



Dycor Technology Application Whitepaper

## Municipal Data Collection / Aggregation

### **Background**

Dycor Technologies specializes in creating custom Data Acquisition and Industrial Control solutions using a combination of proprietary technology and off-the-shelf components. Applications for our products are deeply varied, and this whitepaper presents a functional example of a solution that can be developed and tailored for your specific needs.

### **Abstract**

This whitepaper discusses the options for migrating municipal monitoring and data-logging technology infrastructure that relies on traditional telecom solutions with real-time wireless IIoT solutions.

## **Problem**

As municipalities move to more efficient management of services, and are expected to create more transparent solutions for data collection, older 'mechanical' systems for data collection requiring physical infrastructure, or reliance on traditional telecom solutions need to be migrated to wireless data systems and real time monitoring.

## **Application Design**

Modern municipalities are looking to aggregate data in more efficient and effective ways. Aggregating data elements from multiple sources into a single data management workflow provides ready access to all types of data collection. Migration to IIoT solutions provides numerous benefits.

- Minimized Capital expenses
- No license fees, no monthly fees, freewave technology replaces phone lines
- Can transmit data from multiple sensors (multiple communication features)
- Can be solar powered (Green power)

## **Dycor Custom Solution**

The implementation of data collection tools with wireless communications capability allows sensor data to be sent real time to a central location. When combined with Process control functionality - monitoring of Lifting Stations, Weirs, Weather stations, water flow and more can be managed.

Where appropriate, Dycor can create solar power solutions to run both the necessary sensing equipment, data collection, and data transmission equipment. Dycor SmartVue and Datataker loggers are capable of managing multiple data sources, and Freewave radio transmitter / receiver systems allow for complete data collection, aggregation, PID Control, and remote logging capabilities.

### Dycor SmartVue

- Multi-channel I/O
- All weather Touchscreen operations
- PID Control

### FreeWave Radio

- Multiple frequency ranges
- Licenced and unlicensed frequency capability
- Ideal for replacing Land line communications over Telco-lines

### DataTaker

- Various input / output possibilities
- Multiple port configurations, including RS232, 422, 486, and Dedicated ports
- Internal power
- Class 1 Div 2 Capabilities



## Contacting Dycor

It doesn't matter if you're looking for help on a simple configuration issue with your data logger, or require custom developed, complex software programming for data acquisition systems to manage the data coming back from several hundred sensors – Dycor's technical team are here to get you up and running quickly and effectively.

Give us a call or [contact us on-line at www.dycor.com](http://www.dycor.com) requesting more information on how we can help you design and implement a data acquisition system that works for you.