

CASE STUDY

City of Wanneroo



'One of the Easiest Projects We've Ever Deployed'

CLIENT

City of Wanneroo,
WA



REQUIREMENT

An automated weighbridge system with no holdup for vehicles.

An integrated voucher management program for residents.

SOLUTION

naus Platform

Facility Product Suite

Facility Core Product
Image Capture
Automation

Resident Product Suite

Voucher Management

Overview

We believe that if you invest in a complete data-driven and future-proofed software solution for your waste facility now and build a partnership with Mandalay and allow it to grow with you as your strategy changes, the benefits and cost savings to your waste team and council are immense.

For real-world insight into this scenario, we had the opportunity to speak with Juan-Mari Davies – former Senior Project Manager of Waste Services for the City of Wanneroo - who has shared the benefits and opportunities they gained from working with Mandalay on their recent waste projects.

The City of Wanneroo currently utilises Mandalay's standard ticketing system within the **Facility Product Suite** and the residential **Voucher Management** system for one facility.

The Situation

The City of Wanneroo was a previous customer of Mandalay until 2014 when the material recycling facility that utilised Mandalay software closed, and the operations ceased. The decision was made to scale down the weighbridge ticketing system, so they switched to an alternative software provider.



'If you're not going to use the other applications on offer in terms of the insights, reporting and analytics, and all the other applications that can be added on, you're paying for this beautiful machine but you're not using it properly.'

Juan-Mari Davies,
former Senior Project
Manager of Waste
Services
City of Wanneroo

'I was just blown away with what it could do. At the time when all the proposals came back and this was an add on as an optional, I was like, this needs to happen.'

Juan-Mari Davies,
former Senior Project
Manager of Waste
Services
City of Wanneroo

Then in 2021, they went out to tender to upgrade the weighbridge software after realising that despite being cost-effective, their existing software no longer suited their needs. They required a system that had the functionality and flexibility to take them where they needed to be, which resulted in them signing a new contract with Mandalay in 2021.

The Requirements

Facility Requirements

To coincide with the implementation of their Three Bin Kerbside Collection project they required the chosen (transfer) facility to have an automatic weighbridge system with no holdup for their vehicles. A streamlined entry and exit process needed to be in place.

The Wangara Greens Recycling Facility was nominated as their intermediate transfer facility; however, it did not have an automatic weighbridge system in place. This was primarily a community facility and is only staffed and operated on weekends and public holidays. As the facility is minimally staffed Monday to Friday, according to Juan-Mari, they had to develop a plan quickly to make this facility suitable for these additional operations.

The Wangara recycling facility also has a single weighbridge, which isn't ideal, however they didn't have the time or funds to build another weighbridge. They needed a solution that would facilitate their trucks to come in quickly and go out easily enough with only a single weighbridge in place.

Voucher Management Requirements

During the tender process, Juan-Mari said that the Mandalay team offered to show them something they thought might be of interest to them - A presentation on the Voucher Management suite.

In addition to the change at the facility, Wanneroo also wanted to allow their residents to continue using council supplied waste vouchers.



'When we went to market, we received Mandalay's response which was more than what we asked for, and we thought, wow, we can actually do more than getting trucks in and out quickly with at a site with minimal supervision'

Juan-Mari Davies,
former Senior Project
Manager of Waste
Services
City of Wanneroo

'It was all manual. A guy was counting tickets manually to tally them up. Here we are in 2021 and I think we can do better.'

Juan-Mari Davies,
former Senior Project
Manager of Waste
Services
City of Wanneroo

Requirements and possibilities soon expanded from a facility based automatic weighbridge solution to include developing and implementing a new, integrated voucher management program for the City of Wanneroo and its residents.

For the voucher program to be successful, the biggest requirements were to make it easier for residents to access the site while also having a system in place that their waste team and Council had more control over.

The Challenges

Unattended Single Weighbridge Facility

The primary challenge related to the Wangara Greens Recycling Facility itself. Being unattended through the week and only having one weighbridge meant changes needed to be made to ensure the facility was suitable for the new garden organic kerbside collection operations.

Weighing and Measuring Vehicles

They needed to be able to weigh and measure vehicles coming in efficiently with the use of one weighbridge. They also needed to accommodate the different size trucks coming through which was a last-minute addition that Mandalay accommodated for very quickly.

Manual Ticketing

Their process prior to Mandalay was largely manual in terms of ticketing. Their system captured weight but when it came to reconciling receipts and payments along with exporting and accessing data, it was all manual. They were not able to access information quickly and it was always a time-consuming process.

Lost / Missing Vouchers

Vouchers were going in as a separate insert in the rates envelope and because of that, Juan-Mari says they had a lot of issues with people saying they lost their voucher, so they would re-issue them with another one. They didn't know where the people were from or if the voucher was legitimately lost.



'I'm a data person and I like to base decisions on facts. The system Mandalay is offering will make that process much easier.'

Juan-Mari Davies,
former Senior Project
Manager of Waste
Services
City of Wanneroo

'We now have the luxury of accessing all the insights of what is actually happening there, how many trucks are coming through and understanding the seasonal trends. If we used another facility that did not have the hardware and Mandalay software tool we are using, we wouldn't have the insights we have now.'

Juan-Mari Davies,
former Senior Project
Manager of Waste
Services
City of Wanneroo

No Insights from Data

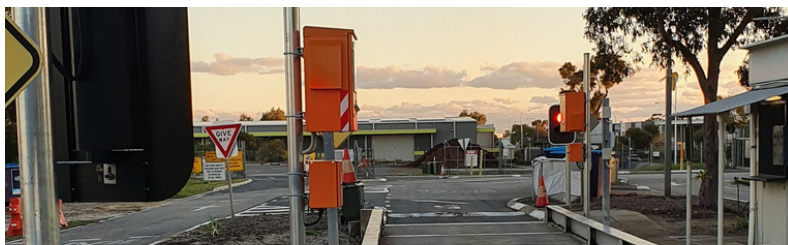
Because they were not operating with a system that allowed them to collect and analyse data about their waste, facilities, and residents, they found it difficult to make informed decisions to further improve their operations and customer service.

The Solution

Facility Solution

For the Wangara facility, they needed a system that operated as if someone was manning the weighbridge without a person needing to be onsite.

They discussed a couple of options with Mandalay such as a boom gate, traffic lights and vehicle registration recognition, but ultimately, the solution they settled on for their sole weighbridge was to have an advanced control station on one end and a normal station on the other end. This allows for trucks that they know (with stored tare weights) that are always going to carry the same waste streams to weigh only when they come in and not when they go out. They are also now able to track and measure the waste coming into and leaving the facility (trucks that collected green waste from facility will weigh when they come in and on their way out).



Waste Vouchers Solution

Distribution of vouchers at City of Wanneroo has changed from having separate waste vouchers in the rates notice envelope to including the waste voucher as a perforated piece at the end of the rates notice itself. A QR code (that is uniquely associated with an address) is now included on the vouchers.

While residents still need to present a voucher at the facility, they can now present the QR code on their phone rather than having a physical voucher which has massively improved traffic flow at the weighbridge. The waste team also has access to extensive resident data and analytics through Mandalay's Voucher Management System.



'Your software enables us to collect information and interpret that in a way our community can easily understand. This means that when we make a change, it's easier to justify because we can show them data that's easy to interpret and understand for those with limited knowledge and understanding about waste management.'

Juan-Mari Davies,
former Senior Project
Manager of Waste Services
City of Wanneroo

The Benefits of Working with Mandalay

Valuable Data, Analytics and Insights

Juan-Mari made it clear that data, analytics, and insights were the biggest gains from Mandalay's facility software and voucher management program resulting in both improved operations and more effective communication with their community.

Streamlined Data Access and Support

The Wanneroo team can now access and analyse waste data with ease automatically through the system and obtain the support they need from the Mandalay team if they have any questions or obstacles to overcome using the software.

'That's the benefit we have now. I can log in straight away and see what's been delivered so far. With previous software that was challenging, and the support was very limited as well.'

- Juan-Mari Davies

Live Data and Customised Reports

Along with having access to live data, their team are now savvy at building customised reports with ease through the Mandalay software. With that data, they can now inform businesses and Council and make more accurate, data-driven decisions about their waste and community.

'Now we can go back to businesses and our councillors and show them what a fabulous job our residents are doing, because we are also measuring the contamination leaving the site, so at any given moment we can say exactly what's come in and what has come out as contamination. We have real live data that's telling us exactly what's happening day to day, week to week, month to month.'

- Juan-Mari Davies



'Data is used to tell our community what our contamination rate is, which at the moment is 0.7% for our garden organics bins. With Mandalay, we now have more control and can see what's going in and what's going out, and the ability to interrogate, verify and present that data.'

Juan-Mari Davies,
former Senior Project
Manager of Waste Services
City of Wanneroo

'We have an opportunity here to save on printing and posting costs (for vouchers). When we were told it can be part of the rates notice I said great, I'm making my case. Not only are we saving trees and the environment, but we're also making it much more efficient. You've got your rates notice, you've got your voucher, no excuse.'

Juan-Mari Davies,
former Senior Project
Manager of Waste Services
City of Wanneroo

Transparency and Control Over Their Data

The new data and analytics they gain from the voucher program allows them to have complete control over their data. It also gives them the ability to provide feedback to the executive team on a regular basis to show insights of what waste streams are coming through and which suburbs are providing these waste streams.

Future-Proofed and Data-Based Decisions

The data is being used to help Wanneroo explore opportunities to expand on the waste services it provides for its community. With these insights they can see how busy their sites are, the type of waste coming in, contamination levels, where the waste is coming from, how the City is performing against WA State Government targets, etc. These insights are valuable when planning and making decisions about waste management.

Efficient and Cost-Effective Voucher Management

The City of Wanneroo now has a more controlled, automated, and efficient system in place for their waste vouchers that has also saved them money on printing and postage costs.

Improved Customer Service

Juan-Mari says they've been able to better serve their customers through the new voucher management system. Before the new voucher system was in place, people would have to ring up to get new vouchers and then the vouchers would get posted, so there was a delay. Now if a resident calls on a Friday, for example, knowing they have waste to dispose of over the weekend and they can't find their vouchers, the customer service team can reissue the voucher electronically, and then they have the voucher instantly.

'It's a no brainer really.'

- Juan-Mari Davies



'One of the Easiest Projects We've Ever Deployed'
- City of Wanneroo

'Mandalay did very well at engaging with everyone early. They understood the timeframes and made sure that developing the systems for the new facility didn't impede with the rates going out on time.'

Juan-Mari Davies,
former Senior Project
Manager of Waste
Services
City of Wanneroo

Easy Software Implementation

According to Juan-Mari, from a business systems perspective, implementation of the Mandalay software was one of the easiest projects they've ever deployed. In terms of communication and engagement, there was enough people involved so that if one person couldn't be there or be available, everyone knew what was going on. The in-person training provided by Mandalay was also co-ordinated very well and contributed to the overall success of the deployment.

The Outcome

Facility Outcome

Today at the Wangara recycling facility, contracted operators are coming in through the week and using the control stations to gain access to the site, and residents continue to use the facility on the weekend when it's staffed.

Now when loads come in from the garden organics collections, they can look at the net weight that is weighed in at the weighbridge. At any time, they can see if there has been an increase in waste based on that weight, and then use that data to understand what is happening out in their community.



'Mandalay made sure we could keep costs down, stay efficient and provide quality data, so we were able to achieve that easily. We got a massive return on that investment.'

Juan-Mari Davies,
former Senior Project
Manager of Waste
Services
City of Wanneroo



'Everything was communicated well, everything was clear. There was absolutely nowhere I felt I didn't know what was going on. The whole team was being informed. It was a well communicated, well deployed project that was delivered.'

Juan-Mari Davies,
former Senior Project
Manager of Waste
Services
City of Wanneroo

Waste Vouchers Outcome

Prior to this new system, people were selling and advertising vouchers on Facebook pages, and the system we have in place now provides better control.

According to Juan-Mari, lots of communication, early hours and late-night phone calls between the Mandalay and Wanneroo waste teams and keeping each other in the loop all contributed to making the entire project a success.

Key Learnings & Advice

Juan-Mari had a few pieces of advice to share with other Councils and waste teams that she hopes will help improve their operations.

Onsite Training

People on busy sites just want to do a job and don't have time for training, so often they will opt for cheaper online training, however according to Juan-Mari, one-on-one training is the way to go.

'I wanted to make sure we budgeted for it. I didn't want to let the deployment fail because we didn't take the opportunity to train in a personal way.'

- Juan-Mari Davies

A Better Understanding of Waste Vouchers

While working through the voucher management program with Mandalay, Juan-Mari said she gained a better understanding of the process involved in issuing vouchers and now has a better understanding of who is actually entitled to those vouchers.

'If you pay a waste fee, you are entitled to these vouchers and are a residential customer of ours. I learnt that a lot of people were getting vouchers that shouldn't have been. Now we have a system in place that provides better control.'

- Juan-Mari Davies



'If you're not doing it, you need to be doing it now. Now is the time, today. Collect data as quickly as you can so that you can analyse and then make decisions and make changes where required. Don't be scared, data is amazing.'

Juan-Mari Davies,
former Senior Project
Manager of Waste
Services
City of Wanneroo

Waste Data is the Future

Waste data is what's going to inform your decisions, and the waste industry needs that information to drive change and make improvements.

Drive Towards Innovation

Juan-Mari believes that driving the waste industry towards innovation is a challenge worth overcoming. Innovation and technology are moving quickly. The challenge is bringing people along at that speed and taking them on that journey to where that waste data can take them.

'If there's something new or better on the market, we need to explore those opportunities. Otherwise, we get stuck in our ways, and you've deployed a system and stay with it for 20 years and never change anything.'

- Juan-Mari Davies

Solutions Beyond Just Your Facility

Juan-Mari stressed that there is so much more to their story than just the facility side of things, and others should look beyond just their facility operations. Overall, what they paid for the voucher system, in the bigger scheme of things has been more than worthwhile, particularly with the information they are collecting.

The Future for Wanneroo

Resident Self Service

The City of Wanneroo are exploring the self-service option and are currently discussing what that would look like with Mandalay. Ultimately their dream is to provide a service where it's easy for residents to access entitlements and information themselves such as reporting damaged bins or booking their bulk services online. With self-service, a resident could simply log in, verify themselves and issue vouchers to themselves.

'Don't be scared to explore more. If there are value add applications you can use, just pitch them and go for it.'

Juan-Mari Davies,
former Senior Project
Manager of Waste
Services
City of Wanneroo



'One of the Easiest Projects We've Ever Deployed'
- City of Wanneroo

'We have such a big impact on the environment, but without the data we can't tell anyone what we are doing. It's incredible to have this information available for anyone to see what impact we've had and the impact our residents have by doing the right thing.'

Juan-Mari Davies,
former Senior Project
Manager of Waste
Services
City of Wanneroo

Informing Their Residents with Data

Another dream for the Wanneroo team is to have facilities within the City of Wanneroo and have absolute clarity and a good understanding of what's happening with waste in the City of Wanneroo. They are currently looking into how they can improve on extracting data and how they can use that data to inform people better.

At the moment, residents just bring the waste and forget about it, and they don't understand what a good impact doing things like sorting waste properly or using the waste facilities has on the environment, instead of putting it in the general waste bin or taking it to the tip.

Having that visibility of how fabulous the waste industry is, is what Juan-Mari would like to see more of, not just for her Council but for the entire industry nation-wide.



Find out more

www.mandalaytech.com.au/our-products

