

## Summary Points for Glass

- 6-8% of household waste stream is packaging glass. Household consumption is 86% of the total. Most of the rest is derived from the licensed trade.
- There is an estimated 64KT of domestic packaging glass, 15KT of commercial packaging glass and an estimated 13KT of flat glass disposed of in Hampshire annually.
- 23KT (approximately a third) of Hampshire's household packaging glass is currently recycled via bottle banks, representing 34kg per household per year. Household bottle banks are undoubtedly used by some commercial businesses illegally. This is not discouraged by most local authorities unless it causes capacity problems.
- A trial kerbside glass collection scheme in Hart & Rushmoor is proving popular and capture rate is over 56kg per household. Approximate net collection costs (allowing for income and recycling credits are) £45 per tonne for the trial area.
- It costs over £2m pa to dispose of the remaining glass via landfill or incineration.
- Local Authorities have role in stimulating end markets through procurement of glass-based products, eg grit blasting medium.
- The Midland Glass Company have a 10 year contract to process all domestic glass from Hampshire.
- Markets are available to place all material that can be collected for either re-melting, as an aggregate substitute or for other higher value uses.
- Processing costs are proportionately higher for higher value products but proximity to reliable and stable supply provides a benefit to re-processors.
- The emphasis should therefore be on developing higher value end uses and building facilities in Hampshire to meet the demand.
- It is not possible to produce a single high value product (eg powder of uniform particle size) from a batch of glass. The nature of the material dictates that there will always be a range of particle sizes produced. These may form other products eg sports turf sand.
- At present local authorities will still have to bear the costs of collection but these can be offset by efficient collection systems, and savings on landfill/disposal. An holistic view of collection and avoided disposal costs should therefore be taken by Project Integra.
- Volumes of material collected by vehicles are crucial to routing viability. PI should consider collecting domestic and commercial glass on the same route/journey.
- Incentives are needed for the waste management industry to move away from charging pubs clubs etc by lift regardless of waste composition.
- PRNs remain an incentive for packaging glass but there is no equivalent for flat glass.

## Status Quo Option

- Packaging Targets under the Packaging Directive are unlikely to stimulate additional collections in Hampshire without continued subsidy of and development of collection systems by Local Authorities.
- Without a countywide strategy, glass collection is likely to be introduced slowly and in a piecemeal fashion over the next 5 years by some WCAs. This would mirror the situation already seen with kerbside co-mingled collections and garden waste.
- There is some scope to offer a commercial service to improve capture from pubs, clubs etc. Entry costs and very low margins would preclude all but established glass processors such as Midland Glass from being able to offer this service. Some local authorities are starting to consider joint collection.
- **New Infrastructure Required:**
  - Collection – collection vehicles
  - Handling – bulking bays, probably located within existing depots and transfer stations. The Midland Glass Company will be able to absorb additional tonnages collected.
  - Reprocessing – nil
- **Impact on recycling rate** – locally up to 3% per WCA if whole district is included.

## Stretching Best Practice

- Trials in Hart & Rushmoor show that Kerbside glass collection, backed by a suitable awareness and communications campaign, can yield average capture rates of 56kg per household per year. This would boost overall tonnage by over 20KT per year. This system would result in some diversion from bottle banks and the glass would be mixed, although Midland glass can colour-sort. This level of capture would boost the overall domestic recycling rate in Hampshire by 2.5%.
- The household recycling rate could be increased by 5.5% if ALL household glass were diverted from the residual waste stream. This could only be achieved if placing glass in the residual stream was actively discouraged through legislation or changes in social attitudes.
- Combining collection from licensed premises with domestic kerbside collection could yield up to 9KT of additional packaging glass in Hampshire per year.
- The net cost of collection needs to be kept low through efficient systems and a countywide strategy.
- Facilities for separate storage of flat glass at HWRCs from household and trade sources could yield an estimated 6.5KT per annum at a 50% capture rate.
- There is potential to link the increased volume of materials to a new plant for high value end uses at Southampton Docks alongside the Midland Glass Plant. The glass sector strategy could therefore have the potential to be linked throughout the whole process chain.

- **New Infrastructure Required:**
  - Collection – collection vehicle, one vehicle (driver plus 2 crew) per 20-25,000 households collecting fortnightly.
  - Handling – bulking bays, probably located within existing depots and transfer stations. The Midland Glass Company will be able to absorb additional tonnages collected.
  - Reprocessing – glass reprocessing facility (grinding / powdering) adjacent to Midland Glass Co. (Southampton Docks).
- **Impact on recycling rate** – 2.5% on countywide basis (over 3% for each WCA).