

# CHANGING PERCEPTIONS: Environmental Risk Today



# Foreword



“The perception of environmental risk has shifted: the industry acknowledges that understanding and managing environmental risk wisely is a necessary core competency to stay competitive in today’s market.”

— **Joseph Derhake, PE**  
CEO | Partner Engineering  
and Science, Inc.

Here at GlobeSt.com, we know that commercial real estate investors, lenders and brokers perform due diligence to determine if a deal makes sense on a number of levels. And the assessment of environmental risk is an important part of that process. In the commercial real estate space, environmental issues can create delays and liabilities, affect returns on investment, and potentially derail entire deals. An institution’s risk policy determines exactly how these environmental issues are considered and managed to protect against such losses.

Of course, the environmental risk landscape has changed in recent years. Through the recession we saw an increased focus on risk management, as well as greater regulatory scrutiny on CRE lenders. Also, our understanding of environmental concerns has advanced and there is greater regulatory focus on managing the risk they pose. But where do things stand now? In an increasingly competitive deal market, how does the industry really see and approach environmental risk today?

For this survey, GlobeSt.com teamed up with Partner Engineering & Science, Inc., to ask commercial real estate professionals a series of questions about their perception of environmental risk. We set out to determine how often environmental issues impact deals

that respondents are involved with, and how such issues change the viability or return-on-investment of those deals. We wanted to know how high respondents’ tolerance is for environmental risk, what issues send up red flags, when and how ‘workarounds’ (like remediation, insurance or covenants) are deemed appropriate, and whom they trust for their due diligence information.

Our respondents’ answers were telling: More than three-quarters of respondents said they had seen a deal fail due to environmental issues, and nearly one-quarter had lost money due to an environmental issue. More than half indicated the reason for losses was that the environmental issue was not well understood or because different parties in the deal didn’t agree on just how the issue affected the deal. The survey showed that environmental risk does, apparently, directly impact the success of many commercial real estate deals. But, not all environmental issues are deal-killers per se. Very notable was respondents’ commitment to address and find solutions to environmental concerns. Many showed a willingness to take on some level of environmental risk in their deals, so long as they could quantify and put a price on the issue. As one respondent said: “The risk must be appropriately priced.”

Indeed, in today's market, to compete may *require* a willingness to manage and take on environmental challenges. As another respondent explained: "The no-solve outcome and total loss of property is a very limited concern today. That means that the supply/demand of available real estate in the market typically outweighs the cost/time impact from environmental risk in CRE transactions."

As you delve into this year's survey results, note how much more savvy the industry has become in understanding environmental risk and in finding solutions to these issues in order to make deals work.



— **Carrie Rossenfeld**  
Custom Content Editor  
GlobeSt.com

“ “ There are more *solutions* to environmental risks now. The no-solve outcome and total loss of property is a very limited concern today. That means that the supply/demand of available real estate in the market typically outweighs the cost/time impact from environmental risk in CRE transactions.”

— **Survey Respondent**

# Executive Summary

In the following survey, GlobeSt.com and Partner Engineering and Science Inc. sought to determine how the commercial real estate industry perceives environmental risk today. Respondents broadly represented multiple sectors of the industry at various levels. The Owner/Investor and Broker groups each made up 22% of the demographic, followed by Lenders (17%) and Developers (12%). The biggest group of respondents identified their function as Executive Management/Operations/Owner (32%), followed by Brokers/Agent (18%) and Deal side – acquisitions, loan origination / production (17%).

The survey showed that environmental risk matters quite a bit! 77% of respondents revealed they have seen a deal fall through, mostly because an environmental issue fundamentally changed how different parties saw the deal. 23% said an environmental issue caused them to lose money on a deal they closed or a property they owned. Interestingly, when digging deeper into the data we found that only 17% of those who said they had lost money were on the lender side of the deal. Moreover, every one of those lender respondents said the losses were a result of inadequate due diligence: the environmental issue wasn't thoroughly

investigated prior to closing; the issue wasn't disclosed; remedial costs were much higher than anticipated; the issue caused unforeseen delays or added extra costs; etc. Perhaps with better information available, these lenders could have found a way to manage the issues and enable the deal to go through. Indeed, the survey data illustrated that the industry appreciates that a thorough pre-deal due diligence process is a wise investment: a little spent upfront can often protect against significant unforeseen costs because of remediation, lost property values or lawsuits down the road.

This was also reflected in respondents' answers when asked what qualities they look for when selecting an environmental consulting firm. Considered to be by far the most important factors were the firm's technical qualifications (59%) and a sound national reputation (45%), followed by a personable relationship with someone they trust within the firm (37%). Very few respondents felt price (2%) or even turnaround time (16%) were as important. Perhaps this indicates a shift away from a "check the box" mentality toward one that recognizes the value of trusting a consultant's technical chops to handle complicated environmental issues.

## KEY FINDINGS

- The industry's **understanding of environmental risks has advanced** in recent years and made it a more prominent concern. Vapor Intrusion is a key example.
- When it comes to environmental due diligence, the industry acknowledges **the value of spending a little to save a lot** (and prevent headaches and liabilities)!
- If they can **quantify the environmental issue**, many respondents are actually quite comfortable taking it on.
- In today's market, it's about **finding solutions** to environmental issues to make a deal work.

Indeed, a willingness to solve rather than walk away from environmentally complicated deals was revealed in more survey data. For example, several questions presented survey-takers with hypothetical deal scenarios that presented a potential environmental concern. These questions aimed to determine what respondents saw as deal-killing issues, and when they may explore workarounds despite the presence of an environmental risk. In one scenario, a property was appraised at \$20 million but has a \$1 million environmental condition. When asked about the best way to get this deal done, 32% said the seller should enter into a covenant to handle the cleanup, 26% said to discount the deal by \$1 million and include a reasonable contingency, another 26% would choose to set aside funds and purchase cost-cap insurance, while 3% said they would move ahead with the deal if sufficient government funding was available for the cleanup. That leaves only 14% of respondents who said they would have walked away from it! In other words, the vast majority of respondents showed a willingness to move forward if the deal finances and/or cleanup arrangements can be addressed. As one respondent said: “More information and knowledge is always better than less.”

In comparing this study to other surveys performed by Partner in 2008 and 2012, it's clear that the risk landscape has changed primarily in how much awareness and attention environmental issues receive today. The science behind some important environmental concerns – such as vapor intrusions risks – has evolved, and made this a greater focus in environmental risk management strategies across the commercial real estate industry. As one respondent said: “We have better techniques today to help us understand the extent of contamination. With better tools, the industry can make better risk-adjusted decisions.”

Overall, the perception of environmental risk has shifted. One respondent summed it up very nicely by saying that there are three types of CRE professionals in today's market: “[...] those who take on risk they don't understand, those who have a close-to-zero tolerance for risk, and those who can work to evaluate and solve issues for a successful outcome.” It appears that the last camp is where the money is made!

— **Carrie Rossenfeld**

“ We have better techniques today to help us understand the extent of contamination. With better tools, the industry can make better risk-adjusted decisions.”

— **Survey Respondent**



“ There seems to be a healthy respect for, but not an irrational fear of, a 'bottomless environmental pit.' The key is *quantifying* the problem and gaining consensus on the deal economics.”

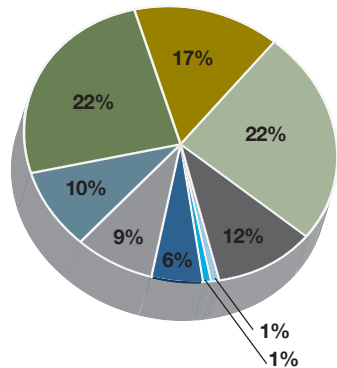
— **Kristine MacWilliams, PE**  
Technical Director, Subsurface Investigation |  
Partner Engineering and Science, Inc.

# Methodology

On behalf of Partner Engineering and Science, Inc., ALM Marketing Services undertook an online reader survey in August 2016 to gain insight into the commercial real estate's changing perception of environmental risk.

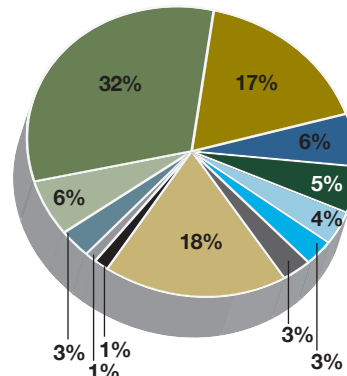
The survey population is comprised of a subset of subscribers and customers drawn from ALM's proprietary database of commercial real estate professionals. A drawing of three \$100 gift cards was offered as an optional incentive. The survey was available to respondents from August 3 to September 2, 2016.

## I am, or my institution is, a/an:



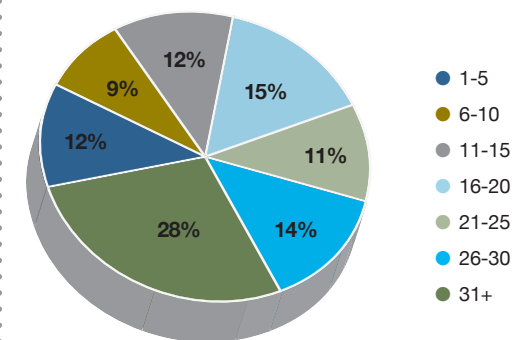
- Owner/Investor
- Lender
- Broker
- Developer
- Attorney
- Architect
- Environmental and/or Engineering Service Provider
- Real Estate / Financial Advisor
- Other

## What job description best matches your function?



- Executive management / operations / owner
- Deal side – acquisitions, loan origination / production
- Underwriting / credit side
- Real estate technical services / appraisal
- Asset / facilities management
- Loan administration
- Construction
- Broker / agent
- Accounting / finance
- Legal
- PR / marketing
- 3rd party technical services provider

## How many years of industry experience do you have?



- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-30
- 31+

“As I age, my tolerance for environmental risk diminishes.”

— Survey Respondent



# Risk in the Context of Deals

In this section, respondents were asked about environmental impacts to deals or ROI, possible workarounds, key risk tolerance drivers and stakeholder concerns.

Developed in conjunction with:

**PARTNER**  
Engineering and Science, Inc.®

Have you ever seen a deal fall apart due to environmental issues?

**77%** of respondents said yes.



“These responses show that most deals died as a result of lack of consensus – either on the environmental issue itself, or on who was willing to work around the issue. A good consultant can bring parties closer to consensus by thoroughly defining the issue and possible solutions.”

— **Jenny Redlin, REPA**  
Principal | Partner Engineering and Science, Inc.

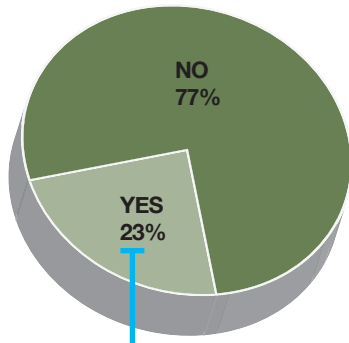
If the deal fell apart, which of these statements applies most?



[Click here for more information:](#)  
[Webinar: Getting in Front of Due Diligence Issues](#)  
[Blog: How Environmental Liability Affects Private Equity](#)



# Have you ever lost money on a deal you closed or property you owned because of an environmental issue?



**41%** of those who said they have lost money are in executive/owner positions at their companies.



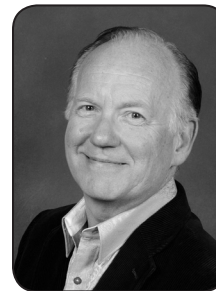
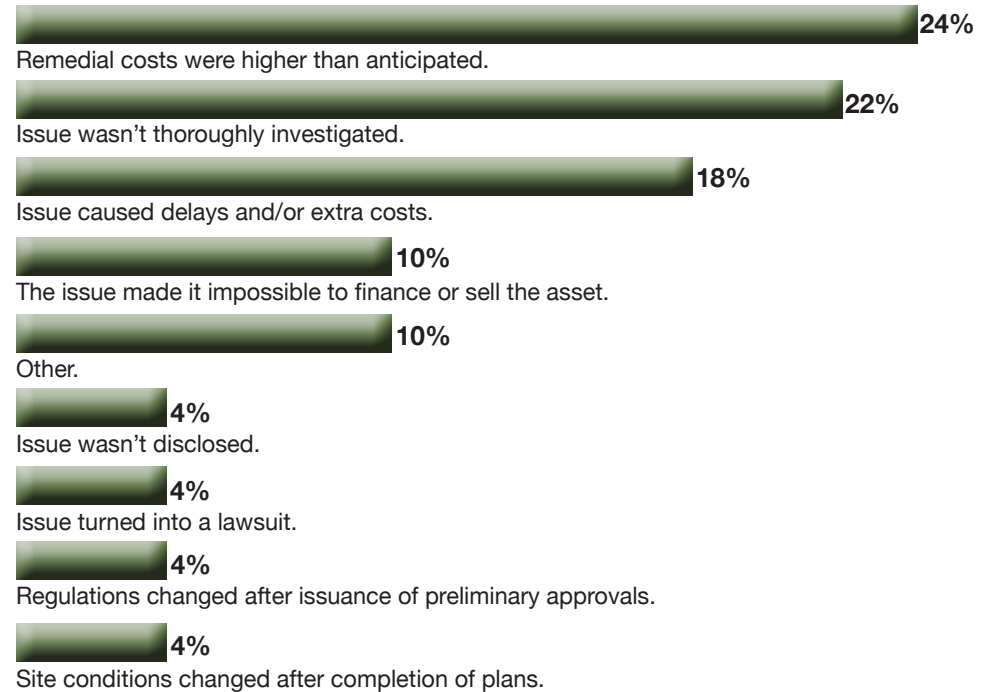
“Time is an important factor in the impact of environmental issues, which may not become apparent for years. That means that when it comes to environmental liability, you need to take a long-term view.”

— **Nicole Moore, REPA**  
 Technical Director, Environmental Consulting | Partner Engineering and Science, Inc.

## Additional Resources:

[Blog: Does Your Environmental Due Diligence Pass the EPA Test?](#)

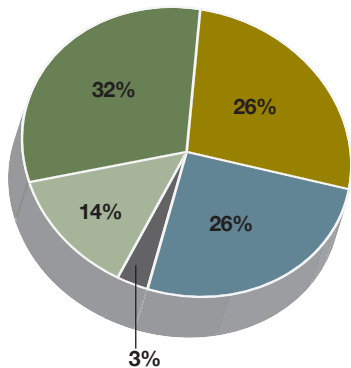
## How/why?



“Not understanding the environmental issue or costs associated with it is indicated as the biggest cause for losses. Remedial cost estimates can help – but the more thorough the better. Relying on a quick ‘guestimate’ will only add more risk to your deal! Good engineering calculations take into account many site specific factors, applicable mitigation technologies, quotes on big ticket items, anticipated regulatory requirements and costs, and unique site impacts like development scheduling and change of use.”

— **Robert Traylor, PG, CHg**  
 Technical Director, Site Mitigation | Partner Engineering and Science, Inc.

Consider this scenario: a property is appraised at \$20 million, but has a \$1 million environmental issue. What is the best way to get this deal done?



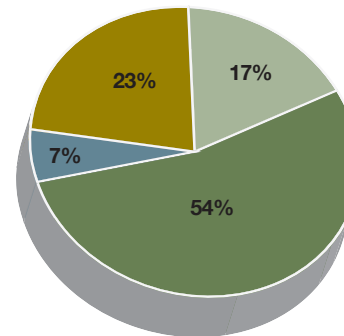
- Seller enters covenant to cover cleanup.
- Obtain \$1m discount plus reasonable contingency.
- Reserve funds and purchase cost-cap insurance.
- Pursue government funding for cleanup.
- The issue could be much bigger. Best to walk away.



“Nowadays, very few people feel the need to walk away from a deal with environmental issues. The key is being able to quantify the risk in order to confidently move forward with the deal.”

— **Kristine MacWilliams, PE**  
 Technical Director, Subsurface Investigations |  
 Partner Engineering and Science, Inc.

Environmental insurance was popular in the 1990s and early 2000s. The following statement best characterizes my experience with environmental insurance:



- I was involved in a case where a policy was triggered and claim was paid.
- It has helped me close a deal, but I haven't seen a claim paid out.
- Obtained quotes, but never purchased due to price, terms or other complexities.
- I have never used it.

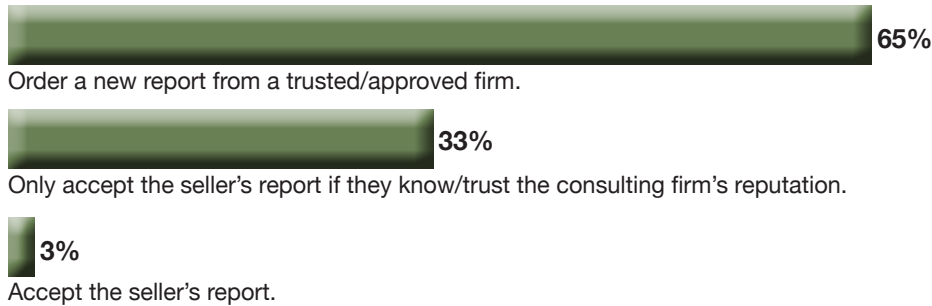


“Environmental insurance is an indispensable piece of the puzzle. However, a robust risk management program should also include a strong understanding of the environmental issues and indemnification language in the purchase and sale agreement.”

— **Canaan Crouch, PG**  
 Partner | Landmark E&S Insurance Brokers, LLC

**Additional Resources:**  
[Blog: Taking a Closer Look at Environmental Insurance](#)  
[Blog: Using Phase II ESAs to Avoid a Bottomless Environmental Mess](#)

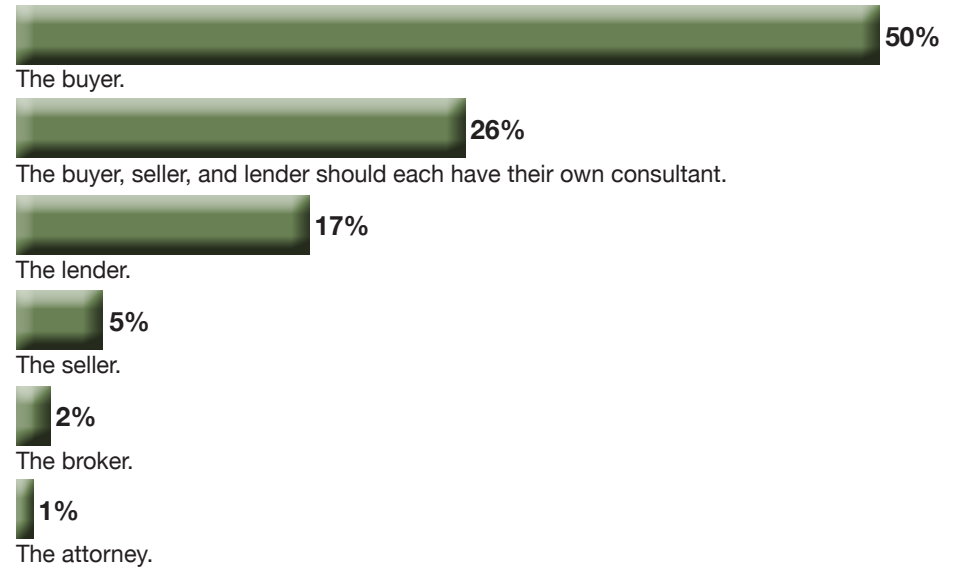
## During the sale of a somewhat environmentally complicated asset, the seller is providing a Phase 1 Environmental Report. What should the buyer do?



“ These results reflect how far investors, developers and lenders have progressed up the learning curve of environmental risk awareness since the early 1990s. They understand the value of using qualified, objective environmental professionals to help them identify and evaluate risk, as well as recognizing that there may be instances where a reliance letter may be appropriate for using past environmental due diligence as an indicator of potential risk exposure.”

— **Dianne Crocker**  
Principal Analyst | EDR Insight

## Which stakeholder in a real estate transaction should engage the environmental firm?



“ To be sure that your environmental due diligence procedures address your individual concerns and risk tolerance levels, it is important to engage an environmental consultant who knows and understands your business interests – and whose loyalty is exclusive to you.”

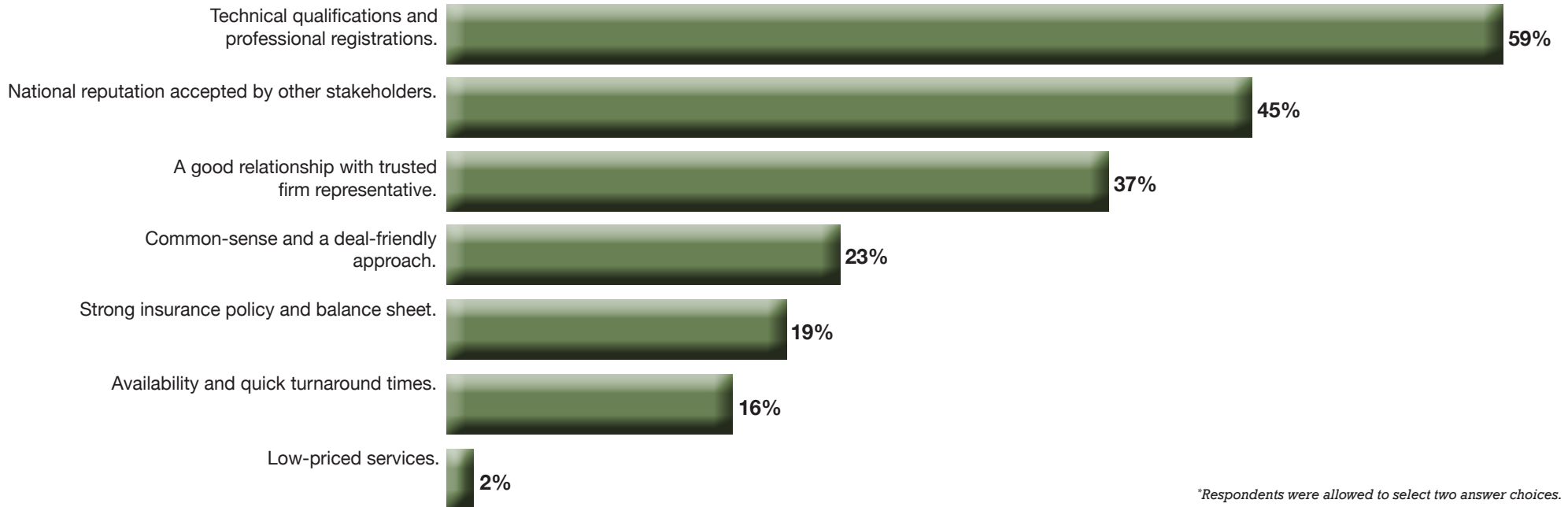
— **Keith Walker**  
Partner | Cox, Castle & Nicholson, LLP

### Additional Resources:

[Blog: Should a Buyer Accept a Seller's ESA?](#)

[Blog: What Does a Bona Fide Prospective Purchaser Defense Do for a Property Buyer?](#)

# What do you look for when selecting an environmental consulting firm?\*



\*Respondents were allowed to select two answer choices.



“It’s promising to see that qualifications, reputation, and a relationship you trust are the most important criteria. Even when allowed two top choices, price clearly isn’t one of them! The industry is really looking for a provider with the capabilities to help thoroughly manage environmental risks and get deals done.”

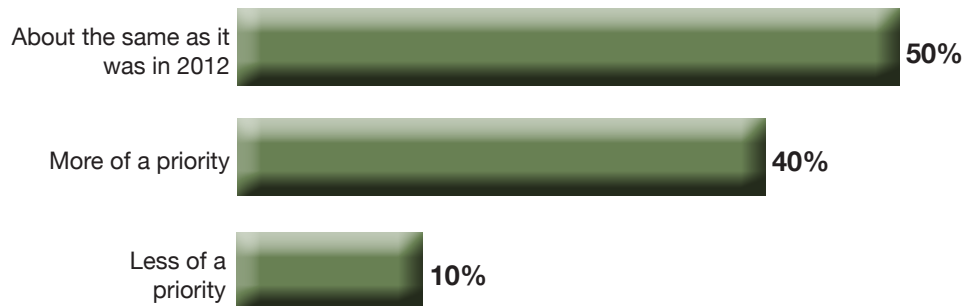
— **Frank S. Romeo, JR**  
President | Partner Engineering and Science, Inc.



“To me, competitive pricing is important. But I rely on having a strong relationship with a qualified consultant who I can trust to manage environmental risks in a way that supports our business goals.”

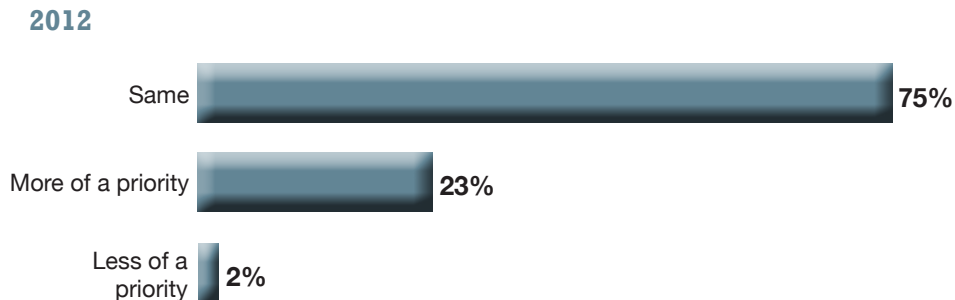
— **Robert Lindemann**  
Assistant VP / Environmental Coordinator and Reviewer | Investors Bank

# With the economy improving in recent years, has risk management due diligence become more or less of a priority than it was in 2012?



**40%** of respondents in 2016 said risk management due diligence is an increasing priority, compared to only 23% who said so in 2012.

In 2012, we asked GlobeSt.com's audience the same question about their view of risk management due diligence. Here are those responses:



“We are all better educated now.”

— Survey Respondent



“Unlike soil or groundwater contamination alone, the presence of a vapor intrusion issue creates a more direct risk to those working or living inside a building. That obvious link to human health has elevated the prominence of vapor intrusion risk, and perhaps environmental risk in general, and made it a key issue throughout the industry.”

— Jenny Redlin, REPA

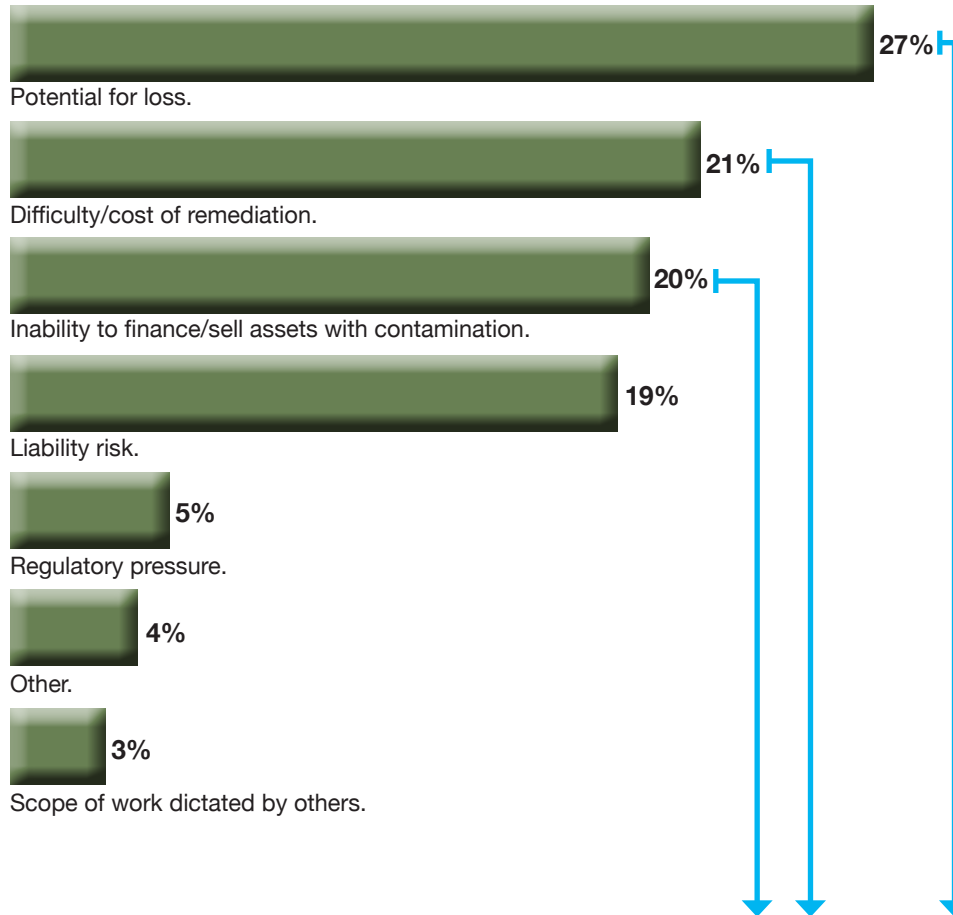
Principal | Partner Engineering and Science, Inc.

## Additional Resources:

[2012 White Paper: Assessing Risk, Engineering Returns](#)

[Blog: The Environmental Doctor is In](#)

## What drives your tolerance for environmental conditions at the asset level?



“ It appears that the CRE community isn't doing due diligence because regulations require them to or out of fear of liability, but because they acknowledge that investing in assessing environmental issues upfront can actually help them make better business decisions.”

— **Joseph Derhake, PE**  
CEO | Partner Engineering and Science, Inc.

External pressures (regulations, others' scope of work, and to some extent liability risk) are *not* the primary drivers of how tolerant the industry is of environmental risk. Instead, direct impacts like loss, liquidity, and difficulty mitigating an issue drew the biggest responses.



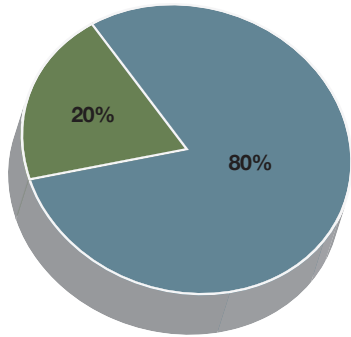
# The Industry's Perception of Risk

The following questions probed respondents' perception of risk, asking whether specific scenarios would constitute an environmental concern that could impact a deal.

Developed in conjunction with:

**PARTNER**  
Engineering and Science, Inc.®

## Is this a concern: A dry cleaner using chlorinated solvents (Perc) that's been operating for less than two years.



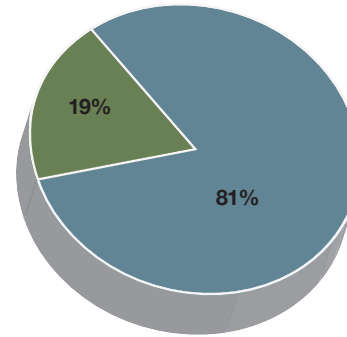
- No, that's not a concern.
- Yes, that's a concern.



“ We often get push-back on how dry cleaners are classified during Phase I Environmental Site Assessments. It's interesting to see broad industry consensus that after 2 years of operation, dry cleaners could pose a risk of contamination.”

— **Nicole Moore, REPA**  
Technical Director, Environmental Consulting | Partner Engineering and Science, Inc.

## What if it's been operating for more than 8 years?



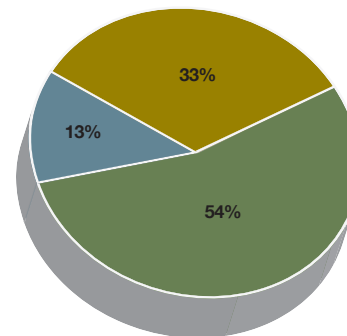
- No, that's still not a concern.
- Yes, in that case I would say it's a concern.



“ These responses align with what we found during a comprehensive analysis of hundreds of Phase II Subsurface Investigations. The study showed that contamination was detected at a whopping 87% of dry cleaner sites!”

— **Kathryn Peacock**  
Principal | Partner Engineering and Science, Inc.

## Analysis of Phase II Subsurface Investigations performed at dry cleaner sites.



- No contamination.
- Detectable contamination, but not above regulatory thresholds.
- Contamination present above regulatory threshold.

### Additional Resources:

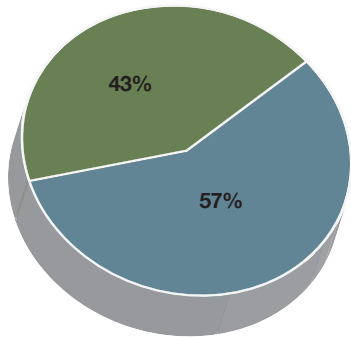
[Article: Lenders' Tolerance for Environmental Risks](#)

[Article: The Risks and Rewards of Drycleaners](#)

[Blog: When is Cleaning Up a Drycleaner Worth the Risk?](#)



## Is this a concern: A gas station with double-wall USTs and a leak-monitoring system that has been operating for less than 2 years.



- Yes, that's a concern.
- No, that's not a concern.

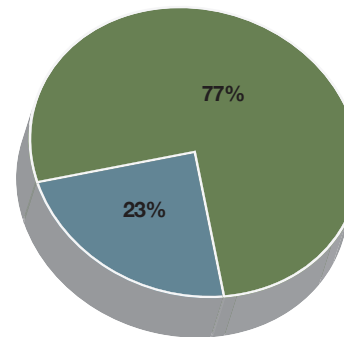


“Length of operation, the age and model of tank, tightness testing, and installation records are all additional factors the environmental consultant would need to consider to determine whether the presence of an underground storage tank poses a Recognized Environmental Condition.”

— **Stan Rutkowski**

East Coast Technical Director, Environmental Consulting | Partner Engineering and Science, Inc.

## What about after more than 8 years of operation?



- Yes, in that case I would say it's a concern.
- No, that's still not a concern.



“Underground storage tanks have historically been major sources of groundwater contamination. Owners and lenders should be particularly concerned about residual contamination from tanks removed in the past since sites may not have been thoroughly investigated.”

— **Larry Schnapf**

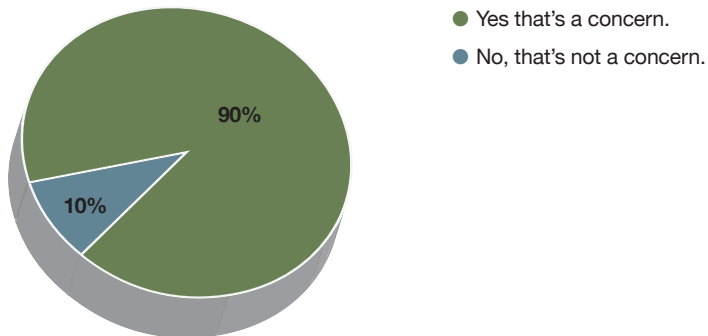
Principal, Environmental Lawyer | Schnapf LLC

### Additional Resources:

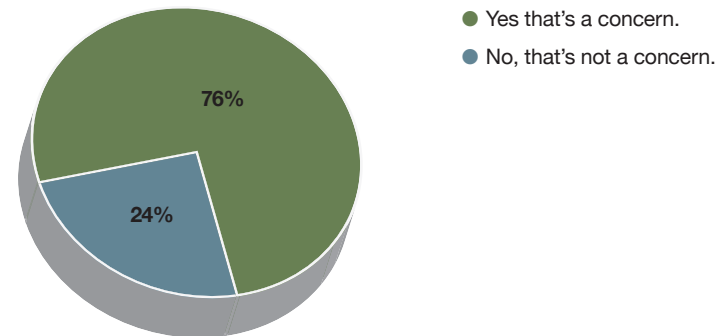
[Blog: EPA's 2015 UST Regulation - What Does This Mean to You?](#)

[Blog: Gas Stations and Regulatory Compliance - Too Much Information?](#)

A former oil well site that was redeveloped into an office building. The oil wells were closed and abandoned in the 1950s, but limited documentation exists about the process or the ongoing risk of vapor migration.



A 500-gallon heating oil tank which is positioned under an apartment building and was used from the 1920s to the 1960s. The tank was abandoned and filled with concrete, but no testing was done.



“ In both scenarios, the risk of vapor migration is a primary concern and yet subsurface testing could be quite disruptive. It's valuable to note here that indoor air sampling can offer a less invasive and less expensive alternative to doing a Phase II Environmental Site Assessment to evaluate vapor intrusion concerns.”

— **Carrie Berry, LSRP**  
Practice Leader, Site Mitigation | Partner Engineering and Science, Inc.

**Additional Resources:**  
[Definitions: REC, HREC or CREC?](#)  
[Blog: Confusion Surrounding Vapor Intrusion Risk](#)

“ There are three kinds of CRE investors: those who are unsophisticated and may take on risk they don't understand; those who have close to zero tolerance; and those who can work to evaluate and solve for a successful environmental outcome. We are in the last camp.”

“With bidding for properties on the increase we have not changed our risk tolerance. While we will bid, we will drop out if price doesn't correlate with the risk.”

**“The risk must be appropriately priced.”**

“Financing is *always* the issue! Lenders are much more stringent, and use legal and other industry experts to minimize risk and protect themselves against both losses and liabilities.”

“I am personally seeing banks as the ones that have changed their risk tolerance.”

**“More information and knowledge is always better than less.”**



## COMPANY PROFILE

# PARTNER ENGINEERING AND SCIENCE, INC.

**Partner Engineering and Science, Inc.** (Partner) is a full-service engineering, environmental and energy consulting and design firm completing projects globally. Partner specializes in services to support real estate transactions, development, ownership and management. This includes Environmental Due Diligence; Subsurface Investigations and Remediation; Industrial Hygiene; Health, Safety & Compliance; Building Sciences; Energy & Sustainability Consulting; Site Civil Engineering; Construction Services; Land Surveying; and Zoning Reports. At Partner, we understand the impact of our services on our clients' business and bottom line. Our clients rely on us not only to provide trusted, objective services but also to provide solutions.

### Because of this, we are your Partner.

In addition, Partner is the official Engineering Thought Leader for GlobeSt.com. Through informative webinars, educational blogs, and insightful video interviews, Partner's expert consultants and engineers regularly tackle a variety of CRE related topics including environmental and engineering due diligence.



To View The Science of Real Estate Blog, visit:  
**Globest.com**

## REFERENCE VIDEOS

[Webinar: Getting in Front of Due Diligence Issues](#)

[Webinar: Lender's Environmental Policy Writing Workshop](#)

[Webinar: A User's Guide to Phase II Subsurface Investigations](#)

[Webinar: Managing Vapor Intrusion Risk](#)

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or via email at [NCialdella@alm.com](mailto:NCialdella@alm.com)