SESSION 6A: National Infrastructure Protection Plan

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National Critical Infrastructure Protection (CIP) Program

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FERC Unifying Dam Safety and Security;
Responding to Natural Hazards and Human Threats at Dams Workshop
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TOPICS

- National Critical Infrastructure Protection (CIP) Program
- National Infrastructure Protection Plan (NIPP)
- Sector-Specific Plan (SSPs) Template Guidance
- SSP for Key Resource (KR) - Dams
- SSP and NIPP Schedule

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National CIP Program: Key Policy Drivers

The Homeland Security Act: defines what must be done to protect critical infrastructure:

- ✓ **Identify critical infrastructures, threats, and incidents**
- ✓ **Assess and analyze risks and vulnerabilities**
- ✓ **Develop and implement protective measures**
- ✓ **Administer warning capability**
- ✓ **Coordinate with industry/federal partners**

HSPD-7: defines how the Federal government can protect Critical Infrastructure / Key Resource (CI/KR) in cooperation with the private sector and S&L governments

Homeland Security Presidential Directive – 7

December 17, 2003

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HSPD-7
Implementation Framework

DHS is responsible for coordinating the overall national effort to enhance protection of CI/KR

13 Critical Infrastructure Sectors	Agriculture	USDA
	Public Health, Healthcare	HHS
	Drinking Water, Water Treatment	EPA
	Defense Industrial Base	DoD
	Energy	DOE
	Banking and Finance	TREAS
	National Monuments & Icons	DOI
	Transportation Systems	DHS
	Information Technology	DHS
	Telecommunications	DHS
	Chemical	DHS
	Emergency Services	DHS
	Postal and Shipping	DHS
4 Key Resources	Commercial Facilities	DHS
	Government Facilities	DHS
	Dams	DHS
	Nuclear Reactors, Materials, and Waste	DHS

Sector-Specific Agency (SSA)

DHS Responsibility

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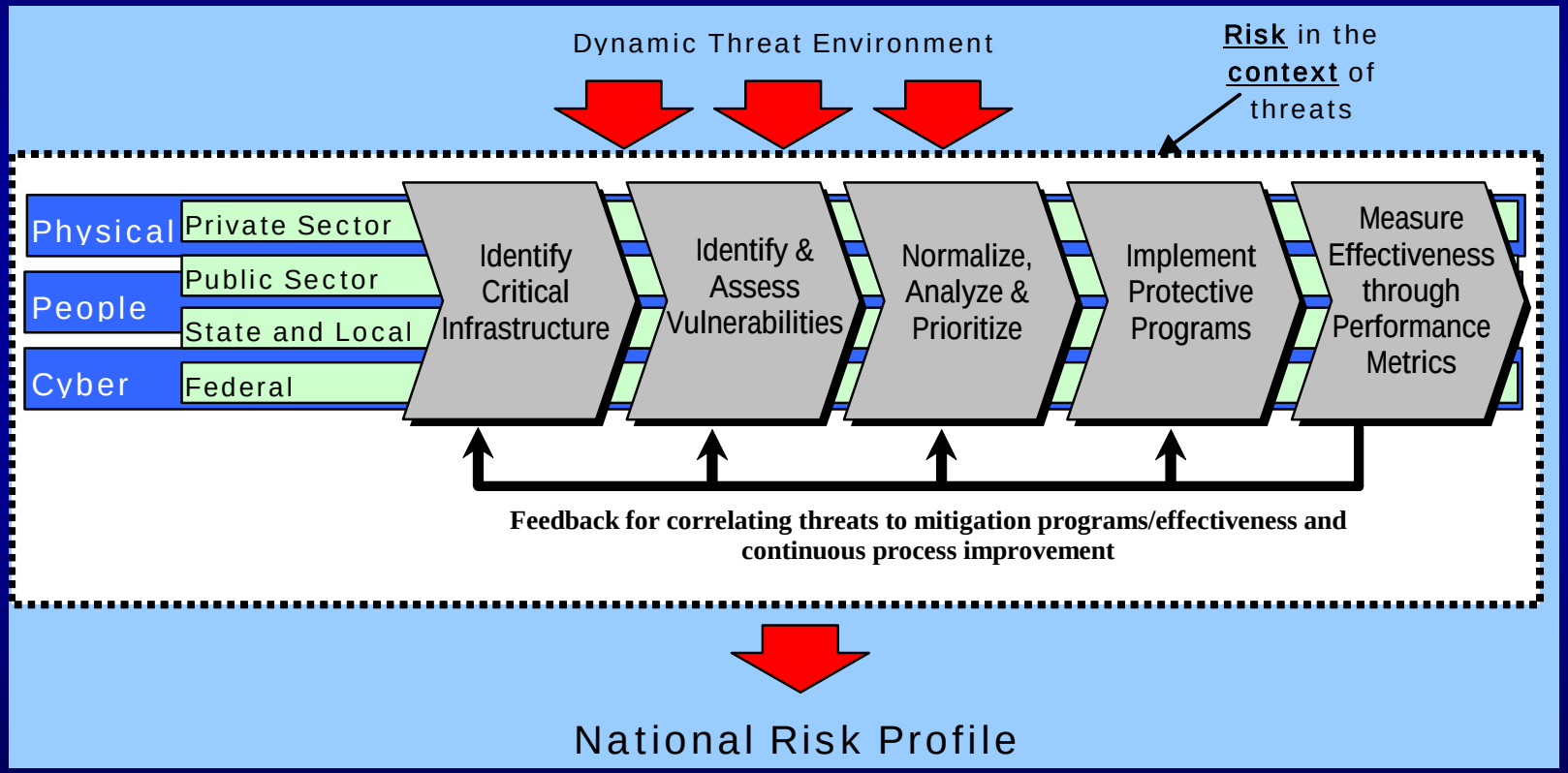
Risk-Based Approach

This process drives all CI/KR protection activities at the sector and national levels



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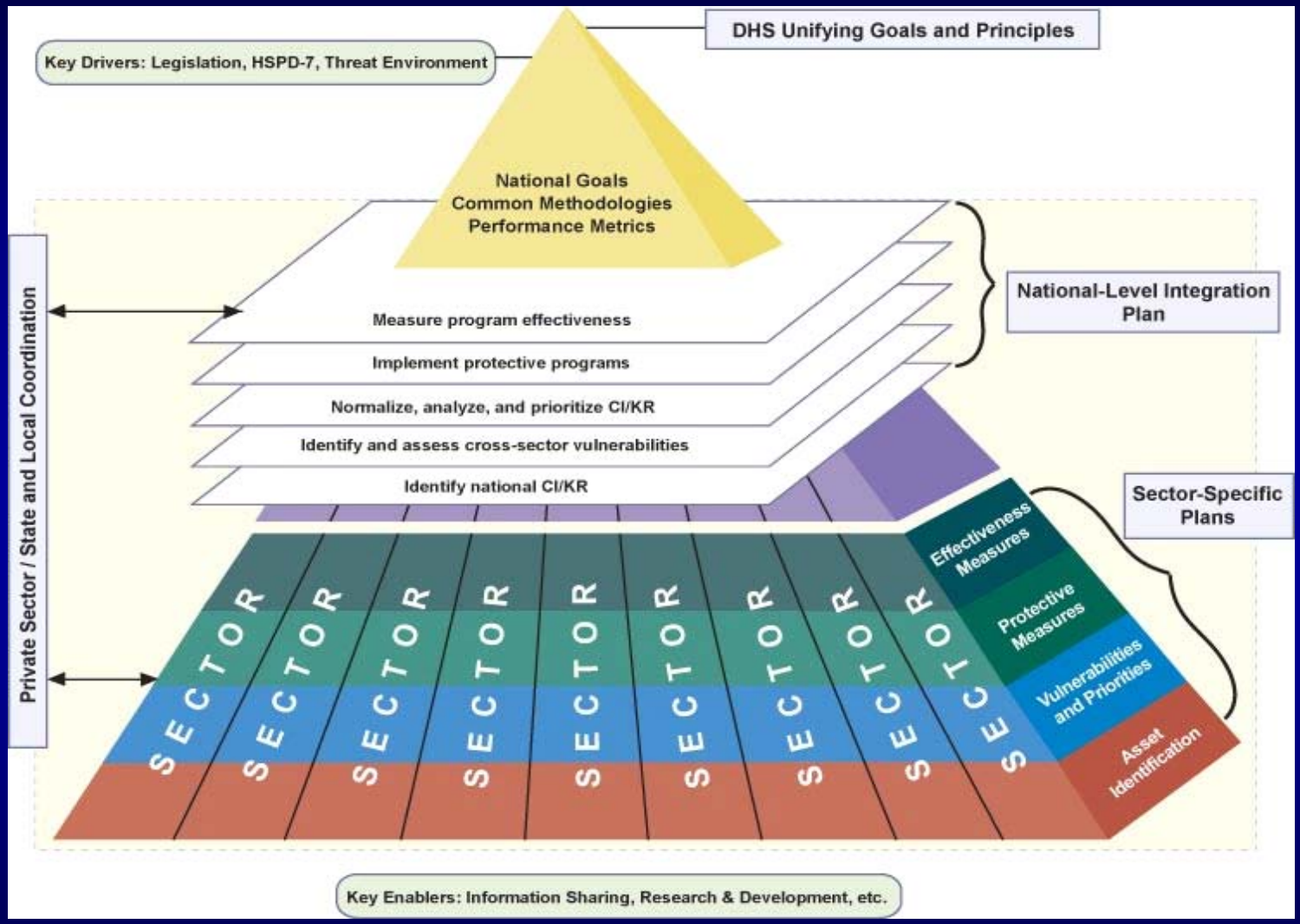
NIPP Conceptual Framework



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SSP Template Guidance

- **Two versions of each SSP. . .**
  - "Deliberative Process/Pre-Decisional, Not Intended for Distribution, For Official Use Only (FOUO)"
  - Redacted (non-FOUO)
- **SSP is <u>NOT</u> a data call**
- **SSP must be in DHS specified format**

Sector-Specific Plan (SSP) Outline

- Part I - Sector Background
- Part II - Identifying Sector Assets
- Part III - Assessing Vulnerabilities & Prioritizing Assets
- Part IV - Developing Protective Programs
- Part V - Measuring Progress with Metrics
- Part VI - Planning for Research & Development

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SSP KR - Dams
Product Development Team

- **Lead**
  - DHS Information Analysis and Infrastructure Protection Directorate, Infrastructure Coordination Division (DHS-IA/AP-ICD)

- **Federal Input from:**
  - DHS – FEMA
  - DOD - USACE, NORTHCOM
  - DOE - Office of Energy Assurance, Sandia National Labs
  - DOI - Reclamation
  - DOL - Mining Safety and Health Administration (MSHA)
  - FERC
  - USGS

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“Dam” Definition

- **Dam**
  - Conventional Dams
  - Navigation Locks
  - Levees
  - Canals
  - Other similar water retention type structures

SSP KR – Dams
Part I: Sector Background

- Written largely from a “dam safety” perspective with reference to some “security”

SSP KR – Dams
Part II: Identifying Sector Assets

- **Utilize the 77,000+ conventional dams listed in National Inventory of Dams (NID)**
  - Screen out “low” & “significant” hazard dams
  - Focus on 11,142 “high hazard” dams (I.e. loss of life)

- **Further screening on “additional prioritization variables”**

SSP KR – Dams Part III: Assessing Vulnerabilities and Prioritizing Assets

Formula:

RF = HF* (DT + SF + IF+ WF + AF + NV +FC + EE + PW)

Where:

RF = Project Priority Rating Factor
DT = Dam Type
IF = Infrastructure Factor
AF = Public Accessibility Factor
FC = Flood Control Factor
PW = Power Factor

HF = Hazard Factor
SF = Spillway Factor
WF = Water Usage Factor
NV = Navigation Factor
EE = Environmental/Ecological

SSP KR – Dams Part III: Assessing Vulnerabilities and Prioritizing Assets

- Estimated 1,000 to 2,000 conventional dam projects/facilities maybe classified as CI/KR

- No estimates on # of CI/KR with inclusion of other non-NID structures (ex. navigation locks, levees, canals, tailing dams and other similar water retention type structures)

SSP KR – Dams Part III: Assessing Vulnerabilities and Prioritizing Assets

- **Use vulnerability analysis tools on "self assessment basis"**
- **Example "Tools" referenced include:**
  - RAM-D
  - DAMSVR
- **"Self Assessments will be verified by the regulatory agency"**

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SSP KR – Dams
Part IV: Developing Protective Programs

- **Define Design Basis Threat (DBT)**
- **Determine Level of Protection (LOP)**
- **Identify Constraints**
- **Design and Implementation**
  - Detect
  - Delay
  - Assess
  - Respond
  - Redundancy
  - Recovery

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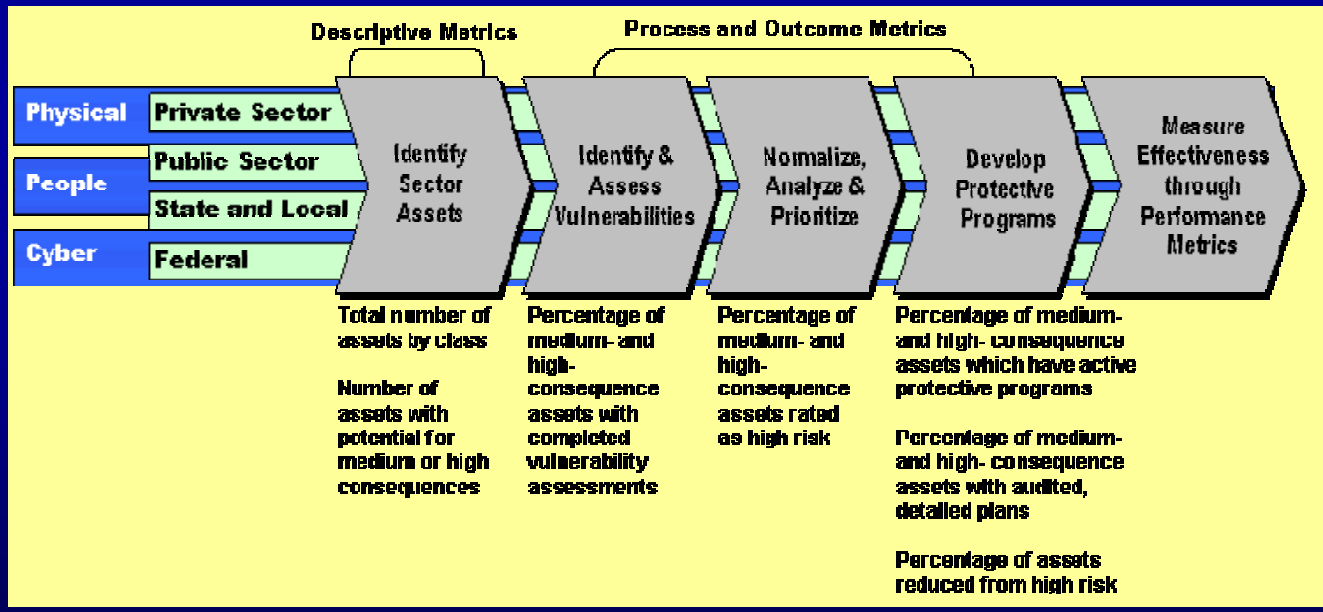
SSP KR – Dams
Part V: Measuring Progress with Metrics

- **Metric Types that will be tracked:**
  - Descriptive
  - Process
  - Outcome



SSP KR – Dams
Part VI: Planning for R & D

- **Current R&D Initiatives**
- **Gaps**
  - Short term
  - Mid term
  - Long Term
- **Planned R&D Initiatives**

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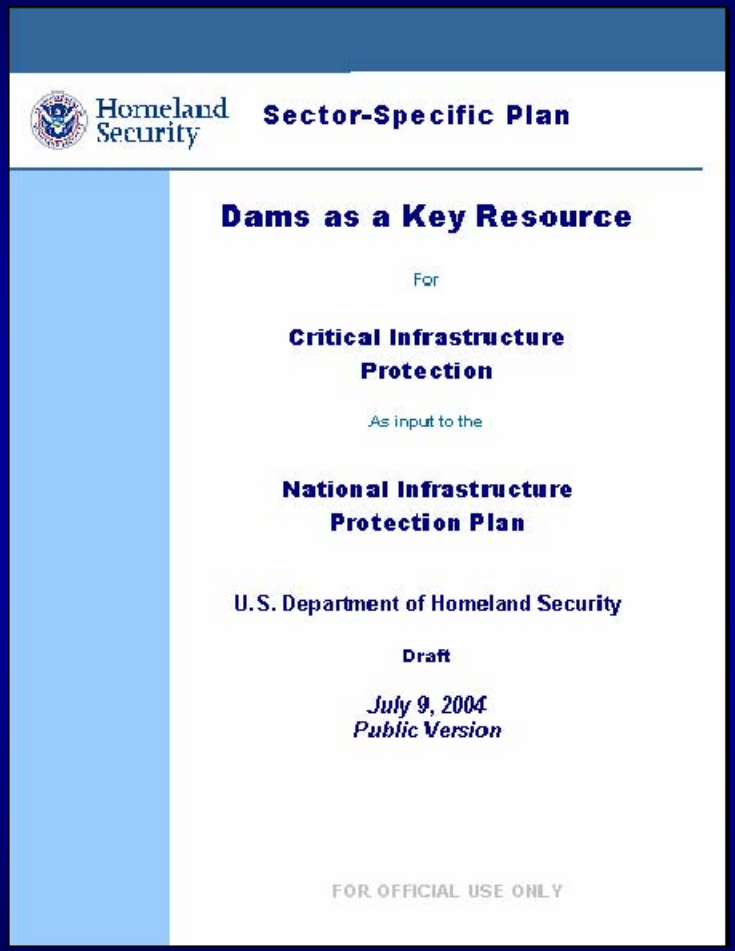
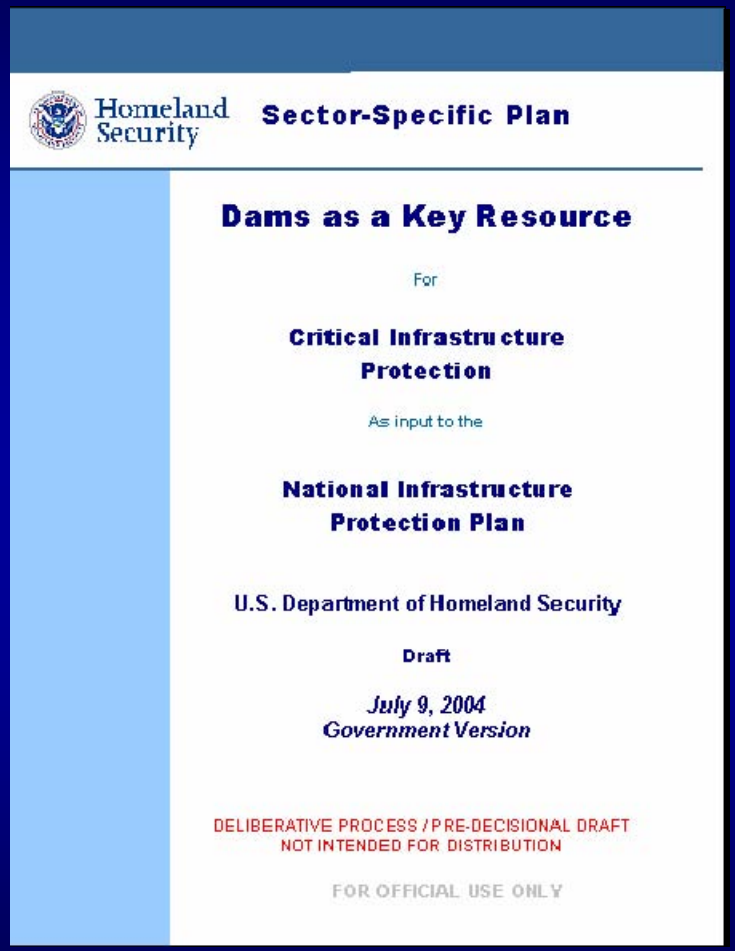
Schedule





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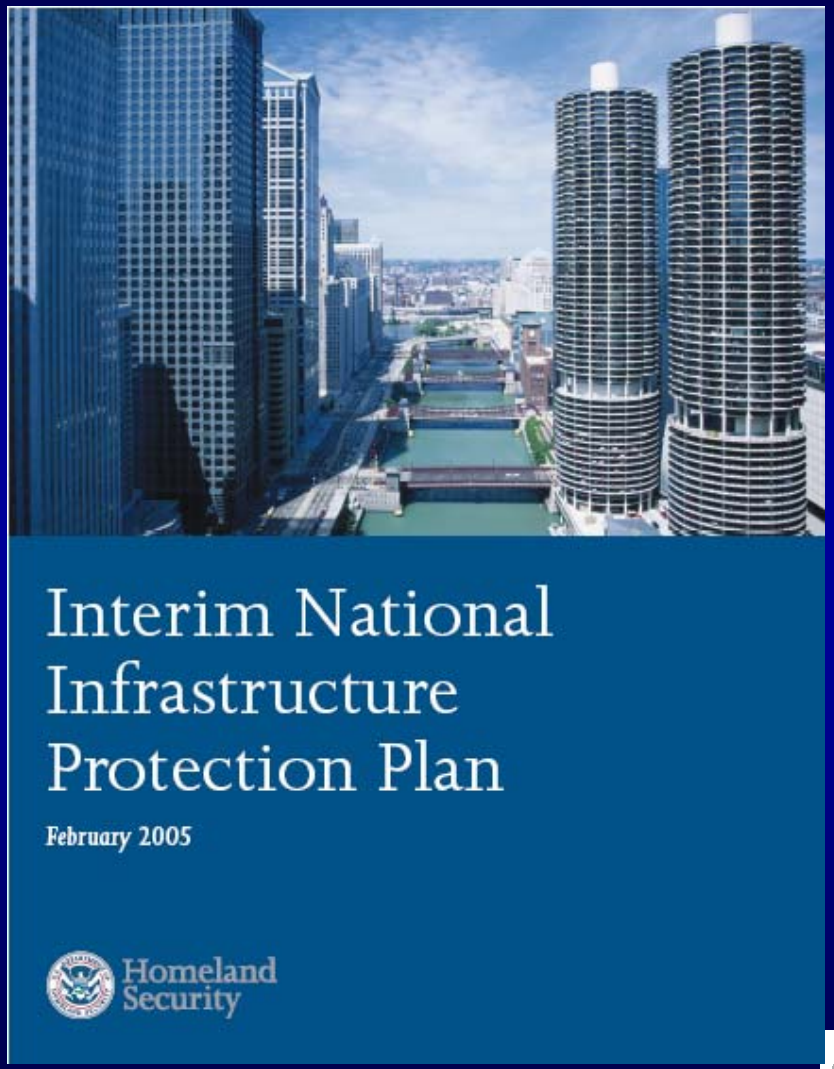

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Questions?

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