

### III. SPECIFIC CASE DATA: SRP FOR FOOD INDUSTRIES AND TOURIST RESORTS



#### Specific Case A: Food Company, Northern Ireland

#### Linwood's Bakery/Dairy Company – SRP for cost-efficient effluent water management

The bakery/dairy company Linwood's in Northern Ireland produce 400-500m<sup>3</sup>/week pre-treated effluent which is transported to Armagh WWP. Cost of transport, lack of capacity in WWP and environmental reason lead up to the building of a bio-filtration plant. The new way of treatment, reduce the cost 50%, produce biomass which will replace fossil fuel for heat the company.



#### Linwood's GENERAL DATA

<b>Location:</b>	Armagh / Northern Ireland
<b>Area:</b>	12,9 ha
<b>Plant species used:</b>	Mix of Salix spp. ("Tora", "Sven", "Torhild", "Olof", "Tordis", Ashton Stott", "Beagle", "Resolution", "Discovery", "Endeavour" and "Terra Nova")
<b>Type of fertilization:</b>	Effluent from bakery and dairy industry ( Linwood)
<b>Date of planting and harvest cycle:</b>	2006, harvest every two to three years
<b>Climate:</b>	North Western Maritime 1100 mm mean precipitation per annum
<b>Supported by:</b>	Rural Generation Ltd, Laqua Treatment AB



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#### Specific Case A: Food Company, Northern Ireland

Linwood's Bakery/Dairy Company – SRP introduction: "Step by Step"

#### STEP 1:

##### Pre-study and inventory incl.:

- Overall objective & introducing SRP
- Effluents check
- Farmer's land check
- Running/ Operational Management
- Monitoring system



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#### STEP 2:

**Overall objective project design incl.  
Concept introduction, effluents check, etc.**

- **Give all facts needing to design a bio filter system.**
- **A important issue is the local authorities conditions "Draft Consent"**



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#### STEP 3:

#### Farm land survey incl.

- **Area:** 12,9ha
- **Sections:** 23
- **Pump :** 24m<sup>3</sup>/h
- **Irrigation deph:** 2mm/day



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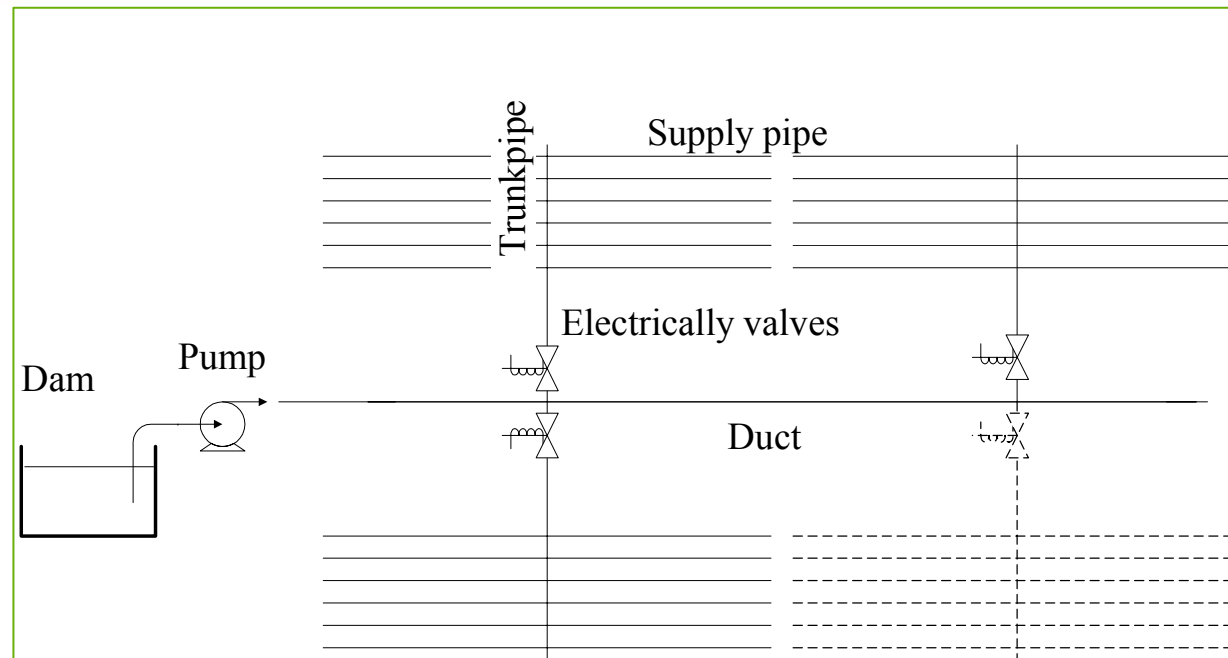
## Specific Case A: Food Company, Northern Ireland

### Linwood's Bakery/Dairy Company – SRP introduction: "Step by Step"



#### STEP 4:

#### Running/Operational Management



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#### Linwood's Bakery/Dairy Company – SRP introduction: "Step by Step"



#### Running/Operational Management



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SIXTH FRAMEWORK PROGRAMME



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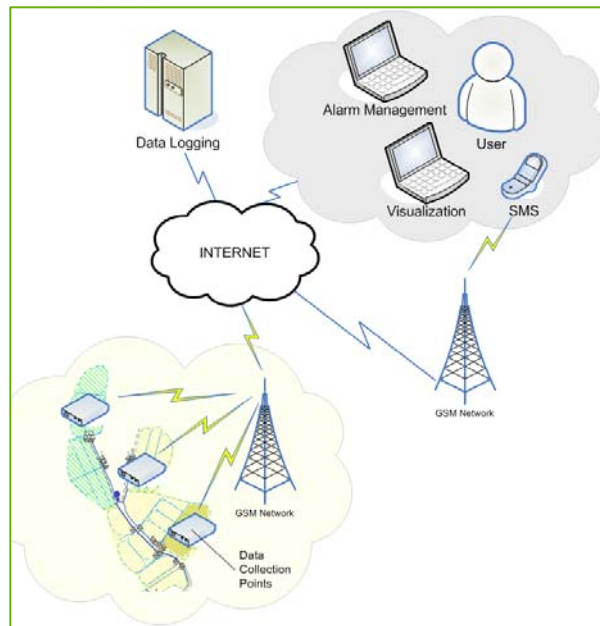
## Specific Case A: Food Company, Northern Ireland

### Linwood's Bakery/Dairy Company – SRP introduction: "Step by Step"



#### STEP 5:

#### Monitoring System



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### III. SPECIFIC CASE DATA: SRP FOR FOOD INDUSTRIES AND TOURIST RESORTS



#### Specific Case B: Tourist Resort, Northern Ireland

##### The Lord of Desmond Hotel, Ireland

The Earl of Desmond Hotel has 170 rooms (300-400 guests) operating during the spring, summer and autumn. The farley low purifying system includes a 256 m<sup>3</sup> aeration pool which is decanted to a smaller open dams. The nearby watercourse, which is also known for its trout, is adversely affected downstream by the effluent discharge. A SRP of 3 ha solution improve the purification standard and produce biomass to heat the hotel.



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<b>Location:</b>	Tralee / Ireland
<b>Area:</b>	3 ha
<b>Plant species used:</b>	Mix of Salix spp.
<b>Type of fertilization:</b>	Pre treated effluent from a hotel
<b>Date of planting and harvest cycle:</b>	2002, harvest every two to three years
<b>Climate:</b>	North Western Maritime 1100 mm mean precipitation per annum
<b>Supported by:</b>	Rural Generation Ltd, Laqua Treatment AB





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#### Specific Case B: Tourist Resort, Northern Ireland

##### The Lord of Desmond Hotel, Ireland

###### Project Data:

- Wastewater from 350 guest contaminate a smaller trout stream
- Treatment consist of aeration pond and open infiltration

###### Solution:

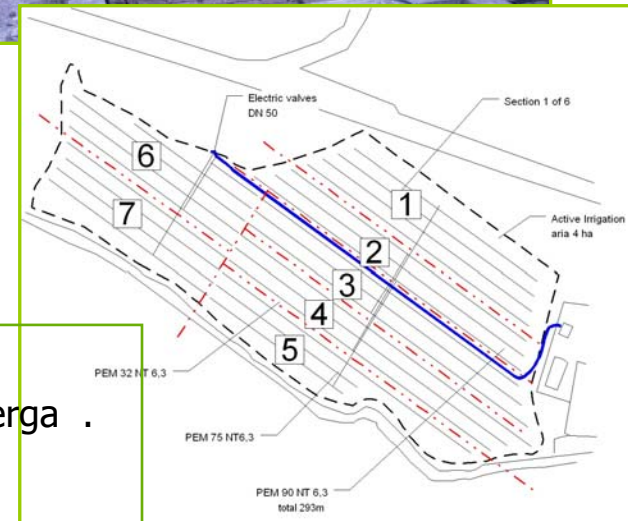
- Adding of 3ha irrigated SRP

###### Results:

- Purification of 95%
- Year around solution
- 150 MWh heat



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