Evaluation of Potentially Underserved Areas

| Potentially Underserved Area | Pros | Cons | Add’l Comments | Rank\* |
| --- | --- | --- | --- | --- |
| UA1: Saguache-Monte Vista-Alamosa | * Great Sand Dunes NM on eastern boundary (but at higher elevation)
* Far from any existing monitoring sites
* Some areas of elevated non-fire O3 impacts predicted, including areas below 8,000’ (WestJump modeling)
 | * Isolated; No significant existing sources or major population centers in immediate vicinity
* Far from any emissions sources
* Generally low O3 contribution from anthropogenic sources predicted (WestJump modeling)
 | * J. Korfmacher (1/13/14): Not a priority for a number of reasons, but a very interesting area topographically: big, broad valley that may be subject to the inversions and snow cover in the winter that characterize Pinedale and Vernal. A valley-floor monitor for a season or two might be very useful.
* D.Miller (1/16/14): Believe this is a low priority.
 | L |
| UA2: East-Central WY | * Downwind of major point sources (Dave Johnston and Laramie River Station)
* Anticipated future increase in O&G development
 | * Minimal current O&G development
* Low NOx emissions density
* Low non-biogenic O3 impacts predicted (WestJump modeling)
 | * J. Korfmacher (1/13/14): On and around Thunder Basin NG. Probably not much happening out there--very few sources upwind and very well-mixed. Maybe MedBow or R2 have an interest in monitoring around the Thunder Basin.
* D.Miller (1/16/14): Suggest low priority.
* WY DEQ (1/17/14): Considered High priority for WY AQD (see attached comment)
 | H |
| UA3: Medicine Bow – Saratoga | * Downwind of CDC development area
* Not well represented by higher elevation Centennial monitor
 | * Minimal O&G development
* No major sources
* Generally low anthropogenic O3 impacts predicted (WestJump modeling)
 | * D. Miller(1/16/14): Modeling suggests this is downwind of very large oil and gas projects—suggest medium or high priority
* J. Korfmacher (1/13/14): Not too far from my Snowy Range field site, so it wouldn't be too big of a deal to manage/maintain. Some potential O&G upwind precursor sources.
* WY DEQ (1/17/14): Considered low priority for WY AQD (see attached comment)
 | M |
| UA4: Central West WY | * Includes population center (Riverton, Lander)
 | * Minimal O&G development
* No major sources
* Land jurisdiction in this area is uncertain thus complicating monitor siting
* Low anthropogenic O3 impact predicted (WestJump modeling)
 | * J. Korfmacher (1/13/14): Agree that this is a low-priority site.
* D.Miller (1/16/14): Project development is occurring at the southern end of this area; suggest medium priority.
* WY DEQ (1/17/14): Considered medium priority for WY AQD (see attached comment)
 | L |
| UA5: Dinosaur East Side | * Downwind of Uintah Basin
* Cross-border transport
* Hiawatha RFD on northern edge
* High values at Rangely and Dinosaur (Lay Peak at much higher elevation)
* Moderate anthropogenic O3 impacts predicted (WestJump modeling)
 | * No significant sources or population centers
 | * NPS and USFS have expressed interest.
* J. Korfmacher (1/13/14): A loooong way from any other sites--would be a pretty substantial commitment to establish a site out there. Would be very useful though.
* G. Pierce (1/16/14): Recommend highest priority area
 | H |
| UA6: Caineville-Hanksville | * Upwind boundary
* Near Capitol Reef Class I area
 | * No significant sources or population centers
* High absolute correlations between surrounding sites
* Low anthropogenic O3 impact predicted (WestJump modeling)
 | * J. Korfmacher (1/13/14): UA6/UA7/UA8 (East/Central Utah): A couple years ago I had thought about trying to get some assets deployed out that way. Very difficult to say what is happening in those areas as there are so few assets anywhere nearby. Would require a significant commitment of resources unless there are skilled on-site operators.
* P. Barickman (Utah 1/16/14) See UA7
 | L |
| UA7: Green River-Westwater | * Near Arches Class I area and Moab
* Potential new O&G development (Moab Master Leasing Plan)
* Only moderate correlations between nearby sites (Canyonlands and Colorado NM)
* Moderate anthropogenic O3 contributions and moderate non-fire O3 contributions predicted (WestJump modeling)
 | * No significant existing sources or major population centers in immediate vicinity
 | * J. Korfmacher (1/13/14): [see UA6 above]
* P. Barickman (Utah 1/16/14). I would rank all 3 Utah underserved areas as a low priority for new monitors. Based on trend data analysis of CASTNET monitors we did 6+ years ago, a good bit of the 4 Corners area is affected by regional conditions. Monitors at Canyonlands, M Verde, GC, Zion, Escalante (seasonal) and Price probably cover SE/East central Utah well.
 | M |
| UA8: Blanding Area | * Contains Natural Bridges and Hovenweep NMs
* Moderate anthropogenic O3 impacts predicted (WestJump modeling)
 | * No significant sources or population centers
* High absolute correlations between surrounding sites
 | * J. Korfmacher (1/13/14): [see UA6 above]
* P. Barickman (Utah 1/16/14) See comment above.
 | L |
| UA9: Dove Creek North Side | * Surrounding monitors with annual 4th Max 8-Hour O3 values approaching NAAQS (65-70 ppb)
* Downwind of future Paradox and Mancos development?
 | * No significant sources or population centers
* Cortez and Norwood monitors well correlated
* Moderate anthropogenic O3 contributions and moderate non-fire O3 contributions predicted towards Cortez but lower values predicted further north (WestJump modeling)
 | * J. Korfmacher (1/13/14): Not much going on at Norwood monitor, also a very long way from Norwood (which is also a long way from other sites).
* G. Pierce (1/16/14): Recommend fourth highest priority area
 | M |
| UA10: Delta-Montrose | * Near Black Canyon of the Gunnison NM Class I area
* Potential new O&G development (Moab Master Leasing Plan)
* Some areas of elevated ozone predicted, including areas below 8,000’
 | * No significant existing sources or major population centers in immediate vicinity
* Not far from Grand Mesa USFS seasonal site but Grand Mesa is at higher elevation (3040 m)
* Generally low O3 contribution from anthropogenic sources predicted (WestJump modeling)
 | * J. Korfmacher (1/13/14): UA10-UA11: Low priority, but monitors along US Hwy 50 would be fairly easy to access and maintain. I don't think either of these areas would have much O3 loading.
 | L |
| UA11: Black Canyon of the Gunnison | * Near Black Canyon and West Elk Class I areas
 | * No significant existing sources or major population centers in immediate vicinity
* More remote than UA10
* Generally low O3 contribution from anthropogenic sources predicted (WestJump modeling)
 | * J. Korfmacher (1/13/14): [see UA10 above]
* D.Miller (1/16/14): Appears to be far from monitors; might be useful for filling in coverage gaps
 | L |
| UA12: Kremmling Area | * Downwind of Piceance Basin O&G development (Garfield Co.)
* Includes Eagle’s Nest Class I area
 | * Higher elevation locations may be adequately represented by DRI’s Storm Peak monitor
* Sites to west (Flattops, Ripple Creek Pass, Meeker) show low values
* Low non-biogenic O3 impacts predicted (WestJump modeling)
 | * J. Korfmacher (1/13/14): Not sure why there are so few assets in Summit/Grand Counties. Buffalo Pass, Walden and Mines Peak will all be on the periphery of this area, but a low-elevation site in Granby, White Sulphur or Kremmling is probably necessary to complete the data picture. Kremmling would be the site we could support most easily as it's on the way to Ripple Creek. Potentially a year-round site.
* D.Miller (1/16/14): Downwind of potential White River development, might be useful to monitor
* G. Pierce (1/16/14): Recommend third highest priority area
 | M |
| UA13: Roan Plateau | * Downwind of Uintah Basin and O&G development in NE Grand Co., UT
* Cross-border transport
* Black Hills RFD to the south suggests further potential development
* Monitors to NW show (Rabbit Mt., Rangely) show high winter values
* Moderate anthropogenic O3 impacts predicted (WestJump modeling)
 | * Minimal O&G emissions at this time
* Adequately represented by Rangely?
 | * J. Korfmacher (1/13/14): Douglas Pass seems to me to be the most obvious site--there are radio comm shacks and cellphone facilities already there, so it seems like we could coordinate the use of one of those. I don't think the Rangely site adequately assesses conditions in that area. Douglas Pass is >60 miles from Rangely and about an equal distance from the state site in Grand Jct. and our site at Grand Mesa.
* D.Miller (1/16/14): Agree this is a high priority area
* G. Pierce (1/16/14): Recommend second highest priority area
 | H |

\*Ranks: H=high, M=medium, L=low

**Comments for 3-State Network Assessment**

**Underserved Area Analysis – Wyoming AQD Comments**

General: Please clarify in bullets that “major sources” are PSD and not Title V

Area 2: East-Central WY:

The AQD disagrees with the “con” assessment that there will be minimal oil and gas development in this area. The AQD has been working with Federal Land Managers and Wyoming Oil and Gas Conservation Commission (WOGCC) to anticipate increased oil and gas development; therefore there should be a “Pro” bullet stating that there is an anticipated increase in oil & gas development. The AQD has already deployed a mobile monitoring station that has been operational for 1 year and will be left in place until January of 2015. As more information becomes available through the NEPA scoping process, the AQD will evaluate if a long-term monitoring station is needed in this area. This is considered a **high** priority area for the AQD

Area 3: Medicine Bow – Saratoga

Possibly, the CDC modeling could shed more light on whether CDC development is expected to impact ozone concentrations in this area. Without further supporting information this is a **low** priority area for the AQD.

Area 4: Central West WY

It is difficult to tell if UA4 on the map covers Lander as stated in the “pro” bullet. The area of land covered by UA4 is currently under dispute between the State of Wyoming and the Federal Government. The AQD would like to change the bullet that states “difficult to site monitors on tribal land” to “Jurisdiction within UA4 is uncertain”

Current Fremont County Monitoring Stations (South Pass and Spring Creek) may not be accurate representations of the County air quality as a whole due to elevation and nearby development. This area is **medium** priority for the AQD.