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Strategic Analysis of New Jersey's LSRP Program by Applying a Combined SWOT-AHP Technique

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Dissertation Committee:

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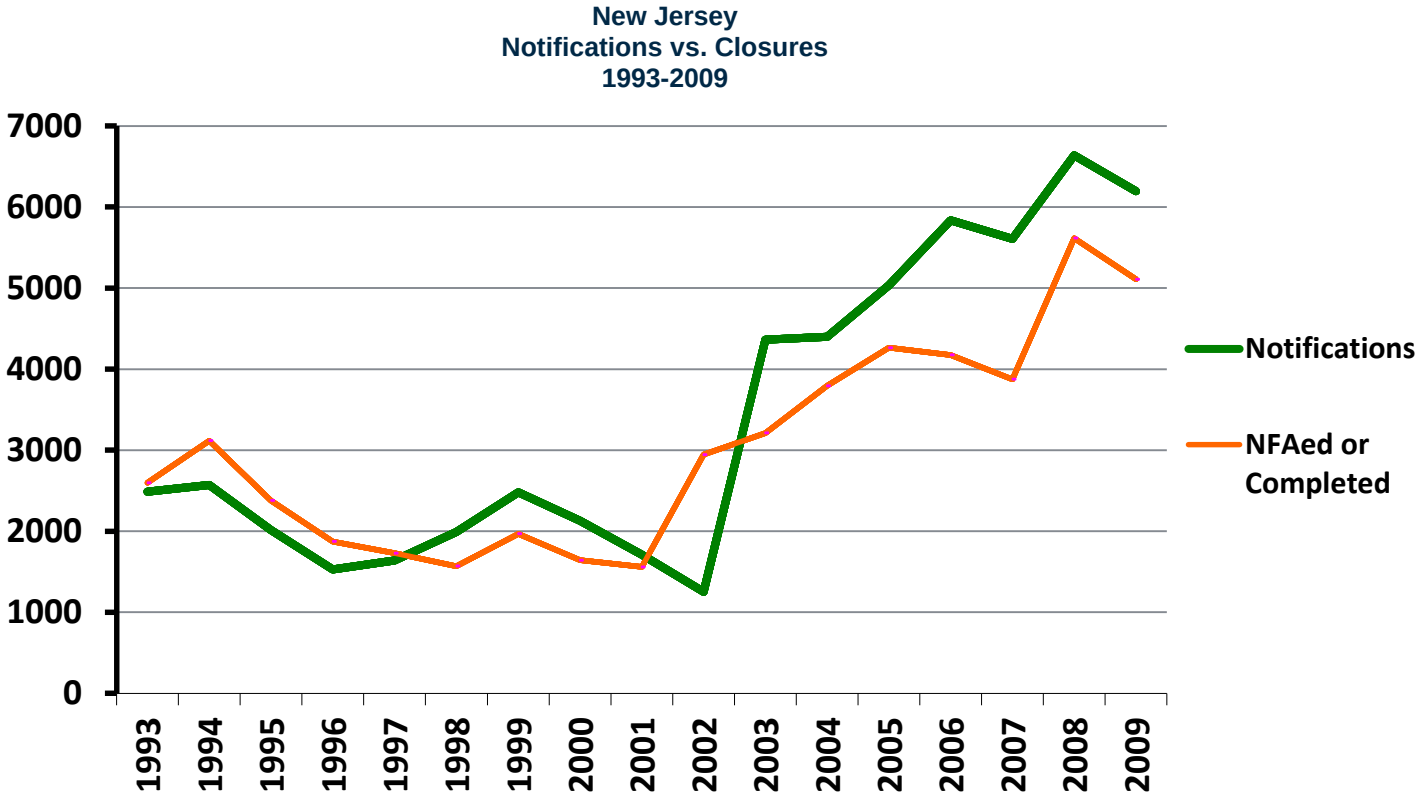
"When we see land as a community to which we belong, we may begin to use it with love and respect."

Aldo Leopold

Problem:

- New Jersey Department of Environmental Protect was not able to handle the amounts of current and potential influx of new sites in need of remediation. ~20,000 open sites in system.

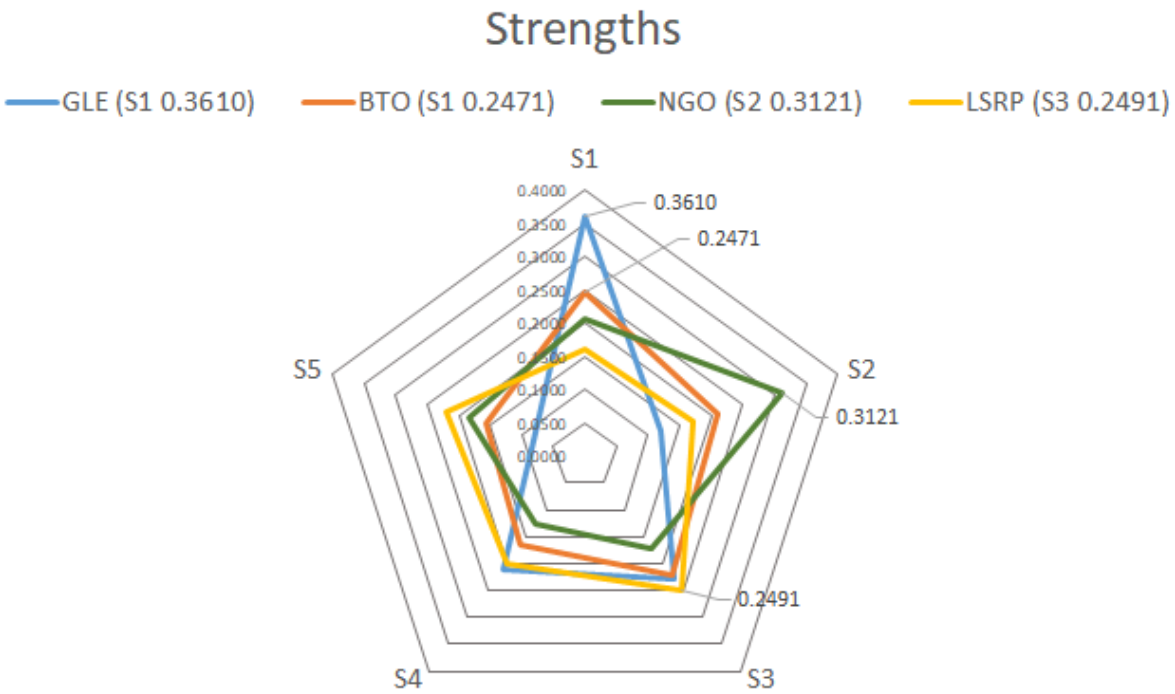


Source: Data from "NJDEP Known Contaminated Sites in New Jersey Reports"

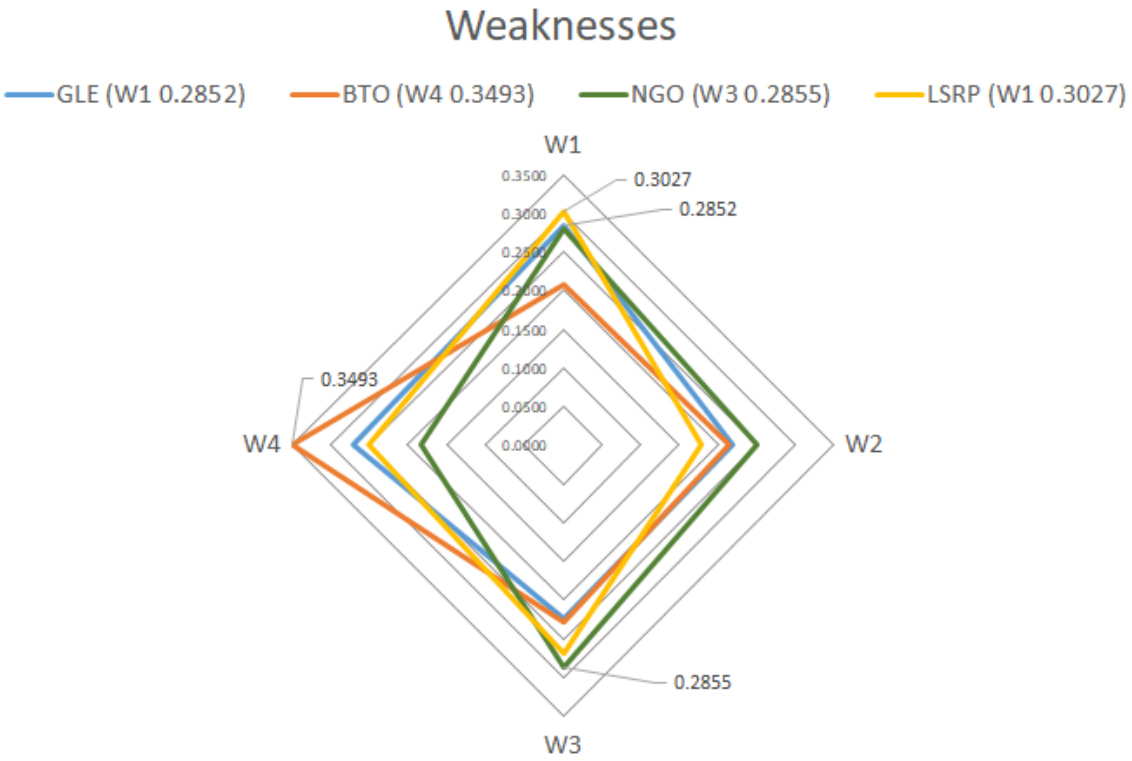
Need for change:

- 2006: ~20,000 open sites / Accutherm
- Site Remediation Reform Act (SRRA) 2009 – All sites must be under a Licensed Site Remediation Professional (LSRP) by May 7, 2012
- SRRA 2.0 – 2019
- Determine the hierarchy of the Strength, Weaknesses, Opportunities, and Threats of the privatization of the New Jersey remediation program.

	SWOT factors and their priority and overall priority scores							
	Factors priority scores				Overall priority scores			
Strengths	**GLE**	**BTO**	**NGO**	**LSRP**	**GLE**	**BTO**	**NGO**	**LSRP**
S1: LSRPs ability to use Professional Judgment	**0.3610**	**0.2471**	0.2050	0.1597	1.8048	1.2357	1.0252	0.7983
S2: Requiring the LSRP to comply with a strict “Code of Conduct”	0.1195	0.2090	**0.3121**	0.1702	0.5974	1.0449	1.5603	0.8511
S3: Ability for LSRPs to network ideas through organizations such as the LSRPA	0.2300	0.2224	0.1712	**0.2491**	1.1499	1.1122	0.8559	1.2456
S4: Ability for the LSRPs to quickly adapt to changes in guidance	0.2091	0.1639	0.1270	0.2019	1.0455	0.8194	0.6351	1.0095
S5: Having the LSRPs “Code of Conduct” as part of a law	0.0805	0.1576	0.1847	0.2191	0.4023	0.7878	0.9236	1.0955



SWOT factors and their priority and overall priority scores								
	Factors priority scores				Overall priority scores			
Weaknesses	**GLE**	**BTO**	**NGO**	**LSRP**	**GLE**	**BTO**	**NGO**	**LSRP**
W1: The amount of Internal NJDEP resources to handle workloads	**0.2852**	0.2076	0.2799	**0.3027**	1.1406	0.8306	1.1196	1.2109
W2: Holding the LSRP liable for the site	0.2186	0.2146	0.2510	0.1785	0.8743	0.8585	1.0041	0.7139
W3: Conflicts between multiple LSRPs in rendering mutual agreeable judgments	0.2247	0.2285	**0.2855**	0.2683	0.8987	0.9139	1.1419	1.0733
W4: Requiring the setting aside monies used for institutional and engineering controls in escrow in perpetuity, instead of having the ability to invest and potentially earning money	0.2716	**0.3493**	0.1836	0.2505	1.0864	1.3970	0.7344	1.0019



SWOT factors and their priority and overall priority scores								
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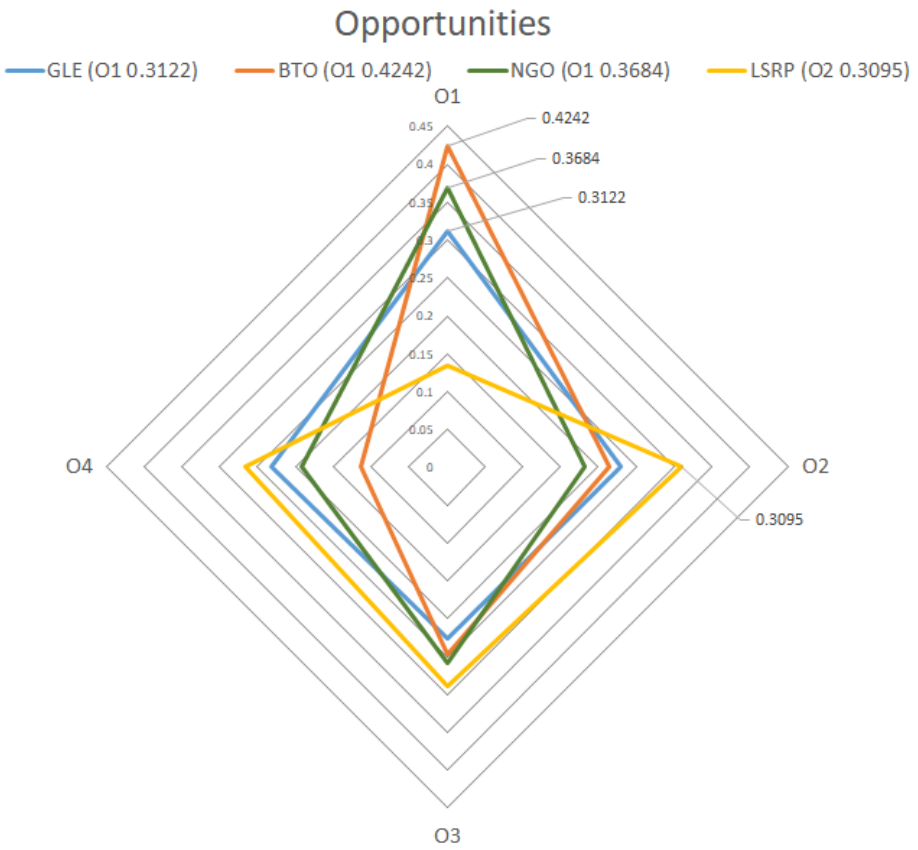
Opportunities	**GLE**	**BTO**	**NGO**	**LSRP**	**GLE**	**BTO**	**NGO**	**LSRP**
O1: The ability to incorporate inputs from groups such as Non Governmental Organizations, Business and Industry Groups, and Local Communities	**0.3122**	**0.4242**	**0.3684**	0.1349	1.2490	1.6967	1.4735	0.5394
O2: The ability to reuse remediated materials for beneficial use	0.2291	0.2144	0.181	**0.3095**	0.9165	0.8576	0.7241	1.2379
O3: Escalated remediation schedules	0.2266	0.2472	0.2592	0.2894	0.9064	0.9888	1.0367	1.1574
O4: Flexibility of LSRP to adapt	0.232	0.1142	0.1914	0.2663	0.9281	0.4569	0.7657	1.0653



SWOT factors and their priority and overall priority scores								
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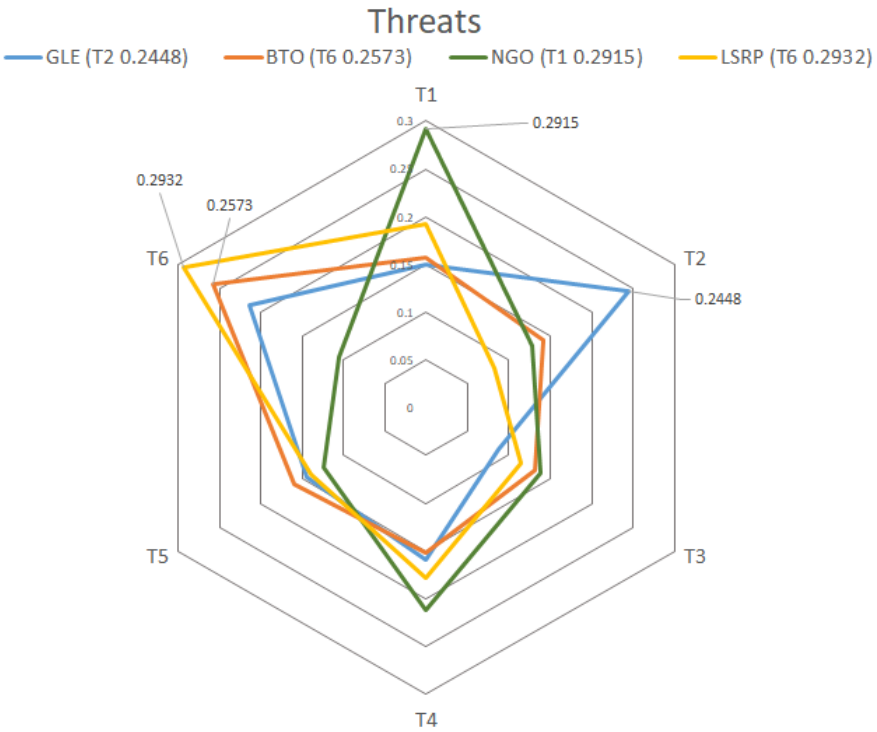
Threats	**GLE**	**BTO**	**NGO**	**LSRP**	**GLE**	**BTO**	**NGO**	**LSRP**
T1: Misperception of the general public of an LSRP exercising "Professional Judgment" leading to a site being "Protective of human health and safety and of the environment	0.1495	0.1573	**0.2915**	0.1921	0.8972	0.9438	1.7492	1.1527
T2: Ability for the NJDEP to overturn a rendered LSRP judgment, due to political pressures	**0.2448**	0.1413	0.1288	0.0821	1.4690	0.8476	0.7729	0.4927
T3: Owners unable to cleanup their sites do to financial burdens beyond their ability to remediate, turning properties into orphan sites	0.0881	0.1316	0.1383	0.1149	0.5286	0.7893	0.8295	0.6893
T4: Changes to the markets' focusing away from the redevelopment of contaminated properties	0.1594	0.1523	0.2113	0.1778	0.9562	0.9139	1.2676	1.0670
T5: Retroactive affects due to standard changes	0.1442	0.1602	0.1243	0.1399	0.8652	0.9613	0.7456	0.8393
T6: Ability to improve the analytical detection limits used to quantify target compounds	0.214	**0.2573**	0.1058	**0.2932**	1.2839	1.5440	0.6351	1.7590



NJ - LSRP outcomes since program inception:

- Total Number of LSRP's: 707
- Total Number of Active LSRP cases in the Site Remediation Program: 15,372
- Total Number of active cases : 16,709
- Total Number of Response Action Outcomes (RAO) issued: 11,371

Acknowledgments

Dr. Dibyendu Sarkar
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191 SWOT-AHP Survey Respondents