

NORTHERN INLAND REGIONAL WASTE  
REGIONAL WASTE STRATEGY

# SUMMARY

2014-2017

SUMMARY October 2014

*nirw*

*nirw*

NORTHERN INLAND REGIONAL WASTE  
*waste matters in our region*



This program is supported by the NSW EPA Waste Less,  
Recycle More initiative funded from the waste levy.

# FOREWORD

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This Northern Inland Regional Waste Strategy has been developed in the context of the NSW Waste Avoidance and Resource Recovery Strategy, 2013-21, current co-funding opportunities potentially available to NIRW through the NSW Waste Less, Recycle More initiative, and EPA regulatory reviews currently underway. The Strategy also takes into consideration the recent review by the NSW EPA of landfills across the north/north western regions of NSW.

The Regional Waste Strategy presents six Strategic Themes comprising a strategic direction for NIRW (Chapter 4). It calls for investigation of substantive changes that could be made with regional collaboration, and the subsequent development of business cases to pursue these initiatives where appropriate.

The Strategy initiatives involve a mix of some routine operational changes to improve regional waste management, and other initiatives which require full investigation of more substantive changes prior to committing capital and/or operational funding. In this way, the Regional Waste Strategy provides a framework both early action and for consideration of longer term initiatives.

Member Councils will have flexibility regarding their level of involvement in business cases and initiatives which involve capital and/or operational expenditure by their Council.

# EXECUTIVE SUMMARY

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Northern Inland Regional Waste (NIRW) is a voluntary organisation of Councils in the New England and North West regions of NSW. NIRW works collaboratively for better regional outcomes in waste management and resource recovery.

NIRW leads a number of waste programs and addresses waste management issues using a strategic regional approach.

NIRW has developed this Regional Waste Strategy with the assistance of funding through the NSW EPA under an agreement between NIRW and the EPA for a Regional Coordination Support Package.

The Regional Waste Strategy is based on the idea of extending regional collaboration to address whole-of-region waste management and resource recovery issues – particularly where there is potential for co-funding grants available through the NSW Waste Less, Recycle More initiative.

The Strategy recognises that each NIRW member Council is independently implementing its own waste management and resource recovery strategy.

However, NIRW and member Councils are committed to continued collaboration for improved waste management planning and service delivery.

 *The Vision of NIRW is: Collaborative leadership of a distinctive regional approach to sustainable waste management and resource recovery.* 

**The Regional Waste Strategy sets out a framework for NIRW member Councils to consider opportunities based on four key objectives in achieving this vision through a Regional Waste Strategy:**

1. Progressive, affordable improvement of waste avoidance and resource recovery outcomes, based on winning community support and developing local enterprise and employment.
2. Productive collaboration between NIRW member Councils to tackle whole-of-region waste management and resource recovery issues and deliver regional programs for sustainable waste management.
3. Development of cost-effective opportunities for joint regional delivery of waste infrastructure and services – particularly where potential exists for co-funding grants available through the NSW Waste Less, Recycle More initiative.
4. For NIRW to provide a single, influential regional voice in response to State and Federal waste policy initiatives and opportunities.

The main strategic themes set out below are aligned to the NSW Waste Avoidance and Resource Recovery Strategy 2013-21 (WARR Strategy) which was recently published by the NSW EPA. These themes and the accompanying initiatives are described more fully at Chapter 4, Regional Ambitions and Strategic Direction.

## **Theme 1. Avoid and reduce waste generation**

The progressive growth in waste generated in the Australian economy over many years is broadly a function of population increase, economic activity and changing consumption patterns. Initiatives for waste avoidance (waste not created or discarded) as a result of behaviour, technology or market initiatives, can break the entrenched purchase-use-discard cycle. Actions such as home composting and technology advances including light-weighting packaging and on-line newspaper production) can contribute to the objective of reducing per capita waste generation.

By being more efficient about materials actually consumed and discarded, either for disposal or recycling, societies are able to reduce the amount of materials that require handling, transport, processing to recycle, or disposal to landfill. This Theme seeks to build on broad state-wide initiatives to reduce the growth rate of waste generation.

- **Initiative 1a. Guide the community in reducing food waste**
- **Initiative 1b. Promote home composting**
- **Initiative 1c. Promote reuse of discarded products**

## **Theme 2. Increase recycling**

The draft WARR Strategy sets a target of 70% municipal recycling; a 24 percentage point increase on the current average regional recycling level. With garden waste recovery and processing already in place, the next logical step in the recycling toolbox is to focus on the red residual waste bin. These garbage bins contain a high proportion of food waste (and other organic wastes) together with valuable kerbside recyclable materials which could have been discarded to the kerbside recycling system.

This Theme describes regional initiatives to complement established Local Council strategies;

- **Initiative 2. Develop waste processing facilities at Council or sub-regional level**
- **Initiative 3. Improve kerbside recycling performance**
- **Initiative 4. Investigate the merit of establishing sub-regional waste recycling facilities for business and construction waste streams**
- **Initiative 5. Consider processing residual waste as a long-term regional or sub-regional option**

### **Theme 3. Increase community reuse and recycling and improve problem waste collection**

Community drop-off centres in convenient locations can be used to collect problem wastes, including household low level toxic wastes such as paint, batteries, pesticides etc. Drop-off centres can also provide collection bins for recyclable materials such as e-waste, paper/ cardboard, beverage containers, and metals. And they can incorporate buy-back centres for products suitable for reuse.

Most regional Councils across NSW already operate facilities equipped to receive these sorts of wastes. The community drop-off centre concept embraced by the EPA draws on the success of smartly-designed, easily accessible facilities available in Germany and some parts of the UK. The EPA has further developed the idea and anticipates that uniform branding and will generate increased patronage.

- **Initiative 6. Establish Drop-off Centres to collect reuse products, recycling materials, and problem wastes**

### **Theme 4. Reduce littering and increase public place recycling**

An enlarged network of attractive public place waste and recycling bins throughout the region could contribute to both reduced litter and improved public place recycling opportunities.

NIRW and member Councils will investigate the scope for EPA funding support to establish integrated litter reduction programs. The regional component could focus on community education and enforcement campaigns. NIRW and member Council funding applications could include provision of modern public place waste and recycling bin infrastructure.

- **Initiative 7. Upgrade and extend public place litter and recycling bin infrastructure, education and enforcement**

## **Theme 5. Reduce illegal waste dumping**

NIRW and member Councils will investigate the basis for a Regional Illegal Dumping Prevention Strategy. This could include engagement of educational resources and use of the EPA waste dumping data base to record illegal dumping incidents and monitor trends. A region-wide education program could raise community awareness of the problem, penalties for illegal dumping, and options for lawful, convenient disposal.

- **Initiative 8. Develop a regional Illegal Waste Dumping Program with EPA funding**

## **Theme 6. Increase regional collaboration**

Through the NIRW Program Committee and Program Coordinator, the NIRW secretariat already provides a regional coordination of nominated waste programs and a single point for development of region wide project funding applications. With further strengthening of capacity, the NIRW secretariat could increase the strategic capability of the region and play a wider, more effective role in coordinating an innovative regional agenda for improved waste management and environment protection.

- Initiative 9. Strengthen the capacity the NIRW secretariat to play a wider, more effective role in coordinating regional action on waste
- Initiative 10. Develop innovative regional solutions for problem & special wastes
- Initiative 11. Develop and implement the NIRW Regional Waste Facility Standard
- Initiative 12. Propose a NIRW voluntary waste levy

The Regional Waste Strategy includes Action Plans to deliver each of the above themes.

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# FREQUENTLY USED ABBREVIATIONS AND ACRONYMS

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<b>ABS</b>	Australian Bureau of Statistics
<b>AWT</b>	Alternative waste technology
<b>BCA</b>	Benefit Cost Analysis
<b>C&amp;I waste</b>	Waste generated in the commercial and industrial sector
<b>C&amp;D waste</b>	Waste generated in the construction and demolition sector
<b>EPA</b>	Environment Protection Authority
<b>E-waste</b>	Electronic waste including televisions and computers
<b>MGB</b>	Mobile garbage bin
<b>MSW</b>	Municipal solid waste
<b>MRF</b>	Material recovery facility
<b>NIRW</b>	Northern Inland Regional Waste
<b>RRA</b>	Regional regulated area
<b>WARR Strategy</b>	Draft NSW <i>Waste Avoidance and Resource Recovery Strategy 2013-21</i>



# 1. INTRODUCTION

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Northern Inland Regional Waste (NIRW) is a voluntary organisation of Councils in the New England and North West Regions of NSW. NIRW works collaboratively for better regional outcomes in waste management and resource recovery. NIRW leads a number of waste programs and addresses waste management issues using a cooperative regional approach.

Since its formation in 1998, NIRW has worked closely with the NSW EPA and has broadly adopted strategic focus areas that are consistent with the WARR Strategy. Significant issues and advances in resource recovery technologies and markets over recent years have made it appropriate to move to the next stage in exploring opportunities for collaboration to improve efficiency and services in waste management. The importance of contemporary planning approaches is underlined by the availability of funding for strategy development and operational projects under the NSW EPA Waste Less, Recycle More initiative.

Accordingly, NIRW has resolved to develop a Regional Waste Strategy with financial assistance from the EPA. The Strategy recognises that each NIRW member Council is responsible for delivering its own waste management and resource recovery services. But the capacity to tackle and resolve common strategic issues is amplified through regional initiatives and joint approaches.

The Strategy commences with a review of current waste management arrangements and performance (Chapter 2) followed by a review of region-wide issues and policy developments and market trends (Chapter 3). The centrepiece of the document is Chapter 4, Regional Ambitions and Strategic Direction, which sets out six Strategic Themes and 12 Regional Initiatives. The Strategy is supported by a description of the evaluation of potential regional initiatives (Chapter 5) and a set of Action Plans covering each initiative (Chapter 6).

# 2. CURRENT NIRW MEMBER COUNCIL SITUATION

## The Northern Inland Region

Northern Inland Regional Waste (NIRW) represents a voluntary grouping of thirteen Councils which include:

- Armidale Dumaresq Council
- Glen Innes Severn Council
- Gunnedah Shire Council
- Guyra Shire Council
- Gwydir Shire Council
- Inverell Shire Council
- Liverpool Plains Shire Council
- Moree Plains Shire Council
- Narrabri Shire Council
- Tamworth Regional Council
- Tenterfield Shire Council
- Uralla Shire Council
- Walcha Council

The following map at Figure 2-1 depicts the thirteen LGAs and their relative positioning.

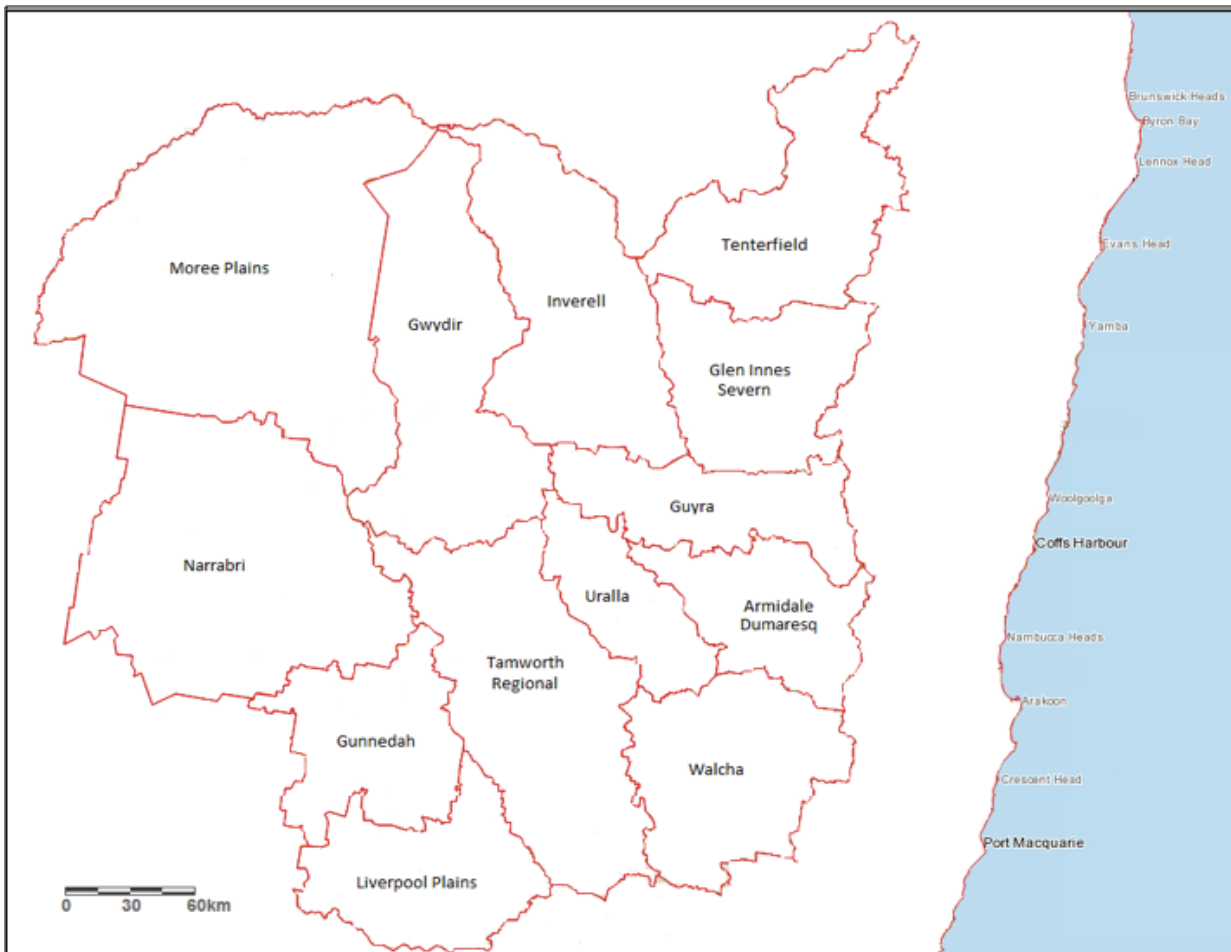


Figure 2-1: Northern Inland Regional Waste LGAs

The geographic boundary of NIRW extends across the New England and North West Regions of NSW with a land area of nearly 100,000 square kilometres. The population is around 180,000 residing in some 70,000 dwellings. The Northern Inland Regional Councils comprises 2.98% of the population of NSW (2011 Census).

The region contributes to the Australian economy in a variety of sectors, particularly mining and agriculture. Cattle and sheep are the main types of livestock. The western slopes are major areas for cotton and wheat. Other primary production activities include dairying, the production of grains, lamb, pork, fruit, potatoes, poultry, eggs, timber production, viticulture and aquaculture.

There are numerous other business activities across the region producing goods for domestic and international markets. Education is a major feature of activity around Armidale with the University of New England attracting a large residential contingent and contributing substantially to waste generation.

### Population and Demographic Profile

Population forecasts to 2036, using trends from 2001, 2006 and 2011 ABS census data are shown at Figure 2-2. The region's population in 2036 is expected to be around 195,000.

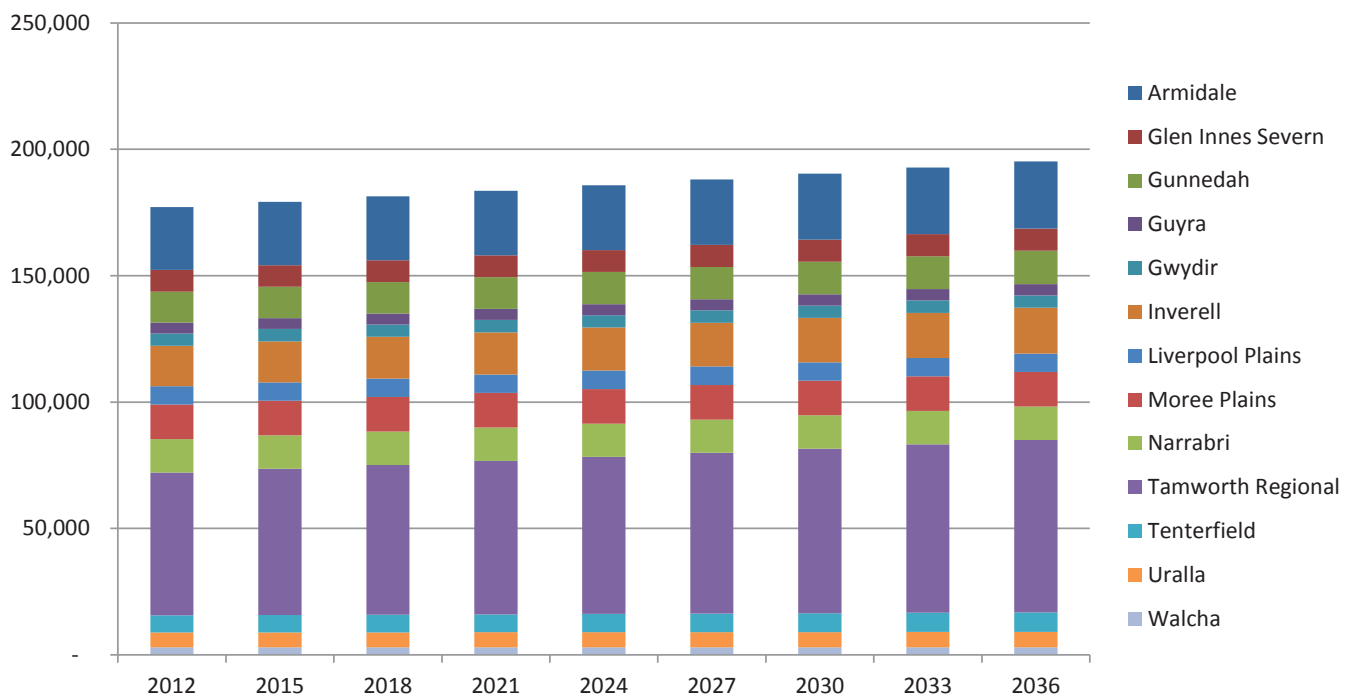


Figure 2-2: Population forecast for NIRW Region (source: ABS)

### Age Distribution Analysis

An ageing trend is observed across the region in the ten year period between 2001 and 2011. The number of individuals in the 55-64 and 65+ age brackets has increased by an average of 25% in ten years and the number of 5-14 year olds has decreased by an average of 11% in ten years. Expansion of retirement villages and hospitals in the region could further increase the aging demographic.

## Waste and Resource Recovery Data

### Overall Waste Flows

More than 200,000 tonnes of waste are generated across the region each year, comprising the three sectors or waste streams routinely used in waste management discussions: Municipal (MSW); Commercial & Industrial (C&I); and Construction & Demolition (C&D). Estimates of waste flows in each of these sectors are set out at Table 2-1 below.

Waste Activity	MSW1	C&I2	C&D2	Total
Generated	111,000	61,000	42,000	214,000
Recycled	52,000	12,000	26,000	90,000
Disposed	60,000	49,000	16,000	124,000

1. NSW EPA data.
2. Estimated by WCS based on estimates provided by NIRW member Councils.

Figure 2-3 below demonstrates the relative scale of each of the waste streams (MSW, C&I, C&D) within each of the waste activities (generated, recycled, disposed).

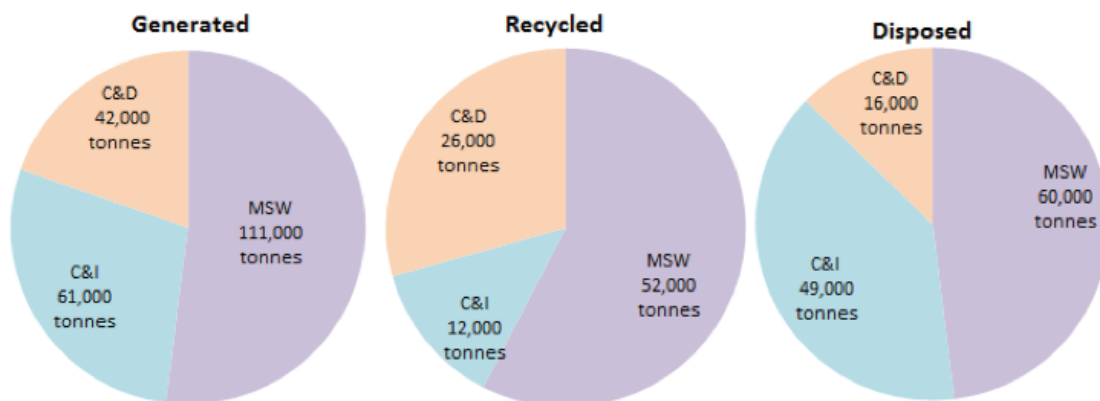
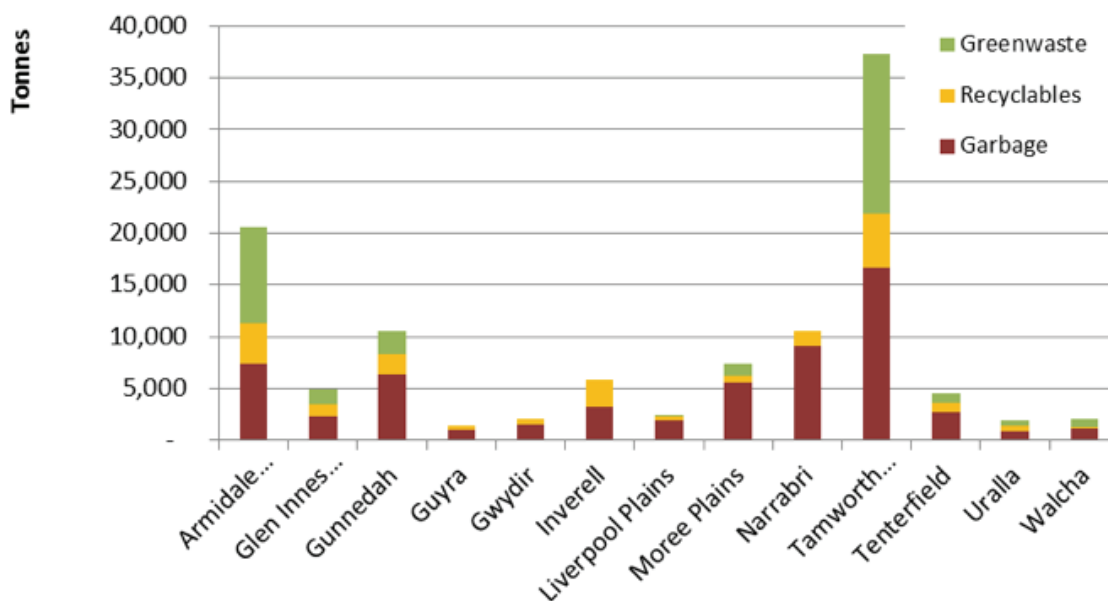


Figure 2-3: Estimated waste generated, recycled and disposed across NIRW

## Municipal Waste Management

In 2011/12 NIRW member Councils provided some 62,000 kerbside waste services, 60,000 kerbside recycling services and 29,000 kerbside garden waste services – an aggregate 151,000 kerbside services.

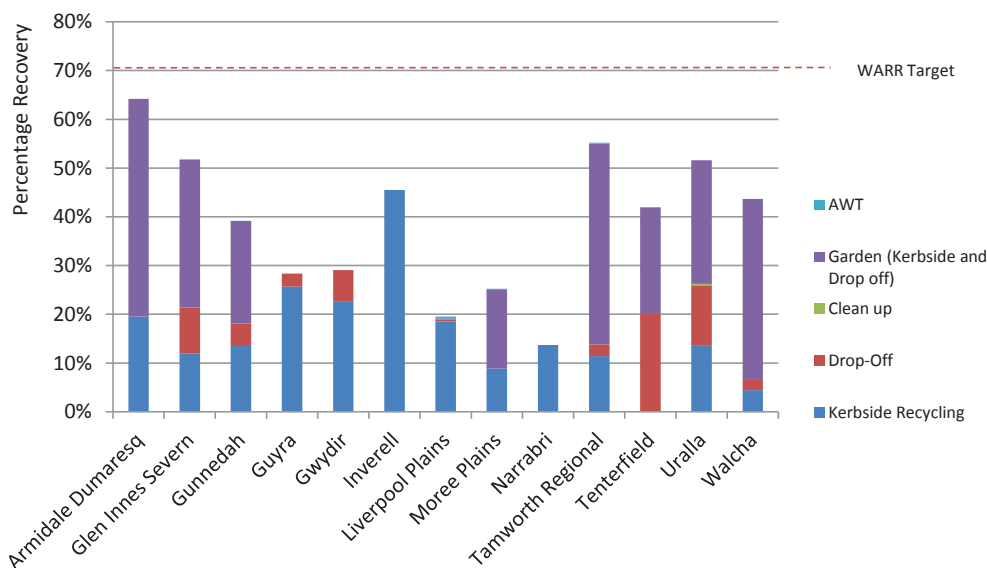
NIRW member Councils manage more than 111,000 tonnes of municipal waste each year. Tamworth Regional generates the majority, with 34% of the total NIRW municipal waste, followed by Armidale Dumaresq with 18% (see Figure 2-4 which provides an indication of the relative scale of waste disposal, kerbside recycling and green waste recycling).



**Figure 2-4: Total MSW - Waste generation, recycling and disposal (2011/12 EPA)**

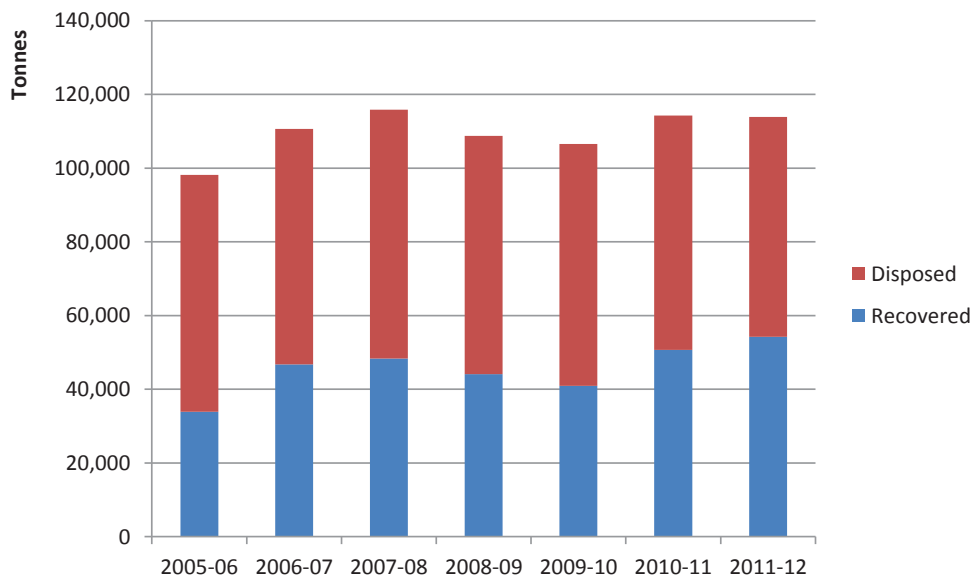
Of the thirteen NIRW Councils, Armidale Dumaresq has the highest MSW recycling rate, at 64%. The successful kerbside recycling service has been complemented by a combined kerbside food and garden service that was commenced in late 2011. Moree Plains, Narrabri and Gwydir have recently introduced similar food and garden waste collection and processing schemes.

The following graph (Figure 2-5) shows progress of each Council toward the NSW WARR Strategy MSW recycling target. Many NIRW member Councils are making substantial progress toward meeting the target despite difficulties associated with long transportation distances and relatively small volumes of recycling. The contribution of each of the recycling streams depicted in the graph is represented within each bar.



**Figure 2-5: Progress toward WARR MSW recycling target (2011/12 EPA)**

A temporal representation of the tonnes of MSW generated in each year (recovered plus disposed) between 2005/06 and 2011/12 for each of the LGAs is displayed in Figure 2-6. Waste generated between 2005/06 and 2011/12 increased by 16% while recycling rates increased by 60%. This was coupled with a 7% decrease in the disposal rate.



**Figure 2-6: NIRW Domestic Generated, Recovered and Disposed 2005-06 to 2011-12 (Source: Local Government Waste and Resource Recovery Data Reports)**

### 3. UNDERPINNING PLANNING PRINCIPLES

The need for the NIRW Regional Waste Strategy is driven by the draft NSW Waste Avoidance and Resource Recovery (WARR) Strategy 2013-2021, which sets out the direction for waste management in NSW. The WARR Strategy contains a vision for sustainable waste management and a set of challenging objectives for State progress in better managing waste. The WARR Strategy provides guidance, not only for actions to reduce and recycle waste, but also for actions to manage problem wastes, and reduce litter and illegal waste dumping.

The strong State agenda for sustainable waste management is carried through to the NIRW Regional Waste Strategy. Sustainable waste management is a goal in which all in the community, business and government can play a part. All who use products and materials have daily opportunities to contribute directly and personally:

- in thinking of waste as a potential resource and taking advantage of recycling opportunities;
- in protecting the environment, amenity and public health when discarding unwanted materials; and
- in reducing the growth of waste by using products more efficiently and, where possible, extending the purchase-use-discard cycle.

These points of potential contribution inform the principles that underpin the Strategic Themes adopted in this Regional Waste Strategy. The foundation principles are associated with (i) conserving resources, (ii) protecting the environment and public amenity, and (iii) collaboration by NIRW member Council waste management groups to amplify local management capacity. The first principle is guided by the internationally recognised waste hierarchy, which sets out a framework of logical choices for actions available to conserve, rather than waste, discarded resources (see Figure 3-1).

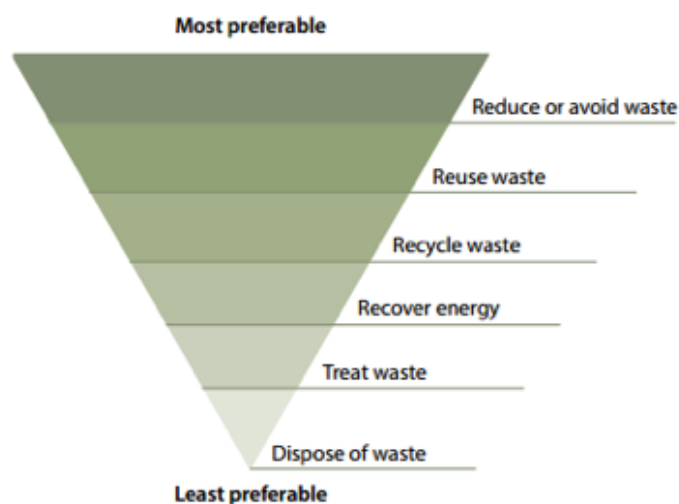


Figure 3-1. The Waste Hierarchy

The preferred action, at the top of the waste hierarchy, involves reducing the generation of waste so that it is not created in the first place and therefore does not need to be managed. The waste hierarchy also covers, in descending order of conservation merit: product reuse, such as with clothing or computers; material recycling to create new products from used materials; recovery of energy after higher order options have been exhausted; and disposal to landfill as a last resort.

The waste hierarchy particularly informs the Strategic Themes for waste avoidance and increased recycling presented at Chapter 4 below.

The second principle, environment and amenity protection, guides the Chapter 4 Strategic Themes to reduce littering, combat illegal waste dumping, better manage problem wastes and improve waste facility operating standards.

The final principal, to maintain and extend regional collaboration by Local Councils across the Northern Inland Region, provides the much-needed capacity leverage for cost-effective development of integrated waste management policies, programs and innovative approaches.



## 4. REGIONAL AMBITIONS AND STRATEGIC DIRECTION

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This Chapter describes the ambitions of the NIRW for future regional collaboration, and the strategic profile or themes planned to bring about better regional outcomes in waste management, waste avoidance and resource recovery. The NIRW member Councils are committed to continued collaboration for improved waste management planning and service delivery.

 *The Vision of NIRW is: Collaborative leadership of a distinctive regional approach to sustainable waste management and resource recovery.* 

Keys objectives in achieving this vision through a Regional Waste Strategy are:

- Progressive, affordable improvement of waste avoidance and resource recovery outcomes, based on winning community support and developing local enterprise and employment.
- Productive collaboration between NIRW member Councils to tackle whole-of-region waste management and resource recovery issues and deliver regional programs for sustainable waste management.
- Development of cost-effective opportunities for joint regional delivery of waste infrastructure and services – particularly where potential exists for co-funding grants available through the NSW Waste Less, Recycle More initiative.
- For NIRW to provide a single, influential regional voice in response to State and Federal waste policy initiatives and opportunities.

The Regional Waste Strategy is based on pursuit of the most cost-effective waste management arrangements across the region, and joint development of substantive, potentially region-wide options for better outcomes – for reduced costs, improved resource recovery, increased flexibility, and better service provision. With these ideas in mind, the strategy addresses proposals for infrastructure and systems to bring about improved recycling and take appropriate advantage of the power of productive collaboration.

## Themes Adopted in Waste Strategy Framework

The Strategic Themes and Initiatives provide the framework for the plan and the basis for Regional Initiatives.

The Strategic Themes are consistent with the NSW draft Waste Avoidance and Resource Recovery Strategy 2013-21 (WARR Strategy). The updated WARR Strategy retains the general direction for action to conserve resources and minimise harm to the environment. The strategic direction and diversion targets contained in the WARR Strategy suggest that by 2021 most waste will be treated to yield beneficial products or reduce pollution impacts. Residues from treatment processes, and difficult-to-treat wastes would continue to be disposed to landfill.

The waste policy framework suggests continued program support for Local Government through the NSW Waste Less, Recycle More initiative; this is underpinned by a relatively high and mounting levy on disposal of East-Coast waste to landfill – providing an improving financial incentive for resource recovery. Although NIRW member Councils are not subject to the waste levy, the NSW Government is currently considering options to extend the levy across the whole of NSW.

### Theme 1. Avoid and reduce waste generation

The progressive growth in waste generated in the Australian economy over many years is broadly a function of population increase, economic activity and changing consumption patterns. Initiatives for waste avoidance (waste not created or discarded) as a result of behaviour, technology or market initiatives, can break the entrenched purchase-use-discard cycle. Actions such as home composting and technology advances including light-weighting packaging and on-line newspaper production) can contribute to the objective of reducing per capita waste generation.

By being more efficient about materials actually consumed and discarded, either for disposal or recycling, societies are able to reduce the amount of materials that require handling, transport, processing to recycle, or disposal to landfill. This Theme seeks to build on broad state-wide initiatives to reduce the growth rate of waste generation.

#### Initiative 1a. Guide the community in reducing food waste

NIRW and member Councils will work with the EPA to develop a follow-up local education program to build on the previous NSW Government Love Food, Hate Waste campaign.

#### Initiative 1b. Promote home composting

NIRW and member Councils will prepare and promote home composting as a contribution to conserving landfill capacity and creating beneficial materials.

#### Initiative 1c. Promote reuse of discarded products

In association with Theme 3 (Increase community reuse and recycling and improve problem waste collection) NIRW will promote reuse of unwanted, used products to reduce entry of potentially reusable materials to the waste stream.

## **Theme 2. Increase recycling**

The draft WARR Strategy sets a target of 70% municipal recycling; a 24 percentage point increase on the 2011/12 average regional recycling level. With garden waste recovery and processing already in place, the next logical step in the recycling toolbox is to focus on the red residual waste bin. These garbage bins contain a high proportion of food waste (and other organic wastes) together with valuable kerbside recyclable materials which could have been discarded to the kerbside recycling system.

This Theme describes regional initiatives to complement established Local Council strategies.

### **Initiative 2. Develop waste processing facilities at Council or Sub-regional level**

NIRW member Councils will progressively implement local waste processing strategy for either food/garden waste or mixed waste. Where feasible and cost-effective, lead Councils may invite other Councils to participate, either on commercial terms or in joint venture, in local contract arrangements.

### **Initiative 3. Improve kerbside recycling performance**

Domestic garbage bins invariably contain some dry recyclable materials, including containers and paper/cardboard that could otherwise have been placed in kerbside recycling systems. This recyclable material can comprise around 24% of the average residual waste bin contents (according to EPA 2011 audit data). This is consistent with a recent waste audit conducted by Armidale Dumaresq Council which found an average of 28% of the residual waste bin contents comprised paper/cardboard and containers suitable for kerbside recycling systems. There is substantial potential to claw back some of this lost opportunity. The community will need guidance to make the switch, but the rewards are substantial.

### **Initiative 4. Investigate the merit of establishing sub-regional waste recycling facility for business and construction waste streams**

NIRW member Councils currently receive and dispose of more than 100,000 tonnes of Commercial & Industrial (C&I) and Construction & Demolition (C&D) waste each year. This results in loss of recyclable resources and consumes valuable landfill capacity which is difficult and costly to replace. Much of the commercial waste comprises cardboard, timber, metals, plastics, concrete, brick and soils, all of which have potential recycling value.

NIRW and member Councils will jointly investigate the merit of establishing sub-regional business waste materials recovery facilities (MRFs). The MRFs would receive, recover and divert from landfill dry C&I and C&D waste loads.

Local landfill gate pricing could be set to make attractive waste streaming to material type at source in order to minimise material separation requirements at MRF. This pricing policy concept has already been implemented by Armidale Dumaresq Council.

### **Theme 3. Increase community reuse and recycling and improve problem waste collection**

Community drop-off centres in convenient locations can be used to collect problem wastes, including household low level toxic wastes including paint, batteries, pesticides etc. Drop-off centres can also provide collection bins for recyclable materials such as e-waste, paper/ cardboard, beverage containers, and metals. And they can incorporate buy-back centres for products suitable for reuse.

Most regional Councils across NSW already operate facilities equipped to receive these sorts of wastes. The community drop-off centre concept embraced by the EPA draws on the success of smartly-designed, easily accessible facilities available in Germany and some parts of the UK. The EPA has further adopted and further developed the idea and anticipates that uniform branding will generate substantial patronage

#### **Initiative 6. Establish Drop-off Centres to collect reuse products, recycling materials, and problem wastes**

NIRW will support member Councils to establish or upgrade Drop-off Centres at existing waste facilities to collect low toxic household wastes and materials for reuse and recycling. Potential funding under the NSW Waste Less, Recycle More initiative could contribute to the initiative. The program could be supported with a regional education and engagement activity.

### **Theme 4. Reduce littering and increase public place recycling**

An enlarged network of attractive public place waste and recycling bins throughout the region could contribute to both reduced litter and improved public place recycling opportunities.

NIRW and member Councils will investigate the scope for EPA funding support to establish integrated litter reduction programs. The regional component could focus on community education and enforcement campaigns. NIRW and member Council funding applications could include provision of modern waste bin and recycling bin infrastructure.

#### **Initiative 7. Upgrade and extend public place litter and recycling bin infrastructure, education and enforcement**

NIRW and member Councils will collaborate to request funding under the NSW Waste Less, Recycle More initiative to upgrade public place litter and recycling infrastructure supported by regional education and engagement.

### **Theme 5. Reduce illegal waste dumping**

NIRW and member Councils will investigate the basis for a Regional Illegal Dumping Prevention Strategy. This could include engagement of educational resources and use of the EPA waste dumping data base to record illegal dumping incidents and monitor trends. A region-wide education program could raise community awareness of the problem, penalties for illegal dumping, and options for lawful, convenient disposal.

## **Initiative 8. Develop a regional Illegal Waste Dumping Program with EPA funding**

NIRW and member Councils will collaborate to apply for grant funding under the NSW Government Waste Less, Recycle More Initiative to develop a Regional Illegal Dumping Prevention Strategy.

## **Theme 6. Increase regional collaboration**

Through the NIRW Program Committee and Program Coordinator, the NIRW secretariat already provides a regional coordination of nominated waste programs and a single point for development of region wide project funding applications. With further strengthening of capacity, the NIRW secretariat could increase the strategic capability of the region and play a wider, more effective role in coordinating an innovative regional agenda for improved waste management and environment protection.

## **Initiative 9. Strengthen the capacity the NIRW secretariat to play a wider, more effective role in coordinating regional action on waste**

- a) NIRW member Councils will jointly work toward progressively increased collaboration to deliver cost-effective waste policies and programs for the region, and will consider opportunities for service collaboration.
- b) NIRW member Councils will continue to explore joint tendering processes, where beneficial, for waste-related services and infrastructure.
- c) NIRW member Councils will strive to adopt a regional approach to community waste education across a common set of waste and waste related issues including combating illegal waste dumping, reducing litter, waste improving avoidance and increasing recycling.

## **Initiative 10. Develop innovative regional solutions for problem & special wastes**

NIRW will coordinate collaborative, innovative approaches to tackle problem and special wastes such as household toxics, mattresses, clothing, e-waste, tyres, agriculture wastes, mining wastes, animal wastes and low demand recyclable materials

## **Initiative 11. Develop and implement the NIRW Waste Facility Standard**

NIRW and member Councils propose to respond to the EPA concerns about landfill environmental standards by devising, in consultation with the EPA, a NIRW Waste Facility Standard and progressively working toward this standard so that over a five year period, regional landfill stock is progressively brought up to an agreed environmental and management compliance standard. Those unlicensed facilities that are demonstrated to pose unacceptable environmental risks would be progressively closed under the program and consideration would be given to installation of waste drop-off/transfer facilities at these sites.

## Initiative 12. Adopt a voluntary NIRW Regional Waste Levy

In response to a recent EPA Options Paper on extension of the waste levy across NSW to cover the non-regulated area, NIRW proposes to develop a submission to the Minister for the Environment rejecting the options contained in the paper and putting forward an alternative waste levy arrangement. Subject to consideration by all NIRW member Councils, NIRW member Councils may implement a voluntary regional waste levy. The scheme could be fully controlled by NIRW (rather than the EPA) and managed by NIRW member Councils. Levy contributions would be quarantined in special reserves by the Councils collecting the funds. The funds would be 100% hypothecated to local Council waste management programs associated with the Regional Waste Strategy, including the NIRW Waste Facility Standard. The level could be set at \$10/tonne of waste sent to landfill in order to provide a financial incentive for recycling.

As part of the waste levy proposal, and in conjunction with the proposed NIRW Waste Facility Standard, consideration will be given to establishing a NIRW landfill gate pricing policy.

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## Evaluation of Regional Strategic Initiatives

The initiatives described above were evaluated using financial Cost/Benefit analysis prepared from the perspective of the NIRW member Councils operating in collaboration to undertake the initiatives described. The Cost/Benefit analysis was based on broad-brush, indicative assumptions and estimates, and is intended to gauge the general merit of each initiative compared with the business-as-usual approach. The results of the analysis, summarised at Table 4-1 below, indicate that all initiatives other than one have a positive net present value. Similarly, all but one initiative have positive benefit/cost ratios. These results suggest there is a case for investigation of the regional initiatives, and subsequent development of business cases where appropriate.

	<b>Initiative</b>	<b>Net Present Value (NPV)</b>	<b>Benefit/Cost Ratio</b>	<b>NPV Costs</b>	<b>NPV Benefits</b>
1	Waste Avoidance Education and Community Support	\$0.6m	2.1/1.0	\$0.50m	\$1.1m
2	Extended sub-regional collaboration for combined food and garden waste processing	\$1.3m	1.1/1.0	\$17.2m	\$18.5m
3	Improving kerbside recycling performance	\$1.0m	1.6/1.0	\$1.7m	\$2.7m
4	Sub-regional C&I/C&D recycling facilities	\$8.9m	1.2/1.0	\$34.8m	\$43.7m
5	Regional residual waste processing – long term option	-\$12.3m	0.7/1.0	\$42.9m	\$30.6m
6	Drop-off centres for improved community recycling and household problem waste capture	\$3.4m	2.1/1.0	\$3.1m	\$6.5m
7	Improving public place recycling and reducing littering	\$3.3m	1.3/1.0	\$9.3m	\$12.6m
8	Reducing illegal waste dumping	\$0.1m	1.3/1.0	\$0.4m	\$0.5m
9	Strengthened regional waste education, policy, and program capacity	\$0.1m	1.1/1.0	\$0.6m	\$0.7m
10	Waste management innovation for problem & special wastes	\$0.4m	2.1/1.0	\$0.4m	\$0.8m
11	NIRW Waste Facility Standard	\$0.4m	1.2/1.0	\$2.3m	\$2.7m
12	Adoption of a Voluntary NIRW Waste Levy	BCA inappropriate for this initiative			