

Scenario Planning: Future Uses for the PGDP Site

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October 2008

Scenario Planning Process*

1. *Assemble a team*
2. *Select a Timeframe*
3. *Identify Trends and Uncertainties*
4. Scenarios : Facilitator, CAB & Select Stakeholders
5. Identify Trend Indicators: Facilitator & CAB
6. Identify Key Success Factors: Facilitator & CAB
7. Identify Core Competencies: Facilitator & CAB

*from eCornell University Scenario Planning course, Michael J. Hostetler, Author

CAB Discussion at Annual Retreat – September 2008

1. *Assemble a team:*
 - 6-8 people recommended

2. *Select a Timeframe for the Scenarios:*
 - 20 years from now at the PGDP site

CAB: August - September

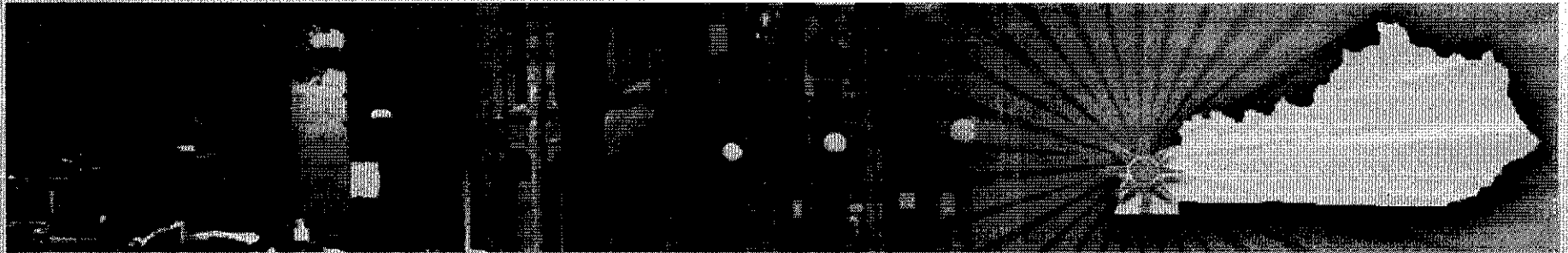
3. *Identify Trends and Uncertainties*

Political	Economic
Cultural	Demographic
Technological	Other

- Trends are factors that influence the site and have a known pattern
- Uncertainties are important factors, but their direction is unclear

Political Trends

- ▶ **Local economic development –tax base and job creation¹**
- ▶ **Public participation in environmental decision-making for better effectiveness²**



¹City of Paducah, <http://paducahky.gov/paducah/strategic-plan-paducah>

²United Nations, <http://www.millenniumassessment.org/en/index>

Economic Trends

- ▶ **Cost Analysis of Government Activities**
 - decreasing DOE-EM budget past three years³
- ▶ **High cost of Environmental Clean-Up³**



U.S. DEPARTMENT OF
ENERGY

³Dept. of Energy, <http://www.mbe.doe.gov/crOrg/cf30.htm>

Cultural Trends

- ▶ **Increased public awareness of environmental issues**
- ▶ **Lack of confidence in government agencies and risk analysis**

Demographic Trends

- **Census data for Paducah: No growth⁴**
- **Increased energy and natural resources demand⁵**

U.S. Census Bureau

⁴Census Bureau, <http://quickfacts.census.gov/qfd/states/21/21145.html>

⁵National Science Foundation, http://www.nsf.gov/geo/ere/ereweb/acere_synthesis_rpt.cfm

Technological Trends

- **Advances in environmental clean-up methodology⁶**
- **Advances in the nuclear power industry⁷**

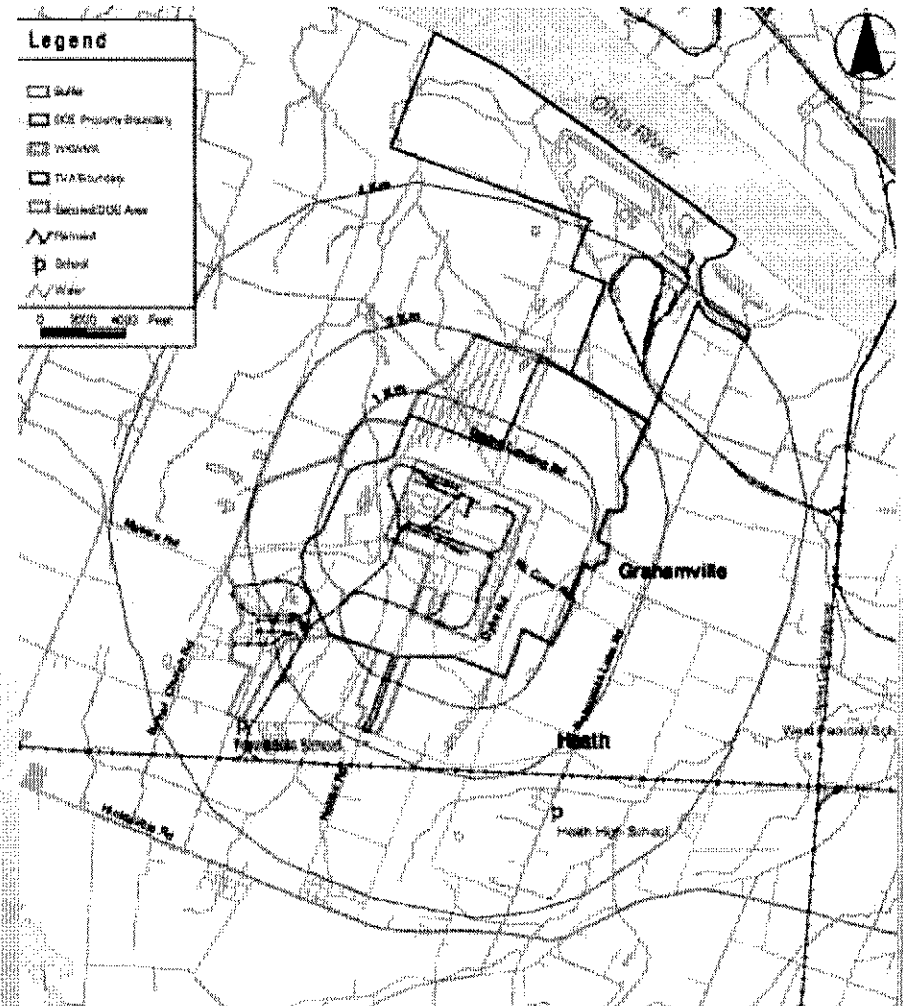


⁶Office Science Technical Info., (http://www.osti.gov/bridge/product.biblio.jsp?osti_id=7441)

⁷Zink, John C. "DOE rises to nuclear waste challenges." Power Engineering. May 2003: 16[1]

Tracking Trends & Uncertainties

- ▶ Changes in trends and uncertainties may have significant impact on future uses of the site
- ▶ Trend indicators will need to be identified and then monitored



Political Uncertainties

U1. Will the transition in government administrations increase funding for environmental clean-up activities at DOE?

U2. Will regulators and stakeholders agree with DOE clean-up strategies and decision-making?

Economic Uncertainties

U3. Will rising costs of energy increase funding for environmental management activities at DOE?

U4. Will local communities be able to attract organizations (business/ government) to the remediated site to maintain jobs and tax base?

Cultural Uncertainties

U5. Will a more diverse group of stakeholders play a proactive role in environmental management decision-making?

U6. Will clean-up strategies remediate contamination to levels acceptable by the local community?

Demographic Uncertainties

U7. Will D& D at the site increase job opportunities and population in Paducah?

U8. Will the Paducah strategic plan to increase tourism increase industrial and/or recreational use of the site?

Technological Uncertainties

U9. Will new generation nuclear technology be expanded and increase funding for environmental management at the site?

U10. Will innovations in other energy technologies increase funding for environmental management at the site?

Matrix to Determine Independent Uncertainties

	U1	U2	U3	U4	U5	U6	U7	U8	U9	U10
U1		0	0	+	?	?	?	+	?	?
U2			-	+	+	+	-	+	+	+
U3				+	?	+	+	+	+	+
U4					+	+	+	+	+	+
U5						+	+	+	+	+
U6							+	+	+	+
U7								+	+	+
U8									+	+
U9										+
U10										

+ Positive correlation

0 No correlation

- Negative correlation

? Unclear correlation

Independent Uncertainties

Will local communities be able to attract organizations to the remediated site ?			
Will DOE funding for environmental clean-up activities change?		Reactive Participation	Proactive Participation
	Increase Funding	S1	S2
	Decrease Funding	S3	S4

LONG-RANGE STEWARDSHIP SUBCOMMITTEE

October 2008	Scenario Planning/ End State	Tabulate trends and uncertainties for Scenario Planning
December 2008	Scenario Planning CAB Team and Facilitator	Develop plan to hold stakeholder meetings for next 6 months
February 2009	Framework for the Four Potential Scenarios	Site Tour D&D Buildings
April 2009	Initiate Stakeholder Meetings	Develop full descriptions of the four scenarios
June 2009	Continue Stakeholder meetings	Develop full descriptions of the four scenarios
August 2009	Continue Stakeholder meetings	Develop full descriptions of the four scenarios

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