



National Fire Emissions Technical Workshop

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Emission Reduction Techniques

- ERTs in current SMPs
- ERT use valuable to represent prescribed fire activity to public: cost, reducing emissions...
- Controllability of prescribed fire emissions (Natural versus Anthropogenic-maintenance v. restoration - WRAP)

Emission Reduction Techniques

● Methods

- Survey (GCVTC-Fire Emissions Project/WRAP)
- Historical/Average Fire Years (VISTAS, WRAP)
- Ecological Based (WESTAR)
- Fire Emissions Tradeoff Model

GCVTC/FEP

FMI/WESTAR

Prescribed Fire & Fuels Treatment Database

GIS

Original

Summarized

Mapping

Weighted Mean by Areas

Remapping

States

50 Km² Grid

Vegetation

Ownership



EcoRegion



New Veg



Management Region



Ownership

- 1) USFS
- 2) BLM
- 3) FWS
- 4) NPS
- 5) BIA
- 6) O. Fed.
- 7) SPO

FS

FED

SPO

Management Region

- 1) FS/Wild
- 2) FS/nonWild
- 3) Fed/Wild
- 4) Fed/nonWild
- 5) SPO

Wilderness

Land Allocation Class (LAC)

- 1) CR
- 2) AW
- 3) RR
- 4) MX
- 5) UN

Wilderness

NonWilderness

Database

Rx Treatments (6 Rx for each LAC)

- 1) PFi
- 2) PFm
- 3) PNF
- 4) PFb
- 5) PFp
- 6) Mech

RxN

RxA

Spring

Fall

Spring

Fall

RxN spring

RxN fall

RxA spring

RxA fall

RxN spring

RxN fall

RxA spring

RxA fall

RxN spring

RxN fall

RxA spring

RxA fall

Map Outputs

Phase I

Phase II

Phase III

Phase IV

Phase V

Section 309 and Smoke Management

- (i)...smoke management programs that include all necessary components including, but not limited to, actions to minimize emissions, evaluation of smoke dispersion, alternatives to fire...
- (iii) Identification and removal wherever feasible of any administrative barriers to the use of alternatives to burning...
- (v)...minimize emission increases from fire to the maximum extent feasible

GCVTC-FEP 2018 Rx Fire Optimal Smoke Management Techniques

- **Backing Fires**
- **Burn Before Green-up**
- **Burn Before Large Fuels Cure**
- **Firewood Sales**
- **High, Large-Diameter Fuel Moistures**
- **Mass Ignition/Shortened Fire Duration**
- **Moist Litter and/or Duff**
- **Other Biomass Utilization**
- **Rapid Mop-Up**
- **Underburn Before Litter Fall**
- **Whole Tree Harvesting and/or YUM**

RHR

- 308
- WESTAR survey on use of SMP's in 308 control strategies
- Many states will adopt SMP's
- Increasing fire use in many areas
- Political and equity issues
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Implications

- Tracking
- Calculation tools?
- Projections

- Alternatives to burning (credits?)
- Limits to use