

## APPENDIX Q: PRZM/EXAMS RUNS AT MITIGATED RATE

### Exposures in the Aquatic Habitat

#### Direct Effects to Aquatic-Phase CRLF

**Table 1 Summary of Direct Effect RQs for the Aquatic-phase CRLF**

Use	Peak EEC (µg/L) <sup>b</sup>	60-Day EEC (µg/L) <sup>b</sup>	Direct Acute RQ	Probability of Individual Effect at RQ <sup>c</sup>	Direct Chronic RQ
COMMERCIAL STORAGES/WAREHOUSES PREMISES, PAVED AREAS (PRIVATE ROADS/SIDEWALKS), DRAINAGE SYSTEMS, INDUSTRIAL AREAS (OUTDOOR)	2808	2430	<b>10.80</b>	1 in 1 (1 in 1 to 1 in 1) 100%	<b>127.89</b>

<sup>a</sup> RQs associated with acute direct toxicity to the CRLF are also used to assess potential indirect effects to the CRLF based on a reduction in freshwater fish and frogs as food items.

<sup>b</sup> The highest EEC based on maximum application rate per use (see **Error! Reference source not found.**).

<sup>c</sup> A probit slope value for the acute blue-gill sunfish toxicity test is not available; therefore, the effect probability was calculated based on a default slope assumption of 4.5 with upper and lower 95% confidence intervals of 2 and 9 (Urban and Cook, 1986).

\* RQ < acute endangered species LOC of 0.05.

<sup>^</sup> The most sensitive species used to determine the acute direct effects (surrogate species) was the Bluegill Sunfish (96h LC<sub>50</sub> = 260 ppb). The most sensitive species used to determine the chronic direct effects (surrogate species) was the Rainbow Trout (NOAEC = 19 ppb).

#### Indirect Effects to Aquatic-Phase CRLF via Reduction in Prey (non-vascular aquatic plants, aquatic invertebrates, fish, and frogs)

##### a) Non-vascular Aquatic Plants

**Table 2 Summary of RQs Used to Estimate Indirect Effects to the CRLF via Effects to Non-Vascular Aquatic Plants (diet of CRLF in tadpole life stage and habitat of aquatic-phase CRLF)**

Use	EEC (µg/L) <sup>b</sup>	RQ*
COMMERCIAL STORAGES/WAREHOUSES PREMISES, PAVED AREAS (PRIVATE ROADS/SIDEWALKS), DRAINAGE SYSTEMS, INDUSTRIAL AREAS (OUTDOOR)	2808	<b>40.11</b>

<sup>b</sup> The highest EEC based on maximum application rate per use (see **Error! Reference source not found.**).

\* LOC exceedances (RQ ≥ 1) are bolded and shaded.

RQ = use-specific peak EEC/ [*Navicula pelliculosa* EC<sub>50</sub> = 70 ppb].

##### b) Aquatic Invertebrates

**Table 1 Summary of Acute and Chronic RQs Used to Estimate Indirect Effects to the CRLF via Direct Effects on Aquatic Invertebrates as Dietary Food Items (prey of CRLF juveniles and adults in aquatic habitats)**

Use	Peak EEC (µg/L)	21-Day EEC (µg/L)	Indirect Acute RQ*	Probability of Individual Effect at RQ <sup>c</sup>	Indirect Chronic RQ
COMMERCIAL STORAGES/WAREHOUSES PREMISES, PAVED AREAS (PRIVATE ROADS/SIDEWALKS), DRAINAGE SYSTEMS, INDUSTRIAL AREAS (OUTDOOR)	2808	2577	<b>11.23</b>	1 in 1 (1 in 1 to 1 in 1) 100%	0.10

\* = LOC exceedances (acute RQ  $\geq 0.05$ ; chronic RQ  $\geq 1.0$ ) are bolded and shaded.

Acute RQ = use-specific peak EEC / [*Daphnia Magna* EC<sub>50</sub> = 250 ppb].

Chronic RQ = use-specific 21-day EEC / [*Daphnia Magna* NOAEC 25000 ppb].

<sup>c</sup> A probit slope value for the acute blue-gill sunfish toxicity test is not available; therefore, the effect probability was calculated based on a default slope assumption of 4.5 with upper and lower 95% confidence intervals of 2 and 9 (Urban and Cook, 1986).

### c) **Fish and Frogs**

See the direct effects to aquatic-phase CRLF for indirect effects to the CRLF from prey items of fish and frogs.

### **Indirect Effects to CRLF via Reduction in Habitat and/or Primary Productivity (Freshwater Aquatic Plants)**

**Table 2 Summary of RQs Used to Estimate Indirect Effects to the CRLF via Effects to Vascular Aquatic Plants (habitat of aquatic-phase CRLF)**

Use	EEC (µg/L)	RQ*
COMMERCIAL STORAGES/WAREHOUSES PREMISES, PAVED AREAS (PRIVATE ROADS/SIDEWALKS), DRAINAGE SYSTEMS, INDUSTRIAL AREAS (OUTDOOR)	2808	<b>3.27</b>
* = LOC exceedances (RQ $\geq 1$ ) are bolded and shaded.		
RQ = use-specific peak EEC / [ <i>Lemna gibba</i> EC <sub>50</sub> = 860 ppb].		