

# Center for Civil Force Protection

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**Nick Nicholson, PhD**

**Security Engineering Systems Analyst**



**Sandia National Laboratories**

**U.S. Department of Energy**

**Satellite Facility for Technology**

**Office of Science & Technology**

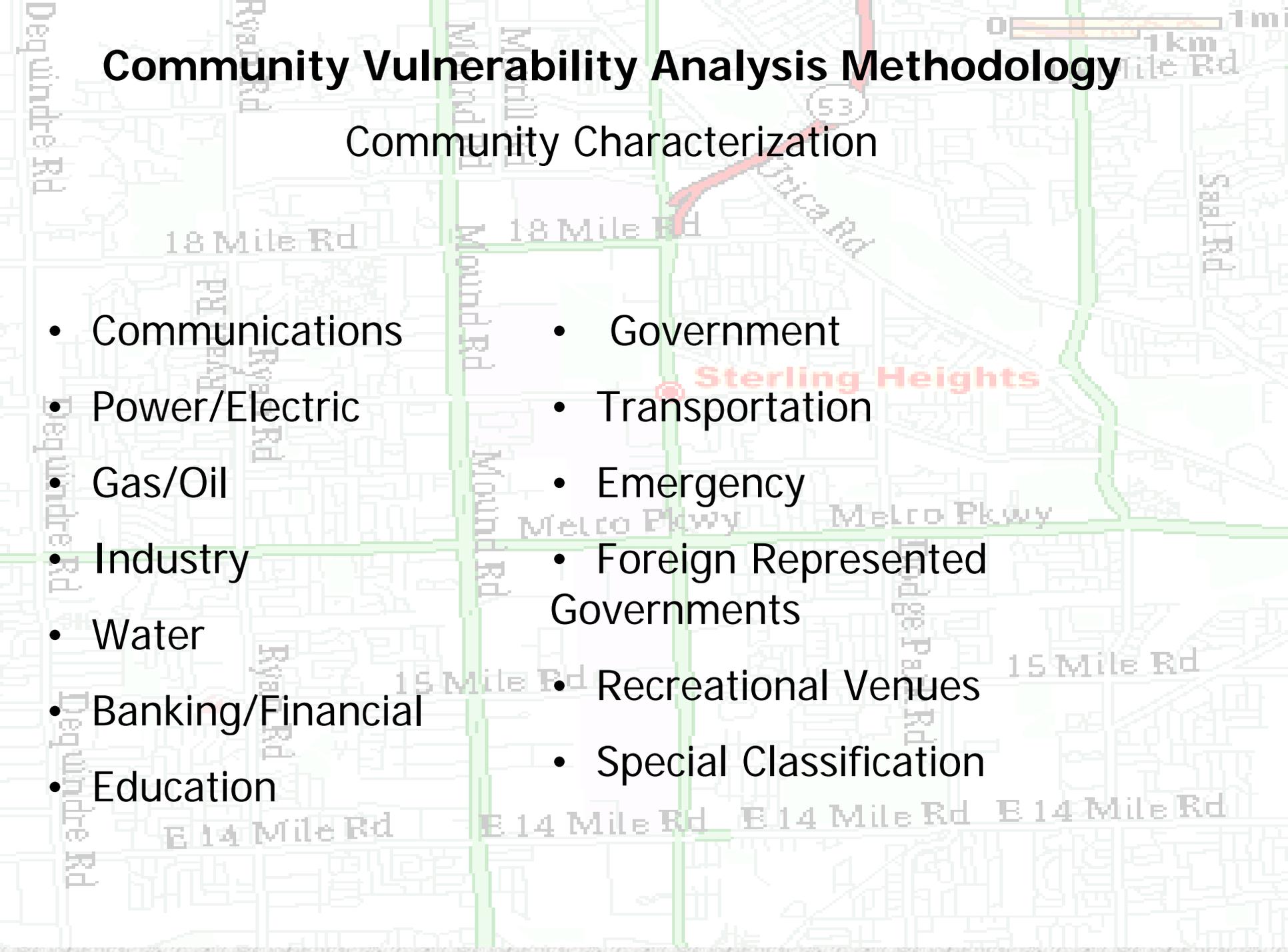
**National Institutes of Justice**



# Community Vulnerability Analysis Methodology

## Community Characterization

- Communications
- Power/Electric
- Gas/Oil
- Industry
- Water
- Banking/Financial
- Education
- Government
- Transportation
- Emergency
- Foreign Represented Governments
- Recreational Venues
- Special Classification



# Community Characterization

## Communications

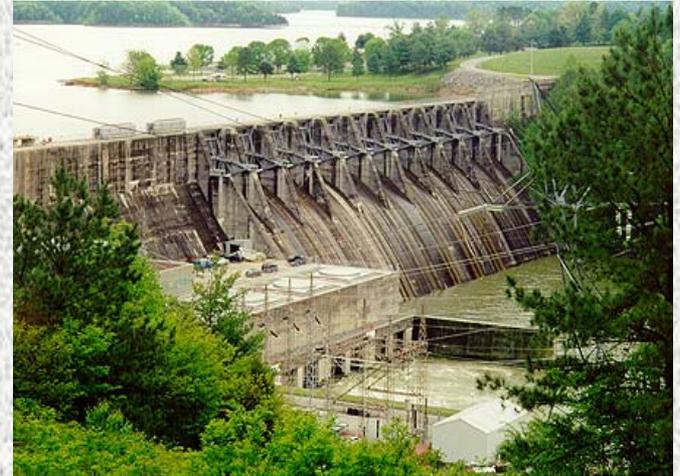
- Telephone Switching Stations
- Computers
- TV Stations
- Radio Stations
- Communication Towers
- Power Sources



# Community Characterization

## Power/ Electric

- Substations
- Lines
- Generators
  - Dams
  - Nuclear Power Plants
- Backup systems



# Community Characterization

## Gas/Oil

- Refineries
- Storage
- Delivery System (Pipes, etc.)



# Community Characterization

## Industry

- Resources
- Services
- Products
- Facilities



# Community Characterization

## Water

- Delivery System
- Storage
- Sewage Treatment Plant



# Community Characterization

## Banking/ Financial

- Computer
- Money Supply/ Distribution



# Community Characterization

## Education

- Schools
- Universities
- Other



# Community Characterization

## Government

- Federal
  - Military Installations
  - High Profile
    - Courthouses
    - Law Enforcement Locations
  - Services (ex. U.S. Postal)
- State
- Local (ex. City Hall)



# Community Characterization

## Transportation

- Highways
- Railways
  - Terminals
- Bus Stations
- Pipelines
- Waterways
  - Marine Ports
- Airports
- Storage area of fleet (airplane, train, bus, ship, etc.)



# Community Characterization

## Emergency

- Hospitals
- First Responder Locations
- Shelters



# Community Characterization

## Foreign Represented Governments

- Embassies
- Consulates
- Designated Residences of Foreign Officials
- Businesses



# Community Characterization

## Recreational Venues

- Parks
- Museums
- Auditoriums
- Tourist Attractions



# Community Characterization

## Special Classification

- Abortion Clinics
- Churches
- Synagogues
- Others



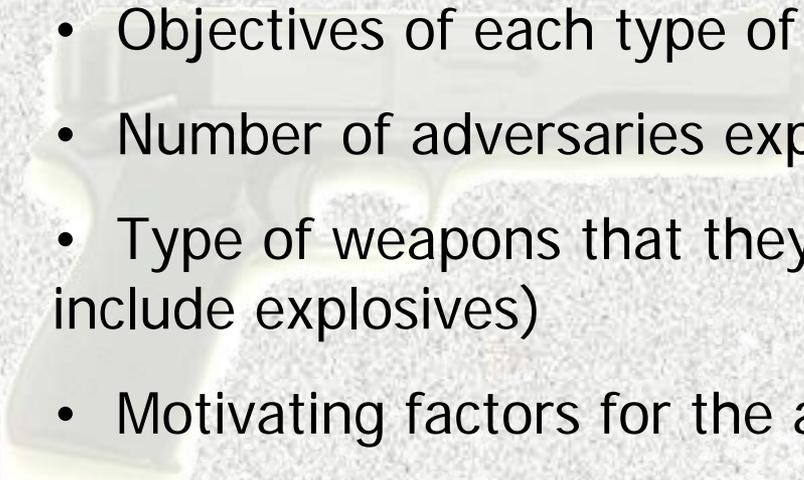
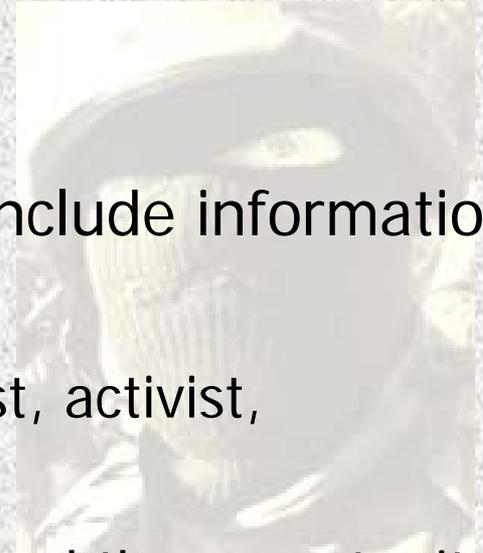
# Community Vulnerability Analysis Methodology

## Threat Definition

### Profile the adversary

A well developed threat definition should include information on the:

- Type of adversary to be considered (terrorist, activist, employee, etc.)
- Category of adversary (insider or outsider, and the opportunity for collusion)
- Objectives of each type of adversary (sabotage or theft)
- Number of adversaries expected for each category
- Type of weapons that they may possess (automatic weapons to include explosives)
- Motivating factors for the adversary



# Threat Definition

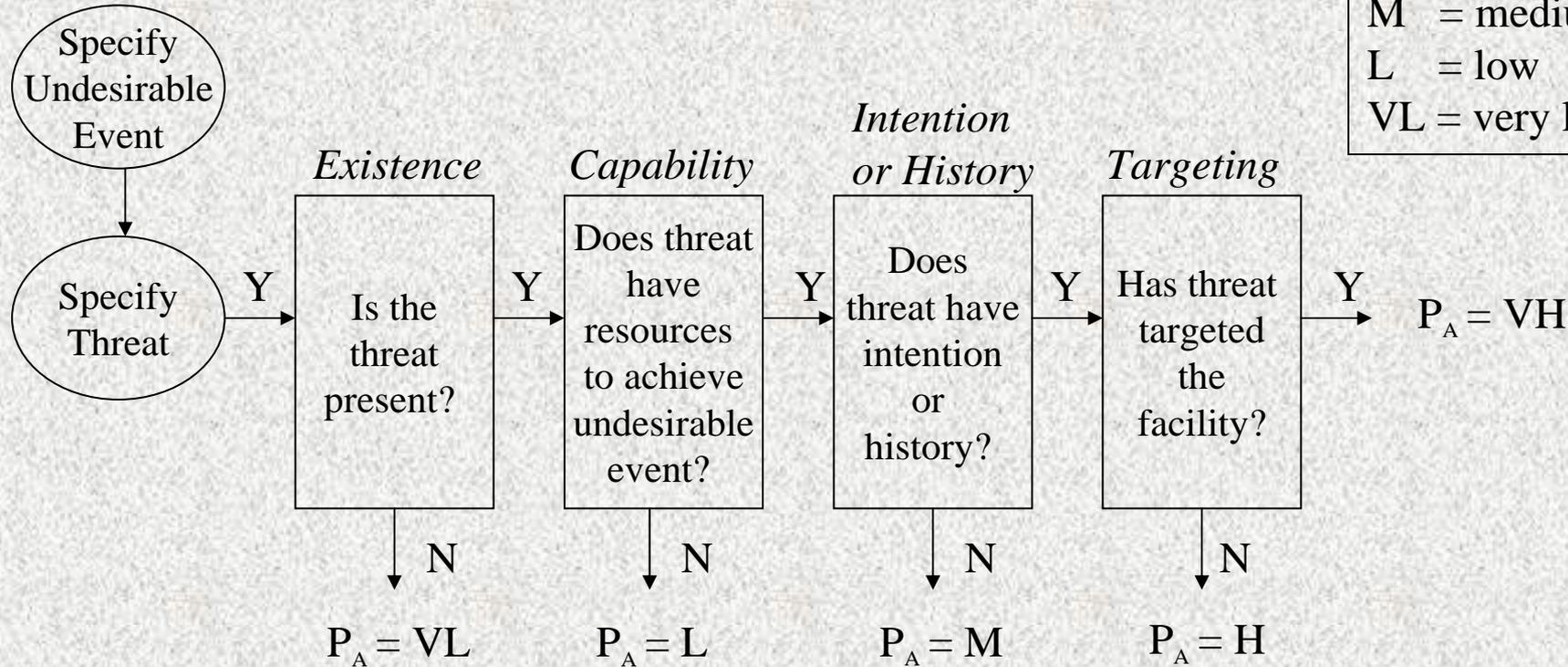
## Profile the adversary (cont.)

- Type of planning activities required by the adversary to accomplish their objectives
- Kind of equipment that an adversary could be expected to bring
- Type of transportation requirements of the adversary
- Most likely or worst case time an adversary could attack the facility based on their motivation



# Threat Definition

## Threat Likelihood of Occurrence



$P_A$  = likelihood of occurrence  
VH = very high  
H = high  
M = medium  
L = low  
VL = very low

**Existence** - the group is assessed to be present, or able to gain access to the area

**Capability** - the group is assessed to have or has demonstrated the level of capability to conduct the attack

**Intentions** - recent demonstrated activity or stated or assessed intent to conduct such activities exists

**History** - demonstrated activity exists over time

**Targeting** - current credible information indicates the group is preparing for a specific attack

# Community Vulnerability Analysis Methodology

## Target/ Asset Identification

### Specific Undesirable Consequences

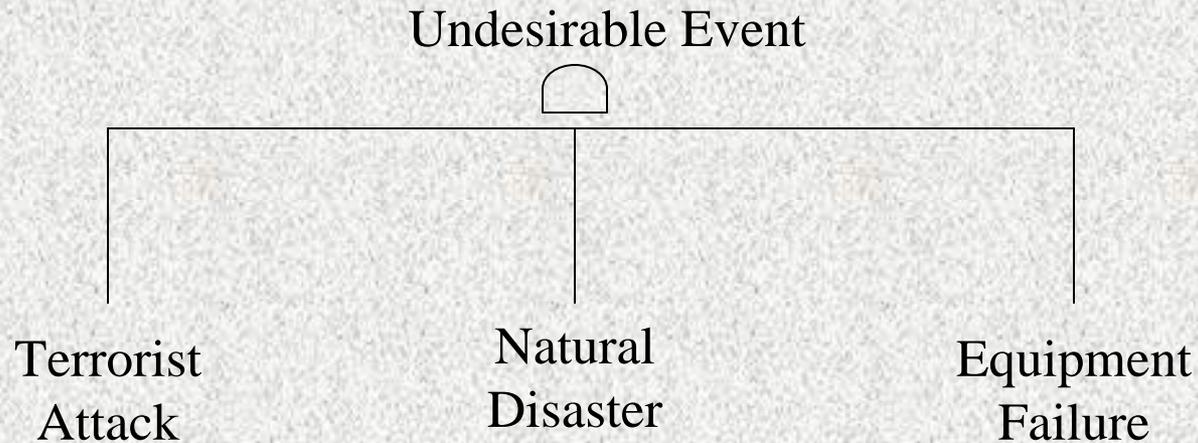
- Loss of human life
- Loss of revenue
- Loss of vital equipment
- Loss of vital resources



# Target/ Asset Identification

## Identify Specific Targets/ Assets

- Community Characterization
- Fault Tree Analysis Methodology



# Community Vulnerability Analysis Methodology

## Physical Protection Systems

- Detection/ Assessment
- Delay
- Response



Detection/Assessment



Response



Delay

# Community Vulnerability Analysis Methodology

## Scenario Development

- Personnel
- Equipment
- Implementation



# Community Vulnerability Analysis Methodology

## Results

- Identifies high risk targets/assets and associated consequence values
- Opportunities to create community awareness
- Prioritizes security countermeasure expenditures
- Compliments and supports previously developed efforts (NIJ grant/OSLDPS training)