
CHAPTER 14: IMPLEMENTATION, MONITORING AND REVIEW

This chapter covers a summary of the aspects of implementation of the preferred option as identified in this Plan, and the monitoring and review of the Plan over the period of the Plan.

INTRODUCTION

- 14.1 Implementing the policies in the Plan and the preferred solution for the arc21 Region will require new waste management arrangements and infrastructure to be established. These need to be supported by programmes to educate and involve the public, businesses and industry if the challenging targets for waste diversion and recycling are to be achieved. The arrangements for implementing the new municipal waste management infrastructure outlined in this Plan are being developed by the arc21 Councils and are outlined in this chapter.
- 14.2 The current policies in the updated Plan reflect existing circumstances, and are based on information currently available and existing legislation and policy guidance such as the NI BPEO. The factors that influence policy could change over the Plan period. For example, it is likely that: further information about waste streams will become available; that the NI Waste Management Strategy will evolve, and that new European and national legislation will come into force. The Plan needs to be monitored and reviewed to keep it relevant in the light of these changes. Particular issues for monitoring and formal review are set out in this chapter.

IMPLEMENTATION

- 14.3 This section sets out key actions and milestones for implementation of the Plan. It focuses on the short term (Phase 1) and the actions that are required up to 2010 to meet the NI BPEO and NILAS targets. These actions will provide the foundation for achievement of the longer term recycling and diversion targets and therefore key decision points and milestones for 2013 and 2020 (Phase 2) are also set out.
- 14.4 To meet the targets in the Plan, and establish recycling, composting, recovery and disposal infrastructure in accordance with the preferred solution, actions are required on the following:

Waste reduction and reuse

- Implement Waste Prevention Action Plans within District Councils
- Education and awareness campaigns
- Promotion of home composting

Recycling

- Increased provision of bring banks
- Improved recycling facilities at CA sites
- Fully implemented multi -material kerbside collections
- Introduce multi-material kerbside collections to commercial premises served by District Councils
- Implement segregation of recyclables from bulky household waste and street sweepings/litter collections

Composting

- Improved facilities at CA sites for collection of segregated garden waste
- Fully implemented kerbside collections of organic wastes
- Introduction of kerbside collections of organic wastes to commercial premises served by District Councils

Facilities

- Awarding of contracts for the development of new treatment facilities.
- The preferred solution indicates the following capacity will be required by 2010:
 - One MRF for source segregated dry recyclables (already procured)
 - Three windrow composting facilities
 - One in-vessel biological treatment facility for source segregated organic waste (in process of procurement)
 - One to three Mechanical Biological Treatment facilities
 - Transfer and/or bulking stations

Education and Awareness

14.5 Education and awareness campaigns are recognised as critical in support of the implementation of the Plan and to reduce the rate of growth in waste arisings. Campaigns are required to promote:

Waste prevention and minimisation and the reduction of waste production at source both by householders and by businesses

Participation in recycling and composting schemes

Increased awareness and understanding of sustainable waste management

14.6 The development of a Communications Plan is seen as a key element of Education and Awareness. A detailed Communication Plan is being developed with support from ROTATE and will be updated on an annual basis. This detailed Communication Plan will be produced in time for implementation prior to April 2007. The

Communication Plan will follow a “twin track” approach outlining actions delivered through the collective arc21 organisation in addition to actions tailored made and delivered by each of the 11 individual Councils. The elements delivered through the arc21 organisation will cover generic subjects such as regional wide campaigns, production of design guidelines, promotion vehicle , Youthspeak competition with the individual Council elements separately covering each Council dependant on need with the emphasis on service delivery.

- 14.7 When implementing and assessing the effectiveness of education and awareness raising campaigns, arc21 will seek to evaluate their performance against pre-defined criteria to assess their contribution towards meeting the Plan’s objectives. Therefore, prior to the commencement of any scheme, appropriate performance data will be determined. This will be measured in advance of implementation, to determine baseline conditions and will subsequently be assessed during or at the end of the scheme to evaluate performance.
- 14.8 The arc21 Councils intend, or are in the process of introducing, programmes and initiatives for the general public, schools and community groups as well as local businesses. Key actions and activities for these sectors are highlighted below, some of which have already been implemented.

Areas of Partnership between arc21 and DOE

- arc21 to encourage all Councils to draw up an Action Plan to deal with their own waste. Waste Action Plans will include measures to reduce the levels of waste that are produced by District Council offices, depots and buildings.
- Establish a joint arc21/DOE education and awareness working group in conjunction with the other Regional Waste Groups.
- Support the DOE in their schools programme
- Work with Central Government in the establishment of waste minimisation clubs for key business sectors
- Work on establishing priorities for grant aid toward recycling initiatives
- Develop environmental performance awards for flagship projects contributing significantly towards the Plan’s objectives at consumer/business/community group levels.
- Promote NI wide businesses which encourage reuse. For example, swap shops, take back and exchange schemes such as the GB Repaint Scheme.
- Development of market development initiatives to promote stable local markets for recycle
- Development of specific initiatives for householder to minimise waste such as registration to avoid junk mail and return to the retailer schemes
- The joint development of hard news/media campaigns for television, radio and local newspapers.

14.9 The arc21 councils intend to introduce programmes and initiatives for the general public, schools and community groups as well as for local businesses. Key actions and activities proposed for these sectors are highlighted below:

General public

- waste reduction measures such as:
 - avoiding buying/using disposable products
 - reusable plastic bags
 - combating junk mail
- promote charity shops as a way of re-using unwanted items
- develop reward schemes targeted at general public, community organisations and schools that will provide a reward incentive for waste prevention projects. Projects developed by these groups and rewarded will instil pride in individuals as well as raising awareness of the central message of waste prevention.
- re-use of common household items (e.g. community furniture stores)
- campaigns to promote reduction, re-use and participation in recycling – kerbside collection schemes, recycling centres and bring banks – ideas include a road show that travels across the region, media events, newsletters or facility open days
- ‘Yellow Pages’ directory of recycling
- ‘real’ nappy campaign and service
- home composting campaign
- ‘buy recycled’ campaign
- arc21 website to be revised, updated and maintained

Schools

- support for DOE’s “*Wake up to Waste*” schools programme
- “*Wild about Waste*” – promotion and updating of schools information pack
- *Eco-schools* – promote this initiative and provide technical support to schools involved
- advice on the adoption of waste reduction and recycling measures at schools
- support for initiatives that make use of the Arts to convey messages about waste e.g. NI2000’s drama productions on the theme of sustainable development or Groundwork’s youth work.
- support for teacher training currently being carried out by ENCAMS
- support for other existing or planned NGO campaigns which include waste awareness for children and youths
- organising school visits to waste facilities and education establishments like the Ecos Centre

Community Groups

- develop a programme of events to target community groups
- promote community based recycling and composting schemes
- adopt national initiatives at the local level e.g. 'Spring Clean' week and other similar events

Businesses

- promote and encourage waste minimisation at source and participation in waste minimisation clubs
- Disseminate environmental good practice to business clubs. Develop green procurement policy and encourage Council up take of policy. Green procurement rules will encourage Council suppliers to adopt a more sustainable approach including waste.
- encourage businesses to undertake environmental audits and develop environmental management and audit systems (EMAS)
- encourage businesses to make use of available recycling schemes
- encourage businesses to adopt 'green' procurement policies
- provide information to encourage businesses to use recycled materials in the production of products or services
- promote the set-up of businesses to deal in the reuse of unwanted goods and use of recyclable materials
- encourage businesses and organisations to provide recycling facilities/outlets for the consumers of their products or services (such as take back schemes) and provide information on how to recycle produce
- Investigate opportunity to input to C,D&E Industry advisory bodies (e.g. WRAP, BRE) Collaborate with organisations producing guidance and standards to ensure that waste generation is minimised on construction and demolition sites
- Ensure environmental good practice implemented on Council managed construction projects (e.g. road improvement schemes) to illustrate to private industry that it is possible to minimise waste production on site.
- assist businesses in setting up initiatives to provide practical solutions, such as:
 - furniture / electrical goods restoration schemes
 - retail refill or refund and deposit schemes
 - retail involvement in promoting the use of reusable plastic or paper/ biodegradable shopping bags
 - marketing of "reduced packaging" products by manufacturers
 - nappy laundering service
 - waste minimisation schemes
 - EMAS accreditation

14.10 To co-ordinate these activities the arc21 Councils will identify appropriate staff to manage the development and implementation of the education and awareness

programme throughout the arc21 Region. This will include assessing existing resources within each Council as well as identifying additional resources to support the programme. In delivery of its education and awareness programme, arc21 will work with the DOE as well as with NGOs and community groups with expertise in this field. It is foreseen that where arc21 Councils currently engage specialist advice and expertise from organisations such as WRAP/ROTATE as well as Arena Network, Groundwork, NI 2000 and Ulster Wildlife Trust, that these organisations will have a role to play in the delivery of the more extensive arc21 programme. In promoting initiatives with businesses the arc21 Councils will work with IRTU, Envirowise, and representatives of industry sectors.

Collection and Recycling

14.11 The establishment of the kerbside collection systems and other collection facilities for recyclable materials (bring sites and CA sites) in accordance with the Waste Management Plan, adopted in January 2003, is progressing well. In addition to the schemes already implemented, improved facilities will be provided at CA sites or at a third party site to allow the sorting of CA site residual waste. Where appropriate, further operational modifications will be made with regards to kerbside collections of recyclables and organic wastes from commercial premises served by Councils. Equally, operational improvements to the management of bulky household wastes and street sweepings will be introduced progressively by individual Councils.

14.12 For the additional schemes, actions and decisions to be taken at an individual Council level are:

- Premises to be served
- Containers to be used
- Collection routes
- Collection frequency
- Number and type of collection vehicles
- Phasing of new collection systems

14.13 It is for each council to decide who will deliver these services – the Council itself or the private or the 'Not for Profit' sectors on its behalf.

Key actions and timescales are:

By April 2006

- CA sites – Councils to have developed and implemented improvement plans to increase provision of recycling facilities and segregation of green waste.
- Bring sites – continue to increase provision of Bring Sites across the region
- Establish systems for monitoring performance of kerbside programmes.

By April 2007

- Kerbside collections – Councils to have implemented collections for dry recyclables to 99% of the households in the arc21 Region and collections for organic wastes to 68% of the households in the arc21 Region.
- Identify private sector capacity to handle materials from CA sites, residual wastes, street sweepings and litter.

By April 2008

- To have commissioned five additional Transfer Station/Bulking facilities for residual waste and or dry recyclables destined for treatment
- To have commissioned three Windrow Compost facilities to treat source segregated organic wastes

By November 2008

- To have commissioned between one and three In-Vessel Compost facilities to treat source segregated organic wastes
- CA sites/bring banks – continue to monitor progress and review performance.

During 2009

- To commission Mechanical Biological Treatment facility to treat residual household waste
- Complete improvements and implementation of new CAS/HWRC in the region

Facilities

14.13 The BPEO indicates the following facilities will need to be in place and fully operational by 2010:

- One MRF for the sorting of source segregated dry recyclables (already procured)
- Three windrow composting facilities for segregated green waste collected at the CA sites (in process of procuring)
- One to three in-vessel (enclosed) biological treatment facility (in process of procuring)
- Three MBT facilities for the treatment of residual waste

14.15 In addition transfer and/or bulking stations may be required by 2010 to transfer dry recyclables and compostable materials to the new treatment facilities and residual waste to treatment facilities. The need for transfer stations will depend on the

location of the treatment and disposal facilities and an assessment of transport distances and costs. Further landfill capacity also is required for the disposal of waste that is not recovered for recycling or composting.

14.16 To ensure the required capacity is in place it is proposed that individual or combined contracts (Phase 1 contracts) are let for waste management services required. The key actions to ensure provision of this capacity for 2009/10 are:

- Preparation of service specification and tender documents for Phase 1 facilities June 2006 to September 2006
- Tendering and evaluation Sept 2006 – March 2007
- Contract(s) award April 2007
- Facility operational April 2009

Contracts are already in preparation for the treatment of source segregated organic wastes and it is anticipated that Contract will be awarded in 2006.

WORKING ARRANGEMENTS

14.17 After the adoption of the original waste management plan, arc21 Councils immediately started implementing the Plan. A major component was the establishment of an administrative delivery mechanism involving the formation of a Joint Committee. Corporate body status was granted on 15 March 2004 through the local government NI order 2004.

14.18 The corporate body arc21 has continued to oversee co-operation of the 11 arc21 Councils and has already awarded contracts for the following:

- Recycling of commingled dry recyclables in February 2005
- Landfill disposal in October 2005
- Bring Centres in October 2005
- Award of the following contracts is expected in autumn of 2006:
- Organic Waste

14.19 Collaboration between the Councils is managed through three intrinsically linked components:

Joint Committee

This is the major decision making forum and comprises of twenty two elected member. The twenty two elected members consist of two from each of the eleven constituent Councils.

Working Groups

The Joint Committee is supported by a number of working groups involving Officers. The most significant working group being the Steering Group upon which all Councils are represented.

Staff

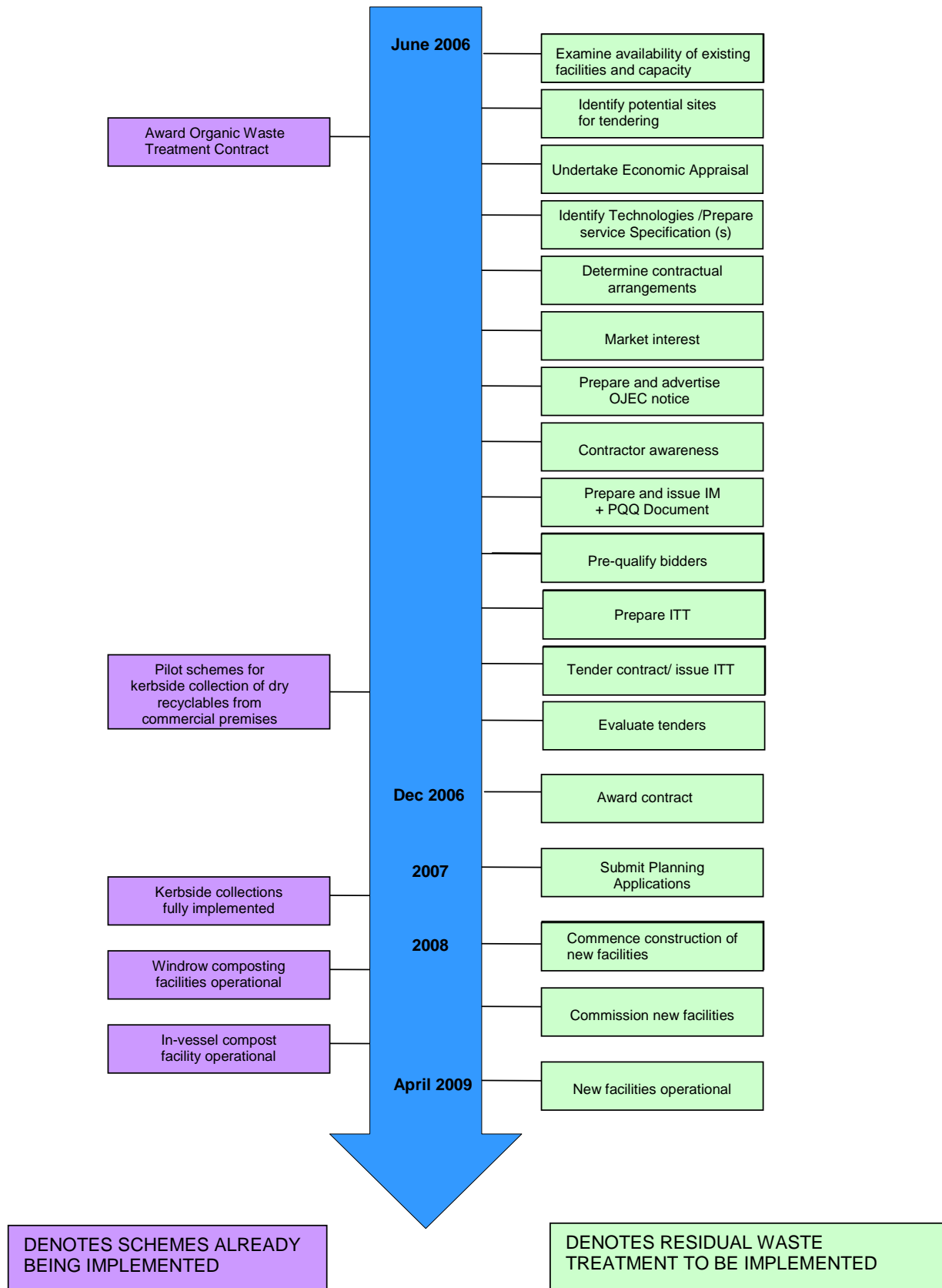
The Joint Committee is serviced by the arc21 Staff whom also actively participates in the various Working Groups.

- 14.20 As demonstrated, the establishment of a Joint Committee has allowed significant progress to be achieved. The Joint Committee has entered into contracts in its own name and to date is the only such Committee in the UK. Further progress is required to achieve longer term aims. The facilities required are detailed in Figure 14.2.

PARTNERSHIPS AND JOINT WORKING

- 14.21 Arc21 believes that it is important for the three Northern Ireland regional waste management partnerships to work closer together in the ongoing development, implementation and review of their Waste Management Plans particularly in connection with the provision of key infrastructure elements. This is reflected in policy WMP 12 outlined in Chapter 11.
- 14.22 However it would be difficult for any one of the three regional groups to drive any such joint working initiative. Arc21 have always been keen to engage in a dedicated province wide discussion forum that would enable the promotion of areas of joint understanding and mutual long term benefits.
- 14.23 Arc21 would be committed to any facilitated tripartite discussions between the three regional waste management groups and would proactively respond to any such process.

Figure 14.1: Process for the development of Phase 1 Contracts



KEY ACTIONS AND ISSUES

14.24 The key actions and issues for implementation of this Plan for the whole plan period up to 2020 together with key milestones are outlined in Figure 14.1, Figure 14.2 and Table 14.2.

14.25 Having established indicative timescales for the delivery of the Phase 1 and Phase 2 Contracts a 'Gantt' Chart has been developed for the purposes of monitoring progress of the implementation these important elements of the Plan. The 'Gantt' Chart is included for information at Appendix 14a. Whilst this is based on the most current information available at the time, it is probable that future circumstances may change the phasing of individual elements of the programme but the final delivery dates require to be realised.

14.26 In terms of the main infrastructure elements that will be required to be established in order to deliver the Plan, these are summarised in Table 14.1

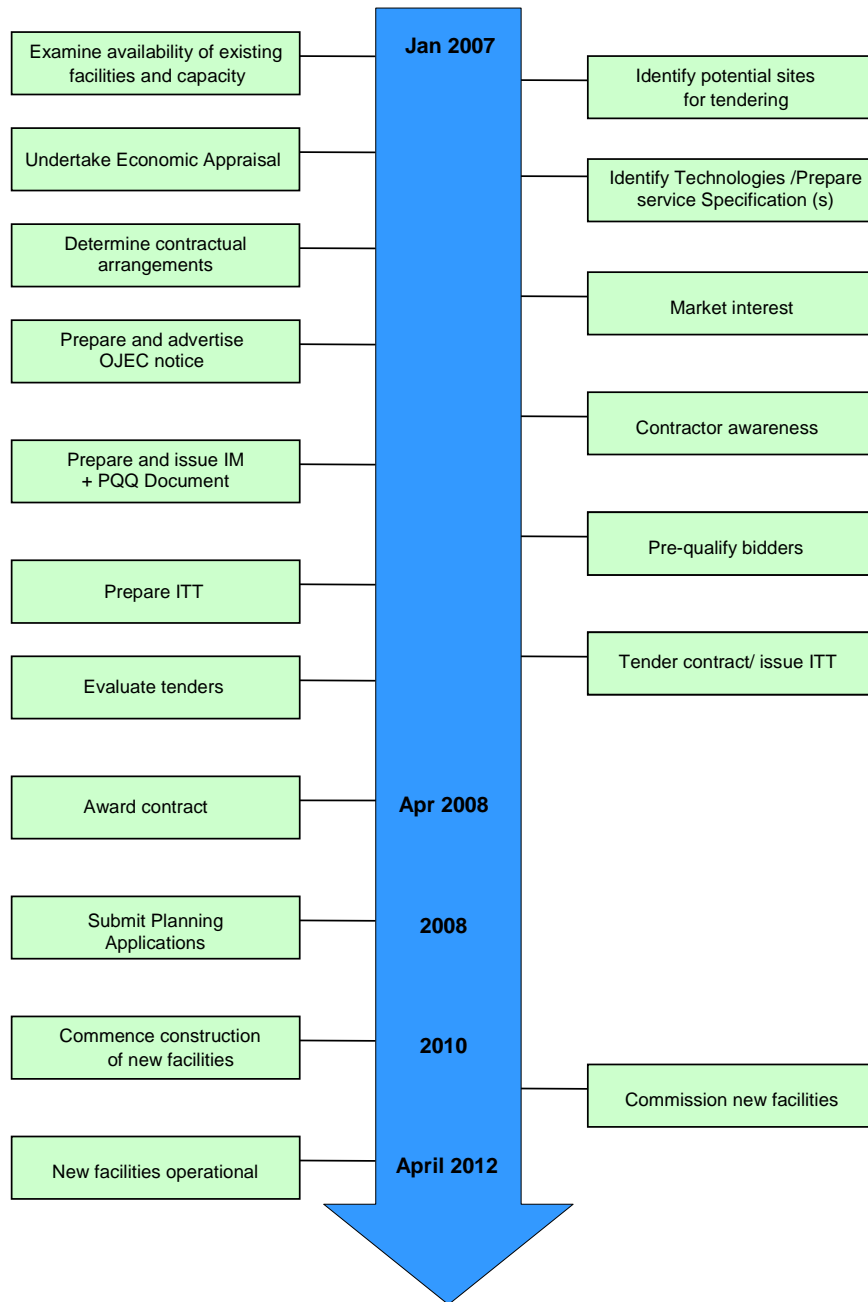
Table 14.1: Current and Proposed Facilities included in the Waste Management Plan

Facility	Current	Capacity/ Throughput (Tonnes per annum)	Proposed	Additional Capacity (Tonnes per annum)	Commence Operations
MRF Contract	1	60k			
HWRC	44		49		
Bring Sites	136		202		
Composting; Open windrow			3	c40k	December 2007
Composting: In Vessel			1-3	c110k	July 2008
MBT			1-3	c 325k	April 2009
Energy From Waste			1	c43 MWe/ 370K	March 2013
Transfer Stations	2		5	c200-300k	From May/June 2007
Landfill (municipal -non hazardous)	3	+400k	2-3	c265-320k	2014

Table 14.2: Estimated Programme for delivery of arc21 Waste Management Proposals

Arc21 Proposed Scheme	PROPOSALS	Year																	
		03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	
Kerbside segregated collection of dry recyclables	99% of the total households in Arc 21																		
Kerbside segregated collection of garden/organic waste	68% of the total households in Arc 21																		
Improvements to Bring Facilities	202 additional sites																		
Improvements to CAS/Household Recycling Centres	15 additional sites																		
Home Composting	45,089 additional h. composters																		
Education Initiatives	Ongoing																		
Monitoring	Ongoing																		
Transfer Stations	5 additional																		
Windrow Compost Facilites	3 Plants anticipated																		
In-Vessel Compost Facilites	3 Plants anticipated																		
MRF for Dry Recyclables	1 Plant anticipated																		
MBT for Residual Waste	3 Plants anticipated																		
Energy from Waste	1 Plant anticipated																		

Figure 14.2: Outline process for the award of Phase 2 contracts



MONITORING AND REVIEW

Commitment to Regular Monitoring

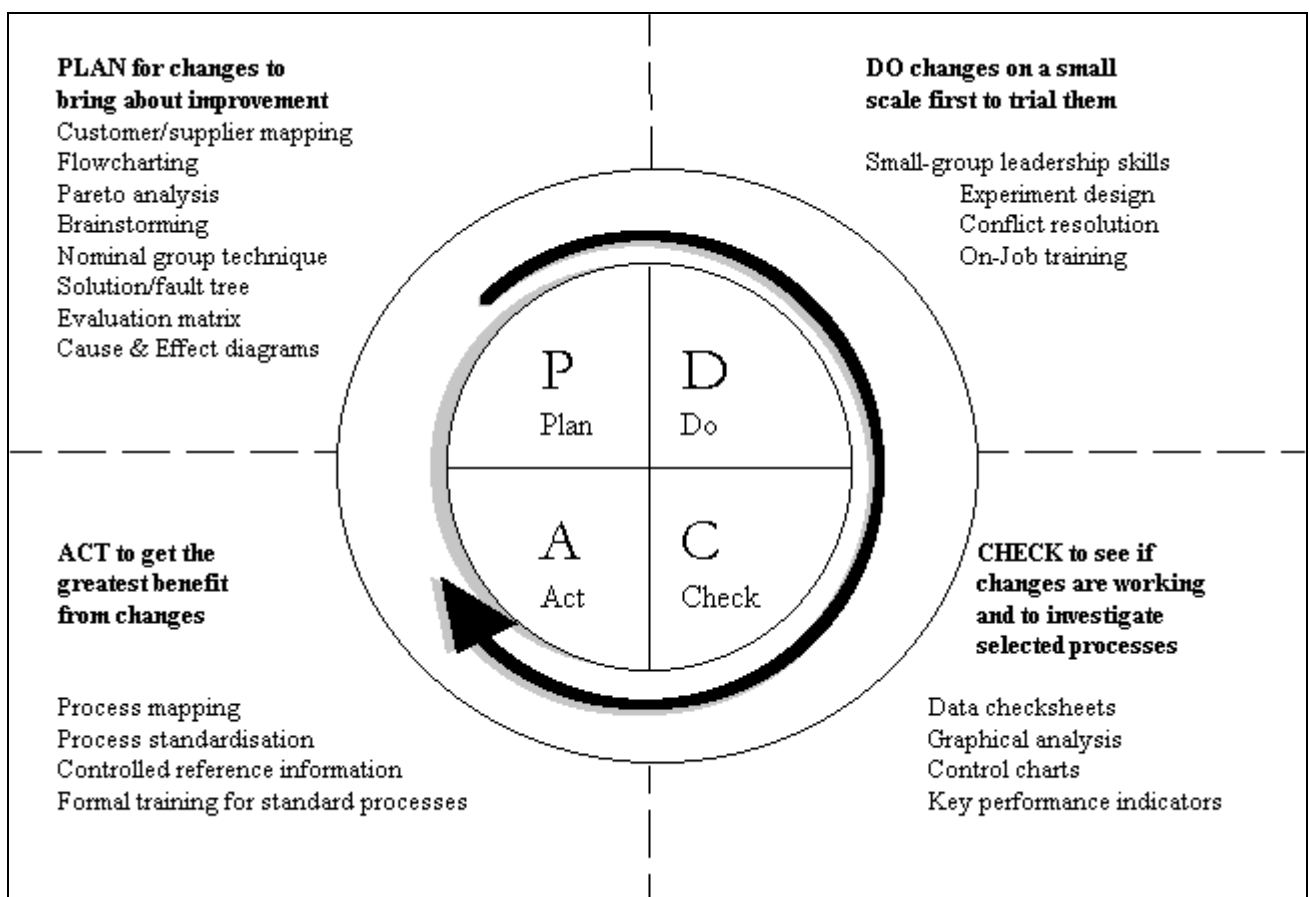
- 14.27 Monitoring of the Plan will be carried out on a minimum of an annual basis with results in relation to the Key Performance Indicators being made available within three months of the end of the monitoring period. However, given the lead/lag relationship between results and the ability to implement changes to improve those results it is recognized that not reacting until the annual results are available would be a somewhat “sluggish” approach in term of response.
- 14.28 It is clear that monitoring on a quarterly or even a monthly basis is preferable to an annual cycle albeit that the effects of seasonality need to be considered and as a consequence annual targets would require profiling to ensure that these effects were recognized.

Contingency Planning

- 14.29 It has widely been accepted, for example in terms of Emergency Planning, that it is not feasible to have a contingency plan for every eventuality; in fact it may not even be possible to identify or model every scenario that may have an impact on the achievement of targets. What requires to be put in place is a process that will enable early indications of deviation from the plan to be identified and reacted upon. This approach is founded on the ability to understand the cause and effect of actions and reactions. To date actions have been planned based on the necessity to deliver the appropriate infrastructure which will enable constituent Councils to achieve their recycling and NILAS targets. Whilst the ultimate objective is to comply with the 2020 targets these are being achieved on a stepped basis (2010, 2013 and 2020) with the provision of key infrastructure elements being procured in line with the target year requirements.
- 14.30 The programme associated with the delivery of the relevant key infrastructure elements will be carefully monitored with due regard to the target year requirements. In the event that significant slippage in the timetable is identified, contingency measures compatible with the prevailing situation will be initiated to address such. These measures may consist of a number of options that will be fully assessed, and considered at the due time. Options may include utilising any available seasonal capacity through the IVC contract, mobilising any spare capacity resulting from suitable contractual arrangements entered into in respect of MBT type processing, procuring appropriate short term arrangements available from the market place including elsewhere in the UK and introduce suitable alternative arrangements for the management of the commercial component of municipal waste.
- 14.31 Annual targets will therefore need to reflect the stepped changes in targets with potentially linear analysis of targets being put in place for the intervening periods.

- 14.32 The basic approach adopted is that of the 'Planning Cycle' (as adopted from Deeming) outlined in Figure 14.3.
- 14.33 Monthly or Quarterly results for the Key Performance Indicators (KPI'S) can be reviewed and compared with the planned results with any adverse deviation noted beyond the acceptable limits of variability. Management decisions can then be based quantitative information from these trends with extrapolation analysis to identify the implications of failure to intervene at this juncture.
- 14.34 For example Participation and Capture Rates have been set at 80% and, given the criticality of these to the achievement of the targets contained within the Waste Management Plan, will require careful monitoring on the basis described above.

Figure 14.3: The Planning Cycle (after Deeming)



- 14.35 The contractual arrangements sought by and entered into by arc21 in regard to recycling services will assist with performance in that it will offer motivation and incentive towards high performance. This will entail elements addressing guaranteed minimum tonnage, revenue share and unacceptable levels of contamination in the

feedstock. Additionally, this will link into the internal financial management system which also contributes to a holistic approach to performance management.

14.36 Arc21 are committed to a process of performance management and will work towards developing an approach to such that can be effective at the operational, tactical and strategic levels. The keystone to this approach will be the production and maintenance of a Detailed Implementation Plan that will include appropriate targets and trigger points to initiate contingency measures. This will be allied to the annual performance review as outlined in paragraph 14.38 below.

14.37 A illustrative example of such could be as follows;

Scheme – Comingled Dry Recyclates

Anticipated Performance - 9.5 Kg per household per month per collection round

Trigger Point – less than 7 kg per household per month per collection round

Circumstance – Monitoring of individual deliveries at the Materials Recycling Facility has indicated that a particular area is regularly yielding below 7kg per household and consistently containing levels of contamination at 20%

Contingency Measures –

Dedicated education and awareness initiatives e.g. delivery of leaflets, door knocking, adshel and other outdoor advertisements in area affected, presence of arc21 promotion vehicle in area, school visits, community group presentations

Mobilise local elected member involvement

Increase resource for more robust inspection of individual bins presented for collection

Obtain support from local press

Post Contingency Measures –

Asses impact and disseminate relevant information to constituent Councils.

14.38 Regular monitoring and measurement of progress towards achieving the *Waste Strategy Targets* is fundamental to the success of Waste Management Plans. The constituent Councils of arc21 collectively are committed to:

- monitoring a number of agreed Key Performance Indicators (KPIs);
- validating the data used as the basis of the KPIs;
- collating the information quarterly and making it available to the Department in accordance with Waste Data Flow;
- checking overall performance against planned levels, and
- implementing corrective actions as appropriate where it is clear that performance is falling significantly behind the planned levels.

14.39 The KPI's form the foundation of annual performance reviews undertaken by arc21 and entail:

- quality assurance checks on the monitoring results submitted by the constituent Councils;
- reviewing in detail progress towards meeting all of the targets;
- proposing any corrective actions and/or plan modifications, which may be required; and
- producing an annual performance review report and making this generally available.

14.40 A common methodology and approach to monitoring and performance review is essential. The detailed methodology for determining the primary performance indicators for municipal waste management (listed below) will be further developed and published by the Department. The aim will be to ensure that data collection and collation conform to Department and EU requirements. Primary indicators for other waste streams have been developed. Reporting on non-municipal waste will only be possible after the methodology has been agreed and the mechanism implemented. For municipal waste KPIs have been fully implemented and as of 2005 have been superseded by the Waste Data Flow. In addition to reporting the information under KPI this data allows for greater integration with data reporting in other parts of the UK. With co-operation from District Councils the EHS will continue to implement and develop the Waste Data Flow system to ensure consistency in municipal waste data collection and reporting across the UK. Data reports will be published annually, including information on performance indicators.

Waste Data Flow is designed for local authorities:

- to allow faster and more accurate data collection of municipal waste statistics, more regularly and efficiently;
- to enhance their local data management for reporting and strategic planning purposes;
- to offer them streamlined access to performance benchmarking with other authorities;

14.41 A joint taskforce has been established between the Department and the three Waste Management Groups called the Data Implementation Research Taskforce (DIRT). DIRT meets periodically to review progress in collecting waste data and ongoing implementation of new data monitoring systems.

14.42 A list of the KPIs for municipal wastes is set out below. Table 14.3 lists some of the data which is collected for these KPIs (and also key indicators for other waste streams and secondary indicators) to be calculated, and overall performance to be

monitored. The monitoring and reporting taskforce will periodically review the list of KPI to check that they remain consistent with EU requirements.

Part 1 – Primary Key Performance Indicators for Municipal Waste Management

- a. household waste recycled and composted as a % of arisings (i.e. of total household waste collected)
- b. household waste landfilled
- c. commercial & industrial waste (collected by district councils) recycled and composted as a % of arisings
- d. commercial & industrial waste (collected by district councils) landfilled
- e. municipal waste recycled and composted as a % of total arisings
- f. municipal waste landfilled
- g. biodegradable municipal waste (BMW) landfilled
- h. total household waste collected per household (from which waste growth rates are also calculated)
- i. cost of waste collection per household (including recycling)¹
- j. cost of waste treatment and disposal per tonne for municipal waste¹

Part 2 – Key Performance Indicators to be Measured for Kerbside Collection Schemes

- k. number of households served
- l. participation rates
- m. capture rates

¹ Because of the influence, for example, of the frequency of collection, these will be subject to review within the detailed methodology to be published by the Department.

Table 14.3: Key waste data to be measured and reported

Main municipal waste streams – total quantities in tonnes	
1	Refuse collection, including mixed waste, residual waste collected alongside other segregated components, and co-collected commercial and industrial (C&I) waste.
2a	Kerbside collection of dry recyclables ^{1,2}
2b	Kerbside collection of green waste for composting ¹
3	CA sites – waste collected, recycled, composted and landfilled ²
4	3 rd Party / Voluntary groups – recycling and composting collections ²
5	'Other' Collections not included above
6	C & I collections by private sector, recycled ² and landfilled
7	Construction and Demolition (C & D) waste recycled ² and landfilled
Other Waste Streams³	
8	Batteries
9	Clinical waste
10	Electrical & electronic equipment ⁴
11	Packaging and packaging waste ²
12	Tyres
13	End of life vehicles
14	Waste oils
15	Special waste
Other Data	
16	Number of households

¹ The data required to calculate the Part 2 indicators (participation and capture rates) will also be measured and reported.

² Data to be collected and reported for individual materials, to meet EU requirements

³ Data to be collated for each of these streams is waste disposal/treatment/recycling/reuse or other waste management method and the total quantities in tonnes.

⁴ Split into the categories required by the WEEE Directive

Strategic Environmental Assessment (SEA)

14.43 Provisions and requirements for SEA were established in The Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004, which came into operation on 22 July 2004. The Regulations transpose Directive 2001/42/EC of the European Parliament and Council on the assessment of the effects of certain plans and programmes on the environment.

- 14.44 SEA is a key component of sustainable development establishing important new methods for protecting the environment and extending opportunities for participation in public policy decision making. Sustainable development is also a central theme and key formative tool in the development of the Plan.
- 14.45 In the context of this Plan, SEA helps to integrate environmental decision making into the preparation of the plan. It also improves the Plan by emphasising consideration of environmental factors and enhances environmental protection. Additionally SEA helps to increase public participation in environmental decisions and requires a public statement as to how opinions have been taken into account, thereby making the planning process more inclusive, robust and transparent.
- 14.46 SEA involves systematically assessing and monitoring the significant environmental effects of the plan and included the involvement of experts at various points in the process. Expert advice is provided by the Consultation Body for SEA in Northern Ireland, DOE.
- 14.47 The key output of the SEA process is an Environmental Report, the purpose of the report is to provide information on the arc21 Plan and its SEA process. The Environmental Report identifies, describes and evaluates the likely significant effects of the Plan and reasonable alternatives. It also provides an early and effective opportunity for the Consultation Body and the public to engage in the plan and environmental assessment process. The SEA process undertakes to assess the objectives, policies and potential sites of the Plan.
- 14.48 The SEA has informed the Plan throughout its development and the assessment process has systematically identified aspects of the Plan that would either benefit from inclusion of environmental considerations or that can be enhanced from an environmental perspective. The Plan has taken account of information presented in the SEA and this is presented in the SEA environmental report and throughout the Plan itself. A copy of the SEA is provided in Annex I.
- 14.49 Whilst the key output of the SEA accompanies the Plan (Annex I) it is recognised that the process does not end here. Delivering the waste management strategy for the arc21 region as defined in the Plan will be challenging and will benefit from continuing environmental information provision and guidance. Implementation will require choices and decisions to be made on issues of potential conflict, particularly relating to the cost of providing the necessary services and associated land use issues.
- 14.50 The SEA confirms that the Plan is environmentally aware and through the SEA process the Plan is placing emphasis on mitigating negative environmental effects, whilst at the same time identifying and enhancing positive environmental effects.

14.51 The SEA provides a strategic level view, but inevitably the full environmental impacts associated with implementation of the Plan will have to be considered in more detail at a local level. Effective communication strategies will be required to address local concerns and to gain greater appreciation of waste as a resource rather than a problem. The SEA highlights the need to maintain monitoring procedures associated with the Plan implementation and places emphasis on the appropriate Plan review mechanism to ensure that the objectives of sustainable development are maintained.

Plan Review

14.52 The Plan will be monitored to assess the effect and effectiveness of its policies and the ongoing sustainability appraisal of the Plan. The DOE will regulate consents to ensure that facilities are developed and operated within the terms of their planning permissions and waste licences, and that conditions are being met.

14.53 More general monitoring will be carried out to measure how effective the Plan is in achieving its aims, and how it needs to change in light of new information or policy. This will include examining:

- changes in European and national legislation, policy and guidelines;
- new information about how much waste is being produced;
- changes in population and household projections;
- the physical pattern and level of activity of development in the arc21 Region and how it affects waste arisings;
- improvements in technology and waste management practice; and
- waste management developments in the other sub-regions.

14.54 The Councils intend the policies in the Plan to operate for the next 15 years. This update is the first comprehensive review of the Plan to take account of changing information and circumstances. Further updates will be undertaken to reflect the target years for recycling and diversion from landfill to identify the actual compared to predicted progress. The arc21 Councils will adopt the methodology developed by EHS for measurement and monitoring of progress towards targets.

14.55 Minor modifications such as updating of appendices relating to planning applications and waste management licences will be undertaken on an annual basis. A major review of the Waste Management Plan will be conducted at least once every five years.

Data Collection and Review

Monitoring

- 14.56 To manage the performance of arc21, reviews with particular emphasis on KPI will be carried out. These will also form the basis of an annual performance review report. The purpose of this monitoring will be to ensure the steady progress towards meeting targets, for example, recycling rate, landfill diversion and reduction in biodegradable municipal waste to landfill. The data will be evaluated and an ongoing annual time series for each KPI produced. Any significant deviations from an annual incremental target will result in appropriate corrective action. Deviations will be considered significant when they reach more than 25% of any annual increment. The level of corrective action will take account of the degree of deviation.
- 14.57 This annual monitoring has been used to provide substantial baseline data for this review of the Waste Management Plan, and will continue to provide data for reviews to coincide with the target dates set in the NI Waste Management Strategy. The annual performance review reports will be made available to stakeholders.
- 14.58 arc21 continue to support DIRT for the monitoring and improvement of data collection across the whole of NI.
- 14.59 This Plan is based on the best available data for municipal waste arisings as recorded for each of the arc21 Councils. However, data for other controlled waste streams is based on estimation and interpretation of limited NI datasets, as much of this information was only collected for the first time in 1999/2000. Data surveys on arisings for commercial and industrial wastes, construction and demolition wastes and priority waste streams have been commenced by EHS. If repeated on a regular basis these surveys will provide increasingly more accurate data for forward planning over the period of the Plan. A new survey of C&I waste arisings is being conducted by EHS to be published in 2006. The objective is to further improve the accuracy of data on waste arisings, waste composition and current management routes. The results of these surveys are expected in mid-2006.
- 14.60 Particular areas for data review noted in this Plan include:
- **Commercial and industrial waste arisings** – pilot and preliminary surveys of business and industry have been completed by EHS. Further surveys are required to provide more accurate and comprehensive data at the NI level. At the NI level this will be gathered by EHS;
 - **Municipal Solid Waste** – a further waste characterisation study is being carried out by the DOE. Results are expected mid-2006
 - **Construction and demolition waste arisings and disposal** – baseline data reported in Chapter 5 is currently inadequate. A survey of these wastes has

been commissioned by EHS. A requirement to provide waste returns for licensed waste management facilities will assist the collation of disposal data;

- **Hazardous waste** – EHS is continuing to collate detailed information contained in Special Waste transfer notes for interpretation of NI and sub-regional flows of special/hazardous wastes. This database is subject to change with emerging re-definition of hazardous and special waste at the European and national level;
- **Other priority waste streams (packaging, tyres etc)** – detailed reporting of these waste streams to EHS in future will enable arc21 to determine more accurately how much of this waste is being produced as well as its distribution in NI.