retention data

All data reported.

Source apportionment

Data on Daugava and Salaca are partly missing and Ptot value of scattered dwellings and storm water and overflow of Pühajõgi. Scattered dwellings and storm water and overflows reported as a sum (DIL).

Table 4. Reported Finnish periodic data of 2017

COUNTRY	SOURCE		PRAM	TO BE REPORTED	AGS	ATS	DIS	MFS	NBS	SCS	SWS	TRS	UKS						
FINLAND	DIFFUSE LOSSES	TOTAL		34	33	33	0	33	33	33	33	0	0						
		TOTAL	NTOT	34	33	33	0	33	33	33	33	33	0	0					
COUNTRY	SOURCE			TO BE REPORTED	Ntot	Ptot													
	RETENTION	TOTAL		34	33	33													
COUNTRY	SOURCE		PRAM	TO BE REPORTED	AGL	ATL	DIL	DUL	MFL	NBL	SCL	SWL	AQL	INL	MWL	OTL	PIL	TRL	UKL
	SOURCE APPORTIONMENT	TOTAL		34	33	33	0	0	33	33	33	33	30	33	33	0	0	0	0
		TOTAL	NTOT	34	33	33	0	0	33	33	33	33	33	30	33	32	0	0	0
COUNTRY				TO BE REPORTED	FLOW	Ntot	Ptot												
	INDIR MWWTP	TOTAL		348	339	342	326												
	INDIR INDUSTRY	TOTAL		1013	234	934	892												
	INDIR AQUACULTURE	TOTAL		68	0	68	68												

Notifications on the reported data:

Diffuse sources have been reported. Diffuse losses of Seleznevka are missing.

Kuivajoki (SCFI00023) has been removed.

Indirect point sources are mostly reported, but some gaps exist.

Retention have been reported apart from the river Seleznevka.

Source apportionment have been reported apart from the river Seleznevka.

Table 5. Reported German data of 2017

COUNTRY	SOURCE		PRAM	TO BE REPO	AGS	ATS	DIS	MFS	NBS	SCS	SWS	TRS	UKS							
GERMANY	DIFFUSE LOSSES	TOTAL		27	27	27	0	0	27	27	27	0	0							
		TOTAL	NTOT	27	27	27	0	0	27	27	27	27	0	0						
COUNTRY	SOURCE			TO BE REPO	Ntot	Ptot														
	RETENTION	TOTAL		27	26	26														
COUNTRY	SOURCE		PRAM	TO BE REPO	AGL	ATL	DIL	DUL	MFL	NBL	SCL	SWL	AQL	INL	MWL	OTL	PIL	TRL	UKL	
	SOURCE APPORTIONMENT	TOTAL		27	26	26	0	0	0	26	26	26	0	26	26	0	0	0	0	
		TOTAL	NTOT	27	26	26	0	0	0	26	26	26	0	26	26	0	0	0	0	
COUNTRY				TO BE REPO	FLOW	Ntot	Ptot													
	INDIR MWWTP	TOTAL		87	87	87	87													
	INDIR INDUSTRY	TOTAL		7	7	7	7													
	INDIR AQUACULTURE	TOTAL		NO AQUACULTURE TO BE REPORTED																

Notifications on the reported data:

Diffuse sources have been reported.

Indirect point sources have been reported. There are some discrepancies between the years.

Retention have been reported apart from the German part of the river Oder.

Source apportionment data have been reported part from the river Oder.

Table 6. Reported Latvian periodic data of 2017

COUNTRY	SOURCE	PRAM	TO BE REP	AGS	ATS	DIS	MFS	NBS	SCS	SWS	TRS	UKS							
LATVIA	DIFFUSE LOSSES	TOTAL	PTOT	16	1	1	14	1	14	0	0	6	0						
		TOTAL	NTOT	16	1	1	14	1	14	0	0	6	0						
COUNTRY	SOURCE		TO BE REP	Ntot	Ptot														
	RETENTION	TOTAL	16	16	16														
COUNTRY	SOURCE	PRAM	TO BE REP	AGL	ATL	DIL	DUL	MFL	NBL	SCL	SWL	AQL	INL	MWL	OTL	PIL	TRL	UKL	
	SOURCE APPORTIONMENT	TOTAL	PTOT	16	1	1	14	0	1	14	0	0	0	0	0	13	6	0	
		TOTAL	NTOT	16	1	1	14	0	1	14	0	0	0	0	0	13	6	0	
COUNTRY			TO BE REP	FLOW	Ntot	Ptot													
	INDIR MWWTP	TOTAL	33	33	33	33													
			TO BE REP	FLOW	Ntot	Ptot													
	INDIR INDUSTRY	TOTAL	44	44	42	40													
			TO BE REP	FLOW	Ntot	Ptot													
	INDIR AQUACULTURE	TOTAL (aggregated)	5	5	4	5													

Notifications on the reported data:

Diffuse source

All anthropogenic sources have been reported as a sum under 'Diffuse sources'.

Latvian parts of the Sventoji and Nemunas catchments are missing. Pärnu has been reported by Estonia.

Indirect point sources

Most of the point sources have been reported.

Retention

Retention data have been reported.

Source apportionment

All anthropogenic loads have been summed up as 'Diffuse load' (DIL). All point source loads have also been summed up and reported as total loads (PIL). Latvian parts of the Sventoji and Nemunas catchments are missing. Pärnu has been reported by Estonia.

Table 7. Reported Lithuanian periodic data of 2017

COUNTRY	SOURCE	PRAM	TO BE REPORTED	AGS	ATS	DIS	MFS	NBS	SCS	SWS	TRS	UKS							
LITHUANIA	DIFFUSE LOSSES	TOTAL	PTOT	9	9	0	0	0	9	0	9	6	0						
		TOTAL	NTOT	9	9	0	0	0	9	0	9	6	0						
COUNTRY	SOURCE		TO BE REPORTED	Ntot	Ptot														
	RETENTION	TOTAL	9	9	9														
COUNTRY	SOURCE	PRAM	TO BE REPORTED	AGL	ATL	DIL	DUL	MFL	NBL	SCL	SWL	AQL	INL	MWL	OTL	PIL	TRL	UKL	
	SOURCE APPORTIONMENT	TOTAL	PTOT	9	9	0	0	0	9	0	9	0	0	0	0	7	6	0	
		TOTAL	NTOT	9	9	0	0	0	9	0	9	0	0	0	0	7	6	0	
COUNTRY			TO BE REPORTED	FLOW	Ntot	Ptot													
	INDIR MWWTP	TOTAL	626	626	622	624													
			TO BE REPORTED	FLOW	Ntot	Ptot													
	INDIR INDUSTRY	TOTAL	50	50	47	46													
			TO BE REPORTED	FLOW	Ntot	Ptot													
	INDIR AQUACULTURE	TOTAL	29	29	14	25													

Notifications on the reported data:

Diffuse sources

Sources of agricultural losses (AGS) and natural background losses (NBS) and storm water and over flow (SWS) have been reported. Lithuanian part of transboundary rivers have been reported (BARTA, DAUGAVA, LIELUPE, PREGOLYA and VENTA).

Indirect point sources

All point sources have been reported.

Retention

Retention data have been reported.

Source apportionment

Categories of agriculture (AGL), natural background losses (NBL) and storm water and over flow (SWL) have been reported. Point sources have been reported only as totals (PIL).

Table 8. Reported Polish periodic data of 2017

COUNTRY	SOURCE		PRAM	TO BE REPORT	AGS	ATS	DIS	MFS	NBS	SCS	SWS	TRS	UKS						
POLAND	DIFFUSE LOSSES	TOTAL	PTOT	26	26	0	0	0	0	0	0	0	0						
		TOTAL	NTOT	26	26	0	0	0	0	0	0	0	0	0					
COUNTRY	SOURCE			TO BE REPORT	Ntot	Ptot													
	RETENTION	TOTAL		26	26														
COUNTRY	SOURCE		PRAM	TO BE REPORT	AGL	ATL	DIL	DUL	MFL	NBL	SCL	SWL	AGL	INL	MWL	OTL	PIL	TRL	URL
	SOURCE APPORTIONM	TOTAL	PTOT	26	0	26	10	0	0	26	0	0	0	0	0	0	0	0	0
		TOTAL	NTOT	26	0	26	10	0	0	26	0	0	0	0	0	0	0	0	0
COUNTRY				TO BE REPORT	FLOW	Ntot	Ptot												
	INDIR MWWTP	TOTAL		1437	1437	746	687												
				TO BE REPORT	FLOW	Ntot	Ptot												
	INDIR INDUSTRY	TOTAL		16	12	12	12												
				TO BE REPORT	FLOW	Ntot	Ptot												
	INDIR AQUACULTURE	TOTAL		7	0	0	0												

BASED ON 2014, PLC-6 REPORTING

Notifications on the reported data:

Diffuse sources

Only agricultural losses (AGS) have been reported. Other sources, losses of atmospheric deposition (ATS) and managed forestry (MFS), natural background losses (NBS), losses of scattered dwellings (SCS) and storm water and overflows (SWS) and transboundary losses (TRS) are all missing.

Indirect point sources

Indirect loads of municipal wastewater treatment plants and Industrial plants have been re-reported.

Aquacultural plants haven't been reported, but the number of PLANTs to be reported have been retrieved from 2014, PLC-6.

All data on point sources of all years should be verified and revised.

Retention

All data have been reported.

Source apportionment

Atmospheric deposition (ATL) and natural background loads (NBL) have been reported. Diffuse loads (DIL) have been reported on monitored rivers excluding the river ODER. Source apportionment data on unmonitored areas are missing.

About the Quality control of the 2017 periodic data

Preliminary quality assurance, at QA level 1 and 2, of the data is carried out automatically during the Application's upload and insert procedure. At the QA level 1 all basic information as data type, format, length of the string and other constraints are checked. The automated quality assurance at QA level 2 is based statistical verification of the data. The next steps include approval, rejection and correction of the data. All the QA levels have been shown in table 11.

A minimum requirement of 5 years of data of the same source is needed to conduct the statistical quality assurance, otherwise inserted data have been considered as 'no quality'. Apart from a few indirect point sources there are no data of periodic sources for 5 years.

In general, the periodic data have been mostly approved, but due to some recent data revisions, approval of the re-reported data should be conducted. Estonian, Polish Lithuanian and a few Latvian data haven't been approved. Rejections of the Russian data should be corrected. Denmark, Germany, Finland and Sweden have approved their data.

The procedure of data approval of non-contracting party should be agreed on.

All flagging of the reported periodic data 2017 by country have been compiled in tables 12-17.

Table 11. Flagging, Quality Assurance (QA) levels and description.

FLAG	QA LEVEL	Description	Active
NQ	1	No Quality	Y
QU	2	Questionable	Y
AC	2	Accepted	Y
A3	3	Approved by data reporter	Y
C3	3	Corrected by data reporter	Y
R3	3	Rejected by data reporter	Y
A4	4	Approved by quality assurer/Data Manager	Y
C4	4	Corrected by quality assurer/Data Manager	Y
R4	4	Rejected by quality assurer/Data Manager	Y

Table 12. Number of QA flags per category of the reported diffuse losses in 2017 by Country.

DIFFUSE SOURCES											
COUNTRY_CODE	PERIOD_ID	NQ	QU	AC	A3	A4	C3	C4	R3	R4	
BY	2017										
CZ	2017										
DE	2017	-	-	-	415		17				
DK	2017			-	1250						
EE	2017	198	-	-	-	-	-	-	-	-	
FI	2017	-	-	-		386		10			
LT	2017	82	-	-							
LV	2017	-	-	-	74						
PL	2017	-	-	-	52						
RU	2017	-	-	-	34		1		13		
SE	2017	-	-	-		516					
SL	2017										
UA	2017										

Table 13. Number of QA flags per category of the reported retention data in 2017 by Country.

RETENTION										
COUNTRY_CODE	PERIOD_ID	NQ	QU	AC	A3	A4	C3	C4	R3	R4
BY	2017	2	-	-	-	-	-	-	-	-
CZ	2017									
DE	2017	-	-	-	52	-	-	-	-	-
DK	2017	-	-	-	250	-	-	-	-	-
EE	2017	42	-	-	-	-	-	-	-	-
FI	2017	-	-	-	-	66	-	-	-	-
LT	2017	22	-	-	-	-	-	-	-	-
LV	2017	2	-	-	28	-	-	-	-	-
PL	2017				52					
RU	2017	-	-	-	12	-	2	-	6	-
SE	2017	-	-	-	-	86	-	-	-	-
SL	2017									
UA	2017									

Table 14. Number of QA flags per category of the reported source apportionment in 2017 by Country.

SOURCE APPORTIONMENT										
COUNTRY_CODE	PERIOD_ID	NQ	QU	AC	A3	A4	C3	C4	R3	R4
BY	2017									
CZ	2017									
DE	2017	-	-	-	364	-	-	-	-	-
DK	2017	-	-	-	2000	-	-	-	-	-
EE	2017	301	-	-	-	-	-	-	-	-
FI	2017	-	-	-	-	588	-	-	-	-
LT	2017	98	-	-	-	-	-	-	-	-
LV	2017	-	-	-	100	-	-	-	-	-
PL	2017	-	-	-	128	-	-	-	-	-
RU	2017	-	-	-	48	-	-	-	-	-
SE	2017	-	-	-	-	774	-	-	-	-
SL	2017									
UA	2017									

Table 15. Number of QA flags per category of the reported indirect MWWTP loads in 2017 by Country.

MWWTP										
COUNTRY_CODE	PERIOD_ID	NQ	QU	AC	A3	A4	C3	C4	R3	R4
DE	2017				261	-	-	-	-	-
DK	2017	-	-	-	1323	-	-	-	-	-
EE	2017	3	-	-	-	126	-	-	-	-
FI	2017	-	-	66	-	936	-	1	-	4
LT	2017	2	-	-	1870	-	-	-	-	-
LV	2017				99	-	-	-	-	-
PL	2017				2870	-	-	-	-	-
RU	2017	-	-	-	21	-	-	-	-	-
SE	2017	-	-	-	-	84	-	-	-	-

Table 16. Number of QA flags per category of the reported indirect Industry loads in 2017 by Country.

INDUSTRY										
COUNTRY_CODE	PERIOD_ID	NQ	QU	AC	A3	A4	C3	C4	R3	R4
DE	2017	-	-	-	21	-	-	-	-	-
DK	2017	-	-	-	65	-	-	-	-	-
EE	2017	-	-	-	-	36	-	-	-	-
FI	2017	-	-	44	-	2015	-	1	-	-
LT	2017	-	-	-	140	-	-	-	-	-
LV	2017	-	-	-	291	-	-	-	-	-
PL	2017	-	-	-	36	-	-	-	-	-
RU	2017	-	-	-	21	-	-	-	-	-
SE	2017	-	-	-	-	54	-	-	-	-

Table 17. Number of QA flags per category of the reported indirect Fish farm loads in 2017 by Country.

FISHFARM										
COUNTRY_CODE	PERIOD_ID	NQ	QU	AC	A3	A4	C3	C4	R3	R4
DE	2017	-	-	-	-	-	-	-	-	-
DK	2017	-	-	-	180	-	-	-	-	-
EE	2017	-	-	-	-	-	-	-	-	-
FI	2017	-	-	-	-	136	-	-	-	-
LT	2017	-	-	-	68	-	-	-	-	-
LV	2017	-	-	-	14	-	-	-	-	-
PL	2017	-	-	-	-	-	-	-	-	-
RU	2017	-	-	-	-	-	-	-	-	-
SE	2017	-	-	-	-	20	-	-	-	-