

## IAP Response

Ref B2.WSH.CE.A3

# WINEP / NEP Uncertainty Mechanism

1 April 2019

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## WSH.CE.A3 WINEP / NEP Uncertainty Mechanism

### Nature of Adjustment (Summarise how you have responded to this action)

1) On 29 March 2019 the Environment Agency updated the PR19 WINEP programme, all U-IMP6 driver schemes that had been classified as 'Amber' have now been confirmed and the classification changed to 'Green'. This removes the need for the cost adjustment mechanism for schemes with the U-IMP6 driver.

2) We accept that the circumstances resulting from the removal of Amber schemes from the WINEP differ to the situation in Wales. We now propose to return the Totex relating to the Amber WFD\_IMP schemes to customers should these be removed from the WINEP.

Scheme	Value to be returned if amber driver removed
Malpas and No Mans Heath WWTWs	£4.615m
Whitchurch WWTW	£0m
Tattenhall WWTW	£3.004m

3) This table shows all Amber NEP schemes included in our AMP7 investment programme, the total costs for each and the lines within table WWS2 and WS2 to which these costs have been allocated. Further details relating to the total costs included in the plan for each scheme is included in the further evidence section.

Scheme	Amber driver	Incremental value included in plan	Table reference of inclusion	Type of investment
TRIMSARAN WWTW	W_WFD_PG_IMP	£0m	WWS2 – Line 18	Gwili Gwendraeth programme
CROSSHANDS WWTW	W_WFD_PG_IMP	£0m	WWS2 – Line 18	
CWMGWILI WWTW	W_WFD_PG_IMP	£0m	WWS2 – Line 18	
CARWAY WWTW	W_WFD_PG_IMP	£0m	WWS2 – Line 18	
CWMTAWEL WWTW	W_WFD_PD_IMP	£0m	WWS2 – Line 18	
Gwendraeth intermittents	W_WFD_PG_IMP	£0m	WWS2 – Line 18	
LLANEDI WWTW	W_WFD_PG_IMP	£0m	WWS2 – Line 18	
SPITTAL WWTW	W_WFD_PG_IMP	£0m	WWS2 – Line 18	Spittal WWTW
Rhonda	WFD_IMP_WRHMB	£0.421m	WS2 – Line 18	Water Resources

Additional evidence (please elaborate/reference) (Please include where appropriate)

## 1.1. Action 1 – U\_IMP6 Schemes

The unit cost formula in the September business plan for U\_IMP6 driver schemes, was derived using all WINEP/NEP obligations. This full list of obligations includes the proposed 13 schemes for delivery in AMP7 and a further 100 schemes for delivery in AMP8.

On 29 March 2019 the Environment Agency updated the PR19 WINEP programme, all U-IMP6 driver schemes that had been classified as ‘Amber’ have now been confirmed and the classification changed to ‘Green’. This removes the need for the cost adjustment mechanism for schemes with the U\_IMP6 driver.

Schemes updated from Amber to Green are shown in the table below. All U\_IMP Schemes are now classified as Green in NEP/WINEP.

Unique ID	Scheme Name/Name of Discharge/Investigation	NEP / WINEP	Storage Volume (m3)	Capex (£) post-efficiency	Unit cost equivalent
7DC300014	Chester WwTW	WINEP	3,372	2,161,568	2,187,373
7DC200077	Moreton on Lugg WwTW	WINEP	62	237,465	254,333
7DC200084	Peterchurch WwTW	WINEP	33	232,709	237,397
7DC200094	Ruardean WwTW	WINEP	88	253,513	269,517

## 1.2. Action 2 – WINEP WFD\_IMPg Schemes

We accept that the circumstances resulting from the removal of Amber schemes from the WINEP differ to the situation in Wales. Within the WINEP there will be no substitution of schemes and therefore we submit the following revised proposal for the WINEP cost adjustment mechanism:

### WFD\_IMPg

For the 4 outputs identified in the NEP with WFD drivers we have developed options for each site through meetings held with EA.

For Malpas and No Mans Heath WWTWs we have identified a rationalisation option providing the best whole life cost solution, which is to pump No Mans Heath WWTW to an improved Malpas WWTW for treatment. As such we have costed these two outputs as one solution, so a unit cost for these two sites would not be representative of this scheme. The cost for this solution is £4.615m. In the event that the scheme is removed from the programme we propose returning the full value to customers.

Two drivers have been applied at Whitchurch WWTW, these being WFD\_ND (categorised as green) and WFD\_IMPg (categorised as amber). Both drivers require a tighter Phosphorus limit to be met. The limit under the WFD\_ND driver would require 0.4mg/l P removal, whilst the WFD\_IMPg driver would require 0.3mg/l P removal. Our analysis shows that the solution required at Whitchurch WWTW to meet 0.3mg/l and 0.4mg/l are not significantly different, with the main difference between the two options being linked to increased operational costs for the tighter limit. Therefore we believe that the difference between the green and amber outputs are trivial and will not require a safeguard linked to unit cost. The adjustment for the amber driver is £0m.

At Tattenhall the proposed WFD\_IMPg driver requires a tightening of the Phosphorus limit from 1mg/l to 0.5mg/l. We have used a unit cost for calculating investment at this site of £3.004m as the site has a population equivalent (PE) of 2,511.

Our Unit Costs for P removal linked to PE are as follows:

Population Equivalent (PE) of WWTW	Unit Cost (£m)
0 - 500 PE	£1.603m
500- 2000 PE	£2.150m
2000 – 10000 PE	£3.004m

In the event that the scheme is removed from the programme we propose returning the full value to customers.

In summary our proposed cost adjustment for removal of these amber drivers is as follows

Scheme	Value to be returned if amber driver removed
Malpas and No Mans Heath WWTWs	£4.615m
Whitchurch WWTW	£0m
Tattenhall WWTW	£3.004m

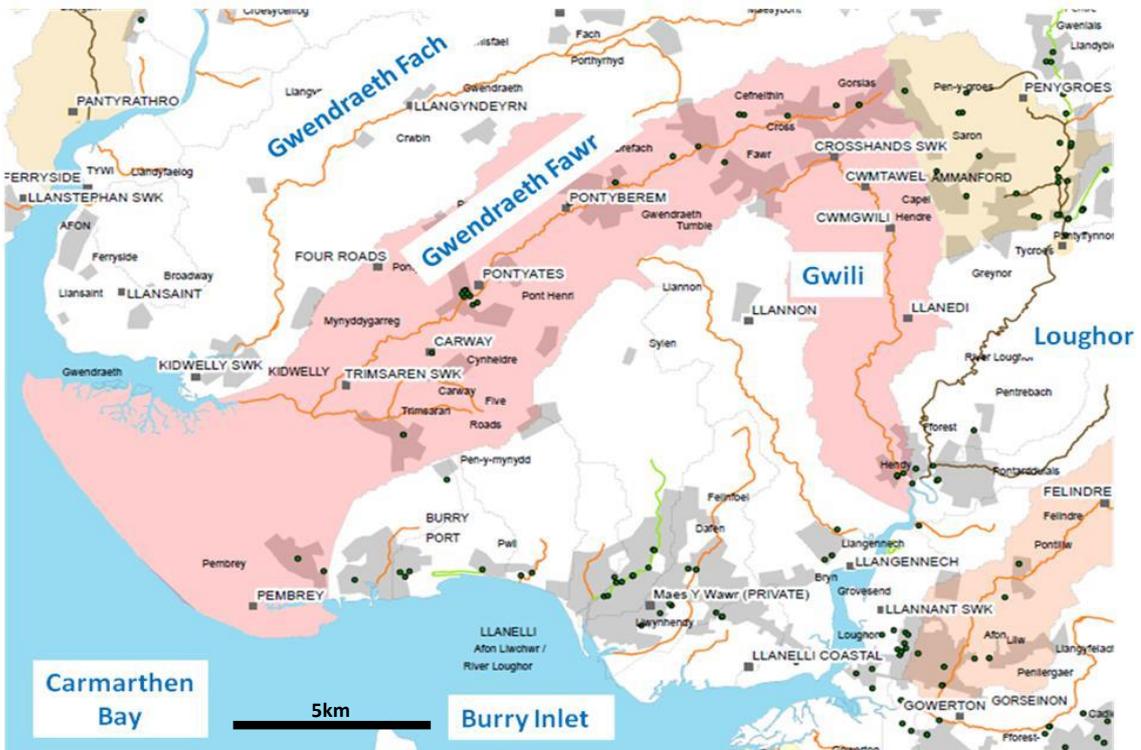
## 1.3. Action 3 - NEP Amber Schemes

The full list of NEP amber schemes is as follows. The majority of these are at locations affected by additional drivers so we have only shown the incremental scheme value associated the amber driver. We have provided further information on each in the commentary below the table.

<b>Scheme</b>	<b>Amber driver</b>	<b>Incremental value included in plan</b>	<b>Table reference of inclusion</b>	<b>Type of investment</b>
TRIMSARAN WWTW	W_WFD_PG_IMP	£0m	WWS2 – Line 18	Gwili Gwendraeth programme
CROSSHANDS WWTW	W_WFD_PG_IMP	£0m	WWS2 – Line 18	
CWMGWILI WWTW	W_WFD_PG_IMP	£0m	WWS2 – Line 18	
CARWAY WWTW	W_WFD_PG_IMP	£0m	WWS2 – Line 18	
CWMTAWEL WWTW	W_WFD_PD_IMP	£0m	WWS2 – Line 18	
Gwendreath intermittents	W_WFD_PG_IMP	£0m	WWS2 – Line 18	
LLANEDI WWTW	W_WFD_PG_IMP	£0m	WWS2 – Line 18	
SPITTAL WWTW	W_WFD_PG_IMP	£0m	WWS2 – Line 18	Spittal WWTW
Rhonda	WFD_IMP_WRHMWB	£0.421m	WS2 – Line 18	Water Resources

## Gwili-Gwendraeth Programme

The Gwili-Gwendraeth programme replaces seven existing works with one new build. The works are shown on the map below: Trimsaran, Carway, Pontyates, Pontyberem, Crosshands, Cwmtawel and Cwmgwili.



The full list of obligations identified in the NEP4.1 related to the Gwili-Gwendraeth Programme are identified in the following table:

NEP Unique ID	WWTW	Driver	
		Confirmed (Green)	Likely (Amber)
6DC000107 / 7CDC1044	TRIMSARAN WWTW	ND1	W_WFD_PG_IMP
6DC002869 / 7CDC0348	CROSSHANDS WWTW	WFD2gbi, W_WFD_PD_IMP	W_WFD_PG_IMP
6DC002870 / 7CDC0391	CWMGWILI WWTW	WFD2gbi, W_WFD_PD_IMP	W_WFD_PG_IMP
7CDC0858	PONTYATES WWTW	W_WFD_PG_IMP	
7CDC0859	PONTYBEREM WWTW	W_WFD_PG_IMP	
7CDC0278	CARWAY WWTW		W_WFD_PG_IMP
7CDC0395	CWMTAWEL WWTW		W_WFD_PD_IMP
7CDC0508	Gwendraeth intermittents		W_WFD_PG_IMP
7CDC1101	LLANEDI WWTW		W_WFD_PG_IMP

The key drivers for the Gwili-Gwendraeth programme are to meet the discharge permit changes identified in the NEP as green drivers in the above table and to meet expected growth in the area.

Of the seven works only Carway and Cwmtawel do not have green drivers as these are between works with green drivers there would be no benefit in removing them from the scheme. The new sewer will pass directly by their locations so will include their collected sewage.

### Llanedi WWTW and Gwendraeth Intermittents

Llanedi WWTW discharges into the Gwili river. It is anticipated that once the Gwili-Gwendraeth scheme is complete the Gwili river will meet its environmental objectives so further investment will not be needed at this site. No investment has been included in our plan to improve this site.

It is anticipated that once the Gwili-Gwendraeth scheme is complete the Gwendraeth river will meet its environmental objectives so no further investment will be needed to manage the intermittents on this section of river. No investment has been included in our plan to improve these assets.

### Gwili-Gwendraeth Allocation of Investment in Tables

The following table identifies all the tables and lines where the investment for the Gwili-Gwendraeth programme has been allocated:

Table	Line No.	Line Description	Totex (£m)
WWS1	12	Maintaining the long term capability of the assets ~infra	0.564
WWS1	13	Maintaining the long term capability of the assets ~non~infra	0.992
WWS2	18	WINEP / NEP ~ Nutrients (P removal at activated sludge STWs)	35.813
WWS2	25	New development and growth	5.099
WWS2	26	Growth at sewage treatment works (excluding sludge treatment)	8.781

### Spittal WWTW

One AMP7 scheme in the NEP4.1 has both green and amber drivers as detailed in the table below. Both the W\_CSM\_IMP driver and the W\_WFD\_PG\_IMP driver are for a tightened phosphorus consent. The W\_CSM\_IMP driver requires a tighter limit than the W\_WFD\_PG\_IMP driver, so there is no cost impact of this amber driver. Note that the W\_WFD\_PD\_IMP driver is for tightening of sanitary parameters.

NEP Unique ID	WWTW	Driver	
		Confirmed (Green)	Likely (Amber)
7CDC0956	SPITTAL WWTW	W_CSM_IMP, W_WFD_PD_IMP	W_WFD_PG_IMP

## Water Resources NEP: Amber Driver Schemes

One scheme in the Water Resources NEP3 has an amber driver as detailed in the table below:

Site Name	NEP Unique ID	Summary of Mitigating Measure	Driver 1 updated	Licence Number	Licence Name
Rhonda	HMWB/SE/Rh/F/a	Improve habitat by increasing the availability of sediment	WFD_IMP_WRHMWB	21/57/24/0025	
	HMWB/SE/Rh/F/b				Llest Wen Reservoir
	HMWB/SE/Rh/F/c				As Castell Nos and Llest Wen Reservoir

Investment for the above scheme has been allocated as follows to table WS2:

Table	Line No.	Line Description	Totex (£m)
WS2	18	WINEP / NEP ~ Water Framework Directive measures	0.421