

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 AirPrex process focuses on total treatment optimization. AirPrex provides:

- Harvesting: from digested sludge
- Sequestration: leaves the crystals in the sludge
- Centrate Recovery: produces a high purity product

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



6 Full Scale Installations Since 2019



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



3 Process Configurations (Harvesting, Sequestration and Centrate Recovery)



Reduce Orthophosphate in **48 Hours**



Mobile Pilot Test Unit Available

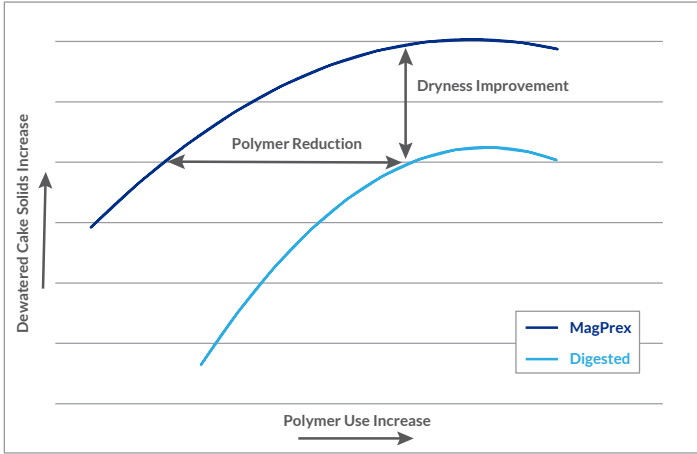


No Sodium Hydroxide Required



Full Scale Installations				After MagPrex		
Wastewater Treatment Plant	Location	Year Built	Plant Size MGD	Orthophosphate Reduction (%)	Dry Cake Solids Increase (%-points)	Polymer Reduction (%)
Liverpool WWTP, Medina County	Valley City, Ohio	2019	15	>90	NA*	NA*
Little Patuxent Water Reclamation Plant, Howard County	Savage, Maryland	2019	29	>90	NA*	NA*
RWH Treatment Facility at Metro WWRD	Denver, Colorado	2020 Start-Up	220	>90**	+4 to 5**	-15 to -25**
Drake Water Reclamation Facility	Fort Collins, Colorado	2020 Start-Up	18		Pending Start-Up	
Fox River Water Reclamation District	Elgin, Illinois	2021 Start-Up	25		Under Construction	
Central Valley Water Reclamation Facility	Salt Lake City, Utah	2021 Start-Up	60		Under Construction	

* MagPrex and the anaerobic digester were implemented at the same time. There is no historical dewatering data to compare. **Pilot test data from 2016



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.