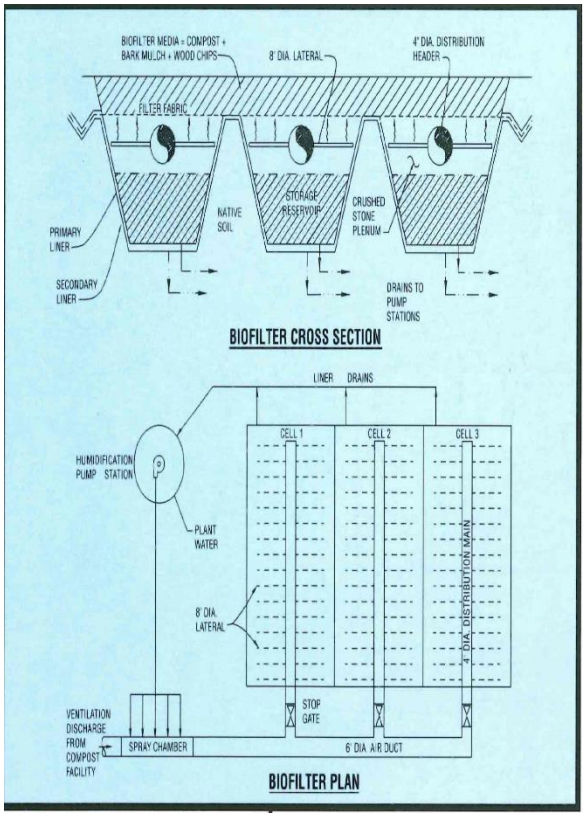


Ventilation and Odor Control

The biofilter standard contained in the City of Auburn Siting Agreement and the Maine DEP permit is for an average D/T of 100 or less (per ASTM 671). Early on the Authority found that the filter fabric originally used to keep media out of the stone distribution plenum became fouled with biological slime that caused short circuiting and was removed. We also found that humidification is generally not needed and the originally supplied media would be better replaced by 100% wood chips.

Characteristics of LAWPCA Sludge and Compost

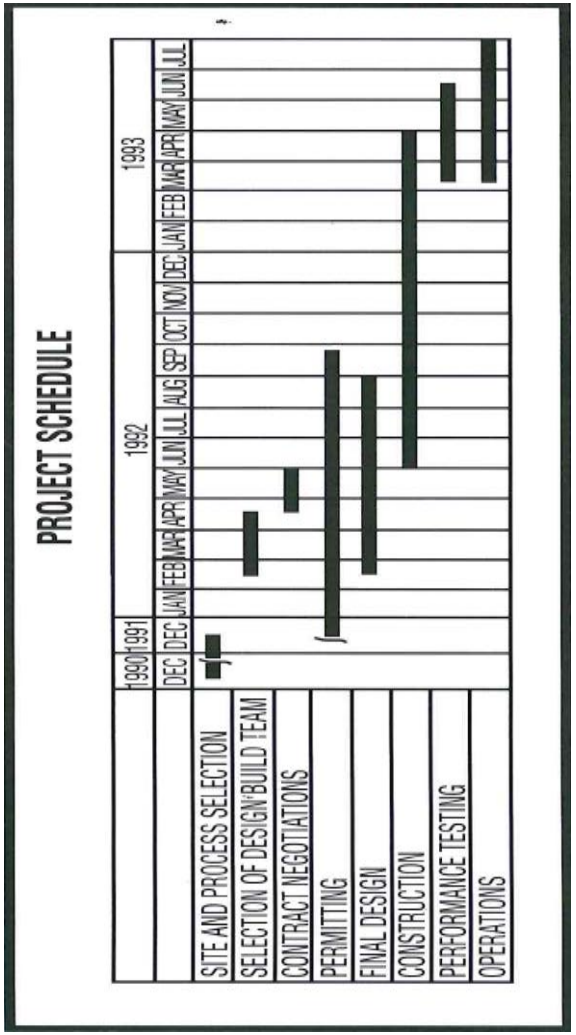
Heavy Metals, mg/kg	**EPA Limit**	**LAWPCA Sludge**
Arsenic	41	10
Cadmium	39	3
Chromium	1200	30
Copper	1500	590
Lead	300	98
Mercury	17	1
Molybdenum	18	<10
Nickel	420	34
Selenium	36	0.4
Zinc	2800	430
Nutrient, %		
Total Nitrogen	No Limit	1.75
Total Phosphorus	No Limit	0.53
Total Potassium	No Limit	0.48
Pathogens (class A)		
Salmonella, MPN/4g	3	<1
PFRP, TAT<55C	>72 hrs	>72 hrs
VAR, TAT<55C	>14 days	21 days
CO2 Respiration rate	No Limit	2.7 mg/g
Vol. Solids Reduction	>38%	59%

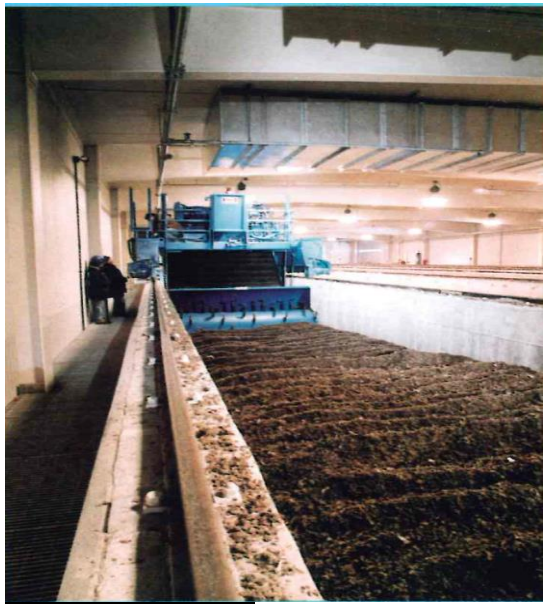
Lewiston Auburn Water Pollution Control Authority

Composting Facility
Penley Corner Road
Auburn, Maine

Project Schedule

The Facility was permitted and designed in less than two years. A modified design build procurement was utilized largely to allow construction to be completed in less than 11 months. The project was funded through the Maine SRF.





Agitated Bin Composting

- The Authority selected agitated bin composting due to its ability to contain odors, fully mix the composting materials, and provide a very stable end product.
- The LAWPCA facility was the first to use bins 10 feet wide and to have a rear traversing feature for the compost turners
- The compost turners were extensively refurbished by Longwood Manufacturing after ten years of service and are in the process of their second refurbishment using local vendors.
- The facility currently process approximately 70 wet tons/day.

Original Design Data

Sludge Capacity- 34 wet tons/day

Compost Product- 41 wet tons/day

Mixing Area- 60’ x 71’

Agitated Bin Reactors- 240’ x 71’

Number of Bins- 6

Bin Length- 210’

Bin Width- 10’

Bin Loading Depth- 7.2’

Hydraulic Detention Time- 21 Days

Aeration Blowers- 30 @ 1,000 CFM

Curing/Storage Area- 100’x100’

Exhaust air system:

Air change-12 per hour

Ventilation Rate- 72,000 CFM

Exhaust Fans- 3 @ 24,000 CFM

Biofilter Area- 29,000 Sq. Feet