

**PARK CITY**

1884



# **Park City Environmental Data Viewer**

Presenter: Jeff Schoenbacher, Environmental Coordinator

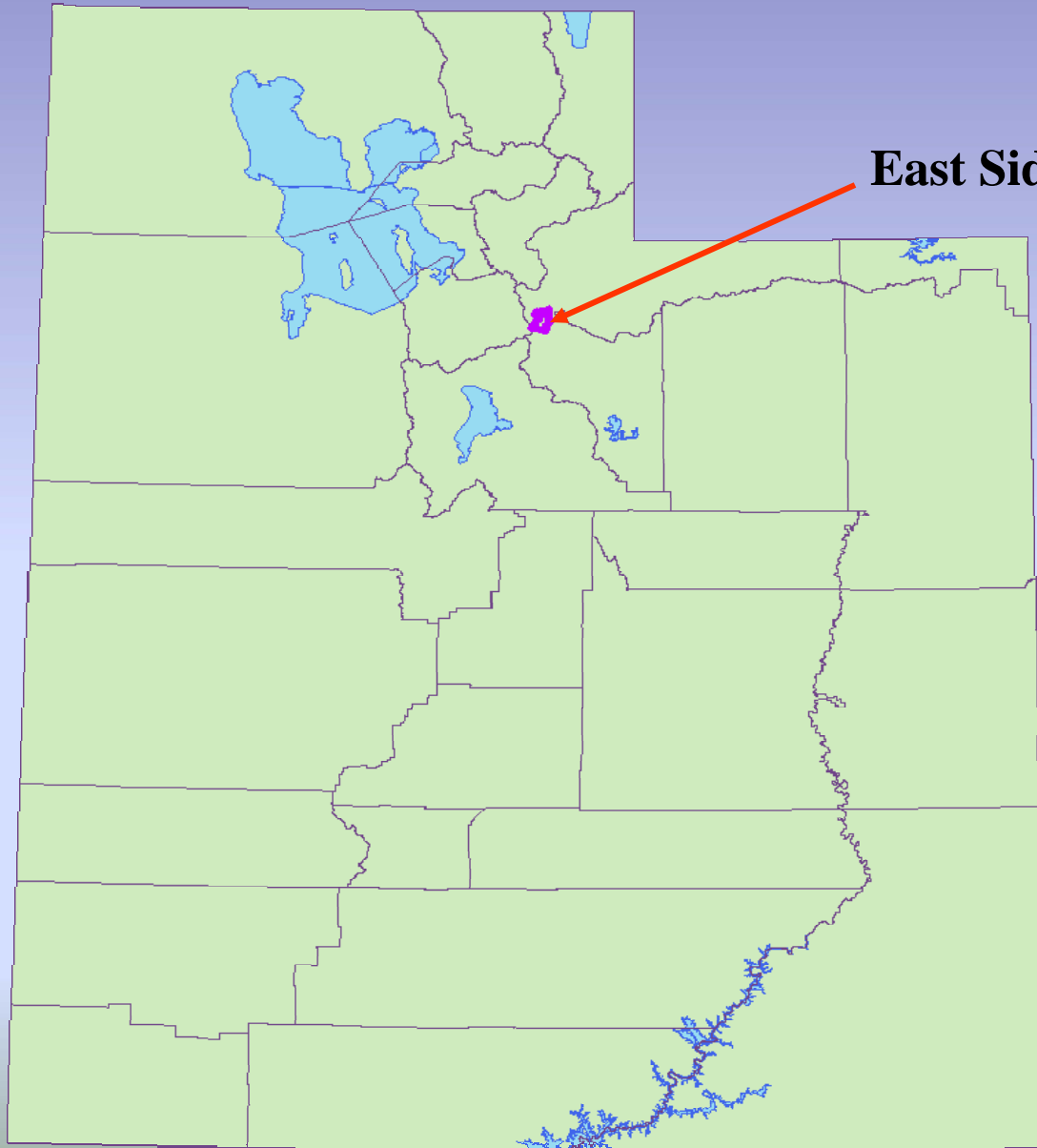
2008 ESRI Survey & Engineering GIS Summit

San Diego California

August 2008



# Where is and what is Park City's?



**East Side of Wasatch Mountain Range**

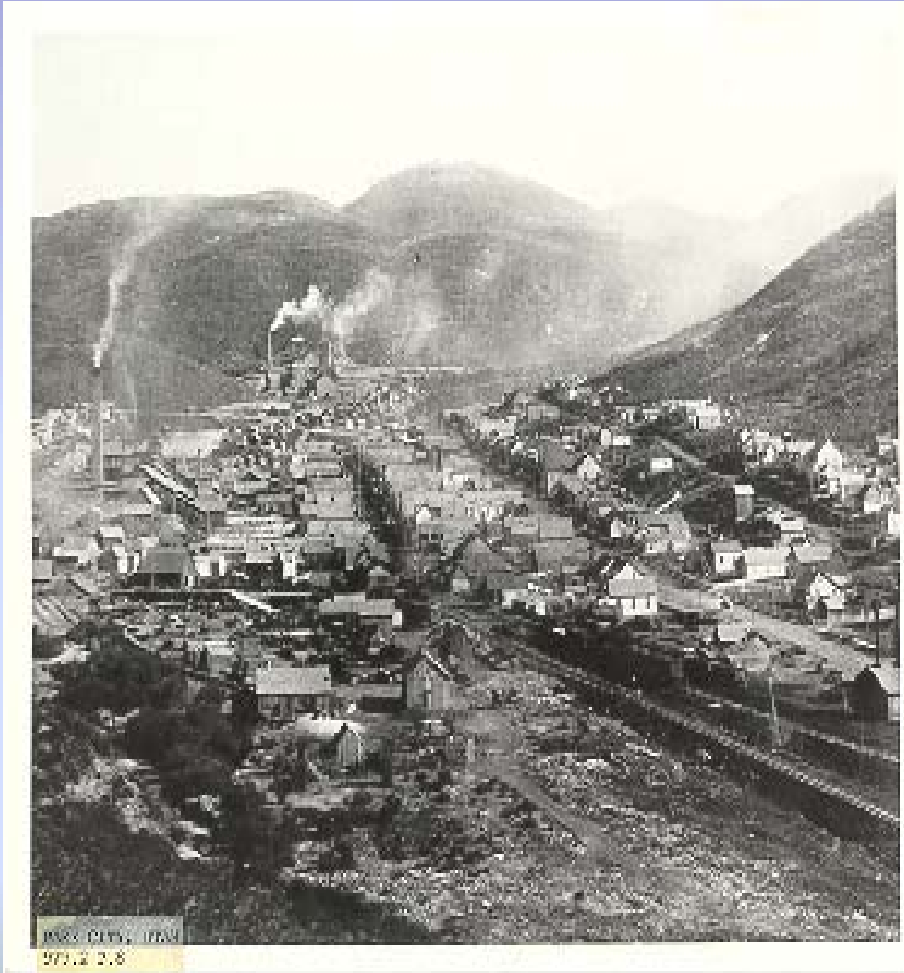
Elevation 7000'

Population 7800

Ski Resort Community



# Park City's History



- 1868 First Silver Mine Claim Filed.
- 1874 Marsac Mill Built
- Two Mills produced \$14,000.00/week of silver product.
- 1900-1930 ~700,000 tons of tailings were deposited within the city limits.
- Many Environmental Challenges!



UPPER PART OF PARK CITY 979.2  
ONTARIO & EMPIRE GULCHES P.20

# Watershed Setting

- Park City's watershed contributes to two streams.

- East Canyon Creek

- Via McLeod Creek

- Silver Creek

**Marsac Mill Old Site**



# The City's Environmental Challenges

- **Mainly related to the city's mining history and current growth of the county.**
  - Soils impacted with mine tailing waste.
  - Complex Watershed issues related to two 303 (d) listed streams that have been deemed impaired.
    - McLeod Creek (nutrient)
    - Silver Creek (heavy metals)
  - Explosive growth within the community has resulted in storm water management issues.
  - On going voluntary clean-up projects (CERCLIS Sites).
  - Protecting wetlands and streams.
  - Educating the public and government officials of Park City's Historical past.

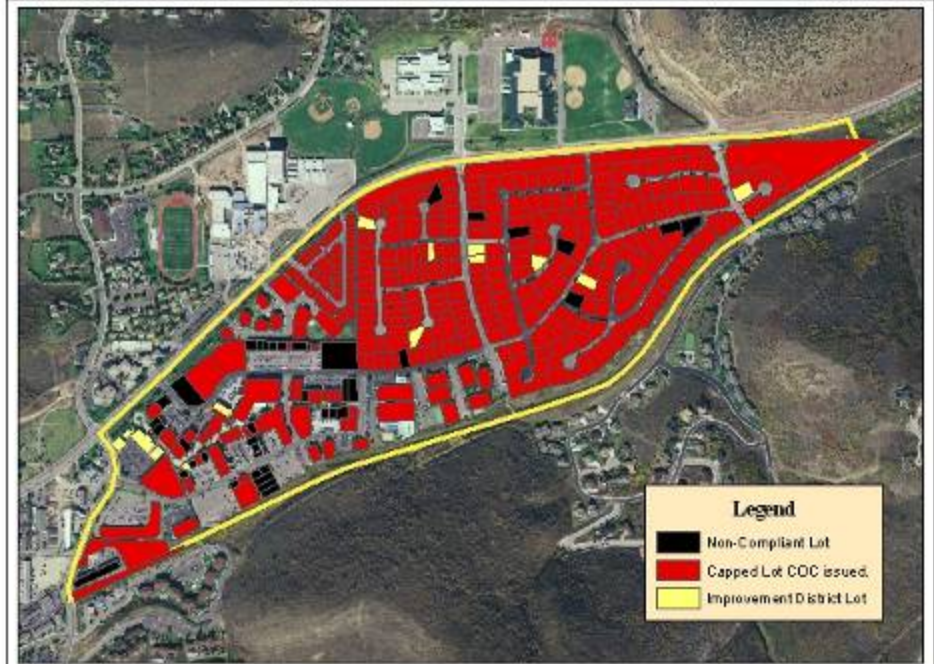
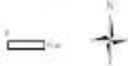
# The Start Environmental GIS in Park City

- At the request of the Soils Stakeholders group, in 2001 Park City started to compile all lot soil sampling that had been done dating back to 1985.
- Sampling results were entered into an Access Database system.
- In 2004 the Building Department spearheaded the development of an Environmental GIS System to track lot remediation within the remediation boundary.
- The Environmental GIS System was connected to the database tables to reflect compliance and the remediation boundary.

# The benefits were instantly recognized.



Park City Soils Ordinance Boundary



Original Compliance Ordinance 12/2007





## The Ball Got To Rolling

- The Building Department started inventorying and digitizing all environmental issues within the city limits (4 years to compile data).
  - Known mine tailings impacts – CERCLIS Sites.
  - Mine Hazards
  - FEMA regulated Flood Zones
  - State Navigable Waters
  - Jurisdictional Wetlands
  - Watershed Boundaries
  - Drinking Water Source Protection Zones
  - Permanent Riparian Buffer Zones

# **The Question: Why not share this information to the public as a resource?**

- The Building Department receives numerous calls on a daily basis from stakeholder conducting due diligence related to environmental issues:
  - Buyers
  - Sellers
  - Lenders
  - Real Estate Agents
  - Legal
  - Regulatory Agencies (USEPA, UDEQ, UDOT)
  - Utility Contractors and Companies

## WebGIS is Born!

- Park City Teamed up with Utah Automated Geographic Reference Center (AGRC).
- Organized a GIS Evaluation Committee:
  - Watershed Coordinator
  - UDEQ Representatives
  - Public Works staff
  - Planning staff
  - Engineering staff
  - Building staff

# Evaluation Committee

- Requests were integrated into the AGRC pilot and datasets were provided by Park City.
- Committee was kept in the loop throughout the development of the application
- September 14<sup>th</sup> 2007 WebGIS Pilot was demonstrated:
  - Quick Property Searches regarding flood zone designation.
  - Lot Remediation Compliance.
  - Identification of delineated wetlands with 50' buffer identified.



# December 17<sup>th</sup> 2007 Release of the WebGIS Environmental Data Viewer

The screenshot displays the 'Park City Environmental Data Viewer' web application running in Internet Explorer. The browser's address bar shows the URL <http://www.mapserv.utah.gov/ParkCityGIS/>. The application header includes the 'PARK CITY' logo and the title 'Park City Environmental Data Viewer'. A navigation bar contains links for 'About this Map', 'AGRC', 'MapServ', and 'Help'. The main interface is divided into a left sidebar and a central map area. The sidebar, titled 'Search Methods', includes a 'Search Soils Ordinance Lots' section with an 'Address:' input field and a 'search' button. Below this is a legend for 'Soils Ordinance Lots' with three categories: 'Non-Compliant Lot' (black square), 'COC Issued' (red square), and 'Improvement District Lot' (yellow square). Further down, there are links for 'Soils Ordinance Annual Reports' (2007, 2006, 2005, 2004, Working Ordinance) and 'Storm Water Management Annual Reports' (2007, 2006, 2005, 2004, Environmental Information Handbook). At the bottom of the sidebar are buttons for 'Search City Wide Address' and 'Search with Custom Shape', and a menu for 'Search Results', 'Identify Results', 'Map Contents', and 'Overview'. The central map area shows an aerial view of a mountainous region with a black outline of the city boundary. Several areas within the boundary are highlighted: a red outline for 'COC Issued' and a yellow outline for 'Improvement District Lot'. A red arrow points to a specific location within the red outline, and a yellow arrow points to a location within the yellow outline. A compass rose is located in the top right corner of the map, and a scale bar at the bottom indicates distances up to 8,000 feet. The 'UTAH AGRC' logo is visible in the bottom left corner of the map area.

# Components

- AGRC Developed in ArcServer.

- Customized  
longitude/latitude tool.



- Search Soils Ordinance Lots
  - Compliance yes or no
  - Maximum Lead Concentration
- Search City Wide Address
  - Within ordinance boundary.
  - FEMA Flood Zone
  - Known Mine Tailing Areas
  - Drinking Water Source Protection Zone
  - Within 50' of a Jurisdictional Wetland

## Other Datasets

- Known Mine Hazards (shafts, tunnels, adits)
- 10' Elevation Contours
- Bike Trails
- Permanent Riparian Buffer Zone
- Annual Reports
- Environmental Ordinance
- Educational Information

A wide-angle photograph of a sunset or sunrise over a dark horizon. The sky is filled with wispy, light-colored clouds that catch the low light of the sun, creating a gradient of colors from deep blue at the top to bright orange and yellow near the horizon. The sun itself is a small, bright yellow-orange disk just above the horizon line.

# Conclusions

- The Environmental Data Module has been a success.
- 200 Service Requests per day.
- Used extensively by the real estate community.
- Has improved customer service to all stakeholders.
- Valuable resource for Park City because of other departments using the module.
- Information Repository

# Recognition and Thanks

- AGRC
  - Barry Biediger
  - Jeannie Watanabe
- East Canyon Creek Watershed Committee
  - Brendan Waterman, Watershed Coordinator

# Search Soils Ordinance Quick Search

Park City Environmental Data Viewer Created by AGRC - Windows Internet Explorer

http://mapserv.utah.gov/ParkCityGIS/

Park City Environmental Data Viewer Created by AGRC

## PARK CITY

### Park City Environmental Data Viewer

About this Map | AGRC | MapServ | Help

**Search Soils Ordinance Lots**

Address:

Soils Ordinance Lots Legend:

- Non-Compliant Lot
- COC Issued
- Improvement District Lot

Soils Ordinance Annual Reports:  
[2007](#) [2006](#) [2005](#) [2004](#)  
[Working Ordinance](#)

Storm Water Management Annual Reports:  
[2007](#) [2006](#) [2005](#) [2004](#)  
[Environmental Information Handbook](#)

**Search Results**

Results for: 2505 ANNIE OAKLEY DRIVE

Within Ordinance Boundary:	True
Compliance:	In Compliance
Max Lead Concentration:	6340 ppm

UTAH AGRC agrc.utah.gov

# Search City Wide Quick Search

Park City Environmental Data Viewer Created by AGRC - Windows Internet Explorer

http://mapserv.utah.gov/ParkCityGIS/

Park City Environmental Data Viewer Created by AGRC

## PARK CITY Park City Environmental Data Viewer

About this Map | AGRC | MapServ | Help

Within Ordinance Boundary: Yes

### Flood Hazard Results for: 250 GRANT AVE

Within Flood Zone: Yes

Flood Zone Category: Subject to 100-year flood. Base flood elevation undetermined., Area outside 500-year flood plain with less than 0.2% annual probability of flooding.

### Mine Tailings Results for: 250 GRANT AVE

Within Tailings Area: No

### Judge Drinking Water SPZ Results for: 250 GRANT AVE

Within Judge Drinking Water SPZ: No

### Spiro Drinking Water SPZ Results for: 250 GRANT AVE

Within Spiro Drinking Water SPZ: No

### Thiriot Drinking Water SPZ Results for: 250 GRANT AVE

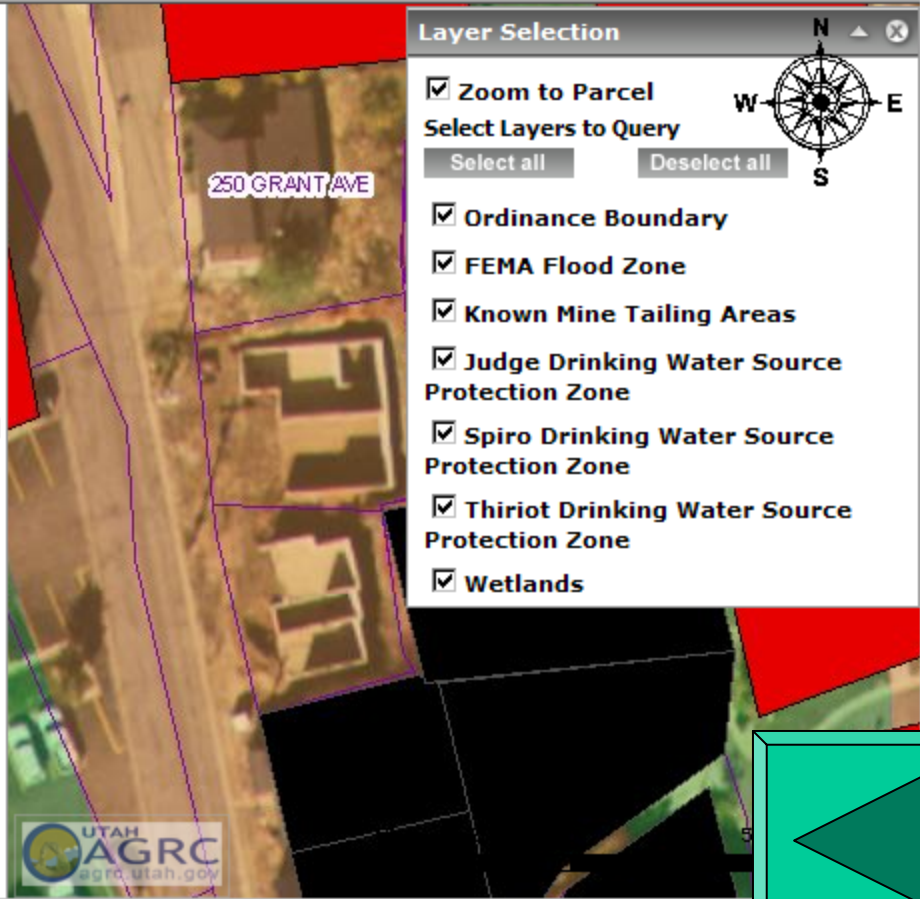
Within Thiriot Drinking Water SPZ: No

### Wetlands Results for: 250 GRANT AVE

Within Wetlands Area: No

Layer Selection

- Zoom to Parcel
- Select Layers to Query
  - Select all
  - Deselect all
- Ordinance Boundary
- FEMA Flood Zone
- Known Mine Tailing Areas
- Judge Drinking Water Source Protection Zone
- Spiro Drinking Water Source Protection Zone
- Thiriot Drinking Water Source Protection Zone
- Wetlands



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