



Pipeline Data

STATISTICS FOR RISK ANALYSIS AND MARKETING

FEBRUARY 2017

PHMSA Databases

Databases

Publicly Available

Incident
Reports

Annual
Reports

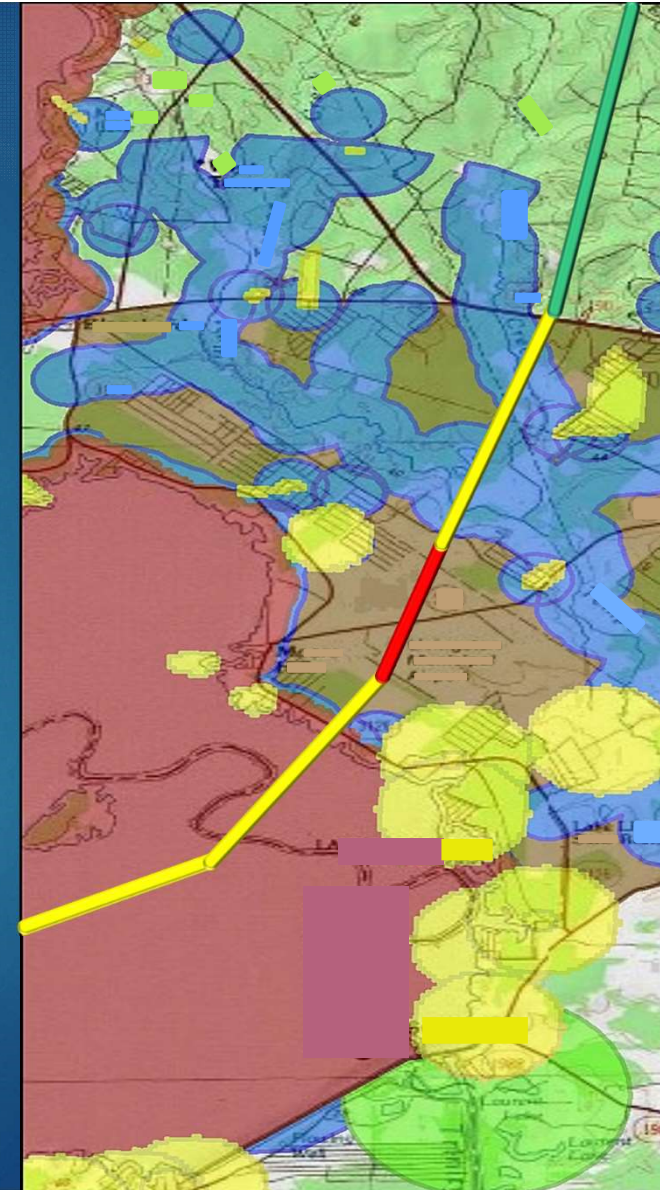
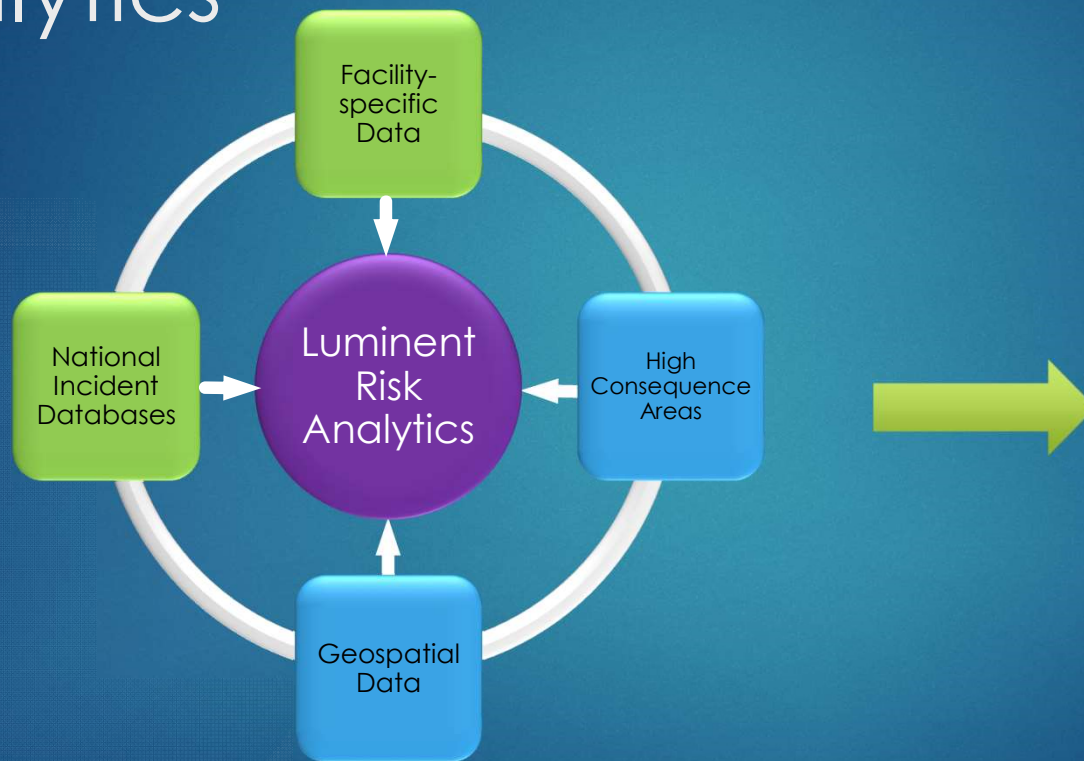
Geospatial Data

Confidential

NPMS

HCA's

Integrated Geospatial Risk Analytics



PHMSA Incident Database

TYPES OF NATIONAL DATA

- ▶ Cause of Failure
- ▶ Pipe Specification
 - ▶ Age
 - ▶ Diameter
 - ▶ Steel Type
 - ▶ Testing
- ▶ Release volume
- ▶ Human Impacts
 - ▶ Fatalities
 - ▶ Injuries
 - ▶ Fire, explosion
 - ▶ Costs (Emerg. Resp., Property Damage)
- ▶ Environmental Impacts
 - ▶ Sensitive Resources
 - ▶ Remediation Required

INTERPRETATION OF DATA

- ▶ Incident Frequency
- ▶ Probable Release Volume
- ▶ Range of Environment Consequences
- ▶ Mitigation
 - ▶ Reduce causes of failure
 - ▶ Reduce release volumes
 - ▶ Emergency planning
- ▶ Integrity Management
 - ▶ Prioritize pipe segments that could affect sensitive areas

PHMSA Annual Reports

COMPANY-SPECIFIC DATA

- ▶ Required Regulatory Filing
- ▶ Miles of Pipe by Commodity
- ▶ Pipe Specifications
 - ▶ Age
 - ▶ Diameter
 - ▶ Steel Type
 - ▶ Testing
- ▶ Testing of Pipe Condition
- ▶ Repairs of Pipe

INTERPRETATION OF DATA

- ▶ Incident Frequency
- ▶ Performance Metrics
 - ▶ Leading, lagging, and deterioration metrics
 - ▶ Comparison with national data
 - ▶ Time trends
 - ▶ Regulatory Requirement

PHMSA Enforcement Data

NATIONAL AND COMPANY-SPECIFIC DATA

- ▶ Enforcement trends
- ▶ Investigations
- ▶ Enforcement Actions
- ▶ Civil Penalties

Use of Analytics for Marketing

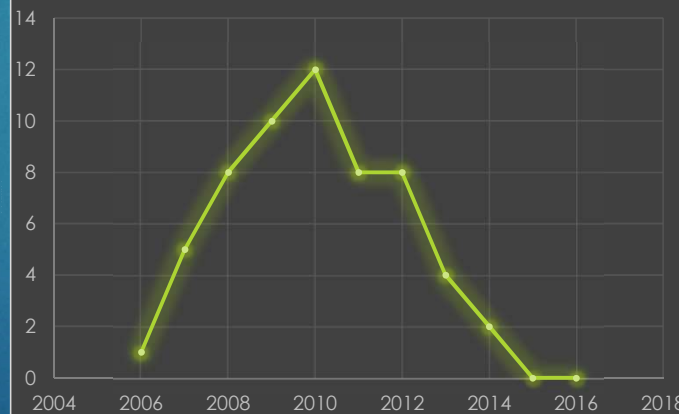
Understand and Help Your Client

- Client Perception: “We have less pipe, a great safety record, and no problems with PHMSA

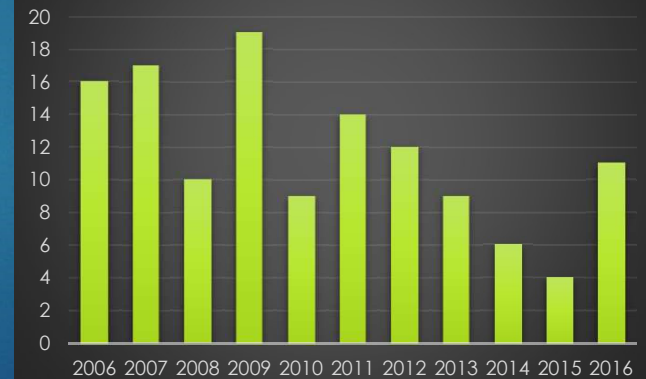
Miles of Pipe



Number of Incidents Per Year

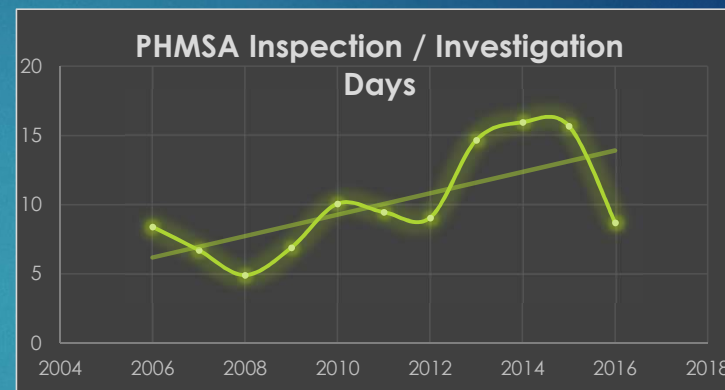
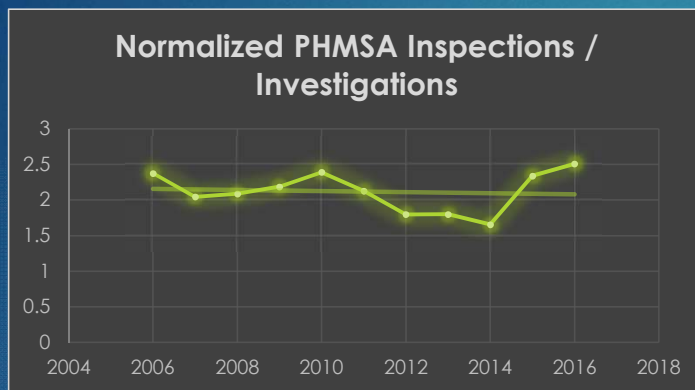


of PHMSA INSPECTIONS / INVESTIGATIONS



Use of Analytics for Marketing

Unbiased Risk Analytics



Intervenors Can Abuse Statistics

- ▶ 10-fold increase in 6 year period
- ▶ \$151M in Property Damage
- ▶ 6 PHMSA Enforcement Actions resulting in >\$5M in Penalties

Use of Analytics for Marketing

Client Prioritization

- ▶ Miles of Pipe
- ▶ Age of Pipe
- ▶ Spill Frequency
- ▶ Spill Costs
- ▶ PHMSA Enforcement Actions
- ▶ Civil Penalties
- ▶ Others....

Centralized Statistics

Consistent statistics are critical

- ▶ Risk Statistic Uses
 - ▶ Permitting & Compliance
 - ▶ Expert Witness
 - ▶ Marketing
- ▶ **Risk Statistics are managed in Fort Collins to ensure consistency across Stantec**
- ▶ Looking for staff interested in exploring and using these data

Risk Statistic Contacts

- ▶ Heidi Tillquist
 - ▶ 970-286-9437
 - ▶ Heidi.Tillquist@Stantec.com