



Metro Water Recovery  
Denver, Colorado



Drake Water Reclamation Facility  
Fort Collins, Colorado

## MagPrex™ Provides a **Simple, Flexible** and **Right-Sized Solution** for Phosphorus Recovery

MagPrex is a pioneering nutrient recovery technology developed for the sludge treatment process.

### Right-Sized Solution

MagPrex is the most cost-efficient solution, giving plants of all sizes (including small to mid-size plants) the affordable options to control struvite and recover phosphorus.

### Partnership - A Solution-Based Approach

The CNP team works with utilities and determine the best fit configuration to meet your plant's objectives. The MagPrex process focuses on total treatment optimization. MagPrex provides:

- Harvesting: from digested sludge
- Sequestration: leaves the crystals in the sludge

### Sequestration - Beyond the Fertilizer Model

The MagPrex sequestration model eliminates the logistics of handling, storing or distributing a marketable fertilizer. By expanding the nutrient recovery focus, MagPrex provides cost savings by:

- Reducing struvite precipitation in downstream equipment
- Reducing and stabilizing nutrient loading in the sidestream to the wastewater treatment line
- Improving sludge dewaterability
- Reducing polymer consumption

## QUICK GLANCE

MagPrex by the Numbers



**8** Full Scale Installations Since 2019



Flexible Solution for Plants of All Sizes **(9 to 220 MGD)**



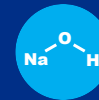
**2** Process Configurations  
Harvesting and Sequestration



Reduce Orthophosphate in **48 Hours**

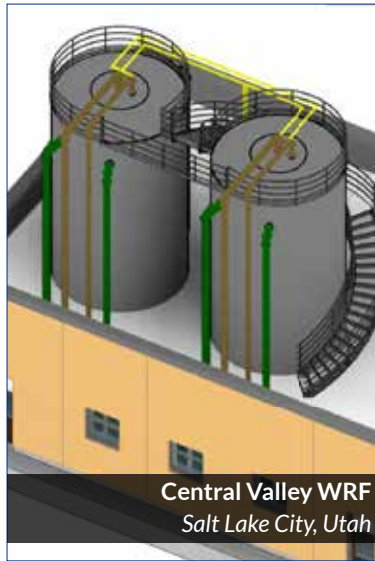


**Mobile** Pilot Test Unit Available



**No** Sodium Hydroxide Required

# PROCESS: MagPrex™ Installations



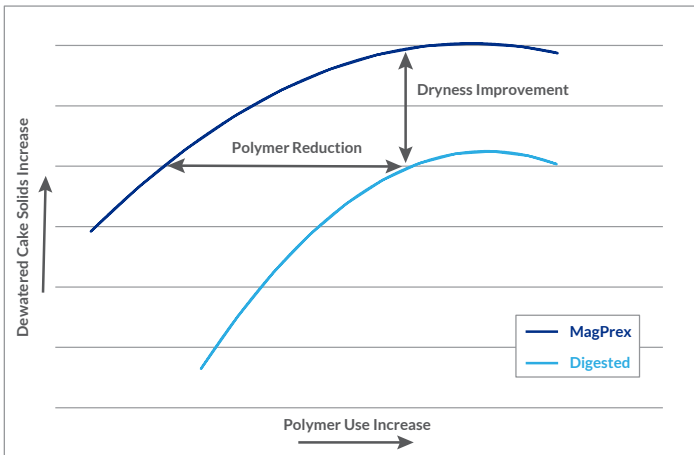
Liverpool WWTP, Medina County  
Valley City, Ohio

Little Patuxent WRP, Howard County  
Savage, Maryland

Fox River WRD  
Elgin, Illinois

Central Valley WRF  
Salt Lake City, Utah

Full Scale Installations				After MagPrex		
Wastewater Treatment Plant	Location	Year Built	Plant Size MGD	Concentration Soluble Phosphorus (PO <sub>4</sub> -P) In	Concentration Soluble Phosphorus (PO <sub>4</sub> -P) Out	Soluble Phosphorus (PO <sub>4</sub> -P) Reduction
Liverpool Wastewater Treatment Plant, Medina County	Valley City, Ohio	2019	15	100 mg/liter	20 mg/liter	>90%
Little Patuxent Water Reclamation Plant, Howard County	Savage, Maryland	2019	25	400 mg/liter	30 mg/liter	>90%
Metro Water Recovery	Denver, Colorado	2020	220	326 mg/liter	26 mg/liter	>92%
Drake Water Reclamation Facility	Fort Collins, Colorado	2020	18	440 mg/liter	39 mg/liter	>95%
Fox River Water Reclamation District	Elgin, Illinois	2021	25		Pending Start-Up Data	
Central Valley Water Reclamation Facility	Salt Lake City, Utah	2022 Start-Up	60		Under Construction	
Meridian Waste Water Plant	Meridian, Idaho	2022 Start-Up	10		Under Construction	
Nampa Wastewater Treatment Plant	Nampa, Idaho	2023 Start-Up	18		Under Construction	



Typical Polymer Curve for Digested Sludge

### Trade-Off Between Polymer Dosage and Cake Dryness

In addition to struvite control, the MagPrex system also provides advantages to the solids dewatering process. MagPrex increases the achievable dewatered cake dryness which allows for a reduction in polymer needed to maintain current plant specification. This dewaterability shift helps reduce the overall chemical cost associated with MagPrex and improve routine operation of dewatering equipment.