

PUBLIC WORKSHOP ON CLASS LOCATION METHODOLOGY

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What Does Class Location Do?

Risk = Probability X Consequence

Part 192 has two ways to categorize Consequence

- ▶ Class Location
- ▶ High Consequence Area (Potential Impact Radius)

Eliminating Class Location System Would Require

- ▶ Major re-write of Part 49 CFR Part 192
 - What about distribution systems?
- ▶ Major re-writing of operator Operating and Maintenance Plans, perhaps other procedures
- ▶ Revision of state laws and regulations that include class location as a criterion
- ▶ Revision of industry standards that include class location

Which method measures risk more precisely?

Class Location Method

- ▶ Class 1
- ▶ Class 2
- ▶ Class 3
- ▶ Class 4

HCA Method

- ▶ High Consequence Area
- ▶ Moderate Consequence Area? (IVP proposal)
- ▶ Low Consequence Area?

Add to Class Location?

- ▶ Adding a Class Location 5 for the densest urban areas has been proposed.
- ▶ Would require re-write of
 - Parts of Part 192
 - Plans/procedures for operators with Class 5 areas
 - Possible state laws/rules
 - Industry standards
- ▶ If Class 5 has lower SMYS limit, impact on gas supply

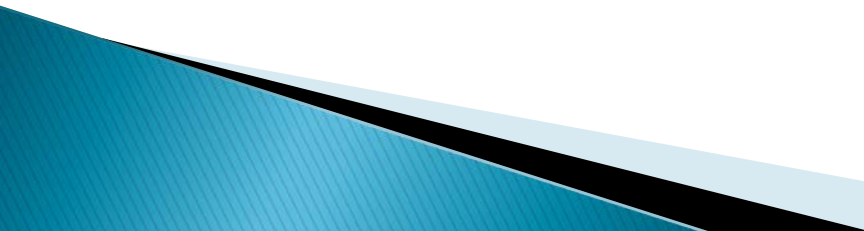
Class Location vs HCA

Class Location

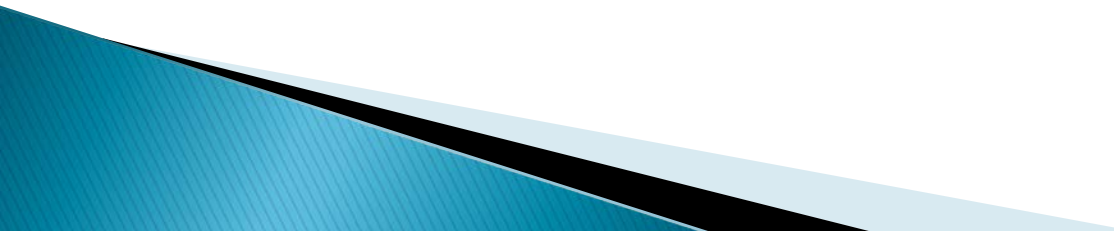
- ▶ Applies to transmission and distribution both
- ▶ Based on structures/facilities within 660 feet or high occupancy areas within 300 feet
- ▶ Independent of pipeline size or pressure
- ▶ May impose stricter standards on lines even if structures/facilities well outside of Potential Impact Radius (PIR less than 660 or 300 feet)
- ▶ Does not consider potentially threatened structures outside of 660 feet. (PIR greater than 660 feet)

Class Location vs HCA

High Consequence Area/PIR

- ▶ Estimates area where injury/property damage probable if line ruptures
 - ▶ Applies to transmission only
 - ▶ Based on pipeline diameter and pressure
 - ▶ Can change if pipeline size/pressure change
 - ▶ HCA can be eliminated if line can be redefined as distribution or other measures taken
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Applying IM Standards to Class 3 and 4 Areas

- ▶ It has been suggested that Integrity Management standards be applied to all pipelines in Class Locations 3 and 4.
 - ▶ Structures determining Class Location may be outside PIR.
 - ▶ Class Location alone may not be an effective method of allocating IM resources
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Applying IM Standards to Class 3 and 4 Areas

If PHMSA pursues this suggest rules allow operator to determine Class Location by:

- ▶ Structures/sites within 660 feet (traditional method); or
- ▶ Structures/sites within PIR

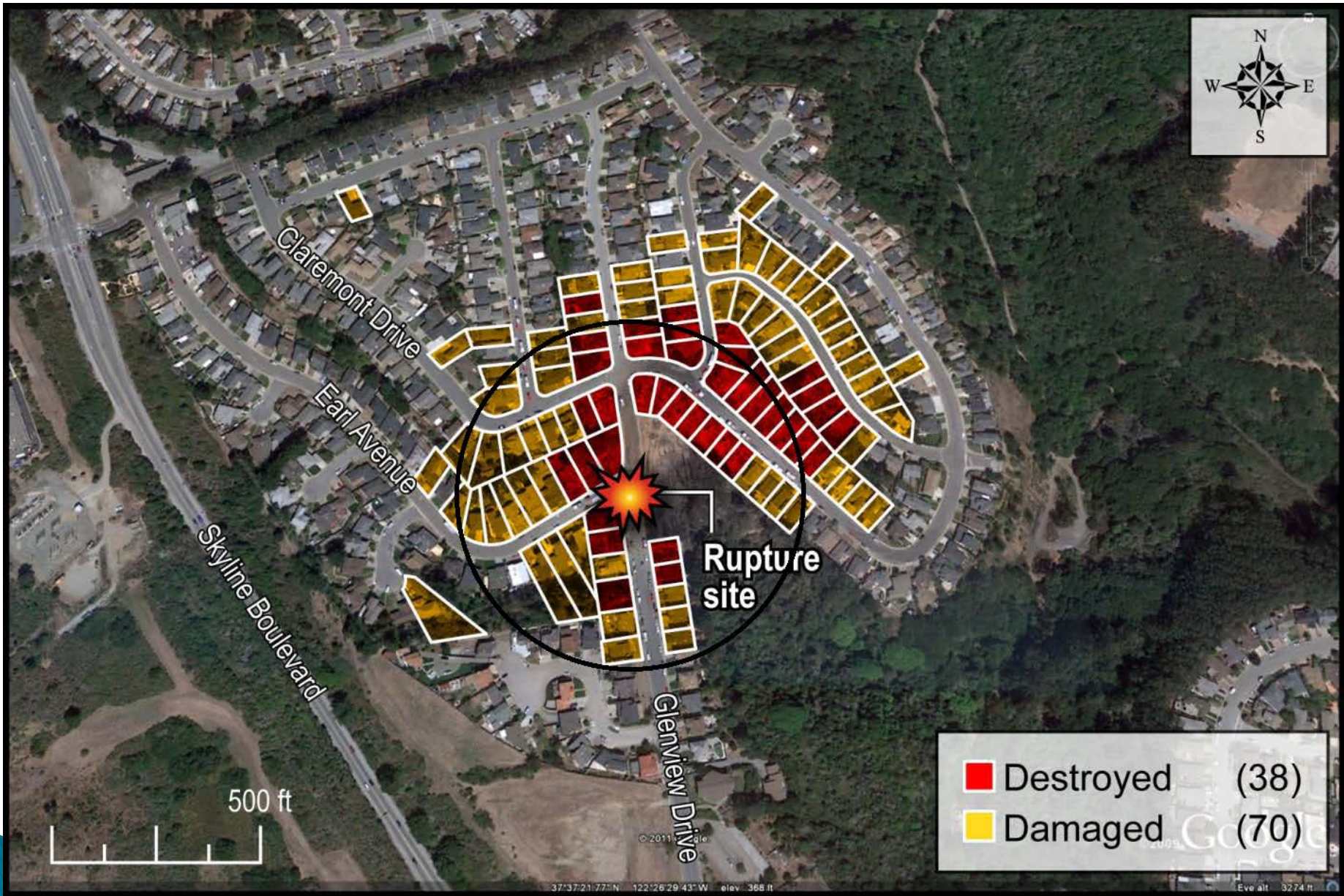
Class Location vs HCA

Neither method directly considers possible secondary effects or necessarily defines boundary of impacts

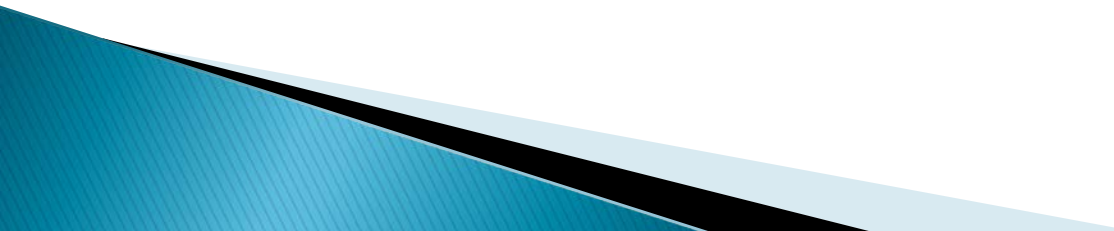
- Spread of grass/forest fires
- Embers igniting more distant structures
- Disruption of vehicular traffic in area

Class Location will usually encompass wider area





Buffer?

- ▶ Does Class Location system offer additional protection for structures outside of PIR but still potentially impacted?
 - ▶ If Class Location were based on PIR, should a buffer zone be added to PIR to maintain level of protection for such structures?
 - Percentage?
 - Fixed additional distance?
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Questions?

