

Oak Ridge Reservation Invasive Plant Treatment Update



March 18, 2010

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Oak Ridge National Laboratory

All 33,000 acres of the ORR

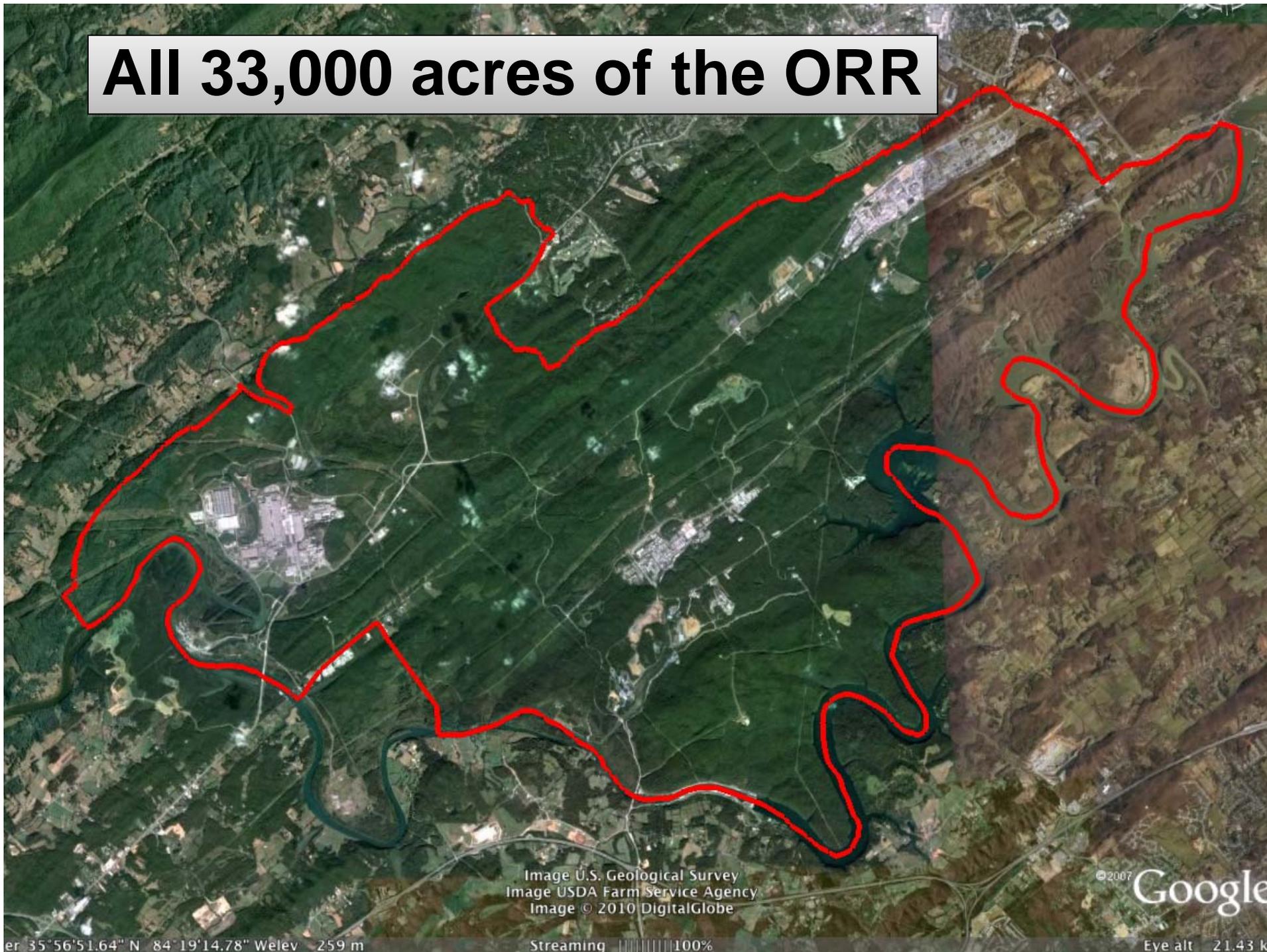


Image U.S. Geological Survey
Image USDA Farm Service Agency
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er 35°56'51.64" N 84°19'14.78" Welev 259 m

Streaming 100%

Eye alt 21.43 k

ORR Invasive Plant Management Plan

- ↗ **Surveys and Monitoring**
- ↗ **Targeting Strategy** (species, dispersal corridor, area)
- ↗ **Prioritization**
- ↗ **Control** (by ORNL, contractors)
 - 98 acres treated in '03
 - 136 acres treated in '04
 - 125 acres treated in '05
 - 240 acres treated in '06
 - 236 acres treated in '07
 - 305 acres treated in '08
 - 526 acres treated in '09
- ↗ **Restoration / Maintenance** - as necessary

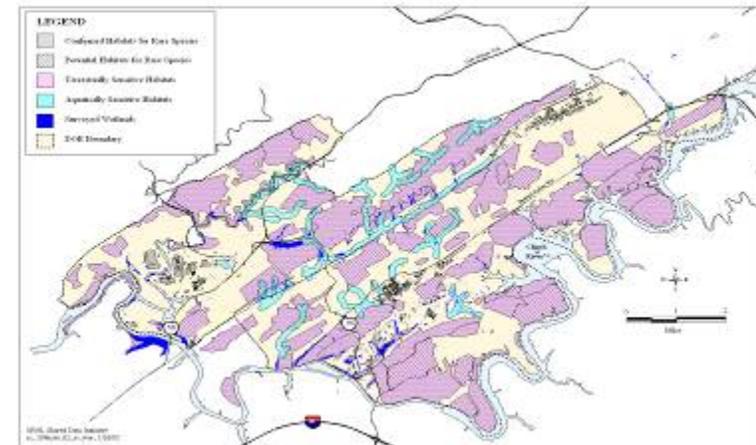
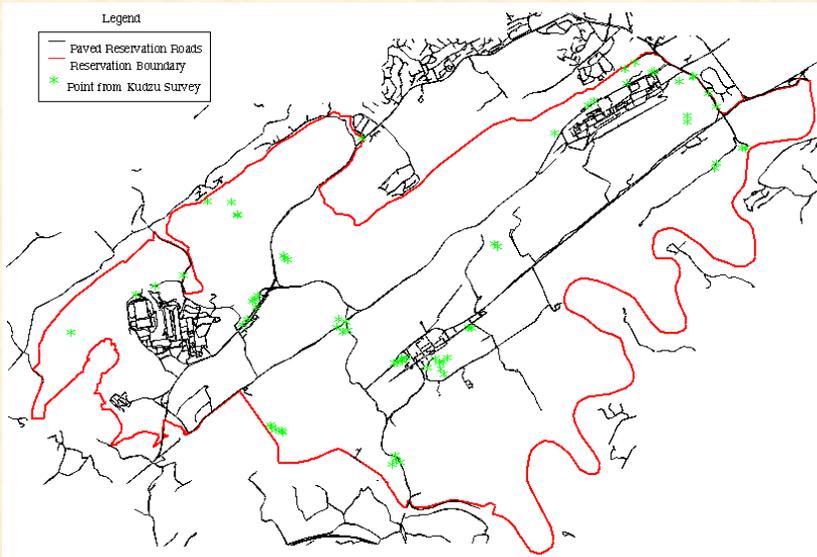
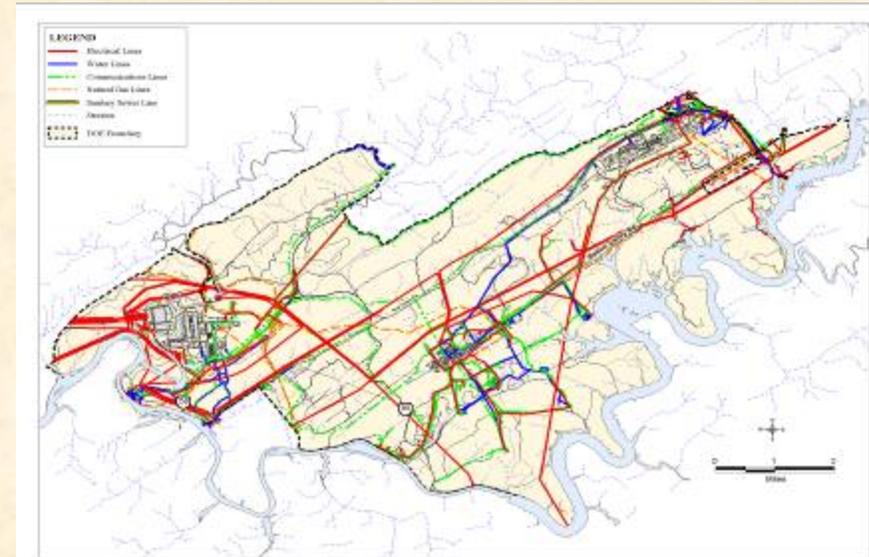


Fig. 2.9. Research park confirmed and potential habitats for rare species.

Treatments '03 – '09

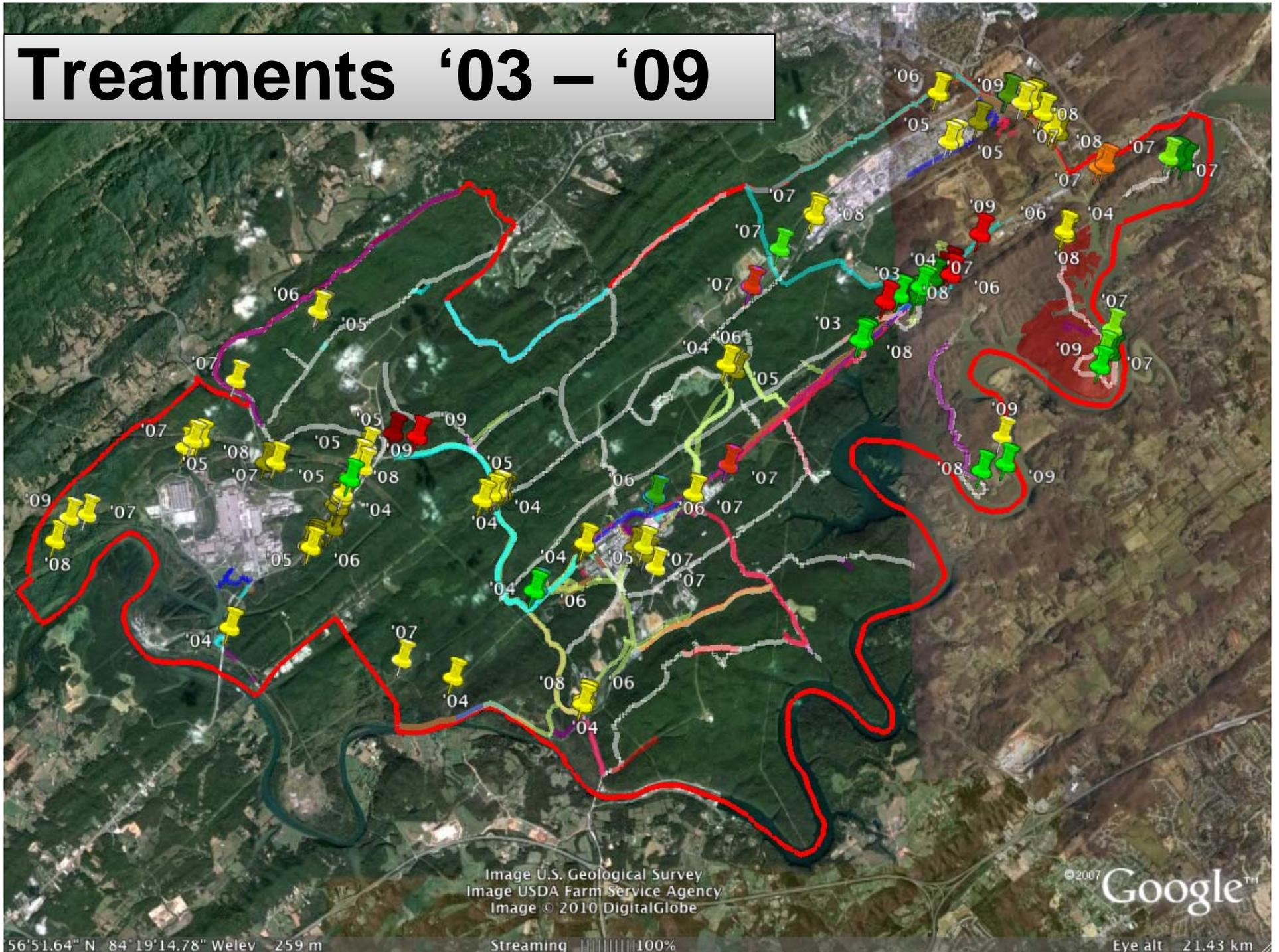


Image U.S. Geological Survey
Image USDA Farm Service Agency
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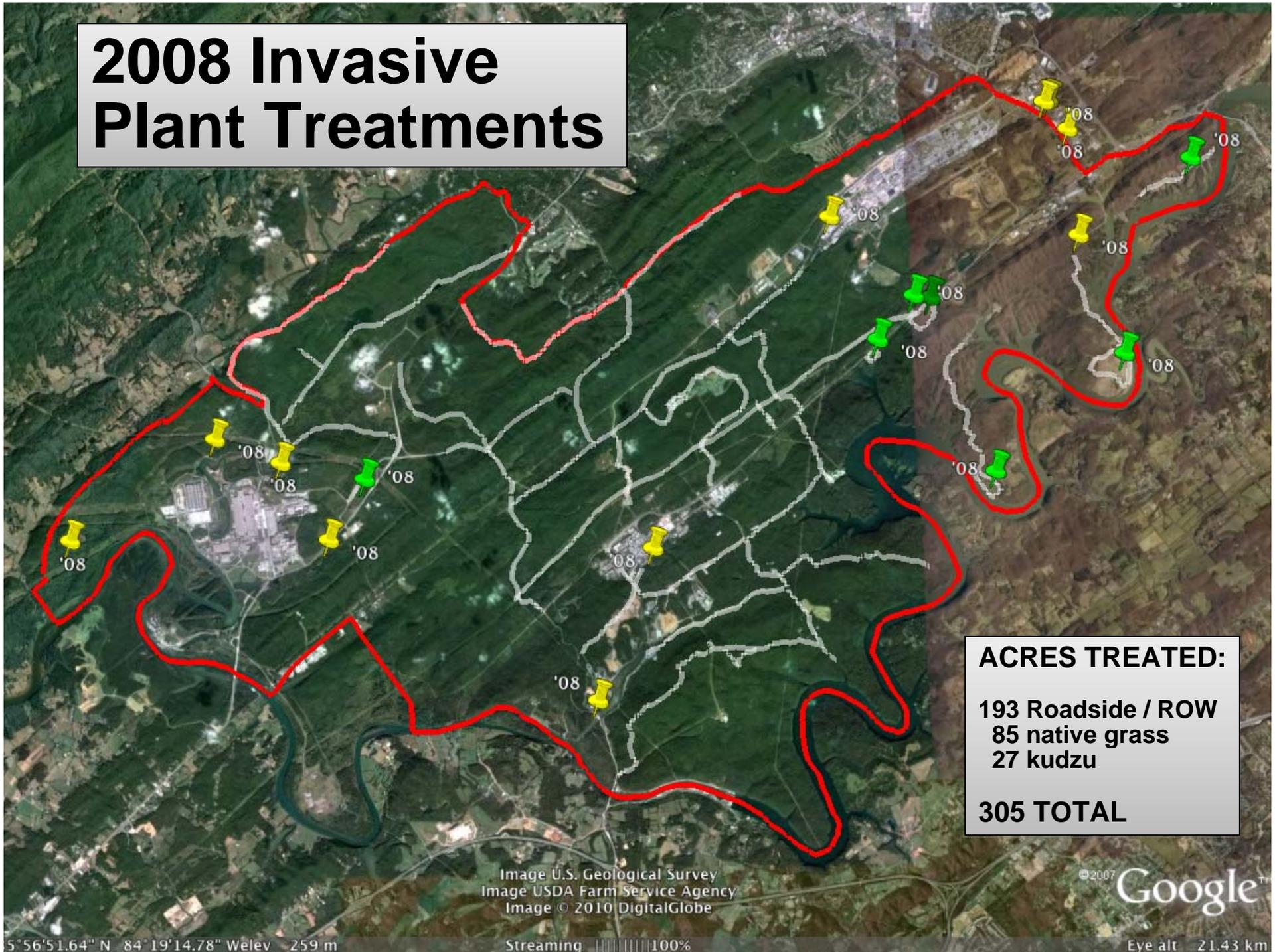
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56°51.64' N 84°19'14.78' W elev 259 m

Streaming 100%

Eye alt 21.43 km

2008 Invasive Plant Treatments



ACRES TREATED:
193 Roadside / ROW
85 native grass
27 kudzu
305 TOTAL

Image U.S. Geological Survey
Image USDA Farm Service Agency
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5°56'51.64" N 84°19'14.78" W elev 259 m

Streaming 100%

Eye alt 21.43 km

Targeted spraying from vehicle



Spray is directed to foliage of the target species only



Results of spraying



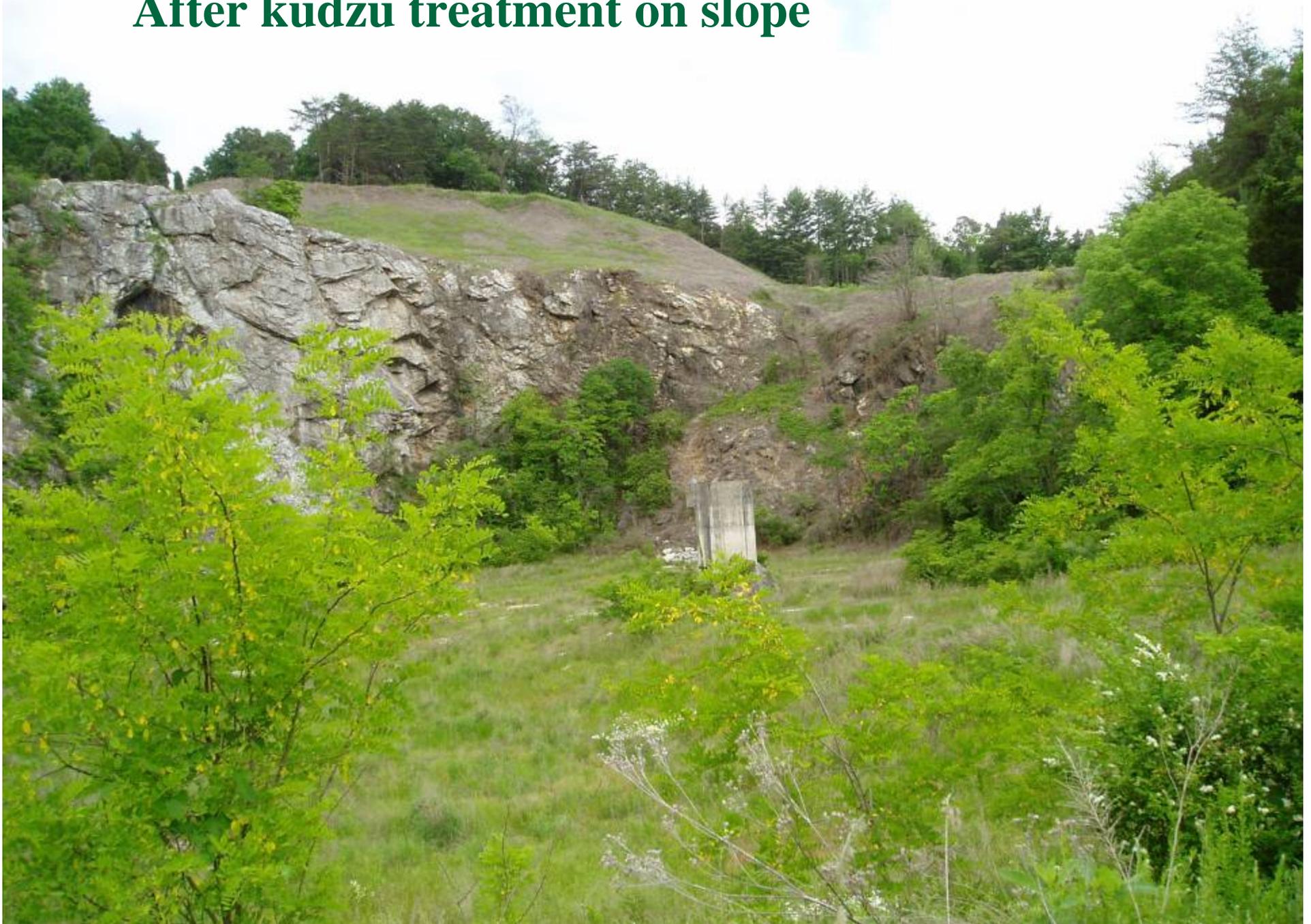
**Tree of
Heaven
Penetrates
Y-12
Boundary**



**Kudzu removal on
McKinney Ridge to
protect nearby
hemlock trees
(photos after partial
treatment)**



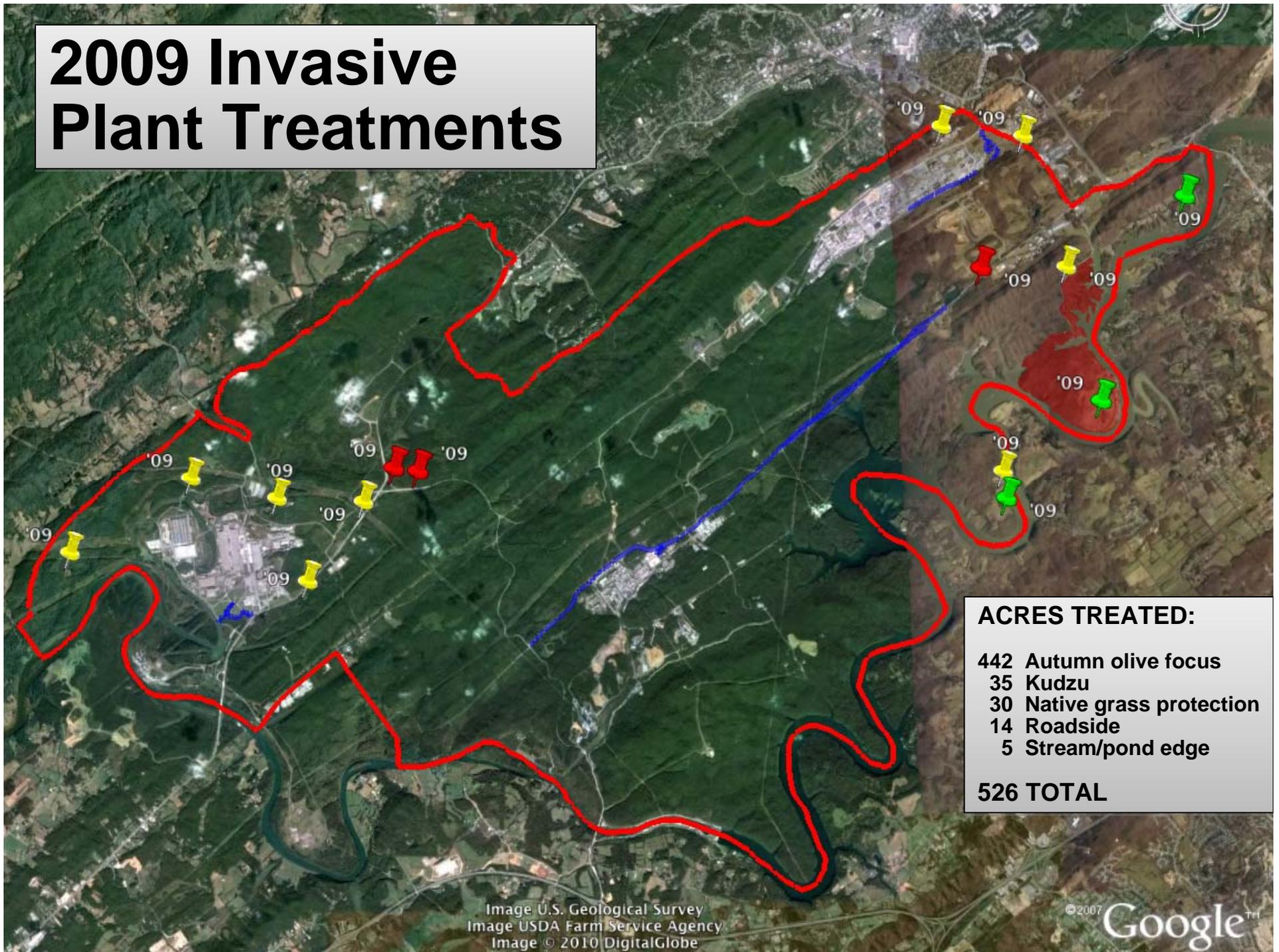
After kudzu treatment on slope



After kudzu treatment on slope



2009 Invasive Plant Treatments



An invasion is underway by autumn olive, a species alien to the local ecosystem.



Autumn olive has been a persistent problem, requiring a combination of mechanical and herbicide control techniques.



FREELS BEND on OAK RIDGE RESERVATION
Oak Ridge, TN
at vicinity of
Bull Bluff Road
off
Scarboro Road
5/27/2009



TARGETS:
Ailanthus altissima
Autumn olive
Bush honeysuckle
Mimosa
Multiflora rose
Princess tree
Privet
Thorny olive

Acreage
listed
in each
parcel



442 acres spot treated to control:

Tree of heaven

Autumn olive (top picture below)

Bush honeysuckle (bottom picture below)

Mimosa

Multiflora rose

Princess tree

Privet

Thorny olive



Late season results of treatments at Freels Bend for control of those eight species.



Limestone bluffs are an important, but uncommon ecosystem on the ORR



Gallaher Bend kudzu control initiative (2009)



Winter view



Summer view



A perimeter is established to slow its spread...





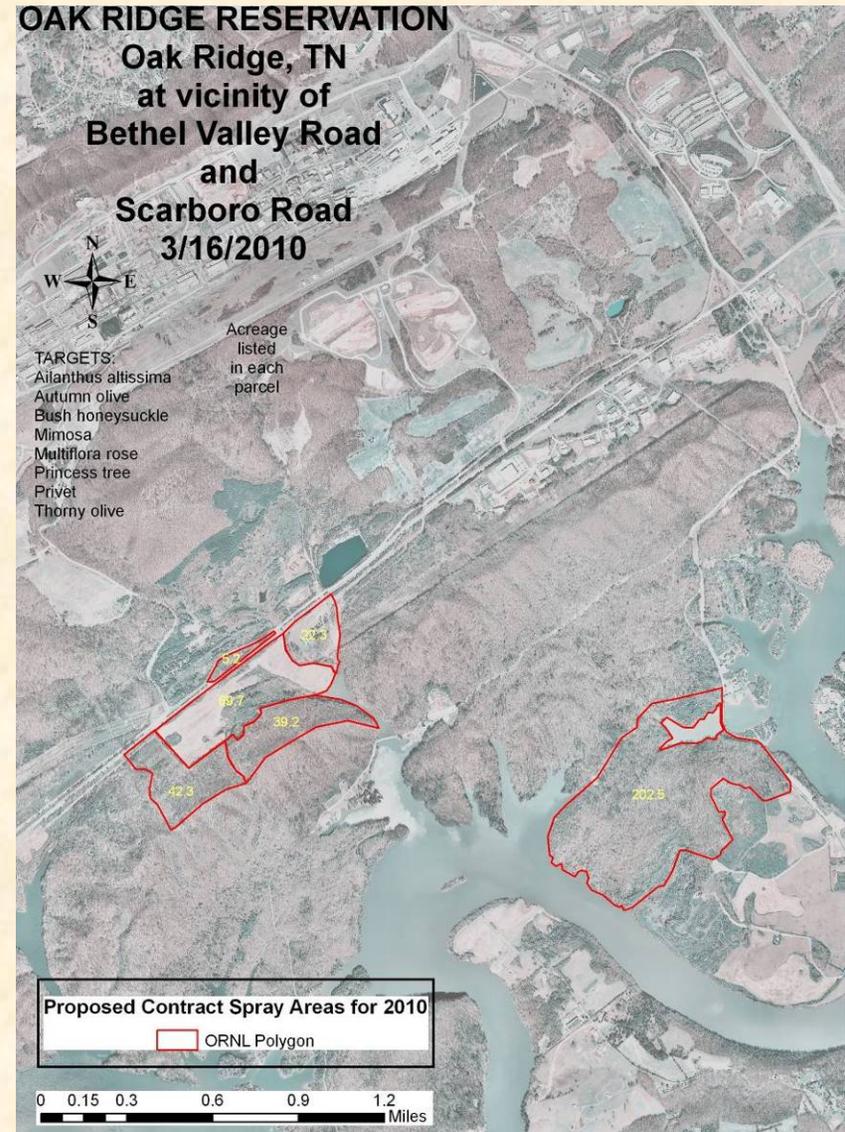
Results of treatment of perimeter



The remainder awaits treatment in 2010.



Additional parcels are to be treated



Targets for treatment in 2010

Green circle – untreated kudzu
Red circle – follow-up kudzu
Yellow square – specific target

