

CABINET

3 February 2010

HOUSING SEWAGE TREATMENT WORKS IMPROVEMENTS

REPORT OF HEAD OF ACCESS AND INFRASTRUCTURE

Contact Officer: Patrick Aust Tel No : 01962 848254

Email:paust@winchester.gov.uk

RECENT REFERENCES:

[CAB1788 – Housing Sewage Treatment Works Improvements – 4 February 2009](#)

EXECUTIVE SUMMARY:

The Council has a long-term responsibility to maintain private (that is non-mains drainage connected) sewage treatment works held within the Housing Revenue Account.

This report details the position on current projects within the capital programme for Housing Sewage Treatment Works, expenditure for 2009/10 and a programme for 2010/11. No request for a carry forward of budget from 2009/10 is made, as the allocation of £200,000 for 2010/11 is sufficient to carry out the proposed programme.

RECOMMENDATIONS:

1. That the Head of Access and Infrastructure, in consultation with the Head of Landlord Services, be authorised to progress the programme for 2010/11 as outlined in the report, subject to funding being included in the Capital Programme.
2. That in accordance with Financial Procedure Rule 6.4, authority be given for release of expenditure for the Schemes set out in paragraph 4.1 of the Report.
3. That the Head of Access and Infrastructure be given delegated authority to make minor adjustments to the programme (including the bringing forward of identified reserve schemes) to meet the maintenance and operational needs of the City Council Sewage Treatment Works as required in consultation with the Head of Finance and Head of Landlord Services.

## CABINET

3 February 2010

### SEWAGE TREATMENT WORKS IMPROVEMENTS

#### REPORT OF HEAD OF ACCESS AND INFRASTRUCTURE

##### DETAIL:

#### 1. Introduction

- 1.1. The Council has a long-term responsibility to maintain the private sewage treatment works (STWs) held within the Housing Revenue Account. The primary purpose of this maintenance programme is to ensure that the operation of the STWs meet the Council's legal responsibility to comply with Environment Agency determined discharge standards. A secondary aim is to reach standards which make the STWs adoptable by the statutory undertaker, Southern Water. It is important to recognise that adoption involves far more complex issues than just those relating to the functioning of the STW plant, and this makes adoption a slow and unpredictable process.
- 1.2. This report updates Cabinet on progress in the last year and details the position on current projects within capital programme for Housing Sewage Treatment Works with expenditure for 2009/10 and sets out a programme for 2010/11.

#### 2. Update on Current Projects

##### 2.1. Couch Green, Martyr Worthy

This plant was initially installed during the 1950's and as it is reaching the end of its useful life, it requires replacement. Agreement in principle on the acquisition costs has been reached, but issues on the title need to be resolved before the acquisition has been completed. Officers are continuing to work with the owner's agents to resolve these. It had been intended to carry out construction of a new STW during 2008/09 and 09/10 but this will have to be deferred to 2010/11 provided the land becomes available.

##### 2.2. St Marys Close, Droxford

The existing septic tank serving these properties is starting to fail and it is proposed to install a pump station to transfer effluent to the treatment plant at The Park. The line of the pumping main runs through third party land and negotiations by land agents employed by the Head of Estates have yet to agree the necessary easements. The negotiations on the acquisition of the necessary easements are continuing, but it may be necessary to consider the use of statutory powers to bring the matter to a conclusion. This work had been scheduled for 2008/09 and 09/10 but will have to be deferred to 2010/11 once negotiations on the easements are completed.

### 2.3. Basingstoke Road, Old Alresford

A new pumping station has been adapted from the existing septic tank at Basingstoke Road and effluent is now pumped to the improved Sewage Treatment Works at The Brook.

### 2.4. North Drive, Littleton

A new treatment works has been installed at North Drive to replace the existing septic tank and trickle filter which were in a poor condition.

### 2.5. Itchen View, Itchen Stoke (reserve site)

Due to the unavailability of the land at Couch Green, this reserve site as identified in the 09/10 Report has been brought forward to this year. The septic tank at Itchen View, Itchen Stoke is reaching the end of its useful life and is to be replaced by a package treatment plant with work commencing by March 2010.

### 2.6. The Brook, Old Alresford

In order to accept the new flow from Basingstoke Road, it became apparent that improvement works would have to be carried out at The Brook which entailed the addition of a Humus Chamber (a large tank to intercept and prevent debris from the filter entering the reed bed) and an extension to the existing reed bed. This work has been completed with the exception of new reeds which will be planted in the spring.

### 2.7. Telemetry

The telemetry system helps in identifying malfunctions and providing management information on the Councils STWs. It is a requirement of all works being adopted by Southern Water and increasingly a requirement of the Environment Agency discharge consents. There are now 27 sites connected to the master station in City Offices, as follows:

- Long Priors STW, West Meon
- Widley Walk STW, Widley
- The Park STW, Droxford
- Wine Cross STW, North Boarhunt
- Birch Hill STW, North Boarhunt
- Kiln Lane STW, Old Alresford
- Big Tree Cottages STW, Soberton
- Woodlane Close STW, Bramdean
- Woodlane Close PS, Bramdean
- Woodman Close STW, Sparsholt
- Beech Grove STW Owslebury
- The Pastures PS, Cheriton
- The Pastures STW, Cheriton
- The Brook STW, Old Alresford
- The Brook PS, Old Alresford

- Southbrook Place, Micheldever
- Cricket Close STW, Crawley
- Hobbs Close STW, Bishops Sutton
- Hobbs Close PS, Bishops Sutton
- Granville Place, Winchester
- Oak Close, Upham
- Elm Crescent, Upham
- Woodlark Cottages, Brighton
- Hazeldene Gardens PS, Itchen Abbas
- Northington Road, Itchen Abbas
- North Drive, Littleton
- Basingstoke Road, Old Alresford

When improvements are carried out on any site, telemetry will be installed as part of the works.

## 2.8. Southern Water Adoptions

Cabinet on 26 March 2008 welcomed proposals to pursue a test case on the most appropriate scheme. Depending upon the outcome of this case, Cabinet would wish to see the Council pursue further cases for adoption by Southern Water. The Head of Legal Services served notice on Southern Water to commence a formal process to require them to adopt properly constructed sewage disposal facilities invoking the statutory provisions in Sections 102 and 105 of the Water Industry Act 1991 (which provides a notice and appeal procedure involving OFWAT).

Notice was served relating to The Brook STW at Old Alresford and a meeting was held with representatives of Southern Water on 29 April 2009 at the site. Although it was pointed out by Southern Water that there were a few minor irregularities between EA consent and what appeared on the ground (the grid reference for the drainage field was incorrect and the reed bed was marginally undersized), they stated that as the Environment Agency was conducting a general review of all discharge consents under 1998 Groundwater Regulations they would not be prepared to consider adoption until this review had taken place. Improvements have taken place at The Brook, errors have been corrected and a new application has been made to the EA for a revised Consent to Discharge. Once the new consent has been received then a new application for SW to adopt will be made.

An approach has been made to Albion Water to see if they are interested in taking out an Inset Agreement with OFWAT to adopt some of our treatment plants. Although information has been supplied to them regarding expenditure and income that we receive from the plants, as yet no firm commitment has been made by them and negotiations are continuing.

## 2.9. Sampling of STW

Sampling is now carried out on a monthly basis at 22 of the Council's 37 sewage treatment works, of which 16 are subject to Environment Agency

Quality Consent Orders. This is a key performance indicator of how well a STW is performing. Samples are taken from works that offer secondary and tertiary treatment. Septic tanks will not reach a meaningful level of purity and are not tested: A programme of works is in hand to replace these with more environmentally friendly treatment works, which will be tested.

3. Budget Expenditure 2009/10 - Approved Allocation £200,000

<u>STW</u>	<u>Spend/Allocated to date</u>	<u>Comments</u>
Couch Green	(£160,000)	Land not forthcoming so construction deferred to 2010/11
St Marys Close	(£20,000)	Easements not completed so construction deferred to 2010/11
Basingstoke Road, Old Alresford	£32,000	Adaption of existing works as a pump chamber with new pumps, controls and telemetry
North Drive, Littleton	£50,000	Provision of package treatment works to replace septic tank and trickle filter. NB: It will be necessary to carry some of this allocation into 2010/11 the amount will depend on progress with implementation.
The Brook, Old Alresford	£10,000	Install humus chamber and extend reed bed.
Itchen View, Itchen Stoke (Reserve Site)	£50,000	New treatment plant to replace existing septic tank
	<b><u>£142,000</u></b>	

The budget for 09/10 will be under spent for the reasons already stated. Carry forward is not requested as budget for 2010/11 is sufficient to complete the proposed programme of works.

4. Budget Programme 2010/11- Proposed Allocation £200,000

<u>STW</u>	<u>Budget</u>	<u>Comment</u>
Couch Green, Martyr Worthy	£180,000	Construction of new STW upon completion of anticipated land purchase.
St Mary's Close, Droxford	£20,000	Pump station and pump main to connect to The Park STW once easement has been agreed.

Reserve Sites	(£50,000)	Warren Cottages, Micheldever
	(£50,000)	Railway Cottages, West Meon
Total to be allocated	<u><u>£200,000</u></u>	

## 5. Conclusion

- 5.1. The programme of works for 2009/10 saw work commence at Basingstoke Road, Old Alresford, North Drive, Littleton and The Brook, Old Alresford.
- 5.2. The allocation of £200,000 for 2009/10 was not fully spent as land for a new works at Couch Green and an easement for a pumping main at St Marys Close was not forthcoming. A new works at Itchen View, Itchen Stoke was brought forward, having been identified as a reserve site in the 2009/10 Housing Sewage Treatment Works Improvements Cabinet Report (CAB 1788 refers).
- 5.3. Appendix A attached to this report provides a summary of the current situation with regards to all of the Council's 37 STWs.

## OTHER CONSIDERATIONS:

### 6. FUTURE CAPITAL EXPENDITURE

- 6.1. Once the treatment plant at Couch Green has been replaced all the major sewage treatment plants that are owned by Winchester City Council will have been replaced or upgraded in recent years to an acceptable standard. As such future works are likely to cost less and an annual budget of around £100,000 is considered adequate from 2011/12 onwards. This would allow one or two small scale schemes to be completed per year including priority schemes for Warren Cottages, Railway Cottages, The Hallways, Baring Close and Headon View. If the programme set out in this report is agreed then the capital allocation from 2011/12 to 2016/17 can be reduced to £100,000pa.

### 7. SUSTAINABLE COMMUNITY STRATEGY AND CORPORATE BUSINESS PLAN (RELEVANCE TO):

- 7.1. To maintain the Council's assets and to promote, maintain a clean, safe and healthy environment.

### 8. RESOURCE IMPLICATIONS:

- 8.1. As detailed in the report, The Council's Capital Programme includes a provision of £200,000 per annum for Sewage Treatment Works. The forecast underspend will be taken into account when the final figures are known at the year end and incorporated into the next review of the capital programme in July.

## 9. RISK MANAGEMENT ISSUES

9.1. All treatment plants are subject to an Environment Agency discharge consent and failure to meet the consent conditions may lead to prosecution. By continual upgrading of elderly works, the risk of plant failure and therefore the risk of prosecution is considerably reduced.

## 10. TACT Comment

10.1. The TACT Chairs realise the importance of keeping the maintenance and operational needs; of the City Council Sewage Treatment Works up to the required standards, and replaced when the time comes. This is a costly business and the capital programme as TACT understands it bears the brunt of the cost. TACT hopes whenever possible private residents share in the cost. TACT therefore TACT supports this programme of essential work, for what is in fact classed as a HRA asset.

Alan Rickman Beryl White TACT Chairs

## BACKGROUND DOCUMENTS:

Documents are kept on Engineering Services file ref. 140000

## APPENDICES:

Appendix A –Current review of all Sewage Treatment Works.

**Current Review of all Sewage Treatment Works**

STW	SWS Adoption	No. Prop	E.Agency Discharge*	Budget £'000	Poss Adoption Year	Comments
Station Hill Itchen Abbas	Possible	27	9	250	2010	Now redundant and replaced by works at Northington Road
Oak Close Upham	No	6	2.34	49.9	N/A	New works commissioned 2006
Elm Crescent Upham	No	6	3.5	54	N/A	As Above
Basingstoke Rd Old Alresford	No	6	3.5		N/A	New Pumping Station installed in October 2009 and effluent being sent to The Brook for Treatment.
Pound lane Meonstoke	No	25	20		N/A	Refurbishment carried out in 2006 and life expectancy extended by approx 9 years
St Andrew's Green Meonstoke	No	12	5.85	50	N/A	Existing works to be replaced in next few years
Baring Close Itchen Stoke	No	12	2.34	TBA	N/A	Works to be investigated and scheme prepared in negotiation with land owner Land negotiations continuing.
Cricket Close Crawley	No	9	6		N/A	New works completed & commissioned 04/05
Woodlark Cottages Bishop's Sutton	No	4	2.34	32	N/A	Replacement STW commissioned in 2006
Hobbs Close Bishop's Sutton	Possible	28	13		2007	New Works completed & commissioned 04/05
Couch Green Martyr Worthy	Possible	22	16.5	120	2007	Land negotiations at advanced stage, planning application submitted and design commenced. In programme for 2010/11
Railway Cottages West Meon	No	6	?		N/A	Septic tank failing. Possibility of connection to new development being investigated.
North Drive Littleton	No	10	10	10	N/A	New treatment plant installed May 2009
Westwood View Kilmerston	No	10	5.85		N/A	Underground suction pipe laid in Feb 2004. No further work envisaged.
Itchen View Itchen Stoke	No	6	4.5		N/A	No works planned.
Lambourne Close Sparsholt	No	4	2.34		N/A	No works planned
The Hallways Littleton	No	14	8.8		N/A	Replacement works required in next two years
Crawley Cottages STW Crawley	No	8	3.5	0	N/A	Septic Tank - No works planned at present.



The Goodens STW Cheriton	No	8	6	25	N/A	Land purchase for access road completed and boundary fenced in 2008.
Stratton Close STW East Stratton	No	6	3.5		N/A	New soakaway completed 2002.
Warren Cottages STW Micheldever Station	No	4	2.34	32	N/A	Septic tank & soakaway system requires replacement with next one or two years.
St Mary's Close STW Droxford	No	6	3.5	20	N/A	Septic tank at end of useful life. Proposal to pump effluent to The Park STW dependant on land acquisition that is progressing. In 10/11 programme
Gorse Down STW Owslebury	No	6	3.5		N/A	No works planned.
Old Stoke Road STW Stoke Charity	No	6	3.5		N/A	Underground sludge suction pipe required – consent being sought from the land owner.
Big Tree Cottages STW Soberton	No	14	8.2	0	N/A	Works to reduce ingress of water into plant completed May 04.
Kiln Lane STW Old Alresford	yes	14	14, 40/60		N/K	Inconsistent test results. May need reed bed to polish final effluent.
Wine Cross STW Boarhunt	No	8	8, 20/30		N/A	Improved 1996, not adoptable. Land is lease hold
Long Priors STW West Meon	yes	40	40, 40/60		2007	Reed bed installed during March 2004 – monitoring of plant carried out to establish success.
The Park STW Droxford	yes	34	19.9, 40/60		N/K	New compressor installed at works has improved quality of effluent so that it is within EA quality standard.
Birch Hill STW Boarhunt	No	14	11, 40/60		N/A	Improved 1997, not adoptable no freehold access New sample chamber installed
Widley Walk STW Widley	No	8	6, 20/30		N/A	Improved 1999, not adoptable no freehold Problems with meeting EA consent standards required alterations to aeration system that appears to be effective.
Woodlane Close STW Bramdean	yes	26	20, 40/60		2007	Initially completed in 2000, SW required additional works. Which were completed in 2004/05.
Beech Grove STW Owslebury	No	71	49.5, 20/30/2.5		N/A	Completed 1999, not suitable for adoption for legal reasons. Additional work to reed beds required to meet EA standard completed in October 2004.
The Pastures STW Cheriton	Probable	19	12		2005/06	Improved 2001, offered to SWS for adoption
The Brook Old STW Alresford	yes	15	15, 20/30		2007	Completed & awaiting adoption. Humus tank and extension to reed bed 2009.
Woodman	Probable	86	48		2007	Improved 2002, offered to SWS for adoption

Close Sparsholt						
Southbrook Place STW Micheldever	Probable	56	46, 40/60		2007	Completed 2002 offered to SWS for adoption

\*Environment Agency Consent is given as a volume that can be discharged from the works and on 11 treatment works they also require the effluent be below a minimum level set by themselves for Biochemical Oxygen Demand (BOD) and Suspended Solids (SS). Hence figures in this column are VOL,BOD/SS, Beech Grove has a further requirement for the amount of ammonia discharged.