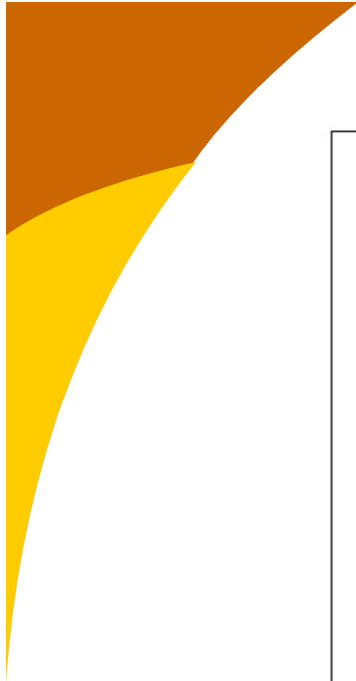




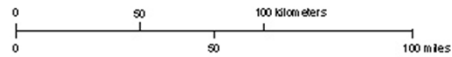
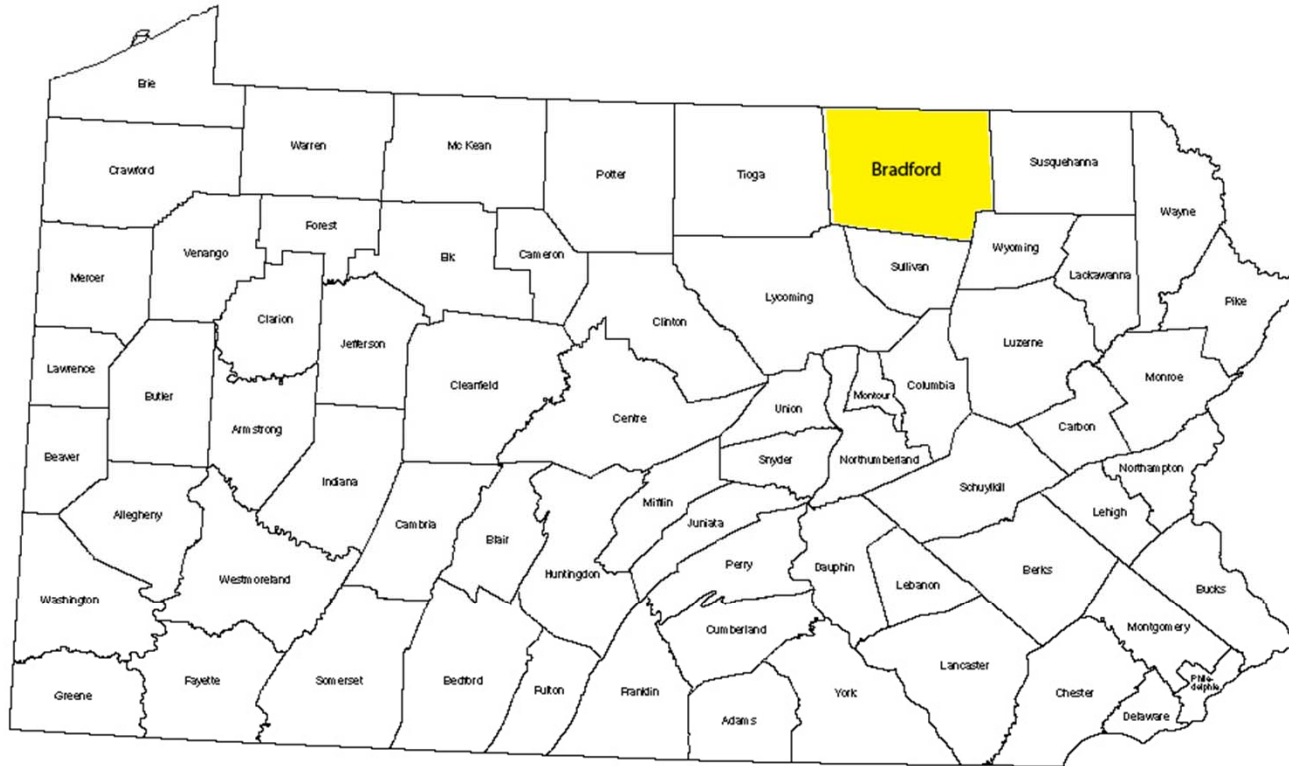
*Local Experiences  
Related to the  
Marcellus Shale  
Industry*

May 10, 2011

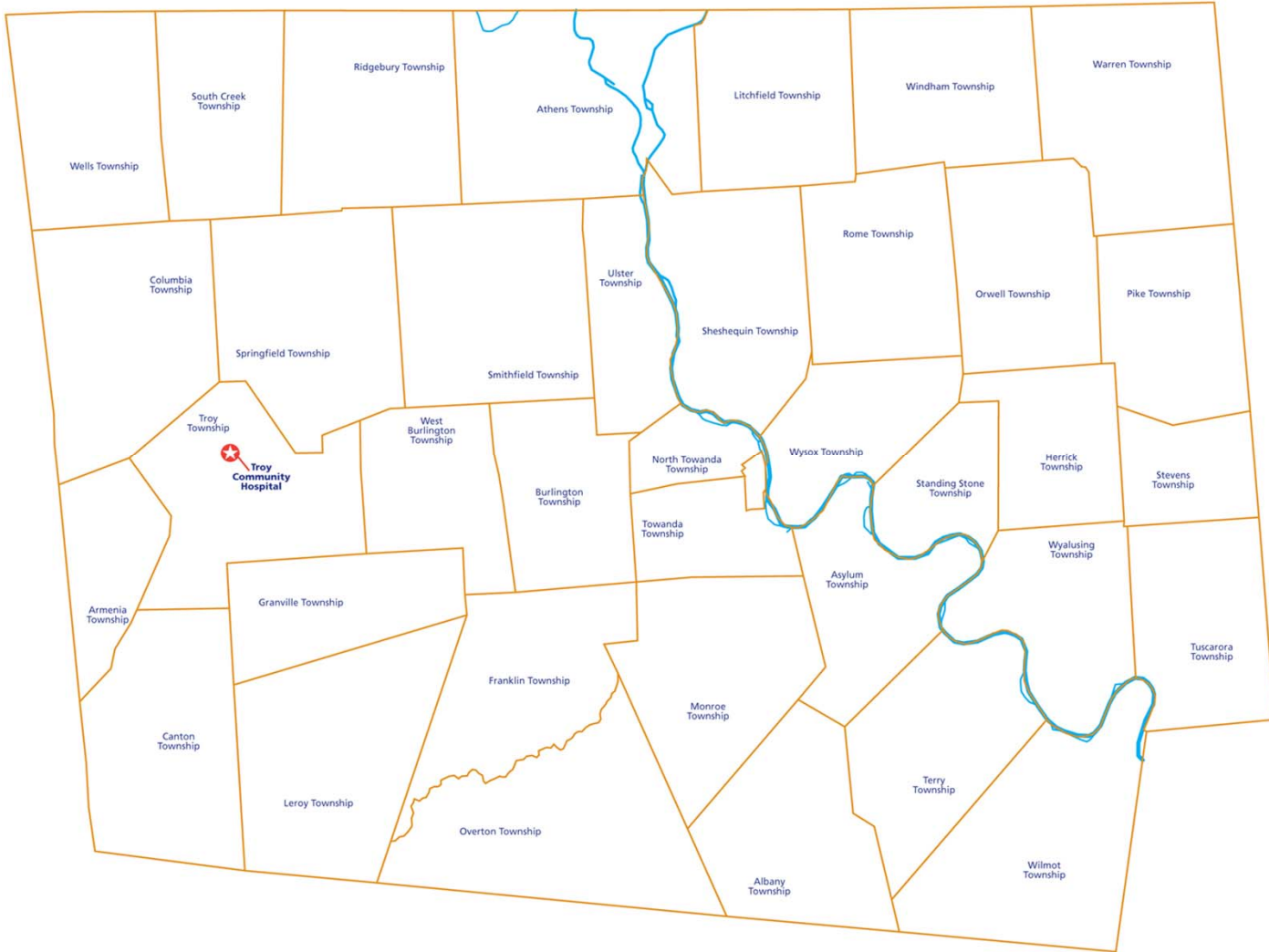
Staci Covey, RN, MS, NE-BC  
President, Troy Community Hospital  
VP, Post Acute Care



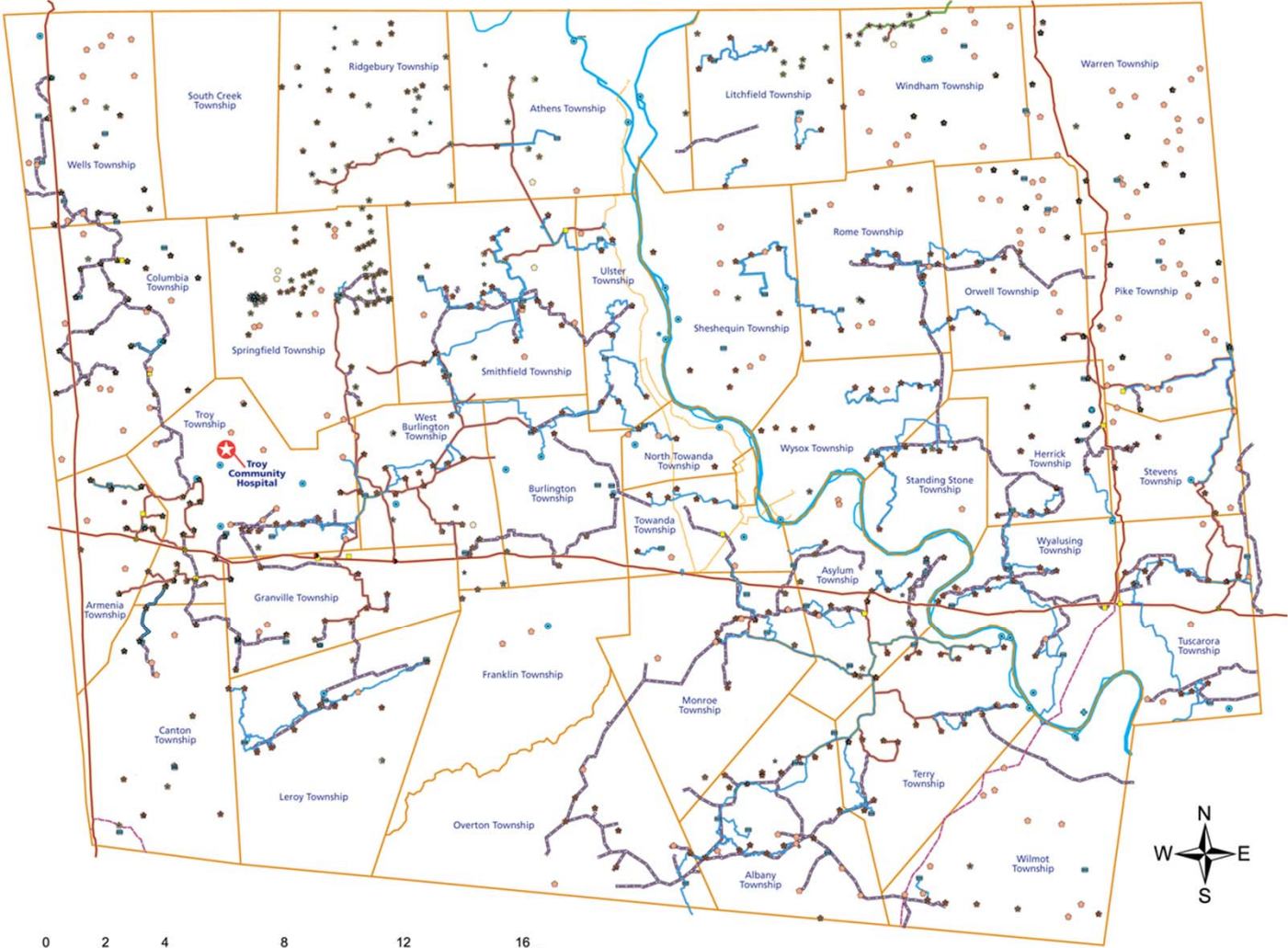
# PENNSYLVANIA



# BRADFORD COUNTY PENNSYLVANIA



# BRADFORD COUNTY PENNSYLVANIA



**Legend**

**DEP Wells April 2011**

**ORGANIZATIONS**

- \* ANGERMAN ASSOC INC
- \* BELDEN & BLAKE CORP
- \* BTI ENERGY INC
- \* CHESAPEAKE APPALACHIA LLC
- \* CHIEF OIL & GAS LLC
- \* COLUMBIA NATURAL RES INC
- \* CONSOL GAS CO
- \* CTL NEW YORK OIL & GAS CO LLC
- \* EAST RESOURCES INC
- \* ENERVEST OPR LLC
- \* EOG RESOURCES INC
- \* FAIRMAN DRILLING CO
- \* FENIX & SCOISSON INC
- \* GOODWIN IND INC
- \* MARK RESOURCES CORP
- \* PENNZOIL PROD CO
- \* PURE OIL CO
- \* QUAKER STATE CORP
- \* RANGE RESOURCES APPALACHIA LLC
- \* SHAW OBIE
- \* SHELL OIL CO
- \* SOUTHWESTERN ENERGY PROD CO
- \* SWEPI LP
- \* TALISMAN ENERGY USA INC
- \* UNKNOWN OPR
- \* VAVCO LLC
- \* WEAVER OIL & GAS CORP

**Bradford County Natural Gas Database**

**FEATURE TYPE**

- HORIZONTAL GAS WELL
- VERTICAL GAS WELL
- ⌵ COMMUNICATION TOWER
- COMPRESSOR STATION
- METER STATION
- SUBSTATION
- TAP LOCATION
- ⌵ DEHYDRATOR
- GROUNDWATER WITHDRAWAL
- WATER PUMP STATION
- ▲ SURFACE WATER WITHDRAWAL
- WATER IMPOUNDMENT
- WATER TRANSFER PAD
- WATER TREATMENT FACILITY
- WATER WITHDRAWAL
- Water Lines

**Gas Lines**

**LINE\_TYPE**

- GATHERING - PROPOSED
- GATHERING - BUILT
- SERVICE - BUILT
- STORAGE - BUILT
- TRANSPORT - PROPOSED
- TRANSPORT - BUILT
- RegionalBoundaryDonut-hole



# What have we seen?

## q **An increase in outpatient volume**

- Y Zip codes are not local
- Y Migratory population is not counted in population statistics (affects future planning for facilities, programs and services)
- Y Industry is very appreciative of increased and flexible hours for elective services

# What have we seen?

- q **Requests for pre-hire, accident follow up, and sobriety monitoring**
  - Y Purchased equipment for blood/urine, alcohol and drug testing
  - Y Educated and certified staff

# What have we seen?

- q **An increase in non-English speaking persons**
  - Y This was a pretty homogenous area
  - Y Have obtained printed material in other languages
  - Y Have contracted with translator services
  - Y Have been contacted by the ARCC soliciting donations for “Rosetta Stone” due to an increase in Spanish women and children requiring shelter

# What have we seen?

- q **An increase in industry related injuries and exposures**
  - Y Foot and leg wounds and injuries, of mechanical cause and as a result of constant and/or long term exposure to frack fluid of variable and unknown chemistry
    - Y Cellulitis or flesh eating bacteria; worn out boots with holes
    - Y Inpatient admissions for intravenous treatment
    - Y A person flagging for a road crew was mauled by a dog
    - Y Cardiac issues
  - Y Have used the exterior decon shower to rinse a patient covered in frack fluid prior to treatment
  - Y Many of the workers are unfamiliar with our local area wildlife, farm animals, plant life, etc. and may suffer illness and injury as a result
  - Y An increase in population means an increase in illnesses and injuries



# What have we seen?

## q **Increased traffic and MVA's**

- Y Access to and from the borough of Troy and Troy Community Hospital is delayed or impossible at certain times of day
  - Y DPW conducting an assessment
  - Y DPW will make recommendations
  - Y \$\$ to finance recommendations?
- Y Accidents have occurred related to frustration, anger directed at migrant workers, substance abuse, unfamiliarity with roadways, road rage; could use more State Police to assist with management and enforcement. Victims are most often local residents.
- Y Patient transport and response to emergency calls are delayed and hampered requiring adjustments to timing of treatments and planning for increased delays
- Y EMS services are all volunteer and volunteers are burning out
- Y Call volumes for EMS services have significantly increased
- Y Patient transport is uncomfortable due to rough roads

# What have we seen?

## q **Increased traffic and MVA's (continued)**

- Y The delivery of home care services has been greatly impacted related to traffic volume but also the hauling of industry related equipment and materials
  - Y Extended, non-productive travel times to and from patient homes
  - Y The roads are in severe disrepair and very hard on staff vehicles
  - Y Staff safety while traveling is a serious concern
- Y Road repairs will further hamper travel, increasing staff dissatisfaction, increased gas use and vehicle wear, and decrease productivity
- Y Road repair work should be a coordinated plan. Don't do it on ALL access and travel ways at one time!!

# What have we seen?

## q **Worker illness and injury**

- Y Self pay; as a new industry employee, may not yet have health insurance
- Y Frequently will wait to address health issues until they are severe
- Y Increased workmen's comp injuries
- Y Families are far away (lack of emotional support)
- Y Discharge needs may include discharge back to home state creating coordination of care difficulties and lack of knowledge regarding available services
- Y Unknown immunization status
- Y Poor health status due to lack of care which becomes evident with the first illness or injury
- Y No Family Practice Physician available
- Y Increased number of people with chronic illnesses seeking medications who are poor historians
- Y Guthrie EMR initiative may not be useful if other states and services are not as advanced
- Y Injured workers give false information
- Y Workers are being hired as independent contractors and therefore have no payer or insurance



## *Other issues*

- q Subcontractors ignorant of regulations designed to protect the local environment and people
- q An increase in sexually transmitted diseases
- q An increase in drug use and specifically “bath salts”
- q An increase in bio-waste from accident sites requiring proper management;
- q Potential for multiple casualties and injuries related to fire and explosions
  - Y Training availability for EMS and Emergency Department employees



## *Other issues*

- q Lack of housing
  - Y No temporary housing is available locally for families of patients, healthcare related students and trainees or newly hired employees
  - Y Hotels are being built or planned for the area
  - Y Lack of availability and high rental prices have hampered the ability of many to find homes
  - Y Demand by the industry and their ability to pay has caused problems for native renters and purchasers
  - Y Troy borough has experienced frequent water pipe rupture affecting homes and industry. Potentially related to demand use and increased area population?



## *Other issues*

- q Training and educational programs offered by the industry related companies, for local EMS and other services, base their program upon their policies and what is supposed to be happening; this isn't necessarily reality



## *Growing Risk*

- q Available employees and inflated salaries
  - Y Gas industry and their subcontractors or related businesses will compete for administrative and other non-clinical employees
  - Y Healthcare will have difficulty keeping up with salary expectations
    - Y A maintenance employee left with little notice to accept a position that paid twice what he made in a healthcare related position



## *Potential Risks*

- q Contamination of water supplies related to caustic chemicals used in fracking – spill or no spill
  - Y Chemicals used have been shown to be caustic to many of the bodily internal organs
  - Y No studies have shown clear cause and effect



# *Recommendations*

- q Establish a task force which will work with local municipalities and key personnel to establish programs designed to address issues discussed
- q Increased DOH available services related to STD's and substance abuse
- q **While discussing an industry tax, make provisions for funds to come to local areas in order for local municipalities to address issues mentioned**
- q Require companies doing business in the state to address healthcare insurance needs with employees or provide it (including primary care providers)
- q Create industry health care case managers or navigators to assist with care locally and upon discharge to other states
- q Establish a methodology for state MA to be reciprocal without separate applications each time
- q Encourage local residency for long term workers
- q Engage area healthcare providers in the provision of educational programs for industry employees focused upon prevention.
  - Y Signs and symptoms of infections, chest pain, hydration, smoking cessation
  - Y When to seek care
  - Y Where to seek care