list

ATTACHMENT D

Limitation of the Exposure Areas to the 1 ppm Isopleth

In the HHRA, EPA has defined the exposure areas (EAs) for the direct contact scenarios as those areas, within a parcel or group of parcels, which are bounded by the water's edge and the 1 ppm isopleth. This approach is reasonable for those areas where the specific activity being evaluated is expected to occur only within the 1 ppm isopleth or when the activity within the 1 ppm isopleth is expected to continue for an extended period of time during each day of exposure. In these cases, it is reasonable to assume that the majority of the soil contacted or ingested during that activity would be derived solely from within the 1 ppm isopleth. For example, an individual who is fishing on the edge of Woods Pond is likely to spend a substantial portion of the day there and would likely remain close to the river (i.e., within the 1 ppm isopleth) during all the time spent there. Thus, even if the 1 ppm isopleth is a very small portion of the area around Woods Pond, it is reasonable to expect that all of the soil contacted or ingested during that activity would be derived from the 1 ppm isopleth.

There are numerous other areas/activities, however, for which this approach is not reasonable. For example, at EA 29, to which the HHRA assigns a general recreational scenario, it appears that less than 10 percent of Parcel K3-1-1, on which EA 29 is located, is included in the 1 ppm isopleth and that most of that area is "difficult/wadable" (see Figure 5-29 from Vol. IIIB of HHRA, reproduced as Figure 1 in this attachment). Thus, individuals using Parcel K3-1-1 (if any) probably spend the majority of the time in areas that are not part of the 1 ppm isopleth. Similarly, none of the subareas subject to the dirt biking/ATVing scenario (EAs 22A, 27A, and 28A) can be accessed without following a trail that passes through other portions of the larger EAs and substantial areas outside of the 1 ppm isopleth (see, e.g., Figure 5-22 from Vol. IIIB of HHRA, reproduced as Figure 2). Because dirt biking is a high-speed activity, it is likely that dirt bikers will pass through areas both inside and outside the 1 ppm isopleth during their riding time and thus contact soils from both types of areas. Furthermore, in most of the areas used for farming, only a portion of the cultivated fields is located within the 1 ppm isopleth. The true exposure area for such parcels would include areas that are both inside and outside the 1 ppm isopleth, because farmers will move through both areas during the day. Thus, their total daily soil ingestion and dermal contact will be with a combination of 1 ppm isopleth soil and soils outside that isopleth.

GE believes it is important to take this issue into consideration in the direct contact pathways in order to more closely approximate actual potential for exposure. There are three possible ways that this could be done. These include: (1) calculation of the exposure point concentrations (EPCs) for the actual areas of exposure; (2) adjustment of the exposure frequencies; or (3) addition of adjustment factors to reflect the fraction of the soil contacted (within a given area of activity and during that activity) which is contained within the 1 ppm isopleth.

First, for use areas where the total exposure area includes but extends beyond the 1 ppm isopleth, the EPC could be based on a spatial average for the entire area, including the portions both within and outside of the 1 ppm isopleth. This would result in EPCs that are more representative of the entire exposure areas. This approach is supported by EPA guidance. For example, EPA's 1989 guidance stated that, in the averaging, "the area over which the activity is expected to occur should be considered" (EPA, 1989, p. 6-28). Similarly, EPA's more recent risk assessment guidance (EPA, 2001) suggests (p. C-9) that when the actual exposure area is larger than the contaminated area, the exposure area for which the EPC is calculated can be defined "by the multiple locations that may be visited," and that the concentrations in that overall area that lie outside the contaminated area may be set at background levels or through additional sampling. For the Rest of River area, however, the sampling of the floodplain soil to date has been focused primarily on the areas contained within the 1 ppm isopleth. The lack of available data outside of the 1 ppm isopleth for most areas makes it difficult to use this approach to adjust the EPCs unless a substantial amount of additional sampling is undertaken or all areas outside of the 1 ppm isopleth are assumed to have background concentrations of PCBs.

Second, EPA could adjust the exposure frequencies for each EA to reflect less time spent in the 1 ppm isopleth. For example, if EPA believes that it is appropriate to use an RME exposure frequency of 90 days/year for a given recreational parcel and activity, but the 1 ppm isopleth only represents 50 percent of the total exposure area, the exposure frequency could be

adjusted to 45 days/year to reflect this. The HHRA does not currently reflect such adjustments of exposure frequency.[1] However, this is not a transparent approach because the adjusted exposure frequencies may appear to indicate lower usage of areas than may actually occur. This could be confusing for the public.

Third, EPA could estimate the fraction of the total actual exposure area of a given parcel or group of parcels that falls within the 1 ppm isopleth and develop a parcel-specific factor to adjust the exposure equations for the soil ingestion and dermal contact pathways based on that fraction. For example, if it appears that the 1 ppm isopleth represents approximately half of the total exposure area of a parcel that is likely to be used for a specific type of activity, a factor of 0.5, to indicate the fraction of soil contacted that is contaminated, can be added to the exposure equations for the soil ingestion and dermal pathways to reflect the fact that exposures to a combination of soils will occur.

Given the lack of practicality or transparency of the first two potential approaches, GE recommends that the HHRA be revised to implement the third approach. This approach is consistent with EPA (1989, 2001) guidance, is transparent (as required by EPA's [2002] information quality guidelines), and allows both the existing sampling data and representative exposure frequencies to be used directly. Most importantly, it will result in exposure estimates that are more representative of actual and likely exposures to floodplain soils.

To assist in this effort, GE has evaluated the maps of the EAs that are presented in the HHRA and has developed an adjustment factor for each EA. These recommended adjustment factors and their rationales are provided in Table 1. In all cases, the factors presented indicate the fraction of total daily exposure that GE believes will be derived from the 1 ppm isopleth area during the activity being evaluated. It should be noted, however, that given site- and scenario-specific considerations for each parcel, it is not always appropriate to base these fractions solely on the fraction of the total exposure area that falls within the 1 ppm isopleth. In some cases,

[1] For example, for both EA 29 and EA 31, which are portions of government-owned properties that have recreational usage, the HHRA uses an RME exposure frequency of 90 days/year. However, in looking at the maps for these areas, it is very clear that the fractions of each parcel that are contained within the 1 ppm isopleth are very different. As noted above, it appears that less than 10 percent of Parcel K3-1-1, on which EA 29 is located, is included in the 1 ppm isopleth and that most of that area is "difficult/wadable" (see Fig. 1). By contrast, it appears that between 80 and 90 percent of Parcel K2-1-5, which includes EA 31, falls within the 1 ppm isopleth (Vol. IIIB, Fig. 5-31). Most of that parcel is "walkable" and is accessible to nearby residential properties. Yet the exposure frequencies assigned in the HHRA are the same.

while only a small portion of the total exposure area falls within the 1 ppm isopleth, GE believes, based on the nature of the activity, that the activity would include a long exposure time and would be confined to the 1 ppm isopleth. Examples of this are the angler, waterfowl hunter, and canoeing scenarios. These situations are reflected in the recommended adjustment factors presented in Table 1.

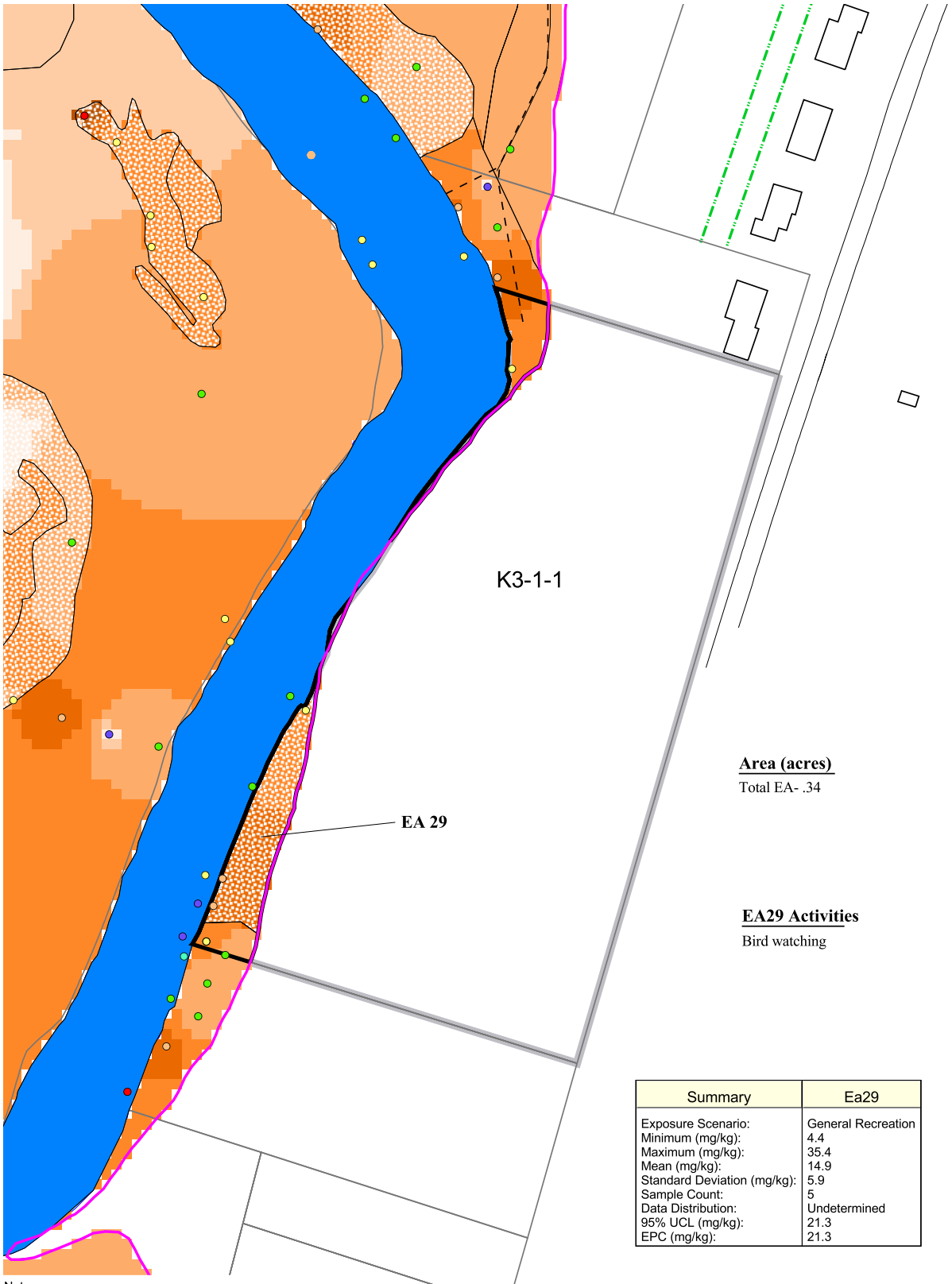
GE requests that the adjustment factors provided in Table 1 be considered as a basis for adjusting the direct contact exposure equations to reflect the fraction of total exposure time during that activity that is spent in the 1 ppm isopleth. GE believes that, if such adjustments are not made, the calculated exposures and risks for such areas will be substantially overestimated and will not be reflective of the nature of the activities that actually occur on the floodplain.

References

EPA. 1989. *Risk Assessment Guidance for Superfund; Volume I: Human Health Evaluation Manual (Part A) – Interim Final.* U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Washington, D.C. EPA/540/1-89-002. July.

EPA. 2001. *Risk Assessment Guidance for Superfund: Volume 3 - Part A, Process for Conducting Probabilistic Risk Assessment.* Final. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA 540-R-02-002. December.

EPA. 2002. *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility and Integrity of Information Disseminated by the Environmental Protection Agency.* U.S. Environmental Protection Agency. EPA/260R-02-008.



Summary	Ea29
Exposure Scenario:	General Recreation
Minimum (mg/kg):	4.4
Maximum (mg/kg):	35.4
Mean (mg/kg):	14.9
Standard Deviation (mg/kg):	5.9
Sample Count:	5
Data Distribution:	Undetermined
95% UCL (mg/kg):	21.3
EPC (mg/kg):	21.3

Note:
As described in Section 4.4.1.1.1, to account for differing accessibilities in the floodplain, concentrations in wadable and difficult areas are reduced by a factor of 50%. No soil contact occurs in boatable areas and data at all other areas had no use-weighting factor applied.

LEGEND:
- Trails/Roads
- Railroads
- Easement
- Parcels
- Exposure Subarea Boundary
- Tract
- Building
- Hydrography
- 1 ppm Total PCB Isopleth (Historic)
- Exposure Area Boundary

Accessibility Key
- Wadable/Difficult
- Boatable
- Walkable

Inverse Distance Weighting PCB Concentration Key (mg/kg)
- < 1
- 1 - 2
- 2 - 10
- 10 - 25
- 25 - 50
- 50 - 100
- > 100
- No Data

Total PCB Surface Sample Location and Result Key (mg/kg)
- < 1
- 1 - 2
- 2 - 10
- 10 - 25
- 25 - 50
- 50 - 100
- > 100

N W E S

100 0 100 Feet

Direct Contact Human Health Risk Assessment
GE/Housatonic River Site
Rest of River

FIGURE 5-29
EXPOSURE AREA 29
TAX PARCEL K3-1-1

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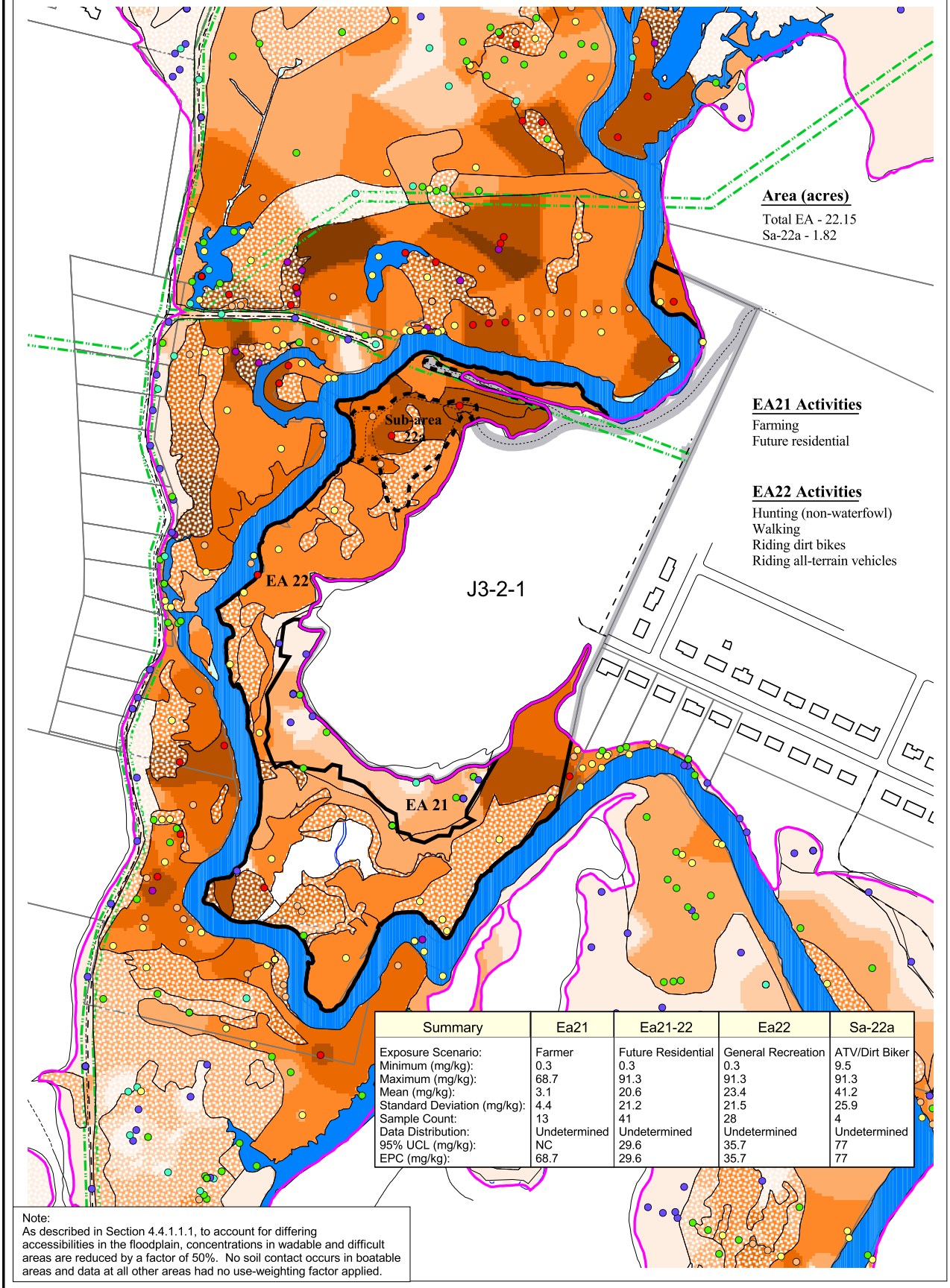

Summary	Ea21	Ea21-22	Ea22	Sa-22a
Exposure Scenario:	Farmer	Future Residential	General Recreation	ATV/Dirt Biker
Minimum (mg/kg):	0.3	0.3	0.3	9.5
Maximum (mg/kg):	68.7	91.3	91.3	91.3
Mean (mg/kg):	3.1	20.6	23.4	41.2
Standard Deviation (mg/kg):	4.4	21.2	21.5	25.9
Sample Count:	13	41	28	4
Data Distribution:	Undetermined	Undetermined	Undetermined	Undetermined
95% UCL (mg/kg):	NC	29.6	35.7	77
EPC (mg/kg):	68.7	29.6	35.7	77

Note:
As described in Section 4.4.1.1.1, to account for differing accessibilities in the floodplain, concentrations in wadable and difficult areas are reduced by a factor of 50%. No soil contact occurs in boatable areas and data at all other areas had no use-weighting factor applied.

LEGEND:
- Trails/Roads
- Railroads
- Easement
- Parcels
- Exposure Subarea Boundary
- Tract
- Building
- Hydrography
- 1 ppm Total PCB Isopleth (Historic)
- Exposure Area Boundary

Accessibility Key
- Wadable/Difficult
- Boatable
- Walkable

Inverse Distance Weighting PCB Concentration Key (mg/kg)
- < 1
- 1 - 2
- 2 - 10
- 10 - 25
- 25 - 50
- 50 - 100
- > 100
- No Data

Total PCB Surface Sample Location and Result Key (mg/kg)
- < 1
- 1 - 2
- 2 - 10
- 10 - 25
- 25 - 50
- 50 - 100
- > 100

N W E S

300 0 300 Feet

Direct Contact Human Health Risk Assessment
GE/Housatonic River Site
Rest of River

FIGURE 5-22
EXPOSURE AREAS 21 AND 22
TAX PARCEL J3-2-1

Table 1. Summary of EAs for which a factor should be included to reflect the portion of the total exposure area that is contaminated

EA	Scenarios Evaluated	Recommended Adjustment Factor	Justification for Recommended Adjustment Factor
1	General recreation	1.0	Some of the activities observed (paint ball, camping) may occur completely within 1 ppm isopleth.
2	General recreation	1.0	Substantial area falls completely within 1 ppm isopleth and is near a residential area. Activities could occur for long periods of time within the 1 ppm isopleth.
3	General recreation	1.0	Approximately 75 percent of the total parcel falls within the 1 ppm isopleth but activity may occur only within the 1 ppm isopleth.
4	General recreation	1.0	The trail area falls completely within 1 ppm isopleth.
5	General recreation	1.0	The exposure area falls completely within 1 ppm isopleth.
6	General Recreation Future Residential	0.1	Designated EA represents approximately 5% of the Miss Hall's school property and a steep slope separates EA from remainder. Majority of activity would occur outside 1 ppm isopleth.
7	General recreation	0.6	The 1 ppm isopleth represents approximately 60 percent of the two parcels in the EA.
8	Rec. Canoe	1.0	Canoe activities would likely be contained within the 1 ppm isopleth.
9	General recreation	0.1	Designated EA represents only 3% of the yard of the existing residential property. Majority of work/play would occur outside the 1 ppm isopleth.
10	General recreation	1.0	Individuals could spend a significant portion of the day in the 1 ppm isopleth at Canoe Meadows.
10a	General recreation	0.5	Fifty percent of the trail area falls within the 1 ppm isopleth.
11	General recreation	1.0	The observed activities are brief so the percentage would not be 100 percent. However, this EA is near residential areas and could be for a substantial portion of the day when and if it is used.
12	General recreation	1.0	The long trail network is largely contained within the 1 ppm isopleth.
13	General recreation	1.0	The observed activities are brief. However, this EA is near residential areas and could be for a substantial portion of the day when and if it is used.
14	General recreation	0.5	EA is approximately 50% of a residential property. Large portions are wadable/difficult so most activity would be expected to occur closer to the house.

Table 1. Summary of EAs for which a factor should be included to reflect the portion of the total exposure area that is contaminated

EA	Scenarios Evaluated	Recommended Adjustment Factor	Justification for Recommended Adjustment Factor
15	General recreation	0.5	EA is approximately 80% of undeveloped property but only 50% of total parcel is not wadable/difficult. There are no attractive factors to keep people there for long periods.
16	General recreation	1.0	A substantial portion of the parcel is within the 1 ppm isopleth. Individuals could spend a substantial portion of the day there when and if it is used.
17	General recreation	0.6	EA is approximately 60% of a residential parcel with access to others via a utility easement.
18	General recreation	0.5	EA is approximately 50% of parcel K4-6-28. Large portions are wadable/difficult. Most use of the parcel would occur outside of the 1 ppm isopleth.
19	General recreation	1.0	EA is large and includes access via trails and easements.
20	General recreation	1.0	EA is large, falls behind residential areas, and has access by trails and easements.
21	Farmer	0.2	EA currently used for farming but EA represents only 20% of cultivated land.
21-22	Future residential	0.5	EA is approximately 50% of parcel J3-2-1. Activity would be expected to occur in and out of 1 ppm isopleth.
22	General recreation	0.5	EA is approximately 50% of parcel J3-2-1. Activity would be expected to occur in and out of 1 ppm isopleth.
22a	ATV/Dirt Biker	0.5	Dirt biking area is only a portion of the dirt biking trail in this area. Activity would be expected to occur both in and out of the 1 ppm isopleth.
23	General recreation	0.5	EA is adjacent to a long trail system but does not include the trail itself. Activities would be in and out of the 1 ppm isopleth. Children in homes may play on slopes but only for a portion of the time they are playing in their yards.
24	General recreation	1.0	EA is large and is adjacent to a long trail system.
25	General recreation	0.2	EA is less than 20 percent of several combined residential properties. Individuals would be expected to be in and out of the 1 ppm isopleth during work/play activities.

Table 1. Summary of EAs for which a factor should be included to reflect the portion of the total exposure area that is contaminated

EA	Scenarios Evaluated	Recommended Adjustment Factor	Justification for Recommended Adjustment Factor
26a	General recreation	0.5	EA is approximately 50% of parcel J2-2-2 and activities would be expected to occur in and out of the 1 ppm isopleth.
26b	Farmer	0.5	EA is approximately 50% of the land currently under cultivation on parcel J2-2-2.
27	General recreation	0.5	EA is approximately 50% of parcel.
27a	ATV/Dirt Biker	1.0	A substantial portion of the dirt biking activity during a day could be confined to this EA.
28	General recreation	0.25	EA is approximately 25% of a residential property. Work/play activities would occur in and out of 1 ppm isopleth.
28a	ATV/Dirt Biker	0.1	Subarea is a small portion of a larger trail system that is largely contained within the 1 ppm isopleth. The fraction of total daily dirt-biking activity that would occur in this EA is very limited. The EA is also adjacent to large areas outside of the 1 ppm isopleth.
29	General recreation	0.1	EA is less than 10% of parcel K3-1-1 and most of it is wadable/difficult. Most time spent on this parcel would be out of the 1 ppm isopleth.
30	General recreation	0.3	EA is approximately 10% of K2-1-10. Work/play activities would occur both in and out of 1 ppm isopleth.
31	General recreation	1.0	EA 31 is accessible by an easement and is located near residential properties.
31a	General recreation	0.5	Subarea 31a is approximately 50% of an easement with a trail. Activities would be in and out of 1 ppm isopleth.
32	General recreation	0.3	EA 32 is approximately 30% of parcel K2-1-1. It can be accessed from the road. Most of the EA is wadable/difficult making access from nearby residences difficult. Activity on this parcel would be in and out of 1 ppm isopleth.
33	General recreation	0.3	EA is approximately 30% of parcel J2-2-1. Access to most of EA is blocked by wadable/difficult areas. Recreational activities would occur in and out of 1 ppm isopleth.

Table 1. Summary of EAs for which a factor should be included to reflect the portion of the total exposure area that is contaminated

EA	Scenarios Evaluated	Recommended Adjustment Factor	Justification for Recommended Adjustment Factor
34	Future residential	0.3	EA is approximately 30% of parcel K1-1-10. Work/play would occur in and out of 1 ppm isopleth
	Farmer	0.3	EA is approximately 30% of parcel K1-1-10. Farming activities would occur in and out of 1 ppm isopleth
35	General recreation	0.5	EA is approximately 50% of parcel 33-40. Activities would occur in and out of 1 ppm isopleth.
35a	General recreation	0.5	Subarea is small and is accessible by easements and trails that are not contained within the 1 ppm isopleth.
36a	Groundskeeper	0.5	EA is approximately 50% of parcel 34-1. Groundskeeping would be in and out of 1 ppm isopleth.
36b	Farmer	0.5	Subarea currently used for farming but is very small and is only accessible by areas outside the 1 ppm isopleth. Daily activities would occur in and out of the 1 ppm isopleth.
37	General recreation	0.5	EA is approximately 50% of parcel 29-3. Activities would occur in and out of 1 ppm isopleth.
37a	Angler	1.0	Angler activities would likely be contained within the 1 ppm isopleth.
37b	General recreation	0.5	Subarea has access by trail but only half of trail is in 1 ppm isopleth. Activity would occur in and out of 1 ppm isopleth.
38	General recreation	0.3	EA is approximately 30% of parcel 29-9. Activities would occur in and out of 1 ppm isopleth.
38a	General recreation	1.0	Angler activities would likely be contained within the 1 ppm isopleth.
39	Marathon canoe	1.0	Canoe activities would likely be contained within the 1 ppm isopleth.
40	General recreation	1.0	EA is large. Any recreational activity would likely be contained within the 1 ppm isopleth.
40a	Angler	1.0	Angler activities would likely be contained within the 1 ppm isopleth.
41	General recreation	0.3	EA is approximately 30% of parcel 29-1. Activities would occur in and out of 1 ppm isopleth.
41a	Angler	1.0	Angler activities would likely be contained within the 1 ppm isopleth.

Table 1. Summary of EAs for which a factor should be included to reflect the portion of the total exposure area that is contaminated

EA	Scenarios Evaluated	Recommended Adjustment Factor	Justification for Recommended Adjustment Factor
42	General recreation	0.3	EA is large but wadable/difficult areas block access to most portions. Accessible area is 30% of likely use area. Activities would occur in and out of 1 ppm isopleth.
42a	Angler	1.0	Angler activities would likely be contained within the 1 ppm isopleth.
43	General recreation	0.1	EA is approximately 25% of parcel 24-6 but nearly the entire EA is wadable/difficult. Activity would be confined to a very small portion of EA.
43a	Angler	1.0	Angler activities would likely be contained within the 1 ppm isopleth.
44	General recreation	0.2	EA is approximately 20% of three parcels so that activities would be in and out of 1 ppm isopleth.
45	Waterfowl hunter	1.0	Waterfowl hunting activities would likely be contained within the 1 ppm isopleth.
46	Waterfowl hunter	1.0	Waterfowl hunting activities would likely be contained within the 1 ppm isopleth.
47	Rec. Canoe	1.0	Canoe activities would likely be contained within the 1 ppm isopleth.
48	Waterfowl hunter	1.0	Waterfowl hunting activities would likely be contained within the 1 ppm isopleth.
49	Waterfowl hunter	1.0	Waterfowl hunting activities would likely be contained within the 1 ppm isopleth.
50	General recreation	1.0	EA is large. Any recreational activity would likely be contained within the 1 ppm isopleth.
50a	Waterfowl hunter	1.0	Waterfowl hunting activities would likely be contained within the 1 ppm isopleth.
51	General recreation	1.0	EA is large. Any recreational activity would likely be contained within the 1 ppm isopleth.
51a	Waterfowl hunter	1.0	Waterfowl hunting activities would likely be contained within the 1 ppm isopleth.
52	Rec. Canoe	1.0	Canoe activities would likely be contained within the 1 ppm isopleth.
53	Rec. Canoe	1.0	Canoe activities would likely be contained within the 1 ppm isopleth.
54	Waterfowl hunter	1.0	Waterfowl hunting activities would likely be contained within the 1 ppm isopleth.
55	General recreation	1.0	EA is large and is accessible by trails.
55a	Waterfowl hunter	1.0	Waterfowl hunting activities would likely be contained within the 1 ppm isopleth.

Table 1. Summary of EAs for which a factor should be included to reflect the portion of the total exposure area that is contaminated

EA	Scenarios Evaluated	Recommended Adjustment Factor	Justification for Recommended Adjustment Factor
56	General recreation	1.0	EA is large and accessible by trails. Activity would likely be contained within 1 ppm isopleth.
56a	Waterfowl hunter	1.0	Waterfowl hunting activities would likely be contained within the 1 ppm isopleth.
57	Waterfowl hunter	1.0	Waterfowl hunting activities would likely be contained within the 1 ppm isopleth.
58	Angler	1.0	Angler activities would likely be contained within the 1 ppm isopleth.
59	General recreation	1.0	EA is adjacent to a trail system and falls nearly completely within the 1 ppm isopleth.
59a	Angler	1.0	Angler activities would likely be contained within the 1 ppm isopleth.
60	General recreation	1.0	EA has access and any activity there would likely be contained within the 1 ppm isopleth.
60a	Rec. Canoe	1.0	Canoe activities would likely be contained within the 1 ppm isopleth.
61	Utility Worker	1.0	Utility easement is confined to 1 ppm isopleth.
62	Utility Worker	1.0	Utility easement is confined to 1 ppm isopleth.
63	Utility Worker	1.0	Utility easement is confined to 1 ppm isopleth.
64	Utility Worker	0.5	Half of utility easement is confined to 1 ppm isopleth.
65	Utility Worker	0.5	Half of utility easement is confined to 1 ppm isopleth.
66	Utility Worker	0.5	Half of utility easement is confined to 1 ppm isopleth.
67	General recreation	1.0	Activity occurring there could be confined to the 100-year floodplain.
68	General recreation	1.0	Activity occurring there could be confined to the 100-year floodplain.
69	General recreation	1.0	Activity occurring there could be confined to the 100-year floodplain.
70	General recreation	1.0	Activity occurring there could be confined to the 100-year floodplain.
70a	Angler	1.0	Angler activities would likely be contained within the 100-year floodplain.
71	Angler	1.0	Angler activities would likely be contained within the 100-year floodplain.
72	Angler	1.0	Angler activities would likely be contained within the 100-year floodplain.

Table 1. Summary of EAs for which a factor should be included to reflect the portion of the total exposure area that is contaminated

EA	Scenarios Evaluated	Recommended Adjustment Factor	Justification for Recommended Adjustment Factor
72-73	Future residential	0.1	EA is small portion of future residential parcels. Activities would occur in and out of floodplain.
73	General recreation	0.5	EA is 50% of parcel. Activities would occur in and out of 100-year floodplain.
74	General recreation	0.5	EA is 50% of parcel. Activities would occur in and out of 100-year floodplain.
75	General recreation	1.0	EA has trails and any activity there might be contained within the 100-year floodplain.
76	General recreation	1.0	EA has trails and any activity there might be contained within the 100-year floodplain.
	Future residential	0.4	EA is 40% of parcel 24-51. Work/play activities would be in and out of 100-year floodplain.
77	General recreation	1.0	EA is large and access. Activity there might be contained within the 100-year floodplain.
78	Groundskeeper	1.0	EA is nearly 100% of parcel and is accessible from nearby commercial properties.
79	General recreation	1.0	EA is large and has access.
80	Future residential	0.6	EA is 60% of parcel with access. Work/play activities would be in and out of 100-year floodplain.
80a	General recreation	1.0	Subarea is confined to 100-year floodplain. Recreational activities could be confined to area.
80b	Farmer	0.6	Approximately 60% of farm fields on parcel are within 100-year floodplain.
81	General recreation	0.8	EA represents 80% of parcel.
82	General recreation	0.9	EA is 90% of parcel.
83	Groundskeeper	1.0	EA is 100% of parcel.
84	General recreation	1.0	EA is open land along river. Activity may be confined to the 100-year floodplain.
85	Rec. Canoe	1.0	Canoe activities would likely be contained within the 100-year floodplain.
85a	General recreation	1.0	EA is 100% of parcel.
86	Groundskeeper	1.0	EA is 100% of parcel.

Table 1. Summary of EAs for which a factor should be included to reflect the portion of the total exposure area that is contaminated

EA	Scenarios Evaluated	Recommended Adjustment Factor	Justification for Recommended Adjustment Factor
87	General recreation	1.0	EA is large open land area along river. Activity may be confined to the 100-year floodplain.
87a	Angler	1.0	Angler activities would likely be contained within the 100-year floodplain.
88	General recreation	0.3	EA is 30% of parcel. Activities would likely be in and out of the 100-year floodplain.
89	General recreation	1.0	EA is large area and activity may be confined to the 100-year floodplain.
90	General recreation	1.0	EA is large area and activity may be confined to the 100-year floodplain.