NJ Pinelands Commission Alternate Design Treatment Systems Pilot Program

Program update through Dec. 30, 2022

Presented to the Pinelands Policy and Implementation Committee

January 27, 2023

The Pinelands Ad Hoc Committee on Alternate Septic Systems

The Ad Hoc Committee was formed in 2000. It released its final report recommending the establishment of the pilot program on August 21, 2001

Committee members and affiliation:

- S. Joseph Kowalski, Pinelands Commissioner
- Candace McKee Ashmun, Pinelands Commissioner
- Sally Dudley, Pinelands Commissioner
- Linda M. Eckenhoff, Pinelands Commissioner
- Theodore Gordon, Pinelands Commissioner
- Jay Edward Mounier, Pinelands Commissioner
- Norman F. Tomasello, Pinelands Commissioner
- Edward McGlinchey, Pinelands Municipal Council
- Lee Rosenson, Pinelands Preservation Alliance
- John Sheridan, New Jersey Builders Association

The Alternate Design Treatment System Pilot Program has successfully identified advanced waterwater treatment technologies that enable residential development on parcels as small as one-acre , where such development is otherwise authorized, to meet the Pinelands Commission's ecologically-based 2-ppm nitrogen water quality standard.

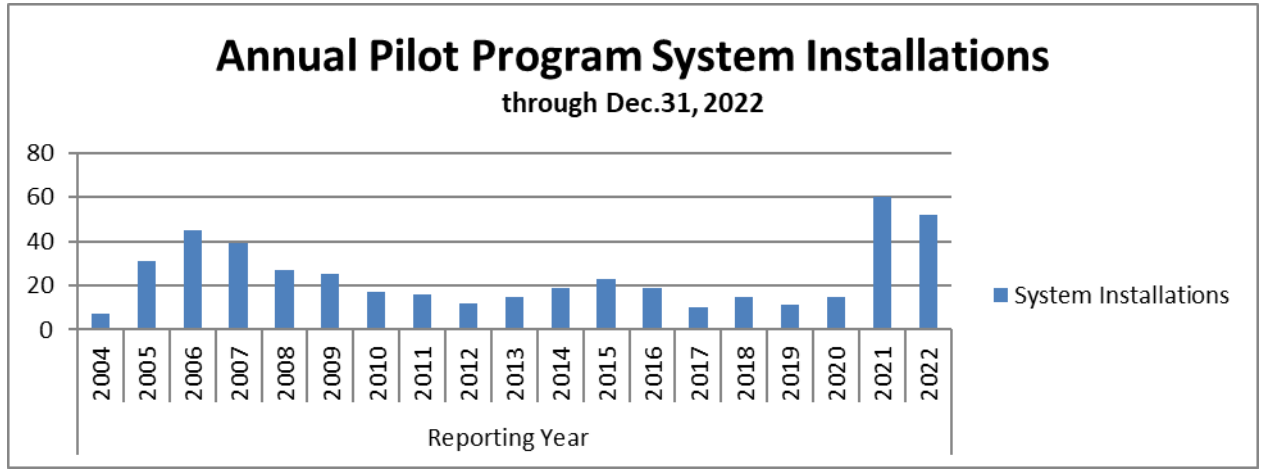
- The pilot program has garnered widespread attention from similar ecologically sensitive regions. Commission staff have been requested to present on the pilot program at numerous local, regional and national technology transfer conferences and seminars including those for:

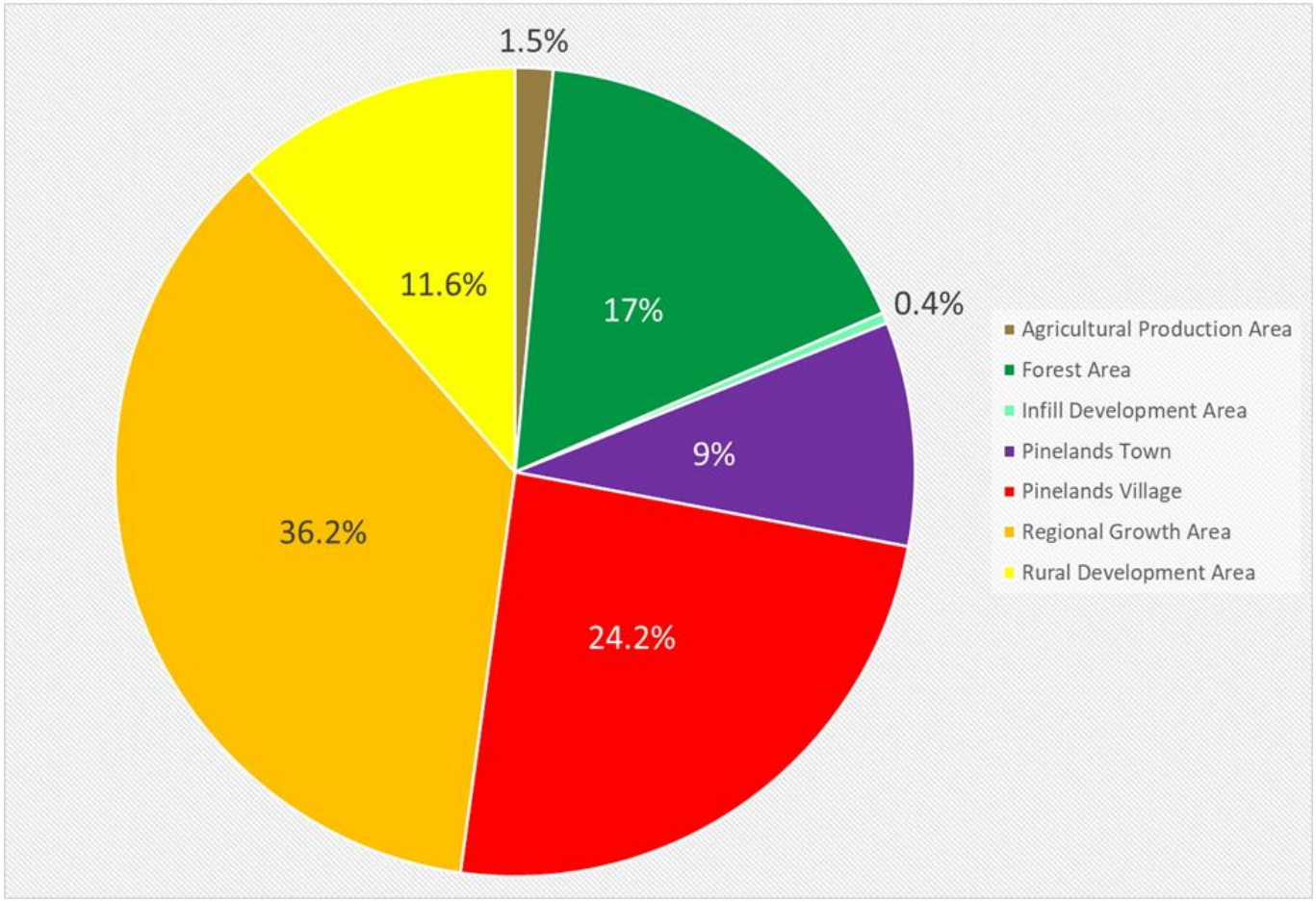
- USEPA
- NJDEP
- Rutgers University
- University of Arizona
- North Carolina State University
- Stockton University
- Brookhaven National Laboratory
- National Environmental Health Association
- New England Interstate Water Pollution Control Commission
- Massachusetts Health Officers Association
- NJ State League of Municipalities
- NJ Association of Environmental Commissions

New technologies were added to the pilot program in three enrollment rounds

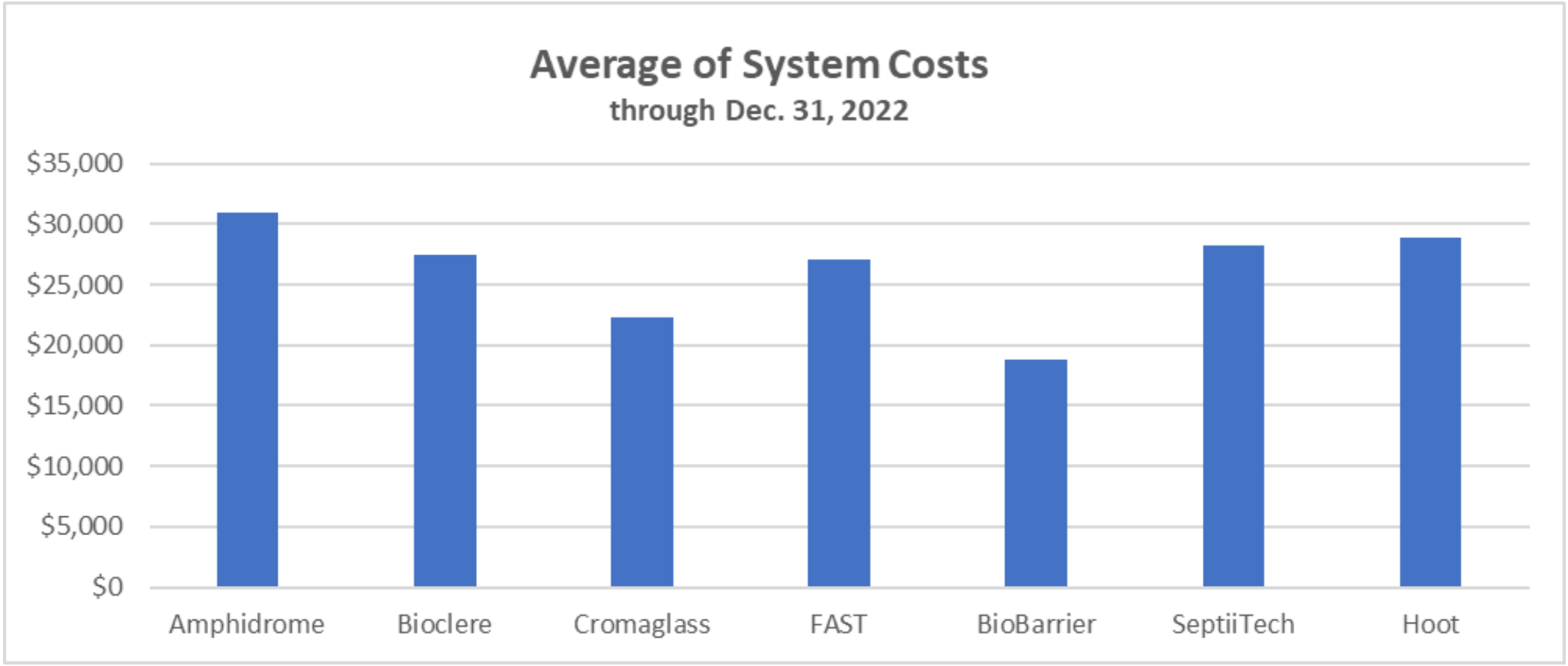
Round 1 (2002)	Round 2 (2011)	Round 3 (2021)
Ashco A RFS	BioBarrier	Fuji Clean USA
Amphidrome	Busse GT	Pugo
Bioclere	Hoot ANR	Waterloo Biofilter
Cromaglass	SeptiTech	
Fast		

System installations commenced in 2004 and continue through the present day





Pilot program system installations by Pinelands Management Area (through Dec. 31, 2022)

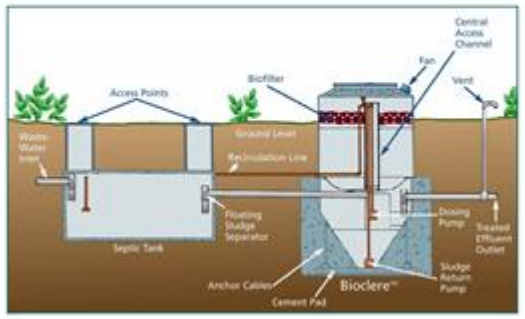

Average of System Costs
through Dec. 31, 2022
$35,000
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
Amphidrome
Bioclere
Cromaglass
FAST
BioBarrier
SeptiiTech
Hoot

		Technology							
County	Municipality	Amphidrome	Bioclere	Cromaglass	FAST	SeptiTech	BioBarrier	Hoot	Total
Atlantic	Buena Vista					1			1
	Egg Harbor Twp	2	5		2				9
	Estell Manor		9						9
	Folsom	5	3	1	1				10
	Galloway	1	1		2				4
	Hamilton	15	22	4	3				44
	Hammonton	4	3		1				8
	Mullica	3	5		1	2			11
	Port Republic				1				1
Burlington	Evesham	1	1						2
	Medford	3	1		2	8			14
	Pemberton	12	12	23					47
	Shamong	2				1			3
	Tabernacle	3	5	1	1	83	1		94
	Washington	1	1						2
	Woodland	1	3		3	2			9
Camden	Chesilhurst		1						1
	Waterford	3							3
	Winslow	8	6	4	7	16			41
Cape May	Dennis	2							2
	Upper	2	2						4
	Woodbine		1		1				2
Gloucester	Franklin	1		1	3				5
	Monroe				2				2
Ocean	Jackson	23	2	16	9	12	12	3	77
	Lacey	2							2
	Manchester	24	2	9	2	7		1	45
	Stafford	5	1						6
Total Installations		123	86	59	41	132	13	4	458

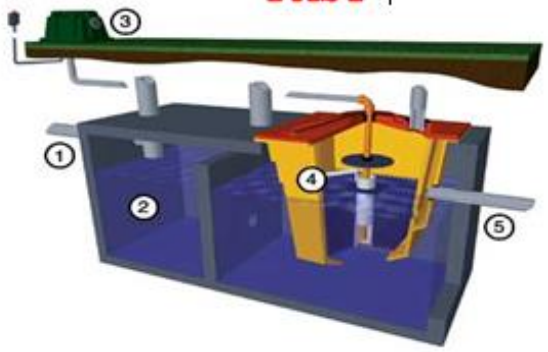
Technology Locations by County and Municipality through Dec. 31, 2022

Amphidrome®

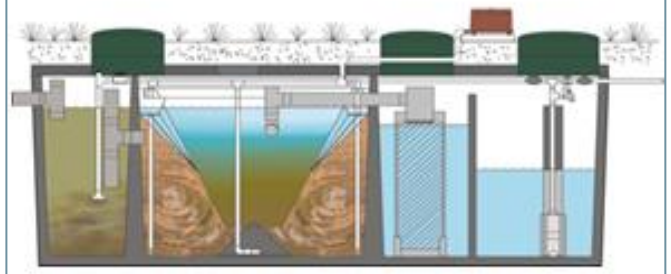
Bioclere



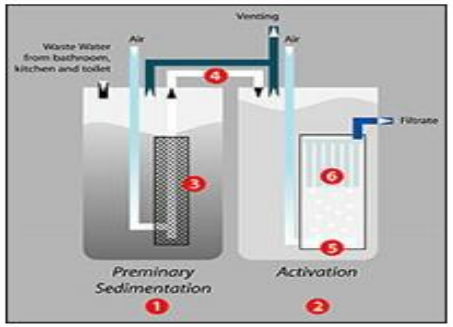
FAST



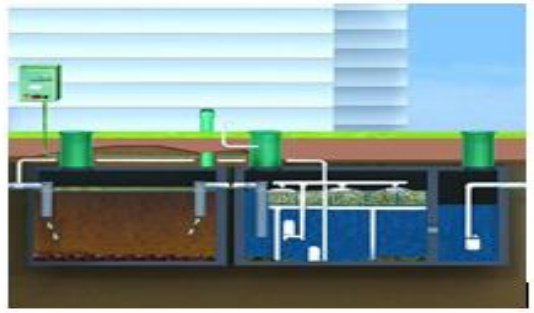
HOOT



Busse GT

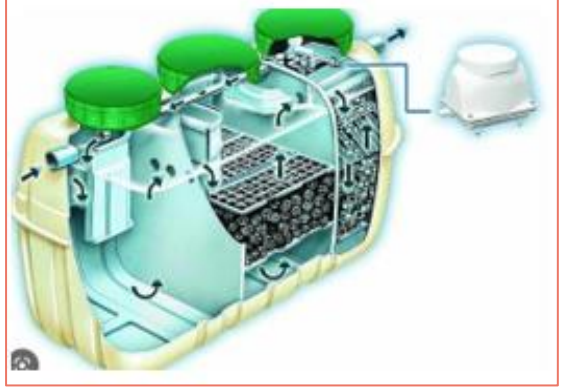


SeptiTech



Pugo System

Fuji Clean USA



Waterloo Biofilter

9 Active Pilot Program Technologies

Permanent Approval

Amphidrome 1-acre
Bioclere 1-acre
SeptiTech 1-acre
Fast 1.4 acre

Testing Phase

Hoot ANR 1-acre
Busse GT 1-acre
Fuji Clean 1-acre
Waterloo Biofilter 1-acre
Pugo 1.26-acre

Next steps:

An Implementation Report on the septic system pilot program is due in November 2025.

Staff recommendations for possible consideration:

- Extend the pilot program through 2027 (August 5, 2027 is the current expiration date of the pilot programs)
- Continued graduation of successful technologies based upon performance monitoring
- Removal of unsuccessful technologies due to inadequate nitrogen attenuation
- Removal of non-participating/non-conforming technologies due to lack of installations or failure to comply with the pilot program requirements