



UPDATE ON RAIL YARD FACILITY BASED MOBILE SOURCE MEASURES

AUGUST 17, 2023 STAKEHOLDER CONSULTATION MEETING

RECENT DEVELOPMENT

South Coast AQMD staff has been working on Proposed Rule 2306 for new rail yards

Many stakeholders, including railroads, have participated in Working Groups

CA High Speed Rail Authority announced in June that they will not be moving forward with the proposed Colton freight rail yard project

BNSF and UP recently approached staff to discuss potential MOU to reduce emissions from new and existing rail operations

MOU OBJECTIVES

A transparent and public process

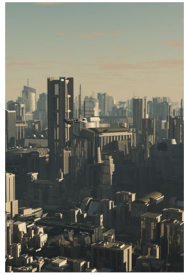
Same or greater emission reductions than a regulatory approach

Reduce emissions as much as possible as quickly possible

Zero-emission infrastructure component

Enforceable provisions

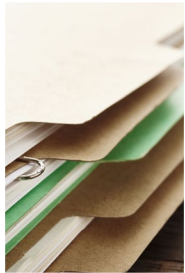
KEY CONSIDERATIONS TO PURSUE MOU



Near Term
Air Quality/Public
Health Benefit



Uncertainty/long
timeline with
regulations



Track record of fully
executed MOUs



Commitment to
implement cleanest
available technology



Newly proposed rail
yards cancelled or on
hold

WHAT IS AN MOU?

- MOU is an enforceable contract between multiple parties
- Common elements of a MOU include:
 - Description of actions each party must implement
 - Procedures that govern how MOU will be carried out
 - Process/remedies if actions are not completed
- Proposed MOU would be submitted (through CARB) to U.S. EPA to include in State Implementation Plan – similar to a rule or regulation

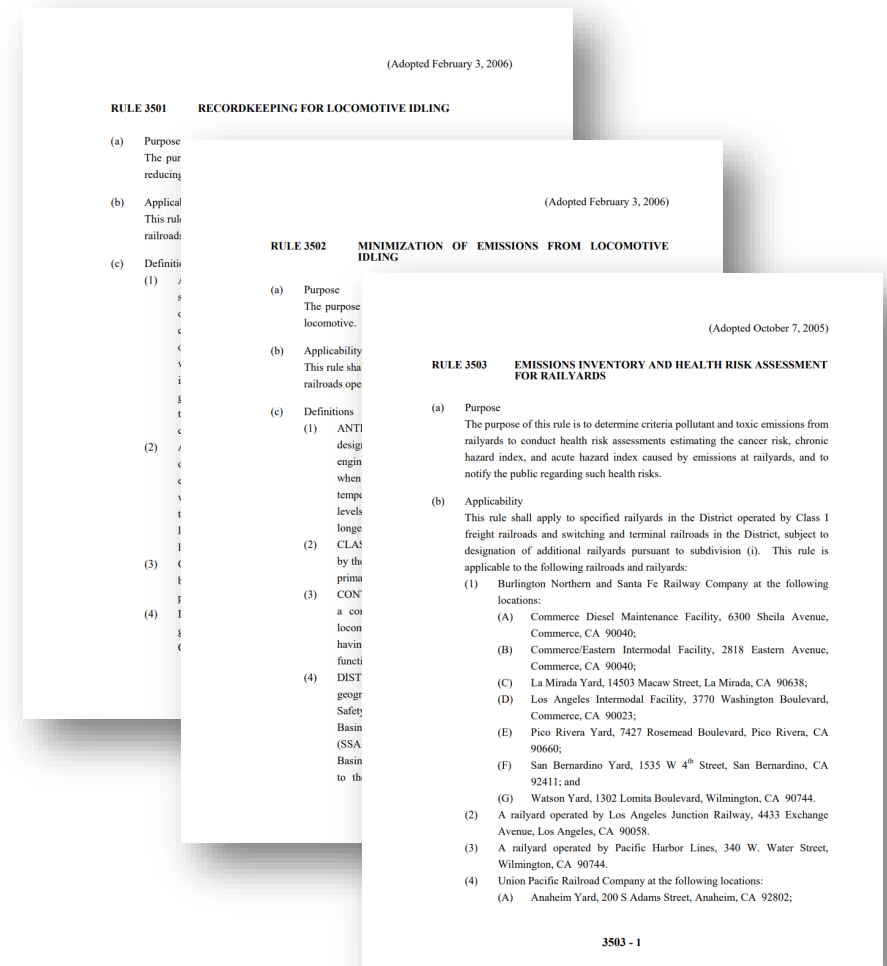
HISTORY OF KEY RAIL STATEWIDE AGREEMENTS

- Two agreements with CARB, BNSF, and UP
 - 1998 Agreement focused on Tier II locomotives for South Coast Air Basin
 - 2005 Agreement focused on idling and health risk for railyards throughout California
- BNSF and UP complied with both agreements
 - Emission reductions from both agreements

More Needed: Emissions are too high to meet federal and state air quality standards and local communities are exposed to elevated health risks

SOUTH COAST AQMD PREVIOUS RAIL ROAD RULES

- In 2005 and 2006 Governing Board adopted three rules for rail operations
 - Rule 3501 – Recordkeeping for Locomotive Idling
 - Rule 3502 – Minimization of Emissions from Locomotive Idling
 - Rule 3503 – Emissions Inventory and Health Risk Assessment for Railroads
- American Association of Railroads (BNSF and UP) sued South Coast AQMD
- After many years of litigation, Rules 3501, 3502, 3503 not enforceable per court order



KEY ELEMENTS UNDER CONSIDERATION FOR MOU



Locomotives
That Stay Within
the South Coast
AQMD



Cargo Handling
Equipment at
Railyards



Zero-Emission
Infrastructure
Plan



Zero-Emission
Technology
Demonstration



POTENTIAL EMISSION REDUCTION ACTIONS FOR LOCOMOTIVES

- All locomotives that stay within South Coast AQMD during normal business must be Tier 4 or cleaner by 2033
 - Includes switchers and short haul locomotives
 - Tier 4 is > 90% cleaner than the typical Tier 0 switcher locomotives operating in our region



Continue to partner with BNSF and UP on demonstration projects for new technologies

POTENTIAL EMISSION REDUCTION ACTIONS FOR CARGO HANDLING EQUIPMENT

- All cargo handling equipment at all intermodal hubs within South Coast AQMD pushing to cleanest available technologies by 2033
 - All yard trucks and forklifts must be 100% ZE
 - All rubber-tired gantries must be hybrid Tier 4 / electric or cleaner
 - All other equipment must be Tier 4 or cleaner



POTENTIAL EMISSION REDUCTION ACTIONS FOR INFRASTRUCTURE

- BNSF and UP railroads to scale up development of ZE infrastructure
 - By Jan. 2024, railroads shall develop and submit a Zero Emission Infrastructure Plan for each rail yard
 - By Jan. 2025, railroads shall enter into agreement with relevant electric utility for each rail yard to install infrastructure



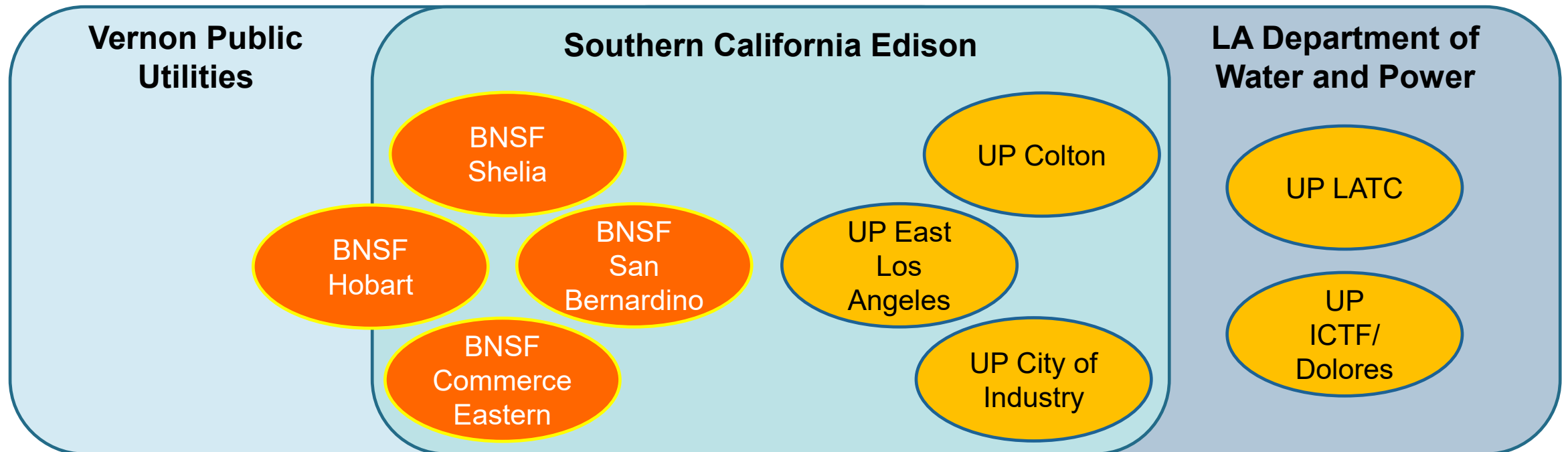
COMMITMENT TO ZERO EMISSION TECHNOLOGIES

- Commitment to continue progressing in deployment of zero emission technologies
- Continue to partner with BNSF and UP on demonstration projects for new technologies



ROLE OF ENERGY UTILITIES

- Significant infrastructure investments needed to support at-scale ZE implementation for railroad operations
 - Implementation of MOU expected to result in several of largest charging infrastructure projects in the nation
- Close coordination with energy utilities needed to achieve MOU milestones



EMISSIONS BENEFITS

- Example opportunities for emission reductions through proposed MOU:
 - 80% of switcher locomotives in state are Tier 0 / 0+ → Tier 4 has >90% lower emissions
 - Less than 5% of yard trucks at rail yards covered by proposed MOU are zero emissions
- Full emissions benefits have not yet been determined, but will be calculated and presented as part of public process

PRELIMINARY COMPARISON: PROPOSED RULE 2306 & PROPOSED MOU

	Proposed Rule 2306	Proposed MOU
Applies to new rail yards?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applies to existing rail yards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Consistent with CARB statewide rules/control strategies for rail operations?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Achieves emission reductions faster than current regulatory approach?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Zero emissions infrastructure included?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Enforceable?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

PRIOR COMMUNITY FEEDBACK

Examples of
Community Identified
Issues From Prior
Stakeholder
Engagement*

Locomotive / Truck / Equipment Idling

Zero Emission Locomotives

Air Quality Monitoring

Health Studies

Use of Mitigation Funds

Locomotive Testing & Maintenance

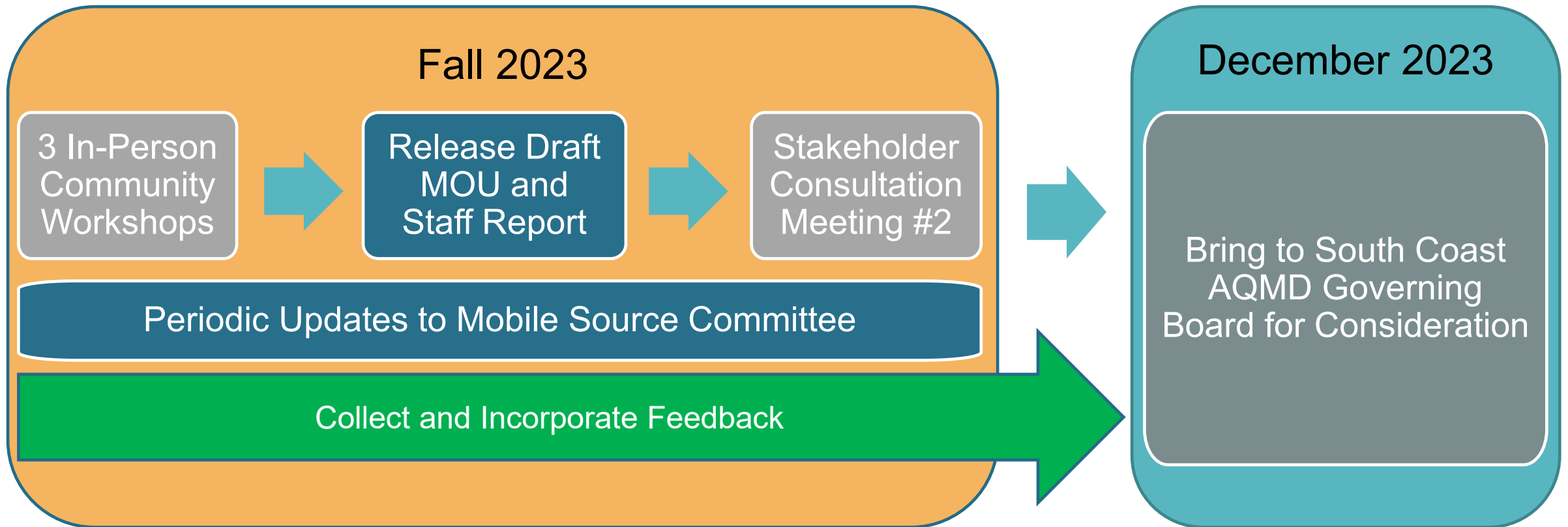
Truck Routes and Gate Siting

Lack of Vegetative Barriers / Green Spaces

Workforce Development

Considerations for stakeholder feedback will be
included as part of MOU development

NEXT STEPS



QUESTIONS TO CONSIDER

- **Are there specific elements you think are important to include in an MOU?**
 - **Examples: specific enforceability terms, data reporting and transparency, etc.**
- **Because it is an agreement, a MOU has opportunities to include actions that are not possible in a regulation. Are there specific actions you think South Coast AQMD, BNSF, and UP could agree to that should be included?**