Table B2.1. Thresholds for National Target Analyte Strategy (NTAS) aquatic-life "bins" for prioritizing pesticide constituents for national- and regional-scale monitoring of sediment in the United States.

[AL bin, aquatic-life toxicity bin; <, less than; μg/L, microgram per liter; >, greater than]

AL bin	Toxicity endpoint concentration[1]
1	Acute: < 50 μg/L
	Chronic: < 10 μg/L
2	Acute: 50–50,000 μg/L
	Chronic: 10–10,000 μg/L
3	Acute: > 50,000 μg/L
	Chronic: > 10,000 μg/L
NIA	No information available

[1]These AL bins are consistent with those described in the main body of the report, although the concentration criteria for acute toxicity appear to differ because of the application of a level-of-concern of 0.5; for example, the threshold of less than 50 micrograms per liter for AL bin 1 in table B2.1 is equivalent to the criterion of less than 100 micrograms per liter for AL bin 1 used in the main body of the report.

Table B2.2. Summary of screening pathways for prioritizing pesticide constituents for national- and regional-scale monitoring of sediment in the United States.

[Pathways that lead to National Target Analyte Strategy (NTAS) Tier 1 are in red text; those that lead to NTAS Tier 2 are in blue text; those that lead to NTAS Tier 3 are in black text. High toxicity refers to consituents in AL bins 1 or 2; low toxicity refers to constituents in AL bin 3; unknown toxicity refers to constituents in AL bin NIA in table B2.1]

Pathway (see fig. B2.1)	NTAS tier	Pathway description
P1	1	Observed detection frequency greater than 10 percent for samples in sediment datasets.
P2	1	Observed detection frequency of 1 to 10 percent for samples in sediment datasets; moderate or high aquatic toxicity; current use or long half-life (greater than 1 year).
P3	1	Observed detection frequency of 1 to 10 percent for samples in sediment datasets; low or unknown aquatic toxicity; high or increasing use.
P4	1	Predicted occurrence - persistent and hydrophobic or immobile; moderate or high aquatic toxicity; current use or long half-life (greater than 1 year).
P5	1	Predicted occurrence - persistent and hydrophobic or immobile; low or unknown aquatic toxicity; high or increasing use.
P6a	2	Observed detection frequency of 1 to 10 percent for samples in sediment datasets; moderate or high aquatic toxicity; no longer in use, half-life less than 1 year and detection frequency less than 5 percent.
P6b	2	Observed detection frequency of 1 to 10 percent for samples in sediment datasets; low or unknown aquatic toxicity; use not high or increasing.
P8a	2	Predicted occurrence - persistent and hydrophobic or immobile; moderate or high aquatic toxicity; no longer in use and half-life less than 1 year.
P8b	2	Predicted occurrence - persistent and hydrophobic or immobile; low or unknown aquatic toxicity; use not high or increasing.
P9	3	Observed detection frequency of less than 1 percent for samples in sediment datasets.
P10a	3	Predicted occurrence - persistent, but not hydrophobic; mobile.
P10b	3	Predicted occurrence - persistence unknown, but not hydrophobic; mobile.
P11	3	Predicted occurrence - not persistent.
OF1	1	Compound elevated to NTAS Tier 1 from lower NTAS Tier because of other factors.
OF2	2	Compound elevated to NTAS Tier 2 from NTAS Tier 3 or downgraded from NTAS Tier 1 to NTAS Tier 2 because of other factors.
OF3	3	Compound downgraded to NTAS Tier 3 because of other factors.
DEG1	1	Pesticide degradate placed in NTAS Tier 1 with parent compound.
DEG2	2	Pesticide degradate placed in NTAS Tier 2 with parent compound; no information to justify a higher-priority tier.
DEG3	3	Pesticide degradate placed in NTAS Tier 3 with parent compound; no information to justify a higher-priority tier.

Table B2.3. Physical-chemical properties and thresholds used to predict likelihood of occurrence for pesticide constituents in sediment.

[log K_{OW}, log octanol-water partitioning coefficient; mg/L, milligrams per liter; SW, water solubility; K_{OC}; soil organic carbon-water partitioning coefficient; mL/g, milliliters per gram]

Parameter	Physical-chemical property (units)	Threshold
Persistence	Aerobic soil half-life, highest laboratory or field value (days). Persistence score, used for a few constituents that lack half-life data (unitless).	Half-life greater than 30 days or persistence score greater than 1.
Hydrophobicity	log K_{OW} SW (mg/L)	log K_{OW} greater than 3 or SW less than 1 mg/L.
Sorption to organic matter	K_{OC} (mL/g)	K_{OC} greater than 1,000.