Manage Household Waste Recycling Centres with ANPR

Household Waste Recycling Centre
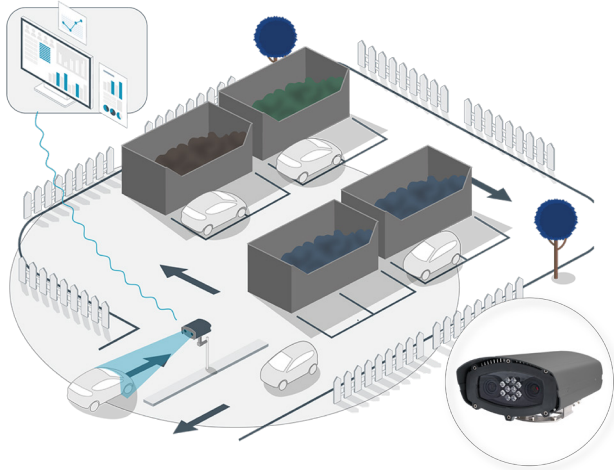
OVERVIEW

The Management of household waste disposal is a challenge affecting regional and national authorities all over the World.

Household Waste Recycling Centres (HWRC) have a number of challenges to address to ensure a smooth running and cost-effective operation.

- To save money
- To manage misuse of HWRCs
- To identify and prevent the illegal trade use at HWRCs sites
- To collection data for understanding trends and to help with future provision of facilities

THE CHALLENGES

1. To Save Money

Local authorities need to manage the cost of disposing household waste as costs continue to rise. It is estimated that it costs a local authority £500,000 each year to process waste brought in by non-residents. More and more local authorities are implementing schemes that only allow local residents to use the site (non-residents may have to pay a fee or be refused entry) and some are even implementing online booking systems to book a time slot to visit the HWRC.

ANPR can be used across a local network of sites to only allow free access for vehicles registered to an address within the local authority.

2. To Manage Misuse of HWRCs

ANPR cameras can accurately count vehicle numbers and with the addition of exit lane cameras could record how much time each vehicle is on site. It can identify frequent visitors and create a hot list, so when a 'vehicle of interest' enters the WHRC an email alarm will be sent to a smartphone so the vehicle can be dealt with.

3. To Identify and Prevent the Illegal Trade use at HWRC sites

HWRCs are generally free for local resident use but can attract commercial traders who wish to dispose of their waste without paying the appropriate fees. TagMaster's ANPR system can easily identify vehicles which are frequently visiting multiple sites to try to avoid detection.

Commercial traders attempting to abuse the HWRC sites by accessing sites in non-commercial type vehicles such as cars, will be picked up on ANPR. As trade users, by the nature of their work, tend to visit the sites much more frequently than household users and ANPR will be able to recognise these more frequent users.

Data from the system could also assist in identifying rogue traders fraudulently using the free household waste service to dispose of trade waste. The system also has the facility to link to the DVLA database and identify the type of vehicle and registered keeper details if necessary.

4. To Count Vehicle Use of the Site

By counting the number of vehicles on site, you can restrict access when the site is at full capacity to manage the safety of the staff and visitors on site. If barrier control is required, TagMaster's ANPR cameras can be integrated to third party systems and control the barrier directly from the camera.

5. To Collect Data for Understanding Trends and to Help with Future Provision of Facilities

Data collected by TagMaster's ANPR cameras can be kept for years for future planning, comparing year on year data to enable you to make informed decision to maximise site availability and to develop new and existing sites to better meet the needs of the local residents.

KPI reports can show traffic volumes per site such as

busiest days of the week, busiest times of the day etc., which can help with staff planning.

ANPR TECHNOLOGY & BOOKING SYSTEMS

Household Waste Recycling Centre (HWRC) sites with high volumes of visitors can manage the sites capacity and improve visitor experience by utilising ANPR Technology to integrate into a third-party booking system.

More and more local authorities are implementing schemes that only allow local residents to use the site by implementing an online booking system to book time slots to visit the HWRC. There are many benefits for using an online booking system to automate visitor access including minimising queuing, which improves the visitor experience as well as an environmental benefit of reduced emissions.

Other benefits of booking systems for the management of HWRC sites include:

- Manages the misuse of HWRCs, limiting site usage to local boroughs
- Reduced traffic queuing at busy sites
- Improved local air quality as queuing eases and the uncertainty of access has reduced wasted car journeys
- People being more mindful of disposing of waste, for example bringing more waste, less often – benefitting the environment
- Less disruption to visitors as site maintenance can be planned in accordance with customer demand
- Improved visitor experience by minimising time spent on site
- Prevent illegal trade use of HWRC sites
- Increase site efficiency using insights from real-time data
- Stop banned vehicles from booking online

ANPR CAMERAS & BACK OFFICE SOFTWARE

Councils and waste site operators all require regular reporting on traffic volumes per site to manage the sites capacity and efficiency and to make informed decisions when developing existing and new sites to better meet the needs of the local residents.

With some counties having over 20 Household Waste Recycling Centres (HWRC) connecting into a central server they can have in excess of 20,000 reads per day. Therefore, it is imperative that both the ANPR cameras and back-office software can withstand the demands made of them.

TagMaster's high performance ANPR cameras and back-office software solutions can endure the rigorous demands of busy HWRCs ensuring they provide operators with the essential data required to manage capacity.

HOW WE HELP

TagMaster's CT45 camera and Back Office Software is an ideal solution. The motorised zoom lenses with auto focus for both ANPR and colour overview makes the CT45 quick and easy to setup and suitable for positioning the camera for standalone ANPR or use with a barrier. PoE+ means mains power is not required making camera installation and setup straightforward and cost effective.

The camera's built in relay enables you to control a barrier directly from the camera.

The CT45 is an intelligent camera, so it doesn't need to be hosted on a local PC, it can be linked to a central server.

RTSP (Real Time Streaming Protocol) is available from the CT45, giving the option for live video to be integrated into an external video recording system for additional CCTV coverage on the site, which can be used as added security.

TagMaster's ANPR and back-office systems can identify frequent visitors helping to prevent illegal trade use. By having a central server with multiple sites being linked, you can easily detect vehicles that are regularly visiting multiple sites to try to evade detection. It can create a hot list, so when a 'vehicle of interest' arrives at the HWRC an email alarm will be sent to a smartphone so the vehicle can be challenged.

The ANPR and back office-systems can also be utilised to provide origin and destination information on the approach road to the site. With ANPR cameras set up on the approach road, it is possible to record how long it takes for visitors to reach the site.

SUMMARY

TagMaster have a considerable amount of experience and an outstanding track record in providing ANPR solutions in a wide range of applications including Household Waste Recycling Centres. Each site has different requirements but with the quality, accuracy and reliability of TagMaster's ANPR systems, a 'best in class' solution is always provided.

PRODUCTS USED

ANPR Cameras

Back Office Software

TagMaster
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