INCORPORATING SUSTAINABILITY INTO TESORO'S REMEDIATION PROGRAM

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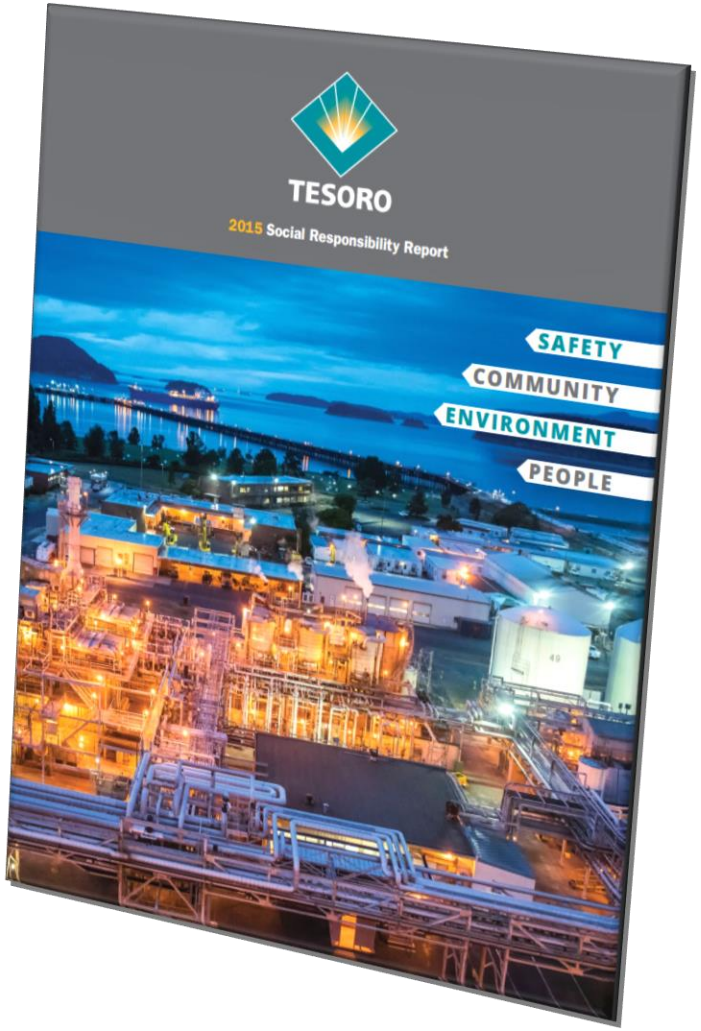
WHY SUSTAINABLE REMEDIATION?

- ✓ In line with **company commitments**
- ✓ Next step in continuous improvement of **remediation**
- ✓ Ability to realize **economic benefits**
- ✓ Stimulates more **informed, holistic** decision making
- ✓ Growing acceptance from **regulators** and other **stakeholders**
- ✓ Enhancing environmental stewardship is **good for business**!



DEVELOPING GOALS SPECIFIC TO TESORO

Desired Outcomes

2015 GOALS

- Determine metrics
- Alternatives assessed vs absolute
- Assess 2 sites in 2015
- Decide how to report assessments

1 – 3 YEARS

- Good stories
- Presenting at conferences, etc.
- Include sustainability in Remedial Reports

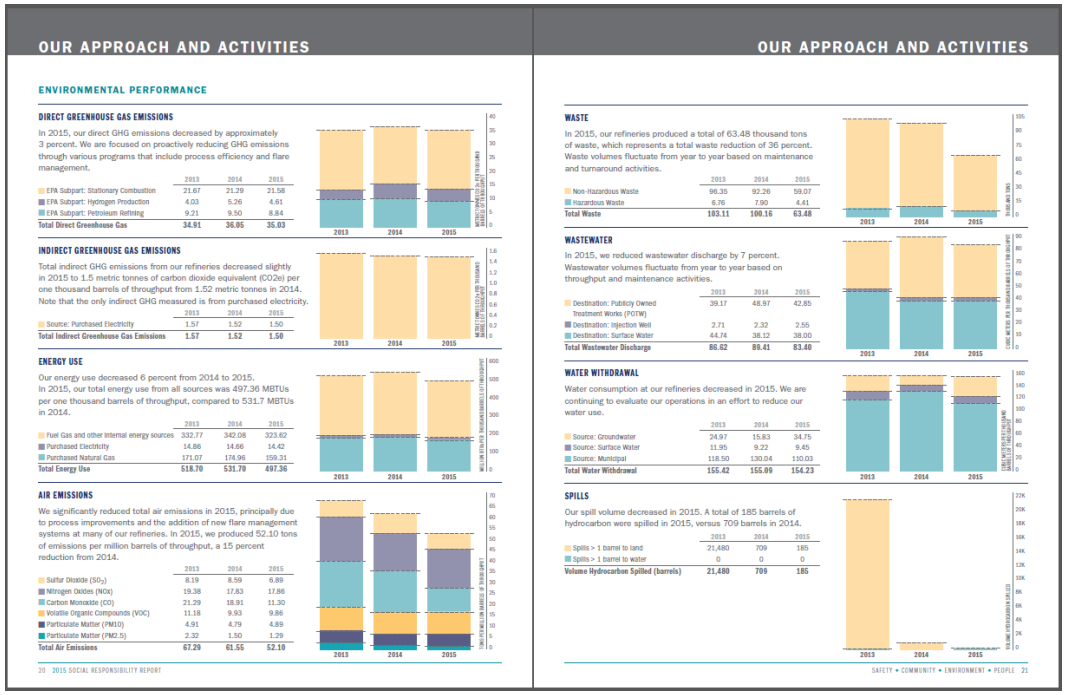
LONG TERM

- Regular assessments of all sites
- Portfolio/ company assessments

SELECTING METRICS

Excerpt from Corporate Sustainability Report

Metrics Selected for Sustainable Remediation
(Based on Corporate Metrics)



OUR APPROACH AND ACTIVITIES

ENVIRONMENTAL PERFORMANCE

DIRECT GREENHOUSE GAS EMISSIONS

In 2015, our direct GHG emissions decreased by approximately 3 percent. We are focused on proactively reducing GHG emissions through various programs that include process efficiency and flare management.

	2013	2014	2015
EPA Subpart: Stationary Combustion	21.67	21.29	21.58
EPA Subpart: Hydrogen Production	4.03	5.26	4.61
EPA Subpart: Petroleum Refining	9.21	9.50	8.84
Total Direct Greenhouse Gas	**34.91**	**36.06**	**35.03**

INDIRECT GREENHOUSE GAS EMISSIONS

Total indirect GHG emissions from our refineries decreased slightly in 2015 to 1.5 metric tonnes of carbon dioxide equivalent (CO2e) per one thousand barrels of throughput from 1.52 metric tonnes in 2014. Note that the only indirect GHG measured is from purchased electricity.

	2013	2014	2015
Source: Purchased Electricity	1.57	1.52	1.50
Total Indirect Greenhouse Gas Emissions	**1.57**	**1.52**	**1.50**

ENERGY USE

Our energy use decreased 6 percent from 2014 to 2015. In 2015, our total energy use from all sources was 497.36 MBTUs per one thousand barrels of throughput, compared to 531.7 MBTUs in 2014.

	2013	2014	2015
Fuel Gas and other internal energy sources	332.77	342.08	323.62
Purchased Electricity	14.86	14.66	14.42
Purchased Natural Gas	171.07	174.96	159.31
Total Energy Use	**518.70**	**531.70**	**497.36**

AIR EMISSIONS

We significantly reduced total air emissions in 2015, principally due to process improvements and the addition of new flare management systems at many of our refineries. In 2015, we produced 52.10 tons of emissions per million barrels of throughput, a 15 percent reduction from 2014.

	2013	2014	2015
Sulfur Dioxide (SO_2)	8.19	8.59	6.89
Nitrogen Oxides (NOx)	19.38	17.83	17.86
Carbon Monoxide (CO)	21.29	18.91	11.30
Volatile Organic Compounds (VOC)	11.18	9.93	9.86
Particulate Matter (PM10)	4.91	4.79	4.89
Particulate Matter (PM2.5)	2.32	1.50	1.29
Total Air Emissions	**67.29**	**61.55**	**52.10**

20 2015 SOCIAL RESPONSIBILITY REPORT

OUR APPROACH AND ACTIVITIES

WASTE

In 2015, our refineries produced a total of 63.48 thousand tons of waste, which represents a total waste reduction of 36 percent. Waste volumes fluctuate from year to year based on maintenance and turnaround activities.

	2013	2014	2015
Non-Hazardous Waste	96.35	92.26	59.07
Hazardous Waste	6.76	7.90	4.41
Total Waste	**103.11**	**100.16**	**63.48**

WASTEWATER

In 2015, we reduced wastewater discharge by 7 percent. Wastewater volumes fluctuate from year to year based on throughput and maintenance activities.

	2013	2014	2015
Destination: Publicly Owned Treatment Works (POTW)	39.17	48.97	42.85
Destination: Injection Well	2.71	2.32	2.55
Destination: Surface Water	44.74	38.12	38.00
Total Wastewater Discharge	**86.62**	**89.41**	**83.40**

WATER WITHDRAWAL

Water consumption at our refineries decreased in 2015. We are continuing to evaluate our operations in an effort to reduce our water use.

	2013	2014	2015
Source: Groundwater	24.97	15.83	34.75
Source: Surface Water	11.95	9.22	9.45
Source: Municipal	118.50	130.04	110.03
Total Water Withdrawal	**155.42**	**155.09**	**154.23**

SPILLS

Our spill volume decreased in 2015. A total of 185 barrels of hydrocarbon were spilled in 2015, versus 709 barrels in 2014.

	2013	2014	2015
Spills > 1 barrel to land	21,480	709	185
Spills > 1 barrel to water	0	0	0
Volume Hydrocarbon Spilled (barrels)	**21,480**	**709**	**185**

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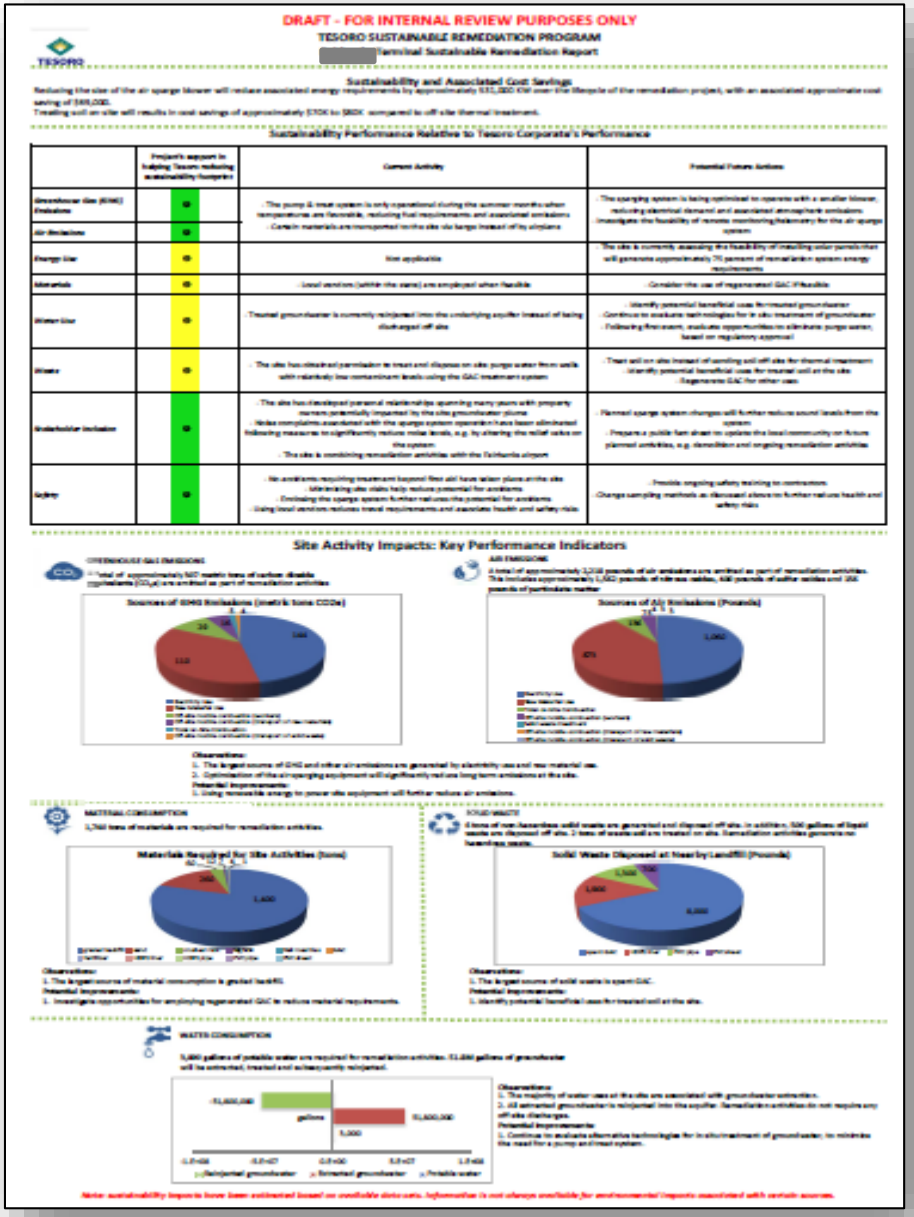
SUSTAINABLE REMEDIATION DELIVERABLE

One page dashboard

showing:

- ✓ Sustainability and associated cost savings
- ✓ Sustainability relative to corporate performance
- ✓ Key performance indicators

Standardized approach for each dashboard


DRAFT - FOR INTERNAL REVIEW PURPOSES ONLY

TESORO SUSTAINABLE REMEDIATION PROGRAM

[redacted] Terminal Sustainable Remediation Report

Sustainability and Associated Cost Savings

Sustainability Performance Relative to Tesoro Corporate's Performance

	Project's support in helping Tesoro reduce sustainability footprint	Current Activity	Potential Future Actions
Greenhouse Gas (GHG) Emissions		- The pump & treat system is only operational during the summer months when temperatures are favorable, reducing fuel requirements and associated emissions - Certain materials are transported to the site via barge instead of by airplane	The sparging system is being optimized to operate with a smaller blower, reducing electrical demand and associated atmospheric emissions. Investigate the feasibility of remote monitoring/telemetry for the air sparge system
Air Emissions			
Energy Use		Not applicable	The site is currently assessing the feasibility of installing solar panels that will generate approximately 75 percent of remediation system energy requirements.
Materials		- Local services (within the state) are employed when feasible	- Consider the use of regenerated GAC if feasible
Water Use		Treated groundwater is currently reinjected into the underlying aquifer instead of being discharged off site	- Identify potential beneficial uses for treated groundwater - Continue to evaluate tech nologies for in situ treatment of groundwater - Following final event, evaluate opportunities to eliminate purge water, based on regulatory approval
Wastes		- The site has obtained permission to treat and dispose on site purge water from wells with relatively low contaminant levels using the GAC treatment system	- Treat soil on site instead of sending soil off site for thermal treatment - Identify potential beneficial uses for treated soil on the site - Regenerate GAC for other uses
Stakeholder Inclusion		- The site has developed personal relationships spanning many years with property owners potentially impacted by the site groundwater plume - Noise complaints associated with the sparge system operation have been eliminated following measures to significantly reduce noise levels, e.g. by altering the relief valve on the system - The site is combining remediation activities with the Fairbanks airport	Planned sparge system changes will further reduce sound levels from the system - Prepare a public fact sheet to update the local community on future planned activities, e.g. demolition and ongoing remediation activities
Safety		No accidents requiring treatment beyond first aid have taken place on the site Minimizing site visits help reduce potential for accidents Enclosing the sparge system further reduces the potential for accidents Using local services reduces travel requirements and associates health and safety risks	- Provide ongoing safety training to contractors Change sampling methods as discussed above to further reduce health and safety risks

Site Activity Impacts: Key Performance Indicators

DASHBOARD COMPONENTS

TESORO

Sustainability and Associated Cost Savings

Reducing the size of the air sparge blower will reduce associated energy requirements by approximately 531,000 KW over the lifecycle of the remediation project, with an associated approximate cost saving of $69,000.
Treating soil on-site will results in cost savings of approximately $70K to $80K compared to off-site thermal treatment.

Business Case for sustainable options

Sustainability Performance Relative to Tesoro Corporate's Performance

	Project's support in helping Tesoro reducing sustainability footprint	Current Activity	Potential Future Actions
Greenhouse Gas (GHG) Emissions	⊖	- The pump & treat system is only operational during the summer months when temperatures are favorable, reducing fuel requirements and associated emissions - Certain materials are transported to the site via barge instead of by airplane	- The sparging system is being optimized to operate with a smaller blower, reducing electrical demand and associated atmospheric emissions - Investigate the feasbility of remote monitoring/telemetry for the air sparge system
Air Emissions	⊖		
Energy Use	⊖	Not applicable	- The site is currently assessing the feasibility of installing solar panels that will generate approximately 75 percent of remediation system energy requirements

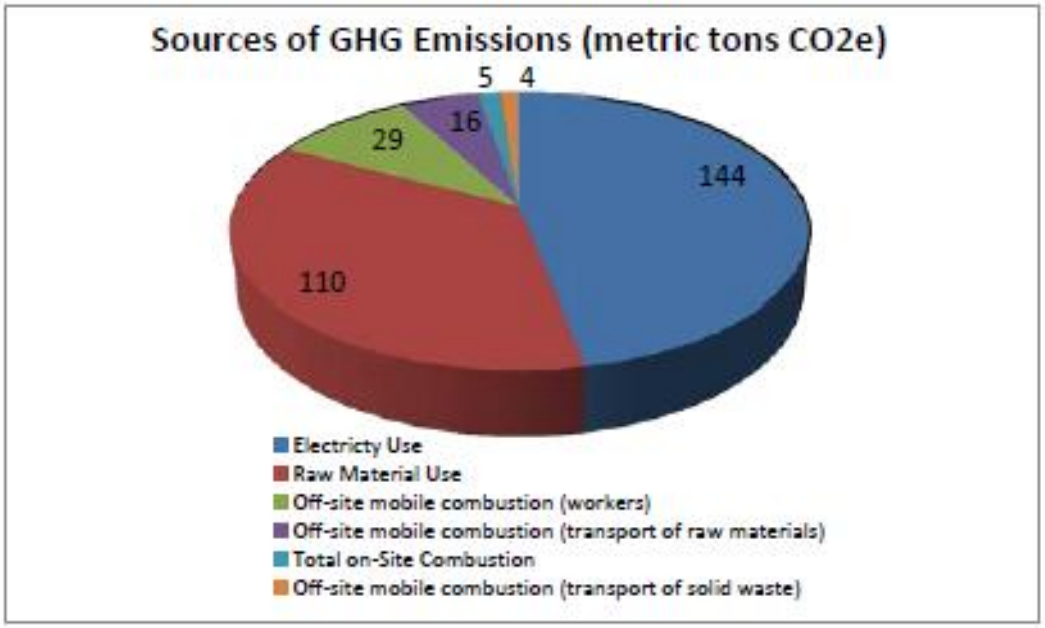
Identifies current activities and potential future activities to promote

DASHBOARD COMPONENTS - METRICS

Key performance indicators:

GREENHOUSE GAS EMISSIONS

A total of approximately 307 metric tons of carbon dioxide equivalents (CO_2e) are emitted as part of remediation activities



Develops eyes for waste

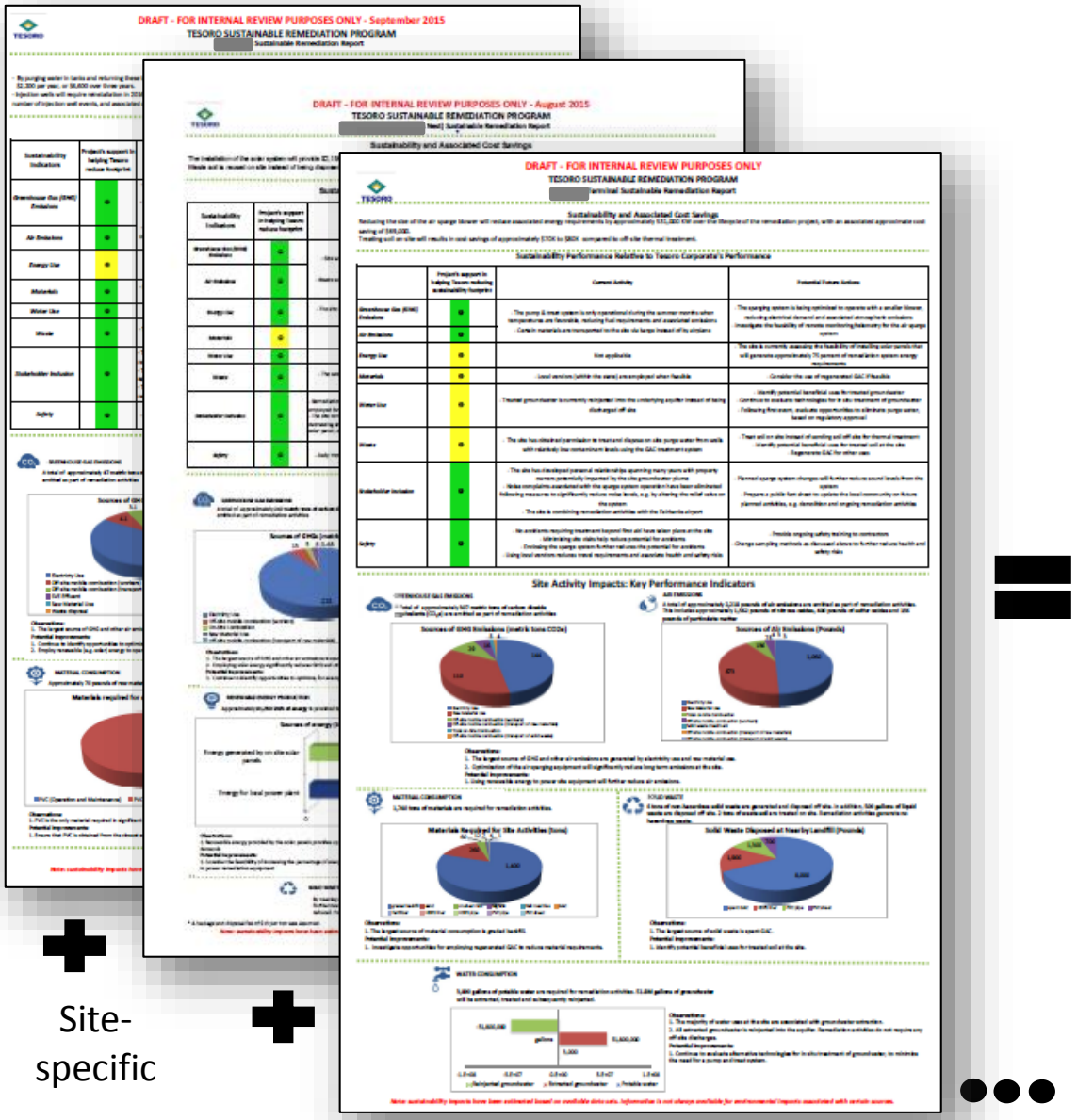
Observations:

1. The largest source of GHG and other air emissions are generated by electricity use and raw material use.
2. Optimization of the air sparging equipment will significantly reduce long term emissions at the site.

Potential Improvements:

1. Using renewable energy to power site equipment will further reduce air emissions.

CUMULATIVE SUSTAINABILITY IMPACTS



Site-specific

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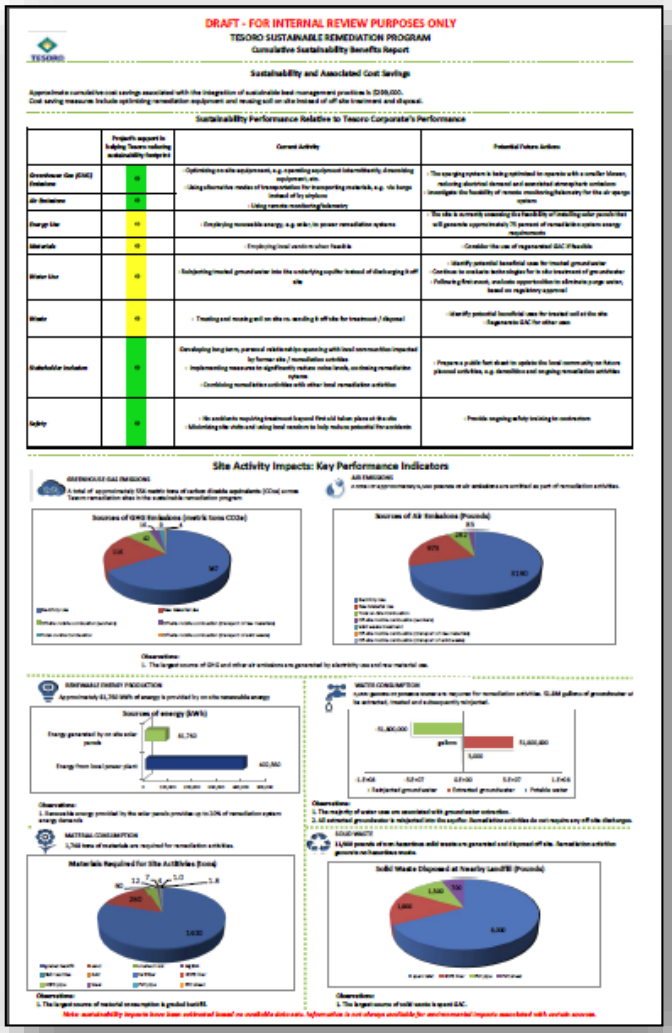
Cumulative



Portfolio sustainability performance summarized on single page

RESULTS TO DATE

- ~ **2,270 tons** materials required
- ~**1,000 MWh** energy from local power plants
- ~**410 tons** solid waste
- ~ **1,070 metric tons** CO2 generated

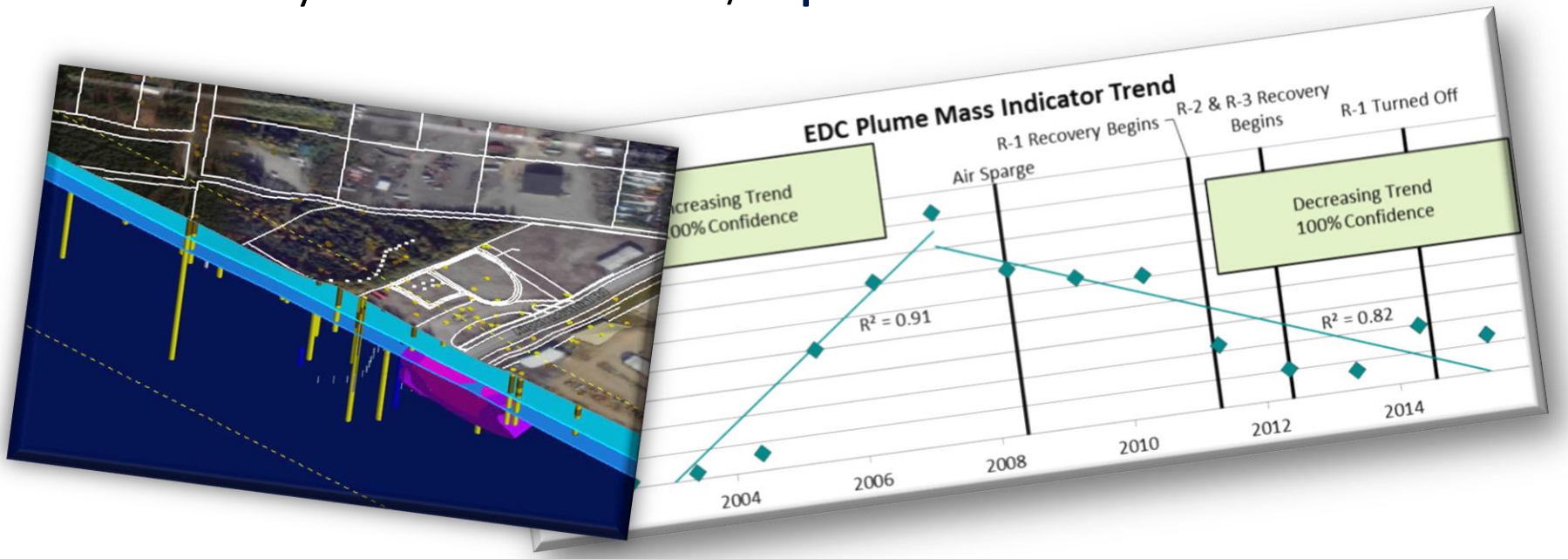
- **$305,600** cost savings
- **~51.8M** gallons of wastewater diverted
- **~81MWh** energy generated with on-site renewables
- ✓ *Additional sustainable strategies identified will significantly reduce impacts*

✓ **Multiple sustainable strategies can be applied across portfolio to further reduce impacts**

BENEFITS TO DECISION MAKING PROCESS

When presented in sustainability light, results include:

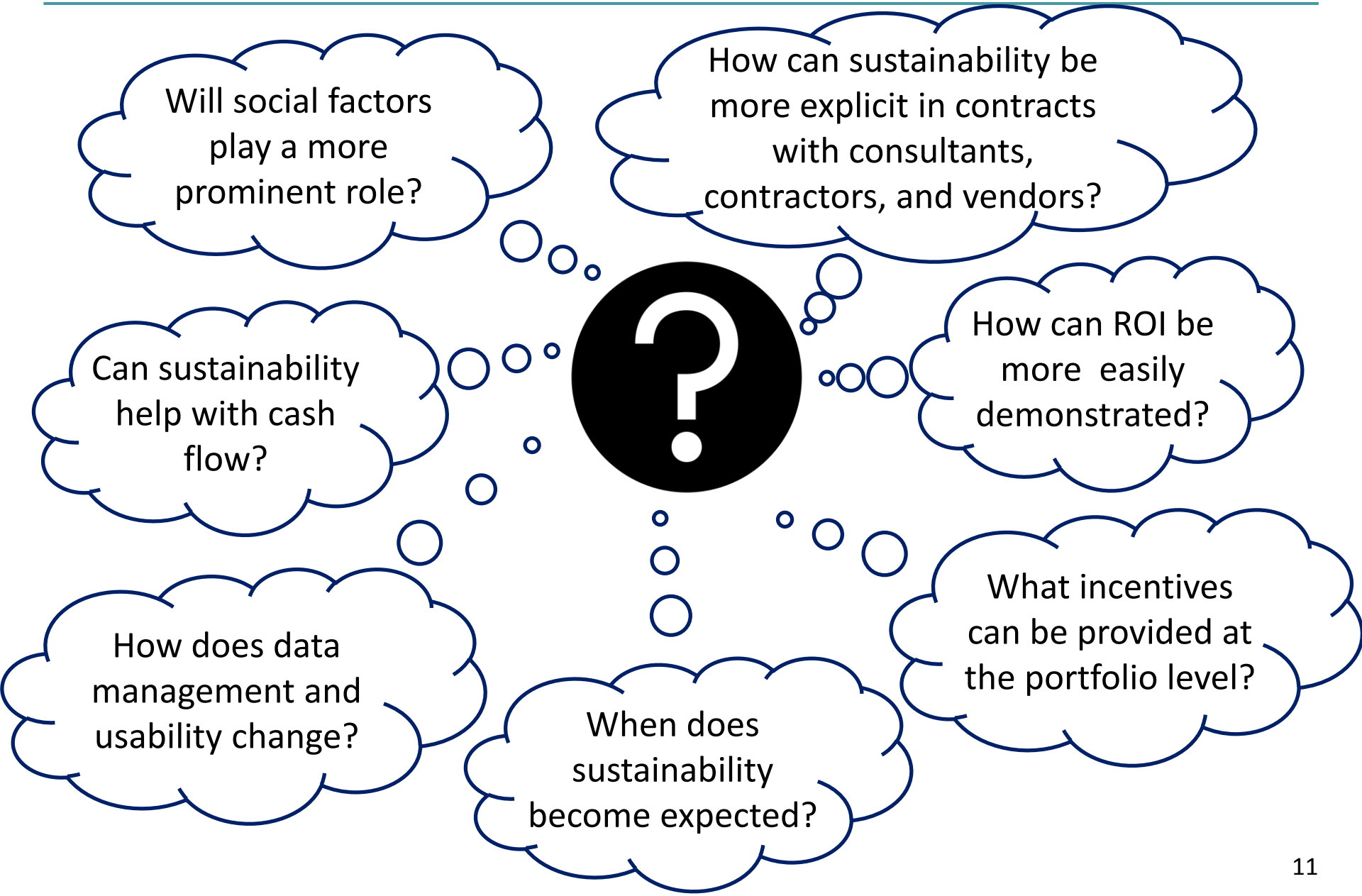
- ✓ Support from **regulators**
- ✓ More **informed** and **holistic** decision making
  - ✓ Sustainability aligned with **effectiveness** and **optimization**
  - ✓ Sustainability considered alongside other criteria during **remedy selection**
  - ✓ Remedial system **re-assessments** / **expedited** closure



OTHER BENEFITS TO PROJECT TEAM

- ✓ Sense of **ownership**
- ✓ Increased **teamwork**
- ✓ **Recognition** by peers
  - ✓ Viewed as leaders in sustainability application
- ✓ Lifecycle remedial **cost savings**
  - ✓ Money-saving BMPs
  - ✓ Expedited closure
- ✓ Opportunity to **replicate successes** across organization

QUESTIONS TO ADDRESS NEXT



TESORO

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