

TACPHOGI

Public Health Reference Field Manual for Resource Development

Adam Jensen, B.Sc., BEH, CPHI(C)
Public Health Inspector
Environmental Public Health

TACPHOGI stands for:

Technical Advisory
Committee on Public Health
and the Oil and Gas Industry

History

- Health Authorities within Alberta have had over 40 years history of Sour Gas activities
- Investigating individual issues can be a very time consuming exercise that was often unsatisfying and seldom resulted in resolution of the issue
- Provincial initiatives such as the Public Safety and Sour Gas

History

- As these issues were investigated, relationships were built with AER and AEP
- This cooperative effort was much more successful and productive
- As knowledge and cooperation grew and results were realized, it was recognized that the process needed to be formalized

History

- With a great amount of support from the management of AHS it was proposed that a manual be put together for the benefit of all Public Health Inspectors
- At the time, AH&W thought the development of a manual would enhance the knowledge of EPH field staff
- From these discussions TACPHOGI was formed and modeled after the water manual (TACSDW)

Building the first TACPHOGI

Committee first met in 2004

- Membership included 6/9 health regions, AH, EUB, AENV, CoMosH, DC-9, Health Canada (FNIB), AEMA

Successes

- Ability to draw upon a diverse group of organizations and people and work thru contentious issues, opinions and positions.
- Production of a Field Manual that provided the basics on oil and gas development and tools to resolve individual and community health concerns.
- Building of relationship both “on-the-ground” and in policy development.
- The committee works to build coherency and alignment on public health policy as its being developed.

Background

- The purpose of the manual is to support environmental public health professionals in addressing and mitigating public health concerns.
- Environmental public health professionals work in a variety of government departments and agencies and utilize their knowledge and skills to protect and promote a healthy natural and built environment for the public.
- The Manual was also used as the vehicle to promote cross-jurisdictional relationships when responding to acute emergency events, non-emergency responses or public health complaints.

Intervening years: 2007 to 2014

The committee continued to:

- Exist, discuss issues and preliminary work plans were built to revise the manual
- Members were used to 'champion' the Manual to other Government of Alberta agencies and across Canada
- The health agency members continued to be utilized to review various EUB/ERCB/AER directives

But why TACPHOGI now?

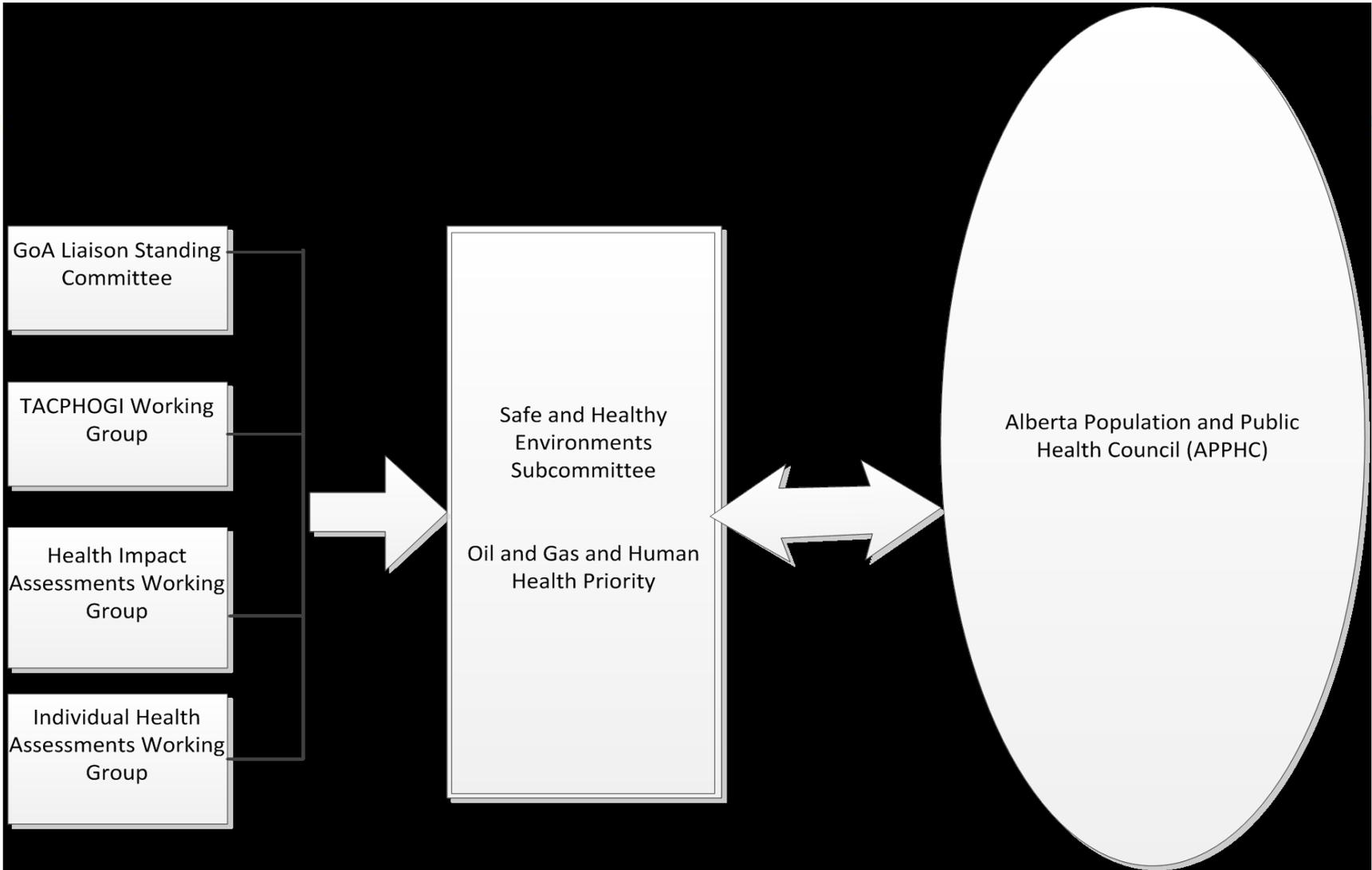
- The roles and responsibilities in regards to oil and gas development have changed significantly.
- However, the expectations from the public for “Health” to be involved remains, if not heightened.
- To support these public expectations, there is a need to provide supports for all EPH professionals.
- The Manual was seen as a clear success and invaluable resource to Alberta Health and Alberta Health Services.

But why TACPHOGI now?

- In 2014, TACPHOGI was reestablished by Alberta Health with an updated list of key tasks and deliverables.
- Due to the expanded scope of the Manual to include coal mining, a new name that more accurately describes its content was selected - *Public Health Reference Field Manual for Resource Development*.
- Updating the Manual has been seen by the Alberta Population and Public Health Council (APPHC) as a key way to align work across public health agencies to achieve the best possible outcomes for population health.

About the APPHC

- Provides general oversight and recommendations to the Deputy Minister of Alberta Health and the President & Chief Executive Officer of Alberta Health Services (AHS), on key strategic and operational matters related to population and public health (PPH).
 - The Council is a forum for strategic discussion, advice and support for its members, and provides a potential forum for organizations that influence PPH in Alberta.
- The Safe & Healthy Environments Subcommittee of the Council identified Oil & Gas and Human Health as a priority area.



Committee Representatives since 2014

Alberta Health – Environmental Public Health

Alberta Health Services – Environmental Public Health, Safe & Healthy
Environments and Medical Officer of Health

Health Canada – First Nation Inuit Health & Environmental Health
Program (EHP), Regions and Programs Bureau (RAPB)

Alberta Environment & Parks – Policy & Operations Divisions

Alberta Energy Regulator – Government & Stakeholder Relations and
Emergency Response & Preparedness

Alberta Energy – Resource Development Policy

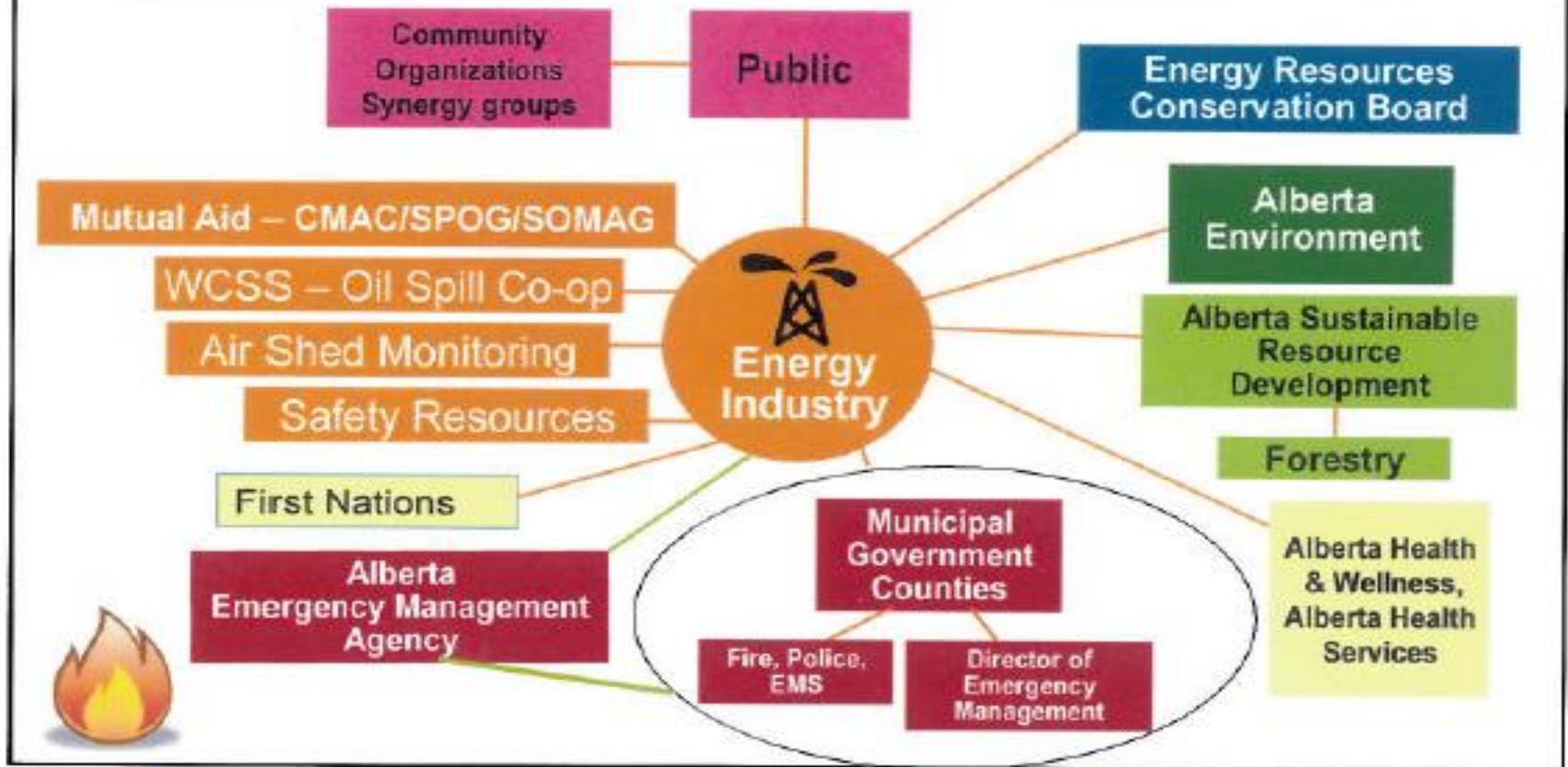
Alberta Agriculture and Rural Development

Committee Representatives

Other business units from the organizations indicated above may wish to participate at their discretion and capacity. This includes:

- Alberta Health – Office of the Chief Medical Officer of Health, Emergency Management
- Alberta Environment & Sustainable Resource Development – Alberta Environment Support and Emergency Response Team (AESERT)
- Alberta Emergency Management Agency (AEMA)
- Alberta Environmental Monitoring, Evaluation and Reporting Agency (AEMERA)
- Aboriginal Affairs and Northern Development Canada
- Indian Oil and Gas Canada
- Jobs, Skills, Training & Labour – Occupational Health

Petroleum Industry Incident Response



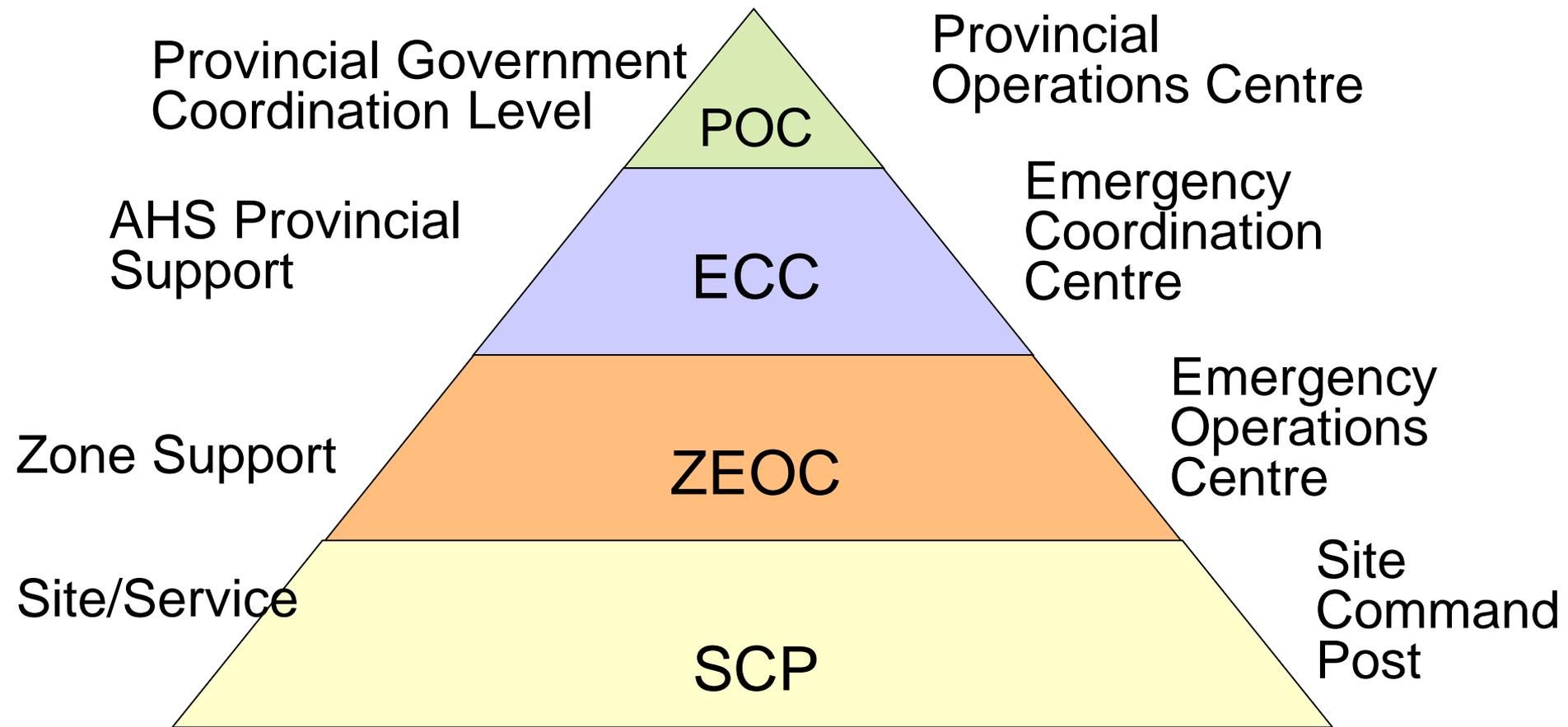
Agency Jurisdiction and Responsibilities

- Many agencies have an important role in the O&G industry with respect to public health and safety
- Each agency has had an opportunity to describe these roles and responsibilities within the manual

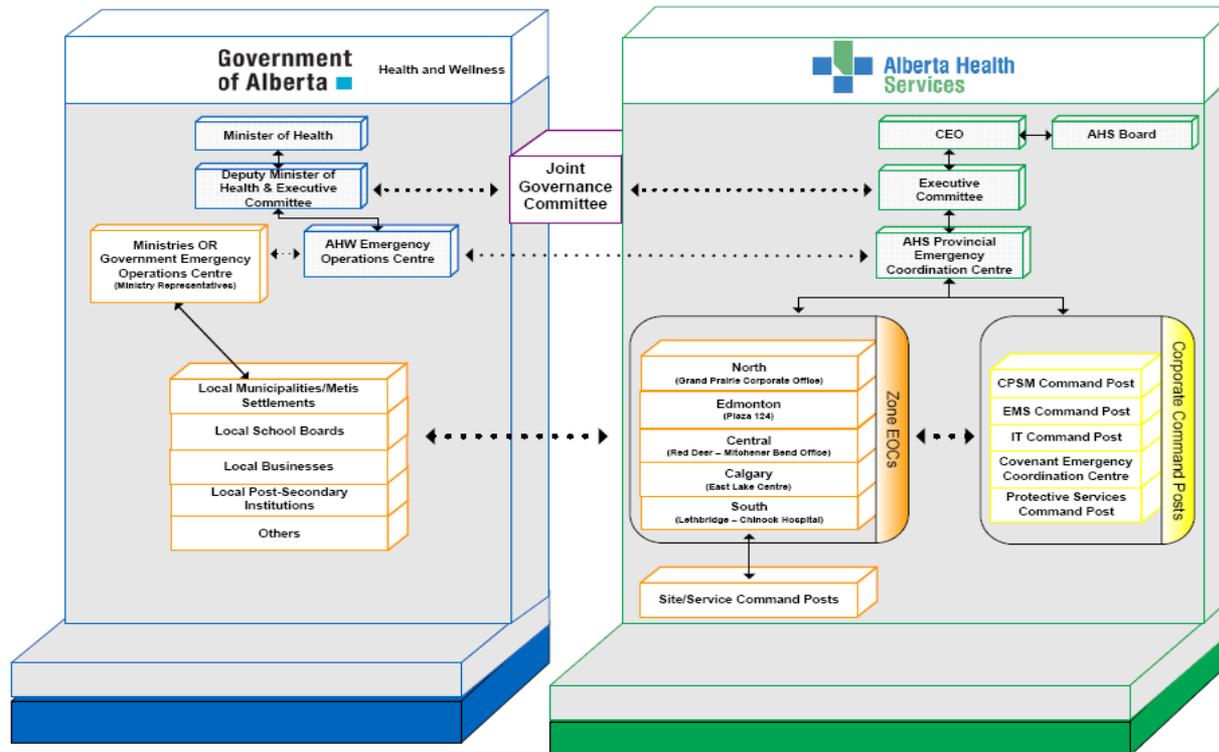
Legislation

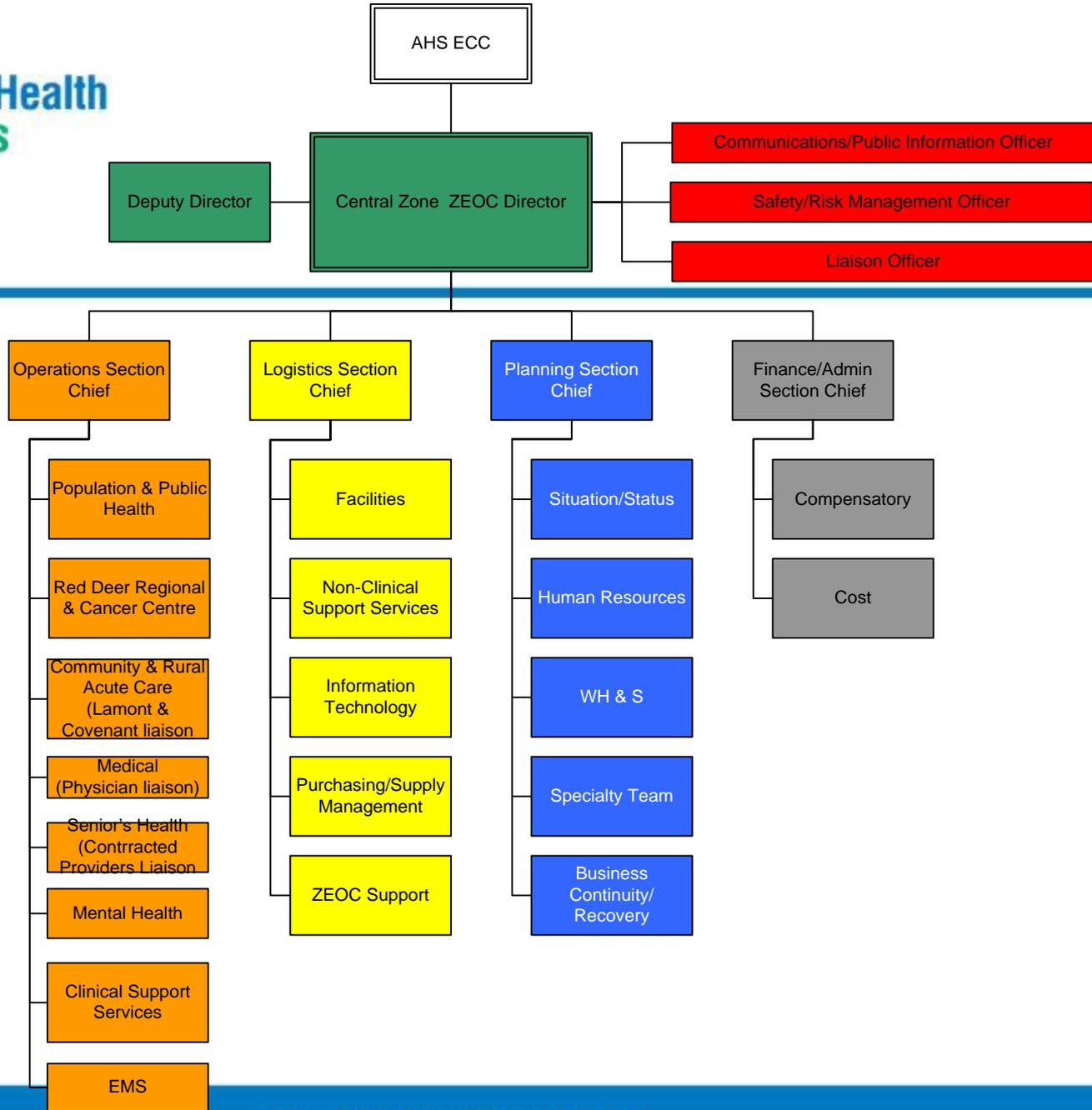
- **The Public Health Act** delineates the powers of the Medical Officer of Health in managing communicable disease, public health emergencies, and isolation and quarantine of persons, and in declaring a state of local public health emergency
- **Nuisance and General Sanitation Regulation**
An executive officer who receives a complaint alleging the existence of a nuisance in the health unit in which he is designated as and executive officer shall visit the place or premises complained of and inquire into the facts

IMS Levels



AHS Incident Management





AHS Roles and Responsibilities

ENVIRONMENTAL PUBLIC HEALTH ROLES AND RESPONSIBILITIES

Alberta Health Services (AHS) - Environmental Public Health (EPH) roles and responsibilities in public health emergency preparedness and response to the oil and gas industry are outlined below. The provision of services during an emergency depends upon our assessment of legislative responsibilities, impact to services, and business continuity.

EPH will endeavor to:

- Participate with the Licensee in the development of their Emergency Response Plans as it relates to the Environmental Public Health Program's role and responsibility.
- Provide the AHS Zone Single-Point-of-Contact (SPOC) emergency phone number to enable the Licensee to notify and alert the Zone of an emergency. From the initial notification or alert, AHS emergency response will fan out to and coordinate with other AHS programs and facilities as necessary. The 911 EMS services remain independent of the Zone SPOC notification/alert process.

AHS Roles and Responsibilities

- Participate with stakeholders in preparedness training and exercises associated with a Licensee's simulated activation of an Emergency Response Plan in which EPH has a role and responsibility.
- Participate in public information sessions during the Duty Holder's Emergency Response Plan development process when appropriate and as resources allow. □
- Provide guidance to stakeholders and local municipal authorities in identifying sites suitable for establishing and operating an evacuation centre and/or reception centre, including operational requirements.
- Provide guidance to stakeholders on substances that may affect public health in consultation with the Zone Medical Officer of Health (MOH), including Alberta Health Acute Exposure Health Effects for Hydrogen Sulphide and Sulphur Dioxide information.
- Conduct assessments, inspections and give regulatory direction, when appropriate, to ensure the requirements of provincial legislation and EPH program areas of responsibilities for public health protection and disease prevention are maintained.

AHS Roles and Responsibilities

- Notify the Zone Medical Officer of Health of any incident affecting or potentially affecting other AHS programs or facilities. The Zone MOH will notify and coordinate emergency response in other program areas and facilities as necessary.
- Establish EPH emergency management operations, when appropriate, to support regional response efforts and liaise with the Government Emergency Operations Centre, Municipal Emergency Operations Centre and/or Industry Emergency Operations Centre, if needed.
- Assist the Zone Medical Officer of Health, local municipal authority, and Public Information/Communication officers in the development, issuance, and rescinding of public health, public evacuation and shelter-in-place advisories.
- Provide guidance to stakeholders on matters relating to evacuation of the public and/or public facilities, and the re-occupancy of those evacuated areas or facilities.
- Record and respond to health complaints or concerns from the public during and following an incident.
- Participate in stakeholder debriefings as necessary.

Oil & Gas Basics

- Conventional natural gas
- Natural gas in coal [CBM]
- Oil Sands
- Drilling
- Well completions
- Testing
- Under balanced drilling
- Directional drilling
- Oil & Gas production and related facilities
- Refining
- Upgraders
- Storage tanks
- Types of oil and gas

-
- Unconventional oil and gas
 - Hydraulic Fracturing
 - Shale gas
 - Heavy oil
 - Pipelines
 - Transfer/offloading facilities
 - SAGD
 - Co-generation
 - Coal mining operations

Human Health Risk Assessment, Exposure Scenarios & Hazard Identification

- Consequence Analysis
- Exposure and toxicological assessment
- Exposure scenarios from sour gas releases
- Emissions of concern from Wellhead
- Other emissions of concern
- Emissions from Petrochemical Industries

Description of substances

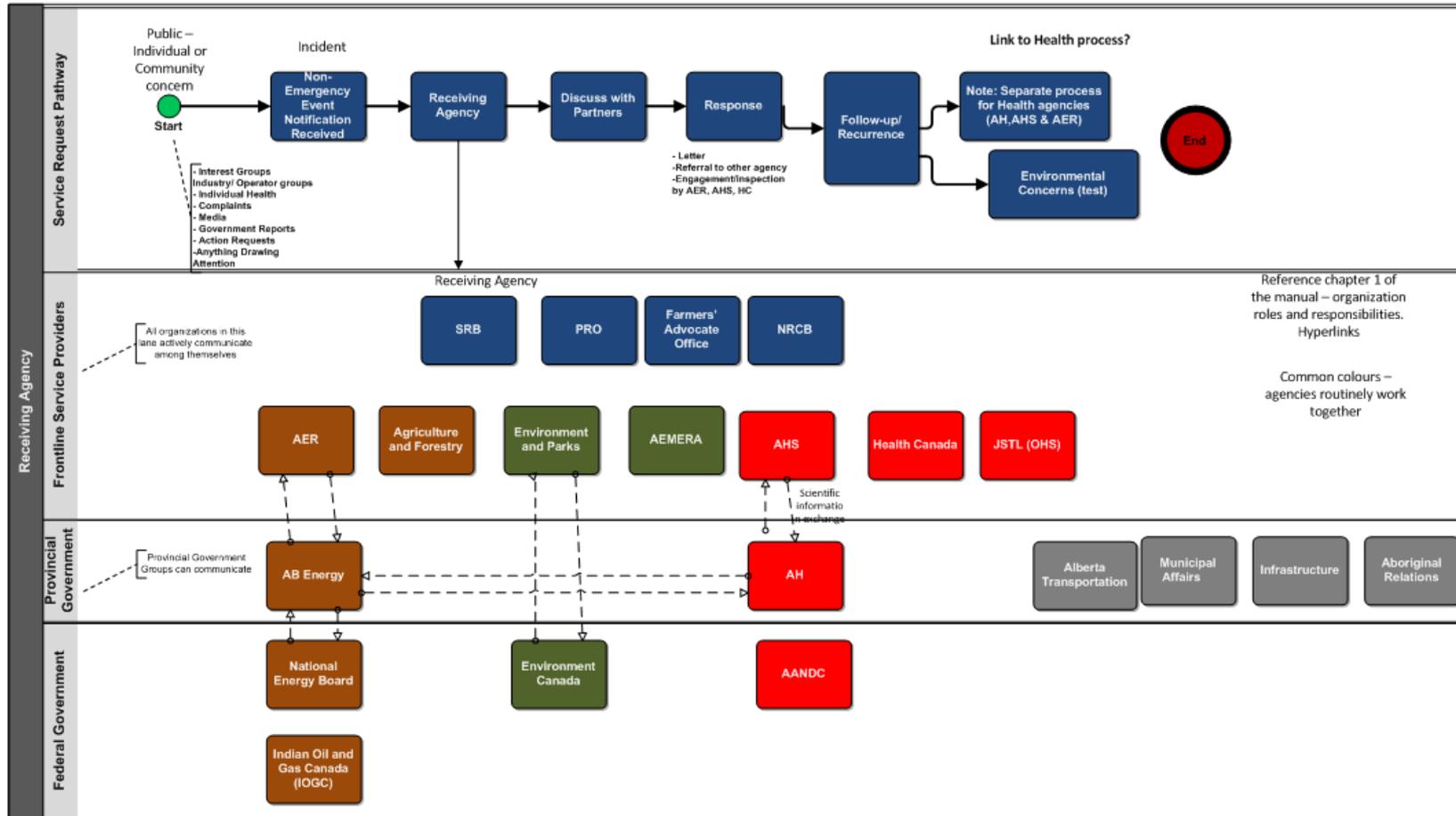
- Benzene
- Carbon Disulphide
- Carbonyl Sulphide
- Condensate Aerosols
- Diesel Exhaust
- Diisopropanolamine
- H₂S
- Mercaptans
- NO₂
- Odour
- PM 2.5
- Polycyclic Aromatic Hydrocarbons
- Sulfolane
- SO₂
- VOCs

Responding to Individual Health Complaints

Building a coordinated response

- Between Health Agencies
- Health to AER
- Health to GOA
- Individual vs. Community Concerns
- Emergency vs. non-emergency

Individual/Community Concern Pathway



Emergency Response Plans

This Chapter is based on D-71 and contains:

- Health Authority & FNIB Notification & Consultation
- ERP review
 - 24-hour contact information
 - Review maps for public building, evacuation etc.
 - Operations within the EPZ
 - Possible site visit

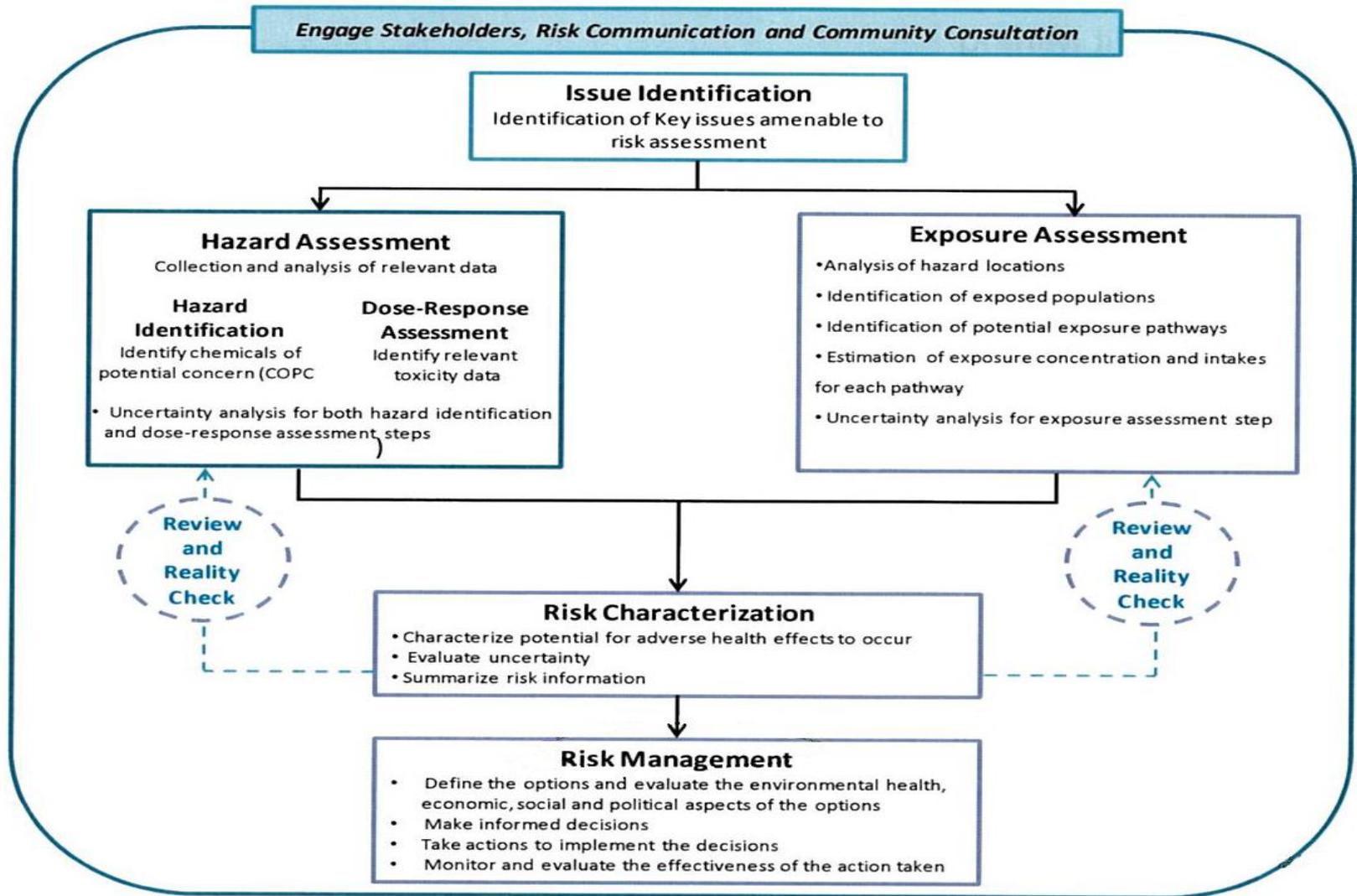
Emergency Response Communication

- Incident levels (from D-71)
- Public protection measures
- Reception centre guidelines
- Shelter in place
- External agency contact numbers

Public Involvement & Risk Perception

“In the absence of information perception becomes reality.”

- Health Authority Role and Involvement
- Consideration & Guidelines for Public Involvement
- Guidelines for public involvement
- Community dialogue (steps and key ingredients as well as conflict resolution)
- Risk Perception
- Risk Communication



Common Terminology

Terms used by those in the oil and gas industry as well as by those involved in Public Health

Questions?