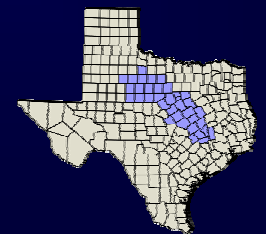


Agenda Item 6.4
Adoption of 2006 Initially Prepared
Brazos G Regional Water Plan

June 15, 2005

BRAZOS G
WATER PLANNING GROUP

HDR

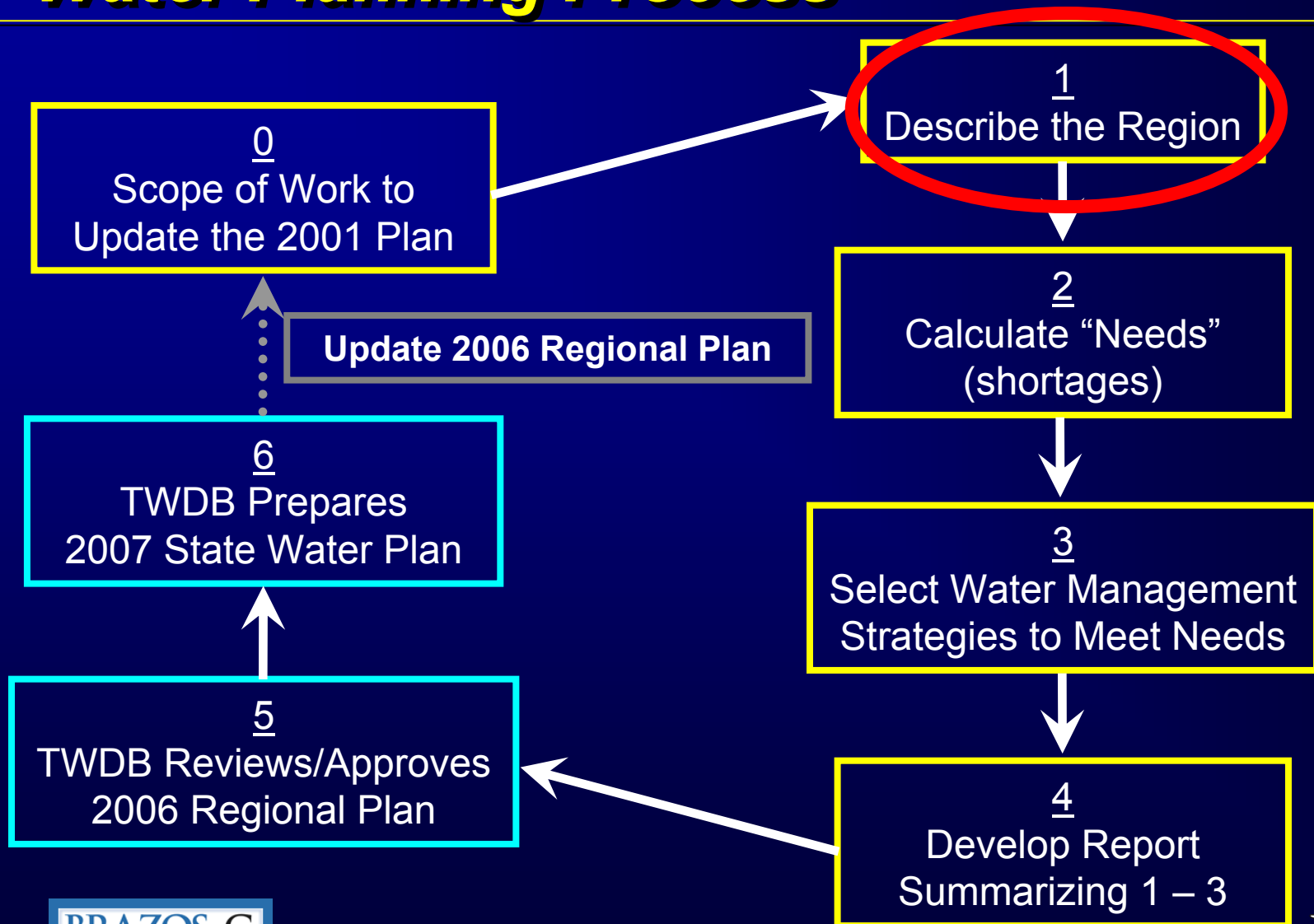


Today's Agenda Item

- ✓ **Review planning process to date**
- ✓ **Review key elements of draft plan**
- ✓ **Discuss revisions prior to submittal to TWDB**
- ✓ **Approve Initially Prepared 2006 Brazos G Regional Water Plan**

Brazos G

Water Planning Process



Brazos G

Water Planning Process

1
Describe the Region

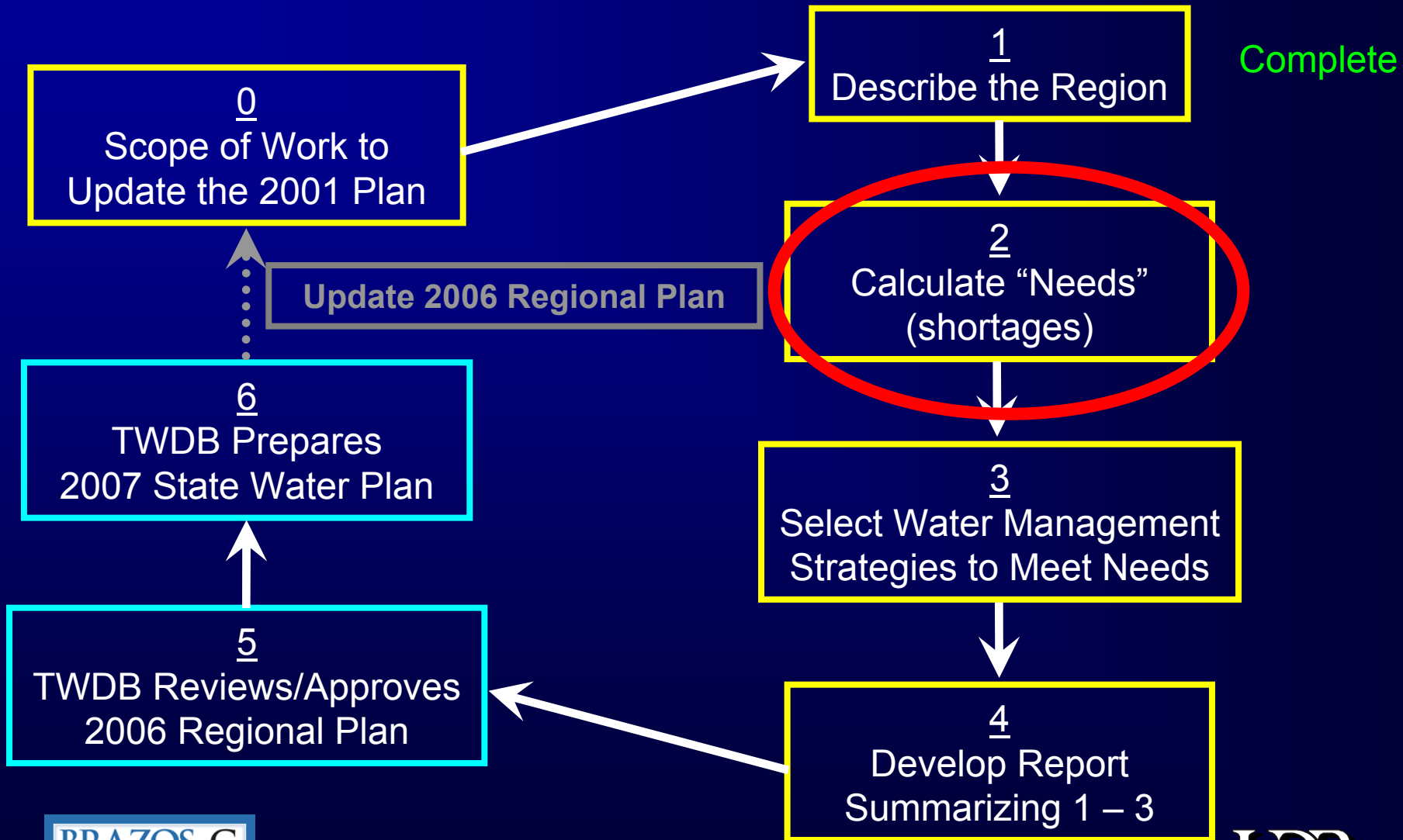
Information Required:

Status: Complete

- ✓ Wholesale water providers
- ✓ Current water use
- ✓ Identified water quality problems
- ✓ Sources of groundwater and surface water, including major springs
- ✓ Major demand centers
- ✓ Agricultural and natural resources
- ✓ Social and economic aspects of the regional water planning area, including information on current population and primary economic activities, including businesses dependent on natural water resources
- ✓ Initial assessment of current preparations for drought within the regional water planning area
- ✓ Summary of existing regional water plans, summary of recommendations in State water plan
- ✓ Summary of local water plans
- ✓ Identified threats to the agricultural and natural resources due to water quantity problems, or water quality problems related to water supply.

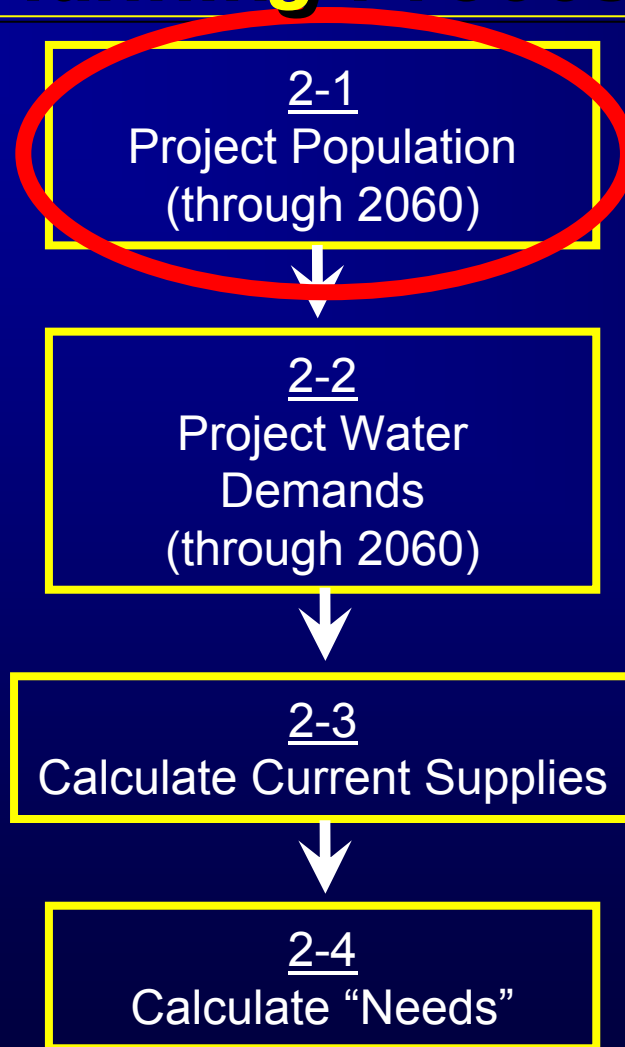
Brazos G

Water Planning Process



Brazos G Water Planning Process

2
Calculate "Needs"
(shortages)



Brazos G

Water Planning Process

2
Calculate “Needs”
(shortages)

2-1
Project Population
(through 2060)

- ✓ August 2002 - TWDB draft projections based on 2000 Census data
- ✓ September 2002 – requested suggested revisions from:
 - 37 County Judges
 - 7 Councils of Government
 - 184 Water User Groups
- ✓ January 2003 – presented revision request to TWDB
- ✓ Spring 2003 – TWDB approved final Brazos G population projections

Brazos G Water Planning Process

2
Calculate "Needs"
(shortages)

2-1
Project Population
(through 2060)

Status: Complete

2-2
Project Water
Demands
(through 2060)

2-3
Calculate Current Supplies

2-4
Calculate "Needs"

Brazos G Water Planning Process

2
Calculate "Needs"
(shortages)

2-2
Project Water
Demands
(through 2060)

✓Municipal

- Per-capita use (GPCD) based on 2000 Census and reported water use
- GPCD reduced based on increased use of efficient plumbing fixtures

•Requested review and comment following process similar to population projections.

$Demand = GPCD \times Population$

✓Manufacturing

•Steam Electric

✓Mining

✓Irrigation

✓Livestock

•Submitted request for revisions to TWDB in June 2003.
Developed through TWDB
Contractors & Staff

Brazos G Water Planning Process

2
Calculate "Needs"
(shortages)

2-1
Project Population
(through 2060)

Status: Complete

2-2
Project Water
Demands
(through 2060)

Status: Complete

2-3
Calculate Current Supplies

2-4
Calculate "Needs"

Brazos G Water Planning Process

2
Calculate “Needs”
(shortages)

2-3
Calculate Current Supplies

- ✓ Groundwater Availability (14 aquifer systems in Brazos G)
 - Brazos G Groundwater Availability Workgroup meetings
 - ◆ October 14 2003
 - ◆ October 24, 2003
 - ◆ December 12, 2003
 - Previous estimates adjusted for recent data/analyses
 - GAM Models – Central Carrizo GAM & Northern Edwards BFZ GAM
- ✓ Surface Water Availability – **Brazos G WAM**
 - TCEQ Brazos WAM Run 3 w/Brazos G modifications
 - Firm yields for reservoirs greater than 1,000 acre-feet capacity
 - Safe yields for reservoirs upstream of Possum Kingdom Reservoir
- ✓ Apportion Groundwater and Surface Water to WUGs

Brazos G Water Planning Process

2
Calculate "Needs"
(shortages)

2-1
Project Population
(through 2060)

Status: Complete

2-2
Project Water
Demands
(through 2060)

Status: Complete

2-3
Calculate Current Supplies

Status: Complete

2-4
Calculate "Needs"

Brazos G

Water Planning Process

2
Calculate “Needs”
(shortages)

2-4
Calculate “Needs”

Need = Supply minus Demand

(Need determined for each WUG and WWP for each decade)

Brazos G Water Planning Process

2
Calculate "Needs"
(shortages)

2-1
Project Population
(through 2060)

Status: Complete

2-2
Project Water
Demands
(through 2060)

Status: Complete

2-3
Calculate Current Supplies

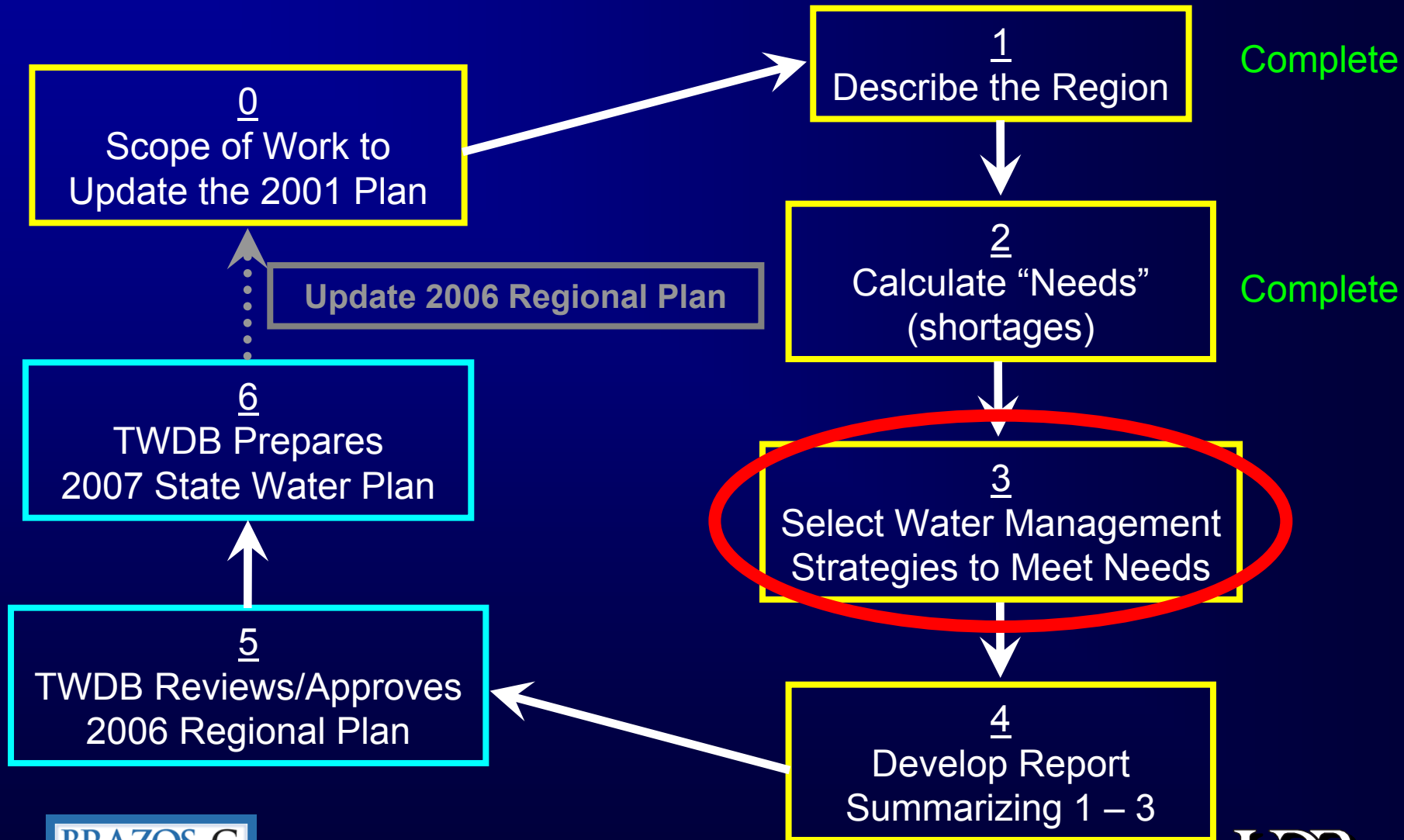
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2-4
Calculate "Needs"

Status: Complete

Brazos G

Water Planning Process



Brazos G Water Planning Process

3
Select Water Management
Strategies to Meet Needs

- Scope of Work
- Public Meeting

3-1
Identify Potential Water
Management
Strategies

Status: Complete

3-2
Evaluate Potential
Water Management
Strategies

Brazos G

Water Planning Process

3
Select Water Management
Strategies to Meet Needs

3-2
Evaluate Potential
Water Management
Strategies

- ✓ Water Conservation – **Must be considered for each need**
- ✓ Increased Groundwater Development
- ✓ New Reservoirs (on and off-channel)
- ✓ New Diversions
- ✓ Wastewater Reuse
- ✓ Desalination
- ✓ Aquifer Storage and Recovery
- ✓ Groundwater/Surface Water Conjunctive Use
- ✓ Voluntary Redistribution
- ✓ Interregional Water Management Strategies
- ✓ Interconnection of Regional and Community Water Systems
- ✓ Brush Control
- ✓ Weather Modification
- ✓ Other Measures

Brazos G Water Planning Process

3
Select Water Management
Strategies to Meet Needs

- Scope of Work
- Public Meeting

3-1
Identify Potential Water
Management
Strategies

Status: Complete

- Supply
- Cost
- Environmental
- Cultural
- Historical
- Other Factors

3-2
Evaluate Potential
Water Management
Strategies

Status: Complete

3-3
Select Water Management
Strategies to Meet Needs

Brazos G

Water Planning Process

3
Select Water Management
Strategies to Meet Needs

3-3
Select Water Management
Strategies to Meet Needs

- ✓ February 2005 – DRAFT plans presented to BGRWPG for some counties
- ✓ March 2005 – DRAFT plans presented to BGRWPG for all counties
- ✓ April 12-14 – Subregional meetings to obtain local comments
- ✓ April 26-27 – Subregional comments incorporated into DRAFT plans
- ✓ May - June – Final refinement of strategies

Brazos G Water Planning Process

3
Select Water Management
Strategies to Meet Needs

- Scope of Work
- Public Meeting

3-1
Identify Potential Water
Management
Strategies

Status: Complete

- Supply
- Cost
- Environmental
- Cultural
- Historical
- Other Factors

3-2
Evaluate Potential
Water Management
Strategies

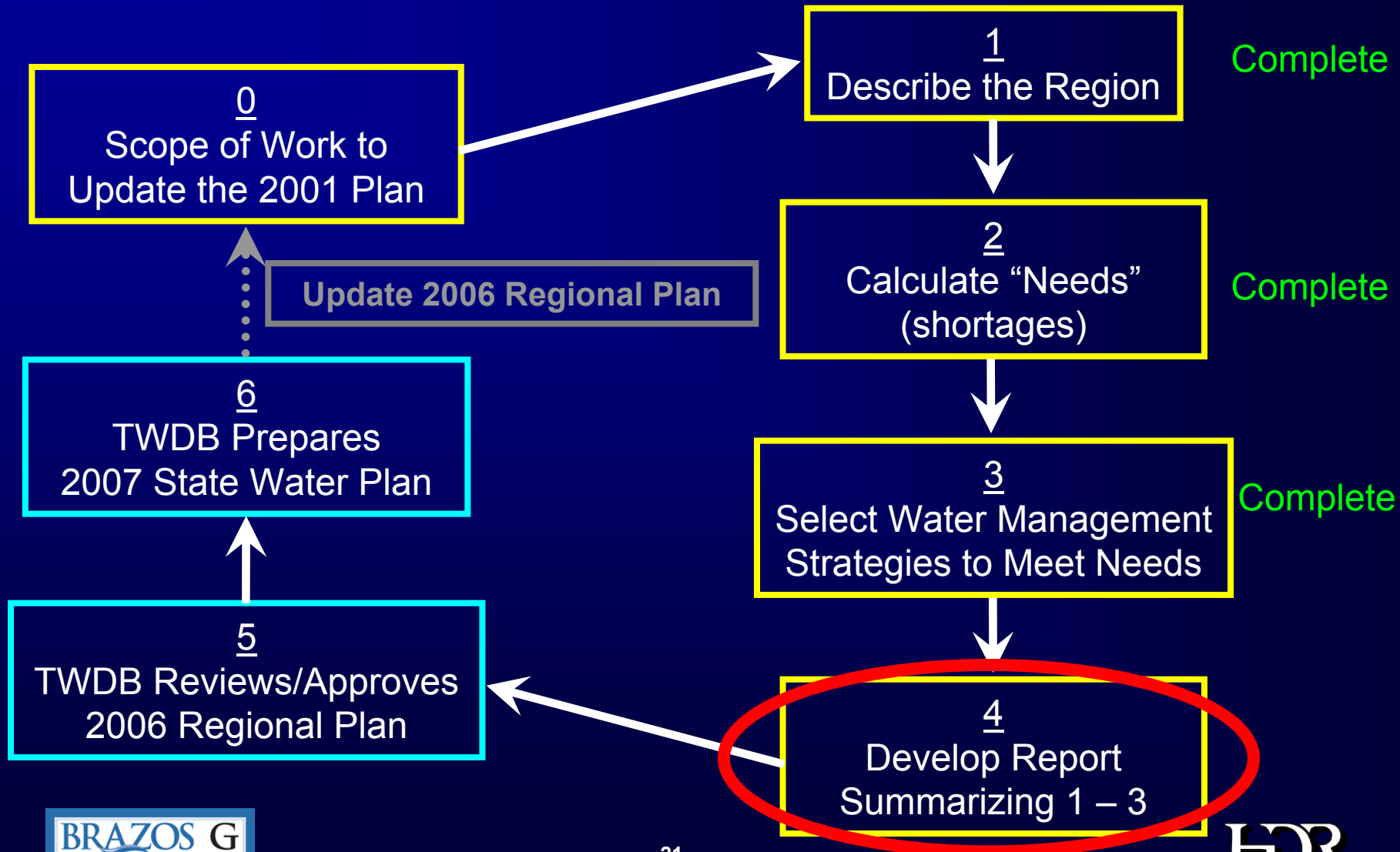
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3-3
Select Water Management
Strategies to Meet Needs

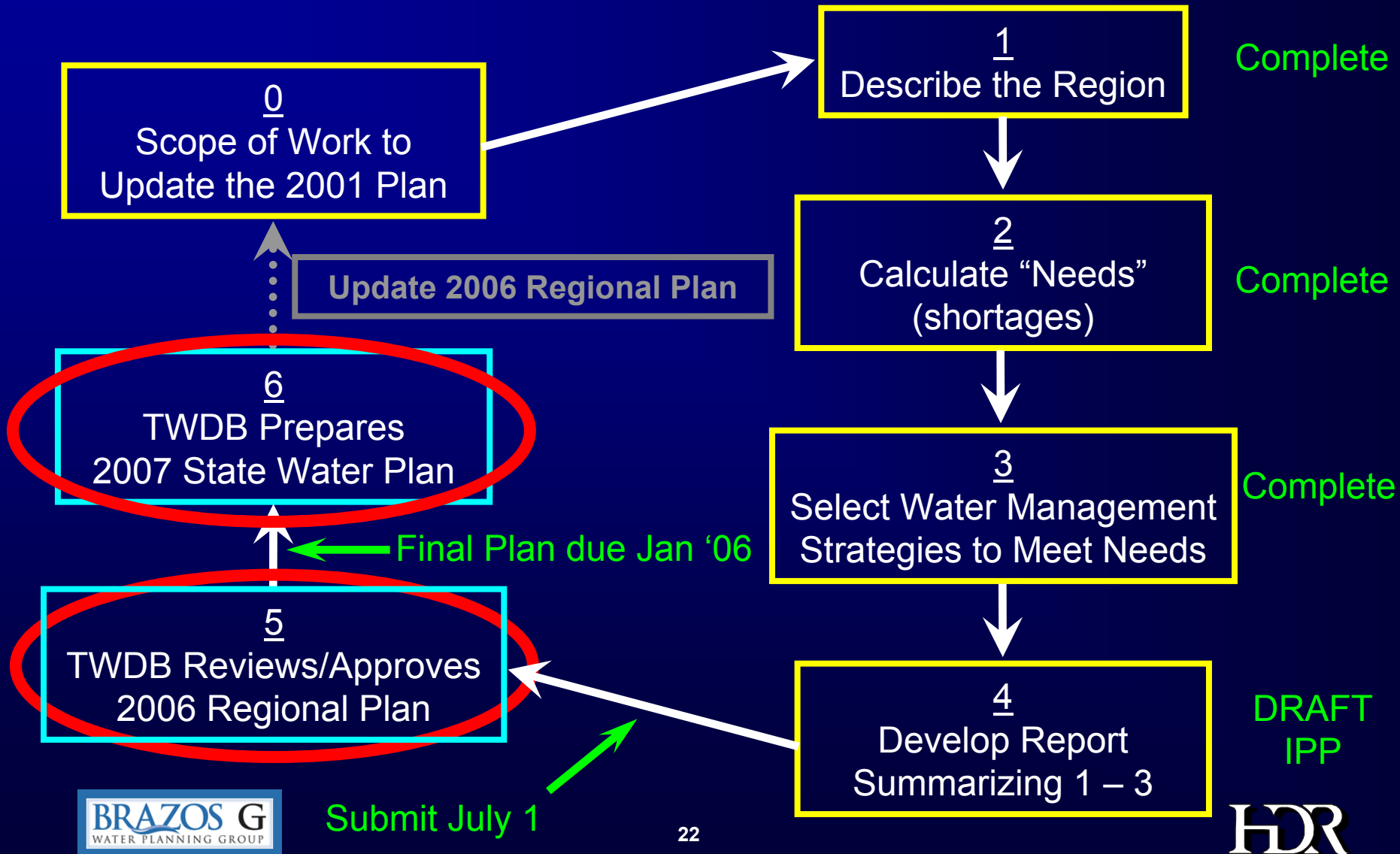
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Brazos G

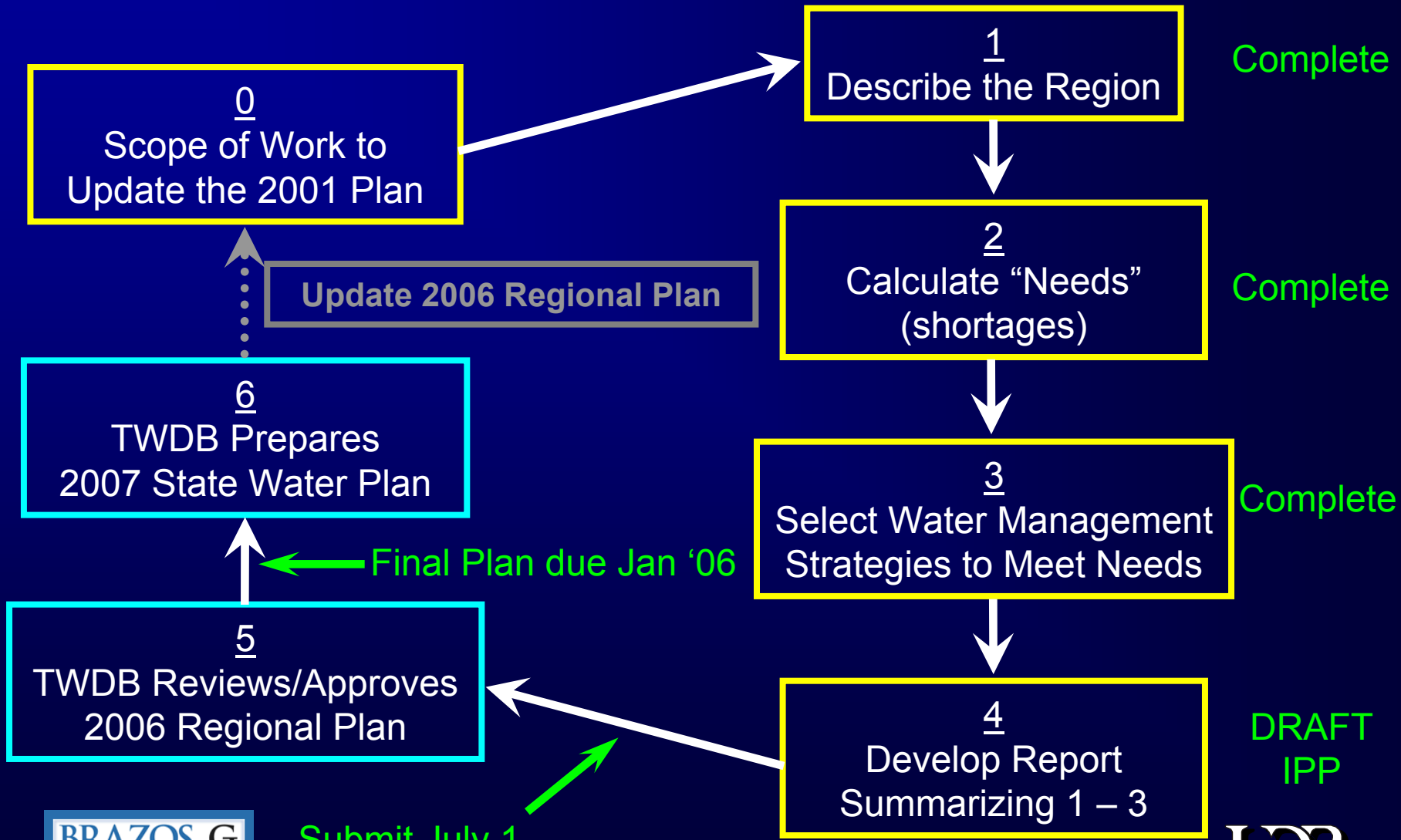
Water Planning Process



Brazos G Water Planning Process



Brazos G Water Planning Process



Key Elements of Plan (Page ES-15)

- ✓ **Conservation**
- ✓ **BRA System Operations**
- ✓ **West Central Brazos System Optimization Plan**
- ✓ **LCRA water into Williamson County**

Revisions Necessary Prior to July 1

- ✓ **Editorial refinement**
- ✓ **Volume II sections 2, 11, 16**
- ✓ **BRA requests**
- ✓ **Other requests**

Discussion/Approval
