Appendix 3

Green Vision for Merseyside:

Potential for MWDAs contribution to the Liverpool City Region

Green Vision for Merseyside

MWDA's

Potential Contribution to the Liverpool City Region

Contents

1. Background

In a recent report submitted to the North West Development Agency by the Merseyside Sub-Regional Partnership entitled 'Action Plan for the Liverpool City Region', (11/2007), it was highlighted in Priority 5 – Environmental Performance (pp25-26) that MWDA would expend on waste management 220 million of the 225 million pounds highlighted. This would suggest that across the region, MWDA is the single greatest area of expenditure in terms of environmental performance.

2. Objectives

- To identify national, regional and local drivers of environmental performance; and
- Provide evidence of how MWDA can contribute and support the Liverpool City Region

3. Main statutory/regulatory drivers

- Waste Strategy for England 2007;
- JMWMS;
- Action Plan for the Liverpool City Region;
- Sustainable Energy Strategy 2006;
- The Energy Challenge 2007;
- Air Quality Strategy 2007;

- Air Quality: Detailed Assessment 2007 (Liverpool); and
- Climate Change Bill 2007/08;

4. MWDA headline contributions

The Authority could contribute to the Liverpool City Region in three key headline areas;

- Climate Change – carbon and methane reduction
- Natural resource protection – resource recycling, composting and reuse
- Transport – reduction of miles, emissions congestion and ill-health

5. Summary of MWDA potential contribution to green vision outcomes

A. CARBON MANAGEMENT

A1. To cut CO2 emissions by 30% (by 2020) - WMRC contract - HWRCs handled 218,000 tonnes of unwanted resources 06/07. Of this, 90,000 tonnes was recycled (embodied energy saved) or composted (carbon stored). For example, EcoCarb report identified a 13% CO2 (28,000 tonnes) reduction through current recycling efforts.

A2. Secure 30% sustainable energy supplies for Merseyside - Combined Heat and Power – processing green waste through anaerobic digestion provides gases that can be processed into heat and power.

A3. Use 30% renewable energy - New build and Retrofits – the Low Carbon Building Programme provides funding for renewable energy installations (PV study = 20%+ supply of renewable energy)

A4. Make all public buildings carbon neutral - All new build to be energy performance certified from July 2008. Based on same lines as white goods e.g. A to F. MWDA will aim for an A rating for its new buildings

A5. Increase average energy efficiency of all buildings by 30% per m2 - Double glazing, insulation, etc

B. TRANSPORT

B1. Reduce carbon emissions from vehicles by 40% - EcoCarb study identified that approximately 4 million Kms were travelled moving waste to landfill. This equates to more than 6,000 tonnes of CO2.

B2. Increase use of public transport by staff by 10% - Locate sites near to transport nodes

B3. Offset 100% of carbon impacts of air travel from Liverpool John Lennon Airport - Sign up to a carbon offsetting website or alternatively;

B4. Increase non-road freight transport by 10% - Investigate use of the River Mersey and the local canal networks

C. RESOURCE EFFICIENCY

C1. Achieve minimum of 30% (increase to 50% on the likelihood of new technological development) recycled content for all procured goods by 2020 - £3 billion worth of procurement currently being undertaken. Policy in place – target to be set as above

C2. Reduce waste to landfill by 90% - Procurement process is expected to assist in the delivery of this target

C3. 55% of all waste recycled and composted - Education and awareness programme and new facilities in place (further facilities to be developed).

D. ENVIRONMENTAL ECONOMY

D1. Increase investment in the environmental technology sector by 20% of procurement value - MWDA has a £300 million capital programme as part of the procurement process.

E. WATER

E1. To reduce water consumption by 50% by 2015 (DTI, 2006 Sustainable construction) - Water conservation to be designed into new developments and current to be retrofitted for water conservation purposes

F. BIODIVERSITY

F1. Maintain and/or enhance biodiversity - Make use of closed landfill sites to maintain and/or enhance local biodiversity

G. ATTITUDES AND BEHAVIOUR

G1. Increase environmental awareness - See C3 - Education and Awareness

6. MWDA contribution to suggested Green Vision outcomes

Evidence base

A. CARBON MANAGEMENT

A1. To cut CO2 emissions by 30% (by 2020)

A1.1 WMRC contract - HWRCs handled 218,000 tonnes of unwanted resources 06/07. Of this, 90,000 tonnes was recycled (embodied energy saved) or composted (carbon stored). For example, EcoCarb report identified a 13% CO2 (28,000 tonnes) reduction through current recycling efforts.

A1.2 RRC contract Refused Derived Fuel - if passed onto a power station for example (or as highlighted above - Fazakerley Green Business Park), this will reduce the consumption of natural resources and associated CO2 emissions and provide a business case for self-suffiency.

A1.3 Currently MWDA provides a MRF and MBT (online shortly) for District use, which indirectly helps to save the embodied energy of products collected by the Districts.

A1.4 Offices – an EMS will ensure that energy and resource use is reduced as part of the EMS improvement plan.

A1.5 Landfill gas – is currently supplied to the National Grid as a renewable resource.

A1.6 Associated vehicles emissions approximately 4 million kms (06/07) were travelled across the region moving waste from HWRCs to Landfill.

A1.7 Development of eco-parks/resource centres - could bring processors and resources closer together minimising CO2 emissions.

A1.8 Increase in facilities – ensures that there is a decrease in private transport mileage.

A1.9 Sources of renewable energy (MBT – CHP).

A2. Secure 30% sustainable energy supplies for Merseyside

A2.1 Combined Heat and Power – processing green waste through anaerobic digestion provides gases that can be processed into heat and power.

A2.2 Merton Rule – a number of Local Authority's across the UK have adopted the Merton Rule, including Sefton. (planning rule that 10% of energy provision must be from renewable resources).

A2.3 EMS

A3. Use 30% renewable energy

A3.1 New build and Retrofits – the Low Carbon Building Programme provides funding for renewable energy installations (PV study = 20%+ supply of renewable energy)

A3.2 EMS

A4. Make all public buildings carbon neutral

A4.1 All new build to be energy performance certified from July 2008. Based on same lines as white goods e.g. A to F. MWDA will aim for A ratings for its new buildings

A4.2 EMS

A5. Increase average energy efficiency of all buildings by 30% per m2

A5.1 Double glazing, insulation, etc

A5.2 EMS

B. TRANSPORT

B1. Reduce carbon emissions from vehicles by 40%

B1.1 EcoCarb study identified that approximately 4 million Kms were travelled moving waste to landfill. This equates to more than 6,000 tonnes of CO2.

B1.2 From 15th April, all petrol and diesel sold on forecourts must contain at least 2.5 per cent bio-fuel. (instant saving).

B1.3 5% bio-fuel already in use by some authorities.

B1.4 Bioethanol is available in various blends, most commonly E5, E10, E85.

B1.5 E100. The E stands for bioethanol and the number denotes the percentage of bioethanol in the blend, so E85 is composed of 85% bioethanol and 15% petrol. (Investigation, trials???)

B1.6 Procurement efficiencies could be exploited

B2. Increase use of public transport by staff by 10%

B2.1 Locate sites near to transport nodes

B2.2 Green Travel Plan

B3. Offset 100% of carbon impacts of air travel from Liverpool John Lennon Airport

B3.1 Sign up to a carbon offsetting website or alternatively;
B3.2 Potential for offsetting CO2 using the areas available from closed landfill sites

B4. Increase non-road freight transport by 10%

B4.1 Investigate use of the River Mersey and the local canal networks

B5. Cycling and walking

B5.1 Green Travel Plan

C. RESOURCE EFFICIENCY

C1. Achieve minimum of 30% (increase to 50% on the likelihood of new technological development) recycled content for all procured goods by 2020

C1.1 £3 billion worth of procurement currently being undertaken. Policy in place – target to be set as above

C2. Reduce waste to landfill by 90%
C2.1 Procurement process is expected to assist in the delivery of this target

C3. 55% of all waste recycled and composted.

C3.1 Education and awareness programme and new facilities in place (further facilities to be developed).

C3.2 Lead role in delivering the JMWMS and IAA implementation

D. ENVIRONMENTAL ECONOMY

D1. Increase investment in the environmental technology sector by 20% of procurement value

D1.1 MWDA has a £300 million capital programme as part of the procurement process.

D1.1 Procurement policy in place – target to be set as above

E. WATER

E1. To reduce water consumption by 50% by 2015 (DTI, 2006 Sustainable construction)

E1.1 Water conservation to be designed into new developments for example,

- Sustainable Urban Drainage Systems (SUDS)
- Rainwater harvesting
- Greywater use
- Vehicle wheel cleaning

- Current buildings to be retrofitted for water conservation purposes

F. BIODIVERSITY

F1. Maintain and/or enhance biodiversity

F1.1 Make use of closed landfill sites to maintain and/or enhance local biodiversity

F1.2 100% of the area of closed landfill sites to be subjected to Phase 1 Habit Surveys

G. ATTITUDES AND BEHAVIOUR

G1. Increase environmental awareness

G1.1 See C3 - Education and Awareness

7. Potential MWDA support for regional projects

In addition to MWDA's own contribution to environmental performance within the Liverpool City Region, there are a number of other 'projects' within Priority 5 – Environmental Programme, which could benefit from the Authority's potential support (and reciprocated) or the offer of partnership development. For example,

Project Ref No	Project name	Potential support
367	Fazakerly Green Business Park	RDF for use with CHP. In effect, the business park could be self sufficient in terms of energy needs? .
289	Sustainability, Oil Depletion and Mitigation for Competitive Advantage	Oil derived products can be processed back into their constituent polymers and then back into oil. Maximise plastic recycling.
290	Sustainable Construction Centre	Exemplar organisation e.g. Bidston 30% recycled content and future developments.
71	Eco-capital Regeneration Activity	Support local community enterprises that deal specifically with waste e.g. recycling, composting and reuse?
48	Corporate Social Responsibility	Lead on working group with LAs
122	Improving Derelict Land	Substitute topsoil with green waste compost
326	National Wildflower Farm	Supply green waste compost as a growing medium (trials required)

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