Nutrient Mitigation Project

Addressing nutrient neutrality requirement for new homes



Background

- June 2019 Natural England (NE) advice to LPA's setting out Nitrate neutrality requirement for new housing schemes
- Feb 2020 WCC position statement requiring new housing applications to be submitted with a nitrate budget and appropriate mitigation
- March 2022 NE updated advice to require phosphate neutrality in River Itchen catchment due to the critical impact on important local habitat
- From this date no housing permissions would be issued unless nutrient neutrality demonstrated.
- August 2023 Government announces relaxation of nutrient neutrality regulations (subject to parliamentary approval)

New Homes Approach – September 2022

- Aim to continue to deliver new homes projects by finding ways to generate nutrient credits.
- Nitrate credits would have to be secured for all new housing schemes in Solent catchment area.
- In addition Phosphate credits would have to be secured for all new schemes in the Itchen Valley catchment area (which includes Winchester City area).
- Nitrate credits can be purchased from the market however phosphate credits are very limited (or unavailable).
- Current legislation and expected changes.

Affected Areas



European protected sites requiring nutrient neutrality strategic solutions Component SSSIs of

River Itchen SAC





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European protected sites requiring nutrient neutrality strategic solutions Component SSIs of Solent: Includes Chichester and Langstone Harbours SPA/Ramsar, Solent and Southampton Water SPA/Ramsar, Solent Maritime SAC, Portsmouth Harbour SPA/Ramsar

Local Authorities SSSI subject to nutrient neutrality strategy Nutrient neutrality SSSI catchment National Parks

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Credits required in short term

scheme	units	Nitrates (kg)	Phosphate (kg)
Dyson drive	8	24.56	0.5
Corner House	6	5.26	0.19
Woodman Close	5	9.33	0
Southbrook Cottages	6	5	0
Winnall Flats	76	138.91	0
Total	101	183.06	0.69

Forward programme 24/25 – Estimated Nutrient Requirements

scheme	Units	Nitrates (estimated worst case based on average requirement)	Phosphates (estimated worse case based on average requirement)
Whiteley EC	80	240kg (requires confirmation as scheme is consented)	na
Whiteley phase 9	25	75kg (requires confirmation as scheme is consented)	na
Micheldever	8	24kg	na
Minden Way / Fox Lane	16	48kg	4kg
Boarhunt	5	15kg	na
Sun Lane, Alresford	12	36kg	3kg
Total	148	444kg	7kg

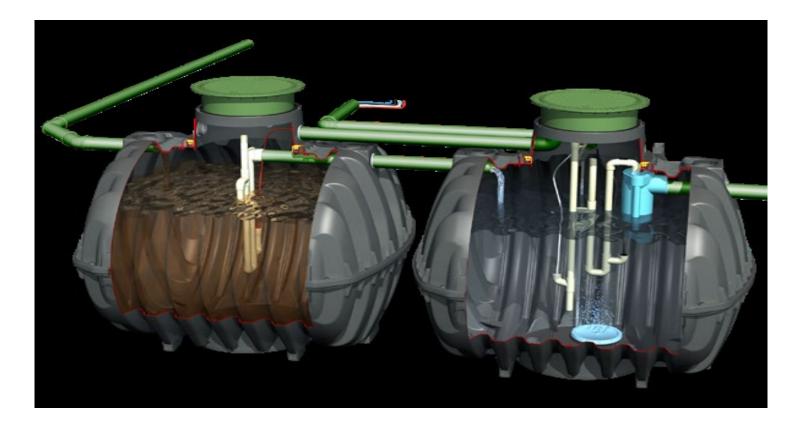
WCC owned Sewage Treatment Works (STW)

- One way to generate nutrient credits is to upgrade / improve existing STW
- WCC own approximately 50 STW's across the district serving both small and large groups of housing
- Of these 17 are in the Itchen Valley catchment area and have the potential to generate both nitrate and phosphate credits
- Works would include, replacement of septic tanks with small package plant or addition of filter beds and additional treatment equipment

How a Septic Tank works



Replacement Package Plant



Initial investigations into 2 schemes

- Looked at 2 sites in detail
- Nutrient figures have been agreed by NE Discretionary Advisory Service (DAS)

	Nitrates (KgTN)	Phosphates (KgTP)
Northington	63.03	5.37
Goodens	90.82	10.51
Total both sites	153.85	15.88

	Northington	Goodens	total
Total plant, labour and materials	£67,744.70	£29,891.00	£97,637.70
Total Scheme cost (with contingency)	£81,293.64	£35,869.20	£117,162.84

Project Plan

	Task Mode ▼	Task Name	Duration		Finish	Predeces -	, 2023 F	AIN	M		Half 2,		S C	N C	D
	-,	Desktop feasibilty reports complete after site visits	6 wks	Thu 23/02/23	and the second s		-	-		1. 12					
2	-	Hydrogeology ground investigations on site	6 wks	Thu 23/02/23	Wed 05/04/23			ł							
3	-,	Avon Wiltshire results available to input data	3 wks	Thu 23/02/23	Wed 15/03/23			Б							
1	-,	DAS with Natural England for pilot site/s	12 wks	Thu 06/04/23	Wed 28/06/23	2,3,1		*		η	1				
5	-	Gateway - Natural England approval of scheme / credits	0 days	Wed 28/06/23	Wed 28/06/23	4				+	28/0	6			
5	-	Liaison with LPA re Unilateral Undertaking (UU)	6 wks	Thu 06/04/23	Wed 17/05/23	4SS		4	h						
ť.,	-	WCC Legal drafting UU and Allocations Agreement (AA)	10 wks	Thu 18/05/23	Wed 26/07/23	6			*						
	-	LPA Legal reviewing draft UU and AA (planning agreements)	2 wks	Thu 27/07/23	Wed 09/08/23	7					Ť	h			
	-,	Gateway - UU established between WCC and LPA for pilot site	0 days	Wed 09/08/23	Wed 09/08/23	5,8						09/	80		
0	-	LPA to confirm work is Permitted Development	5 wks	Mon 03/07/23	Fri 04/08/23										
1	-,	Quote/s from HillaryGW / Proseptic / TRDS for pilot sites	4 wks	Thu 23/02/23	Wed 22/03/23			-							
2	-,	Request updated quote and availablity for installation	1 wk	Thu 10/08/23	Wed 16/08/23	9						Ĭ.			
3	-4	Special Maintenance to review quote and confirm feasibility	1 wk	Thu 17/08/23	Wed 23/08/23	12						1			
4	-	Viability appraisal - prepare and lead time to decision	5 wks	Thu 29/06/23	Wed 02/08/23	11,5				1					
5	-	Gateway - full business case approval of scheme (cost / credits)	0 days	Wed 09/08/23	Wed 09/08/23	14,10,9						09/	80		
6	-	Accept quote and order for supply / install (c.12 week lead time)	12 wks	Thu 10/08/23	Wed 01/11/23	15						*			
17	-	Site on start and install plant - Special Maintenance supervise	4 wks	Thu 02/11/23	Wed 29/11/23	16					ľ			+	h
18	-	Commencement notice sent to LPA confirming works completed	0 days	Wed 29/11/23	Wed 29/11/23	17								1	a 29/
19	-	AAs can be signed linking UU to Planning consents	1 wk	Thu 30/11/23	Wed 06/12/23	18									4
20	-	Gateway - LPA has AA to discharge Grampian planning condition	0 days	Wed 06/12/23	Wed 06/12/23	19									.0

Priority sites for further investigation

	Nitrate	Phosphate credits
	credits	
Hobbs Close, Bishops Sutton	20.84 to 71.23	4.65 to 36.02
Kiln Lane, Old Alresford	6.78 to 17.35	2.95 to 23.09
North Drive, Littleton	4.82 to 12.25	1.48 to 11.44
The Brook, Old Alresford	12.33 to 38.03	2.44 to 18.61
The Hallways, Littleton	12.97 to 47.23	2.48 to 19.18
Woodlark Cottages, Bighton	3.42 to 12.39	0.92 to 7.23
Total min / max credits	61.16 to 198.48	14.92 to 115.57

Credit type	kg	Homes mitigated
Nitrate	198.48	66.16
Phosphate	115.57	461.48

Assuming (on average)

3kg of nitrates is required to mitigate a 3 bed house

0.25kg of phosphate is required to mitigate a 3 bed house

Risks

- National legislation may emerge which reduces credits required Levelling Up Bill amendment
- Agreement of LPA will be required to realise value of the nutrient credits if still applicable.
- Net cost to HRA unless external funding sources can be secured if credits cannot be monetarised

Rewards

- Significantly improved water quality for Itchen catchment area
- Upgraded STW with increased lifespan
- Nutrient credits generated to off-set affordable housing programme requirements