

Integrated Resource Management

Resources from Waste

- Generate revenues, reduce taxes and waste
- Reduce greenhouse gas emissions by 25%
- Power the equivalent of 10% of homes
- Heat the equivalent of 30% of homes
- Run the equivalent of 10% of cars
- Recover clean, usable water
- Create local jobs



What if there was a way to reduce or eliminate waste, reduce greenhouse gases and lower taxes? What if it improved profit, generated electricity, heat, gas, jobs and reusable water?

Treating waste as a resource isn't just good for the wallet and the environment: it's good sense.

Integrated Resource Management (IRM) is our process to optimize recovery of resources from waste. We know how to maximize value and bring together the complex components necessary to successfully complete this fundamental shift.

"I conclude that this IRM plan is conceptually sound and on the right track, and if implemented it would likely provide a model of great value to countless municipalities throughout the world."

Dr. Charles McNeill
Manager, Environmental Program Team
United Nations Development Programme



IRM's Advantages

IRM is a fundamental shift in managing waste that makes both money and sense by recovering, recycling and reusing resources:

- Recovered resources can replace fossil fuels and light, heat and cool businesses and communities, and generate biofuels to run cars, trucks, buses, trains etc.
- Resources are used locally, reducing transmission costs and GHGs, improving efficiency, community and business resilience.
- IRM generates local jobs, stimulating the economy.
- IRM costs about the same as traditional waste management but creates revenues, reducing overall cost and potentially making a profit.
- For communities and government: taxpayer cost can be stabilized, reduced or eliminated.
- For corporations: IRM improves net profit.
- IRM helps the environment by treating wastewater to produce high quality water, which is increasingly important in drought-challenged areas.
- IRM can reduce land requirements by as much as 80%, allowing plant and equipment to be hidden.
- IRM components can be incrementally upgraded with the latest technology, as and when viable; improving efficiency, redundancy, cost, management, flexibility and resilience.
- IRM can be expanded to meet demand as, when and where it's needed. This reduces initial costs, reliance on projections, excess capacity and debt; and all but eliminates restrictions on densification.
- IRM reduces landfills and pollution by diverting waste, lowering and containing or eliminating odour.
- Sequel's IRM approach can be procured, phased and financed in many ways, adding flexibility and capacity even when budgets are constrained.

How IRM Works

- Kitchen and other wet organic wastes are converted to biogas to fuel buses and cars, or converted into electricity.
- Dry wastes such as wood produce heat and electricity at plants located close to large energy consumers.



Creek with treated wastewater: Victoria, British Columbia

- Small plants treat wastewater to a very high quality to produce reusable water, from which energy is extracted for heating and cooling.
- Energy and waste product creators and users are connected in order to recycle and redistribute resources.
- Nutrients are converted into high-quality fertilizers, replacing artificial fertilizers. Recycled water provides non-potable sources and recharges aquifers.

Why Sequel

While the technologies for resource recovery are often well known, widely used and proven, choosing the right ones can be difficult. The options are complex and require a sound business case that integrates and reconciles resources, waste, energy, economic, environmental and governance implications.

Sequel is a system assembler that plans, optimizes and implements resource recovery using an integrated model. We work with existing staff and consultants and bring the additional expertise necessary to optimize resource recovery. We add value to public and private sector owners, or create the structures for others to own or finance IRM systems, and we link our success to IRM's performance.

See our web site or contact us for more information.

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