

Edmonds City Wastewater Treatment Plant

Edmonds, WA

Size: 1 hectare (treatment and support facilities)

Cost: \$34 million (upgrade to secondary treatment in 1991)

Reason for construction: Upgrades required to meet changing federal regulations and population expansion

Serves: 80,000 people

Commissioned: 1957 with upgrades in 1959, 1967, 1991



Features:

- Public plaza
- Public green space with pagoda, seating, and grassy area
- Artistic water feature
- Located downtown in close proximity to residences

Facilities:

- Secondary treatment plant
- Thermal reduction of solids
- Public space
- Substantially covered plant with odour control

The Growth of a Treatment Plant

The Edmonds City Wastewater Treatment Plant is a facility that's grown with the community. First established in 1957 the plant has gone through a series of upgrades and expansions through the years to keep step with a growing community and changing regulations.

The most recent upgrade was in 1991 with the move to secondary treatment as mandated by federal government regulations. The upgrade represented the largest and most complex public works project in Edmond's history. Due to its scope and potential public impact, the project was undertaken with significant community involvement. A citizen's advisory group was appointed by the Mayor of Edmonds to provide input to the design team regarding community needs and perception. The group's recommendations included direction on the aesthetics of building design and landscaping of the area. The modifications added less than one percent to the overall project cost, but made a significant difference to public perception.

The plant is located in the middle of a residential and commercial area of this tourism-based waterfront city, making perception an important consideration in the design process. Facilities are mostly enclosed and gas by-products are treated to remove odour. The area over a portion of the plant is landscaped with a pagoda and seating area creating a welcoming spot for people to relax. An artistic water feature also adds aesthetic value to the facility.

Environmental Considerations

As with any wastewater treatment plant, environmental impact was also a primary consideration in the design and build of Edmond's secondary treatment expansion. Environmental studies and mitigation measures were taken during the upgrade to ensure that the sensitive marine environment of Puget Sound was not harmed by the effluent discharging through the marine outfall.

In addition to preserving the marine environment steps were taken to protect surrounding marsh

land during construction and subsequent operations. Portions of the site were landscaped to create a park-like buffer between the facility and the marsh. Walking paths on surrounding land have also been installed and are frequented by the public.

Resource Reclamation

Edmonds City Wastewater Treatment Plant does not currently engage in resource reclamation. Effluent is released into Puget Sound and biosolids are thermally reduced and the ash disposed of in the local landfill.

The Edmonds City Wastewater Treatment Plant is an example of a small plant that has successfully integrated with its host community to become an accepted part of the city landscape.

Features applicable to Lions Gate Secondary Wastewater Treatment Plant:

- Compact site and integration of the plant site with the community
- Close proximity to residential neighbourhoods and businesses
- Thermal reduction of solids
- Substantially covered plant with odour control systems installed.