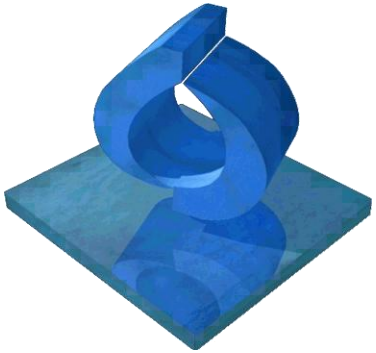
Construction Management

Bi-Annual Project Summary Report



January 1, 2008 – June 30, 2008

Gabe DeSaddi- Acting Manager of Construction Management
Craig Parker – Manager of Engineering and Construction Management
Tom Love – Executive Manager

Project Title: RP1 3-Phase Digestion Improvement **Number: EN04036.00**
Contractor: Stantek

Description / Scope:
This project consists of replacing the temporary plastic piping which is currently laid out on the ground surface, creating an obstacle for operations staff. All new piping will be installed on pipe racks to reduce impacts to operations. In addition, the project includes the replacement of the existing sludge transfer pumps, sludge withdrawal pumps and heat exchange. The new pumps will reduce plugging and cleaning requirements while the new exchangers will improve heat efficiency used at the digesters.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$10,897,747	$7,636,502	E&O's 0.6% / All Others 23%	3.4%	2/9/08	6/30/08

Three Phase Digestion (Pipe Rack #1)

Three Phase Digestion (Pipe Rack #2)

Project Title: RP1 Aeration Basin Modification **Number: EN05007.00**
Contractor: Environmental Construction

Description / Scope:

The Aeration Basin Modifications Project at RP-1 will improve the performance of aeration basins by replacing equipment which is at the end of its useful life and place additional improvements to the system to further the nitrification-denitrification efficiency. There are 62 corroded and inoperable aluminum slide gates within the basin; and they are to be replaced with stainless steel gates. To further the performance of the activated sludge process at the aeration basin, a mix-liquor return system is being added to the system. This will recycled the active organisms from the end of the aeration system to either the front or middle of the system, which will enhance the biological treatment process. This project will also place a baffle wall between the last two basins to provide a physical separation when basin 3 is operating anoxically and basin 4, aerobically. This installation will improve oxygen transfer in dedicated stages. A mixer system will be added within the anoxic basin to promote suspension and prevent settlement of solids. Finally, the influent and effluent channel depths will be reduced to increase the flow velocities. This will eliminate or reduce the need of existing air agitation

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$13,215,681	$1,052,037	E&O's 0 % / All Others 0 %	0.4%	6/18/09	6/18/09

Aeration Basin (Dowling Influent Chanel)

Aeration Basin (Gate Bulk Heading)

Project Title: RP1 Assessment Work **Number: EN07006.01**
Contractor: DenBoer Engineering & Construction

Description / Scope:
The Agency staff has completed an internal review and summarized the work that needs to be completed at the RP-1 facility. The scope of work included is the maintenance items of Priority 2, whereby equipment is cleaned, rehabbed, and replaced, and does not require full design. The project will also fix the cracks on Digesters 6 and 7.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
6,361,194	$4,566,935	E&O's 5.10% / All Others 9.44%	1.9%	8/16/08	8/16/08

Digester # 7 Cleaning & Upgrades

Secondary Clarifier #4 Rehab

Project Title: RP-1 Digesters 6 & 7 Emergency Structural Repairs **Number: EN07006.07**
Contractor: DenBoer

Description / Scope:
Under the current construction of the RP-1 Asset Management Items and Digesters 6 & 7 Repair, the Contractor, DenBoer Engineering, is to dewater and clean Digesters 6 & 7 followed by recoating the upper 10-feet of the wall and the ceiling in the digesters, and applying an elastomeric fluid lining onto the roofs of the digesters.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$538,025	87,550	E&O's 0 % / All Others 14.15 %	0%	10/31/08	10/31/08

Digester No. 7 Crack Repair Inside Digester

Digester No. 7 Crack Repair

Project Title: Phil Pump Station Upgrades **Number: EN07011.01**
Contractor: Pascal & Ludwig

Description / Scope:
The project will provide the design and construction of the emergency bypass vault, gas detection system, lighting, MCC replacement, ferric chloride duct bank piping, seismic evaluation and risk analysis of the pump station.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$1,722,919	$1,495,112	E&O's 0% / All Others 10.25%	4.4%	9/30/08	9/30/08

NRWS Philadelphia Pump Station (Engine Driven Bypass Pump)

NRWS Philadelphia Pump Station -Front Landscaping (Ongoing)

Project Title: NRW Systems Upgrades **Number: EN07011.03**

Contractor: J Flethcher Creamer & Sons

Description / Scope:

The purpose of the City of Ontario Brine Line is to transport brine to the West Edison Non-Reclaimable Waste (NRW) pipeline. Brine waste from the future Ontario Ion Exchange (IX) facility line will discharge to the currently unused West Edison NRW line. This pipeline has not been in use for some time and consequently is in need of repair, which is the scope of this project. These repairs include pipeline inspection, air pressure testing for leaks, the installation of air relief valves throughout the length of the pipeline as well as the replacement of man ways and/or man way covers as needed.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$1,189,710	$1,351,142	E&O's 0% / All Others 25%	4.8%	5/31/08	5/31/08

New Pressure lid and air vac on Edison Line City of Montclair

Edison Line pavement restoration City of Claremont

Project Title: City of Ontario - Brine Line **Number: EN08025.00**
Contractor: J Fletcher Creamer

Description / Scope:
Construct brine lateral from the Ontario Ion Exchange Plant to the NRWS. Also included in design package is the West Edison Line repair work.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$1,300,000	$952,989	E&O's 0 % / All Others 0 %	3.1%	5/31/08	6/30/08

Trench Backfill and Re-compaction on North Council Ave.

Vault Installation located at the Ion Exchange

Project Title: RP-1 Digester No. 5 and No. 7 Flame Trap Installation **Number: EN08013.01**
Construction: DenBoer Construction

Description / Scope:
This project shall redesign the installation of the Flame Trap assemblies on Digesters 5 and 7 at RP-1. Under a previous design project, the installation of the Flame Traps assemblies for Digesters 5 & 7 created excessive head lose to the suction header of the gas mixer compressor. Attempts to resolve this issue lead to redesign of the flame arrestor size. CH2M-Hill has recalculated the correct flame trap assembly. Under this project, Engineering will receive revised plans and specifications to install the new assemblies. The procurement and installation will be done as a construction change order. The urgency to move this quickly, is due to the fact that these digesters do not have any flame safety devices to prevent a stray spark or flame from entering into the digesters.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$117,840	99,140	E&O's 0 % / All Others 0 %	2.1%	3/17/09	3/17/09

Flame Trap Removal at Digester #5

Flame Trap Replacement at Digester #5

Project Title: RP1 Odor Control - Phase I **Number: PL03006.00**
Contractor: Griffith Company

Description / Scope:

The design of the odor control facilities was divided into two phases (Phase IA and Phase IB) to allow individual treatment facilities to be brought on line as quickly as possible with minimum impact to current operations. Phase IA includes odor control facilities for the dewatering building, gravity thickener, and side stream treatment process, while Phase IB includes odor control facilities for the headwork's, rectangular primary clarifiers, and intermediate pump station. It will also provide an enclosure for the screenings/grit bin on the south side of the existing headwork's building to capture additional sources of odor and it will convert a portion of the existing trickling filter as a location to place second biofilter.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$10,912,900	$6,304,926	E&O's 0% / All Others 2.90%	2.9%	5/31/08	8/31/08

Bio-Filter Structure

Headwork's Enclosure

Project Title: CB-14 & CB-20 Pipe Installation and Basin SCADA Improvements **Number: TS07004.03**
Contractor: Norstar Plumbing & Engineering

Description / Scope:

This project represents the combination of three existing projects (PL05008, WR06014 and WR06015). These projects generally include new monitoring wells and lysimeters at recycled water basins, new MWD imported water turnouts, GWR SCADA system improvements, internal berm hardening of conservation berms, Montclair inlet modifications, and initial development of a wet basin cleaning vehicle. Package C includes a new turnout from the MWD Rialto Feeder in Upland to deliver imported water to the Eighth Street Basins; modifications to MWD Turnouts CB13T and CB14T to provide increased imported water flows to the Victoria and San Sevaine Basins; improvements at Montclair basins to provide dual inlet capability from the San Antonio Channel with SCADA system improvements; and improvements to the SCADA system to allow monitoring and control of spreading basins from a central control system.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$6,287,950	$970,696	E&O's 0% / All Others 0%	0.2%	12/31/08	12/31/08

Valve assembly CB20 located in Upland

CB14 turnout concrete foundation located in Etiwanda

Project Title: San Bernardino Ave Pump Station **Number: EN03023.00**
Contractor: Brutuco Construction and MCC Equipment

Description / Scope:
The project will allow recycled water to be utilized at RP-4 to insure reliability and pumping cost savings. A 6 mgd (average daily flow) pump station south and directly adjacent to San Bernardino Avenue and Mulberry Avenue, County of San Bernardino . Project will include two force main pipelines to Regional Plant No. 4 and a gravity sewer to Etiwanda Avenue Interceptor Sewer.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$13,707,280	$4,183,872	E&O's 0% / All Others 0%	0.6%	11/1/08	11/1/08

Jack and Bore under San Bernardino Channel

Influent Wet well

Project Title: RP4 Liquid Expansion to 14 mgd **Number: EN04011.00**
Contractor: Taisei and T&K

Description / Scope:
Regional Plant No. 4 is being expanded to double the plant capacity from 7 mgd to 14 mgd. The project will convert the secondary system from oxidation ditch to activated sludge technology, add primary clarifiers and convert to standard circular secondary clarifiers.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$39,250,000	$38,420,240	E&O's 2.9% / All Others 3.17%	2.2%	11/15/07	8/31/08

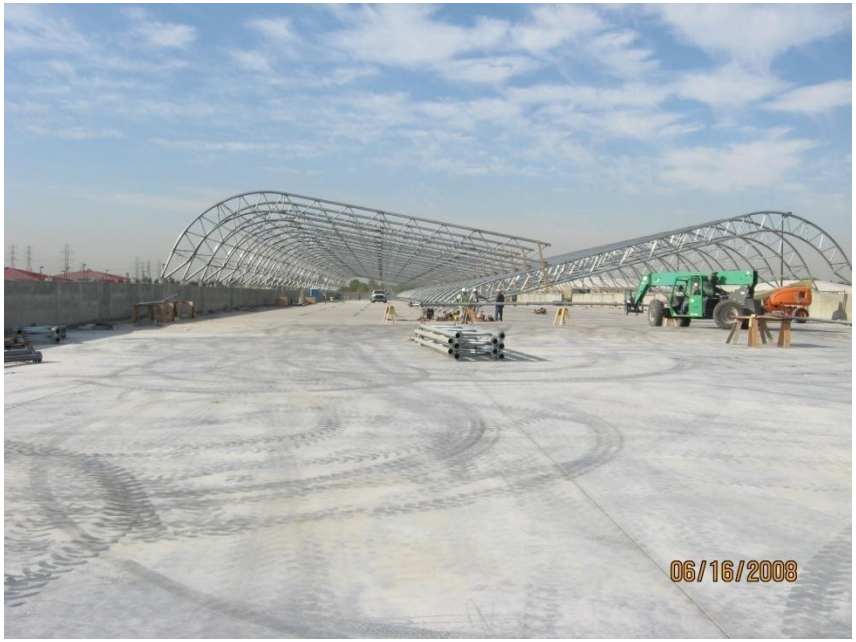
Aqua Disk Filter Structure

Secondary Clarifier 2

Project Title: Compost Storage Facility **Number: RA02041.01**
Contractor: Genesis

Description / Scope:
The work consists of all materials, labor, tools, equipment, apparatus, facilities, transportation and incidentals necessary to deliver and install the RP-4 Compost Storage Facility.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$4,738,000	$2,682,238	E&O's 0% / All Others 0%	2.9%	7/31/08	8/31/08



Long slab view, more set, assembly of trusses in progress

Setting Perlins with 2 lifts

Project Title: Berm Hardening **Number: TS07004.02**
Contractor: Landmark Site Contractors

Description / Scope:
Presently the Agency is undertaking a series of projects intended to enhance the Agency's ability to not only increase the volume of captured storm runoff, but to increase its operational flexibility involving the recharge of imported water, and to reduce the future maintenance and replacement costs associated with the repair of routinely failing levees. This project represents the combination of three existing projects (PL05008, WR06014 and WR06015). These projects generally include hardening of internal conservation berms. Package B includes modifications to spreading basin berms at the Declez Basin, 8th Street Basins, Ely Basins, Hickory Basin, Jurupa Basin, and Lower Day Basin to improve operations which will facilitate increased groundwater recharge activities.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$2,596,070	956,889	E&O's 0% / All Others 0%	0.5%	8/17/08	8/17/08

Setting forms for the concrete spillway on Berm no. 1 at Declez Basin

Installing rip rap at toe of spillway of Berm No. 1 at Declez Basin

Project Title: RP-4 1158 & 1270 PZ Pmp Stns **Number: WR04441.00**
Contractor: Griffith Co.

Description / Scope:
The project involves retrofitting the existing RP-4 1270 pressure zone pump to serve the 1158 pressure zone reservoirs and addition of new pump station to serve the 1270 pressure zone. This project includes 7 horizontal split case pumps for the 1299 pressure zone and 2 new vertical turbine pumps for the 1158 pressure zone.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$10,418,000	$4,306,023	E&O's 0% / All Others 1.54%	0.5%	8/15/08	2/28/11

CMLC Riser Piping

Electrical Duct Banks

Project Title: North Etiwanda Ave 42" Pipline 22Kft **Number: WR04442.00**
Contractor: Garcia Juarez Construction

Description / Scope:
This project will extend the existing 36" recycled water line by adding approximately 1,800 linear feet of 42 inch CMLC recycled water pipeline from Whittram Avenue to Arrow Route in Fontana. The extension of this pipeline was fast tracked due to Rancho Cucamonga performing street improvements in FY 07/08.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$1,571,674	$1,177,725	E&O's 5.6% / All Others 11.11%	3.1%	2/11/08	7/31/08

42" Butterfly Valve

Etiwanda Ave. Asphalt Preparation

Project Title: San Antonio Channel Pipeline-B **Number: WR04446.00**
Contractor: Apple Valley Construction

Description / Scope:
This project consists of 12,270 ft of 30 inch and 24 inch CML&C steel pipeline. The project begins at Sultana and East I Street in the City of Ontario, then bears north to 4th street, then westerly in 4th Street to Benson Avenue, transitions to San Bernardino Avenue, then bears westerly terminating at the San Antonio Channel.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$9,802,693	$7,601,497	E&O's 0% / All Others (-6.37)%	2.1%	7/1/08	9/30/08

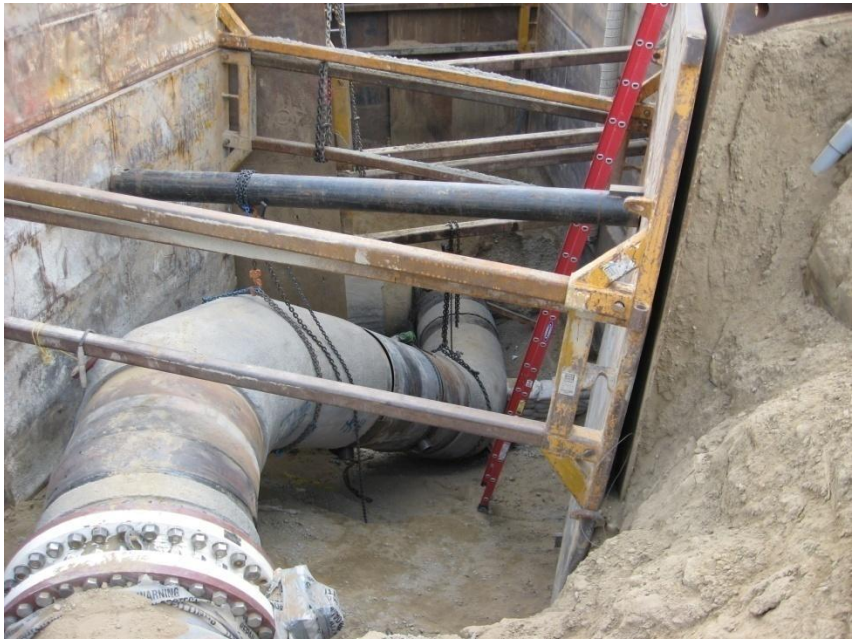
Prepping for installation of 24" RW line with 8" tee and lateral at Orchard St x Monte Vista Ave

Installation of the 6in MVWD lateral

Project Title: RP4 Area 1158 Pipeline **Number: WR04447.00**
Contractor: Genesis and Albert W. Davies

Description / Scope:
This project consists of a 42" CMLC Recycled water pipeline from RP-4 ,north to 6th Street, 800 feet west to Southern California Edison Right-of-Way, north approximately 1800 feet to two 5.5 mg tanks at IEUA property. (former Pacific Terminals property).

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$3,815,125	$2,894,380	E&O's 0% / All Others 19.54%	4.1%	6/6/08	9/30/08



42" CMLC Recycled Water Pipe Connection to RP-4 discharge line

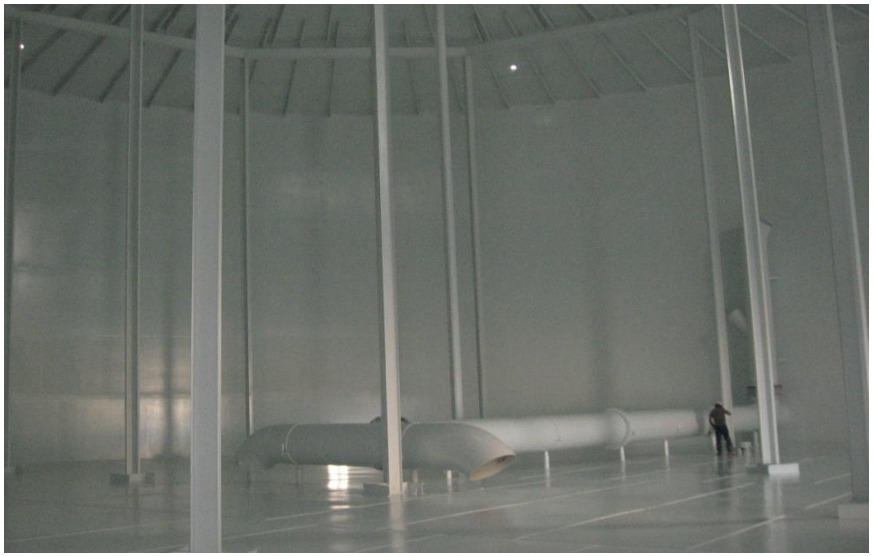
42" CMLC Recycled Water Pipeline Jack and Bore Under MWD 176" raw Water distribution Line

Project Title: RP4 Area 1158 Reservoir **Number: WR04448.00**
Contractor: Abhe and Sroboda

Description / Scope:
This project includes modification of two existing oil tanks of 5.5 million Gallons Each to recycled water storage tanks for the 1158 pressure zone at the former Pacific Terminal site.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$5,679,000	$3,798,250	E&O's 1.50% / All Others 1.79%	0.4%	7/30/08	8/31/08

Reservoir# 2 Media Blasting for removal of oils and scale from tank walls



Reservoir # 1 Final Epoxy Coating

Project Title: RP5 Renewable Energy Efficiency **Number: EN03029.00**

Contractor: Bens Asphalt, Coonstruction, Davis Electric, McKenna, In-N-Out, ISA Aggregates, JBH Concrete, Law Steel, Murphys Coating, Olsson Construction, JG Tate, Watson Roofing

Description / Scope:

The cogeneration project scope includes installation of internal combustion engine generator sets to produce the power needed for the RP-5 treatment plant, RP-5 manure digestion facility and new headquarters buildings.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$22,631,601	$19,935,335	E&O's 10.10 % / All Others 39.68 %	3.2%	8/1/08	8/1/08

REEP Generators and Heat Recovery Units

REEP TES Tank and Lube Oil Storage

Project Title: RP5 Utility Water Pipeline **Number: EN04033.00**

Contractor: Olsson Construction

Description / Scope:

The scope of work includes the design of the following systems: 30” recycled water line from RP-5 to the existing 18” recycled, water line at Magnolia Channel and 6” piping connections at the RP-5 Solids Handling Facility (SHF),Digester gas compression and storage system at the RP-5 SHF, Digester gas conveyance pipeline from the dairy facility to the RP-5 Renewable ,Energy Efficiency Project (REEP) Digester gas compression and storage system at RP-2 plant, Installation of three (3) high pressure compressors and high pressure tank Relocation of the existing compressor from RP-5 SHF to RP-2 plant Installation of 6-inch digester gas to convey the manure gas to RP-5 REEP 12 kV line and fiber optic cable between RP-5 treatment and the dairy facility

Budget	Actual’s to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$6,026,029	$6,789,534	E&O's 24.06% / All Others 10.74%	3.1%	4/1/08	8/31/08

Gas Storage Compressors

Gas Storage High Pressure Vessels

Project Title: RP-5 Fencing Improvements **Number: EN05056.01**
Contractor: Coonstruction

Description / Scope:
This project includes the construction of approximately 1350 linear feet of cmu pilaster and wrought iron fencing and about 350 linear feet of chain link fencing. The fence will be situated between the RP-5 treatment plant and the Chino Creek Park. Also included in the work is a concrete pad for a guard shack, trees and irrigation along the fence line and some fine grading along the fence alignment.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$363,820	407,454	E&O's 0% / All Others 10.25%	6.8%	4/16/08	4/16/08

Wrought Iron Fencing

Wrought Iron Fencing

Project Title: Complete Mix Digestion Technology at RP-5 **Number: PL03005.00**
Contractor: M Industrial Mechanical

Description / Scope:
This project will demonstrate this European technology for agriculture digestion. Evaluation will be made to the efficiency of the process to treat dairy manure and power generation.

Budget	Actual's to Date	C/O Ratio	CM Cost Ratio	Anticipated Completion Date	Actual Completion Date
$9,661,112	$5, 448,994	E&O's % / All Others %	2.7%	12/20/07	8/31/08

Phase II and Food Waste

Phase II Digesters