

Citizens Coordinating Council Meeting

September 19, 2007

Area Capped this Year

SEDIMENTATION BASIN

PROPOSED SANITARY SEWER PIPELINE REROUTE

Proposed Pipeline Rerouting

APPROXIMATE AREA OF COMPLETED BUILDING 71 FINAL COVER

HILL 78 CONSOLIDATION AREA

BUILDING 71 CONSOLIDATION AREA

Existing Outfall Location

New Outfall Location

Merrill Road

SEDIMENTATION BASIN

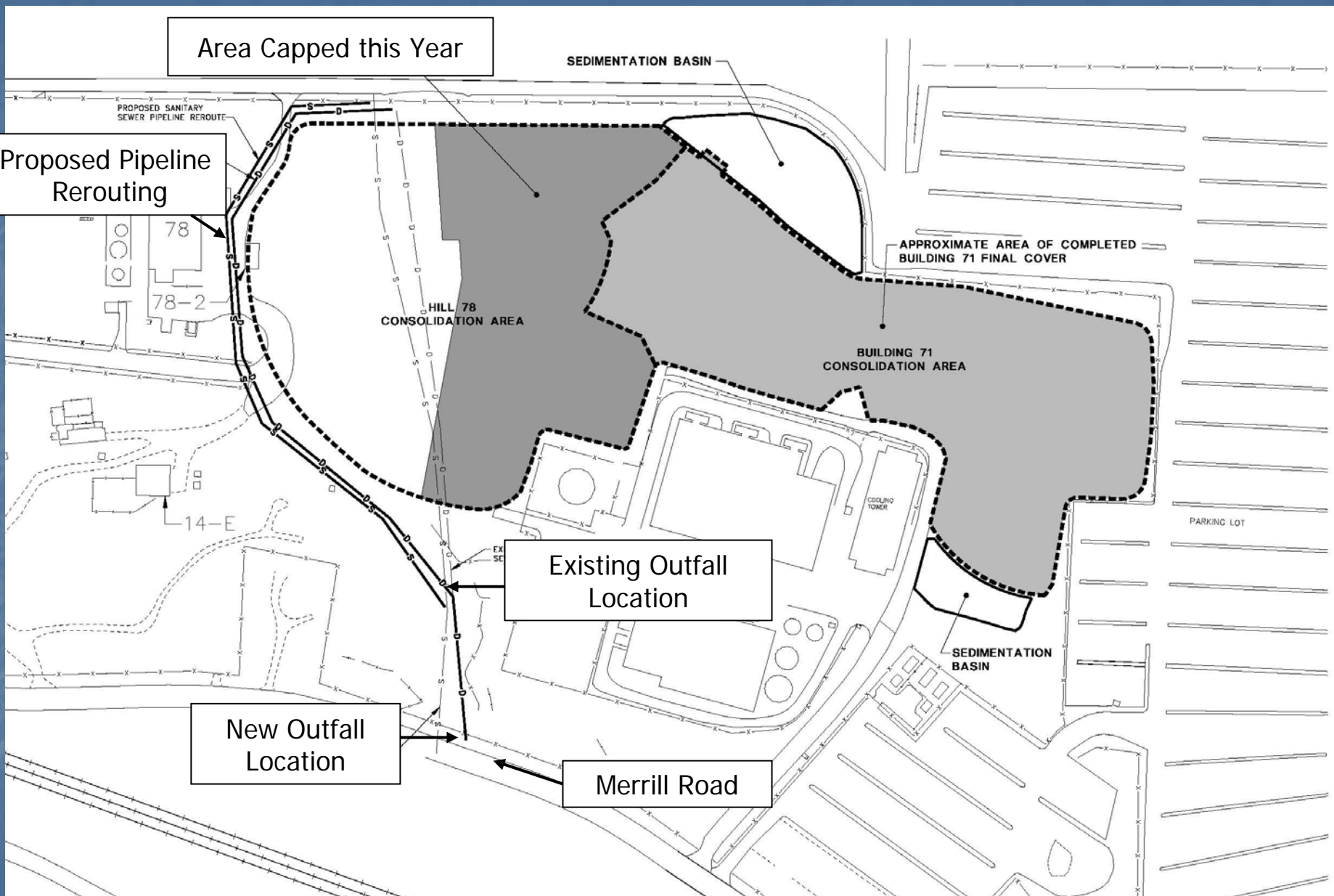
PARKING LOT

78

78-2

14-E

COOLING TOWER



Post-Remediation Sediment Sampling

- ½-Mile Reach
 - 39 Surficial (0-6") Sediment Samples
 - 12 Subsurface (>6" to riprap) Sediment Samples
- 1 ½-Mile Reach
 - 97 Surficial (0-6") Sediment Samples

Average Pre-Remediation (pre-1999) Sediment PCB Concentrations ½-Mile Reach

- 0 - 6 inch depth: 112 ppm
- 0 - 12 inch depth: 85 ppm
- 1 - 2 foot depth: 60 ppm

Post-Remediation Sediment Sampling Results — ½-Mile Reach

- 0-6 inches
 - Average Concentration: 0.24 ppm
 - Maximum Concentration: 2.0 ppm
- > 6 inches
 - Average Concentration: 1.8 ppm
 - Maximum Concentration: 11 ppm
- Average: 0.60 ppm

Percent Reduction in PCB Concentrations 1/2-Mile Reach

- 99.8% in 0 to 6 inch depth interval
- 99.3% in 0 to 12 inch depth interval

Average Pre-Remediation (pre-1999) Sediment PCB Concentrations 1 ½-Mile Reach

- 0 - 6 inch depth: 11 ppm
- 0 - 12 inch depth: 21 ppm
- 1 – 2 foot depth: 60 ppm

Post-Remediation Sediment Sampling Results 1 ½-Mile Reach

- 95 of 97 Samples < 1 ppm
- Average Concentration: 0.17 ppm
- Maximum Concentration: 1.9 ppm

Percent Reduction in PCB Concentrations 1 ½-Mile Reach

- 98.5% in 0 to 6 inch depth interval
- 99.2% in 0 to 12 inch depth interval

Summary

Upper Two Miles

- > 99% reduction in PCBs in surficial (0-6") sediment
- Average post-remediation surficial (0-6" depth) PCB concentration: 0.19 ppm

2007 1½-Mile Reach Benthic Invertebrate & Fish Surveys

Dick McGrath
SHD, Inc.

Benthic Community Characteristics and Value

- Benthic Invertebrates – small animals (e.g. insect larvae, worms, snails) that live in (infauna) or on (epifauna) the bottom
- Largely not mobile - community structure and tissue concentrations reflects effects of contaminants in the sediment and sediment type
- Community characteristics: abundance, richness, presence of pollution-intolerant taxa (EPT taxa)
- Food source for fish and other higher-level organisms – food-chain transfer of contaminants



2000/2007 1½-Mile Sampling

- Benthic invertebrate samples collected at three transects in 2000 and 2007
 - T-70 – just below Lyman St.
 - T-134 – just above Dawes Ave.
 - T-170 – between Dawes/Pomeroy
- 12 replicate 1m² samples collected using kick net
- Organisms collected for tissue analysis



Results:

Pre-Remediation Sampling (2000)

- Benthic communities at T-70 and T-170 clearly stressed (low diversity, low numbers of EPT taxa)
- Community at T-134 less stressed, with higher numbers of EPT taxa
- Tissue PCB concentration at T-134 = 485.3 mg/kg and 187.7 mg/kg (two replicate samples)
- Insufficient benthic biomass at T-70 and T-170 to collect sample for tissue analysis



Results:

Post-Remediation Sampling (2007)

- Large decrease in average sediment PCB concentrations:
 - T-70 – 13.4 mg/kg to 0.24 mg/kg tPCB (>98% decrease)
 - T-134 – 93.2 mg/kg to 0.07 mg/kg tPCB (>99.9% decrease)
 - T-170 – 6.6 mg/kg to 0.09 mg/kg tPCB (>98% decrease)
- Average tPCB in tissues at T-134 decreased from 336.5 mg/kg to 1.62 mg/kg (99.5% decrease)
- Tissue tPCB concentrations at T-70 (1.05 mg/kg) and T-170 (0.71 mg/kg) also very low



Results:

Post-Remediation Sampling (cont.)

- Benthic community samples currently being analyzed
- Preliminary results at T-70 indicate:
 - Increased diversity of taxa
 - Increased numbers of EPT taxa
 - Increased abundance of organisms
 - Increased biomass

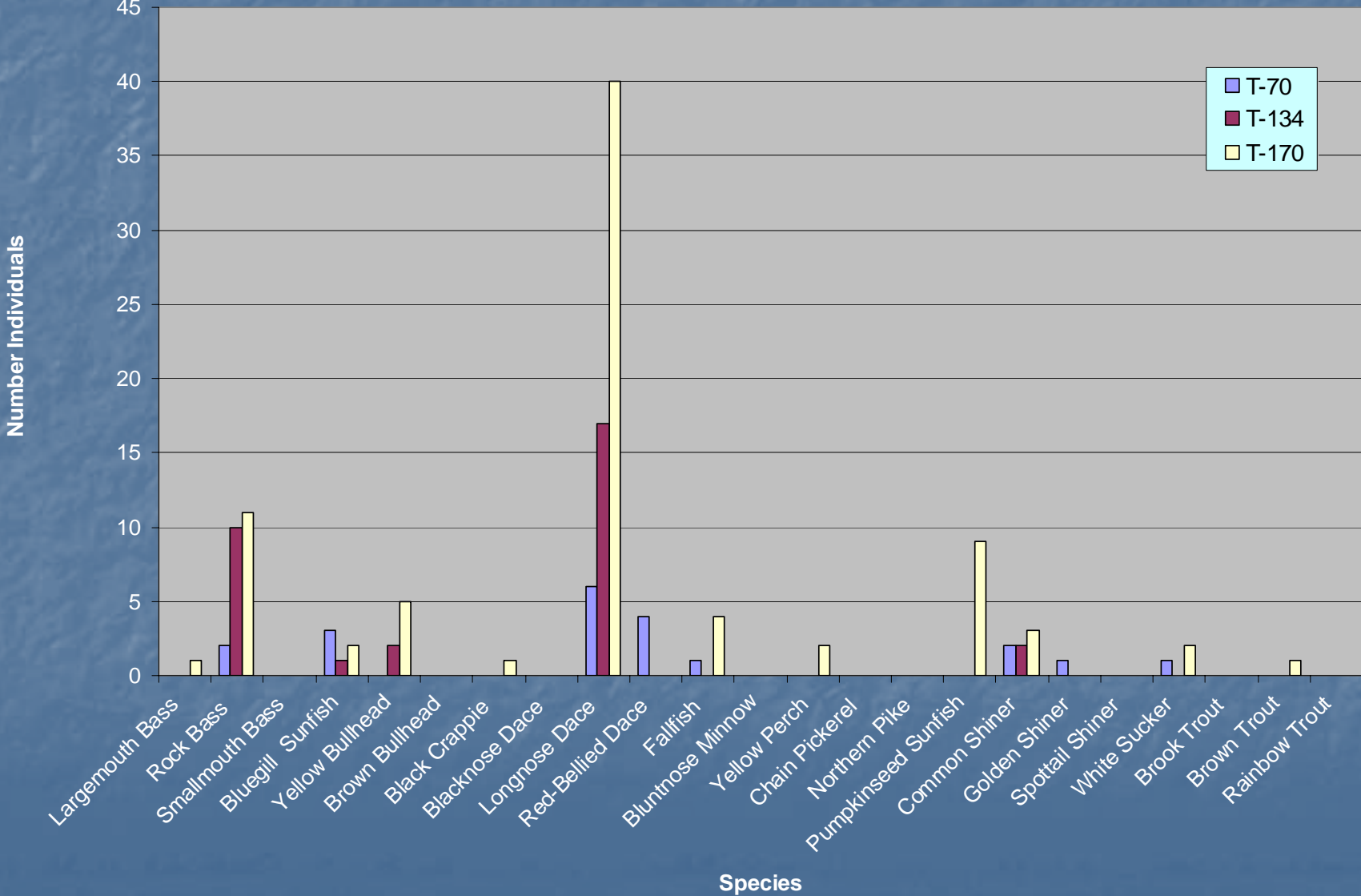


June 2007 1½-Mile Reach Fish Survey

- Three 600-ft sections of 1½-Mile Reach surveyed
 - Transects T-70, T-134, T-170
 - Same transects sampled for benthic invertebrates
- Standard backpack electrofishing method
- Particular attention given to banks and structure, especially engineered “fish rocks”
- All fish identified, measured, and returned to river unharmed



2007 Fish Survey – Count by Species



2007 Fish Survey - Observations

- 14 fish species (of 23 species recorded from river) present at these three transects
- Habitat not suitable for all species (e.g., northern pike, rainbow trout)
- T-170 had most diverse habitat and most abundant/diverse fish community
- Remnant of old dam may limit fish passage at low water
- Habitat diversity at T-70 limits fish community at this location
- Most fish collected were adults, based on known length/age relationships
- Most larger fish collected at and around engineered fish structure

Summary

- Sediment PCB concentrations reduced by approximately 99%
- Ecosystem recovery reflects reduction in PCB concentrations
 - Benthic community with higher diversity, increased abundance, and increased presence of pollution-intolerant taxa (EPT taxa)
 - >99% reduction in PCB tissue concentrations
 - Diverse and abundant fish community now found in 1½-Mile Reach

EPA Community Outreach Rest of River

CCC Meeting
September 19, 2007

Purpose of Outreach

- Communicate the Rest of River Corrective Measures Study (CMS) and EPA decision-making process to citizens in affected cities and towns (e.g. Pittsfield, Lenox, Lee, Great Barrington, Connecticut)
- Provide an opportunity for the public to interact with EPA and exchange information regarding the CMS

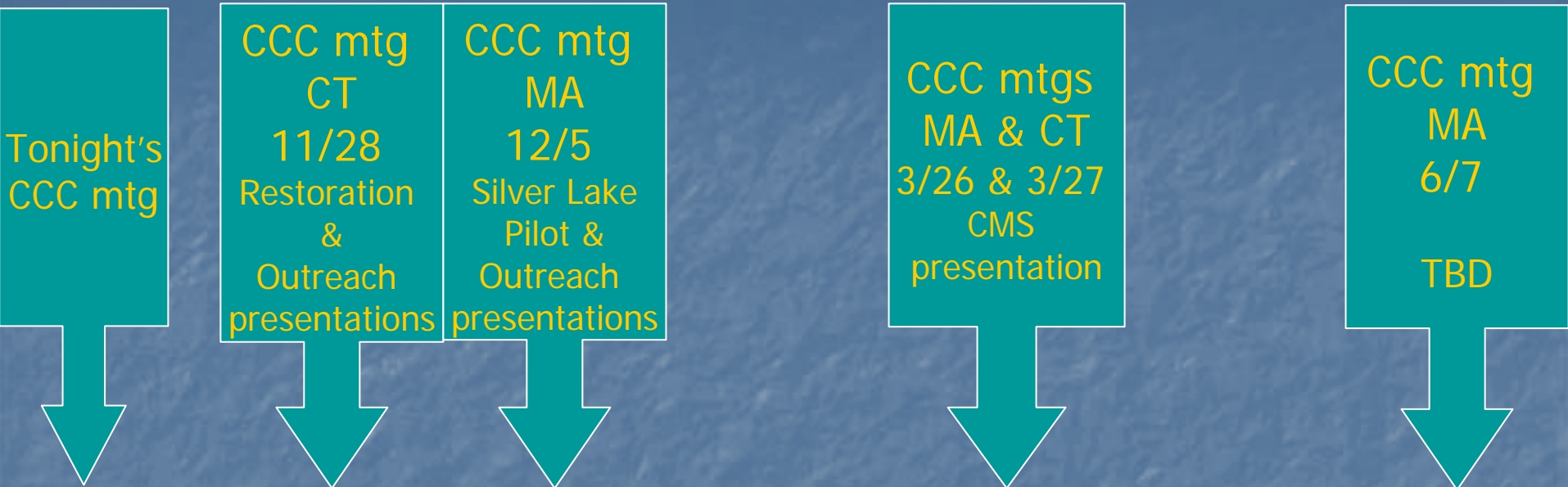
Outreach Materials

- A presentation of the CMS structure and decision-making process, including:
 - Outline of CMS
 - EPA decision-making process (including the evaluation criteria)
 - Opportunities for Public Comment
- Fact sheet about the CMS and decision-making process for general distribution

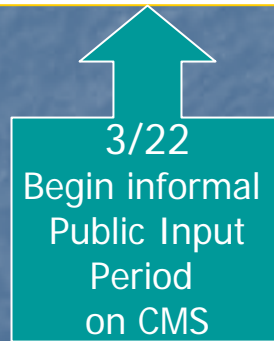
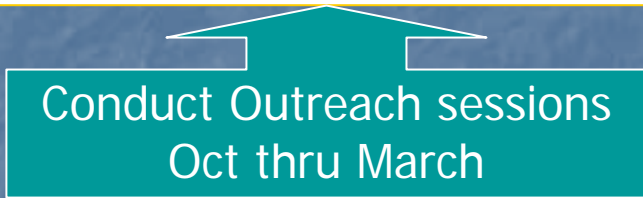
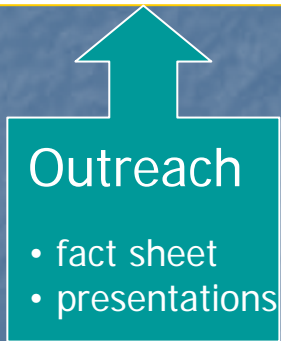
Outreach Logistics

- EPA will contact town officials, community organizations, and interest groups to schedule meetings
- Meetings will be advertised to the general public via press releases and e-mail distribution

2007-2008 Rest of River Outreach Plan/CCC mtgs



2007 Sept Oct Nov 2008 Dec Jan Feb March April May June



A large white arrow with a yellow outline pointing to the right, containing two bullet points.

- GE/EPA continue work on remaining cleanup actions Outside the River
- Public participation continues



Culvert location

Flow

Discharge to River

Image MassGIS, Commonwealth of Massachusetts EOE
© 2007 Europa Technologies

©2007 Google™

73°12'21.41" W elev 988 ft

Streaming 100%

Eye alt 7449 ft