
Session 1: Training Session Overview

FHWA Transportation Conformity Workshop
Lansing, MI
September 28, 2004

Agenda

- Introductions
- Background
- 8-Hour Ozone Conformity
- PM-2.5 Conformity
- Other Conformity Rule Changes
- Case Discussions

Final Rule

- Final rule published in Federal Register on July 1, 2004 (69 FR 40004)
 - » addresses all issues raised in June 30, 2003 conformity proposal on court decision (68 FR 38974)
 - » addresses all but two issues raised in November 5, 2003 conformity proposal on new standards (68 FR 62690)
- Consistent with EPA's broader 8-hour ozone and PM_{2.5} implementation strategies

Objectives of Final Rule

- To provide conformity rules for the new national ambient air quality standards (NAAQS)
- To incorporate existing EPA and DOT guidance that is consistent with a March 2, 1999 court decision
- To streamline and improve conformity implementation

Issues Not Addressed in Final Rule

- $PM_{2.5}$ precursors in regional emissions analyses
 - » EPA will address conformity requirements for precursors after consideration in broader $PM_{2.5}$ implementation strategy
- $PM_{2.5}$ and PM_{10} hot-spot analysis requirements
 - » A supplemental proposal will be issued to request further comment on consideration of localized emissions impacts (“hot-spots”) of individual projects
- Both issues will be addressed in a separate final conformity rule before $PM_{2.5}$ designations are effective

Conformity Websites

- EPA website: www.epa.gov/otaq/traq
(at site, click on “conformity”)
 - » Includes information on:
 - guidance and rulemakings
 - status of EPA’s adequacy reviews of submitted SIP budgets
 - » Includes other information on EPA’s Office of Transportation and Air Quality (OTAQ)
- DOT (FHWA) website:
www.fhwa.dot.gov/environment/conform.htm

Session 2: Background

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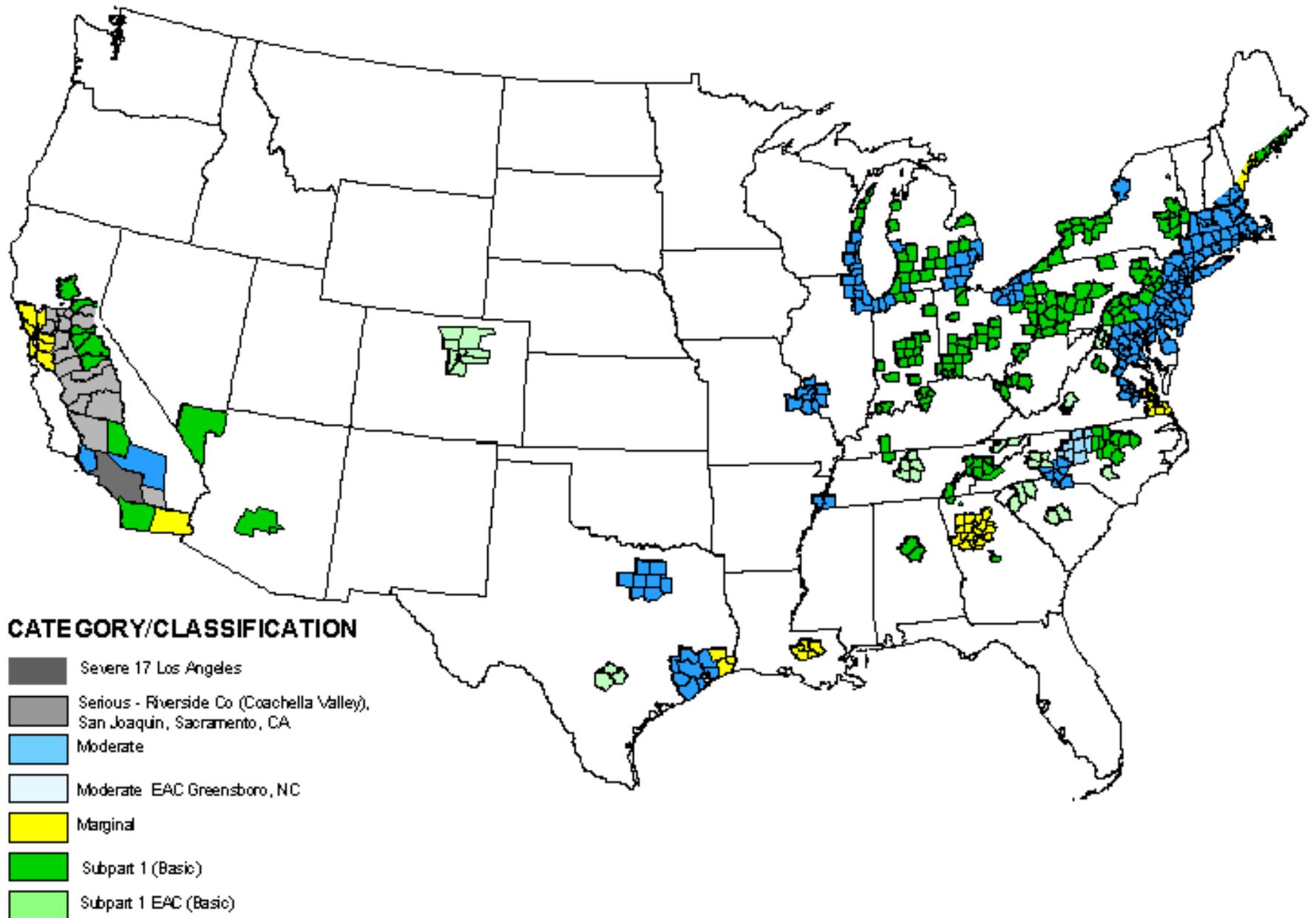
New 8-hour ozone standard

- Same pollutant as 1-hour ozone standard, but different way of measuring, and different standard
 - » Readings are over an 8-hour period rather than a 1-hour period
 - » The 3-year average of the 4th highest ozone readings must be ≤ 0.08 ppm
- Phase 1 Final 8-hour implementation rule published April 30, 2004 (69 FR 23951)
 - » EPA developing Phase 2 final rule now

New 8-hour ozone standard

- Areas designated for the 8-hour ozone standard: April 15, 2004
- Effective date of designation: June 15, 2004
 - » Not for areas with an Early Action Compact (EAC), where effective date is deferred
- 8-hour conformity applies: June 15, 2005
 - » Not for areas with an EAC

Classification of 8-hour Nonattainment Ozone Areas



The 1-hour ozone standard

- Will be revoked one year after the effective date of designation: June 15, 2005 for most areas
 - » Conformity for the 1-hour standard no longer applies at that point, except for 1-hour maintenance areas that are 8-hour EACs (Denver, Greensboro, Nashville)
- Coordinated with date conformity for the 8-hour standard applies
 - » To ensure conformity not required for both ozone standards at same time

Conformity under the 1-hour ozone standard

- In general, final rule does not change 1-hour ozone conformity requirements
- During the one-year conformity grace period for the 8-hour standard:
 - » conformity for the 1-hour standard continues to be required for new plan, TIP, and project approvals
 - » existing adequate and approved SIP motor vehicle emissions budgets (“budgets”) for the 1-hour standard must continue to be used
 - » if a 1-hour lapse occurs during the grace period, the lapse ends when the 1-hour standard is revoked, and if the area is nonattainment for the 8-hour standard, DOT has made an 8-hour conformity determination

EAC Areas and Conformity

- 8-hour conformity will not apply in EAC areas, unless an EAC milestone is missed and nonattainment designation no longer deferred
- 1-hour conformity applies in 1-hour maintenance areas with EACs until one year after effective date of 8-hour designation, which will be either when:
 - » they attain the 8-hour standard, or
 - » they miss an EAC milestone (and become an 8-hour nonattainment area)

New PM_{2.5} standards

- PM_{2.5} is a different pollutant than PM₁₀, not just a different standard
- PM_{2.5} standards:
 - » annual standard: 15 µg/m³
 - » 24 hour standard: 65 µg/m³
- EPA intends to designate areas by Nov/Dec 2004
 - » Effective date Jan/Feb 2005
 - » Conformity applies 1 year after effective date: Jan/Feb 2006
- Broader PM_{2.5} implementation strategy rule under development

Conformity under the PM₁₀, CO, and NO₂ standards

- In general, final rule does not change conformity requirements in PM₁₀, CO, and NO₂ areas
- What final rule provisions do affect these areas? Those that:
 - » are related to March 1999 decision and existing federal guidance
 - » offer flexibility (e.g., latest planning assumptions)
 - » miscellaneous streamlining and clarifications

Session 3: When Do You Do Conformity?

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New Nonattainment Areas

- CAA and conformity rule provide a one-year grace period for newly designated nonattainment areas
- After one year:
 - » conforming plan and TIP must be in place
 - » subject to conformity frequency requirements

When will conformity apply for the new air quality standards?

- Conformity applies one year after the effective date of EPA's nonattainment designation for a given standard
- June 15, 2005: Conformity applies for most 8-hour ozone areas (e.g., except EACs)
 - » 1-hour ozone standard will be revoked
- Jan/Feb 2006: Conformity applies for PM_{2.5}

When is the first conformity determination required?

- First conformity determination for the new standards must be completed:
 - » for metropolitan and donut areas, by the end of the one-year grace period or plan/TIP conformity will lapse
 - » for isolated rural areas, by the first FHWA/FTA project phase approval (no lapse will occur in these areas, however, since these areas do not have plans/TIPs)
 - » conformity determinations can be completed voluntarily during the grace period
 - effective date of conformity determinations can be during the grace period

Does DOT have to make a determination by the end of the grace period?

- Yes, both the MPO and DOT must make plan and TIP conformity determinations by the end of the grace period
 - » In order to avoid a lapse

What requirements apply for other standards during grace period?

- Until the standard is revoked 1-hour areas must continue to comply with the rule's 1-hour requirements and existing 1-hour SIP budgets
- 1-hour conformity determinations required:
 - » for plan or TIP updates or amendments
 - » to satisfy triggers (e.g., 18 months after a 1-hour budget is found adequate)
 - » to satisfy other frequency requirements
- Conformity for other pollutants continues as applicable

Do all determinations during grace period have to address new standard?

- No, conformity to a new air quality standard cannot be required during its grace period
- An area could decide to not address a new standard during the grace period,
 - » even if it was addressed in a previous determination during the grace period
- However, by the end of the grace period a DOT plan/TIP conformity determination must be made for new standard to avoid lapse

When does 3-year conformity clock start for new standards?

- Refresher: A new conformity determination and regional emissions analysis required at least every 3 years
- PM2.5: 3-year clock starts on date of first plan/TIP determination and regional emissions analysis, even if DOT's determination done during PM2.5 grace period
- "First" determination = what is in place at end of grace period

When does 3-year conformity clock start for new standards?

- 8-hour ozone: 3-year clock starts on date of either:
 - » DOT's first conformity determination, based on a new regional emissions analysis for 8-hour ozone, even if DOT's determination done during grace period, or
 - » DOT's last 1-hour conformity determination, based on a new analysis, in the case where an 8-hour area relies on a previous 1-hour analysis for all or a portion of the first 8-hour determination

Can an 8-hour area rely on a previous 1-hour analysis?

- Yes, if the requirements of 93.122(g) are met:
 - » Analysis must apply to the plan and TIP;
 - » Be applicable to the 8-hour boundary; and
 - » Meet all of the requirements of 93.118 or 93.119
 - e.g., The previous analysis for the budget test must include a regional analysis for the 8-hour attainment year.

Examples: 3-year clock in 8-hour ozone areas

- Example 1: DOT makes a plan/TIP conformity determination based on a new regional emissions analysis:
 - » DOT determination made on June 1, 2005
 - » 3-year clock starts on June 1, 2005

Examples: 3-year clock in 8-hour ozone areas

- Example 2: DOT makes a plan/TIP conformity determination based on the previous regional emissions analysis:
 - » Previous DOT determination made on September 1, 2004
 - » DOT determination made on June 1, 2005
 - » 3-year clock starts on September 1, 2004

Session 4: Regional Emissions Tests for the New Standards

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General:

Regional Emissions Analyses

- No adequate or approved SIP budgets:
 - » interim emissions test(s) – baseline year and build/no-build tests)
- Adequate or approved SIP budgets:
 - » budget test
- Final rule updates interim emissions tests and provide flexibility

General Changes to Baseline Year Tests

- Baseline year test updated from 1990 to 2002 for 8-hour ozone and $PM_{2.5}$
 - » Consistent with EPA establishing 2002 as the baseline year for SIPs for new standards
 - » Latest 2002 baseline motor vehicle emissions must be used as decided through consultation process
 - » 1990 still applies for 1-hour, CO, PM_{10} , and NO_2 areas

General Changes to Build/No-Build Test

- Test changed to build \leq no-build test for all areas except higher classifications of ozone and CO
 - » the build \leq no-build test is waived altogether for these areas for analysis years when projects and planning assumptions are exactly the same in the build and no-build scenarios
 - » provides flexibility to areas with fewer Clean Air Act (CAA) requirements
 - » helps these areas when build and no-build scenarios are exactly the same
 - these areas still need to make conformity determinations and look at all analysis years
- Test remains build $<$ no-build for ozone and CO areas of higher classifications

Areas Covered by Final Rule

- Final rule describes regional regional emissions analysis tests before and after new SIP budgets are available for:
 - » 8-hour ozone areas without 1-hour ozone SIP budgets
 - » 8-hour ozone areas with 1-hour ozone SIP budgets
 - » PM_{2.5} areas

Tests for 8-hour Areas without 1-hour SIPs

- Final rule is generally consistent with requirements in 1-hour ozone areas without adequate or approved SIP budgets
- Marginal and subpart 1 (“basic”) areas without 1-hour SIPs can choose between:
 - » build_≤no-build, OR
 - » no-greater-than-2002 test

Tests for 8-hour Areas without 1-hour SIPs

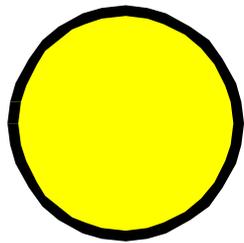
- Moderate and above areas without 1-hour SIPs complete both:
 - » build<no-build AND
 - » less-than-2002 tests
 - » Because the CAA requires that transportation activities in moderate and above ozone areas must also “contribute to annual emission reductions....”
- For all 8-hour areas using interim emissions tests, a regional emissions analysis is done for:
 - » volatile organic compounds (VOCs), and
 - » nitrogen oxides (NO_x), unless EPA has issued a NO_x waiver under CAA section 182(f) for the 8-hour ozone standard (1-hour NO_x waivers are not applicable for the 8-hour standard)

8-hour Areas with 1-hour SIPs

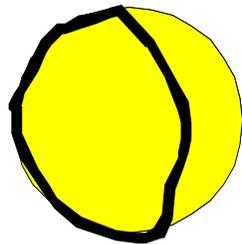
- Final rule requires that existing 1-hour SIP budgets be used for 8-hour conformity before new 8-hour SIPs are in,
 - » unless another test is deemed more appropriate for meeting CAA requirements
- Using adequate and approved 1-hour SIP budgets will ensure that these areas continue current air quality progress and attain the 8-hour standard on time
- Final rule is described through four boundary scenarios:
 - » areas where the 8-hour boundary = 1-hour boundary
 - » areas where the 8-hour boundary < 1-hour boundary
 - » areas where the 8-hour boundary > 1-hour boundary
 - » areas where portions of 8-hour and 1-hour boundaries overlap

8-hour Areas with 1-Hour Budgets

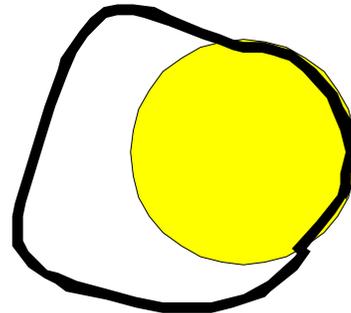
- 4 potential boundary scenarios:



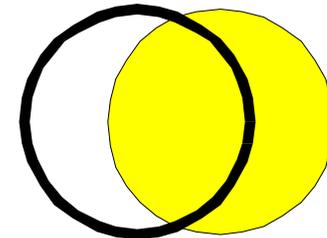
Scenario
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Scenario
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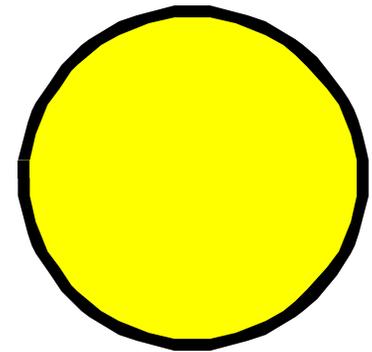
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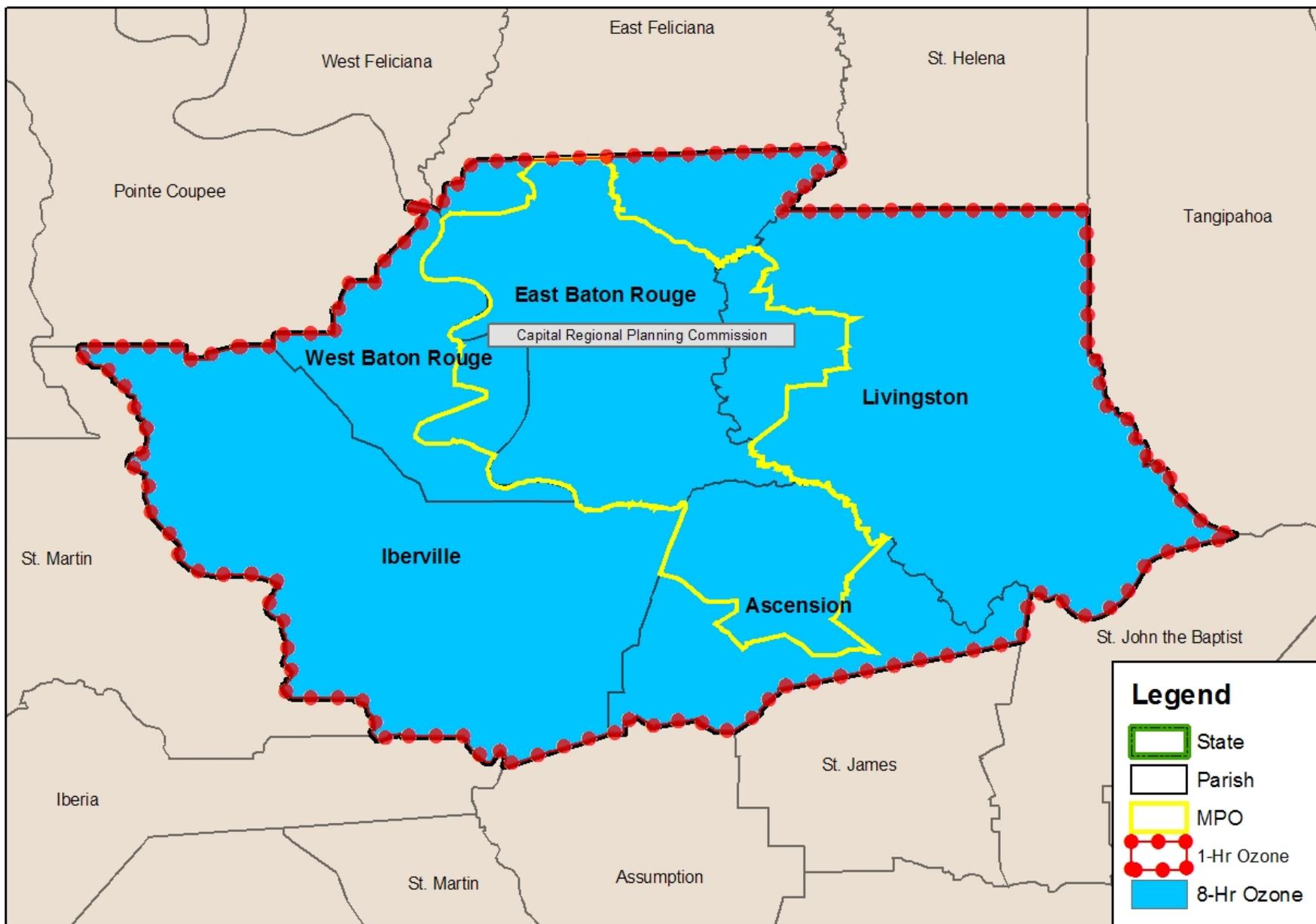
 = 1-hour area

 = 8-hour area

Scenario 1 -- 93.109(e)(2)(i)

- Area uses 1-hour budgets as-is since boundaries are the same
- = 1-hour area
○ = 8-hour area





Baton Rouge, LA

Scenario 2 -- 93.109(e)(2)(ii)

- Area calculates regional emissions and uses budgets from 1-hour SIP for either:

- » the 8-hour area,

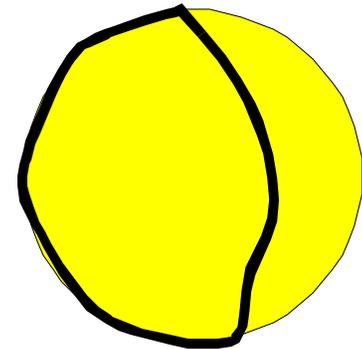
- if the appropriate portions of the budgets can be identified through consultation

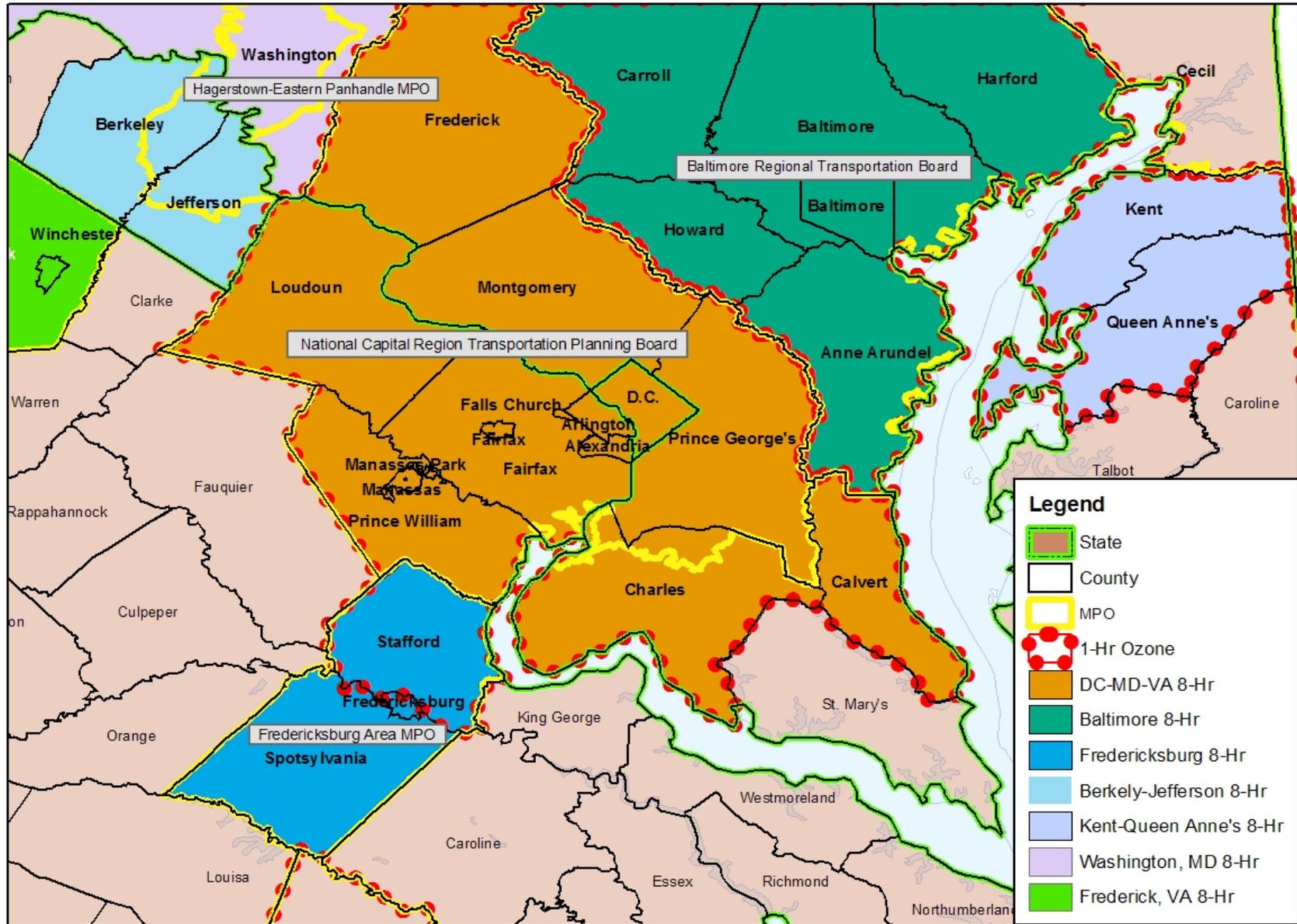
OR

- » the entire 1-hour area,

- and any additional reductions, beyond those strategies in the SIP, must come from within the 8-hour area

 = 1-hour area
 = 8-hour area





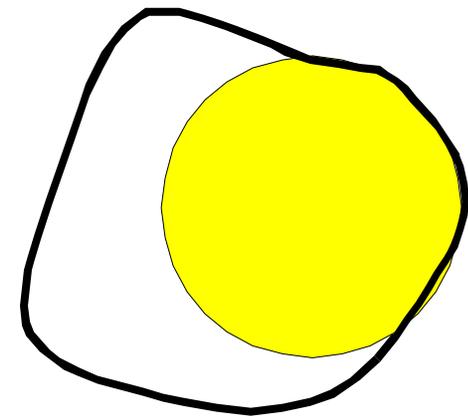
Washington, DC-MD-VA

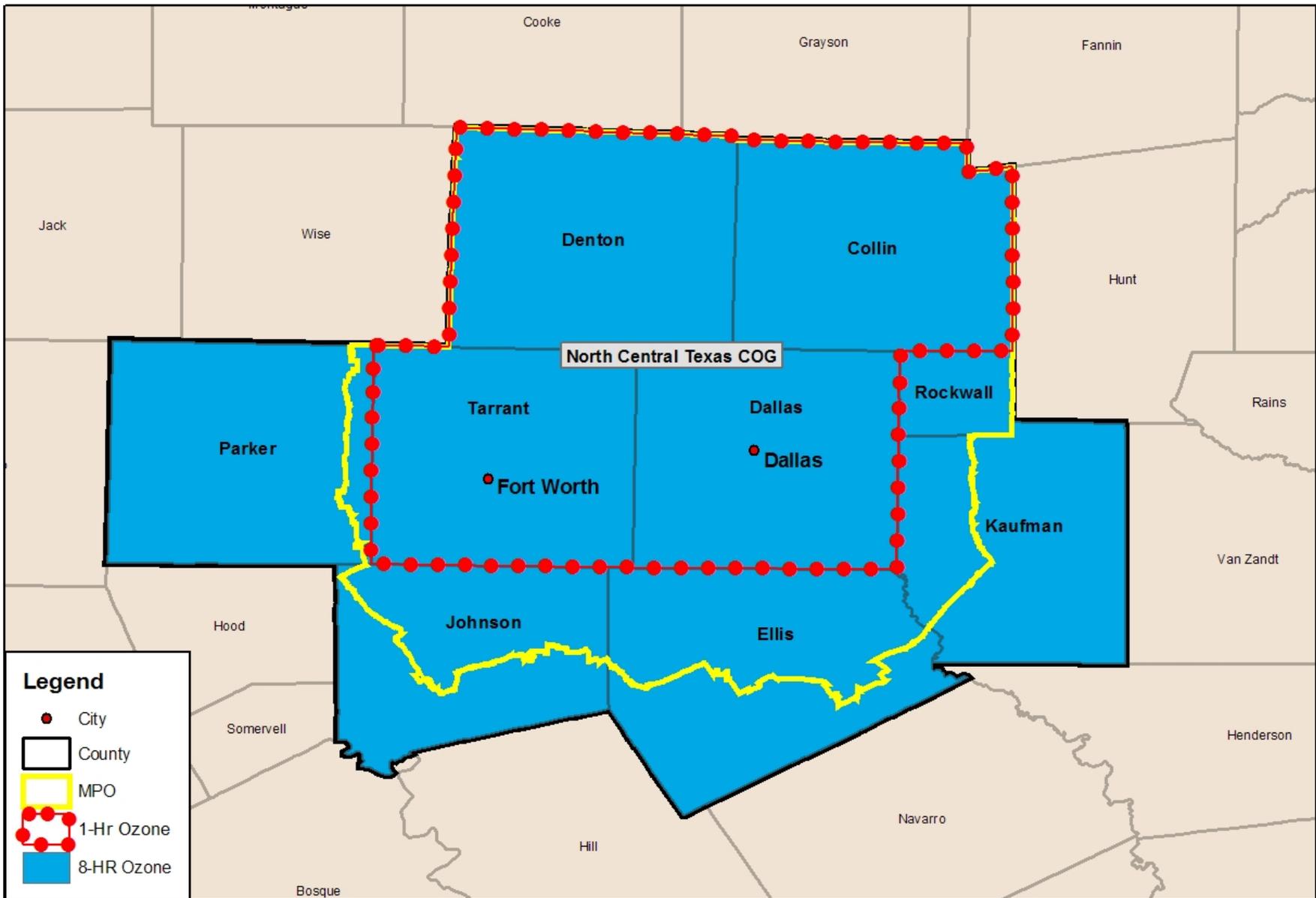
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Scenario 3 -- 93.109(e)(2)(iii)

- Area uses budgets from 1-hour SIP for the portion they cover, *AND*
- the interim emissions test(s) for either:
 - » the entire 8-hour area, *OR*
 - » for the portion not covered by 1-hour budgets, *OR*
 - » for the portion of the 8-hour area in a state (only for cases with separate 1-hour SIP budgets for each state)

● = 1-hour area
◊ = 8-hour area





Legend

- City
- County
- MPO
- 1-Hr Ozone
- 8-HR Ozone



Dallas - Fort Worth, Texas

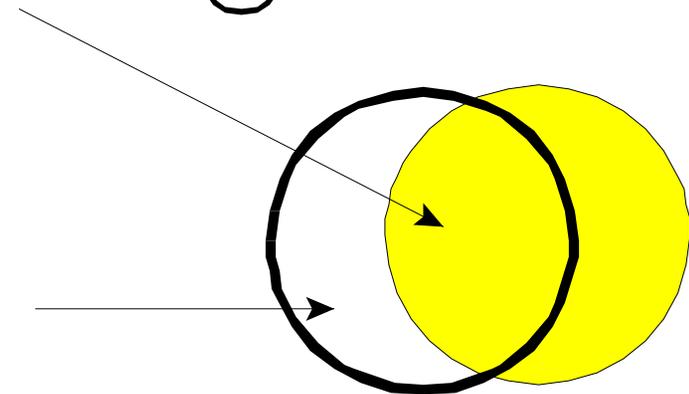
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Scenario 4 -- 93.109(e)(2)(iv)

- If possible:

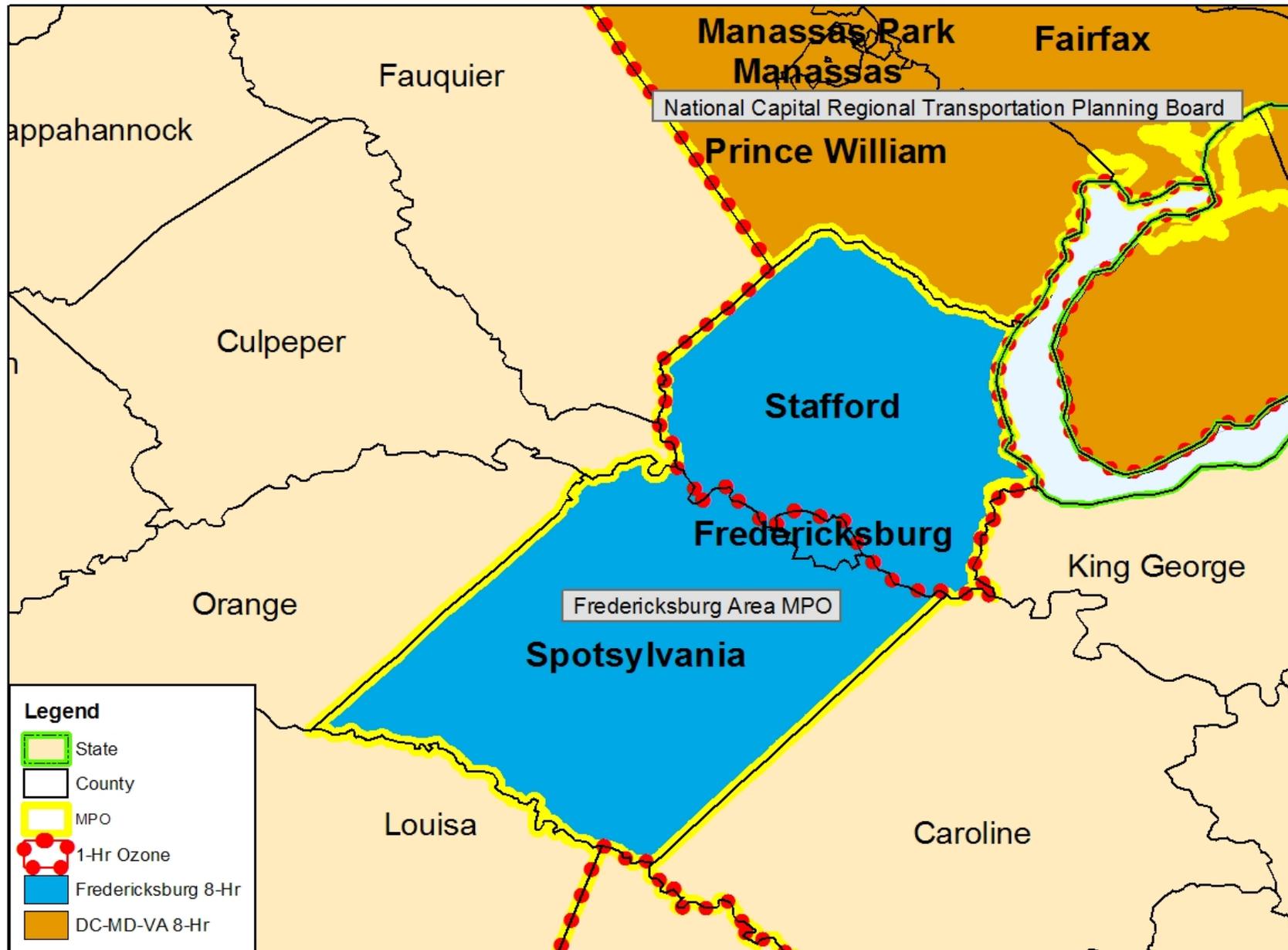
- » use 1-hour budgets for portion that has them, if portions can be identified through consultation, *AND*
- » the interim emissions test(s)
 - for the remainder, *OR*
 - for the whole 8-hour area, *OR*
 - for the portion of the 8-hour area in a state (only for cases with separate 1-hour SIP budgets for each state)

● = 1-hour area
○ = 8-hour area



- If not possible:

- » use the interim emissions test(s), for the portion of the 8-hour area where 1-hour budgets are not identified



Frederickburg, VA

Before Areas Have 8-hour SIPs: General Principles

- Use budget test (93.118), with the 1-hour budgets for 8-hour conformity
 - » where they exist, and
 - » as possible, given the boundary scenario
 - » because in most cases, budgets ensure air quality progress is maintained (especially if they are currently being used for 1-hour conformity determinations)

Before Areas Have 8-hour SIPs: General Principles

- Use the interim emissions test(s) (93.119)
 - » where part of an 8-hour area isn't covered by 1-hour budgets
 - » where boundary changes make it impossible to determine what portion of the 1-hour budgets apply (Scenario 4 only)
 - » when it is determined through the consultation process that such tests better meet the CAA requirements for analysis years addressed by the SIP budgets (limited cases expected) (93.118(e)(2)(v))

When may a 1-hour SIP budget not be appropriate?

- Primary criterion is whether a 1-hour SIP budget meets CAA requirements to not worsen air quality or delay timely attainment of the 8-hour standard
 - » A 1-hour budget cannot be considered inappropriate simply because:
 - it is difficult to pass for 8-hour conformity purposes
 - it is based on older planning assumptions or emissions models
 - » Interagency consultation process must be used to determine appropriate test for a given analysis year
- May be cases of areas with 1-hour SIP budgets where one budget is appropriate and another is not for a given analysis year

Examples of when a 1-hour SIP budget not be appropriate

- Where a 1-hour SIP budget is currently not used in 1-hour conformity determinations
 - a 1-hour maintenance area that is marginal for 8-hour with:
 - 1999 1-hour attainment budgets
 - 2009 1-hour maintenance plan budgets
 - 2007 8-hour attainment year
 - in this case, it may be appropriate to do 8-hour conformity with:
 - 2002 baseline test for 2007 8-hour attainment year since 2002 baseline may be lower than 1999 budgets
 - 2009 maintenance budgets for all future years
 - Rationale: If a 1-hour SIP budget is currently not used to maintain current air quality progress, it may not be appropriate to meet CAA requirements for the 8-hour standard.
- Where it is impossible to determine what portion of the 1-hour SIP budget applies to the 8-hour area (in Scenario 4 areas only)

Once Areas Have 8-hour or PM_{2.5} SIPs

- Once adequate or approved SIP budgets are available for new standards, they must be used (93.118)
 - » existing interim emissions tests and/or 1-hour budgets (where applicable) for the pollutant or precursor addressed by the new SIP budget

...no longer apply

Once Areas Have SIP Budgets

- Area has budgets when:
 - » State submits the SIP, and
 - » EPA has found the budgets adequate or approved the SIP
 - Adequacy criteria in 93.118(e)
 - Adequacy procedures: now in 93.118(f), but remain the same as under guidance

Timely Implementation of TCMs

- Timely implementation requirement applies for a TCM in the approved SIP, including SIPs for all pollutants and standards
- TCMs in a 1-hour SIP still apply even after the 1-hour standard is revoked
 - » They must still be implemented in a timely manner
 - » They must still be accounted for in conformity determinations

Session 5: Conformity in Multi-jurisdictional Areas

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Part 1: What is a multi-jurisdictional area?

- A nonattainment or maintenance area that involves:
 - » multiple MPOs,
 - » donut areas, and/or
 - » multiple states
- A single jurisdiction area (the basic case) is:
 - » one MPO, no donut area,
 - » in one nonattainment area within one state

Part 2: before areas have SIP budgets

- No budgets, so these areas use:
 - » interim emissions test(s) in 93.119
- Guiding principle:
 - » There must be one regional emissions analysis, for the entire area and the conformity determination(s) must cover the entire area (92.124(d))
 - » Applies whether area:
 - has one or more MPOs,
 - a donut portion,
 - parts of more than one state, or
 - any combination of the above

Part 2: before areas have SIP budgets

- When an area includes more than one MPO, a donut, or both:
 - » the regional emissions analysis can be done in either of 2 ways:
 - (1) one modeling analysis for entire area, or
 - (2) separate modeling by each MPO (and state DOT, as appropriate for donut), combined

Part 2: before areas have SIP budgets

- When an area includes more than one MPO, a donut, or both:
 - » the conformity determination(s) are done as follows:
 - each MPO determines conformity of its plan and TIP (which could reflect donut area) and submits it to DOT
 - DOT waits to make its conformity determination until all are received
 - (i.e., every part of the nonattainment area is included in a plan/TIP conformity determination & regional emissions analysis)
 - DOT makes its conformity determinations on the plans and TIPs at the same time.

Part 3: once areas have budgets

- Part 3 applies once an area has a budget for a pollutant/precursor for an applicable standard that is either *adequate* or *approved*
- Guiding principle is:
 - » the regional emissions analysis and
 - » the conformity determination(s)
 - » are done for the geographic area addressed by the SIP budget

Part 3: once areas have budgets

- How might budgets be established in a nonattainment/maintenance area
 - » within a single state:
 - budget established for entire area, or
 - subarea budgets for each MPO within the area
 - » in a multi-state area:
 - identical budgets in each state's SIP that apply to the entire area
 - unique budgets in each state's SIP that apply only to each state's own portion of the area
- State and local agencies use consultation process to decide how SIP(s) are established

Part 3: once areas have budgets - area in a single state

- Where SIP establishes one budget:
 - » One regional emissions analysis for the entire area
 - » The conformity determination(s) must cover the entire area and be done at the same time
 - each MPO determines conformity of its plan and TIP (which could include a donut) and submits it to DOT
 - DOT waits to make its conformity determinations until all MPO determinations are received
 - (i.e., every part of the nonattainment area is included in a plan/TIP conformity determination & regional emissions analysis)
 - DOT makes its conformity determinations on the plans and TIPs at the same time.

Part 3: once areas have budgets - area in a single state

- How are the regional analysis and conformity determinations done when one budget applies to:
 - » Two or more MPOs?
 - MPOs can model emissions separately or together
 - DOT makes conformity determinations for their plans and TIPs at the same time
 - » One MPO + a donut area:
 - donut's emissions are included in the regional emissions analysis for the MPO
 - one conformity determination is made for the MPO's plan and TIP
 - » Two or more MPOs + a donut area:
 - Consult to determine who does analysis for donut
 - DOT makes conformity determinations for their plans and TIPs at the same time

Part 3: once areas have budgets - area in a single state

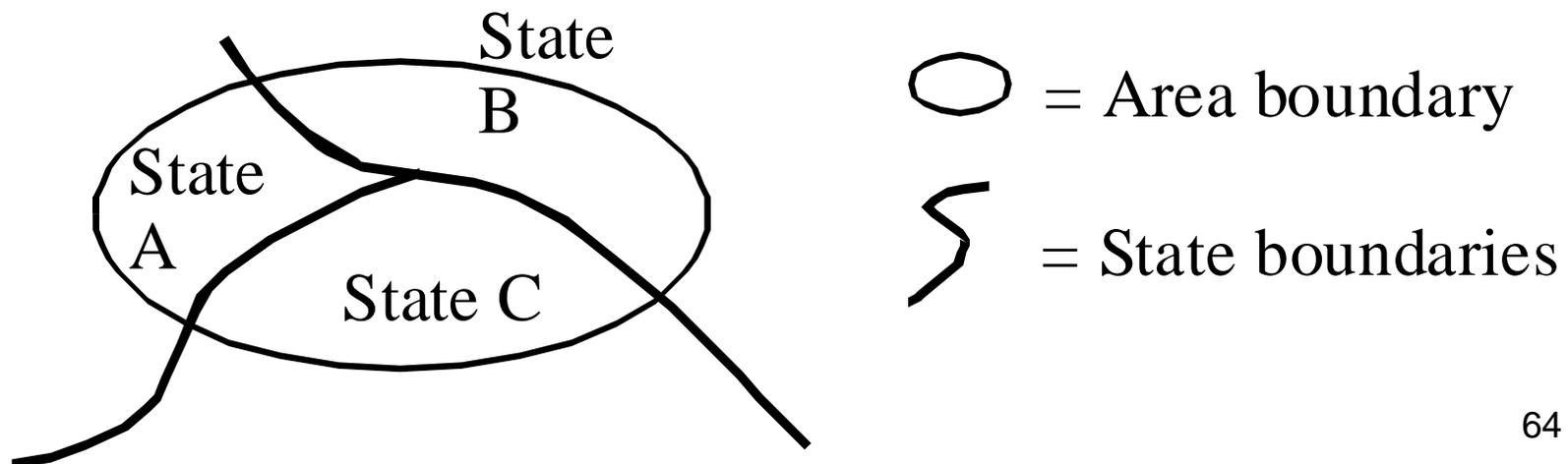
- Where SIP establishes subarea budgets (see 93.124(c) and (d)):
 - » Each MPO can make independent conformity determinations for its plan and TIP, if
 - all other subareas have conforming plans and TIPs in place
 - » If one MPO lapses, no others can make plan/TIP conformity determinations until lapse resolved

Part 3: once areas have budgets - multi-state area

- Where SIP establishes one budget for entire area:
 - » One regional emissions analysis is done for the entire area
 - » The conformity determination(s) must be done for the entire area at the same time

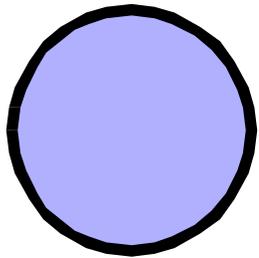
Part 3: once areas have budgets - multi-state area

- Where each state's SIP has a budget for its own portion of the area,
 - » each state is completely independent for conformity
 - » e.g., a lapse can be occurring in State A, and States B and C can continue to make conformity determinations

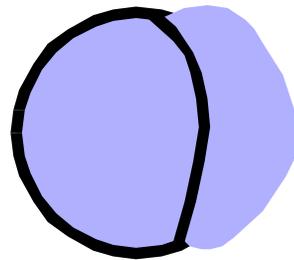


Part 4: 8-hour areas with 1-hour SIPs

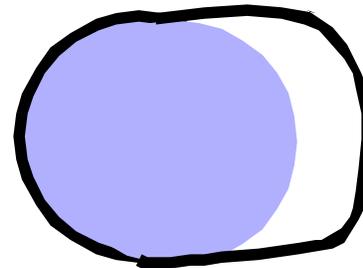
- 4 possible ways the 8-hour boundary relates to the 1-hour boundary:



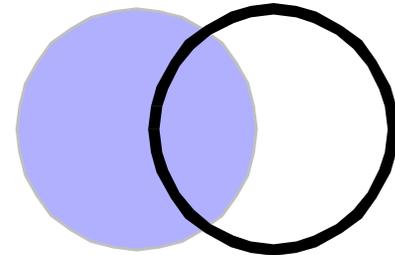
Scenario
1



Scenario
2



Scenario
3



Scenario
4

 = 1-hour area boundary
 = 8-hour area boundary

Part 4: 8-hour areas with 1-hour SIPs

- Guiding principle:
 - » Use adequate or approved 1-hour budgets for conformity for whatever area they cover, and
 - » Use the interim emissions test(s) for any portions not covered by 1-hour budget, or it is determined through consultation that such tests are more appropriate than 1-hour budgets

Part 4: 8-hour areas with 1-hour SIPs -- all scenarios

- If 1-hour SIP establishes subarea budgets
 - » First conformity determination for the 8-hour standard: each MPO determines conformity for its plan and TIP and submits to DOT
 - DOT will not make its plan/TIP conformity determinations until all MPOs have submitted conformity determinations
 - » Subsequent determinations: all other subareas must be in conformity before any MPO makes a conformity determination

Part 4: 8-hour areas with 1-hour SIPs -- all scenarios

- If multi-state area has unique SIP budgets for each state:
 - » **Each state can determine conformity independently, regardless of scenario**
 - » Budgets used where they apply, and
 - » Interim emissions tests, where necessary, can be applied to:
 - the portion in a state not covered by the budgets
 - a state's entire 8-hour nonattainment area
 - (the entire multi-state area -- but if chosen, states lose independence in conformity)

Part 4: Scenario 1

- Scenario 1: 8-hour boundary = 1-hour boundary
- Scenario 1 area might be made from one or more 1-hour areas
- If 1-hour budgets apply to entire 8-hour area,
 - » one regional emissions analysis, and
 - » one conformity determination
 - » is done for the entire area
- In a multi-state area, if unique 1-hour budgets apply to each state,
 - » **Each state can determine conformity independently**

Part 4: Scenario 2 -- general

- Scenario 2: 8-hour boundary < 1-hour boundary
 - » Two choices for budget test:
 - » (1) budget test for 8-hour area only, if possible to determine what portions of budgets apply
 - » (2) budget test for 1-hour area, that is, emissions are estimated for the entire 1-hour area, but any additional emissions reductions needed to meet budgets must come from within the 8-hour area

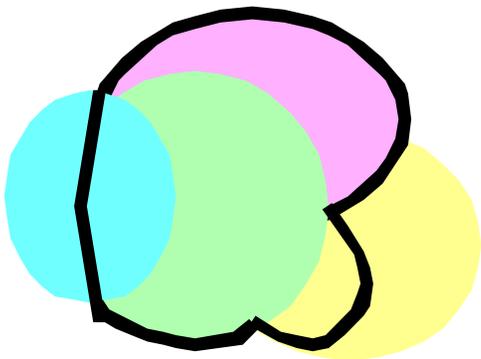
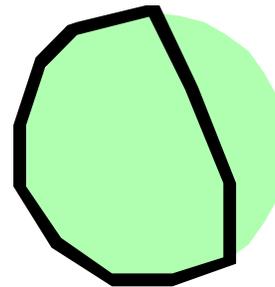
Part 4: Scenario 2 -- general

- Scenario 2: 8-hour boundary < 1-hour boundary

- » A scenario 2 area might be made from

- » one 1-hour area, or

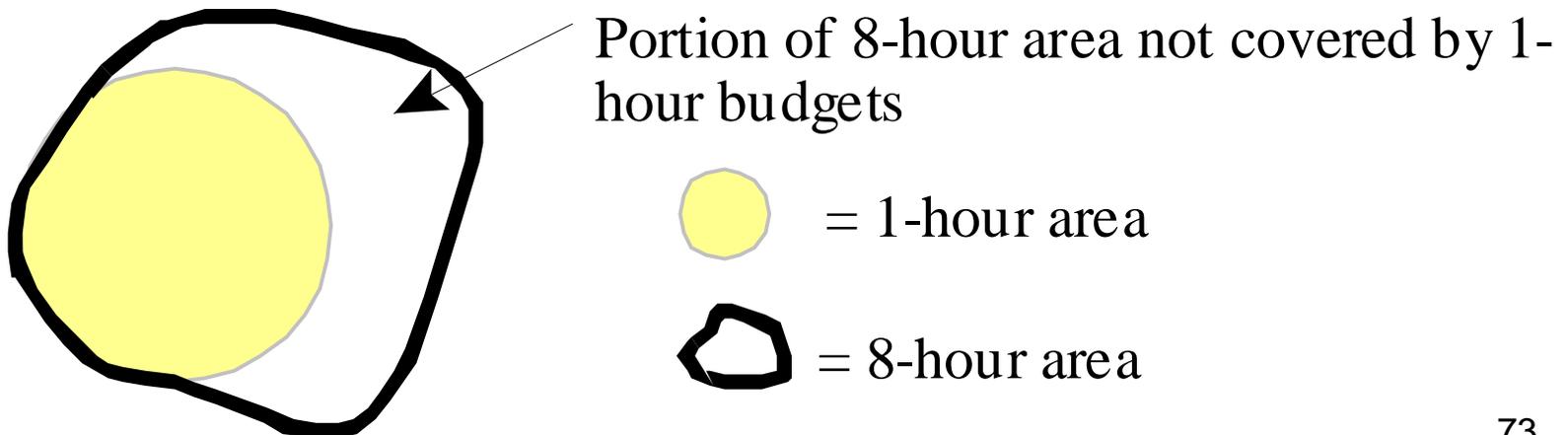
- » several 1-hour areas



● = 1-hour areas and budget
⬢ = 8-hour area

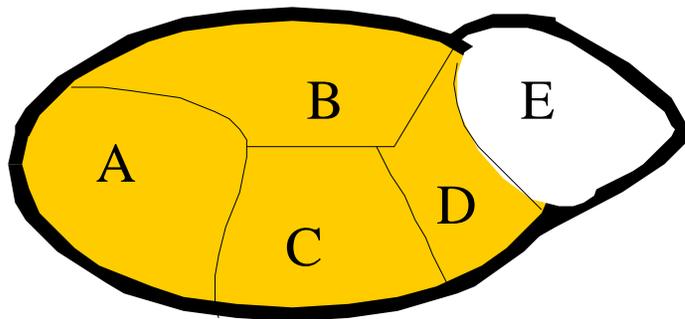
Part 4: Scenario 3 - general

- Scenario 3: 8-hour boundary $>$ 1-hour boundary
 - » Use 1-hour budgets for area they cover (egg yolk) and
 - » Use interim emissions test(s) for either:
 - portion not covered by budgets (egg white), or
 - the entire 8-hour area (the whole fried egg)



Part 4: Scenario 3 - example

- Area within one state with 1-hour subarea budgets
 - » MPOs A, B, C, D use their subarea budgets, plus
 - » interim emissions test(s) for either:
 - part not covered by budgets (E alone), or
 - entire 8-hour area (A, B, C, D, and E)

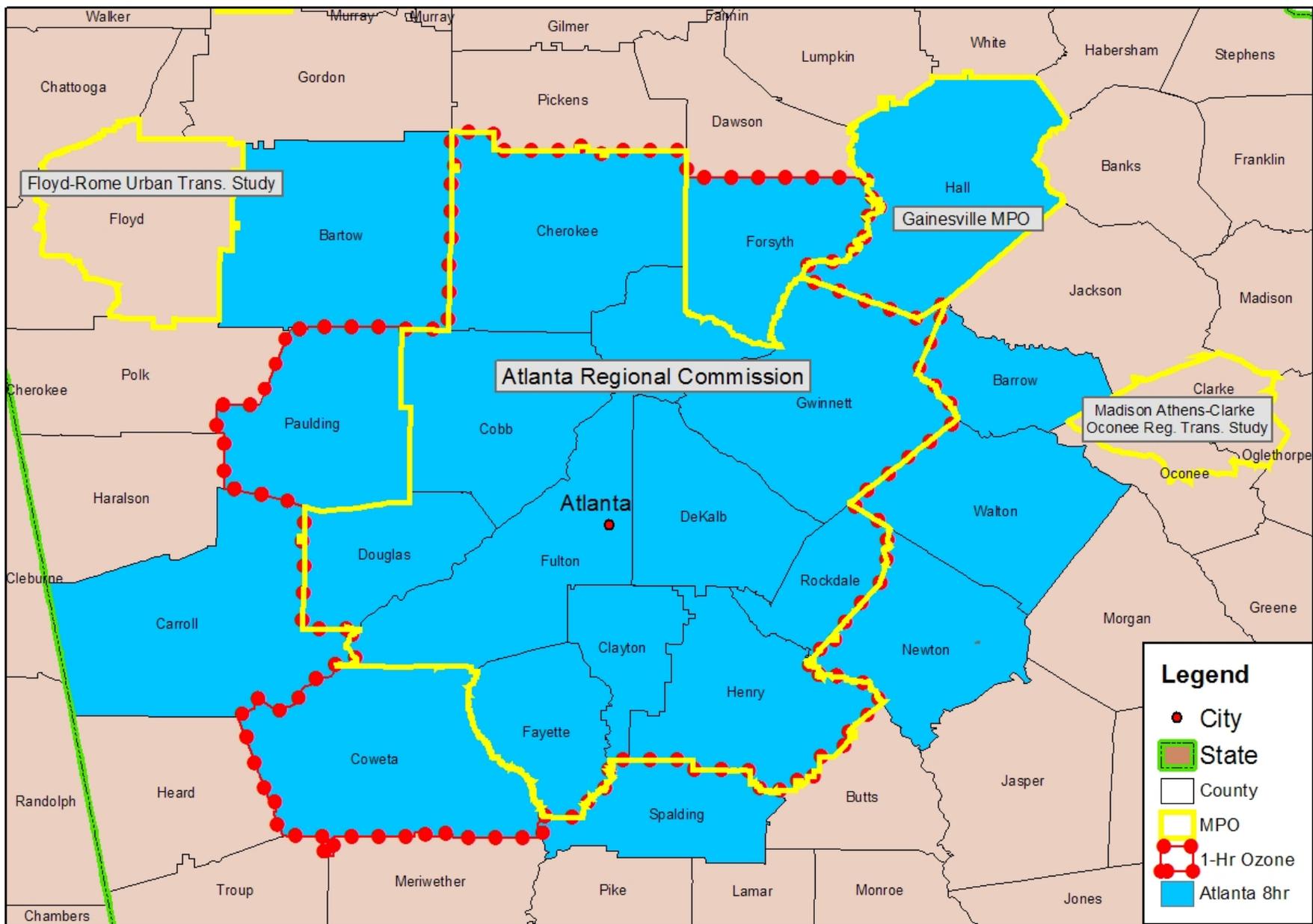


● = 1-hour area

○ = 8-hour area

A, B, C, D = MPOs with 1-hour subarea budgets

E = new county in 8-hour area

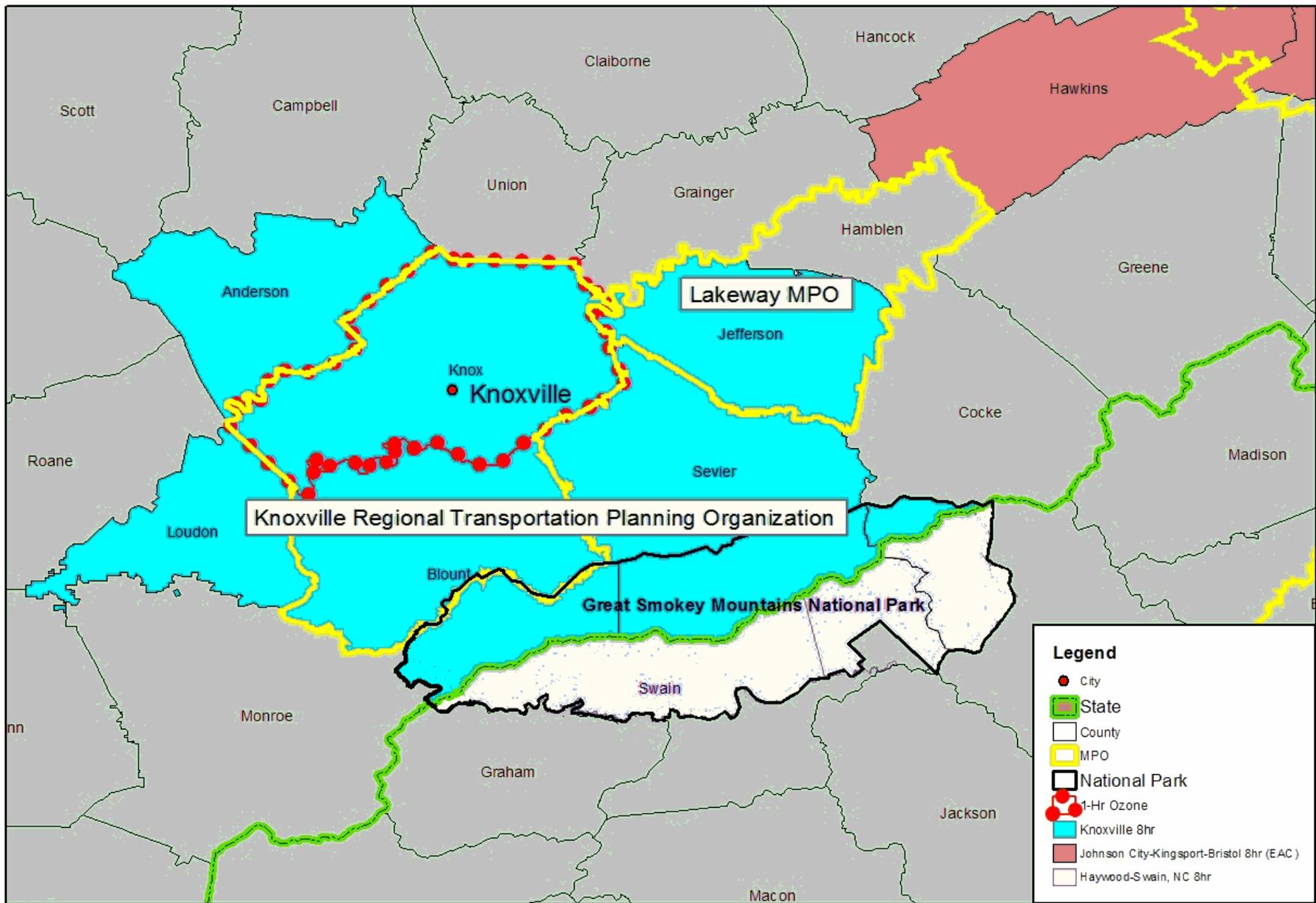


Legend

- City
- State
- County
- MPO
- 1-Hr Ozone
- Atlanta 8hr



Atlanta, GA

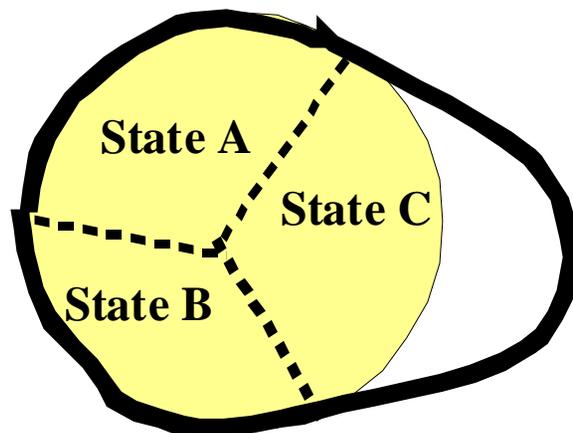


Knoxville, TN

Updated July 1, 2004

Part 4: Scenario 3 - example

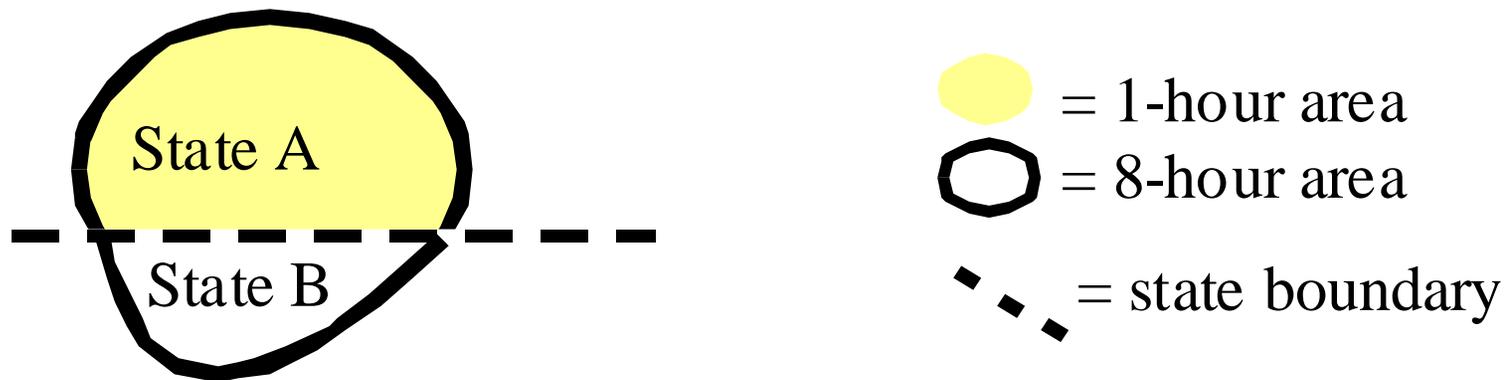
- Multi-state area, ea. state has unique 1-hr budgets
 - » **Each state can determine conformity independently**
 - » State A and B must meet their budgets
 - » State C must meet its budgets, plus the interim emissions test(s) for either
 - the portion not covered by budgets in State C
 - State C's entire piece of the 8-hour area



- = 1-hour nonattainment area
- ◐ = 8-hour nonattainment area
- - - = state boundaries/ 1-hour SIP boundaries

Part 4: Scenario 3 - example

- Multi-state 8-hour area, but one state has 1-hour budgets
 - » **State with budgets can do conformity independently**
 - » State A must meet its budgets
 - » State B must use the interim emissions test(s)



Part 4: Scenario 4 - general

- Scenario 4: 8-hour boundary partially overlaps 1-hour boundary
- If it's possible to determine what part of the 1-hour SIP budget applies:
 - » Use budgets from 1-hour SIP where they exist, plus
 - » Use interim emissions test(s) either for
 - remaining portion of the 1-hour area
 - the entire 8-hour area
- If it's not possible to use any part of the 1-hour budgets, just use interim emissions test(s)

Session 6:
What do I include in my PM_{2.5}
conformity analysis?

FHWA Transportation Conformity Workshop
Lansing, MI
September 28, 2004

Tests for PM_{2.5} Areas

- Final rule is generally consistent with requirements in PM₁₀ areas without adequate or approved SIP budgets
- Final rule allows all PM_{2.5} areas to choose either the:
 - » build_≤no-build, OR
 - » no-greater-than-2002 baseline year test
- A regional emissions analysis is done for direct PM_{2.5} emissions and any applicable PM_{2.5} precursors
 - » discussed further in Session 6

Transportation PM_{2.5} Emissions

- Gasoline and diesel on-road vehicles emit:
 - » direct PM_{2.5}
 - exhaust
 - brake and tire wear
 - re-entrained dust from paved and unpaved roads
 - construction dust from highway and transit construction
 - » PM_{2.5} precursors from vehicles:
 - NO_x, VOCs, SO_x
 - ammonia (primarily emitted by gasoline vehicles)
 - will be addressed in separate final rule to be completed before PM_{2.5} designations are effective

Direct PM_{2.5} in Regional Analyses (93.102(b)(1))

- All PM_{2.5} regional emissions analyses address direct PM_{2.5} including:
 - » tailpipe and brake and tire wear emissions
- MOBILE6.2 and EMFAC2002(CA only) generate PM_{2.5} emissions factors

Road Dust in PM_{2.5} Regional Analyses (93.102(b)(3) and 93.119(f))

- Before PM_{2.5} SIP budgets are adequate or approved, road dust is not included in regional analyses unless found to be a significant contributor by:
 - » EPA Regional Administrator, or
 - » state air agency
- Road dust is included in regional analyses if adequate or approved SIP budgets include road dust emissions

What is Considered in Significance Findings?

- A finding of significance would be based on:
 - » the contribution of road dust to current and future PM 2.5 nonattainment
 - » the area's current design value for the PM 2.5 standard
 - » whether control of road dust appears necessary to reach attainment, and
 - » whether increases in road dust emissions may interfere with attainment
- A finding of significance should be made:
 - » only after discussions within the consultation process
 - » through a letter to state and local air quality agencies, MPO(s), DOT and EPA (if a state air agency finding)

Calculating Road Dust Emissions

- Road dust emissions can be calculated using methods described in:
 - » AP-42, Fifth Edition, Volume 1, Chapter 13, Miscellaneous Sources (US EPA, December 2003; www.epa.gov/ttn/chief/ap42/ch13/)
- Or, areas may develop local calculation methods, through interagency consultation
 - » must be approved by EPA
- By effective date of PM_{2.5} designations, guidance will be issued on adjusting road dust emissions for SIPs and conformity to reflect true impact on regional air quality

Construction Dust in PM_{2.5} Regional Analyses (93.122(f))

- Fugitive dust from construction of transportation projects is only included in regional emissions analyses if:
 - » the SIP identifies these emissions as significant contributors to the regional PM_{2.5} problem
- Construction emissions would be included in the area's direct PM_{2.5} SIP budgets, where significant
 - » consultation must be used

Calculating Construction Dust Emissions

- Construction dust emissions can be calculated using methods described in:
 - » AP-42, Fifth Edition, Volume 1, Chapter 13, Miscellaneous Sources (US EPA, December 2003; www.epa.gov/ttn/chief/ap42/ch13/)
- Or, areas may develop local calculation methods, through interagency consultation
- By effective date of PM_{2.5} designations, guidance will be issued on adjusting dust emissions in SIPs and conformity to reflect true impact on regional air quality

PM_{2.5} Precursors in Regional Analyses

- EPA is not finalizing any PM_{2.5} precursor requirements at this time
- Requirements for PM_{2.5} precursors will be finalized before PM_{2.5} designations are effective
- However, June 2004 final rule provides sufficient information for potential areas to begin preparing for PM_{2.5} conformity, if desired

PM_{2.5} Precursors in Regional Analyses

- The November 2003 NPRM identified:

- » NO_x
- » VOCs
- » sulfur oxides (SO_x); and
- » ammonia (NH₃)

as potential transportation-related PM_{2.5} precursors

PM_{2.5} Precursors in Regional Analyses

- The NPRM also proposed that a regional emissions analysis would be required for a precursor once
 - » a SIP emissions budget for that precursor was found adequate or approved
- NPRM included two options for PM_{2.5} precursors in regional analyses before SIP budgets are adequate or approved

PM_{2.5} Precursors in Regional Analyses

- Option 1:
 - » Include NO_x and VOCs unless the EPA RA or state air agency finds that one or both precursors is not a significant contributor
 - » Only include SO_x or NH₃ if the EPA RA or state air agency finds that one or both is a significant contributor
- Option 2:
 - » Only include NO_x, VOCs, SO_x or NH₃ if the EPA RA or state air agency finds that one or more is a significant contributor

PM_{2.5} and PM₁₀ Hot-Spots

- EPA proposed several options in the November 5, 2003 NPRM for PM_{2.5} and PM₁₀ hot-spot requirements
- Supplemental proposal to be published to propose additional options for:
 - » new PM_{2.5} hot-spot requirements
 - » changes to existing PM₁₀ requirements

Continued

Project-level Requirements in PM_{2.5} Areas

- Rule to be finalized before PM_{2.5} designations are effective
- Current PM₁₀ hot-spot analyses requirements continue to apply as under current practice

Session 7: Other Conformity Rule Changes

FHWA Transportation Conformity Workshop
Lansing, MI
September 28, 2004

18-month triggers streamlined

- Within 18 months of the effective date of EPA's (93.104(e)):
 - » adequacy finding for the motor vehicle emissions budgets ("budgets") in the initial submission of a control strategy SIP or maintenance plan
 - » approval of a SIP that creates or revises a budget unless the same budget was already used pursuant to an adequacy finding or previous approval
 - » promulgation of a FIP

with Network Modeling Criteria

- Final rule provides a two-year grace period (93.122(c))
- Applies to new areas that are serious and above ozone and CO with populations greater than 200,000
 - » allows time for an area to develop network model that complies with the 6 criteria
 - » allows time for an area with a network model to expand it if the area's boundary grows

with Network Modeling Criteria

- Areas or portions of areas required to meet 93.122(b) might be new because of:
 - » bump-up: have 2 years from effective date of reclassification to serious or worse for ozone or CO
 - » pop. grows > 200 K: have 2 years from official Census Bureau notice that urbanized population of a serious or worse ozone or CO area > 200,000
 - » new area: have 2 years from effective date of EPA's action to classify an ozone or CO area with urbanized population > 200,000 as serious or worse
 - » grace period does not apply to areas that are already required to meet 93.122(b) for existing NAAQS

Latest Planning Assumptions (93.110)

- Final rule allows MPOs to use the latest planning assumptions *in force at the time the conformity analysis begins*
 - » Prior rule: assumptions in force when DOT's final conformity determination is completed
 - » This change makes implementation of latest planning assumptions similar to latest emissions model

Latest Planning Assumptions (93.110)

- When does the conformity analysis begin?
 - » When the MPO begins to model the impact of the proposed transportation plan, TIP or project on VMT and speeds and/or emissions
 - » Determined through interagency consultation
 - » Should be consistent for future conformity determinations

Latest Planning Assumptions (93.110)

- Examples: when does the analysis begin?
- MPOs with travel model:
 - » point at which travel demand modeling is used to generate VMT and speed data to calculate emissions
- Smaller MPOs and rural areas:
 - » point at which VMT projections needed for emissions model are calculated using HPMS, population, and employment data

Latest Planning Assumptions (93.110)

- Examples: when has the analysis *not yet* begun?
 - » When initial list of projects for plan and TIP have been developed
 - » Before projects have been coded into the network model
 - » If travel or emissions modeling is used to preliminarily examine impacts of project alternatives or combinations of projects
 - » When an initial schedule for completing the analysis is developed during a consultation meeting

Latest Planning Assumptions (93.110)

- Interagency consultation used to determine the point when analysis begins
- What if new information becomes available after the analysis begins?
 - » If analysis is on schedule, MPO is not required to include it
 - but could do so voluntarily
 - » If there has been a significant delay in the analysis before substantial work has been completed, new info must be included
 - as determined through interagency consultation

Latest Planning Assumptions (93.110)

- Under final rule, a valid conformity determination should include the following documentation:
 - » how the “time the conformity analysis begins” was defined
 - » calendar date that conformity analysis begun; and
 - » planning assumptions used in the analysis

Horizons for Hot-spot Analyses

- Final rule clarifies that hot-spot analyses must consider the full time frame of transportation plan and regional analysis (93.116)
- Areas should examine the year(s) within the plan or regional analysis during which:
 - » peak emissions from project expected, and
 - » a new or worsened violation would most likely occur due to impact of project emissions and background emissions in project area
- Final rule not expected to significantly change current practice

What projects can proceed during a lapse?

- Any FHWA/FTA project step approved prior to the lapse (e.g., construction)
 - » result of March 1999 court decision
- Any regionally significant non-federal project that had received all approvals prior to the lapse
 - » result of March 1999 court decision
- Non-regionally significant non-federal projects

Examples--Can it proceed during a lapse?

- Right-of-way (ROW) approved before lapse?
 - » Can subsequent, unapproved project phases proceed during lapse (e.g., final design, construction)?
- Non-exempt TCM in submitted (but not approved) SIP?
- Non-exempt TCM in plan/TIP only (not in SIP)?

Examples--Can it proceed during a lapse?

- State-funded toll road has not yet received FHWA NEPA approval to connect to an interstate highway?
- Same state-funded toll road has received FHWA NEPA approval and all other non-federal approvals before lapse?

Relevant Guidance Documents

- Final rule is consistent with and does not supersede existing federal guidance:
 - » FHWA/FTA January 2, 2002 memo (general guidance on what projects can proceed during a lapse)
 - » FTA April 9, 2003 memo (guidance for transit projects and lapses)
 - » FHWA/FTA May 20, 2003 memo (clarification of conformity requirements for projects requiring environmental impact statements)
 - » EPA May 14, 1999 memo (includes guidance for projects that require only NEPA approval, but no subsequent federal funding approvals)

Adequacy Review of Budgets

- March 1999 court decision requires that SIP budgets must be deemed adequate before used for conformity
- Final rule incorporates EPA's May 14, 1999 guidance on adequacy reviews
 - » No change from current practice
- Current rule describes adequacy criteria
 - » Not affected by March 1999 court decision or final rule

Adequacy Process Options

- EPA can complete adequacy in two ways:
 - » Through EPA's adequacy website (93.118(f)(1))
 - » Through rulemaking process (93.118(f)(2))
- Variations between options are possible

Adequacy Process (93.118(f)(1))

- Approximately 90-day process
- State submits SIP to EPA
- EPA announces receipt of SIP on its website, 30-day public comment period started
 - » if the complete SIP is not available on the state's website the comment period will be re-started if a copy is requested within 15 days of EPA's website announcement

Continued

Adequacy Process (93.118(f)(1))

- Under this option, EPA makes a finding of adequacy/inadequacy by:
 - » 1. Responding to any comments
 - » 2. Sending a letter to state
 - » 3. Posting the finding on web
 - » 4. Issuing a Federal Register notice (FRN), or including finding in an FRN proposing/finalizing a SIP approval/disapproval

Continued

Adequacy Process (93.118(f)(1)(iv))

- Finding effective 15 days after FRN in most cases unless:
 - » the finding is made in an approval action - then the finding is effective on the publication date of the approval, or
 - » the finding is made in a direct final approval - then the finding is effective on the effective date of the approval - e.g., 60 days after publication

Adequacy Process (93.118(f)(1)(vi))

- If EPA reconsiders a previous finding of adequacy, the adequacy process will be repeated
 - » unless the deficiencies are so significant that there is no need for comment on the decision to reverse the finding
 - » in these cases, findings of inadequacy become effective on the date of the finding letter to the state

Adequacy Process (93.118(f)(1)(vii))

- If EPA reconsiders a previous finding of inadequacy, the adequacy process will be repeated

Adequacy Process (93.118(f)(2))

- Under this option, EPA notifies public of SIP through proposed or direct final rule with a 30-day comment period
- EPA responds to comment in rulemaking docket
- Finding effective:
 - » on the publication date of an approval, or
 - » on the effective date of a direct final approval - 60 days after publication

What provisions apply?

- In areas without an approved conformity SIP:
 - » All of the provisions in the July 1, 2004, conformity rule apply

What provisions apply?

- In areas that have an approved conformity SIP:
 - » all provisions relating to the new standards apply
 - » all amendments that directly result from the March 2, 1999, court decision apply
- But: amendments not related to new standards or court decision that are addressed in an approved SIP cannot apply
 - » until state updates its SIP and EPA approves it

What provisions apply?

- In areas that have an approved conformity SIP
- Examples of amendments that cannot apply are:
 - » streamlining frequency of conformity determinations
 - » revision to the latest planning assumptions requirement
 - » changes in interim emissions tests for existing standards
- EPA will work with states to approve conformity SIPs in these areas quickly

Upcoming transportation conformity guidance

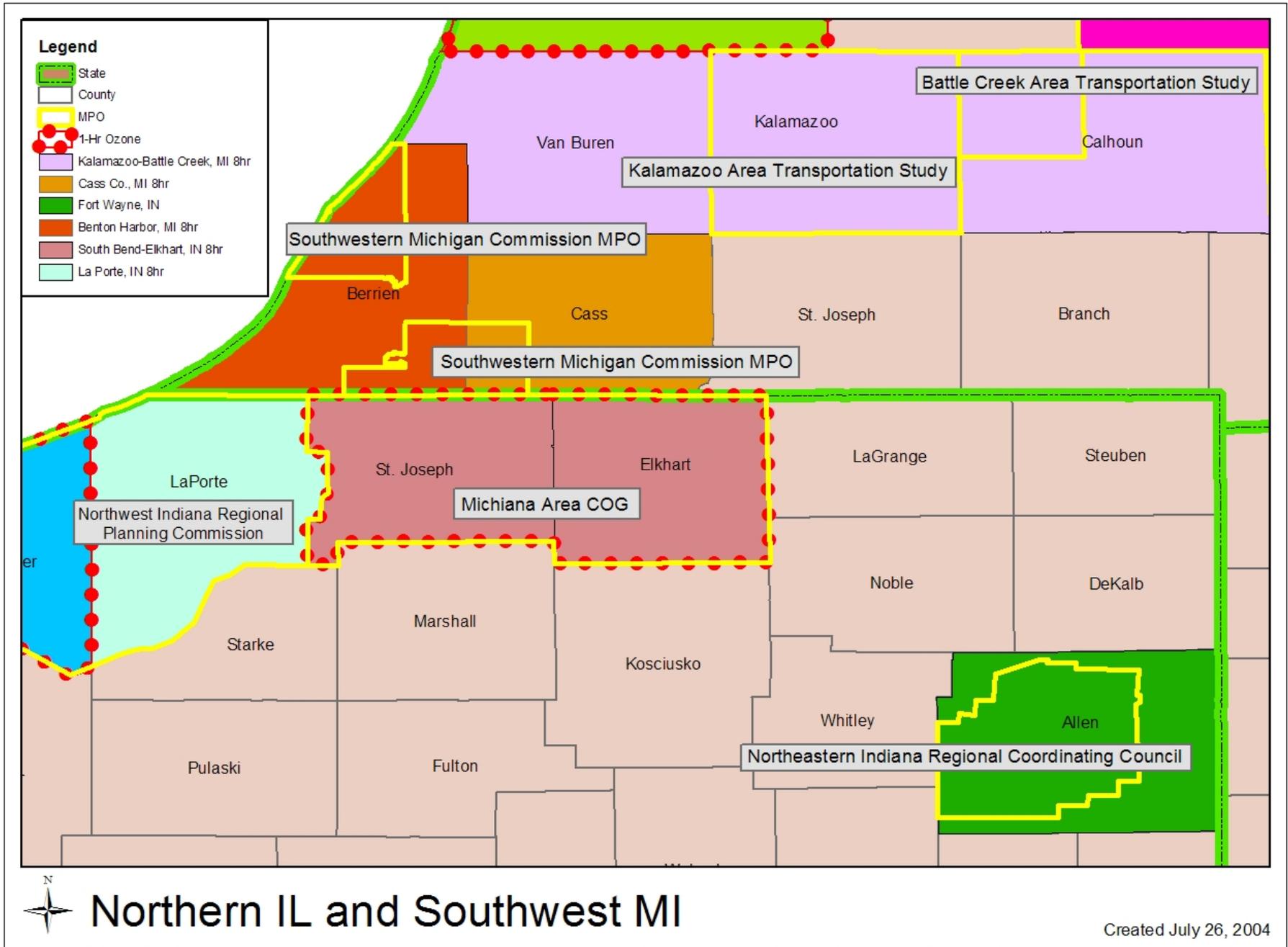
- Transportation conformity in Indian Country
- Conformity SIPs
- Adjusting PM-2.5 dust emissions from AP-42

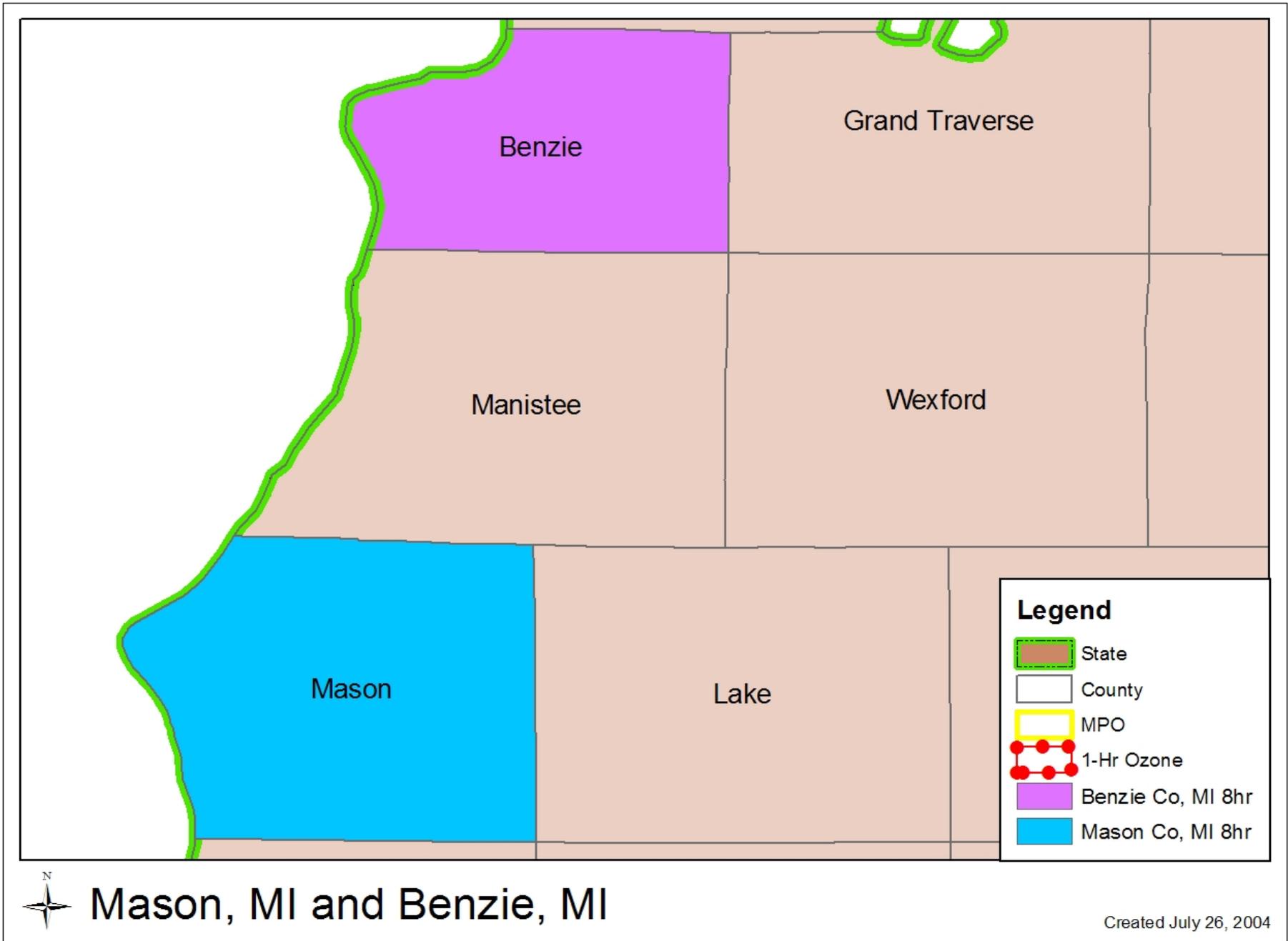
For More Information

- FHWA website:
www.fhwa.dot.gov/environment/conform.htm
- EPA website: www.epa.gov/otaq/traq
(at site, click on “conformity”)
- Gary Jensen, 202-366-2048 or gary.jensen@fhwa.dot.gov
- Emily Tait, 202-366-9482 or emily.dot@fhwa.dot.gov

Case Discussions

FHWA Transportation Conformity Workshop
Lansing, MI
September 28, 2004





Legend

-  State
-  County
-  MPO
-  1-Hr Ozone
-  Benzie Co, MI 8hr
-  Mason Co, MI 8hr



Mason, MI and Benzie, MI

Created July 26, 2004

