Below are the notes from the four breakout groups. These notes are divided into 3 sections. The first section includes a number of overarching themes that cut across the four breakout groups. Many of these comments fit into each of the breakout groups. We quickly noticed that some ideas and suggestions made in one group were better suited to another group. So, we reorganized the suggestions and ideas that belonged together. These notes are included in the second section. The third section includes the raw notes transcribed at the meeting.

Please review these notes when you get a chance and share any comments you may have. Let us know if things are grouped correctly or if you want to move something around. We want to make sure we are accurately capturing your comments.

I. Overarching Themes

Preventative measures to protect people and communities

Continuous monitoring of areas where facilities have used/are using /will use chemicals that can impact human health

- Monitor environmental testing results and human health data over time
- Do this in a defined area
- Independent from EPA

Address whether communities are already overburdened by health impacts

- Use CA/EPA EJ tool to document
- Consider cumulative impacts of different chemicals and different polluters

Lift the burden of proof

- People in a contaminated/polluted area shouldn’t have to prove they were exposed
Community involvement and representation
- Community needs to have real-time access to health and environmental data
- Community involvement in decision-making processes from the very beginning

Actionability
- Measures of enforceability based on health surveys, action steps
- Provide necessary resources

II. Organized Notes from Breakout Groups

Criteria for Investigation

Types of Criteria:

Permits – new applications or renewals

Outbreak or cluster of disease in area impacted by legacy or current contamination/pollution
- Observational reports of health problems
  o Lift the burden of proof, community reports should be taken seriously
- Look at data on adverse health effects (cancer, neurological disorders…)

Investigating Human Health Concerns Related to Permits (New/Renewal)

Transparency
- Inform community when a company applies for a permit
- Company transparency with community about what they are producing
- Look into company background, compliance history, when permits applied for
- Involvement of community in decision making process

Environmental monitoring
- As part of permitting process, start baseline environmental monitoring (air, water and land) as soon as permit application is submitted

Evaluating health status and impacts
Is the community already overburdened?
- Evaluate cumulative health impact of contamination over time (multiple chemicals, multiple sites, multiple industries, etc.)
- Involve communities in defining the health question(s) raised and designing the study

**Investigating Human Health Impacts of Environmental Contamination**

**Environmental and human health monitoring**

- Define area where health study is taking place
  - At least a minimum radius, and include how chemicals travel and interact with the land
- Biological testing – testing breast milk of mothers, hair, nails, blood – to answer the question: who is being exposed
- Environmental physicians could monitor long-term chemical exposure and link the data to health problems prevalent in the community.

**Lifting the burden of proof of exposure**

- Investigation should answer: Is there a plausible reason why people are having an illness that impedes their daily life?
  - Contrast with the epidemiological approach which looks at population effects; we are looking at specific groups of people
  - Epi studies don’t always link chemical contamination to adverse health impacts
- People shouldn’t have to prove they were exposed at a level that would have caused their health problems
  - Presumption: that an individual’s health problem is related to exposures being monitored
  - Presumption: that health is being harmed if people live in overburdened communities
  - Example: Presumptive exposure law - States have laws that presume if firefighter contracts cancer, it was occupationally related. No need to prove exposure. Communities exposed should get the same benefit.
  - Example: Agent Orange Compensation program and dioxin exposure. Being present in areas of exposure is sufficient to merit access to health care and compensation. Communities exposed should get the same benefit.

**III. Raw Notes from each Break Out Group**

**Group 1 - Approach and Principles**

Facilitator: Gustavo Andrade
Participants:
• Phyllis Glazer
• Lee Ann Smith
• Dawn Chapman
• Karen Nickel

Background:
• Discussion of previous experience with toxins leading to acute symptoms without acute exposure (i.e., nosebleeds after immediate exposure)
• St Louis: underground landfill burning since ’73
  Exposures downplayed; symptoms continued
• CTS site in Asheville, NC; factory shuttered in the 80s, left toxins behind (electroplating, trichloroethylene dumped in ground, which then migrates offsite where it seeps into wells and contaminates the water - all 3 pts of exposure)
• Winona Texas; Gibraltar chemical resources, sold to American Ecology; injecting toxic waste 1 Mi deep, open-ended well (spread as far as 30 mi, contaminated 3 aquifers), was contested several times, but accepted money in return for continuing business as before, during WWII, land seized from black community

Background Summary
• Common thread: waste produced by people/companies with the ability to leave the hazards behind for communities to deal with, all came from poor or rural communities
• Fighting is time consuming and can require a lot of money when involving lawyers
• Poisoning people at small doses is not illegal

GOAL: Looking for guiding principles that are Reliable, Smart, Future-looking, Measurable

• The value of human life is the basis for environmental protection
• No preventable death is acceptable
• Proactive rather than reactionary approach to investigations
• Monitor environmental testing results and human health data in communities over time
• Define and refine criteria for investigation
• Health-based standards for intervention
• Provide necessary resources
• Provide opportunities for good neighbor agreements between companies and communities

Group 2 - Criteria for Investigation

Facilitator: Mihir
Participants:
• Melissa Mays
• Pamela Miller
• Pam Nixon
• Susie Worley-Jenkins
GOAL: Identify criteria in which investigations can be explored
How much contamination is needed? Disease?
What types of permits?
● Environmental permits -- permit application or permit renewal
● Communities with legacies of contamination/pollution
● Outbreak or cluster of disease potentially associated with environmental contamination

● Preventative approach, don’t assume there is a safe level for a chemical
● Discrepancy between state and federal regulations. Potential solution could be to have the EPA list of chemicals evaluated by an independent source to determine safe levels.
● Need to evaluate cumulative health impact of contamination over time
● Take the burden of proof away from the community; observational reports from impacted people must be taken seriously by agency.

● Pamela Miller There should be an early warning system set up in communities where there are facilities using chemicals that can impact human health. Permit/permit renewal is conditioned upon paying for a community health monitoring system. Community shouldn’t worry about money.
● Independent environmental health clinic to monitor community health, focused on preventative measures to protect people long-term.
● Environmental physicians could monitor long-term chemical exposure and link data to health problems prevalent in the community. Community has real-time access to data.

Group 3: Investigating Health Concerns related to Permits (New/Renewal)
Facilitator: Teresa Mills
Participants:
● Hilton Kelly
● Darryl Malik-Wiley
● Yomi Noibi
● Elijah Butterfield

What needs to change?
What do we need to look for?
● They look at a single chemical and not how they interact.
● Company comes in to get a permit and the public notices, the community needs to be informed when the company applies for the permit.
● Hilton - Something that looks into the background, compliance history,
● Yomi - Timeline permitting process, change the rule of the timeline, timeline is against us, need a rule to make community aware, cumulative impact of chemicals, should not under value of single chemical data.
● Plus, cumulative effect of industries together in the area.
● Transparency of what these companies are actually making and producing.
● Teresa 30-day comment period is not enough. As soon as agency requests there
should be notification of intent.

- Darryl - permit is technically correct but morally wrong, status meetings between community and company all the way along the process.
- Yomi - demand criteria so our concern becomes part of the decision making, becomes a weighted scale in the permitted process.
- Darryl - once company says where they are going, install monitoring for baseline for air, water and land.
- Teresa - if company wants to expand, they are supposed to monitor emissions,
- when they did maglag, just at the allowable, they only model the increase, need to model all emissions and not just increase.
- Hilton - critically to do everything we can to do policies to do things on the front end not back end. Too hard to change once it is permitted.
- What should they be including during analysis?
- Air monitoring of chemicals; link results to current community health status.
- No more sacrifice zones. Go to other agencies for health of the community
- Track money going to politicians - Dark Money
- Transparency of the rationale of how they came to determine how they issued the permit.
- They are supposed to send a response a comment and then have 45 days to respond to our comment on our comments.
- Demand the representative of impacted community be a part of the decision making process.
- Take away incentive for polluting. Paying for each ton of pollution.
- We want equitable fines for violation.
- Alternative will this activity that will prevent and reduce har

Group 4 - Human Health Impacts of Environmental Contamination

Facilitator: Stephen Lester
Participants:

- Jackie Young-Medcalf
- Lou Zeller
- Mike Belliveau
- Alonzo Spencer
- Becky Ammon

What do we want an investigation to answer? What do we want an investigation to look like?

- (Jackie) Biological testing - testing breast milk of mothers, hair, nails, blood - depends on contaminant; purpose is to answer the question - who is being exposed?
- Burden falls on community group
• (Lou) Hard to link contamination with specific symptoms
• Investigation should answer: Is there a plausible reason why people are having an illness that impedes their daily life?
• Contrasts with epidemiological approach
• (Mike) People want to know if their health is being impacted by chemical x
• Case of PFAS contamination - litigation helps them get significant resources into medical surveillance and independent expert analysis
• Epi studies don’t always link chemical contamination to adverse health impacts
• (Alonzo) Comprehensive health study should be requirement for issuing permits and renewing permit; the community needs to be involved.
  o (Lou) Measure of enforceability based on health survey
• Companies get permits no matter how much pollution they cause
• (Jackie) Define a radius for where health studies take place
  o However, difficult to define how far chemical has traveled from the initial source
• (Lou) Stuck going through courts and administrative appeals
• There needs to be some “bar” of exposure - shouldn’t need to prove their exposure
• People shouldn’t have to wait out court settlements - they could die before case finishes
• (Alonzo) If cancer rate higher than state/national average should be addressed before permit renewals
• (Mike) Use CA EJ tool to document communities already overburdened by health impacts. EPA’s EJ screen is another option.
• (Becky) Establish an area that should be set up with monitoring system
  o Independent from EPA
• (Lou) Investigation: Determines that individual has “standing” if they are in such a radius
• Presumption that individual has a problem
• (Alonzo) Addition of special education classes from students suffering from attention deficit disorders in East Liverpool; comprehensive health study could prevent this
  o (Mike) Presumptive cancer laws: States have laws that presume if firefighter contracts cancer, it was occupationally related; no need to prove exposure
  o True for 10 different cancers
• Presumption that health is being harmed if people live in overburdened communities
• (Jackie) Presuming proximity and health impacts
• Use Agent Orange Compensation program and dioxin exposure to inform response
• Being present in areas exposure is sufficient to merit remediation
• (Lou) Response to individual problem - company’s responsibility to act (Due diligence clause)