

Uintah Basin Air Quality Meeting

April 29, 2013

- 2012 Winter Ozone Study
- Next Steps Ozone Advance

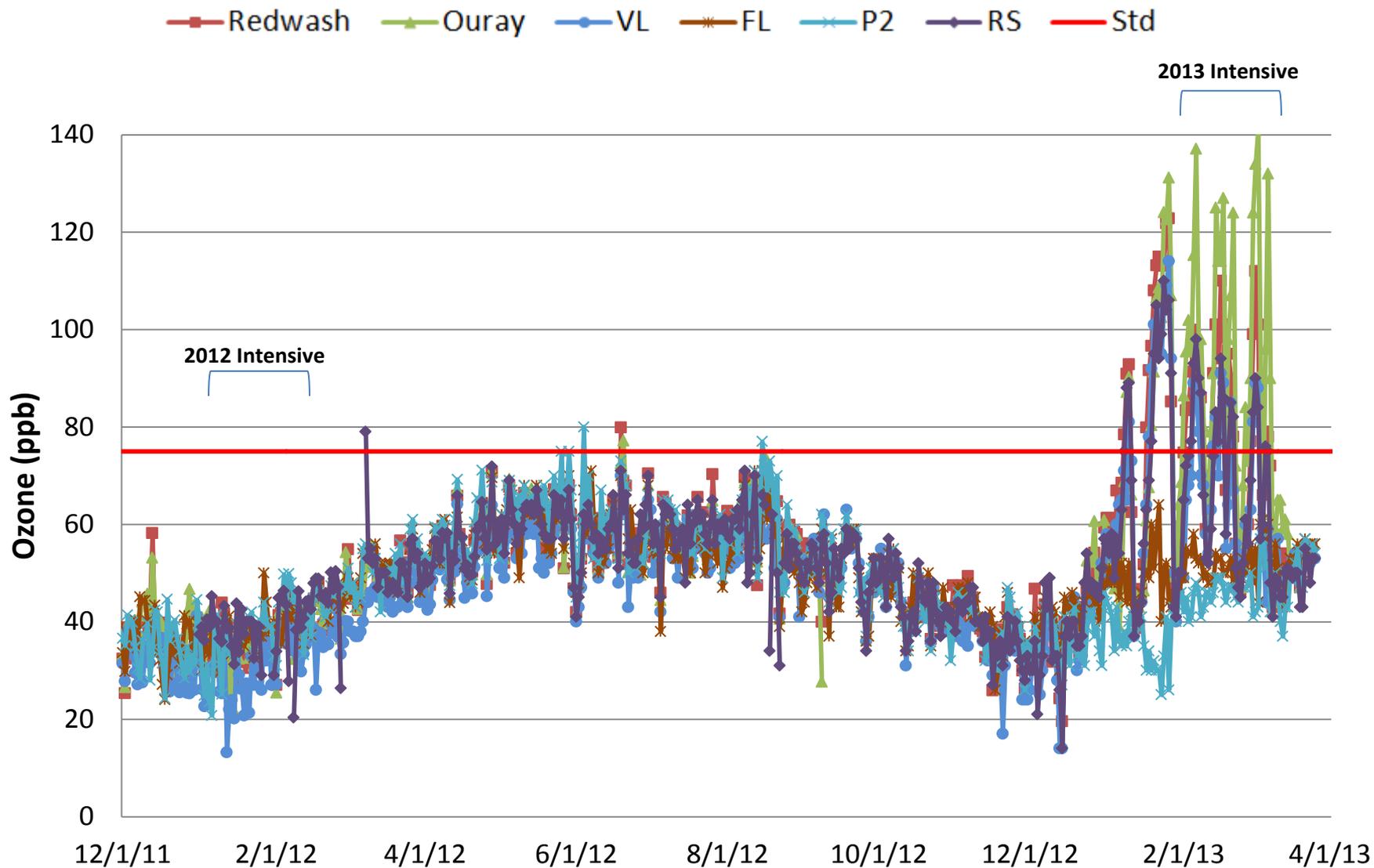
2013 Winter O3 Study Components

- Aircraft Basin-wide Measurements: O₃, NO_x and Speciated VOC
- Vertical Profiling of Meteorological Parameters, O₃, NO_x, and Total Hydrocarbons using Tethered Balloon
- Wintertime Ozone Formation Chemistry at Horse Pool
- Long-Term Trends Wintertime Monitoring for Ozone, and Key Precursor Species – Roosevelt and Horse Pool “Super Sites”
- Distributed Monitoring: Ozone, and Passive VOC and NO_x
- Ozone and Doppler LIDAR: Continuous 3-dimensional Profiles of Ozone and Metrological Conditions at Horse Pool
- Atmospheric Boundary Layer and Recirculation Characterization Basin-wide
- Photochemical Modeling of the Basin’s Airshed

Study Schedule

Date	Milestone
April 30	Draft outline of Synthesis Report
May 1	½ day “data” webinar on results hosted by NOAA
June – July	<ul style="list-style-type: none"> > Possible second ½ day webinar (date TBD) > Circulate drafts of Preliminary Study Summary and Conclusions (“Interim Findings” document)
July 22/23 (date TBD)	<ul style="list-style-type: none"> > Two day Science Meeting in Vernal > Finalize and release Preliminary Study Summary and Conclusions
August 31	Draft Reports from each research group due
September 30	Final Reports from each research group due
October 15	First draft of Synthesis Report due
October 15 – November 5	1 st Comment period
November 19	Revised Synthesis Report due
November 19 – December 3	2 nd Comment period
December 17	Final Synthesis Report due
December 31	Public release of Synthesis Report

Ozone Concentration, 8-hr



Ozone Concentrations in the Basin, 8-hr

2013 Ozone										
8-hr ozone	Rangely	White-rocks	Myton	Dinosaur	Redwash	Ouray	Vernal	Fruitland	Price	Roosevelt
1st Max	106	107	117	126	124	141	114	64	57	110
2nd Max	102	104	110	120	119	137	109	61	57	106
3rd Max	91	100	109	120	115	134	104	60	55	105
4th Max	91	95	108	113	114	132	102	60	52	104
5th Max	90	89	107	109	113	127	101	60	52	99
6th Max	86	87	105	107	113	125	101	58	51	98
7th Max	80	86	100	103	112	124	95	58	51	95
8th Max	80	86	97	102	110	124	94	57	50	94
9th Max	79	83	96	100	108	124	92	56	50	94
10th Max	75	81	95	97	101	124	91	56	50	93
Exceedances										
	9	12	20	23	35	39	22	0	0	26

Regulatory Monitors

2013 Ozone			
Station	Owner	Regulatory	Status
Rangely	COPHE	yes	Currently has 3 years of O3 data exceeding the NAAQS
Myton	EPA	no	Health based site, planned to be regulatory
White Rocks	EPA	no	Health based site, planned to be regulatory
Dinosaur	NPS	no	2B-Tech ozone instrument
Redwash	EPA	no	Classified as Industrial, planned to be regulatory, waiting on QAP approval
Ouray	EPA	no	Classified as Industrial, planned to be regulatory, waiting on QAP approval
Vernal	UDEQ	yes	
Fruitland	UDEQ/BLM	no	Operated by UDAQ under an assistance agreement w/ BLM
Price	UDEQ	yes	
Roosevelt	UDEQ	yes	

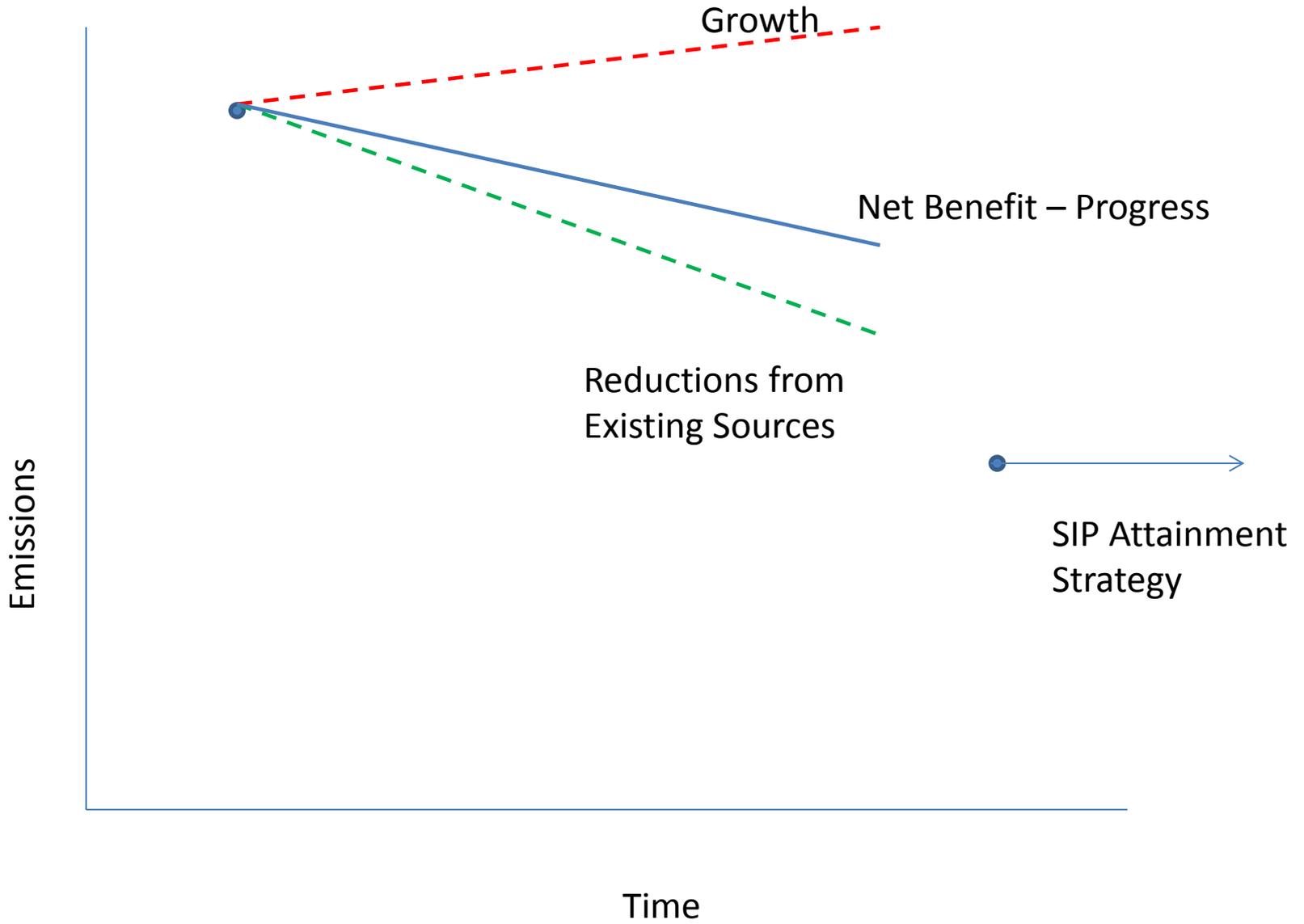
PM2.5 Concentrations in the Basin, 24-hr

2013 PM2.5						
	Rangely, CO	Myton	Redwash	Ouray	Vernal	Roosevelt
98%	22		26.6	26.9	55.2	41.7
24-Hr PM2.5						
1st Max	28.5		26.7	29.2	55.7	45.1
2nd Max	22.0		26.6	26.9	55.2	41.7
3rd Max	20.3		26.5	26.8	45.0	38.9
4th Max	19.6		26.0	24.9	43.1	38.4
5th Max	19.2		25.3	24.7	42.1	35.1
6th Max	18.3		24.4	23.8	42.0	33.9
7th Max	17.7		24.1	23.8	40.6	33.2
8th Max	16.9		23.9	23.7	40.3	32.8
9th Max	14.4		21.8	23.0	38.6	32.5
10th Max	14.3		21.1	22.5	37.1	32.2
Exceedances						
	0		0	0	13	4

Next Steps Ozone Advance

Permitting

- Permitting guidance in place
 - Addresses impact of new sources
 - Challenge for producers to implement
 - Not best long-term solution
- Interim strategy
 - More comprehensive approach
 - Broader emission reductions
 - Replace permit-by-permit demonstration
- Long term strategy would be addressed in SIP



Reductions from Existing Sources

- Develop strategies based on what we know
 - Inventories and models still under development
 - Based on current information focus on VOC reductions
 - Incorporate new information as it becomes available
 - Highly reactive VOCs?
 - NO_x?
 - Other?
- Where should we start?
 - Pollution prevention strategies that lead to cost savings
 - Pneumatic controllers?
 - Ensure that existing equipment is operating effectively
 - Leak Detection and Repair?
 - Best management practices?
 - Auto igniters on flares?
 - Early adoption of new requirements
 - Green completions (winter months)?
 - Episodic emission reduction plans
 - Other?

General Permit

- General permit vs. permit by rule approach
 - Source categories with similar operations
 - Size, type of controls, location
- How would it work
- Advantages
 - Certainty
 - Consistency
 - Faster process once the general permit has been issued
- Next steps
 - Rule change (6 month process)
 - Draft general permits (start with oil and gas industry)
 - Area source rules and changes to de minimus levels for a source category could be developed to complement general permit

Other Strategies

- Incorporation of Oil and Gas NSPS
 - Proposal at May Air Quality Board meeting
- Woodburning education program
- Diesel Anti-idling program
- New sources not covered by NSPS – establish standards