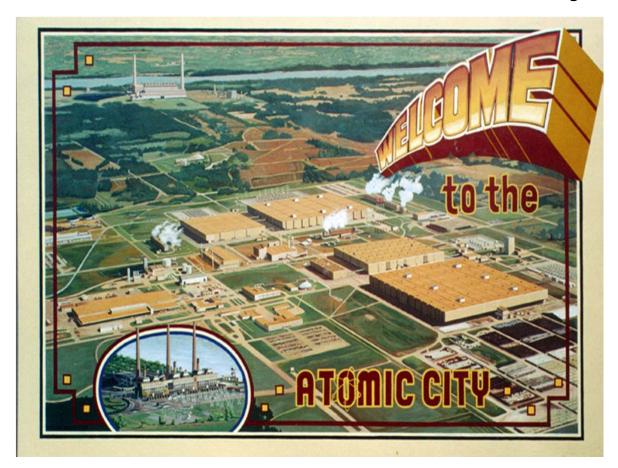
# PGDP Future Vision Project









www.paducahvision.com

### Why We Are Here

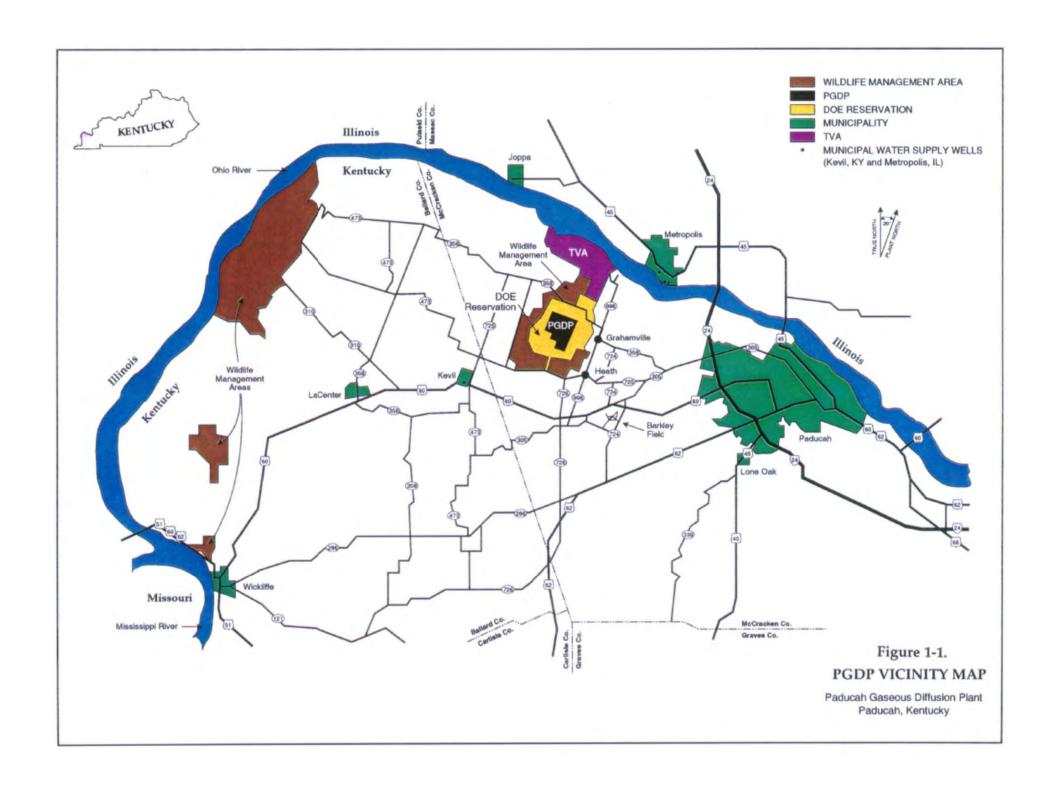
- Future PGDP Plant Closing Anticipated
  - Loss of existing jobs
  - Cleanup questions
- Entire Region Affected
- Many Possible Future Uses for Site
- Our Job: Gather Your Preferences for a Future Vision
- Our Method: Show and Discuss a Wide Range of Hypothetical Futures and Then Solicit Your Rating for Each One
- Compile your Preferences in a report for the community and DOE

## Origin and Use of the Scenarios

- The land uses and cleanup options contained in these scenarios arose from conversations with people from across the community, with very different histories and relationships with the plant. They represent a very broad range of possible outcomes, and so each may be strongly favored by some and strongly opposed by others.
- Thank you for taking the time to help us with this important work.

### What We Will Do Tonight

- Discuss land uses and cleanup options
- Show and discuss twelve hypothetical scenarios
- When you are ready, you will rate them with keypads
- Discuss your ratings
- You tell us how we did tonight
- You get to go home! (or stay and talk)
- Time goal: 2 hours or less
- Bonus Round! Talk about specific land uses in more detail and have you rate those



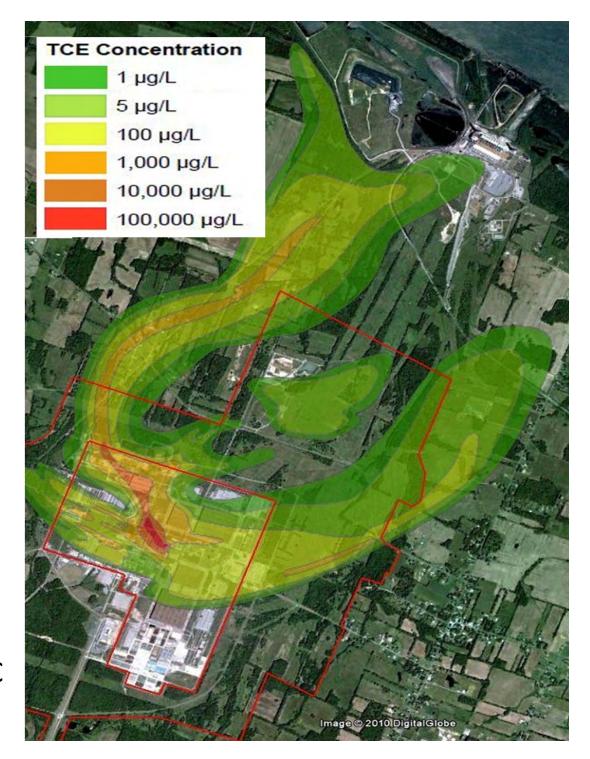


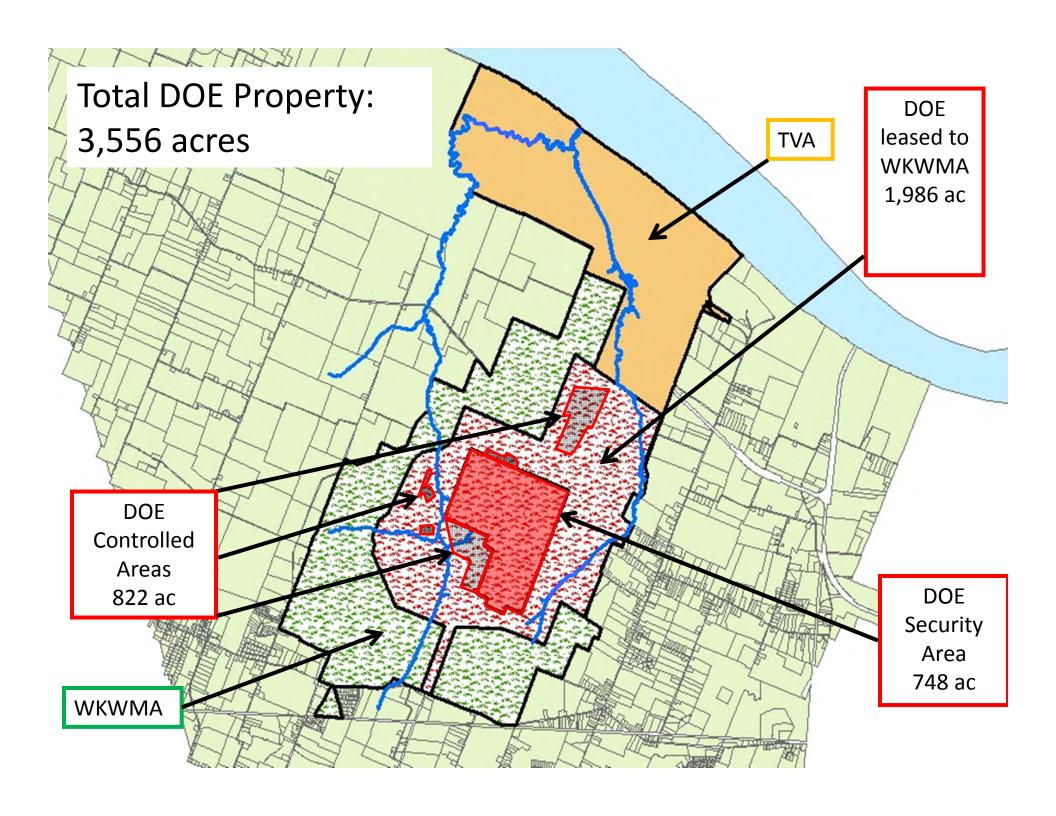
### **Environmental Impacts**

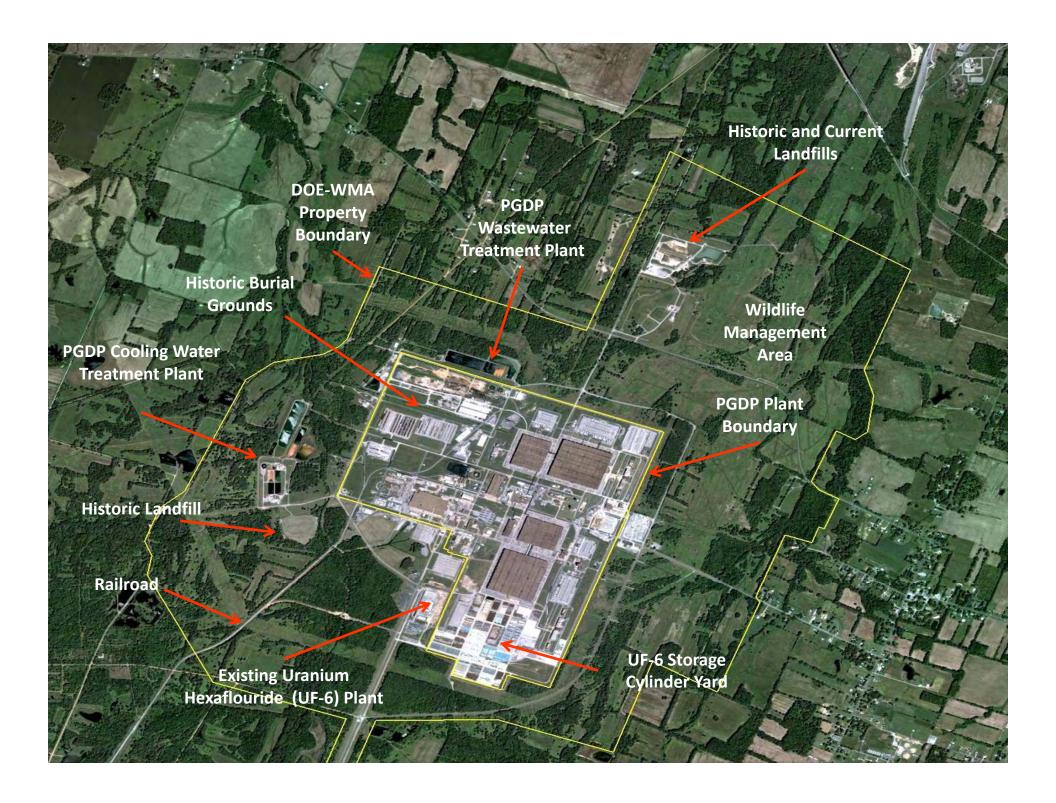
- Groundwater Plumes
  - TCE
  - Tc99
- Burial Grounds
- Contaminated Soils and Sediments
  - Radioactive Metals
  - Heavy Metals
  - PCBs

### **Environmental Cleanup**

- Controlled by federal laws (e .g. CERCLA, RCRA)
- Managed by DOE
- Oversight by USEPA, KYEEC and KYCFHS







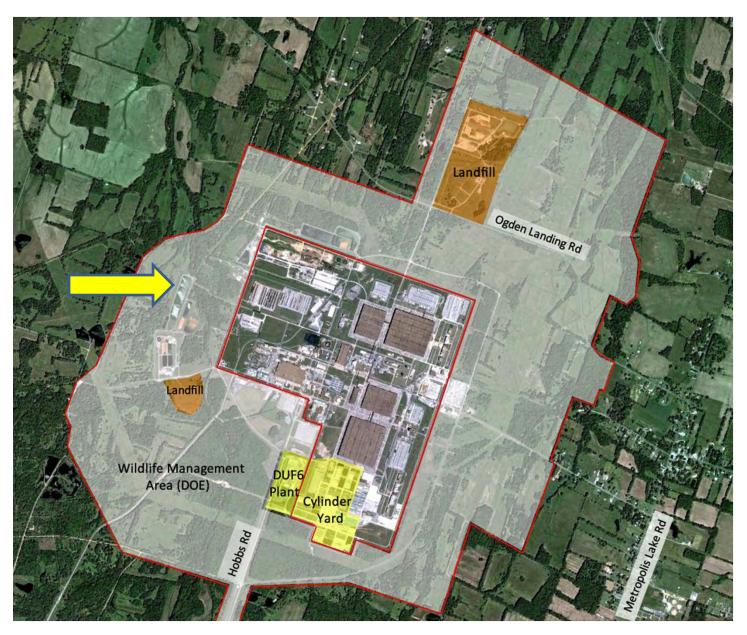
# Breakdown of Scenarios Options

- 1. Land Uses for the Actual PGDP Plant Site:
  - 750 acres
- 2. Land Uses for the PGDP property currently part of the surrounding Wildlife Management Area
  - 2,000 acres
- 3. Disposal Options for the "Burial Grounds"
- 4. Disposal Options for the Plant Decommissioning Wastes
- 5. Disposal Options utilizing existing landfills



# PGDP Plant Site Land Use Options

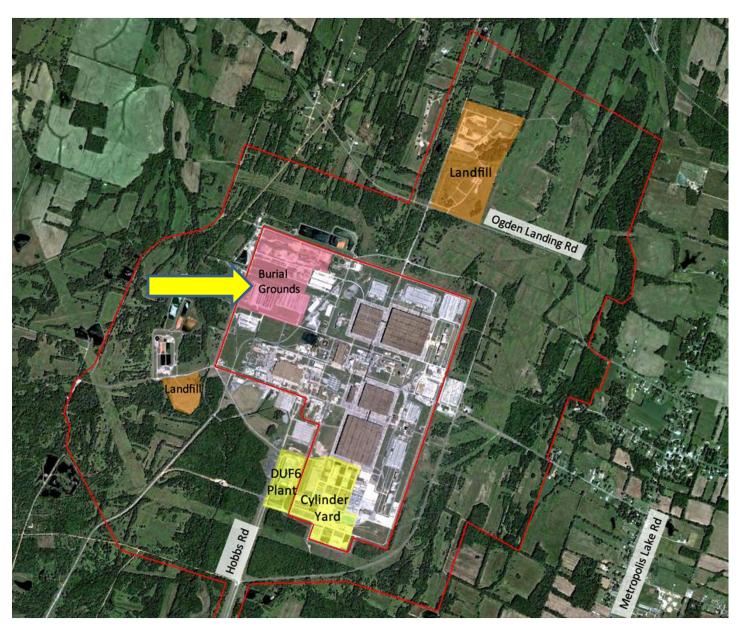
- 1. Nuclear Industry (eg. Power, Recycling)
- 2. Heavy Industry (eg. Steel, Auto, Coal Gas/Liquid Plant)
- 3. Light Industry (eg. Distribution Center, Data Server Farm)
- 4. Passive Recreation (State Park)
- 5. Expanded Wildlife Management Area
- 6. Permanent Site Closure



PGDP Wildlife Management Area Land Use Options

1. Structured
Recreation
(Fairgrounds, Soccer
Fields)

2. Expanded Wildlife Management Area

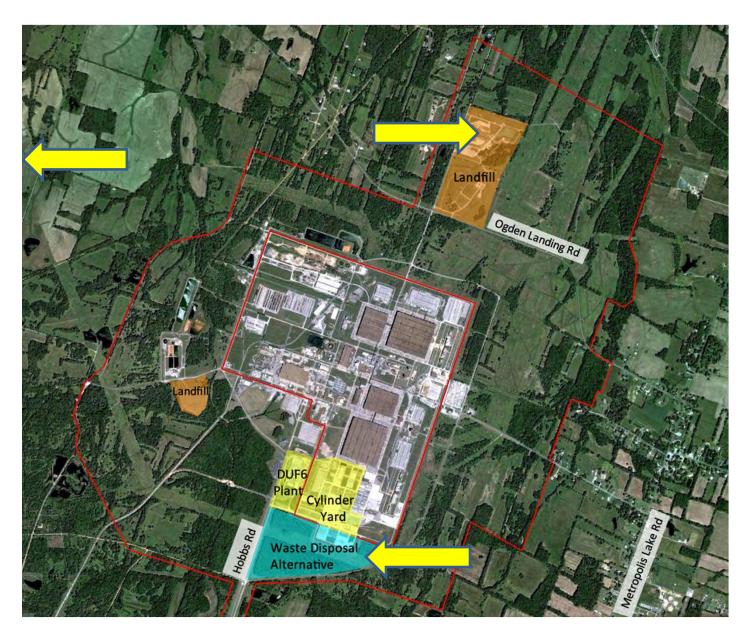


### **Burial Grounds Options**

- 1. Excavate Part
- 2. Excavate All

#### **Burial Ground Contents**

- 1. Uranium
- 2. TCE
- 3. Tc-99
- 4. Contaminated metals
- 5. Demolition debris
- 6. Heavy metals
- 7. Asbestos
- 8. Arsenic
- 9. Trash
- **10.** Oils
- 11. etc.



Plant
Decommissioning
Waste Disposal
Options

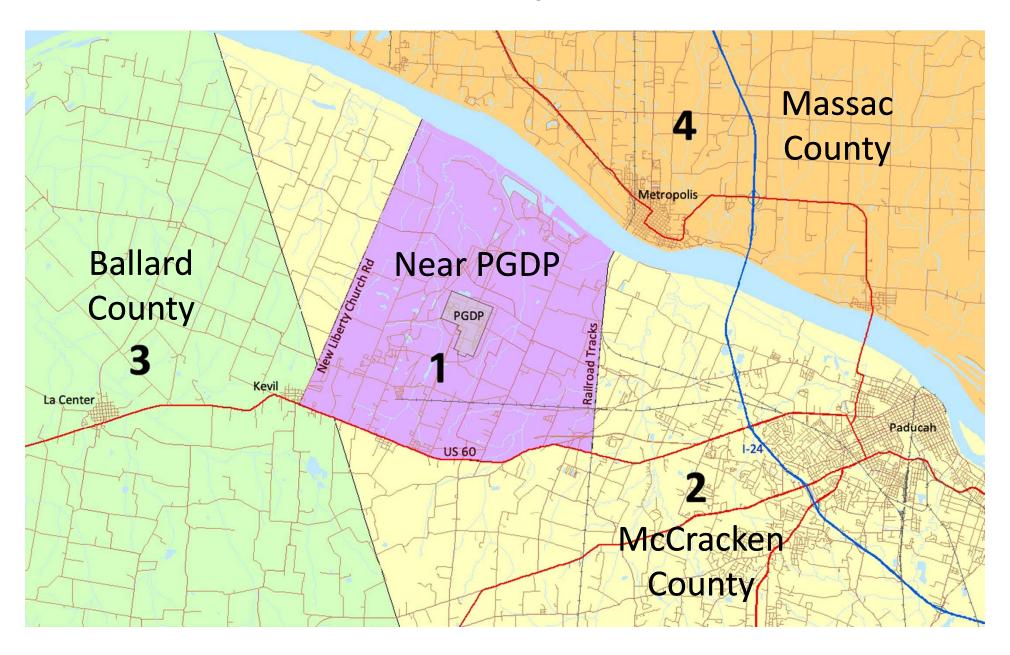
- 1. All Plant
  Decommissioning
  Waste Removed from
  Site
- 2. Part of Plant
  Decommissioning
  Waste kept onsite in
  WDA and part placed
  in DOE managed
  Landfill
- 3. All Plant
  Decommissioning
  Waste kept onsite in
  WDA



# RF Keypad System

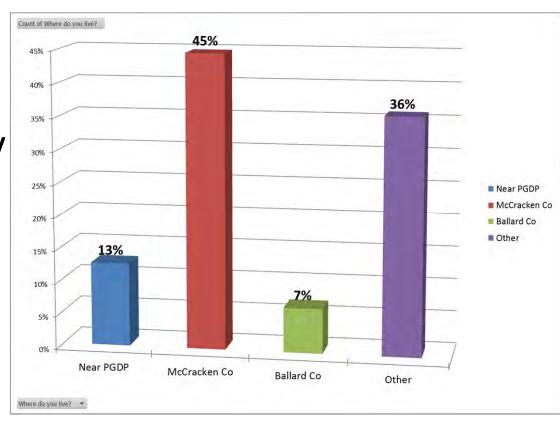


# Where do you live?



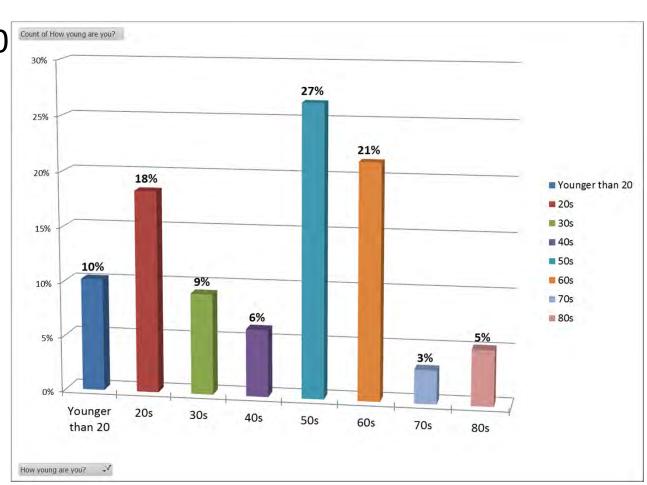
# Where do you live?

- 1. Near PGDP
- 2. McCracken County
- 3. Ballard County
- 4. Massac County
- 5. Other



# How young are you?

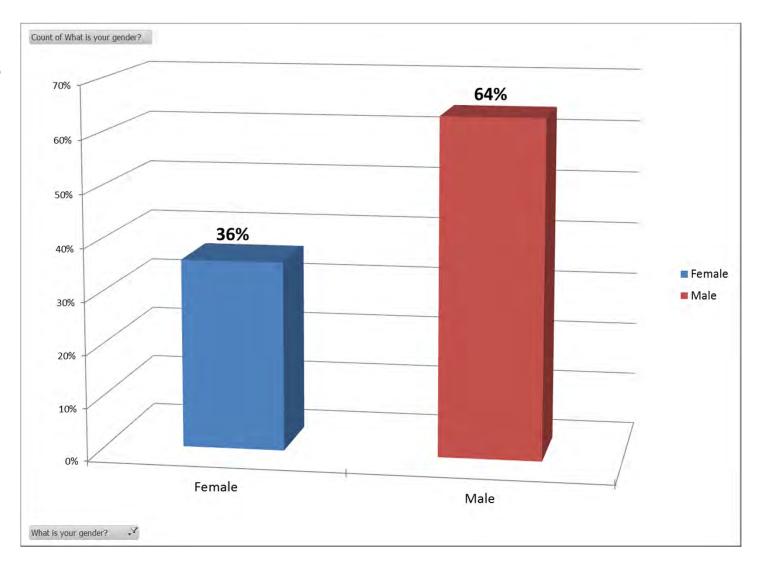
- 1. Younger than 20
- 2. 20 29
- 3. 30 39
- 4. 40 49
- 5. 50 59
- 6. 60 69
- 7. 70 79
- 8. 80 89
- 9. 90 or older



Mean = 43

# What is your gender?

- 1. Female
- 2. Male





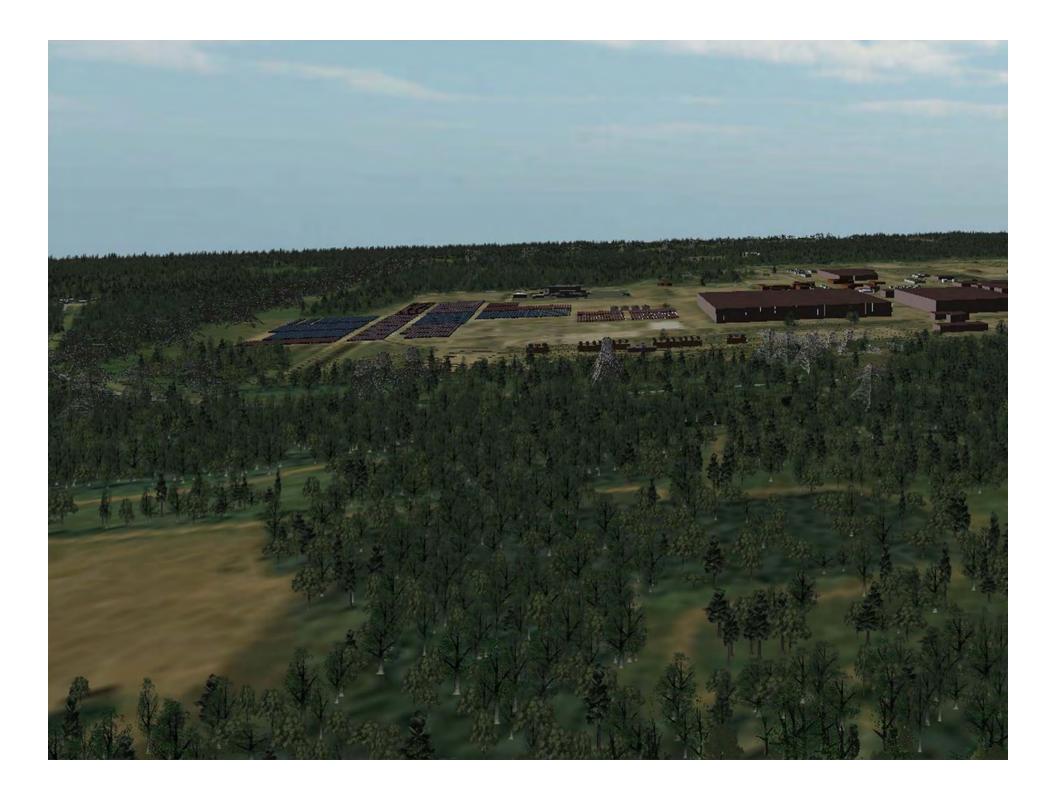
#### **PGDP Views**

- 1. Panorama from Metropolis Lake Road
- 2. Plant site from southern boundary
- 3. Over Hobbs Road from south
- 4. From northwest overlooking burial grounds



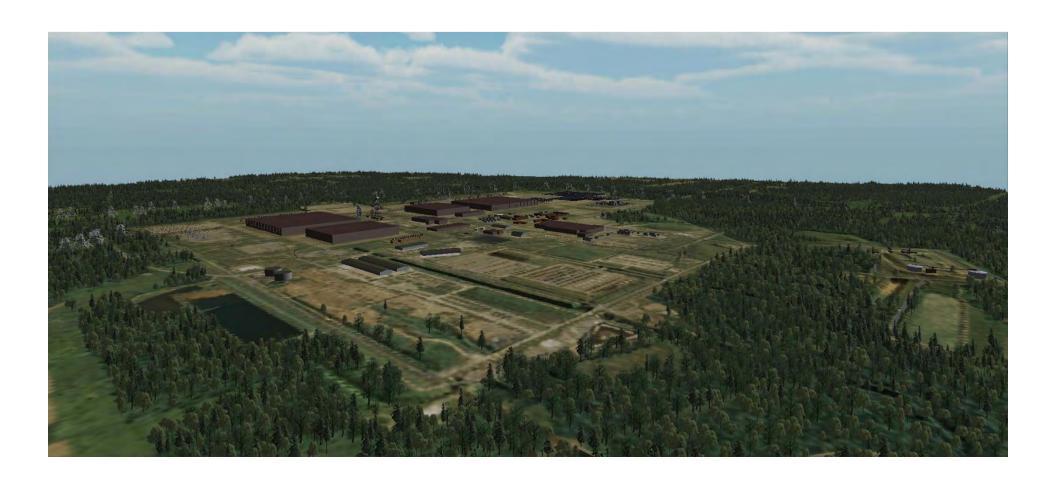
### **Current:**

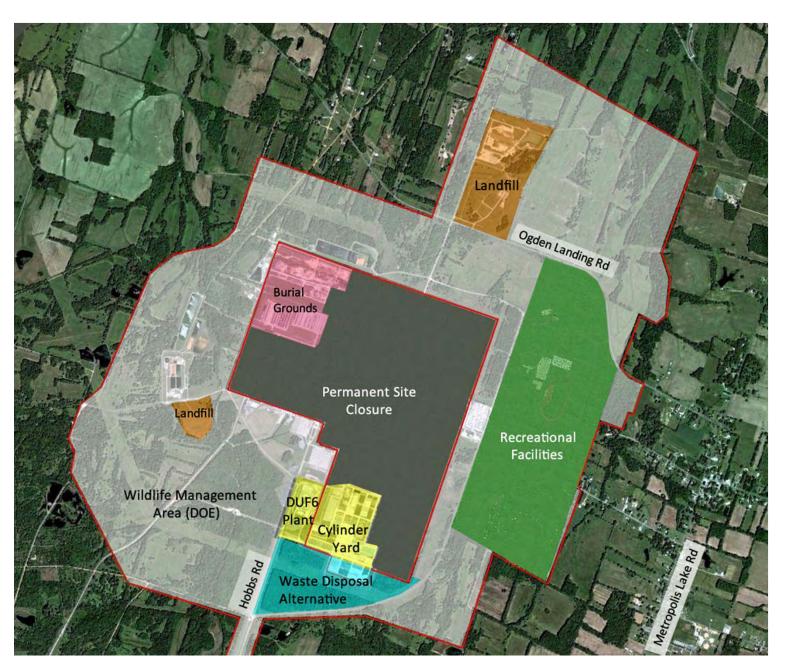
- \*DUF6 Flouride Extraction Plant
- \*Cylinder Yard
- \*Plant Site surrounded by WMA
- \*Burial Ground Area site of older buried waste of many kinds
- \*Designed Landfills site of newer buried wastes









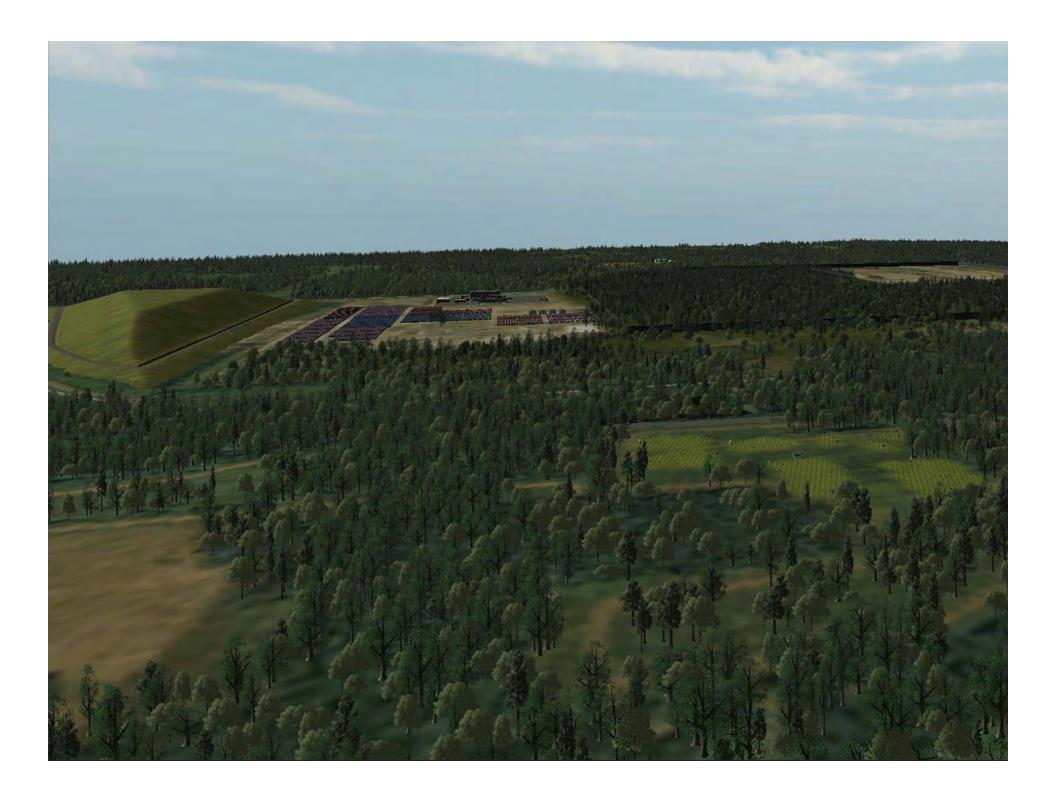


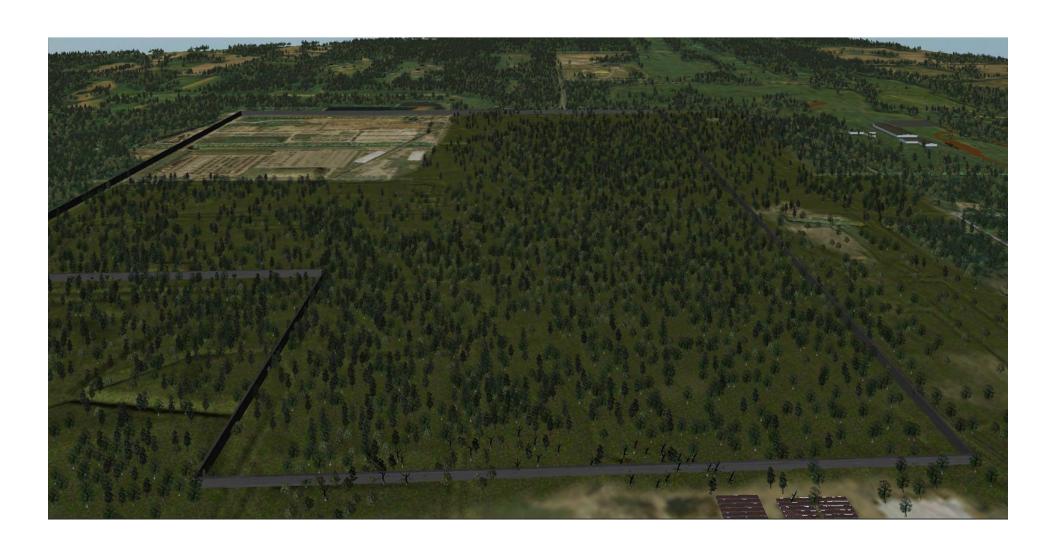
#### **Scenario 12**

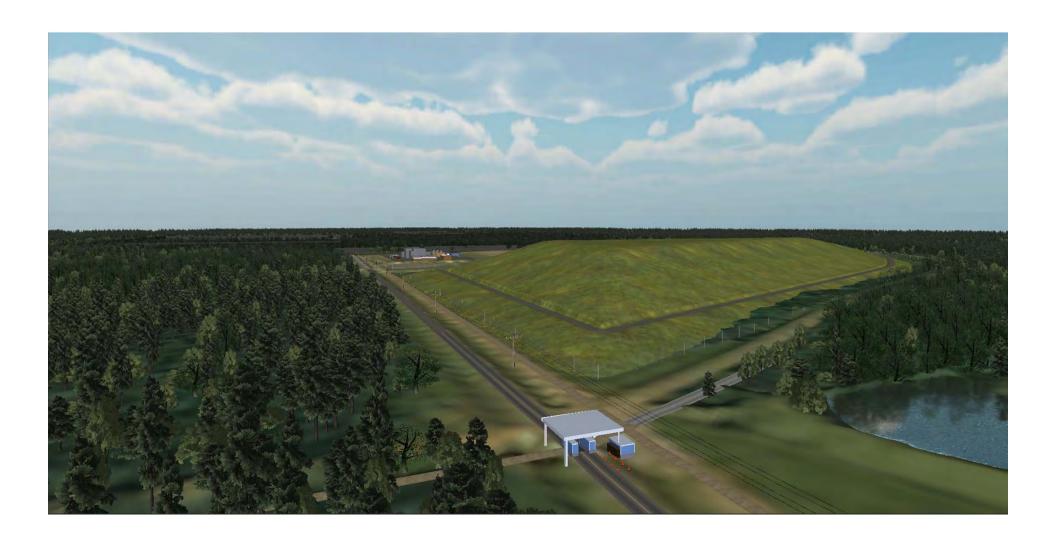
- \*Plant Site sealed, fenced, access restricted
- \* Active Recreational Facilities added to PGDP WMA

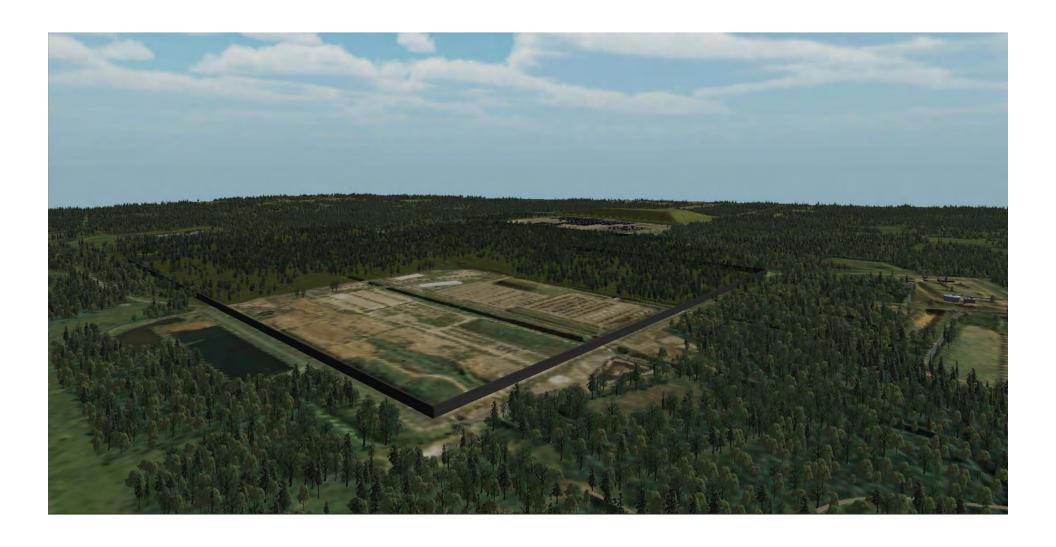
NOTE: Rec facilities shown in the same location for consistency. Actual location can vary!

- \* All Plant Decommissioning Waste kept onsite in WDA
- \* Some existing Burial Grounds sealed and left in place, the rest put in WDA.





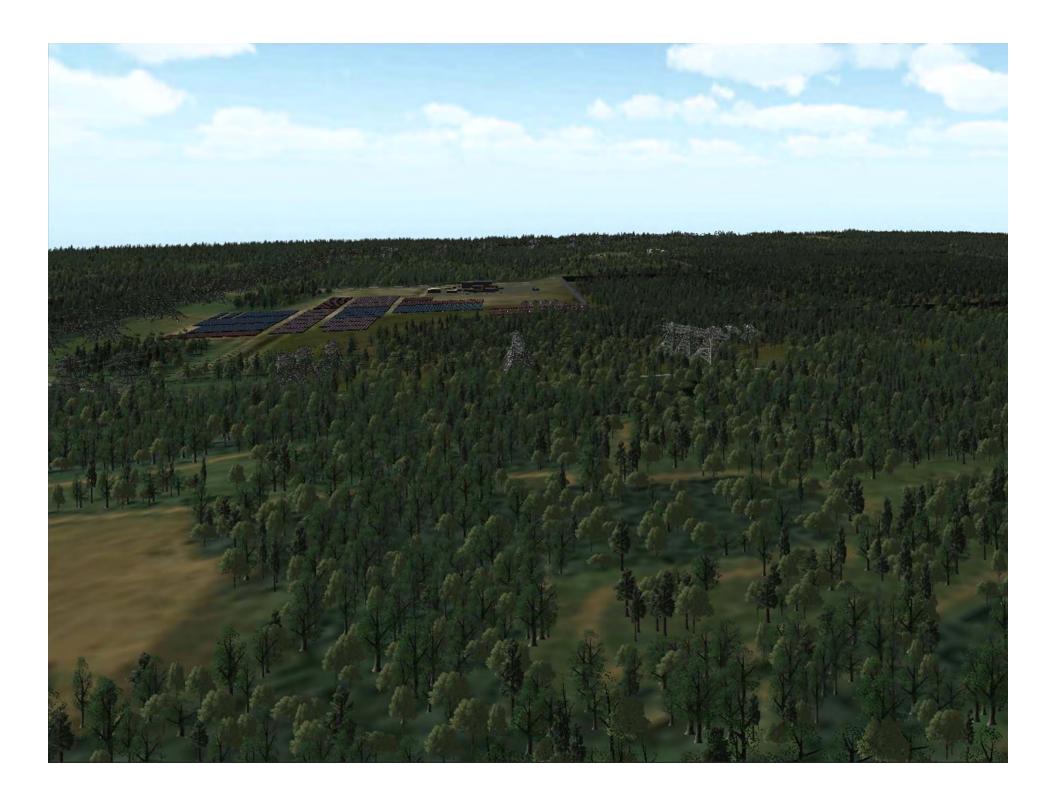




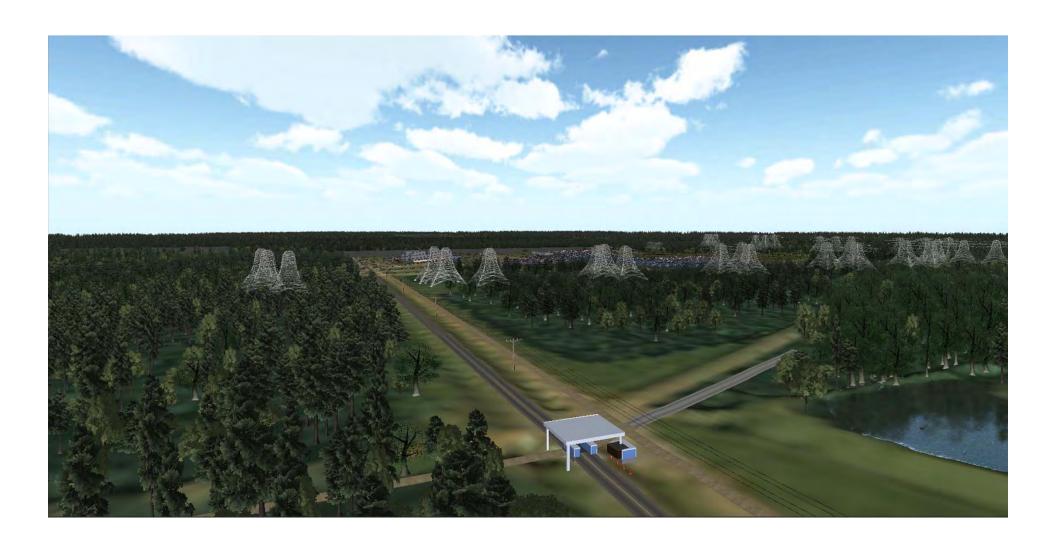


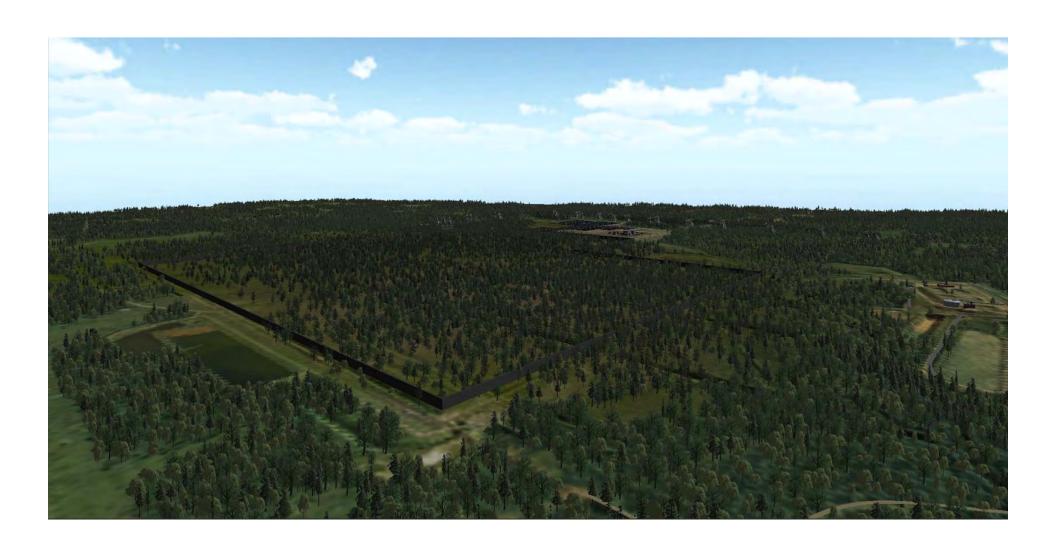
### **Scenario 11**

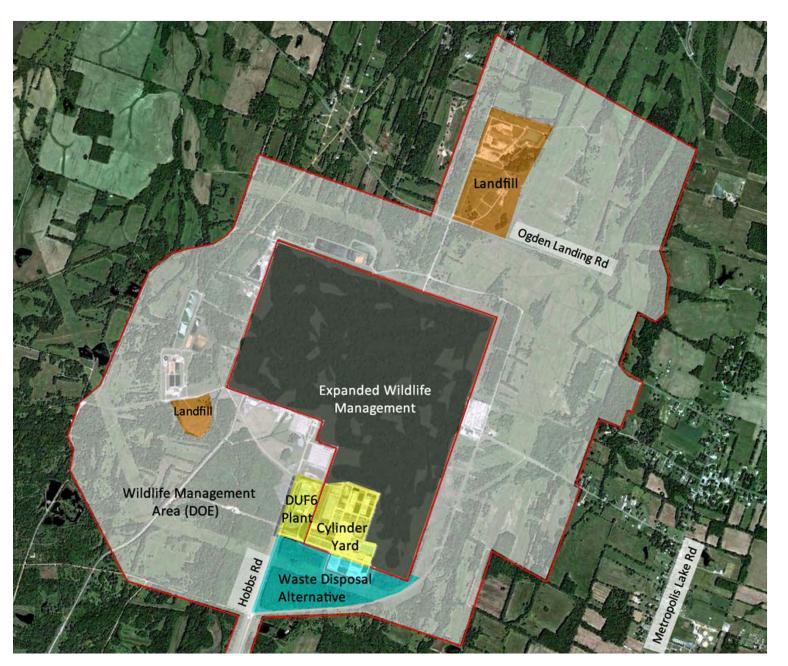
- \*Plant Site sealed, fenced, access restricted
- \* PGDP WMA Remains
- \* All Plant Decommissioning Waste Removed from Site.
- \* All existing Burial Grounds excavated and shipped off-site.



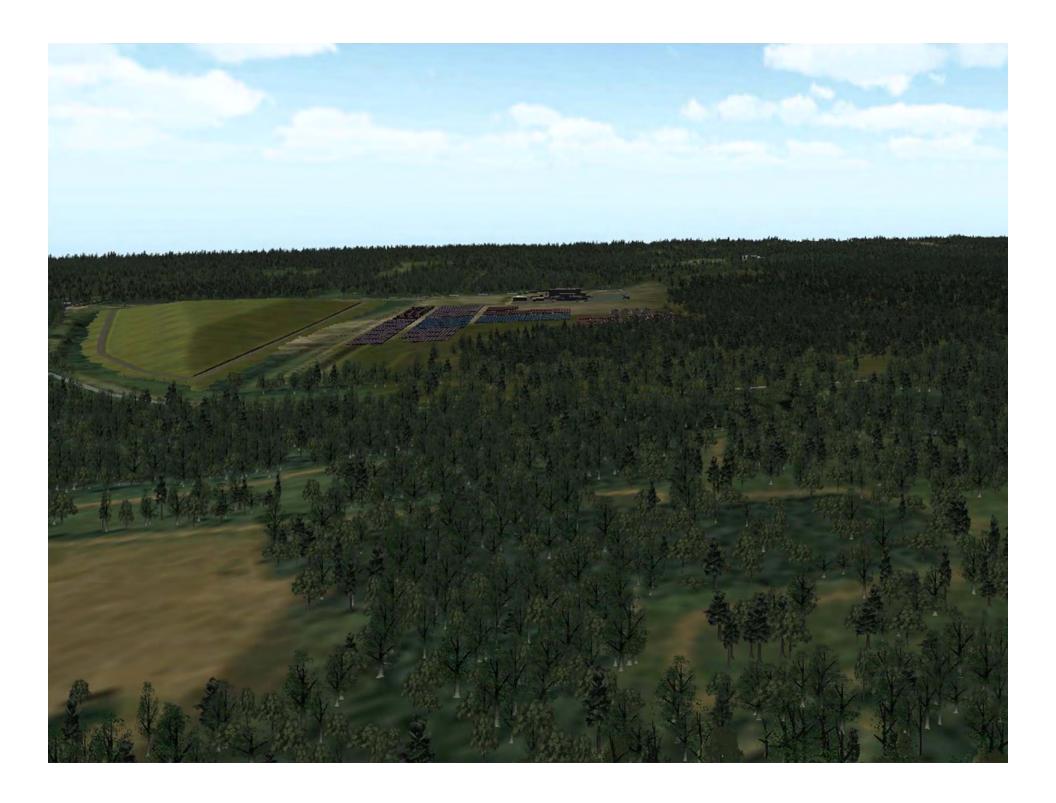




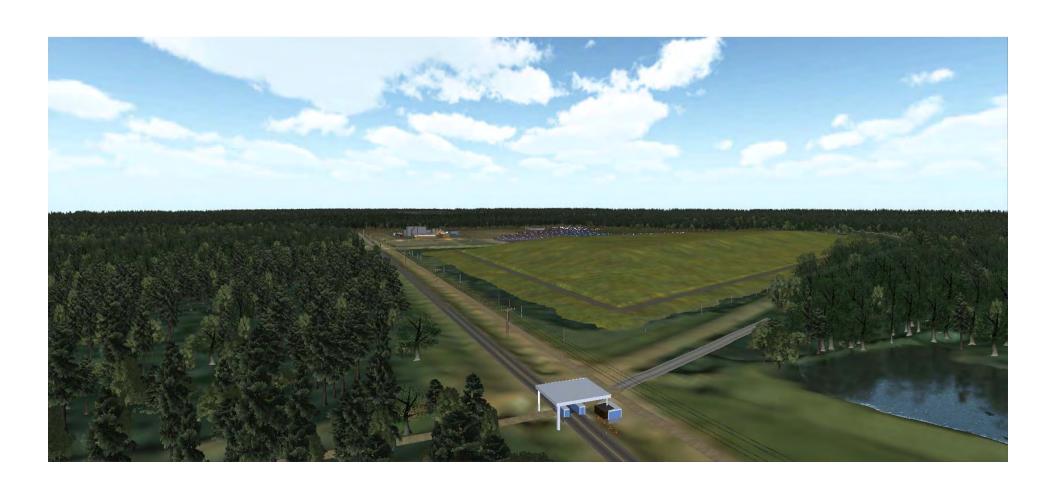


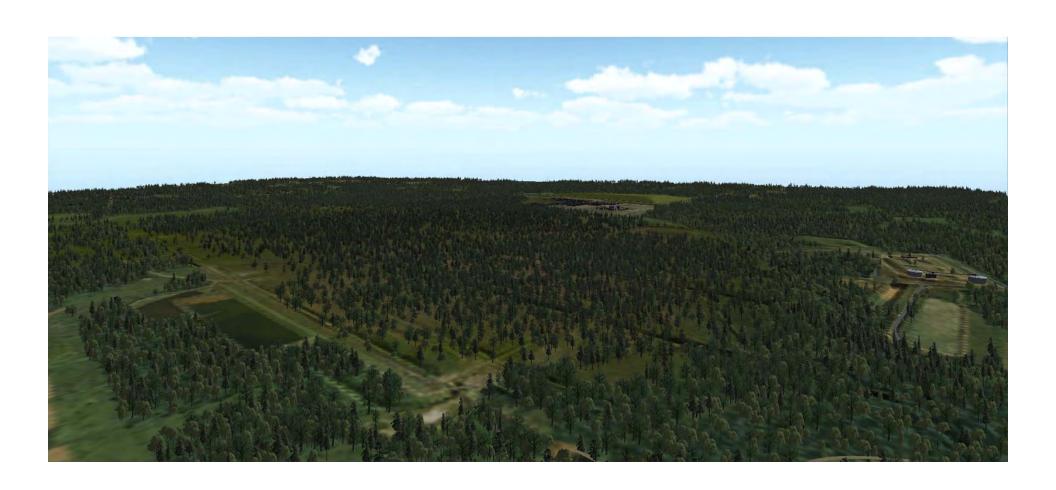


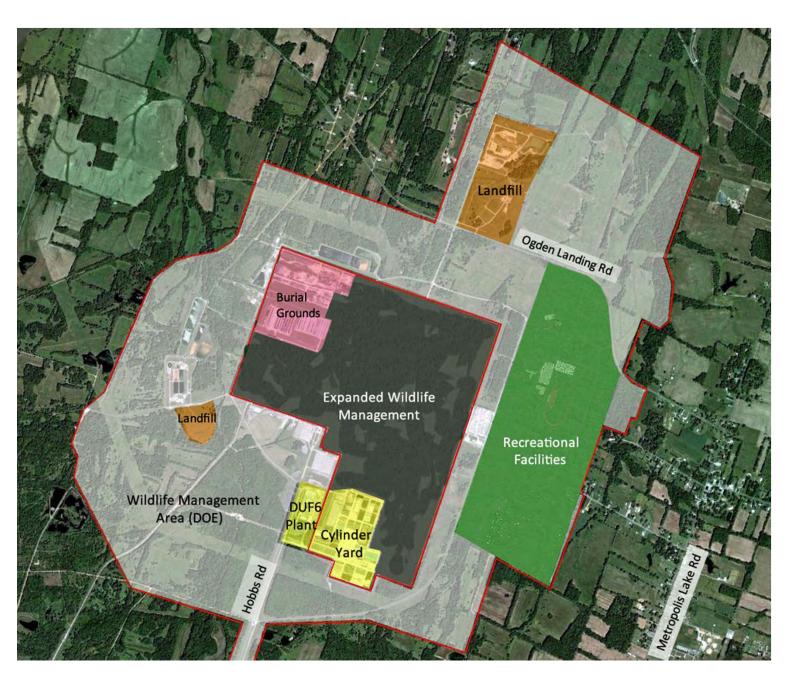
- \*Expanded
  Wildlife
  Management on
  Plant Site
- \* PGDP WMA Remains
- \* Part of Plant Decommissioning Waste kept onsite in WDA and part placed in DOE managed landfill
- \* All existing
  Burial Grounds
  excavated some placed in
  WDA and the rest
  shipped off-site.



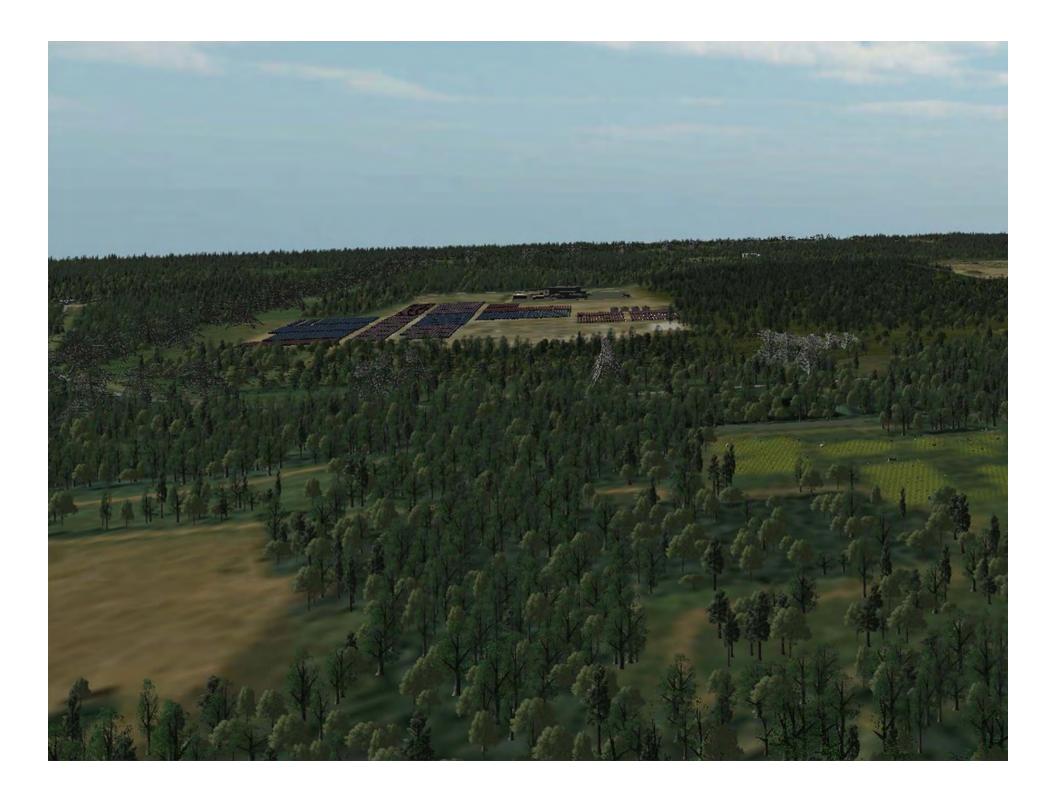




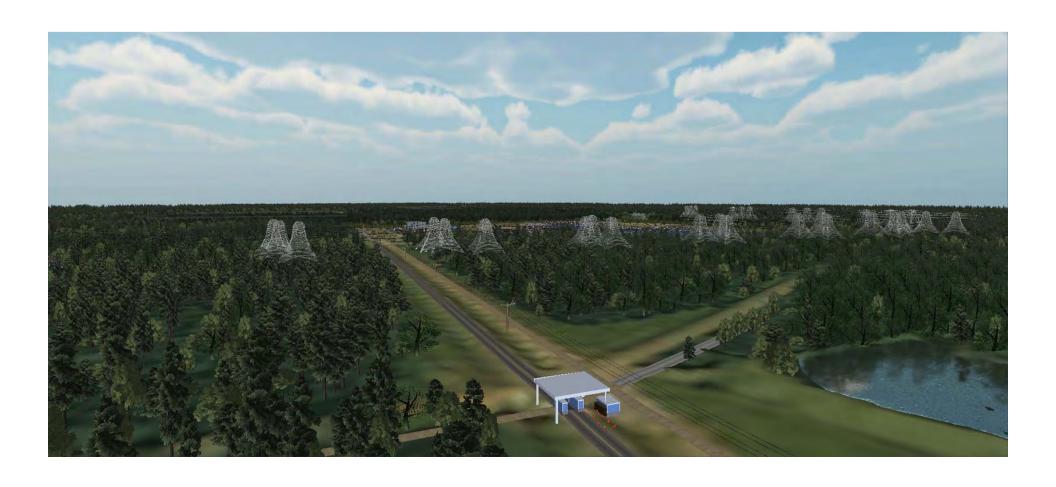


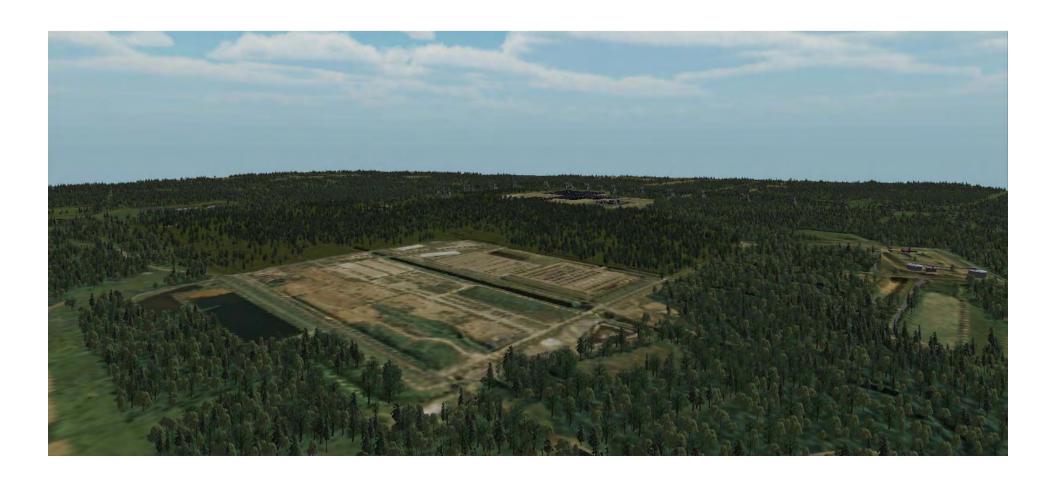


- \*Expanded
  Wildlife
  Management on
  Plant Site
- \* Recreational Facilities added to PGDP WMA
- \* All Plant
  Decommissioning
  Waste Removed
  from Site.
- \* Some existing Burial Grounds sealed and left in place, the rest excavated and shipped off-site.









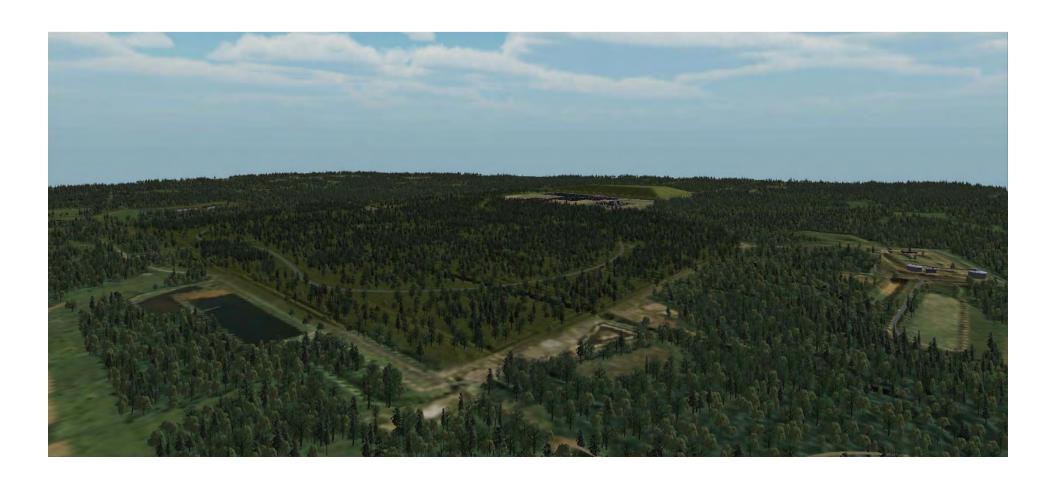


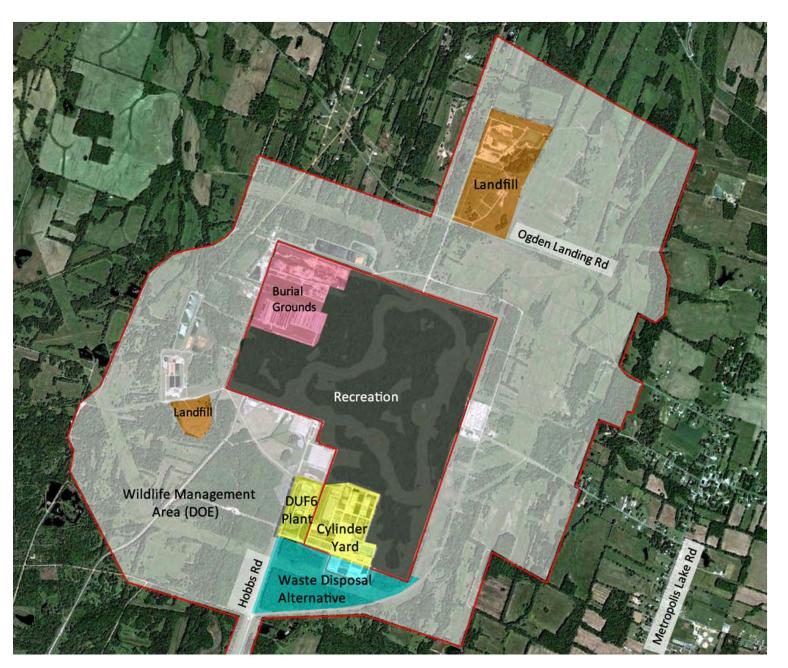
- \* Passive Recreational Facilities on Plant Site
- \* Active Recreational Facilities added to PGDP WMA
- \* All Plant
  Decommissioning
  Waste kept
  onsite in WDA
- \* All Existing
  Burial Grounds
  excavated, some
  placed in the
  WDA and the rest
  shipped off-site.



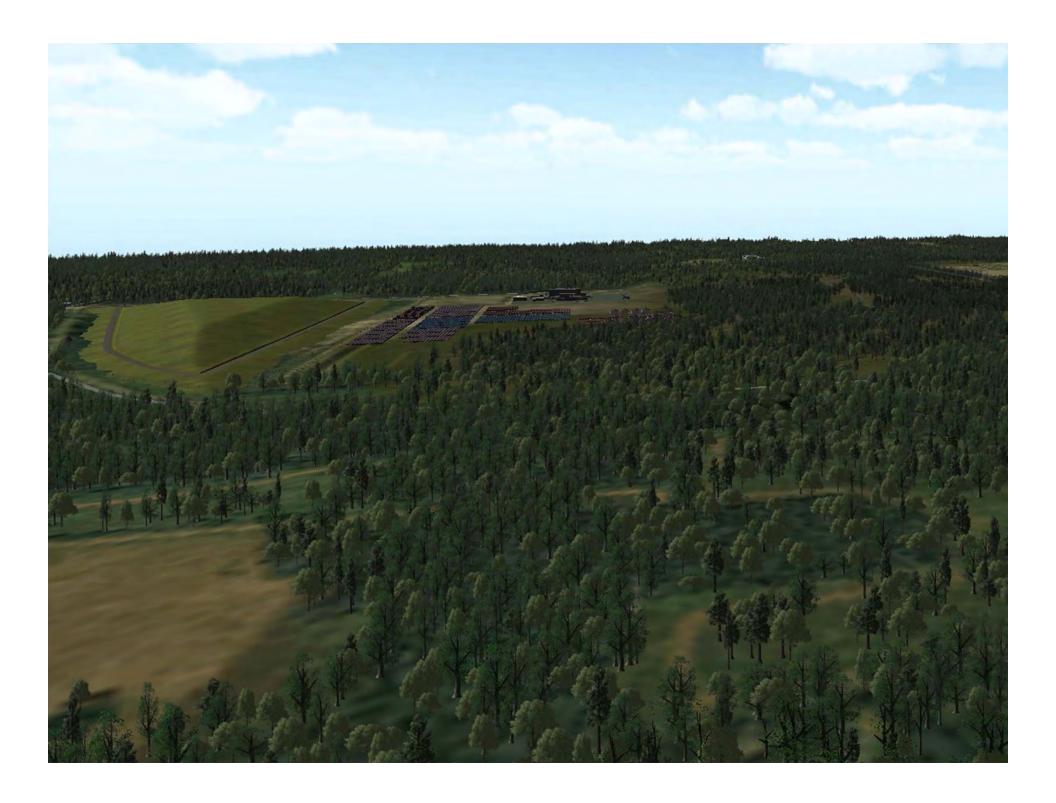




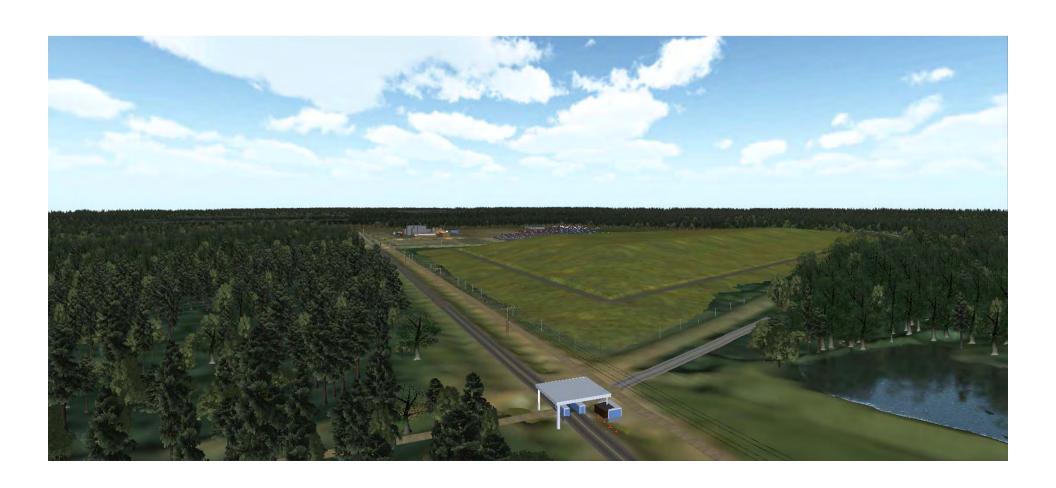


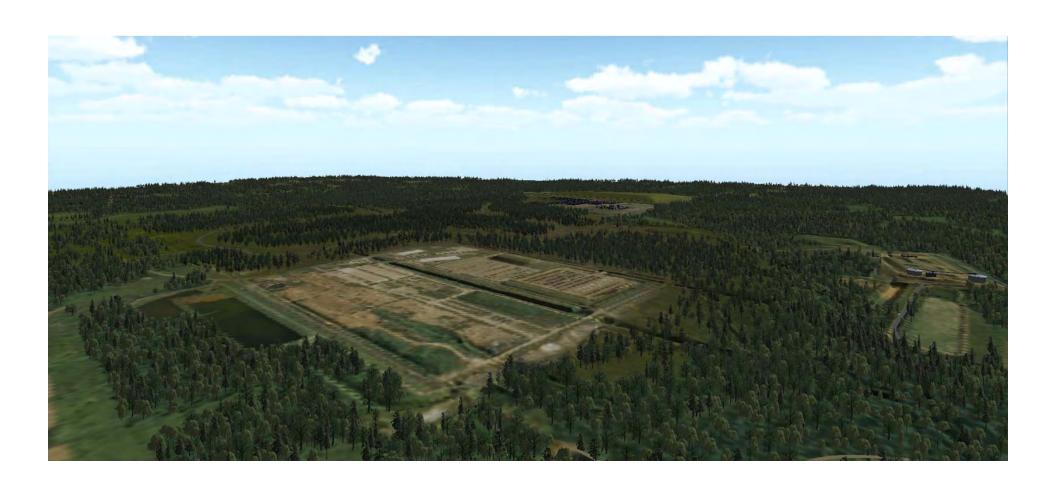


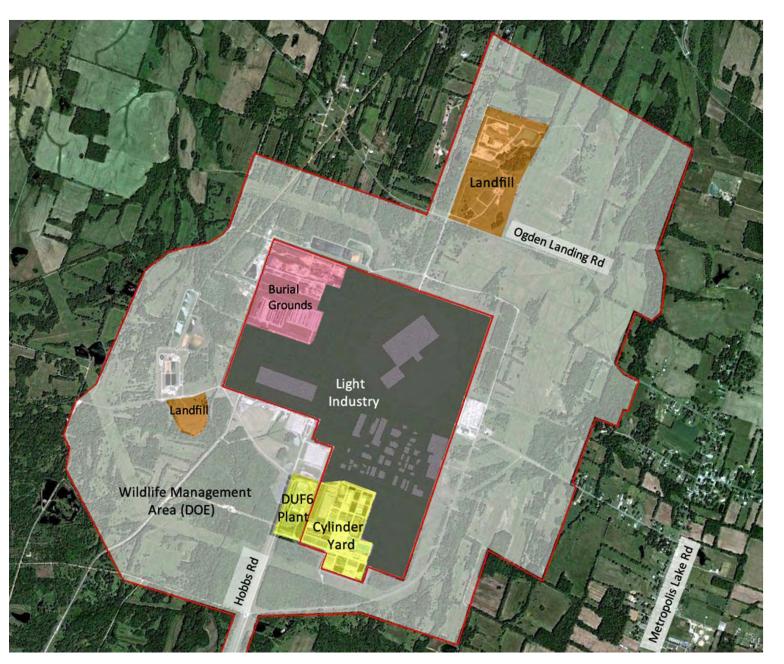
- \*Passive Recreational Facilities on Plant Site
- \* PGDP WMA Remains
- \*Part of Plant
  Decommissioning
  Waste kept
  onsite in WDA
  and part placed
  in DOE managed
  Landfill
- \* Some existing
  Burial Grounds
  sealed and left in
  place, the rest
  put in WDA.



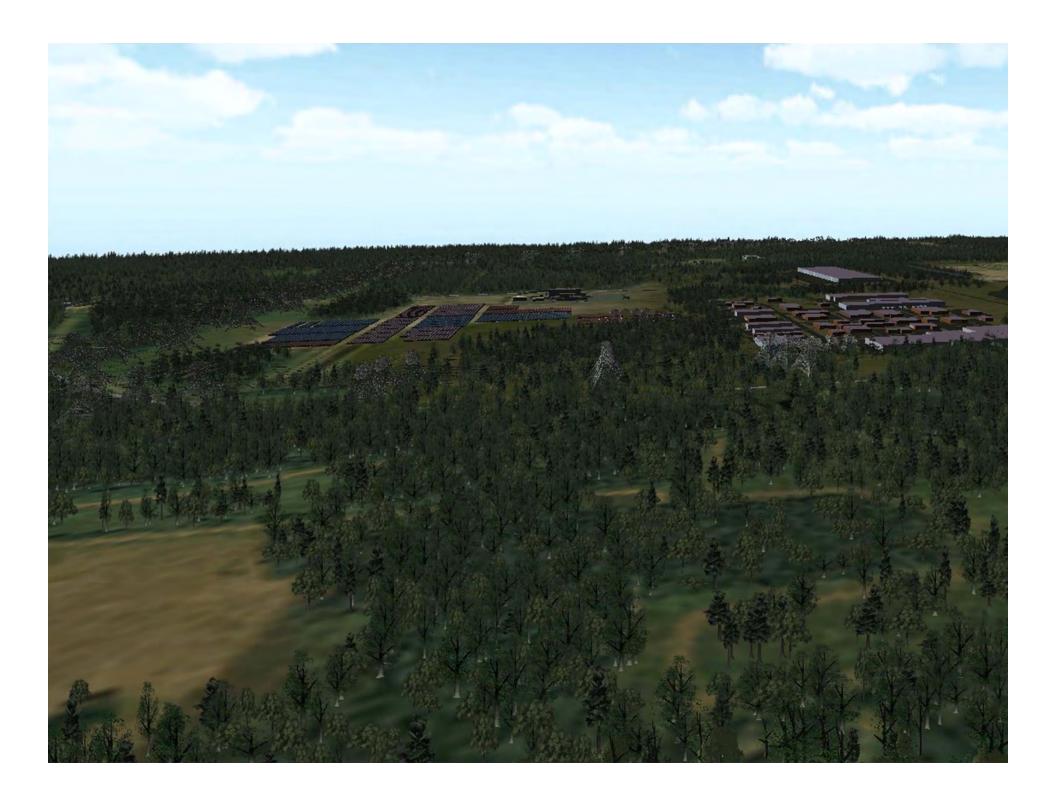


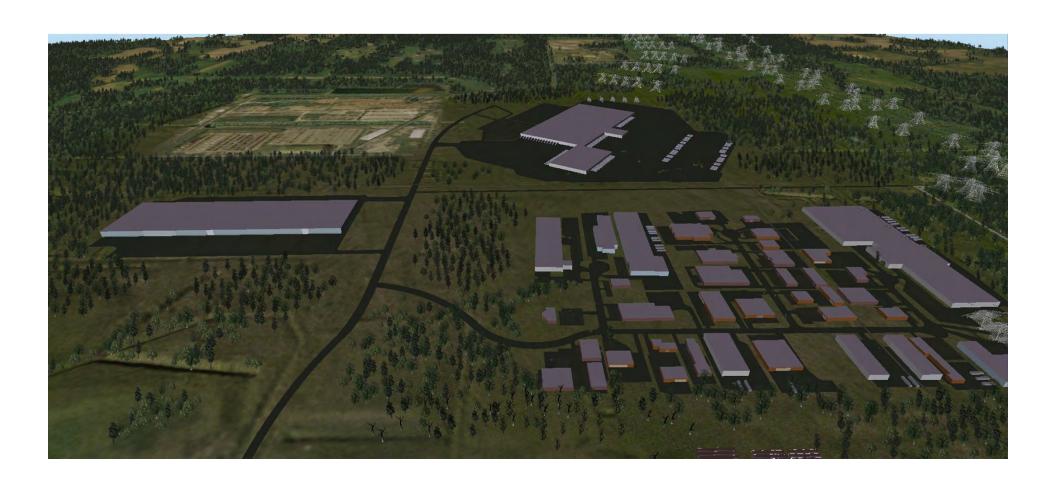


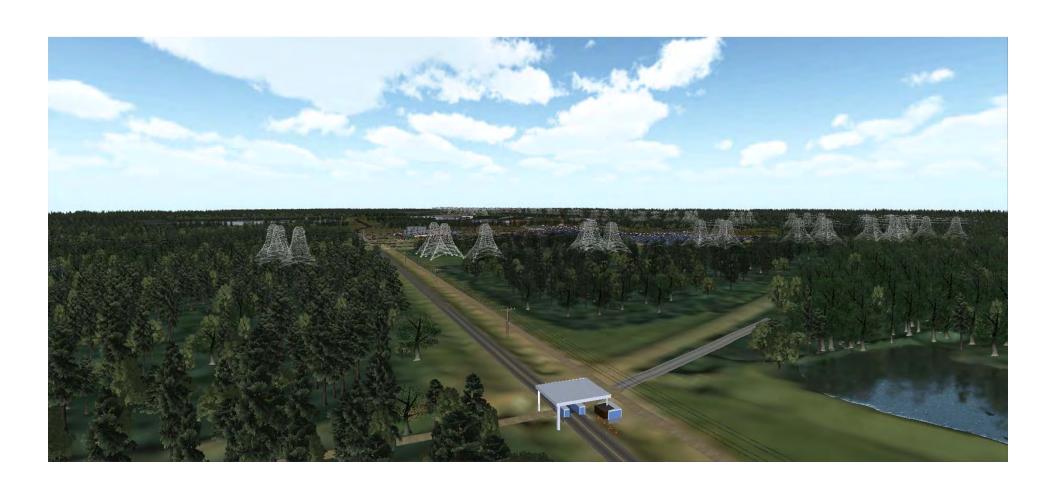


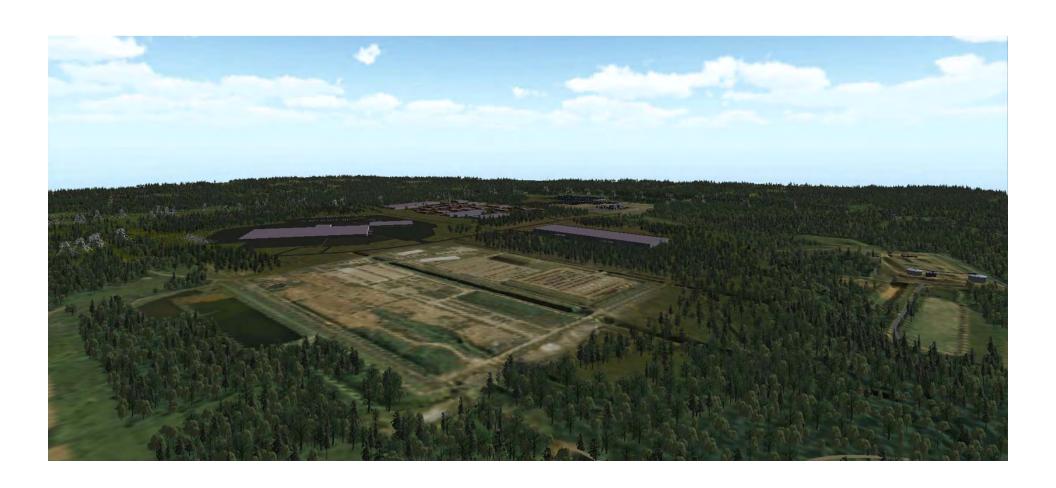


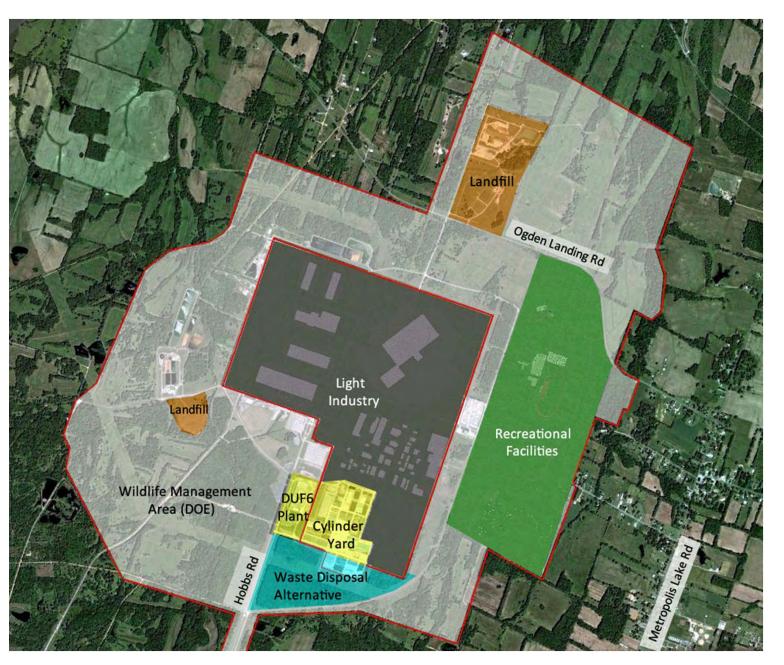
- \*Light Industry on Plant Site
- \* PGDP WMA Remains
- \* All Plant Decommissioning Waste Removed from Site.
- \* Some existing
  Burial Grounds
  sealed and left in
  place, the rest
  are excavated
  and shipped offsite



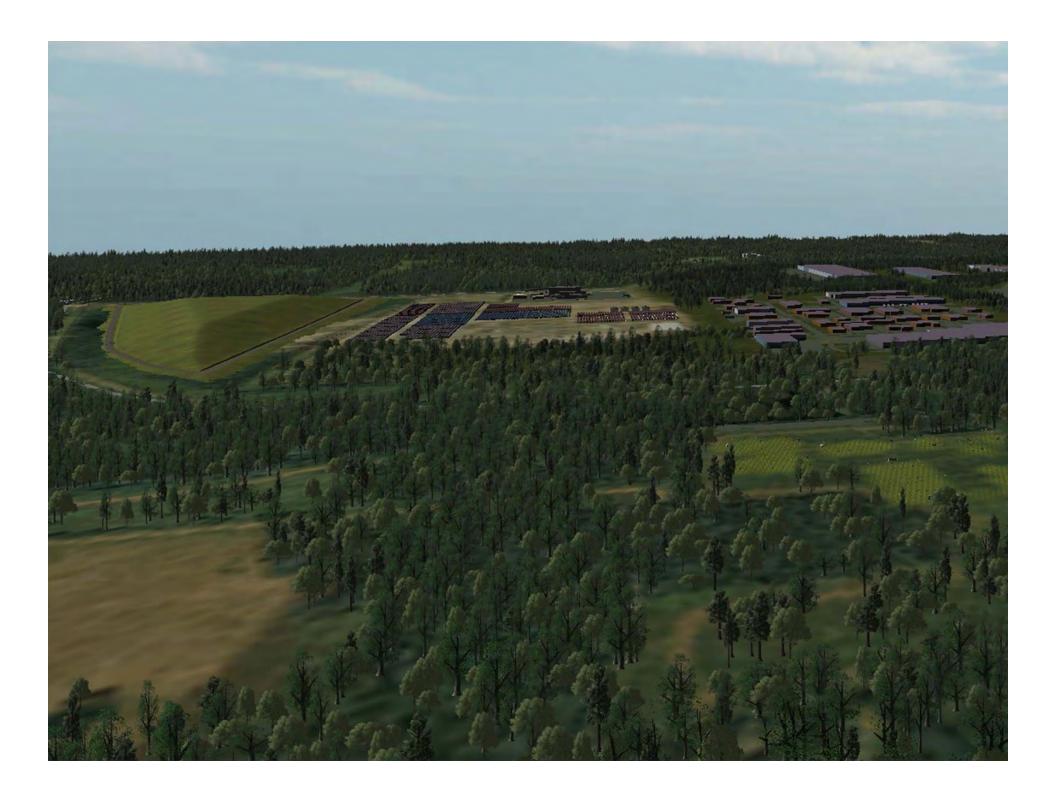




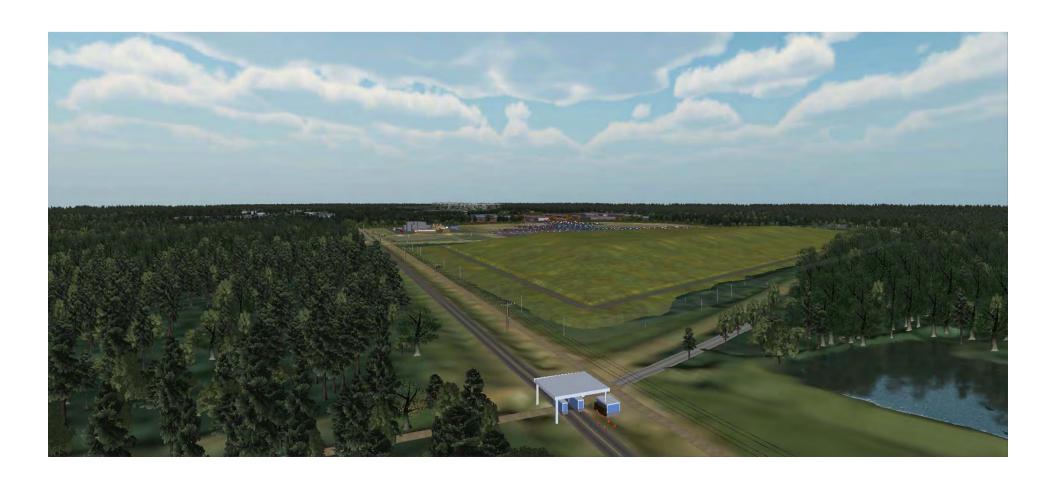


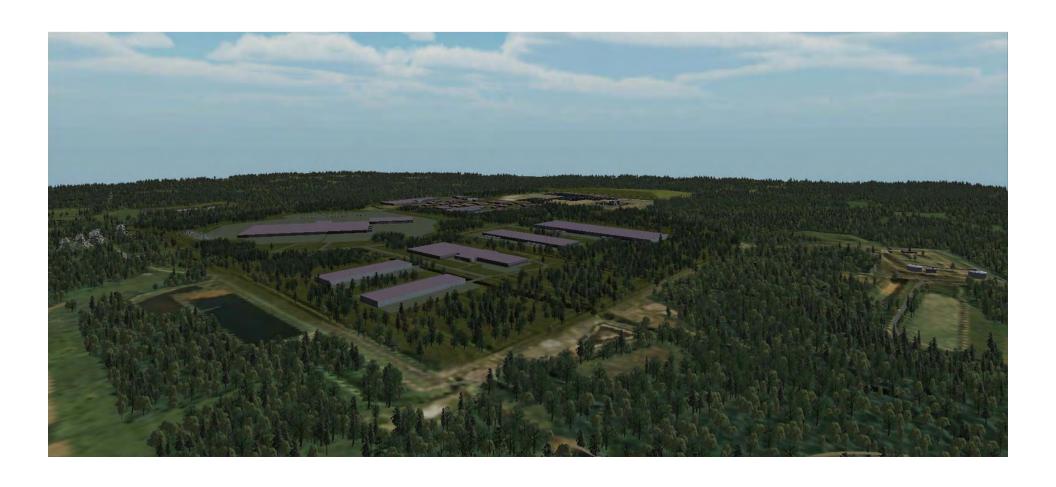


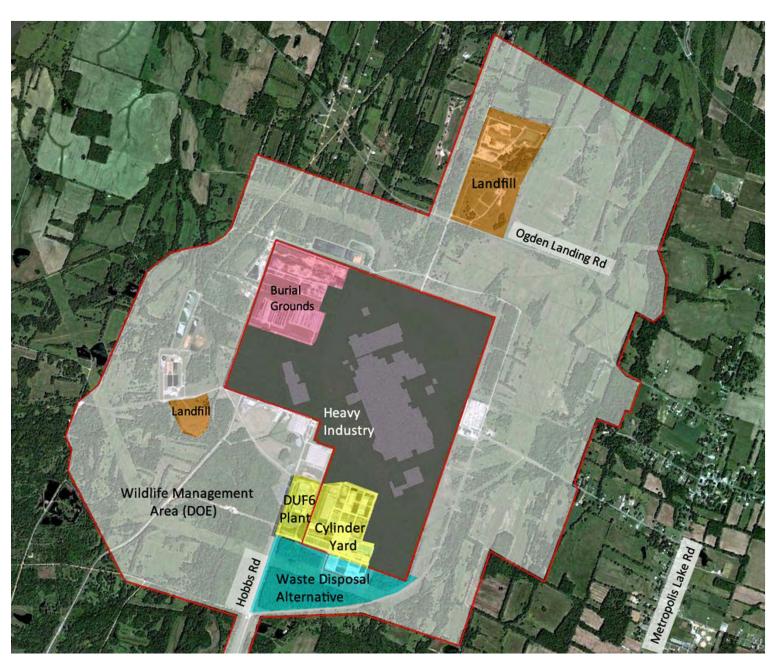
- \*Light Industry on Plant Site
- \* Active Recreational Facilities added to PGDP WMA
- \* Part of Plant
  Decommissioning
  Waste kept
  onsite in WDA
  and part placed
  in managed
  Landfill
- \* All Existing
  Burial Grounds
  excavated, some
  placed in the
  WDA and the rest
  shipped off-site.



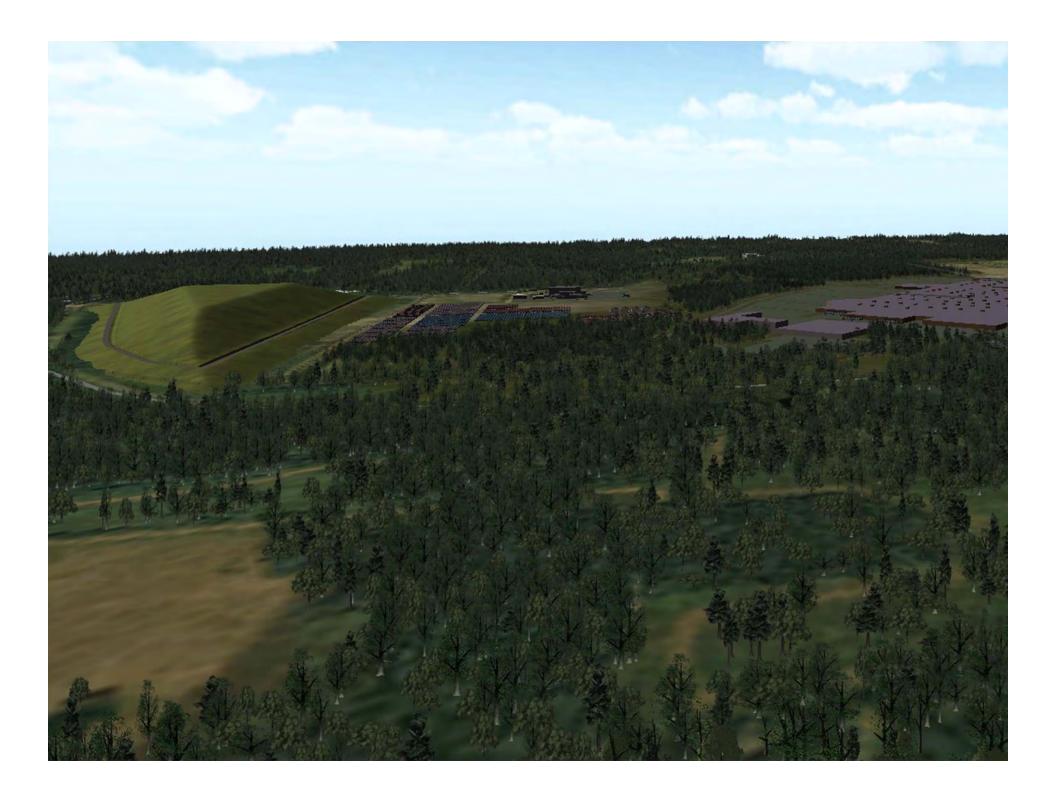




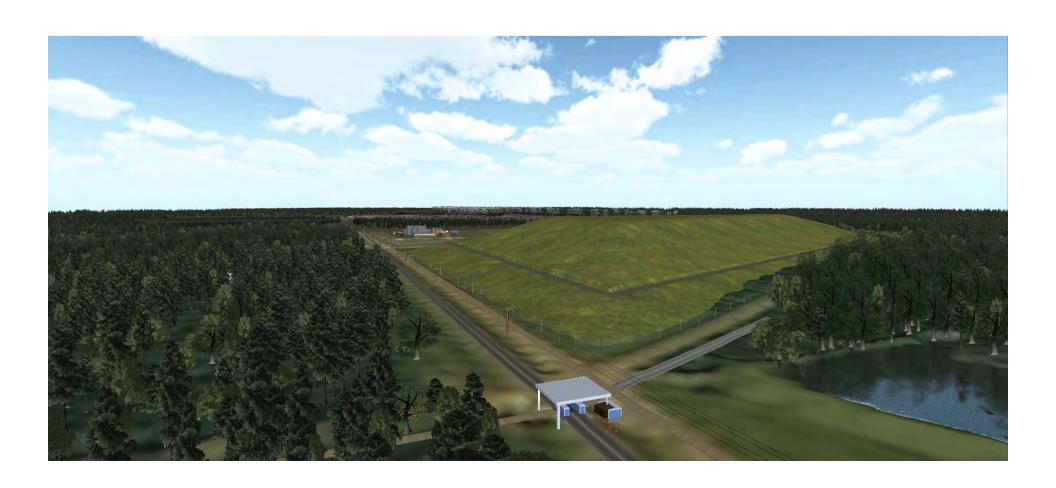


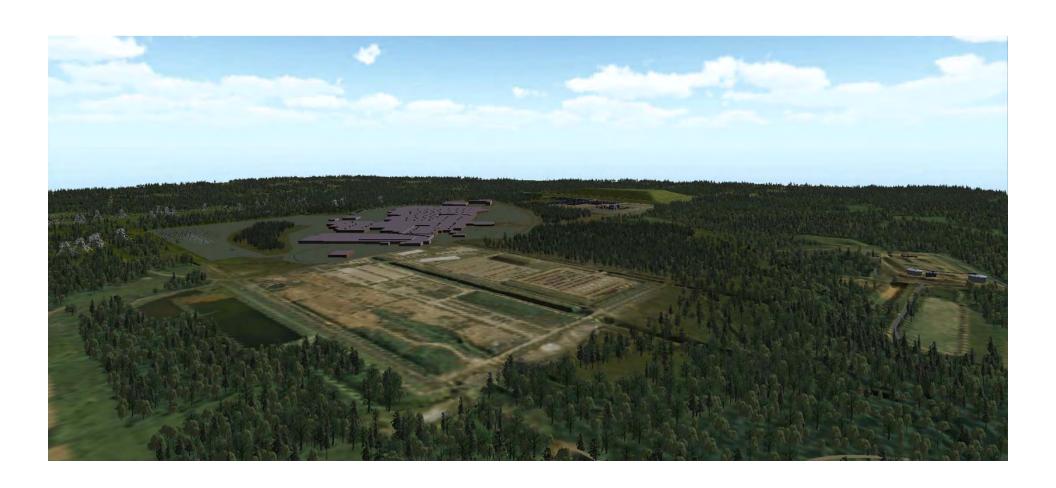


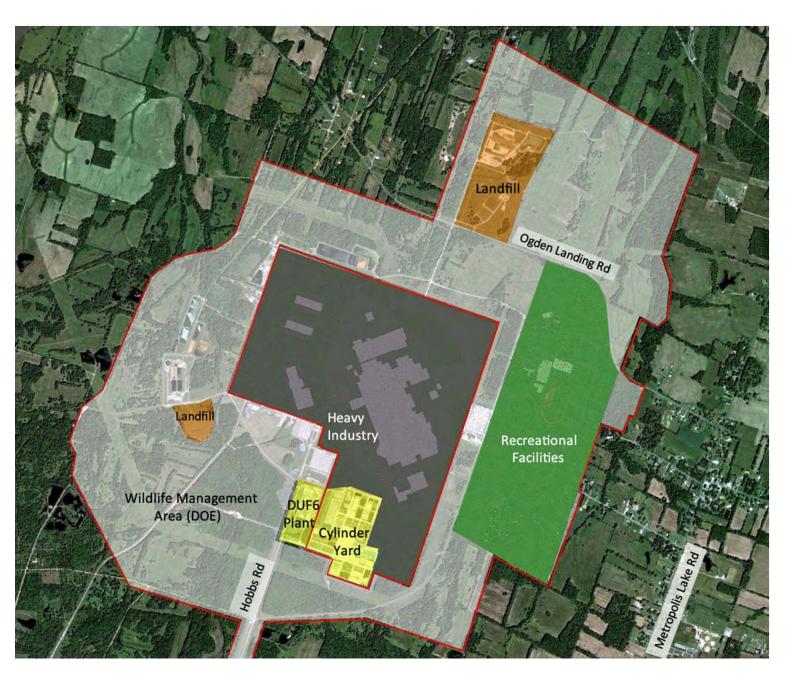
- \*Heavy Industry on Plant Site
- \* PGDP WMA Remains
- \* All Plant
  Decommissioning
  Waste kept
  onsite in WDA
- \* Some existing Burial Grounds sealed and left in place, the rest excavated placed in WDA.



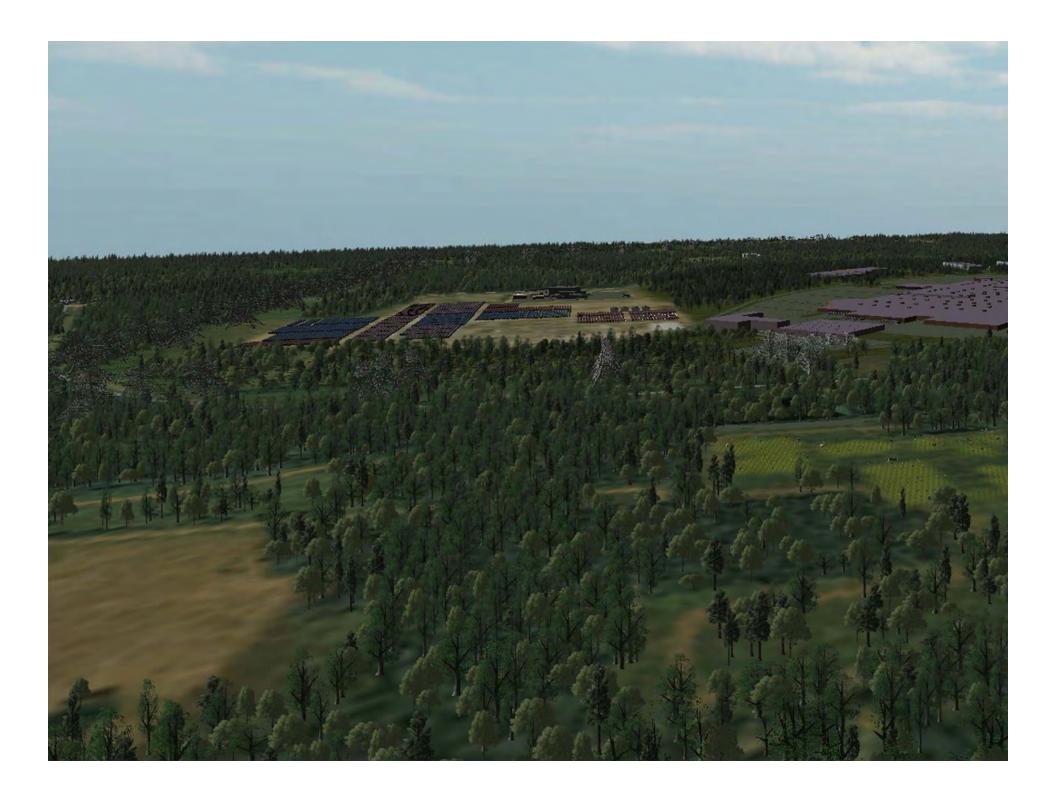




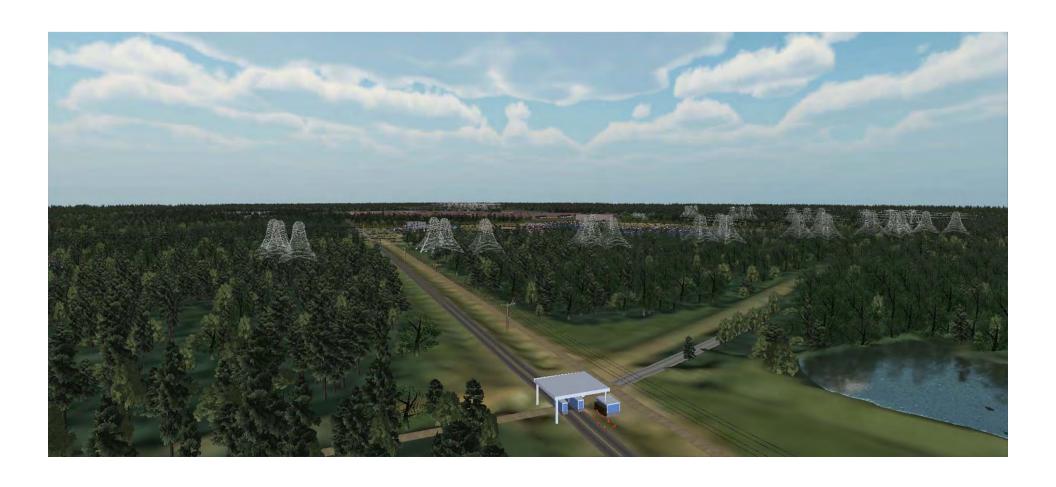


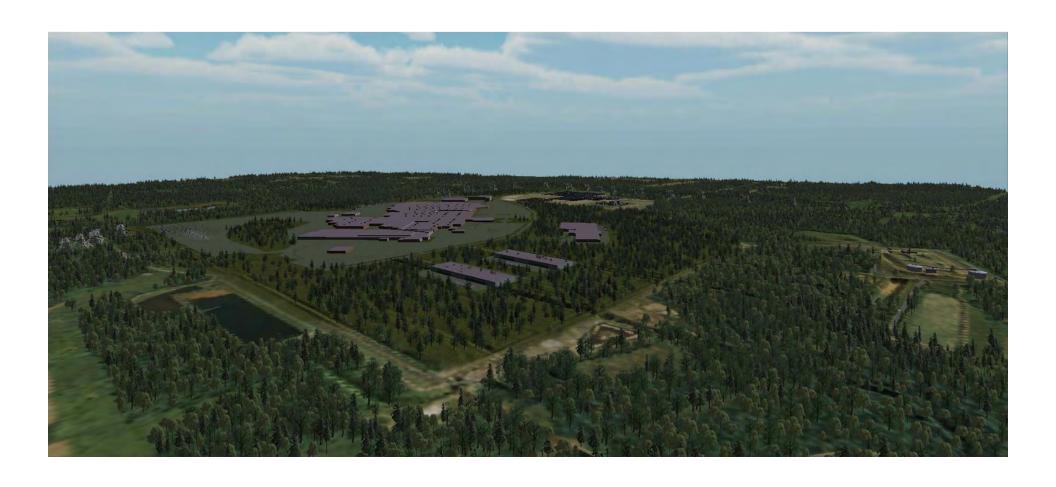


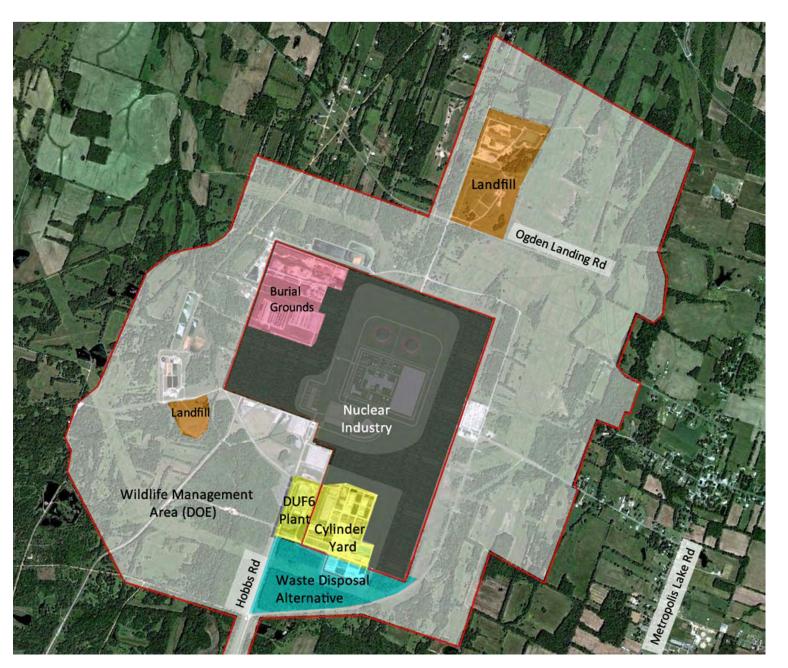
- \*Heavy Industry on Plant Site
- \* Active Recreational Facilities added to PGDP WMA
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  Decommissioning
  Waste Removed
  from Site
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  Burial Grounds
  excavated and
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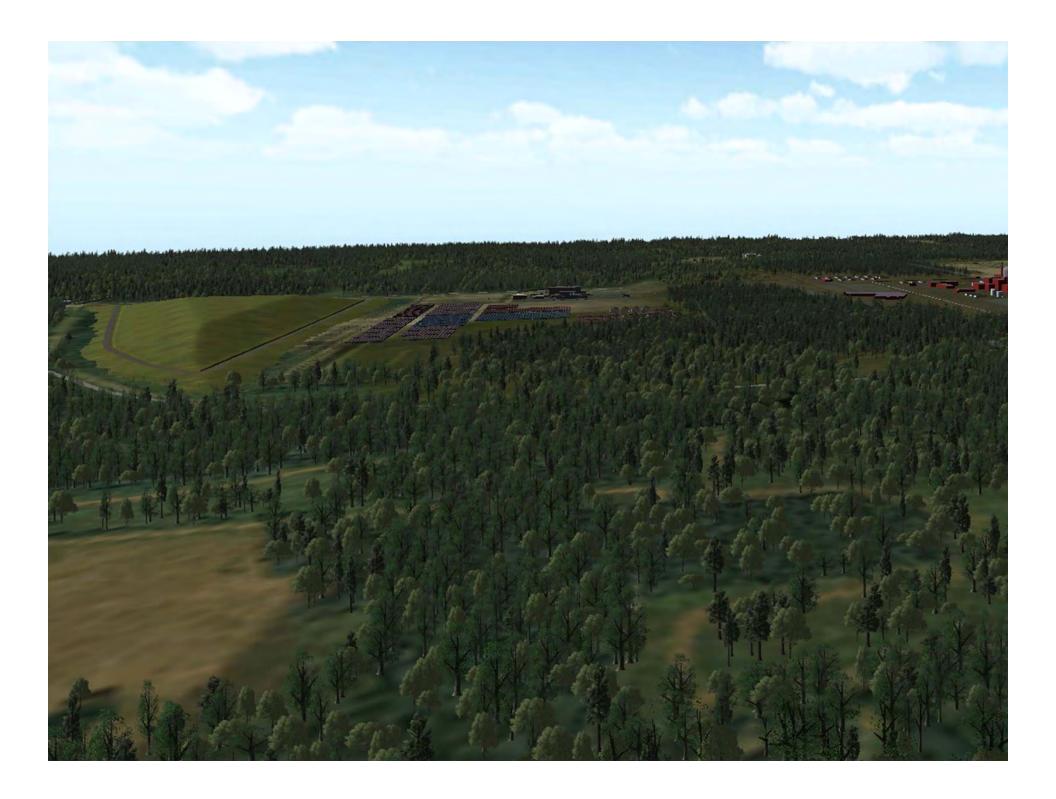




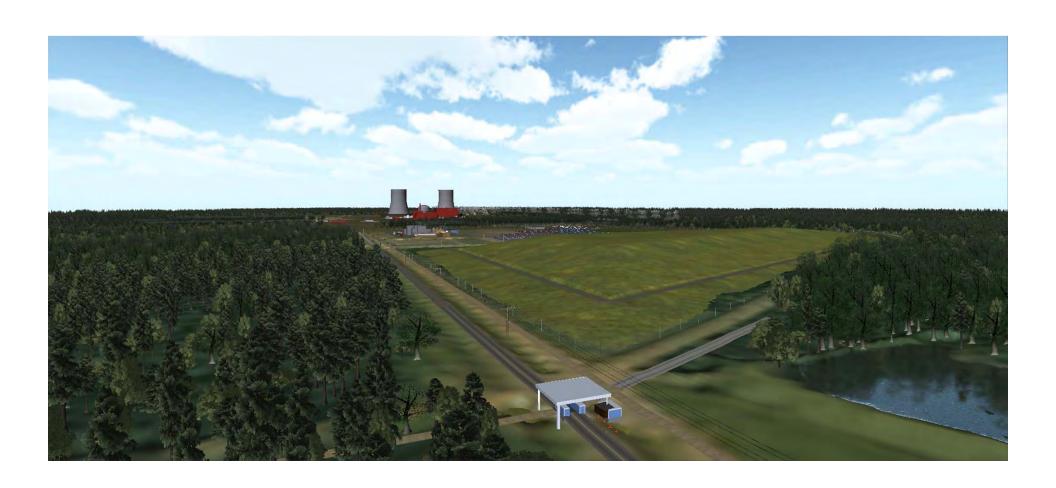


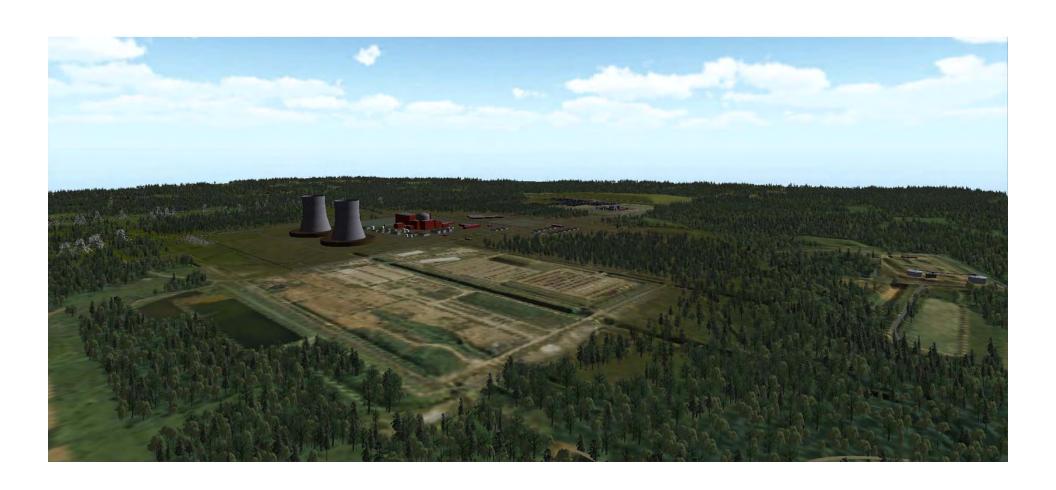


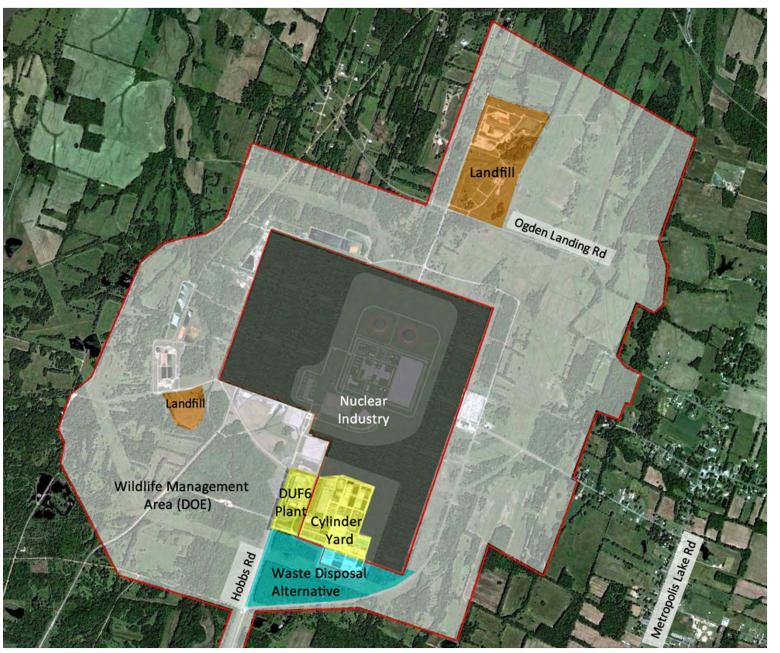
- \*Nuclear Industry on Plant Site
- \* PGDP WMA Remains
- \* Part of Plant
  Decommissioning
  Waste kept
  onsite in WDA
  and part placed
  in DOE managed
  Landfill
- \* Some existing
  Burial Grounds
  sealed and left in
  place, the rest
  excavated placed
  in WDA.



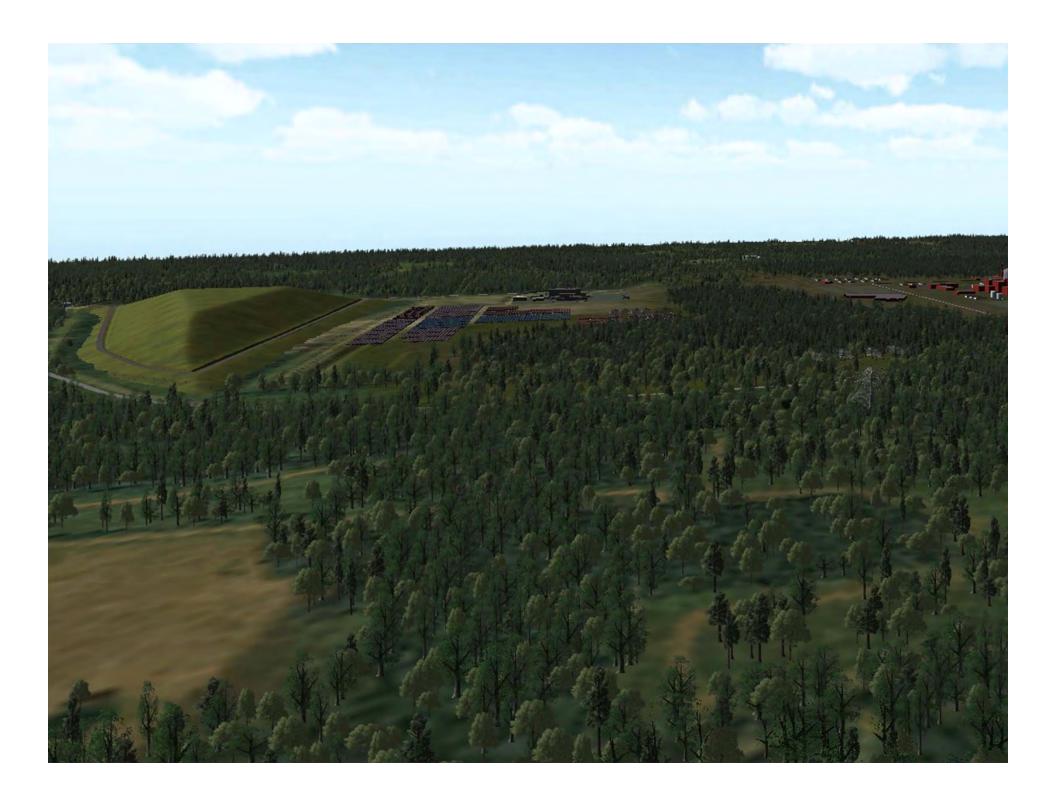




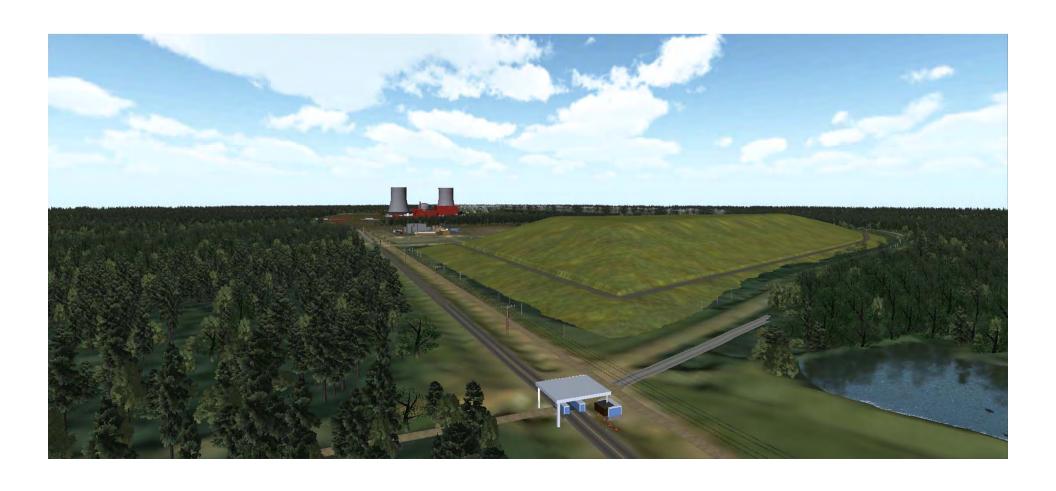


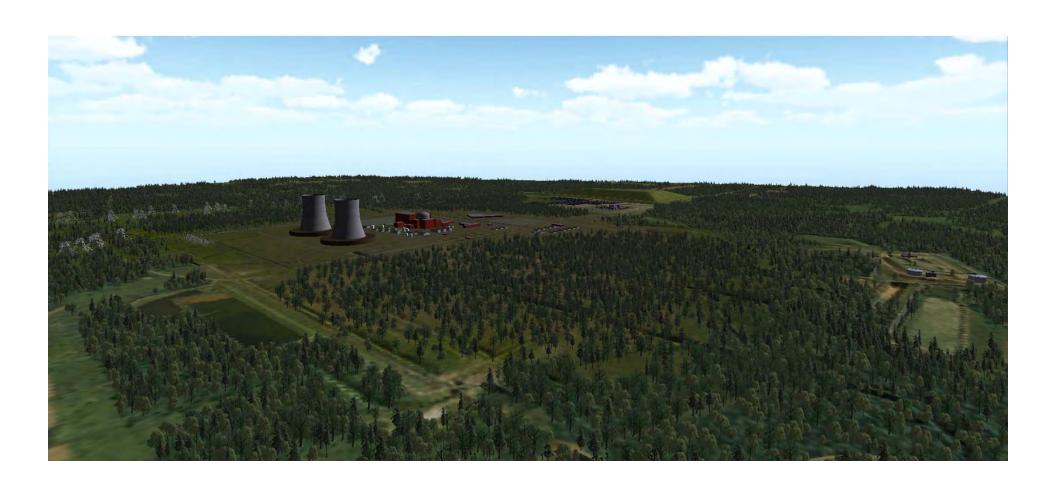


- \*Nuclear Industry on Plant Site
- \* PGDP WMA Remains
- \*All Plant
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- \* All Existing
  Burial Grounds
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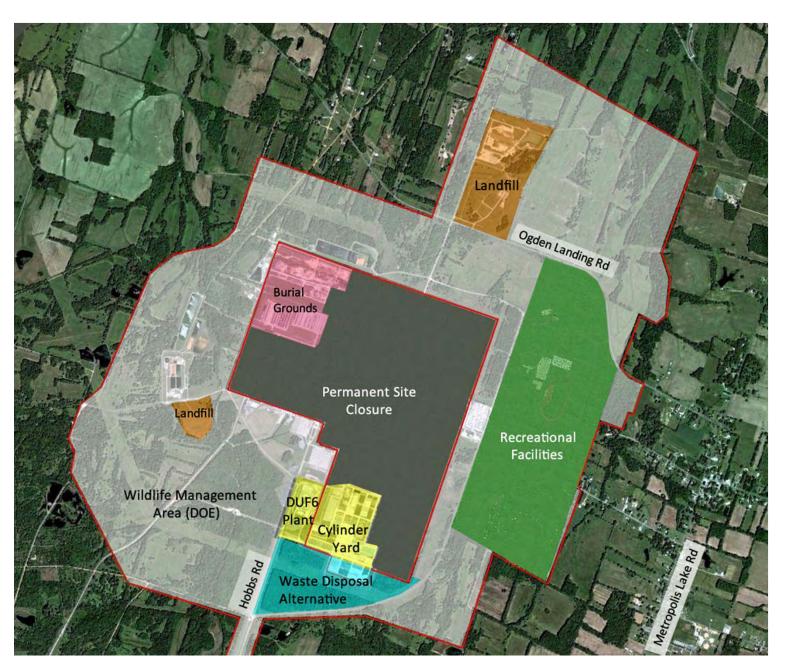






### Score these scenarios





- \*Plant Site sealed, fenced, access restricted
- \* Active Recreational Facilities added to PGDP WMA

NOTE: Rec facilities shown in the same location for consistency. Actual location can vary!

- \* All Plant Decommissioning Waste kept onsite in WDA
- \* Some existing Burial Grounds sealed and left in place, the rest put in WDA.

1. Least suitable

2. ...

3. ...

4. ...

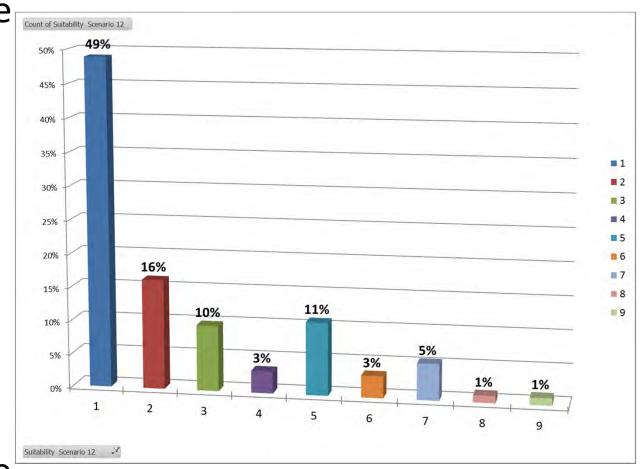
5. ...

6. ...

7. ...

8. ...





StdDev = 2.05

Mean = 2.54



- \*Plant Site sealed, fenced, access restricted
- \* PGDP WMA Remains
- \* All Plant Decommissioning Waste Removed from Site.
- \* All existing Burial Grounds excavated and shipped off-site.

1. Least suitable

2. ...

3. ...

4. ...

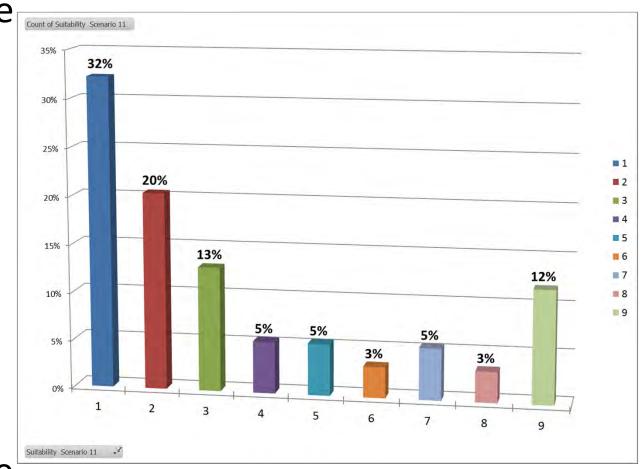
5. ...

6. ...

7. ...

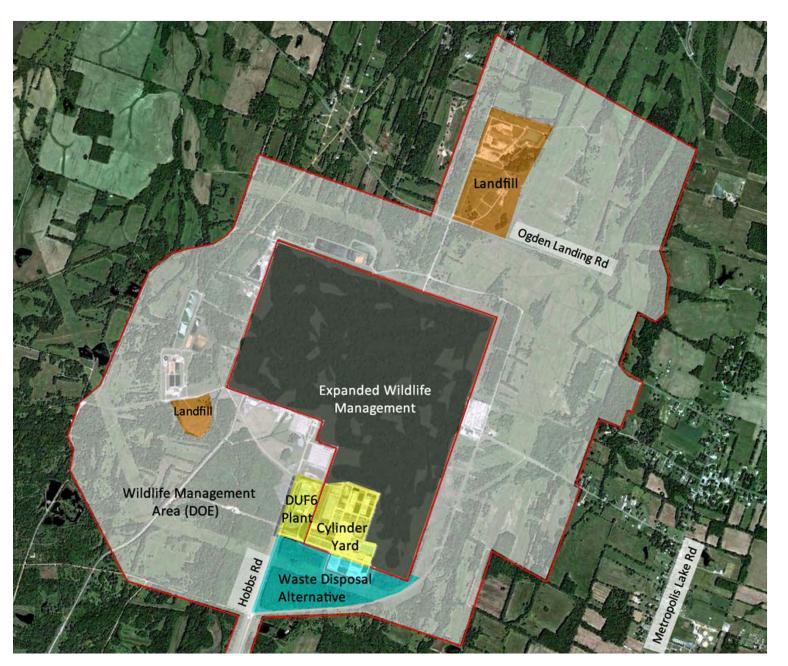
8. ...





StdDev = 2.78

Mean = 3.49



- \*Expanded
  Wildlife
  Management on
  Plant Site
- \* PGDP WMA Remains
- \* Part of Plant Decommissioning Waste kept onsite in WDA and part placed in DOE managed landfill
- \* All existing
  Burial Grounds
  excavated some placed in
  WDA and the rest
  shipped off-site.

1. Least suitable

2. ...

3. ...

4. ...

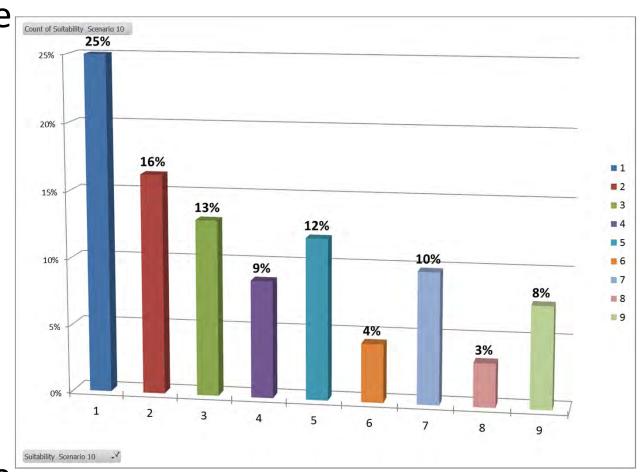
5. ...

6. ...

7. ...

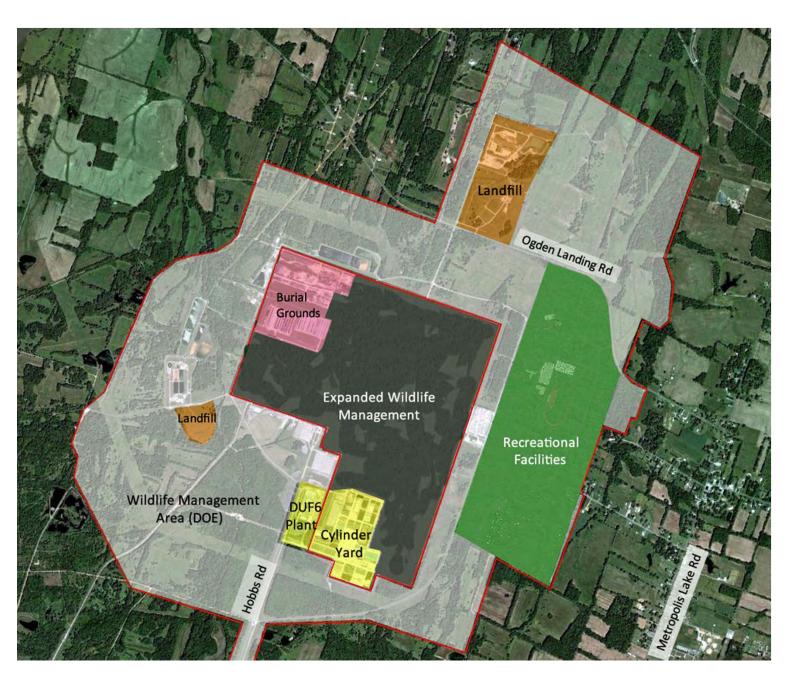
8. ...





**StdDev = 2.57** 

Mean = 3.80



- \*Expanded
  Wildlife
  Management on
  Plant Site
- \* Recreational Facilities added to PGDP WMA
- \* All Plant
  Decommissioning
  Waste Removed
  from Site.
- \* Some existing Burial Grounds sealed and left in place, the rest excavated and shipped off-site.

1. Least suitable

2. ...

3. ...

4. ...

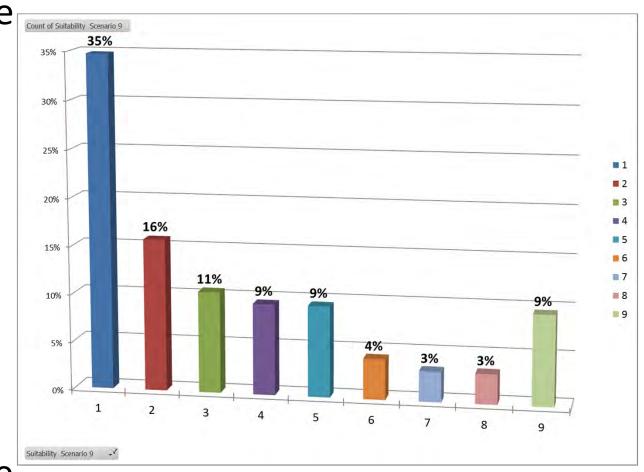
5. ...

6. ...

7. ...

8. ...





StdDev = 2.63

Mean = 3.41



- \* Passive Recreational Facilities on Plant Site
- \* Active Recreational Facilities added to PGDP WMA
- \* All Plant
  Decommissioning
  Waste kept
  onsite in WDA
- \* All Existing
  Burial Grounds
  excavated, some
  placed in the
  WDA and the rest
  shipped off-site.

1. Least suitable

2. ...

3. ...

4. ...

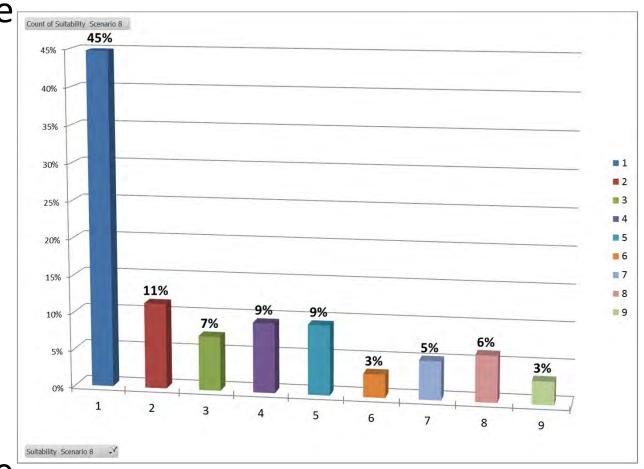
5. ...

6. ...

7. ...

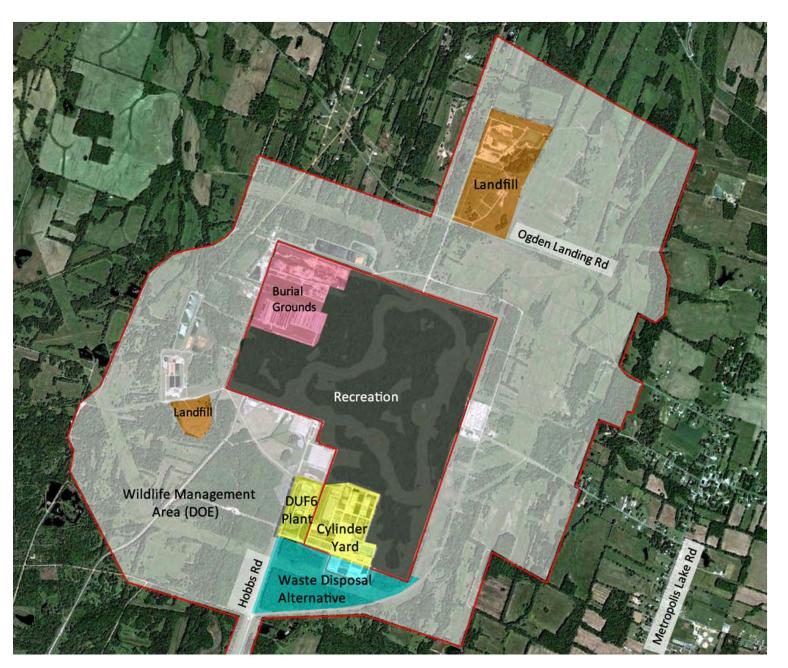
8. ...





StdDev = 2.48

Mean = 3.07



- \*Passive Recreational Facilities on Plant Site
- \* PGDP WMA Remains
- \*Part of Plant
  Decommissioning
  Waste kept
  onsite in WDA
  and part placed
  in DOE managed
  Landfill
- \* Some existing
  Burial Grounds
  sealed and left in
  place, the rest
  put in WDA.

1. Least suitable

2. ...

3. ...

4. ...

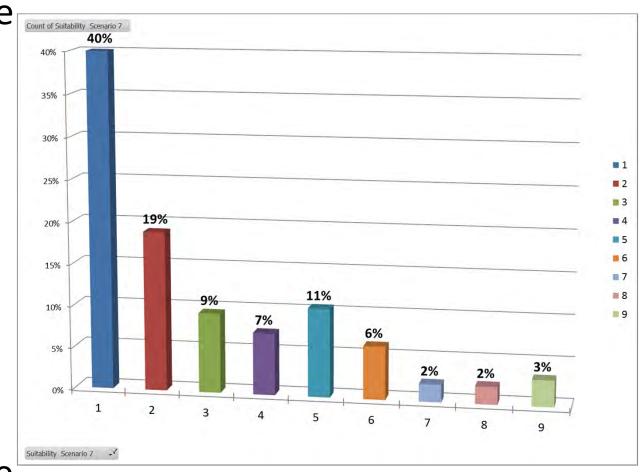
5. ...

6. ...

7. ...

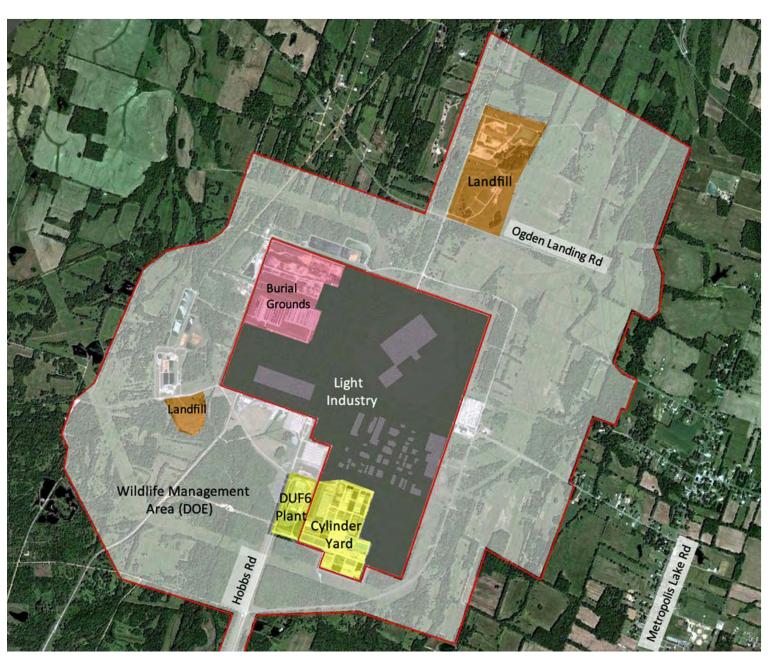
8. ...





StdDev = 2.20

Mean = 2.86



- \*Light Industry on Plant Site
- \* PGDP WMA Remains
- \* All Plant Decommissioning Waste Removed from Site.
- \* Some existing
  Burial Grounds
  sealed and left in
  place, the rest
  are excavated
  and shipped offsite

1. Least suitable

2. ...

3. ...

4. ...

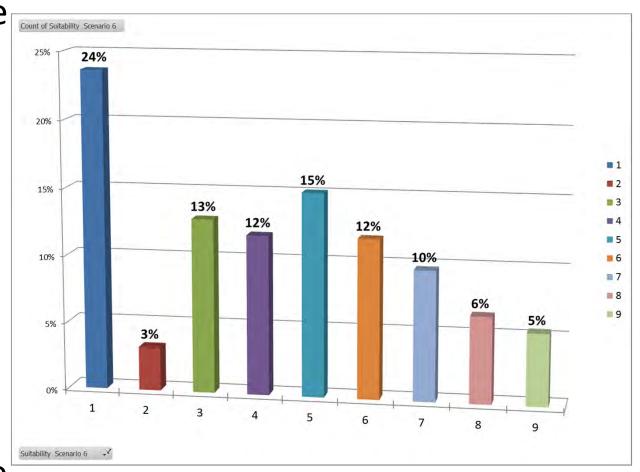
5. ...

6. ...

7. ...

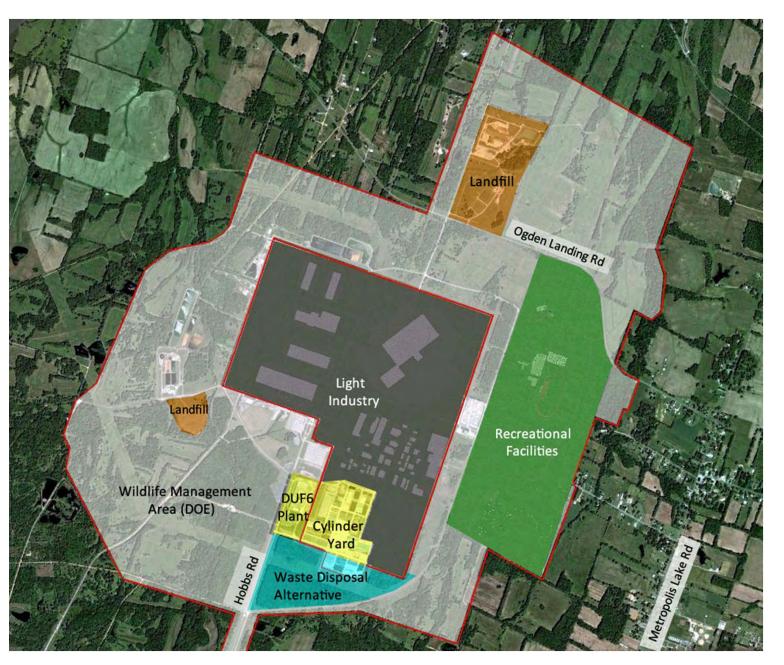
8. ...





StdDev = 2.48

Mean = 4.30



- \*Light Industry on Plant Site
- \* Active Recreational Facilities added to PGDP WMA
- \* Part of Plant
  Decommissioning
  Waste kept
  onsite in WDA
  and part placed
  in managed
  Landfill
- \* All Existing
  Burial Grounds
  excavated, some
  placed in the
  WDA and the rest
  shipped off-site.

1. Least suitable

2. ...

3. ...

4. ...

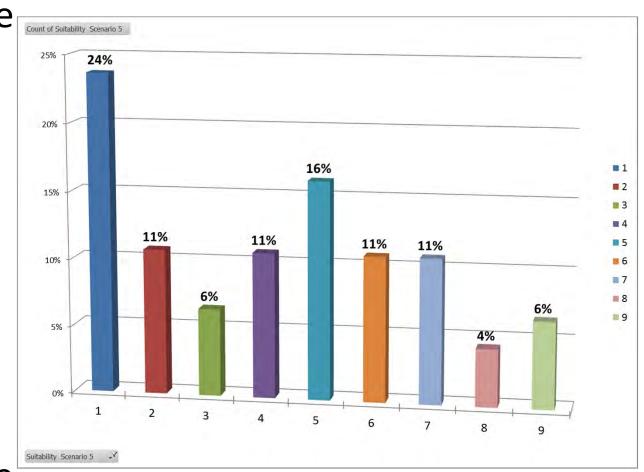
5. ...

6. ...

7. ...

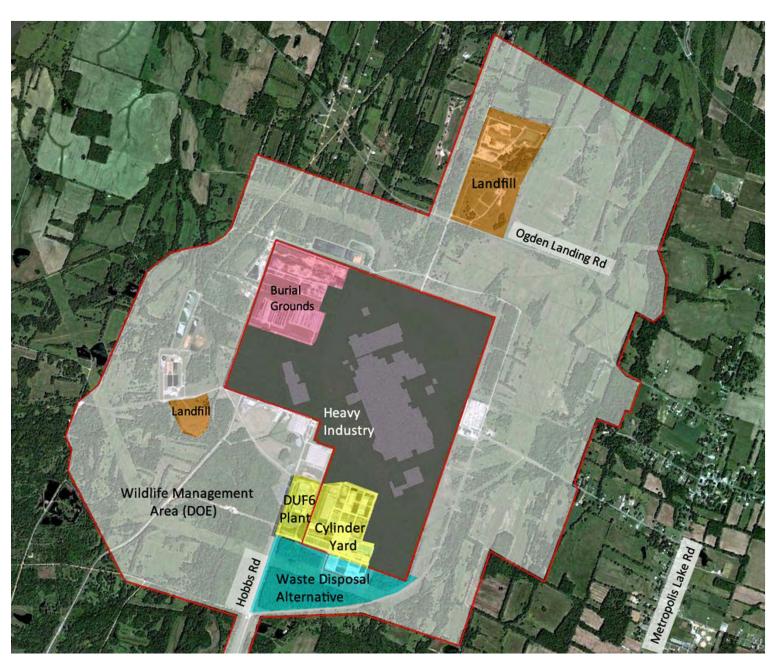
8. ...





StdDev = 2.54

Mean = 4.20



- \*Heavy Industry on Plant Site
- \* PGDP WMA Remains
- \* All Plant
  Decommissioning
  Waste kept
  onsite in WDA
- \* Some existing Burial Grounds sealed and left in place, the rest excavated placed in WDA.

1. Least suitable

2. ...

3. ...

4. ...

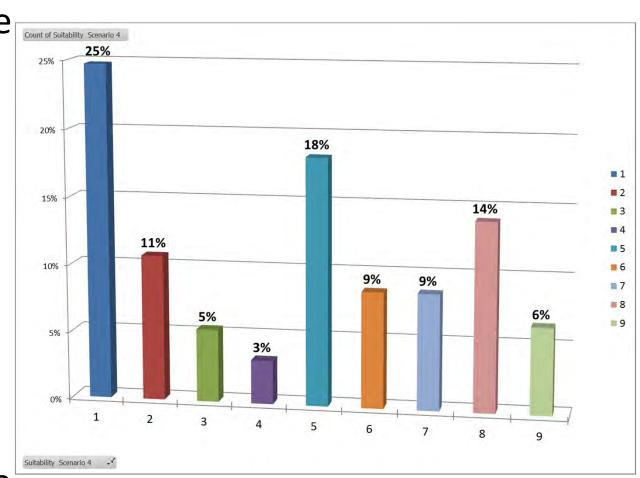
5. ...

6. ...

7. ...

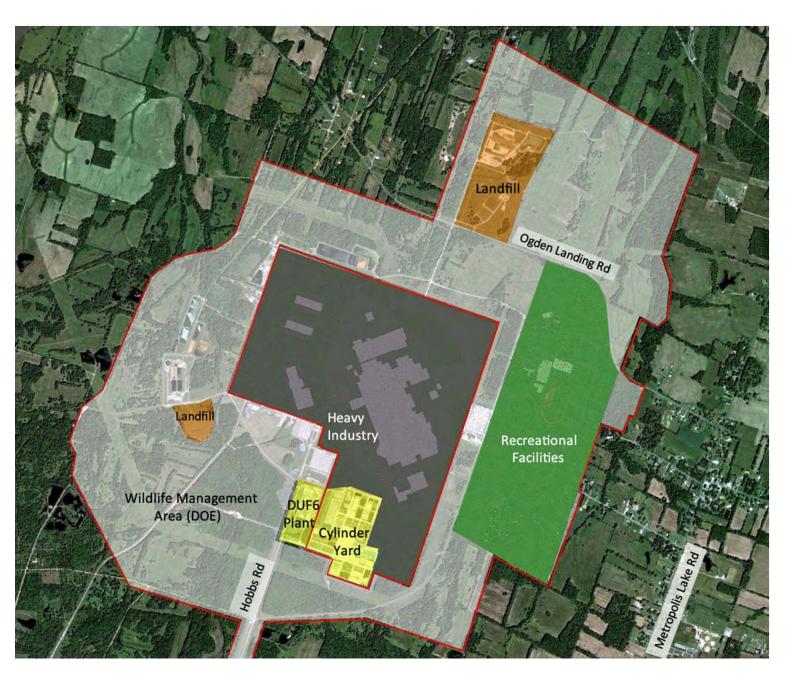
8. ...





**StdDev = 2.76** 

Mean = 4.48



- \*Heavy Industry on Plant Site
- \* Active Recreational Facilities added to PGDP WMA
- \*All Plant
  Decommissioning
  Waste Removed
  from Site
- \*All Existing
  Burial Grounds
  excavated and
  shipped off-site.

1. Least suitable

2. ...

3. ...

4. ...

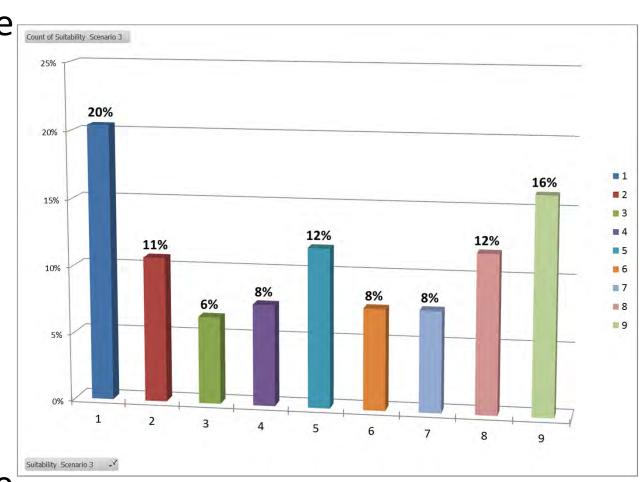
5. ...

6. ...

7. ...

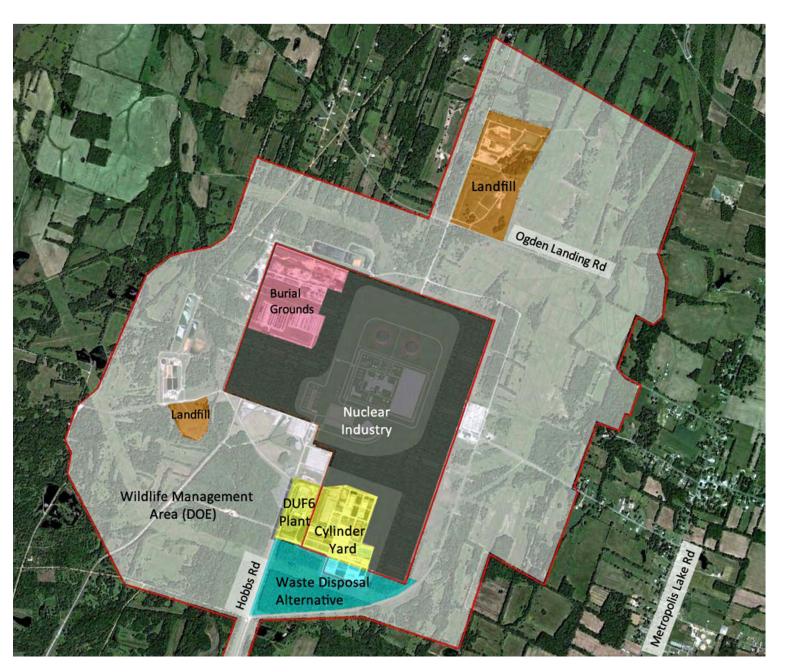
8. ...





StdDev = 2.93

Mean = 4.88



- \*Nuclear Industry on Plant Site
- \* PGDP WMA Remains
- \* Part of Plant
  Decommissioning
  Waste kept
  onsite in WDA
  and part placed
  in DOE managed
  Landfill
- \* Some existing
  Burial Grounds
  sealed and left in
  place, the rest
  excavated placed
  in WDA.

# Suitability Scenario 2

1. Least suitable

2. ...

3. ...

4. ...

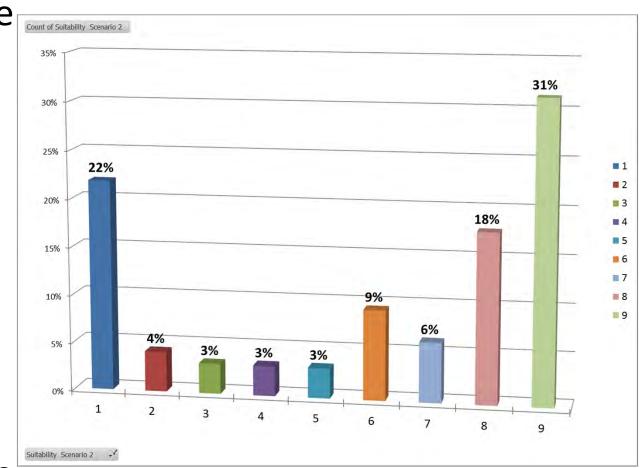
5. ...

6. ...

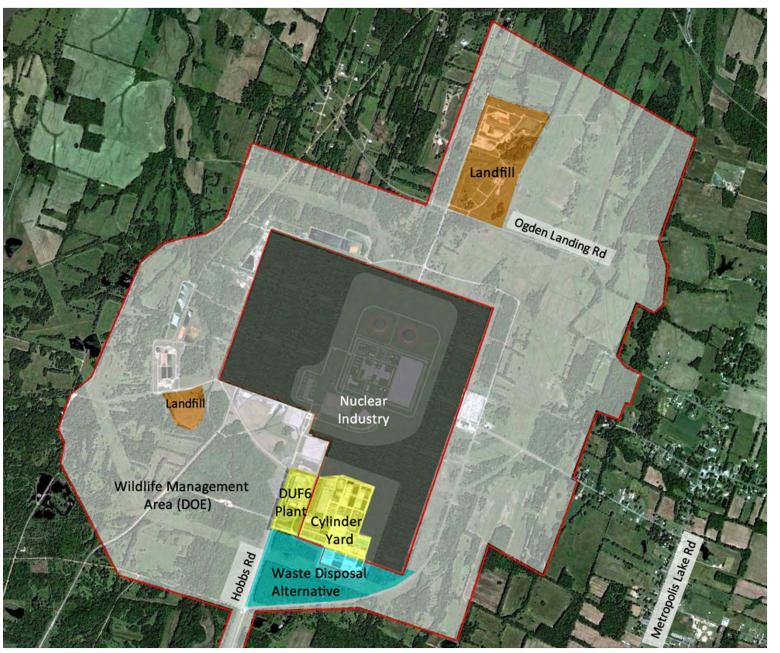
7. ...

8. ...





**StdDev = 3.19** 



#### **Scenario 1**

- \*Nuclear Industry on Plant Site
- \* PGDP WMA Remains
- \*All Plant
  Decommissioning
  Waste kept
  onsite in WDA
- \* All Existing
  Burial Grounds
  excavated, some
  placed in the
  WDA and the rest
  shipped off-site.

# Suitability Scenario 1

1. Least suitable

2. ...

3. ...

4. ...

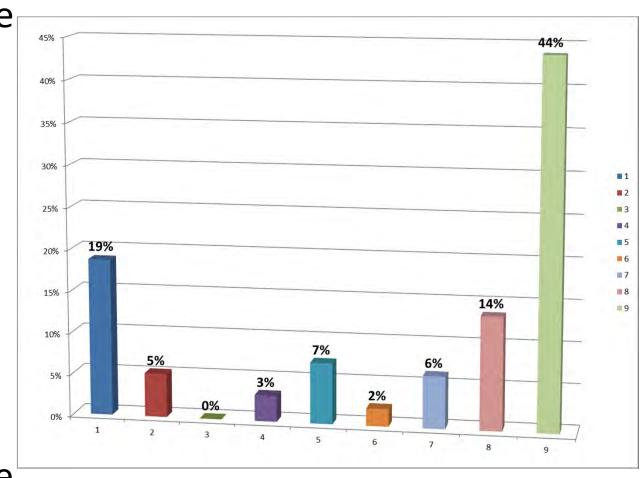
5. ...

6. ...

7. ...

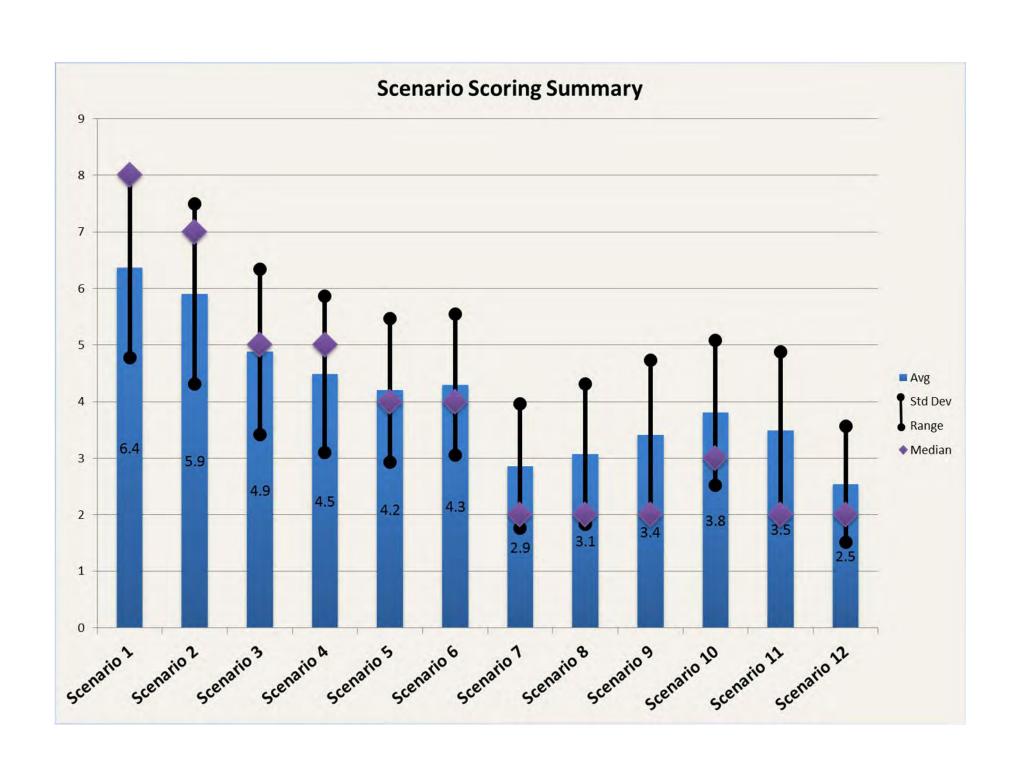
8. ...

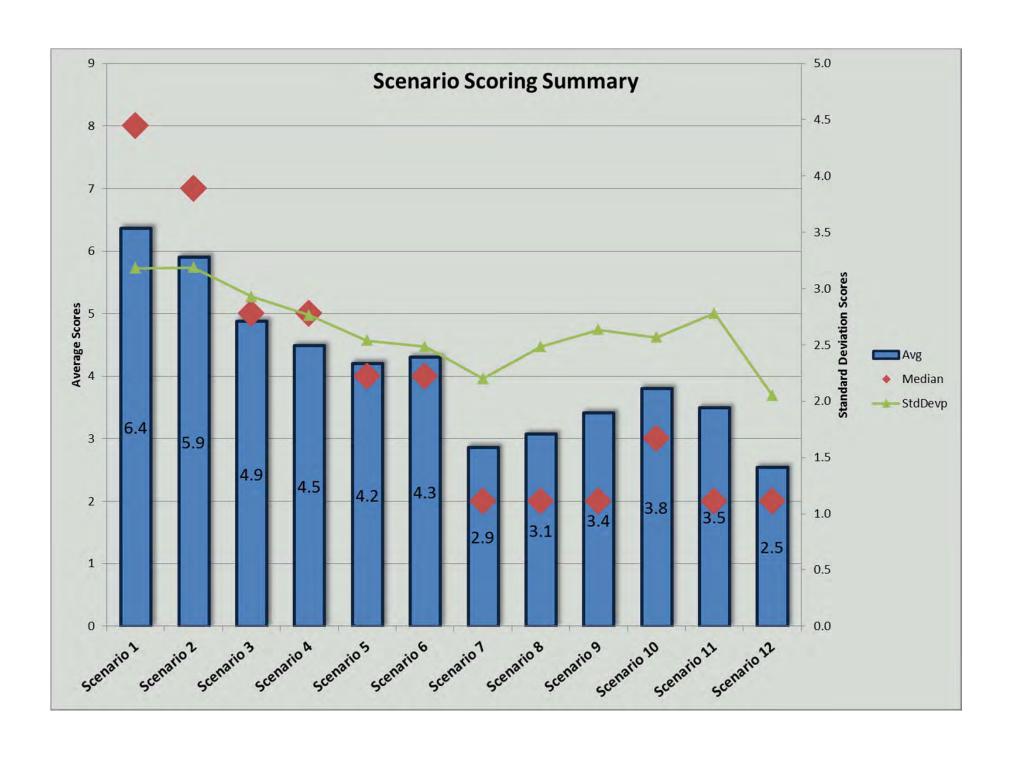


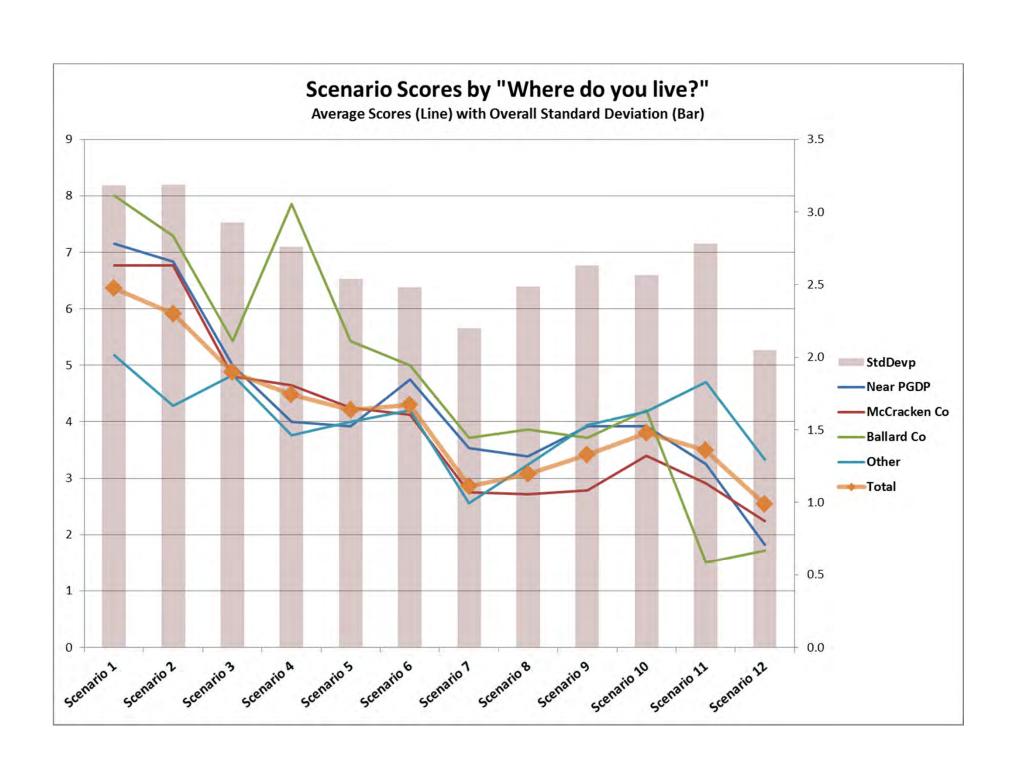


**StdDev = 3.18** 

Mean = 6.36







# Please rate your satisfaction with tonight's process?

1. Not satisfied at all

2. ...

3. ...

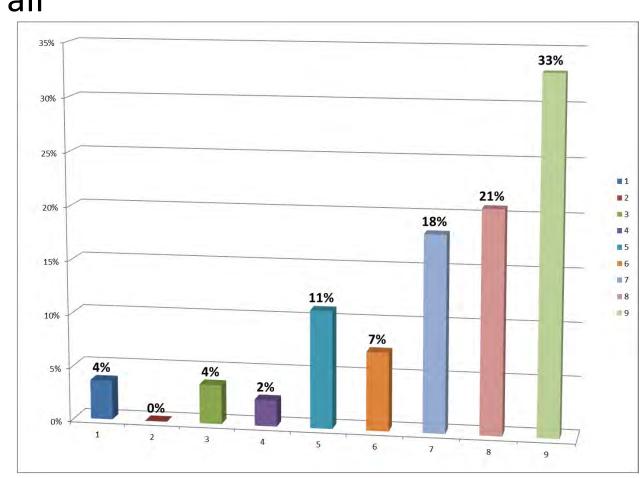
4. ...

5. ...

6. ...

7. ...

8. ...



9. Extremely satisfied

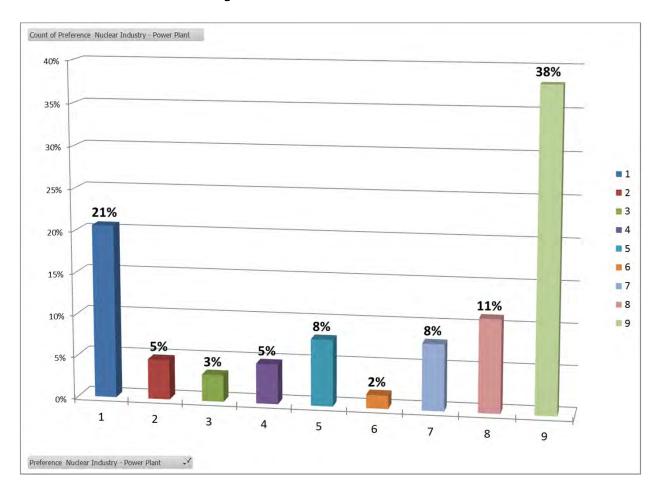
Mean = 7.13

#### **Bonus Round!**

- Talk about specific land uses in more detail
- Have you rate those

### Nuclear Industry - Power Plant

- 1. Lowest
- 2. ...
- 3. ...
- 4. ...
- 5. ...
- 6. ...
- 7. ...
- 8. ...
- 9. Highest



StdDev = 3.23

## Nuclear Industry - Enrichment

1. Lowest

2. ...

3. ...

4. ...

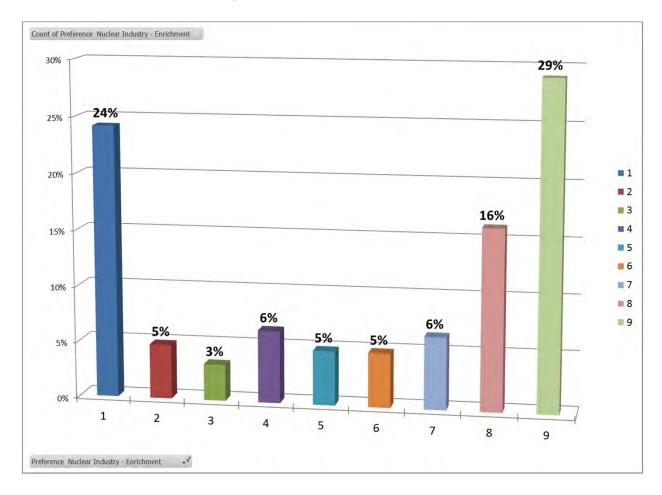
5. ...

6. ...

7. ...

8. ...

9. Highest

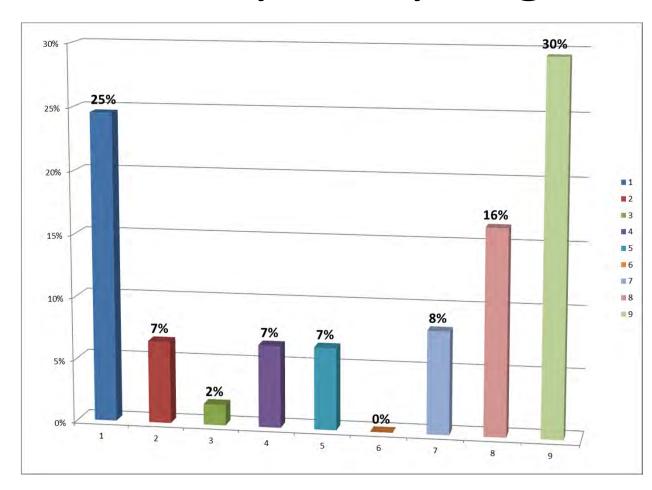


StdDev = 3.25

## Nuclear Industry - Recycling



- 2. ...
- 3. ...
- 4. ...
- 5. ...
- 6. ...
- 7. ...
- 8. ...
- 9. Highest



StdDev = 3.30

#### Heavy Industry - Auto Manufacturing

1. Lowest

2. ...

3. ...

4. ...

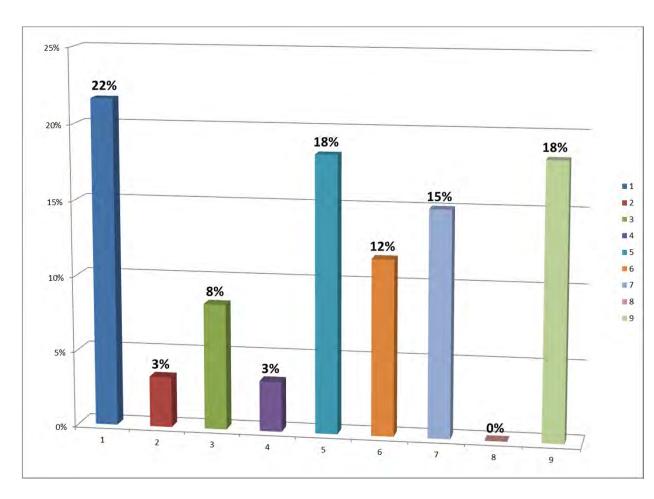
5. ...

6. ...

7. ...

8. ...

9. Highest



StdDev = 2.79

## Heavy Industry - Coal Liquefaction /

1. Lowest

2. ...

3. ...

4. ...

5. ...

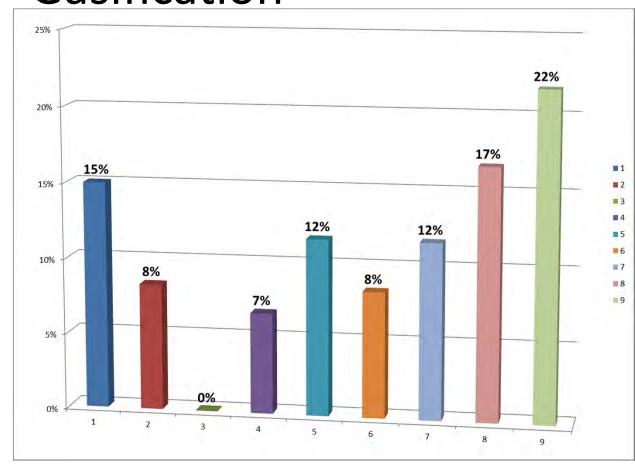
6. ...

7. ...

8. ...

9. Highest



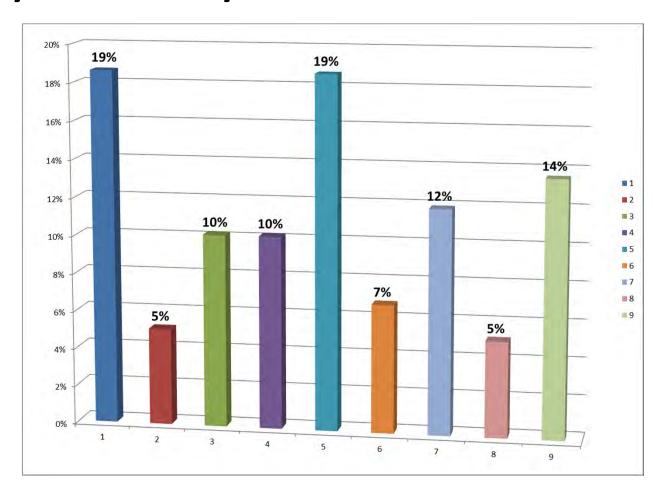


StdDev = 2.85

## Heavy Industry - Steel Plant



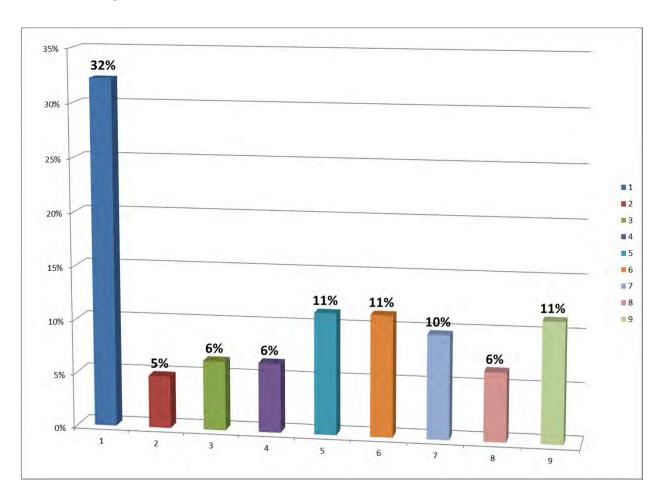
- 2. ...
- 3. ...
- 4. ...
- 5. ...
- 6. ...
- 7. ...
- 8. ...
- 9. Highest



**StdDev = 2.66** 

### **Light Industry - Distribution Center**

- 1. Lowest
- 2. ...
- 3. ...
- 4. ...
- 5. ...
- 6. ...
- 7. ...
- 8. ...
- 9. Highest



StdDev = 2.89

Light Industry - Data Server Farm

1. Lowest

2. ...

3. ...

4. ...

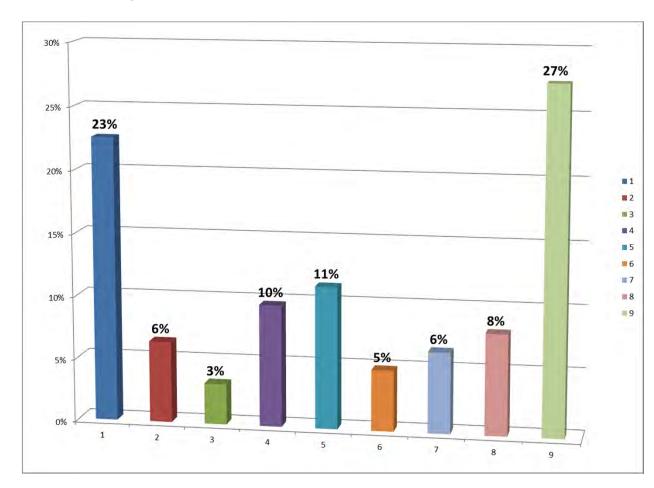
5. ...

6. ...

7. ...

8. ...

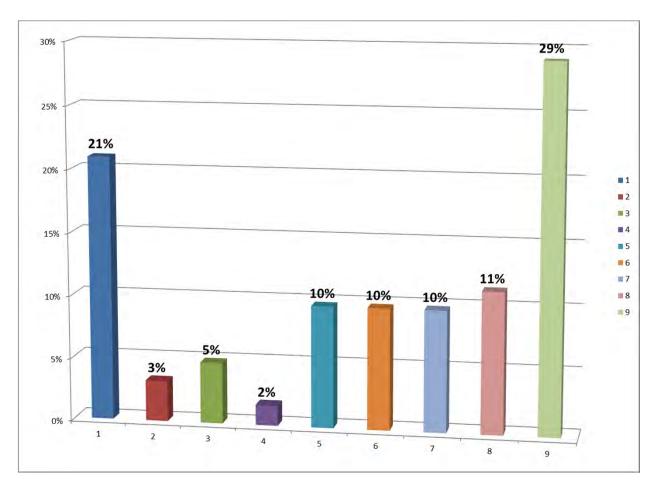
9. Highest



StdDev = 3.13

## **Light Industry - Biomass**

- 1. Lowest
- 2. ...
- 3. ...
- 4. ...
- 5. ...
- 6. ...
- 7. ...
- 8. ...
- 9. Highest



StdDev = 3.07

## Preference Permanent Site Closure - Cover it up

1. Lowest

2. ...

3. ...

4. ...

5. ...

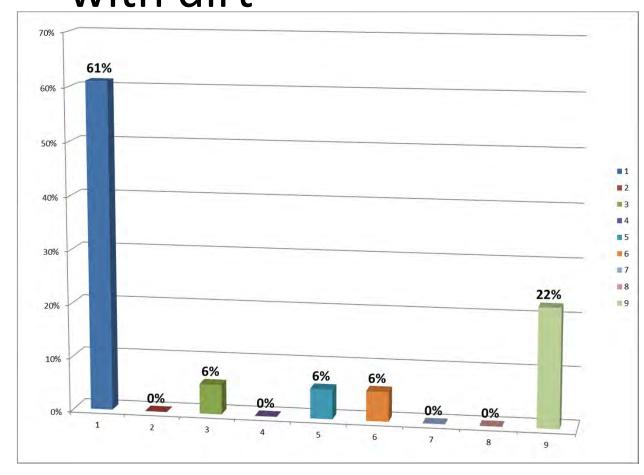
6. ...

7. ...

8. ...

9. Highest





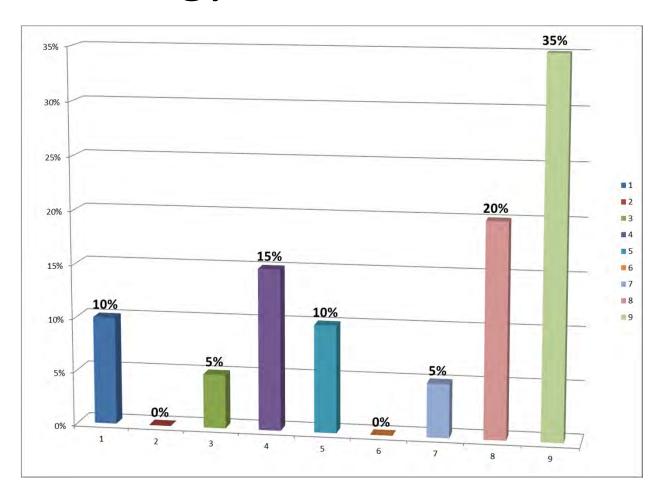
StdDev = 3.32

Mean = 3.39

### Alternative Energy Research Center



- 2. ...
- 3. ...
- 4. ...
- 5. ...
- 6. ...
- 7. ...
- 8. ...
- 9. Highest

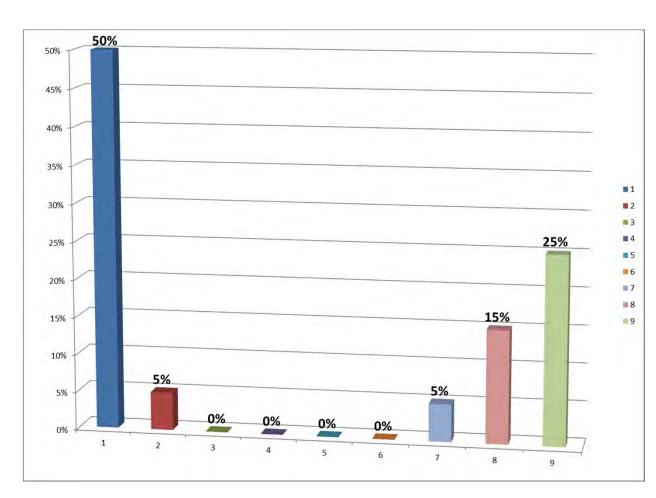


StdDev = 2.73

Mean = 6.45

## Preference Federal Prison

- 1. Lowest
- 2. ...
- 3. ...
- 4. ...
- 5. ...
- 6. ...
- 7. ...
- 8. ...
- 9. Highest

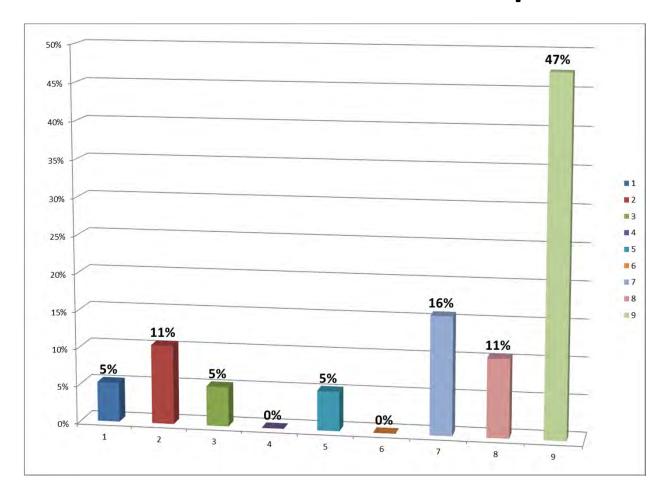


StdDev = 3.69

## Federal Lab to Test Cleanup



- 2. ...
- 3. ...
- 4. ...
- 5. ...
- 6. ...
- 7. ...
- 8. ...
- 9. Highest

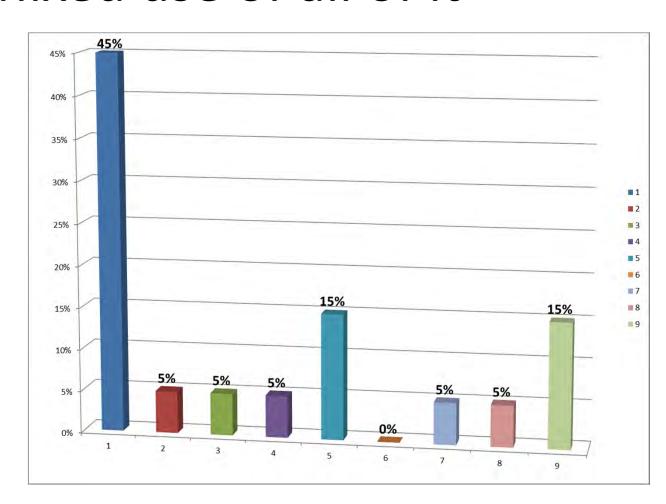


**StdDev = 2.75** 

Mean = 6.89

## Preference Mixed use of all of it

- 1. Lowest
- 2. ...
- 3. ...
- 4. ...
- 5. ...
- 6. ...
- 7. ...
- 8. ...
- 9. Highest



StdDev = 3.06

Mean = 3.75

Remediation Research Facility Combined

1. Lowest

2. ...

3. ...

4. ...

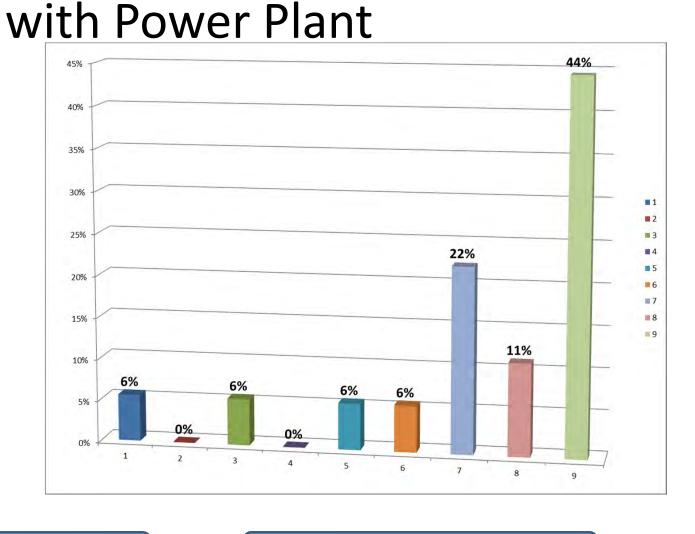
5. ...

6. ...

7. ...

8. ...

9. Highest

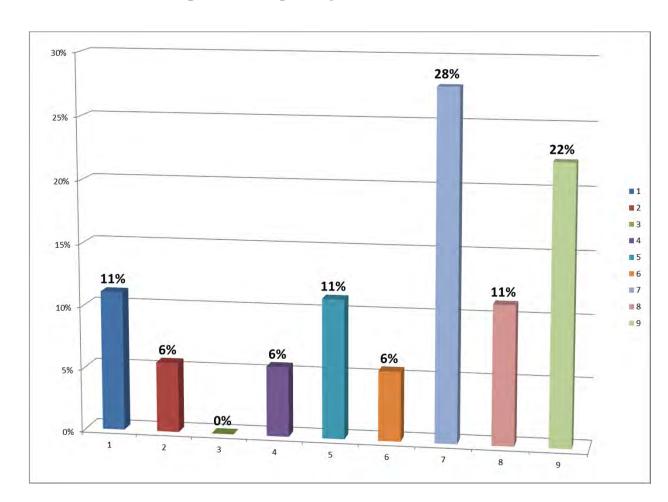


StdDev = 2.23

Mean = 7.28

## Preference River Port

- 1. Lowest
- 2. ...
- 3. ...
- 4. ...
- 5. ...
- 6. ...
- 7. ...
- 8. ...
- 9. Highest

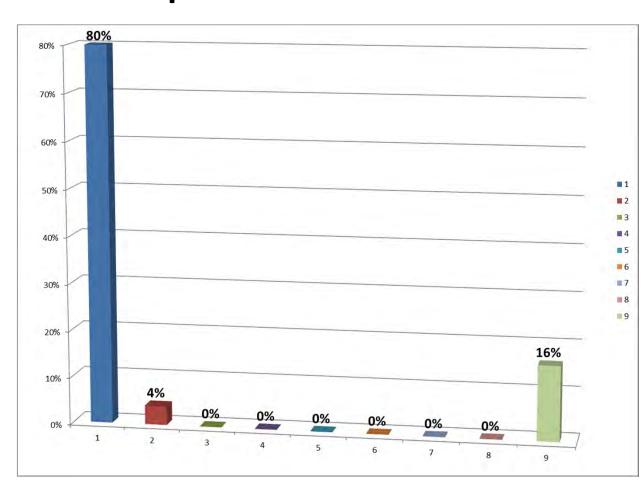


StdDev = 2.59

Mean = 6.17

## Preference Strip Mine

- 1. Lowest
- 2. ...
- 3. ...
- 4. ...
- 5. ...
- 6. ...
- 7. ...
- 8. ...
- 9. Highest



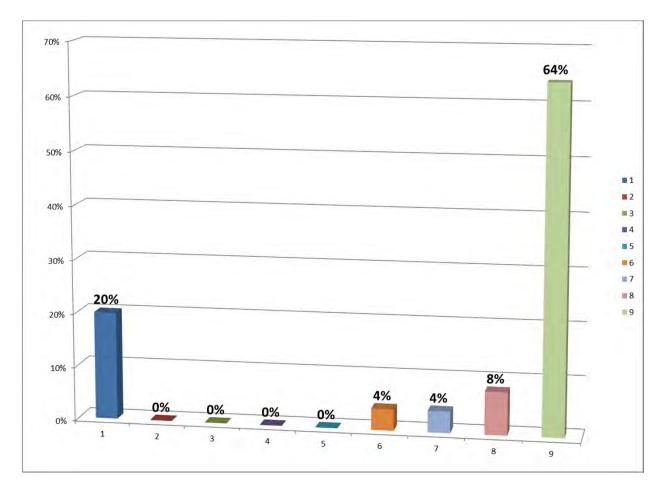
**StdDev = 2.92** 

Mean = 2.32

## Cleanup Research Facility



- 2. ...
- 3. ...
- 4. ...
- 5. ...
- 6. ...
- 7. ...
- 8. ...
- 9. Highest

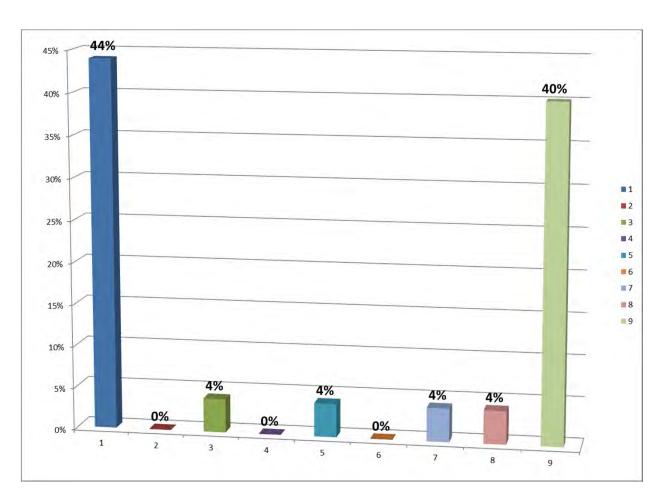


StdDev = 3.14

Mean = 7.12

## Preference Amusement Park

- 1. Lowest
- 2. ...
- 3. ...
- 4. ...
- 5. ...
- 6. ...
- 7. ...
- 8. ...
- 9. Highest



**StdDev = 3.76** 

