

**TABLE 4-1 CALCULATION OF TARGET SENSITIVITY**

**Panel A: Assumed Exposure Parameters**

Parameter	Population									
	USFS Worker			USFS Firefighters				Rec Vis. to LRC	Residential wood harvesters	
	Trail maintainance	Tree thinning	Stand Examination	Cutting Fireline by Hand	Cutting Fireline w Heavy Equip.	Smoke on the ground	Smoke in air (Pilots)	Hiking along LRC	Driving to/from	Fell, cut, stack wood
ET (hrs/day)	8	8	8	8	8	8	4	8	1	8
EF (days/yr)	10	10	10	10	10	10	20	20	10	10
TWF	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.018	0.0011	0.009
Age at first exposure	18	18	18	18	18	18	18	7	15	15
Duration of exposure	40	40	40	40	40	40	40	30	30	30
iURad (PCM f/cc) <sup>-1</sup>	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.129	0.093	0.093

**Panel B: Risk Based Concentrations**

Parameter	Population									
	USFS Worker			USFS Firefighters				Rec Vis. to LRC	Residential wood harvesters	
	Trail maintainance	Tree thinning	Stand Examination	Cutting Fireline by Hand	Cutting Fireline w Heavy Equip.	Smoke on the ground	Pilots	Hiking along LRC	Driving to/from	Fell, cut, stack wood
Target Risk	1.0E-05	1.0E-05	1.0E-05	1.0E-05	1.0E-05	1.0E-05	1.0E-05	1.0E-05	1.0E-05	1.0E-05
TWF	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.018	0.001	0.009
iURad	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.129	0.093	0.093
RBF	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
RBC (LA f/cc)	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.008	0.187	0.023

**Panel C: Target Sensitivity**

Parameter	Population									
	USFS Worker			USFS Firefighters				Rec Vis. to LRC	Residential wood harvesters	
	Trail maintainance	Tree thinning	Stand Examination	Cutting Fireline by Hand	Cutting Fireline w Heavy Equip.	Smoke on the ground	Pilots	Hiking along LRC	Driving to/from	Fell, cut, stack wood
Target Fibers/sample	5	5	5	5	5	5	5	5	5	5
RBC (s/cc)	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.008	0.187	0.023
Target S (cc) <sup>-1</sup>	0.0048	0.0048	0.0048	0.0048	0.0048	0.0048	0.0048	0.0017	0.0373	0.0047

**Panel D: Estimated Grid Openings to Achieve Target Sensitivity**

Parameter	Population									
	USFS Worker			USFS Firefighters				Rec Vis. to LRC	Residential wood harvesters	
	Trail maintainance	Tree thinning	Stand Examination	Cutting Fireline by Hand	Cutting Fireline w Heavy Equip.	Smoke on the ground	Pilots	Hiking along LRC	Driving to/from	Fell, cut, stack wood
EFA (mm <sup>2</sup> )	385	385	385	385	385	385	385	385	385	385
Ago (mm <sup>2</sup> )	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Q (L/min)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
time (min)	30	30	30	30	30	30	30	60	40	30
V (L)	120	120	120	120	120	120	120	240	160	120
Target S (cc) <sup>-1</sup>	0.0048	0.0048	0.0048	0.0048	0.0048	0.0048	0.0048	0.0017	0.0373	0.0047
GOs	68	68	68	68	68	68	68	97	7	69

**TABLE 5-1 OVERVIEW OF PHASE IV ABS SAMPLING DESIGN**

Population	ABS Scenario	ABS Script	Number of ABS Study Areas	Number of ABS Events per Area	Number of samples (a)	Number of Samples	
						per area	total
Recreational visitor along Rainy Creek	Hiking along Rainy Creek	1	1	5	2	10	10
Residential wood harvester	Driving to and from harvest area	2a	3	5	2	10	30
	Cutting and hauling firewood	2b	3	5	4	20	60
USFS Worker (forest management activities)	Trail maintainance	3a	3	5	2	10	30
	Thinning trees	3b	3	5	2	10	30
	Stand exam	3c	3	5	2	10	30
USFS Firefighter (ground-based)	Cutting firelines by hand	3d	3	5	2	10	30
	Cutting firelines with heavy equipment	3e	3	5	2	10	30
	Personal monitors worn during simulated wildfire burns	4a	2	1	4	4	8
	Stationary monitors activated during simulated wildfire burns	4b	2	1	4	4	8
USFS Firefighter (pilot of aircraft)	Fly through smoke from simulated wildfires	5a	2	1	2	2	4
	Fly through smoke from authentic wildfires	5b	TBD	TBD	2	2	TBD
Area Residents and campers	Smoke monitoring near town from authentic wildfires	6	3	TBD	2	2	TBD
	Smoke monitoring downwind from authentic wildfires	6	TBD	1	1	1	TBD

(a) Note: Although each individual performing ABS activities will wear two pumps, it is assumed that only one of the resulting filters will be analyzed by TEM. The other filter will be archived for analysis if needed.

Planned	270
TBD (est)	30
Total (est)	300