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|-------------------------|---|
| MEETING | THE COUNCIL |
| DATE | 21 JANUARY 2010 |
| SUBJECT | WASTE STRATEGY |
| AUTHOR | DILWYN WILLIAMS Corporate Director |
| PURPOSE | To adopt the strategy for the period 2010 to 2025 in order to meet the Council's objectives and external requirements placed upon the Council. |
| PORTFOLIO LEADER | COUNCILLOR W GARETH ROBERTS |

1 Background

- 1.1 In October 2005 the Environment Committee adopted a work programme in order to deliver the waste strategy established at the time.
- 1.2 Things have now moved forward substantially and there is a need to review our position by drawing up a new programme which will take us forward to 2025 and beyond.
- 1.3 The purpose of the strategy is to reduce the waste that goes into landfill sites and there are several drivers that take us down this path.
- 1.4 Obviously the first consideration is the ecological footprint. In addition to using up the world's scarce raw materials, placing waste in landfill substantially increases greenhouse gases (with methane 21 times more damaging than CO²).
- 1.5 With this in mind the European Parliament have set allowances on the decomposable waste that is sent to landfill sites and if the Council sends more than the allowance then there will be financial penalties to pay. There are therefore also economic drivers to the strategy. [Even though some of the suggestions noted in the strategy appear more costly than landfill – when the penalties for landfill allowances are considered together with the expected increases in the rate of the landfill tax the pendulum swings the other way.]
- 1.6 The Assembly Government has also set targets for other elements in connection with recycling and what can be sent to landfill and the strategy also endeavours to address these targets. The Minister for the Environment, Sustainability and Housing has noted that she intends to make some of these targets statutory in due course which could mean more financial penalties.

She has also noted her intention to prohibit some materials (e.g. food, paper, cans etc) being sent to landfill sites.

1.7 In reality therefore the financial threat could be more than that noted in the strategy.

2 The Strategy

2.1 Section 6 of the attached report details the contents of the strategy for the period to come and the related programme of activity.

2.2 The Head of Highways and Municipal Services will give a brief presentation to the Council summarising the strategy's direction and explaining its content.

2.3 Whilst there are 12 specific elements noted, the elements that will cost the most are :-

- Establish provision to deal with food waste (Gwyrriad Project) (Paragraph 6.1.9)
- Establish shared arrangements across North Wales to deal with remaining waste (Paragraph 6.1.11);

The Assembly Government will offer financial assistance to establish these facilities which will assist the business case. However it will also mean a substantial investment from the Council. The cost would be much higher however if we did not undertake this provision.

The difference is stated in graph form in Appendix D of the original report. Following a further review of the figures it was identified that the original graph did not include inflation figures for the cost of collection. This does not alter the overall conclusion but for the sake of accuracy, detailed figures and a revised graph are included in appendices 1 and 2.

2.2 In relation to the effect on residents the main effects will be -

- The intention to increase the recycling collections frequency (blue box) and food to weekly; (paragraph 6.1.1.)
- The consideration that must be given to decrease the capacity of the green bin or consider decreasing collection frequency further (paragraph 6.1.7)

2.3 Of course, once the appropriate infrastructure is in place, the key to the continuing success of the strategy will be an increased emphasis on education and persuasion. (Paragraph 6.1.8)

3 **Consideration by the Council**

- 3.1 It must be underlined that there are very serious consequences if the Council fails to deliver the strategy.
- 3.2 If the Council adopts the strategy, we will then move forward to develop the various elements and the Board will be responsible for considering the detailed business cases for those elements.
- 3.3 The strategy has already been presented to the Environment Scrutiny Committee and that Committee's view was to recommend that the Council should adopt the strategy whilst noting that it will mean facing difficult decisions in the future if we are to reach the relevant targets.
- 3.4 Obviously this will also mean a substantial investment by the Council (even though additional assistance is given by the Assembly Government) and the Council is asked to adopt the strategy and the consequent investment requirements.

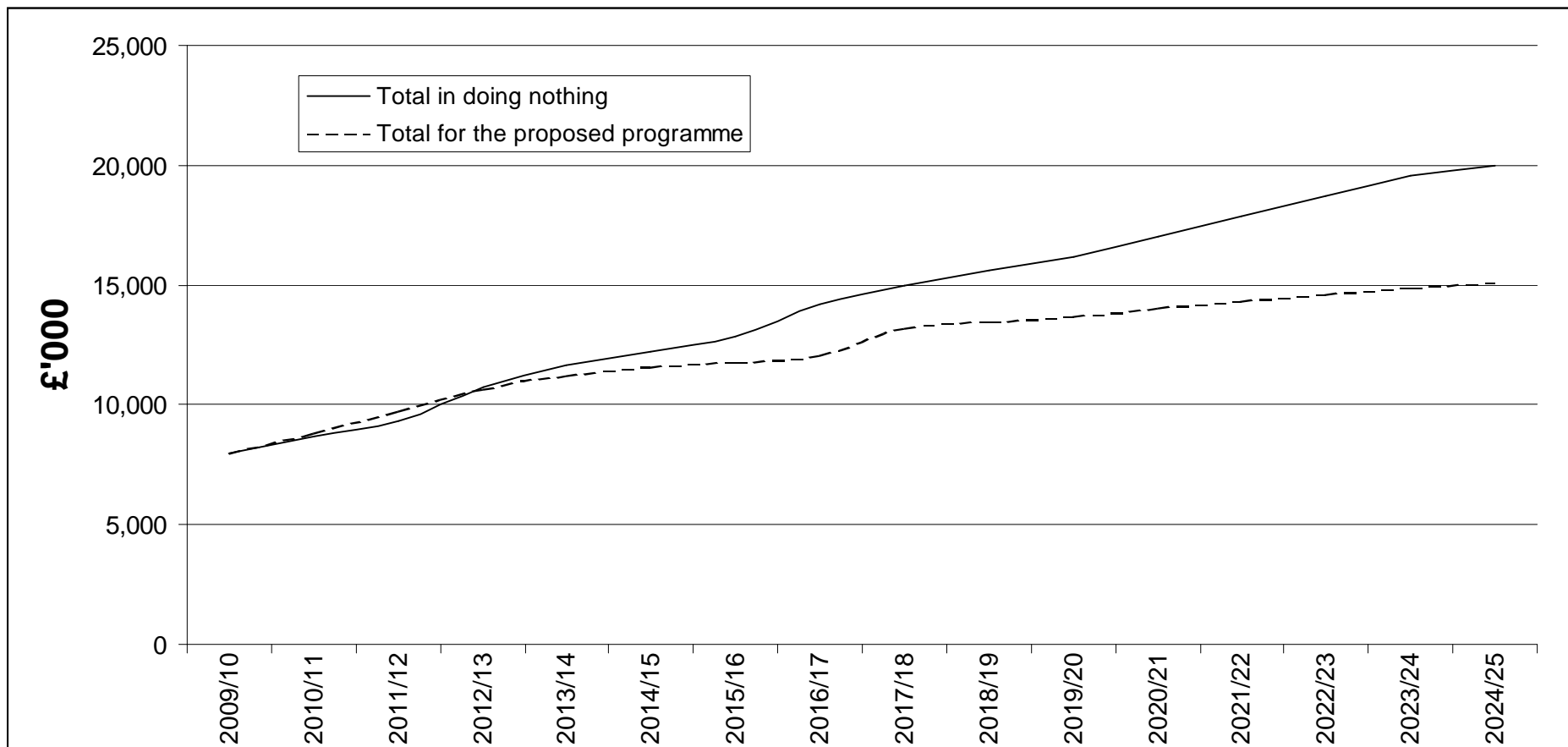
APPENDIX 1

FINANCIAL COMPARISON OF THE STRATEGY COMPARED WITH DOING NOTHING

Do Nothing

| | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | 2024/25 |
|------------------------------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Management and Awareness | 572 | 587 | 601 | 616 | 632 | 648 | 664 | 680 | 697 | 715 | 733 | 751 | 770 | 789 | 809 | 829 |
| Direct Disposal Costs | 3,498 | 3,585 | 3,675 | 3,767 | 3,861 | 3,958 | 4,057 | 4,904 | 5,263 | 5,395 | 5,530 | 5,657 | 5,788 | 5,921 | 6,058 | 6,198 |
| Landfill tax (1) | 1,746 | 2,220 | 2,590 | 2,989 | 3,397 | 3,517 | 3,640 | 3,731 | 3,825 | 3,920 | 4,018 | 4,078 | 4,138 | 4,199 | 4,261 | 4,324 |
| LAS Penalties | 0 | 0 | 0 | 745 | 979 | 1,214 | 1,449 | 1,633 | 1,816 | 2,000 | 2,183 | 2,631 | 3,079 | 3,528 | 3,977 | 3,956 |
| Collection Costs | 5,555 | 5,694 | 5,837 | 5,982 | 6,132 | 6,285 | 6,442 | 6,603 | 6,769 | 6,938 | 7,111 | 7,289 | 7,471 | 7,658 | 7,849 | 8,046 |
| Waste Management Grant | (3,372) | (3,372) | (3,372) | (3,372) | (3,372) | (3,372) | (3,372) | (3,372) | (3,372) | (3,372) | (3,372) | (3,372) | (3,372) | (3,372) | (3,372) | (3,372) |
| Total Costs | 7,999 | 8,714 | 9,331 | 10,727 | 11,629 | 12,250 | 12,880 | 14,179 | 14,998 | 15,596 | 16,203 | 17,034 | 17,874 | 18,723 | 19,582 | 19,981 |
| Effect of the Strategy | | | | | | | | | | | | | | | | |
| Additional GwyriAD costs (net) | 0 | 38 | 38 | 801 | 810 | 826 | 842 | 859 | 876 | 893 | 911 | 929 | 948 | 967 | 987 | 1,007 |
| Additional costs Energy from Waste | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,539 | 3,485 | 3,426 | 3,441 | 3,371 | 3,356 | 3,285 | 3,145 |
| Savings in disposal costs | (39) | 35 | 93 | (204) | (199) | (192) | (173) | (915) | (1,476) | (1,529) | (1,584) | (1,626) | (1,683) | (1,733) | (1,793) | (1,865) |
| Savings in landfill tax | 0 | (137) | (308) | (511) | (646) | (735) | (1,011) | (1,125) | (3,603) | (3,693) | (3,786) | (3,842) | (3,898) | (3,956) | (4,014) | (4,073) |
| Savings in LAS penalties | 0 | 0 | 0 | (745) | (979) | (1,214) | (1,449) | (1,633) | (1,816) | (2,000) | (2,183) | (2,631) | (3,079) | (3,528) | (3,977) | (3,956) |
| Additional collection costs | 0 | 192 | 611 | 626 | 642 | 658 | 674 | 691 | 708 | 726 | 744 | 763 | 782 | 801 | 821 | 842 |
| Strategy Total | 7,960 | 8,842 | 9,765 | 10,694 | 11,257 | 11,593 | 11,763 | 12,056 | 13,226 | 13,478 | 13,731 | 14,068 | 14,315 | 14,630 | 14,891 | 15,081 |

COMPARISON OF THE PROGRAMME AGAINST DOING NOTHING



ITEM

| | |
|--|---|
| SCRUTINY COMMITTEE | ENVIRONMENT SCRUTINY COMMITTEE |
| DATE OF MEETING | 3 December, 2009 |
| TITLE | Achieving the Waste Strategy |
| AUTHOR | Gwyn Morris Jones Head of Highways and Municipal |
| PORTFOLIO LEADER | Councillor W. Gareth Roberts |
| | |
| What needs to be scrutinised and why? | Implementation steps and developments recommended for the period 2010 to 2025 in order to manage waste in addition to the obligations upon the Council of not implementing |
| Is there anything else the Scrutiny Committee are required to do? | The appropriateness of the Improvement Plan in terms of meeting the Council's Waste Strategy and that of the Assembly. |
| What are the next steps? | To report on this matter to the Board and subsequently to the Council in its meeting of 25 February, 2010 together with comments received from this Scrutiny Committee. |

1. INTRODUCTION

- 1.1 In order to meet recycling and composting targets together with landfill restrictions, the Council's Waste Strategy includes an Implementation Plan (see Appendix A), which sets out the steps, changes, developments and provisions necessary between 2005 and 2010.

The main purpose of this Report is to explain the Implementation Plan for 2010 to 2025; to identify the steps, changes, developments and provisions necessary to meet the Council's Waste Strategy and new and ambitious targets set by the Assembly for the reduction of waste, recycling, composting and restrictions on landfill.

It should be noted that the development of alternative technology is required to meet significant limitations on landfill during the period being considered; and that these significant developments have long term obligations on the Council in terms of contractual, partnering and financial commitments.

In order to emphasise the case and justification for the developments recommended during the 2010 – 2025 period, the Report includes consideration of the obligations on the Council of not implementing i.e. do nothing compared to implementing the development.

2. BACKGROUND

- 2.1 The Council’s Waste Strategy is relevant to Municipal Waste, which is defined as the waste collected from households; litter collected in bins, by street sweeping and by beach cleaning; waste delivered to council recycling centres, municipal parks and garden wastes; and commercial waste collected where agreements with Gwynedd Council are in place.
- 2.2 The management of municipal waste is one of the most important and challenging environmental issues facing Wales. The Council’s Waste Strategy aims to contribute significantly to meeting the Welsh Assembly Government aspirations to manage waste in a sustainable manner to protect the environment, human health and ensure economic and social benefits.
- 2.3 Gwynedd Council has identified the Waste Strategy as one of its most important strategies having priority due to its aims of ensuring Sustainable Communities. The Waste Strategy can be summarized as follows:

“to reduce the amount of waste produced and to substantially reduce our dependency on landfill by increasing recycling and composting levels”.
- 2.4 The Welsh Assembly Government has set targets on Local Authorities in Wales to further recycling and composting which increases annually. In addition, an allowance is set against each local Authority pertaining to the amount of biodegradable waste that can be disposed of by landfill. The statutory “Landfill Allowance” reduces on an annual basis and substantial infraction fines (at least £200/tonne over the allowance) relate to any local authority that fails to keep within its allowance.
- 2.5 This Scrutiny Committee is aware that the Welsh Assembly Government (WAG) has recently consulted on its latest strategy: ‘Towards Zero Waste – One Wales: One Planet’. This matter was considered by the Environment Committee in its meeting 11 June, 2009.

The following is a summary of the main drivers in the new Waste Strategy:

- a long term aim to make Wales a Zero Waste Nation by 2050
- a mid term aim of achieving a high recycling society by 2025
- set target of 70% waste being recycled/composted by 2025
- limit the amount of municipal waste than can be landfilled annually to 10% in 2020 and 5% in 2025
- emphasis on separation and treatment of food waste
 - 12% of food waste must be composted by 2012/13
 - 14% of food waste must be composted by 2015/16
 - 16% of food waste must be composted by 2024/25
- emphasis on developing Anaerobic Digestion (AD) technology for the treatment of food waste
- set a 30% maximum level of waste that can be treated by means of Energy From Waste by 2024/25
- set a maximum annual limit of 150kg waste per household inhabitant by 2024/25.

As part of the Strategy, the Welsh Assembly Government intends to develop a 'sector plan' for municipal waste. It is anticipated that this sector plan will include more details of the annual targets set up to 2050 and provide confirmation of the exact recycling and food waste targets. I understand that the Sector Plan will not be available until spring 2010.

It should be noted that the Welsh Assembly Government is considering making the composting and recycling targets (including targets for food) statutory i.e. penalties would be expected if the Local Authority failed to meet the targets. This is in addition to the possible infraction fines associated with the biodegradable landfill allowance. I expect confirmation of this in the sector plan.

3. DEVELOPMENTS TO DATE (2005 – SEPTEMBER 2009)

- 3.1 A summary of the Implementation Plan deriving from the Waste Strategy is provided in Appendix A of this Report. This Implementation Plan is relevant to the 2005 to 2010 years.

- 3.2 The Scrutiny Committee is aware of the fact that we have developed a more detailed Implementation Plan i.e. the 5 Year Works Programme from 2005/06 to 2009/10 (see Appendix B).

The 5 Year Works Programme was developed on the basis of:

- The Waste Strategy
- The Best Value Review
- The Peer Review
- The Service, Directorate and Council Improvement Plan
- The Assembly's targets and Environment Agency Legislation.

All of the individual elements of the 5 Year Works Programme were evaluated in order to:

- identify annual capital and revenue costs to the Council
- identify capital, revenue and grant bids.

The 5 Year Works Programme has been used to monitor performance and used as our working plan.

- 3.3 These are the main outcomes/developments since 2005 to date (September 2009):

- The closure of the Cilgwyn disposal site
- Development of the Llwyn Isaf disposal site
- Development of the Ffridd Rasus disposal site – to conform with new statutory environmental legislation
- Development of 5 new recycling centres (Civic Amenity Sites) – Harlech, Bala, Bangor, Caernarfon, Pwllheli
- Development of a Materials Recovery Facility (Caergylchu)
- Development of 2 In-Vessel Composting Facility – Penhesgyn and Harlech
- Expansion of the kerbside (blue box scheme) collection of recyclates to over 90% of households in Gwynedd
- Expansion of the kerbside collection to include cardboard and bottled plastics
- Provide for the collection of garden waste to 70% of households in Gwynedd
- Establishment of over 30 new recycling/community bring banks
- Expansion of garden waste collection to include food waste
- Expansion of commercial waste recycling schemes.

+ changing recyclates collection (blue box) to a weekly service.

3.4 Members of the Committee will note that the majority of the original Implementation Plan has already been achieved. Another year remains of the Implementation Plan and it is intended to:

- Rationalize waste collection/recycling routes in the Arfon Area: January 2010
- Expand the collection of garden and food waste to the remainder of the Arfon Area: January 2010
- Expand the collection of recyclates and food waste to the Commercial Waste Service
- Establish 2 new recycling centres
- Establish a Material Recovery Facility in the south of the County
- Secure the Cilgwyn Landfill Site.

3.5 As a consequence of what has been described in 3.3 and 3.4 above, the Implementation Plan established in 2005 will have been completed.

4. PERFORMANCE TO DATE (2005 – SEPTEMBER 2009)

4.1 The following table summaries the Council's performance during this period in relation to the targets set by the Welsh Assembly Government.

Performance 2005 – September, 2009

| Recycling/Composting | | | | | Landfill Allowance (Biodegradable Municipal Waste) | | | Total Municipal Waste | |
|----------------------|---|------------------|----------------|---------------------|---|------------------|------------------------|--------------------------|----------------------------------|
| Year | Target (recycling and composting) % | Performance % | Recycling % | Compostin g % | Allowable Tonnage t | Performance t | Allowance used % | Total Landfilled t | Total Municipal Waste t |
| 2005/06 | | 23.88% | 12.95% | 10.93% | 42076 | 35405 | 84% | 60,180 | 80,612 |
| 2006/07 | 25 | 25.24% | 14.54% | 10.70% | 38796 | 35703 | 92% | 59,932 | 81,645 |
| 2007/08 | | 32.04% | 17.61% | 14.43% | 35512 | 31867 | 90% | 54,477 | 82,661 |
| 2008/09 | | 35% | 18.79% | 16.06% | 32229 | 28717 | 89% | 50,512 | 79,866 |
| September, 09 | | 40.01% | 19.60% | 20.41% | (14462.5) | (12494) | (86%) | (25,220) | (43,235) |
| 2009/10 | 40 | | | | 28925 | | | | |

4.2 From the above table, it can be seen that Gwynedd Council, in delivering its Implementation Plan, has met the Assembly’s recycling and composting targets for 2006/07; and has already reached its recycling and composting targets for the end of March, 2010 i.e. 40%. During this period, Gwynedd Council kept within its landfill allowance and hence the Council did not attract financial penalties as a consequence.

4.3 During this period, an average annual increase of 1% was experienced in the total municipal waste produced in Gwynedd; apart from 2008/09 where there was a reduction.

5. FUTURE TARGETS TO BE MET (2010-2025)

5.1 The tables below summarise what we understand to be the targets the Assembly will set for the period under consideration. The exact target figures will be confirmed by means of the Assembly’s Sector Plan anticipated early in 2010.

| Targets for: | Targets for Each Target Year | | | | |
|--|------------------------------|-----------|-----------|-----------|-----------|
| | 2009/2010 | 2012/2013 | 2015/2016 | 2019/2020 | 2024/2025 |
| Minimum levels of refuse and recycling/composting (or AD). | 40% | 52% | 58% | 64% | 70% |
| Minimum Proportion of reuse/recycling/composting that must come from source separation (kerbside, bring and/or civic amenity (CA) site). | 80% | 80% | 80% | 80% | 80% |
| Minimum levels of composting (or AD) of source separated food waste from kitchens as part of the combined recycling/composting target above. | - | 12% | 14% | 16% | 16% |
| Maximum level of residual household waste per inhabitant per annum. | - | 295kg | 258kg | 210kg | 150kg |
| Maximum level of landfill. | - | - | - | 10% | 5% |
| Maximum level of energy from waste. | - | - | 42% | 36% | 30% |

Landfill Allowance during the Period

| Year | Tonnes |
|-------------|---------------|
| 2009/10 | 28,925 |
| 2010/11 | 28,909 |
| 2011/12 | 25,238 |
| 2012/13 | 21,567 |
| 2013/14 | 20,649 |
| 2014/15 | 19,731 |
| 2015/16 | 18,814 |
| 2019/20 | 15,143 |
| 2024/25 | 5,000 |

5.2 The ambitious targets (up to 70%) for recycling/composting should be noted in addition to the need to increase and collect food waste from 2012/13. The landfill allowance reduces significantly in 2012/13 and by 2020, only 10% of the total waste can be landfilled – this reduces to 5% by 2025. There is a limit as to the amount of waste that can be used to create energy from 2015/16 – reducing to 30% by 2024/25.

6. HOW TO ACHIEVE THESE TARGETS – THE 2010-2025 IMPLEMENTATION PLAN

Preface

Appendix C of this Report contains a table that summarises the range of materials expected in municipal waste. Following research carried out by the consultants Eunomia on behalf of the Assembly, the proportion of each material has been identified as a percentage of the total waste.

It is anticipated that the municipal waste total for Gwynedd will be approximately 82000 tonnes for this year and the table includes our estimate of what in tonnages per material will be collected by the end of this financial year i.e. 2009/10.

The table includes the tonnages, per material, of what will have to be collected if the Assembly's future targets for recycling/composting are to be met i.e. 52% (2012/13), 64% (2015/16) and 70% (2024/25).

It should be noted that an increase in the total amount of municipal waste is expected during this period (see Section 7 of this Report). The table shows a scenario where there is no growth in the total waste.

It can be seen from the table in Appendix C, that there will be a need to increase substantially on what is collected of the following materials: food, cardboard, paper, plastics and cans – if we are to succeed in meeting the targets set during the period being considered. The recommended Implementation Plan that follows derives and is based upon this need.

6.1 These are the steps/developments recommended and necessary to implement during this period in order to meet targets, avoid financial penalties and substantial increases in costs to the Council:

6.1.1 Rationalization of Collection Routes in the Arfon Area – January 2010

- change recyclates collection (blue box) to weekly
- extend garden and food collection to the remainder of Arfon (approximately 9000 dwellings remaining)
- to ensure that the recycling/composting target for 31 March, 2010 is met i.e. 40%.

6.1.2 Review Commercial Waste 2009/10 to 2010/11

- Extend the range of recycling materials collected from traders
- Ensure facility for the segregation of recycling materials
- Provide food waste collection service
- Ensure differential fee charging to promote recycling and separate food waste.

6.1.3 Provide Additional Recycling Centres 2010/11

- 2 new sites i.e. Dolgellau and Blaenau Ffestiniog under consideration
- review location Rhyngddwryd/Porthmadog
- increase the centres' recycling levels (currently 63%)
- process a greater range of recyclates
- review usage and provision.

6.1.4 Provide Materials Recovery Facility to the south of the Country 2010/11

- site at Blaenau Ffestiniog under consideration.

6.1.5 Adaptations to the Caerylchu Material Recovery Facility 2010-2012

- in order to process a greater range of materials
- in order to deal with a greater volume of materials.

6.1.6 Expand Recyclates Collection (blue box) to include other materials 2010-2012

- to include poor grade plastics
- to consider practicality of collecting 'tetrapaks'.

6.1.7 Reduce the size of the residual waste receptacle (2010 onwards)

- current standard green bin is 240 litre – this needs to be reviewed in light of reduced usage
- consider alternative: amendment to collection frequency.

6.1.8 Other Measures Required to Increase Recycling and Composting (2012-2017)

- educational campaigns, raising awareness and enforcement
 - including adopting policies in support
- complete programme of changes to community collection points
 - to include provision for recycling/collection of food waste
- review the garden waste collection arrangements
 - consideration of fee charging for the provision
 - review size of receptacle
- alterations to the waste collection routes
 - to reflect increasing demand/usage of recycling
 - to reflect decrease in residual waste
 - to assist/simplify arrangements for residents
 - to ensure efficiencies
- expand recycling provision on our streets
 - recycling bins on streets.

6.1.9 Treatment of Food Waste (GwyrAD Project) 2012/13 onwards

In order to keep within the biodegradable landfill allowance; and in order to meet the Assembly's targets for food waste, it will be necessary for the Council to have Anaerobic Digestion (AD) provision in order to compost food waste.

This matter received the attention of the Scrutiny Committee in its meeting of 11 June, 2009. The support of the Committee was obtained to submitting an Outline Business Case to the Assembly for an AD.

Appendix Ch of this Report contains further information on Project GwyrAD in the form of a newsletter.

Due to the substantial decrease in the biodegradable landfill allowance in 2012/13, there are efforts being made to ensure that the provision is in place by April, 2012, or soon after this date.

Despite the Council having 2 In-Vessel Composting facilities to compost garden and food waste (Ffridd Rasmus, Harlech and Penhesgyn – in partnership with Anglesey and Conwy Councils), it will be necessary to have AD provision in-place by 2012/13 to treat between 8000-12000 tonnes of food waste.

An ambitious programme has been set for Project GwyrAD i.e.:

- Project Initiation Document: approved April, 2009
- Reference Solution Chosen – i.e. Llwyn Isaf, Clynog
- Outline Business Case: approved August, 2009
- Conditional Approval: received August, 2009
- Stage 1 ‘Gateway’ Audit: passed 9 October, 2009
- Pre qualification Questionnaires: October/November, 2009
- Competitive Dialogue Period: December, 2009 – August, 2010
- Select Provider: September, 2010
- Final Business Case: September/October, 2010 – requires input from the Scrutiny Committee, approval of the Board and W.A.G.
- Appoint Provider: December, 2010
- Start Construction: April, 2011
- AD Operational: April to August, 2012.

A private company will build and operate the AD (over a period of 15 years). After this period, the facility will be transferred to the ownership of the Council.

Gwynedd Council has received a grant from the Assembly to fund the procurement work and development of the Final Business Case.

There is additional grant funding from the Assembly to assist in the capital costs of building the AD, with the provider funding the remaining building costs in addition to the operational costs. It is estimated that the cost of building the AD would be between £6 million and £7 million.

The Council will be expected to provide the AD facility with food waste and pay a gate fee per tonne delivered to the provider. W.A.G will contribute up to 15% of the gate fee.

After a period of negotiation with several potential providers (competitive dialogue), one provider will be selected to develop the project further. Subsequently, a Final Business Case will be produced which will be subject to the attention of this Scrutiny Committee, require approval by the Council Board and Welsh Assembly Government prior to entering into any contract with the provider for the construction and operation of the AD.

6.1.10 Collecting Food Waste Weekly (2011/12)

Project GwyrAD includes the need to collect food waste weekly from Gwynedd households. Trials carried out in other counties in Wales show the need for weekly collection of food waste if the Assembly targets (from 2012 onwards) are to be met, and in order to divert food waste from landfill by means of using AD technology.

In order to ensure weekly collection of food waste for Gwynedd residents, it will be necessary:

- to amend the fleet (refuse collection vehicles)
- procure and distribute 22 litre brown bins to 70% of Gwynedd's residents (30% of residents will have already received the 22 litre bin).
- ensure subsidiary grant (to the grant for GwyriAD) from the Assembly for the above purposes.

If the subsidiary grant become available earlier, it would be possible to introduce the weekly collection of food waste before 2011/12.

6.1.11 Treatment of Residual Waste (North Wales Residual Waste Treatment Project). (2016-2017 onwards)

With the statutory annual reduction in landfill allowance, it is apparent that the Council faces significant risks if it continues to be reliant upon landfill for future treatment of waste and especially from 2018 onwards. The new Assembly Strategy has a limit of 10% total waste that can be disposed of by landfill in 2020 which reduces to 5% by 2025.

As a consequence, there is a need for alternative technology to treat residual waste i.e. the waste that can not be recycled or composted during the period being considered.

There would be significant risks for the Council if it were to procure and establish its own facility for the treatment of residual waste that is diverted from landfill. The Scrutiny Committee is already aware of the fact that Gwynedd Council has given its commitment to establishing a partnership with Anglesey, Conwy, Denbighshire and Flintshire Councils for the purpose of seeking a solution to the municipal residual waste problem for the region.

Flintshire County Council lead on the project with the Assembly contributing towards the costs of developing the project i.e. procurement process.

The five Councils have set up a joint committee to steer the Regional Project with two elected members representing each authority on the committee. Gwynedd Council's representatives are the Senior Portfolio Leader: Coun. W Gareth Roberts and Portfolio Leader: Coun. Arwel Pierce.

The joint committee is supported by the Project Board which includes senior officers and specialist officers from the five Councils. A project team consisting of three officers has been established to develop the project under the leadership of Mr Stephen Penny, the Project Director. The Assembly is funding the project team.

The outline programme for the Regional Project is as follows:

- Project Initiation Document - December, 2008
- Appoint Advisors (technical, financial and legal) - July, 2009
- Choice of Reference Solution/s - September - November, 2009
- Outline Business Case – December, 2009
(which will require the attention of this Scrutiny Committee, approval by the Council Board in February 2010 before submitting to the W.A.G)
- Pre-Qualification Questionnaire - July, 2010
- Competitive Dialogue Period - August to July, 2011
- Select Provider – December, 2011
- Final Business Case - December 2011
(which will require the attention of the Scrutiny Committee, approval of the Board and W.A.G)
- Appoint Provider – February, 2012
- Start Construction (after securing planning approval) - January, 2014
- Facility Operational: 2016-2017.

As for Project GwyrAD, a private company will build and operate the facility for a period of 25 years after construction. After this period, the facility will revert to the ownership of the local authority partnership.

The technology adopted for the treatment of all the five Counties' residual waste, will be a matter for the provider to offer; and for the partnership to agree on the basis of a business case i.e. the Final Business Case. The Final Business Case will be subject to the approval of the Council Board and Assembly. Only after obtaining this approval can the project move to the next stage of appointing the provider, construction and operation of the facility. It is possible that the technology adopted and developed would be Energy From Waste, whereby the residual waste would be burned to produce energy, either in the form of electricity or for heating purposes. The technology chosen has to enable us to meet our landfill limits of 10% (2020) and 5% (2025). Energy from Waste technology would ensure we meet these targets. It should be noted that W.A.G's new strategy places a maximum limit of 30% (in 2025) of the total waste produced that can be treated by means of this technology.

Even though the Assembly are assisting in funding the development and procurement costs, it is necessary for every County, including Gwynedd, to contribute up to £800k towards the procurement costs. Gwynedd Council has already made provisions to meet these costs.

An additional grant is available from the Assembly to assist in the capital cost of building the facility with the provider meeting the remainder of the building costs together with the costs of operating the facility. It is estimated that the cost of building the facility would be between £80 million and £100 million.

Gwynedd Council will be expected to provide the facility with residual waste and pay the gate fee (on an equal basis fee as for the other Counties in the partnership) to the provider per tonne of waste delivered. W.A.G will contribute up to 25% of the project costs, with the contribution shared between the development costs and gate fee. It is estimated that Gwynedd Council will require the facility to treat 27000 – 30000 tonnes of its residual waste per annum i.e. the waste that is not recycled/composted or treated by the AD process.

In order to formulate an Outline Business Case, it is necessary to identify possible site/s for the development. This is known as the Reference Solution and there are options currently under consideration. There is a possibility that an option involving two facilities could be chosen i.e. one located in the North-West and the other in Flintshire. Much further work is required before this can be confirmed.

If a facility were not provided in the North-West then it will be necessary to set up a network of transfer stations in North Wales to facilitate the efficient transportation of residual waste – this may require the establishment of transfer stations in Gwynedd.

It is imperative to note that the facility for dealing with residual waste will not be available until at least 2016. This puts further pressure on us as a Council to ensure an increase in recycling and composting levels; ensure an increase in the collection of food waste, by the 2015-2017 period when our landfill site at Llwyn Isaf, Clynnog will be closed.

6.1.12 Reducing our Dependency on Landfill (2010 – 2025)

- Llwyn Isaf Disposal Site
 - programme of cell construction/capping until 2013
 - current planning consent to dispose until December, 2013
 - likelihood that the last cell will be full 2014-2015 (depends on recycling/composting levels and GwyriAD)
 - need to ensure arrangements for the haulage of waste to the Ffridd Rasmus site
 - need to close and secure the site in 2015
 - aftercare provision (for 60 years)
- Ffridd Rasmus Disposal Site
 - programme of cell construction/capping until 2025
 - review provision (2017-2025)
- Cilgwyn Disposal Site
 - construct leachate treatment plant 2010/11
 - first capping 2011/12
 - secure and aftercare provision (for 60 years)
 - second capping 2025.

7. COMPOSITION AND WASTE GROWTH

- 7.1 In any consideration of how to deal/treat future waste it is necessary to have an understanding of the composition of the waste produced and rate of growth.
- 7.2 The Scrutiny Committee will realise, from 4.3 of this Report, that a 1% annual level of growth in the total municipal waste in Gwynedd was experienced in the period 2005-2008 – although there has not been a growth to the same extent since then.
- 7.3 There are several factors that contribute to this, from residents’ attempts to reduce the waste they produce; the effect of a growth or recession in the economy and, of more relevance here in Gwynedd, the number of visitors to the County during the year.
- 7.4 The W.A.G and WRAP (Waste and Resources Action Programme) are conducting research to understand more about household waste in Wales. A similar project was carried out in 2002. This research is being conducted in all Local Authorities in Wales and more than 3000 households will be invited to take part including 200 households in Gwynedd. The first part of the survey was undertaken in July of this year, with the second stage to be undertaken this November – this is important in order to establish any differences between what is produced in the summer as compared to the winter. The results of the research will be critical in terms of identifying the nature, scale and origin of different types of waste and will provide important information to inform decisions on the Assembly’s Waste Strategy, and on deciding upon the best future waste management methods to increase recycling and composting. I anticipate that the results of the project will be available next January.
- 7.5 In order to predict waste growth, the model we have chosen accords with that used by the W.A.G for the period 2010-2015 i.e.:
- 1% annual growth in the total waste up to 2015/16
 - no growth from 2015/16 to 2019/20
 - 1% reduction in the total waste from 2019/20 to 2025.
- 7.6 The modelling referred to in 7.5 above reflects the W.A.G’s intention to set targets for the maximum residual waste per person from 2012/13 onwards which reduces to 150kg per person by 2024/25. This is based upon the assumption that there will be a reduction in the residual waste created per household. This is dependent on several factors i.e.
- there is less packaging by the retail sector
 - that the packaging used can be recycled
 - that residents strive to reduce the residual waste produced.

Without a reduction in the total waste produced; efforts by residents to reduce the amount of residual waste that they produce, it will be necessary to consider enforcement measures from 2015/16 onwards in order to achieve the Waste Strategy.

- 7.7 During the period being considered, the composition of household waste can change. This is an important factor to consider when deciding upon the percentage of recyclable materials that can be collected and diverted from landfill. This is of particular relevance to how much food waste can be collected.
- 7.8 During the period being considered, it is recommended that regular trials be undertaken to confirm whether there are significant changes in the type of waste materials being produced and collected from households. This is in order to ensure that the works programme remains appropriate and that the targets set can be adequately met. It should be noted that the composition of household waste can vary from one area to another; from one County to another.

8. CHANGE OF CULTURE

- 8.1 It will not be possible to achieve the Waste Strategy without the support of Gwynedd's residents and that there is a cultural change in attitudes towards how waste is dealt with and produced. There is a need to further raise awareness to the aim of reducing our ecological footprint, ensure sustainability in the face of climate change threats. There is a need to spread the message that 'to have better management of waste' will lead to a 'greener' Gwynedd which contributes to the world-wide agenda.
- 8.2 Members have an important role to play, a leadership role, in this respect and in ensuring that the Waste Strategy is achieved during the period being considered; and in ensuring that the Council is left in a strong position to meet requirements in the field beyond 2025 (the longer term).
- 8.3 During the 2010-2025 period, there will be a need to raise awareness and carry out specific campaigns to emphasise the importance of preventing and reducing waste; the need to re-use and recycle waste materials; the need to generate energy from the remaining waste rather than disposal.
- 8.4 There is a need to programme and manage the changes, ensure Member ownership, ensure the support and co-operation of residents and continual raising of awareness during this period. It is inevitable that the Council will have to resort to enforcement measures to ensure that some residents comply/co-operate in achieving these changes – and to ensure consistency if it is necessary to enforce in this way.

9. MAIN RISKS

The main risks associated with achieving the Waste Strategy in this period are identified in the table below, in addition to measures that should be taken to prevent or mitigate these risks.

| | Main Risk | Measures to prevent/mitigate | Reference to sections of this Report |
|-----|--|---|---|
| 9.1 | Failure to meet recycling targets. | Rationalization of Routes, recycling of commercial waste, development of recycling centres, recycling other materials. | 5.1, 6.1.1→6.1.8 |
| 9.2 | Failure to meet food waste targets. | Prosiect GwyriAD, weekly collection of food waste. | 5.1, 6.1.9, 6.1.10 |
| 9.3 | Failure to keep within landfill allowance. | Project GwyriAD (2012/13). Regional Residual Waste Project (2016-17). Reducing residual receptacle. | 5.1, 6.1.9 6.1.11 6.1.7 |
| 9.4 | Limit on landfill 2020 (10%), 2025 (5%). | Regional Residual Waste Project. | 5.2, 6.1.11 |
| 9.5 | Reduction in landfill (2015-2017). | Project GwyriAD operational. Ensure sufficient increase in recycling and composting levels. | 6.1.9 6.1.1→6.1.8 |
| 9.6 | Greater growth/further reduction than predicted to the total volume of waste produced. | Need to ensure flexibility in the volume of residual waste available for the Regional Project. Enforcement measures, raising awareness. | 7, 8, 6.1.11 |
| 9.7 | Change in waste composition during the period. | Project GwyriAD – need to ensure flexibility in the volume of agreed food waste to be provided. Regular trials in-place. Changes to collection arrangements. | 6.1.9 7.8 6.1.8 |
| 9.8 | Lack of support from residents and Members. | Raising awareness campaigns, ensure ownership, enforcement measures. | 8.1, 8.2, 8.4 |

10. CONSEQUENCES OF NOT ACHIEVING

- 10.1 Appendix D of this Report contains a graph that shows, in financial terms for the Council, the consequences of not implementing i.e. do nothing (more than currently) as compared to effecting the recommended Implementation Plan for the 2010-2025 period.
- 10.2 The graph shows the effect on the Council's budget and is based upon the Council's current budget for Waste Management. It does not include the Sustainable Waste Management Grant received from the Assembly which is currently approximately £3 million this year.
- 10.3 The comparison in Appendix D is a summary of very detailed work carried out by ourselves with the assistance of Grant Thornton, our Financial Consultants and Entec, our Technical Consultants on Project GwyriAD and the North Wales Residual Waste Treatment Project.
- 10.4 The graph indicates an increase in the cost of waste management over the period whatever option is taken. However, the financial consequences to the Council of the do nothing option is considerably more than for the option of realizing the Implementation Plan.
- 10.5 With the Do-nothing option i.e. in continuing with our dependency on landfill, it is predicted that the Council would attract financial penalties of £745k by 2012/13 in going over its landfill allowance. This would increase annually to a figure of £4 million by 2024/25. In realizing the Implementation Plan, no financial penalties are envisaged during this period.
- 10.6 In fulfilling the Implementation Plan, it is anticipated that there would be a slight increase in cost to the Council in 2011/12 due to the need to provide resources for the weekly collection of food waste. Costs should stabilize once the AD is operational in 2012/13 (Project GwyriAD).
- 10.7 On executing the Implementation Plan an increase in costs is envisaged in 2016/17 due to the need to meet gate fees when the Regional Residual Waste Treatment facility is operational. From 2016/17 onwards, when both Project GwyriAD and the Regional Projects are operational, no significant increase in waste management costs are envisaged.
- 10.8 There are serious consequences in not implementing i.e. do nothing; as shown in the comparable graph in Appendix D. It can be seen that a significant increase in costs to the Council is envisaged from 2012/13 onwards.

10.9 To summarise, the financial consequences to the Council of not achieving are in the order of £50 million over the 15 year period under consideration. This would have very serious consequences on the Council.

10.10 In 10.2 above, there is reference to the Sustainable Waste Management Grant provided annually by the Assembly. It would be reasonable to assume that this grant would cease should the Council fail to achieve the Waste Strategy during this period.

10.11. In addition to the consequences of not achieving upon the Council's finances, the attraction of penalties as a consequence of continuing to depend on landfill would probably result in the Assembly stepping in and assuming responsibility for the Council's waste management.

10.12 Failure to achieve would undermine the Council's ability to sustainably manage waste, protect the environment, reduce its ecological footprint and respond appropriately to the Climate Change problem.

11. CONCLUSION

11.1 There are very serious consequences if the Council failed to achieve the Waste Strategy.

11.2 This Report contains an Implementation Plan for the 2010-2025 period and for the purpose of meeting targets set by the Welsh Assembly Government for waste management and in order to achieve the Waste Strategy.

11.3 The recommended direction, the Implementation Plan, is summarised and in the form of a programme in Appendix Dd of this Report.

12. RECOMMENDATION

12.1 The Scrutiny Committee is asked for its comments on the content of this Report and, in particular, the Implementation Plan recommended for the 2010-2025 period for the purpose of achieving the Waste Strategy.

Gwyn Morris Jones
Head of Highways and Municipal
October, 2009

APPENDICES

- A. Implementation Plan 2005-2010
- B. 5 Year Works Programme 2005-2010
- C. Eunomia Table – how to meet targets for recycling/materials
- Ch. Project GwyrAD Newsletter
- D. Graph showing financial obligations (do nothing/implement)
- Dd. 2010-2025 Programme.

IMPLEMENTATION PLAN

The WAG targets for 2006/07 and 2009/10 have been noted earlier in this document. To meet those targets, work will need to be carried out to the following implementation plan:-

1. Installation of additional bring facilities – from 2005 to 2008
2. Expansion of kerbside scheme to collect dry recyclables – 2005 and 2006
3. Expansion of kerbside scheme to collect green waste – 2005 and 2006
4. Set up network of household waste recycling centres – from 2005 to 2008
5. First Materials Recycling Facility to become operational – early 2006
6. In-vessel composting facilities to become operational – one in 2007 and other in 2008
7. Expand kerbside collection of green waste to include kitchen waste – 2007 and 2008
8. Second Materials Recycling Facility to become operational - 2007
9. Plant for treatment of residual waste to become operational – 2010
10. Enhancement of commercial waste recycling schemes – continuous.

However, there is currently some concern about availability of landfill capacity in northern Gwynedd in the short to medium term. Reducing the amount of waste sent to landfill in the short term may as a result have to take priority over meeting recycling and composting targets for 2006/07. Giving priority to reducing the amount of waste sent to landfill in the northern part of Gwynedd could result in an implementation plan on the following lines: -

1. Installation of additional bring facilities – from 2005 to 2008
2. Expansion of kerbside scheme to collect dry recyclables – 2005 and 2006
3. Expansion of kerbside scheme to collect green waste – 2005 and 2006
4. Set up network of household waste recycling centres – from 2005 to 2009
5. First Materials Recycling Facility to become operational – early 2006
6. Plant for treatment of residual waste to become operational - 2007
7. Northern in-vessel composting facility to become operational – 2007
8. Southern in-vessel composting facility to become operational - 2008
9. Expand kerbside collection of green waste to include kitchen waste – 2007 and 2008
10. Second Materials Recycling Facility to become operational - 2009
11. Enhancement of commercial waste recycling schemes – continuous.

CONCLUSION

The waste strategy review has shown that the recycling, composting and Landfill Directive targets for Gwynedd can be met through improvements and additions to the existing waste collection and management infrastructure, including:

- Expansion of kerbside collection schemes to additional areas, covering approximately 90% of households
- Increased numbers of dry recyclable materials collected through kerbside collection, to include plastics and cardboard
- Introduction of green waste collections to 80% of households, expanded to include kitchen waste at a future date.
- Additional 30 or so bring banks, with the majority to be located in more rural areas
- Increase number of Household Waste Recycling Centres to 7 and make improvements to encourage greater segregation of waste for recycling and composting

- Establish 2 Material Recycling Facilities to sort and bulk recycled material
- Establish at least one waste facility for treatment of residual waste.

The number of facilities shown above is considered realistic but may need to be reviewed in light of developing experience of geographical effects and operational factors.

Costs will be an issue, and it is unlikely that the draft strategy can be implemented without continued support from WAG, and the availability of grant funding to assist with the development of facilities.

However, the draft waste strategy shows how targets for recycling, composting, and diversion of BMW may be met, at the same time as working to the principles of the waste hierarchy, and also to the proximity principle. The strategy retains a degree of flexibility, whilst identifying a cost-competitive option for the management of municipal waste in Gwynedd.

| Cyfeirnod | Tasgau | 2005/06 | | | | 2006/07 | | | | 2007/08 | | | | 2008/09 | | | | 2009/10 | | | |
|-----------|---|---------|------|------|------|---------|------|------|------|---------|------|------|------|---------|------|------|------|---------|------|------|------|
| | | 1af | 2ail | 3ydd | 4ydd | 1af | 2ail | 3ydd | 4ydd | 1af | 2ail | 3ydd | 4ydd | 1af | 2ail | 3ydd | 4ydd | 1af | 2ail | 3ydd | 4ydd |
| 3.1.1/2 | Strategaeth Mabwysiadu a Monitro | | | | | | | | | | | | | | | | | | | | |
| 3.1.3 | Adolygu'r Strategaeth | | | | | | | | | | | | | | | | | | | | |
| 3.2.1 | Cau a Diogelu Faengoch | | | | | | | | | | | | | | | | | | | | |
| | Datblygu Cynllun Cau | | | | | | | | | | | | | | | | | | | | |
| | Mewnlenni a Siapio | | | | | | | | | | | | | | | | | | | | |
| | Nwyon/Trydan | | | | | | | | | | | | | | | | | | | | |
| | Gorsaf Driniaeth | | | | | | | | | | | | | | | | | | | | |
| | Capio | | | | | | | | | | | | | | | | | | | | |
| | OI-ofalaeth a Monitro | | | | | | | | | | | | | | | | | | | | |
| 3.2.2 | Datblygu Safle Tirlenwi | | | | | | | | | | | | | | | | | | | | |
| | Trwyddedau a Chynllunio | | | | | | | | | | | | | | | | | | | | |
| | Caffael Tir | | | | | | | | | | | | | | | | | | | | |
| | Gwaith Peirianyddol | | | | | | | | | | | | | | | | | | | | |
| | Capio | | | | | | | | | | | | | | | | | | | | |
| | Nwyon/Trydan | | | | | | | | | | | | | | | | | | | | |
| 3.2.3 | Datblygu Ffridd Rاسus | | | | | | | | | | | | | | | | | | | | |
| | Trwyddedau/Cynllunio/Cynllun Cau | | | | | | | | | | | | | | | | | | | | |
| | Mewnlenni a Siapio Ardal 2 | | | | | | | | | | | | | | | | | | | | |
| | Nwyon/Trydan Ardal 2 | | | | | | | | | | | | | | | | | | | | |
| | Capio Ardal 2 | | | | | | | | | | | | | | | | | | | | |
| | Datblygu Ardal 3 | | | | | | | | | | | | | | | | | | | | |
| | Capio Ardal 3 | | | | | | | | | | | | | | | | | | | | |
| | Nwyon/Trydan Ardal 3 | | | | | | | | | | | | | | | | | | | | |
| 3.2.4 | Safleoedd Gwaredu Trin Eraill | | | | | | | | | | | | | | | | | | | | |
| | Ymchwil i Safleoedd | | | | | | | | | | | | | | | | | | | | |
| | Dethol Safleoedd/Cynllunio | | | | | | | | | | | | | | | | | | | | |
| | Datblygu Safleoedd | | | | | | | | | | | | | | | | | | | | |
| 3.2.5 | Gorsafedd Trosqwlwyddo | | | | | | | | | | | | | | | | | | | | |
| | Adnabod Safleoedd | | | | | | | | | | | | | | | | | | | | |
| | Sicrhau Trwyddedau/Cynllunio | | | | | | | | | | | | | | | | | | | | |
| | Datblygu'r Safleoedd | | | | | | | | | | | | | | | | | | | | |
| 3.3.1 | Casglu Gwastraff | | | | | | | | | | | | | | | | | | | | |
| | Gwastraff Clinigol | | | | | | | | | | | | | | | | | | | | |
| | Gwastraff Swmpus | | | | | | | | | | | | | | | | | | | | |
| | Newidiadau i Gylchdeithiau | | | | | | | | | | | | | | | | | | | | |
| | Newidiadau i Ffild | | | | | | | | | | | | | | | | | | | | |
| 3.4 | Allwylchu | | | | | | | | | | | | | | | | | | | | |
| | Casglu Plastig (d) | | | | | | | | | | | | | | | | | | | | |
| | (i) Arfon a Dwyfor | | | | | | | | | | | | | | | | | | | | |
| | (ii) Meirionnydd | | | | | | | | | | | | | | | | | | | | |
| | Casglu Cardbord a Phapur (m) | | | | | | | | | | | | | | | | | | | | |
| | (i) Arfon a Dwyfor | | | | | | | | | | | | | | | | | | | | |
| | (ii) Meirionnydd | | | | | | | | | | | | | | | | | | | | |
| 3.5 | Compostio | | | | | | | | | | | | | | | | | | | | |
| | Biniau Brown Dwyfor | | | | | | | | | | | | | | | | | | | | |
| | Biniau Brown Arfon | | | | | | | | | | | | | | | | | | | | |
| | Biniau Brown Meirionnydd | | | | | | | | | | | | | | | | | | | | |
| | In-vessel Ffridd Rاسus | | | | | | | | | | | | | | | | | | | | |
| | In-vessel Llwyn Isaf | | | | | | | | | | | | | | | | | | | | |
| | Cynllun Compostio Rhanbarthol | | | | | | | | | | | | | | | | | | | | |
| | Casglu Gwastraff Arlwyyo (m) | | | | | | | | | | | | | | | | | | | | |
| | Casglu Gwastraff Cegin | | | | | | | | | | | | | | | | | | | | |
| | Trin Gwastraff Gweddillol | | | | | | | | | | | | | | | | | | | | |
| 3.6 | Safleoedd Mwynderau Trefol | | | | | | | | | | | | | | | | | | | | |
| | (1) Bangor | | | | | | | | | | | | | | | | | | | | |
| | (2) Bala | | | | | | | | | | | | | | | | | | | | |
| | (3) Caernarfon | | | | | | | | | | | | | | | | | | | | |
| | (4) Ffridd Rاسus | | | | | | | | | | | | | | | | | | | | |
| | (5) Pwllheli | | | | | | | | | | | | | | | | | | | | |
| | (6) Porthmadog | | | | | | | | | | | | | | | | | | | | |
| | (7) Dolgellau | | | | | | | | | | | | | | | | | | | | |
| | (8) Safle Llyn | | | | | | | | | | | | | | | | | | | | |
| | (9) Blaenau Ffestiniog | | | | | | | | | | | | | | | | | | | | |
| | Diddymu Safleoedd Symudol | | | | | | | | | | | | | | | | | | | | |
| | Banciau Allgylchu Cymunedol | | | | | | | | | | | | | | | | | | | | |
| 3.7 | Canolfan Adennill Defnyddiau | | | | | | | | | | | | | | | | | | | | |
| | Trwyddedau a Cynllunio (Cibyn) | | | | | | | | | | | | | | | | | | | | |
| | Addasiadau i'r Safle (Cibyn) | | | | | | | | | | | | | | | | | | | | |
| | Canolfan A.D (Cibyn) | | | | | | | | | | | | | | | | | | | | |
| | CAD Gogledd Meirionnydd | | | | | | | | | | | | | | | | | | | | |
| 3.8 | Gorffodaeth i Leihau | | | | | | | | | | | | | | | | | | | | |
| | Polisi Cau Caead (Dwyfor) | | | | | | | | | | | | | | | | | | | | |
| | Polisi Cau Caead (Arfon) | | | | | | | | | | | | | | | | | | | | |
| | Polisi Cau Caead (Meirionnydd) | | | | | | | | | | | | | | | | | | | | |

Allwedd

- Datblygu
- Adeiladu/Gweithredu
- OI-Ofal/Cynnal
- Digwyddiad
- C= Cyfalaf
- R= Refeniw

APPENDIX C

| Waste Fraction | Assembly Research | Total Municipal Waste | Estimation of Gwynedd's Performance 2009/10 | Capture rate for recycling and composting 52% (2012/13) | Capture rate for recycling and composting 64% (2019/20) | Capture rate for recycling and composting 70% (2024/25) |
|-------------------------------------|-------------------|-----------------------|---|---|---|---|
| | | 82000 | | | | |
| | | (t) | (t) | (t) | (t) | (t) |
| News and Pams | 7.2 | 5904 | 4742 | 4841 | 4903 | 4959 |
| Paper | 1.9 | 1558 | 380 | 1013 | 1221 | 1278 |
| Card | 5.2 | 4264 | 330 | 1834 | 3113 | 3496 |
| Textiles | 1.05 | 861 | 220 | 284 | 506 | 594 |
| Food Waste | 17.6 | 14432 | 800 | 7649 | 10506 | 11546 |
| Green Waste | 10.5 | 8610 | 16211 | 6716 | 7405 | 7921 |
| Wood | 3.6 | 2952 | 1500 | 2303 | 2598 | 2686 |
| Shoes | 0.2 | 164 | 2 | 38 | 93 | 113 |
| Carpets | 0.85 | 697 | 0 | 0 | 282 | 381 |
| Furniture | 0.75 | 615 | 67 | 430 | 525 | 549 |
| Oil | 0.1 | 82 | 0 | 41 | 46 | 49 |
| Other Organics | 4.25 | 3485 | 28 | 0 | 1350 | 1959 |
| Cardboards/box | 5.3 | 4346 | 1035 | 3216 | 3546 | 3651 |
| Plastic Bottles | 1.8 | 1476 | 245 | 937 | 1080 | 1194 |
| Other Plastic | 3.2 | 2624 | 110 | 391 | 861 | 1443 |
| Plastic Film | 3.1 | 2542 | 0 | 216 | 412 | 925 |
| Glass | 5.3 | 4346 | 4252 | 3659 | 3842 | 3894 |
| Food and Beverage Cans | 1.9 | 1558 | 436 | 932 | 1178 | 1293 |
| Other Metals | 2.2 | 1804 | 862 | 1169 | 1364 | 1497 |
| Non Ferrous | 0.4 | 328 | 76 | 198 | 251 | 275 |
| White Goods | 0.9 | 738 | 195 | 610 | 631 | 661 |
| Large Electrical Goods | 0.2 | 164 | 170 | 104 | 109 | 125 |
| TV Monitors | 0.3 | 246 | 245 | 208 | 215 | 222 |
| Other WEEE | 0.7 | 574 | 278 | 249 | 302 | 383 |
| Batteries | 0.2 | 164 | 3 | 103 | 108 | 121 |
| C&D Waste | 5.2 | 4264 | 2814 | 3177 | 3224 | 3475 |
| Fines | 5.7 | 4674 | 0 | 696 | 823 | 1547 |
| Other | 10.4 | 8528 | 0 | 2192 | 2192 | 2192 |
| Residual | | | 47000 | 38794 | 29316 | 23570 |
| | 100 | 82000 | | | | |
| Total waste recycled or composted = | | | 35000 | 43206 | 52684 | 58430 |

Newsletter No 1, October 2009

What's going on?

To meet European Waste targets for diverting biodegradable waste from landfill local authorities have to collect and treat food waste.

Anaerobic Digestion (AD) is the process favoured for dealing with food waste. In order to meet landfill targets for 2012/13, it will be necessary to have AD schemes in place to deal with food waste by the spring of 2012, or soon thereafter.

Gwynedd Council has identified a need for AD capacity to deal with food waste that will have to be collected within the County.

What is AD?

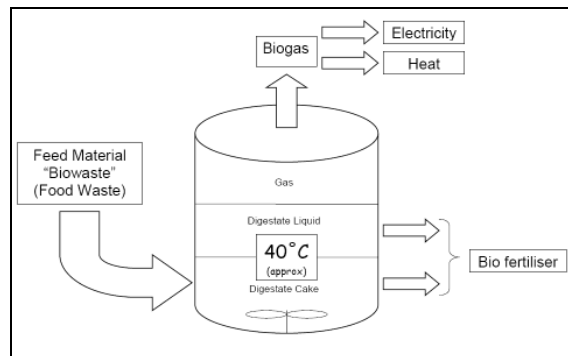
Anaerobic digestion (AD) is a natural process whereby bacteria break down organic material in the absence of air, yielding a biogas containing methane.

AD is widely used as a renewable energy source because the process produces:

- A biogas (principally methane and carbon dioxide) that is suitable for energy production helping replace fossil fuels.
- A solid residue (digestate) that is similar, but not identical, to compost.
- A liquid that can be used as a fertilizer.



Above - Photo of an AD facility
Below – The basic concept illustrated



What will we be procuring?

We will be procuring a service to treat around 10,000 to 12,000 tonnes of food waste per year. There are different types of 'AD' technologies available, each with their own advantages. As a result we will not specify exactly the type of AD plant to be built, but will use a 'competitive dialogue' process to discuss with suppliers what they are able to offer, and the costs involved.

The Outline Business Case

The Outline Business Case (OBC) is a document used to demonstrate that the advantages and risks associated with the project have been identified, that the project is viable and can be achieved within the desired timescales. It is a planning and management tool that shows to the Council and the Welsh Assembly Government that there is a Strategic, Economic, Commercial, Financial and Management case for project.

The Reference Solution

The OBC contained what is known as a 'reference solution' which is to build an AD plant at the Llwyn Isaf site at Clynnog.

However, the fact that the reference solution has been developed on the basis of the Llwyn Isaf site does not necessarily mean that a facility will be developed there. Bidders can offer a service located elsewhere, and it would be necessary to compare the advantages and disadvantages of their proposal with the reference case.

The option adopted will be the one offering the best overall value in financial and environmental terms to the Council.

The Programme / Timetable

It will be very challenging to achieve the target for the facility to be operational by the spring of 2012.

Gwynedd, like a number of other local authorities, is working with WAG to move ahead with the AD procurement process. In order to comply with European Community requirements, the intention to obtain a service to deal with food waste has been advertised. Prospective suppliers have until the middle of October to register an interest in tendering.

A short list of suitable companies will be invited to take part in the competitive dialogue process. Their proposals will be narrowed down so that by early summer 2010 the Council will have identified its preferred solution and bidder. A final decision on the successful bidder will be made in the autumn of 2010. Construction work will start early in 2011, with the AD plant to be operational by the Spring of 2012 after completing commissioning tests.

The Communications Strategy

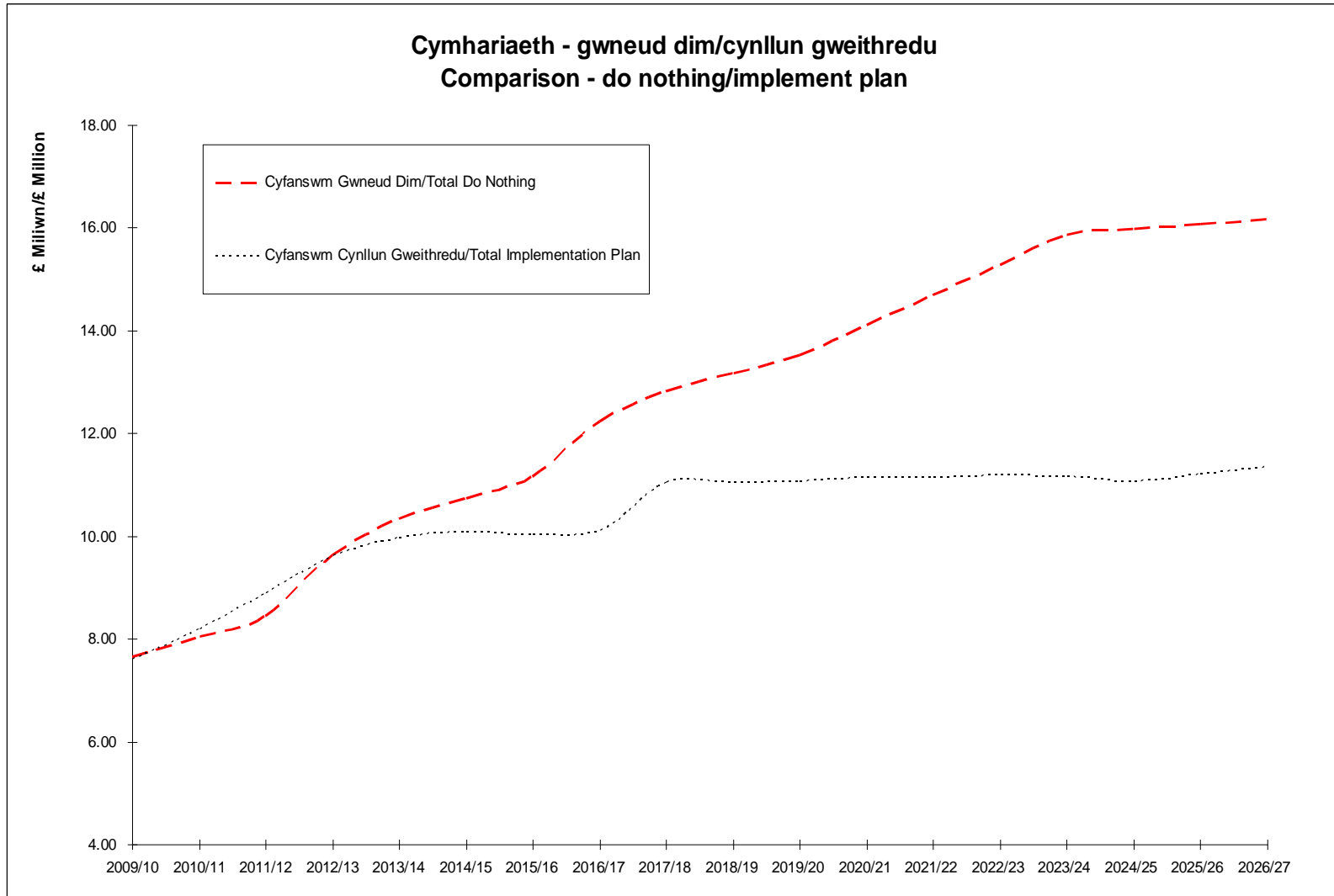
The Council appreciates the importance of engaging fully and effectively when dealing with major waste management and other projects.

This newsletter has been produced as a brief introduction to the project and to set the scene.

What Next?

The competitive dialogue process with tenderers is scheduled for early 2010, with an anticipated final decision to go ahead with the project by the end of September 2010. Between now and then the Council will be informing residents and other interested parties of progress on the project.

For further information or should you wish to discuss any matter please contact the Waste Helpdesk on (01286) 679872.



| Key Dates | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2019/20 | 2024/25 |
|---|-----------------------|---------|---------|---------|-----------------|-------------|---------|------------------|---------|
| TARGETS | | | | | | | | | |
| Recycling | | | | | | | | | |
| Composting | | | | | | | | | |
| Total Target (Recycling/Composting) | | | 52% | | | 58% | | 64% | 70% |
| Food Waste | | | 12% | | | 14% | | 16% | 16% |
| Landfill Allowance | 28909 | 25238 | 21567 | 20649 | 19731 | 18814 | 17896 | 15143 | 5000 |
| Maximum Energy from Waste | | | | | | 42% | | 36% | 30% |
| MEASURES AND DEVELOPMENTS | | | | | | | | | |
| Landfill | | | | | | | | | |
| Cilgwyn | Leachate/Capping | | | | | | | | Capping |
| Llwyn Isaf | Develop Cells/Capping | | | | Closure/Capping | | | | |
| Ffridd Rasmus | Develop Cells/Capping | | | | | | | Consider Closure | |
| Transfer Stations | | | | | | | | | |
| Alternative Technology | | | | | | | | | |
| Project GwyrAD | | | | | | Operational | | | |
| Regional Residual Waste Treatment Project | | | | | | | | Operational | |
| Other | | | | | | | | | |
| Review Commercial Waste | | | | | | | | | |
| Additional Recycling Centres | | | | | | | | | |
| Alterations to Caerylchu MRF | | | | | | | | | |
| Southern Gwynedd MRF | | | | | | | | | |
| Weekly Collection of Food Waste | | | | | | | | | |
| Collection of Further Recyclates | | | | | | | | | |
| Reduction of Residual Receptacle | | | | | | | | | |
| Review Community Sites | | | | | | | | | |
| Review Garden Waste Collection | | | | | | | | | |
| Changes to Collection Rounds | | | | | | | | | |
| Review Composition of Waste | | | | | | | | | |
| Raising Awareness and Enforcement Campaigns | | | | | | | | | |