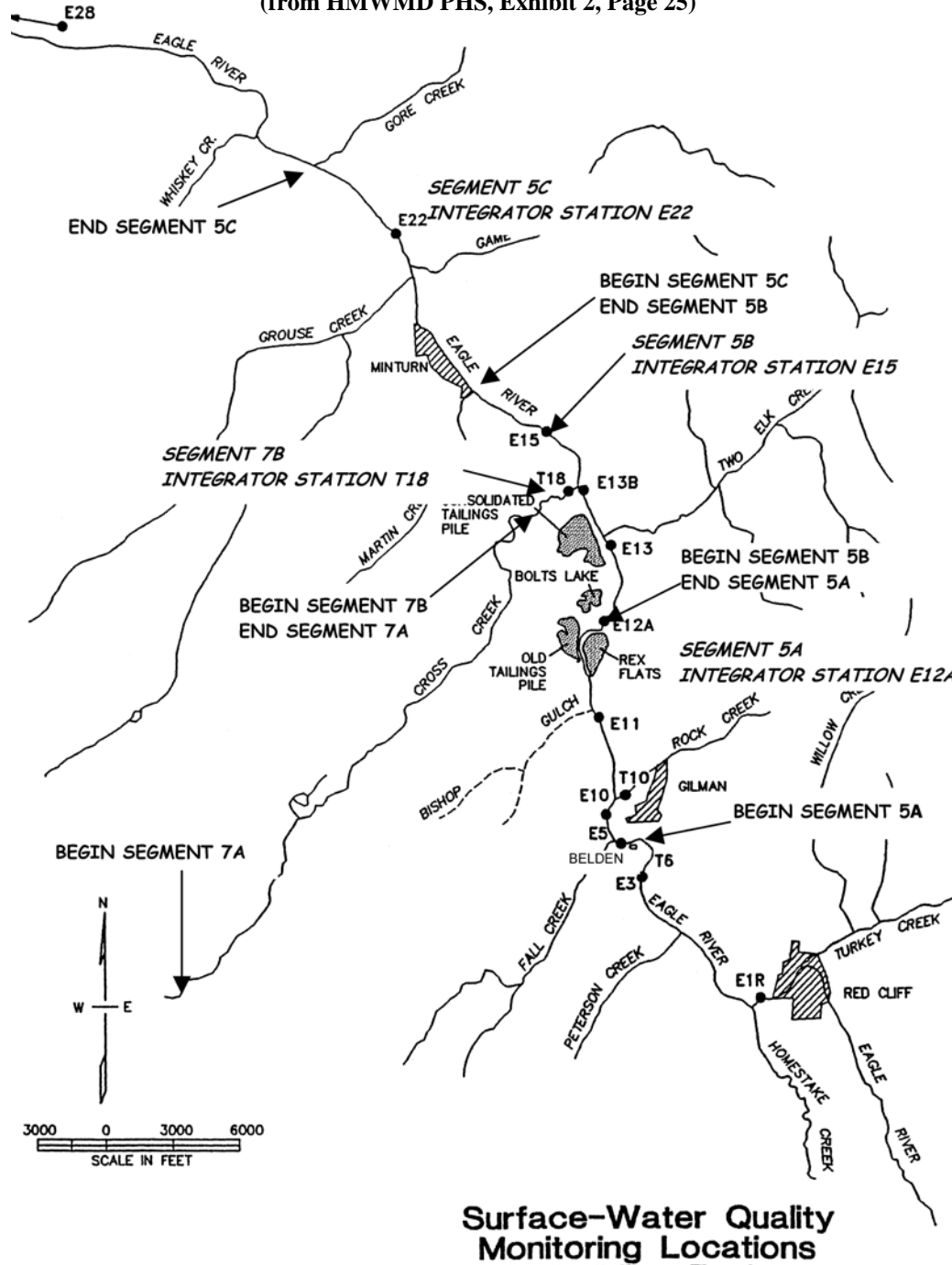


Figure 5 – Map Showing Eagle River and Cross Creek Segments and the Surface Water Monitoring Stations  
 (from HMWMD PHS, Exhibit 2, Page 25)



Surface-Water Quality  
 Monitoring Locations

**Table 1 – Summary of the Proposed Changes to the Eagle River Standards for Zinc  
(From HMWMD PHS, page 2)**

<b>Segment</b>	<b>Dissolved Zinc</b>
<b>Segment 5a</b>	Modified recalculation equation with <b>rainbow trout</b> as the most sensitive species $\text{Acute} = 0.978 * e^{0.8537[\ln(\text{hardness})] + 2.1302}$ $\text{Chronic} = 0.986 * e^{0.8537[\ln(\text{hardness})] + 1.9593}$
<b>Segment 5b</b>	Modified recalculation equation with <b>rainbow trout</b> as the most sensitive species $\text{Acute} = 0.978 * e^{0.8537[\ln(\text{hardness})] + 2.1302}$ $\text{Chronic} = 0.986 * e^{0.8537[\ln(\text{hardness})] + 1.9593}$
<b>Segment 5c</b>	Recalculation, following EPA Guidance with <b>sculpin</b> as most sensitive species $\text{Acute} = 0.978 * e^{0.8537[\ln(\text{hardness})] + 1.4189}$ $\text{Chronic} = 0.986 * e^{0.8537[\ln(\text{hardness})] + 1.2481}$
<b>Segment 7b</b>	Modified recalculation equation with <b>rainbow trout</b> as the most sensitive species $\text{Acute} = 0.978 * e^{0.8537[\ln(\text{hardness})] + 2.1302}$ $\text{Chronic} = 0.986 * e^{0.8537[\ln(\text{hardness})] + 1.9593}$

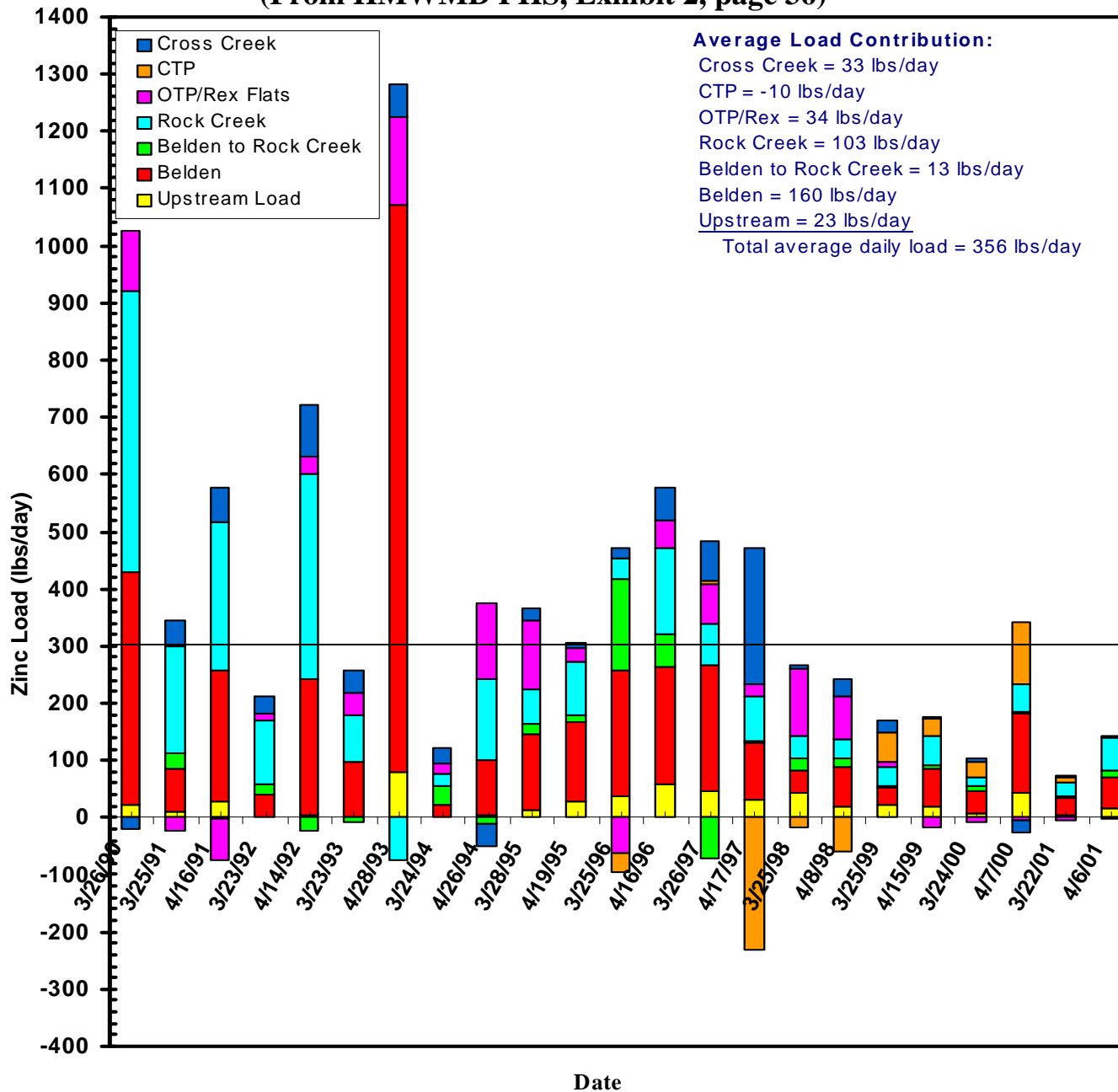
**Table 2 – Summary of the Proposed Changes to the Eagle River Standards for Copper  
(From HMWMD PHS, page 3)**

<b>Segment</b>	<b>Dissolved Copper</b>
<b>Segment 5a</b>	Modified recalculation equation with <b>tubifex</b> as the most sensitive species $Acute=0.96*e^{0.9801[\ln(hardness)] - 1.1073}$ $Chronic=0.96*e^{0.5897[\ln(hardness)] - 0.0053}$
<b>Segment 5b</b>	Recalculation, following EPA Guidance with <b>Ephoron virgo</b> as most sensitive species $Acute=0.96*e^{0.9801[\ln(hardness)] - 1.5865}$ $Chronic=0.96*e^{0.5897[\ln(hardness)] - 0.4845}$
<b>Segment 5c</b>	Recalculation, following EPA Guidance with <b>Ephoron virgo</b> as most sensitive species $Acute=0.96*e^{0.9801[\ln(hardness)] - 1.5865}$ $Chronic=0.96*e^{0.5897[\ln(hardness)] - 0.4845}$
<b>Segment 7b</b>	Recalculation, following EPA Guidance with <b>Ephoron virgo</b> as most sensitive species $Acute=0.96*e^{0.9801[\ln(hardness)] - 1.5865}$ $Chronic=0.96*e^{0.5897[\ln(hardness)] - 0.4845}$

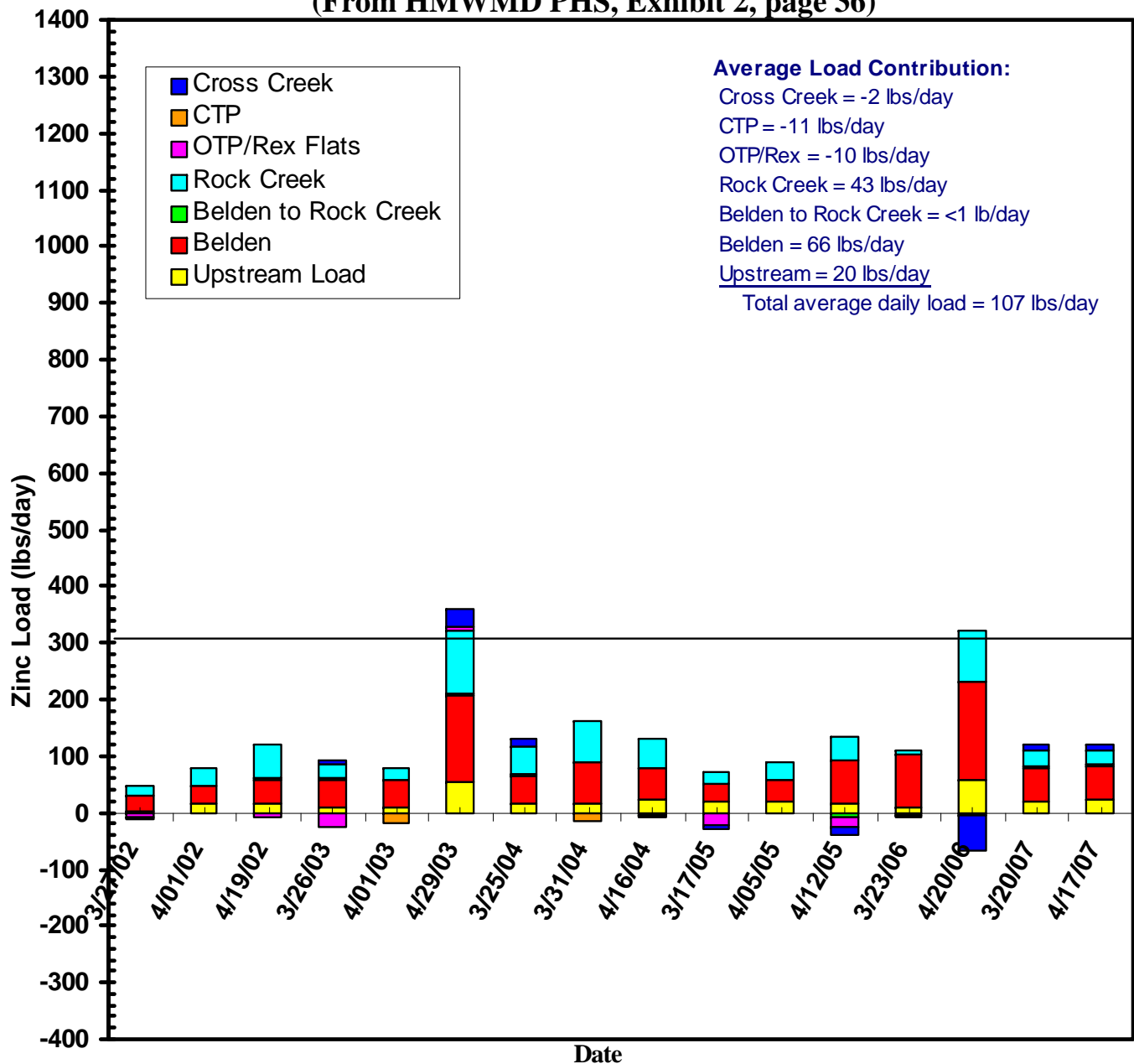
**Table 3 – Summary of the Proposed Changes to the Eagle River Standards for Cadmium  
(From HMWMD PHS, page 3)**

<b>Segment</b>	<b>Dissolved Cadmium</b>
<b>Segment 5a</b>	Revised acute/chronic ratio Acute=TVS Chronic=1.101672- $[(\ln(\text{hardness}) * (0.041838))] * e^{0.7998[\ln(\text{hardness})]} - 3.1725$
<b>Segment 5b</b>	Revised acute/chronic ratio Acute=TVS Chronic=1.101672- $[(\ln(\text{hardness}) * (0.041838))] * e^{0.7998[\ln(\text{hardness})]} - 3.1725$
<b>Segment 5c</b>	Revised acute/chronic ratio Acute=TVS Chronic=1.101672- $[(\ln(\text{hardness}) * (0.041838))] * e^{0.7998[\ln(\text{hardness})]} - 3.1725$
<b>Segment 7b</b>	Revised acute/chronic ratio Acute=TVS Chronic=1.101672- $[(\ln(\text{hardness}) * (0.041838))] * e^{0.7998[\ln(\text{hardness})]} - 3.1725$

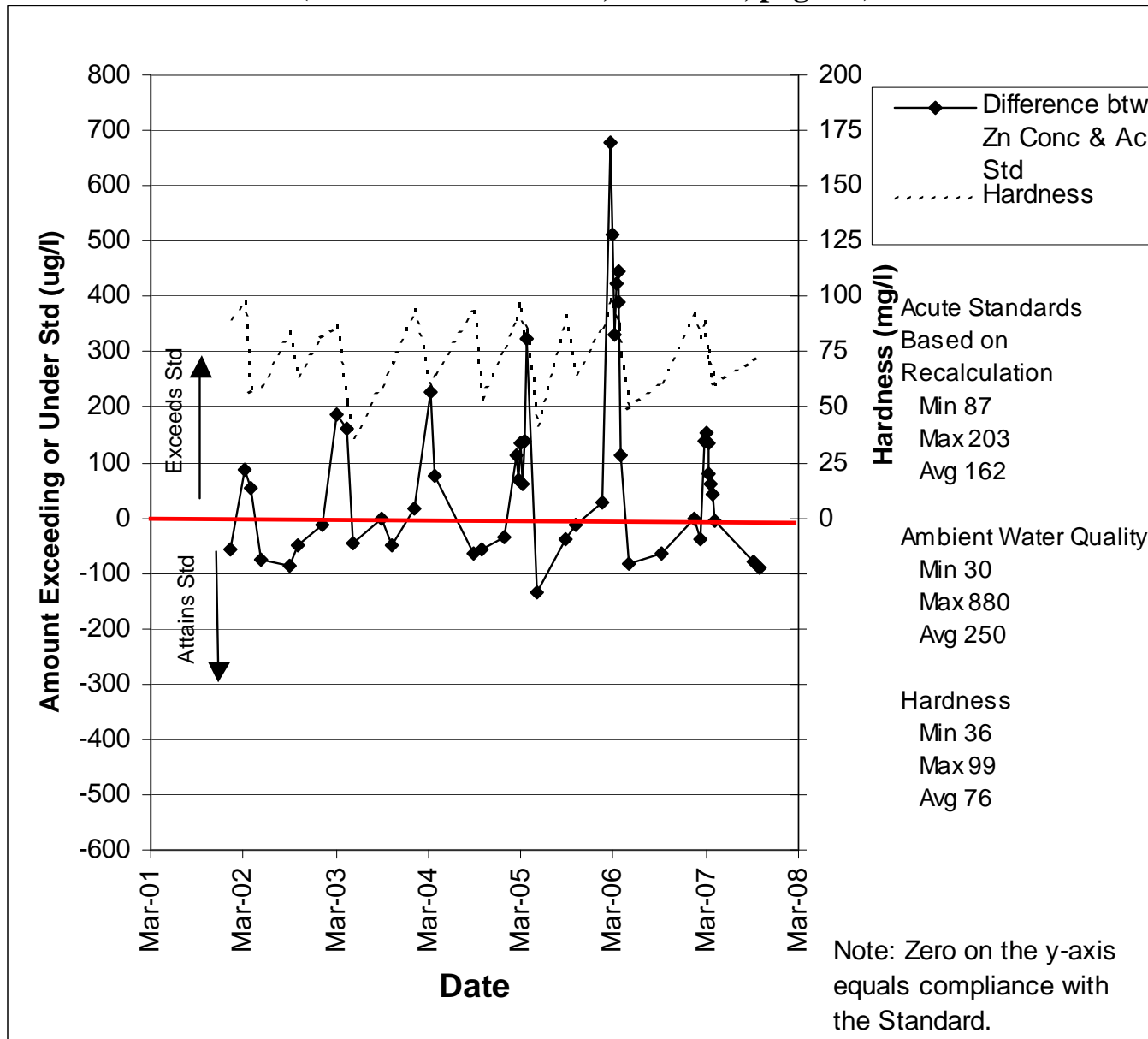
**Figure 15 – Zinc Load Contribution in the Eagle River By Reach  
in March and April for the Pre-Remedy Period 1989 to 2001  
(From HMWMD PHS, Exhibit 2, page 36)**



**Figure 16 – Zinc Load Contribution in the Eagle River By Reach  
in March and April for the Post-Remedy Period 2002 to 2007  
(From HMWMD PHS, Exhibit 2, page 36)**



**Figure 18 – Segment 5a Attainment of the Acute Zinc Standards  
Based on Recalculation (sculpin equation)  
(From HMWMD PHS, Exhibit 2, page 42)**



**Table 9 – Estimated Zinc Reduction From Potential Projects  
(From HMWMD PHS, Exhibit 2, page 53)**

<b>Project</b>	<b>Flow Rate</b>	<b>Concentration</b>	<b>Load</b>
	<b>(gpm)</b>	<b>(mg/l)</b>	<b>(lbs/day)</b>
<b>Doghole Seep Collection</b>	<b>10</b>	<b>15</b>	<b>2</b>
<b>Belden Groundwater</b>	<b>22</b>	<b>130</b>	<b>34</b>
<b>Rock Creek Groundwater Extraction</b>	<b>12</b>	<b>25</b>	<b>4</b>
<b>OTP Groundwater Extraction Trench</b>	<b>10</b>	<b>14</b>	<b>2</b>
<b>Rex Flats Groundwater Extraction Trench</b>	<b>3</b>	<b>40</b>	<b>1</b>
<b>TOTAL</b>			<b>43</b>




**Table 1 – Alternatives for Eagle River Standards for Zinc  
(From HMWMD Rebuttal, page 3)**

<b>Stringency</b>	<b>Alternative</b>	<b>Parties in Support</b>	<b>Basis for Species List Selected</b>	<b>Primary Reason cited by Parties in Support</b>	<b>HMWMD/EPA Superfund Argument Against</b>
<b>Most Stringent</b>	TVS (sculpin)	ERWC	Sculpin Only	Sculpin are native to the Eagle River and should be protected	Attainability analysis shows that these standards cannot be attained
	TVS	TU, EML	Full Colorado species list	Recalculation is not protective of all species	Recalculation is a valid approach and should be applied

**Least Stringent**



**Table 1 – Alternatives for Eagle River Standards for Zinc  
(From HMWMD Rebuttal, page 3)  
Continued**

<b>Stringency</b>	<b>Alternative</b>	<b>Parties in Support</b>	<b>Basis for Species List Selected</b>	<b>Primary Reason cited by Parties in Support</b>	<b>HMWMD/EPA Superfund Argument Against</b>
<p align="center"><b>Most Stringent</b></p> 	Recalculation	ERWU	Stakeholder approved species list appropriate for Eagle River	Disagree with attainability analysis; assert that Recalculation is attainable	Attainability analysis proves that Recalculation is not attainable in Segments 5a or 5b. No analysis is provided by ERWU to prove that additional projects exist that can attain the standards

**Least Stringent**



**Table 1 – Alternatives for Eagle River Standards for Zinc  
(From HMWMD Rebuttal, page 3)  
Continued**

<b>Stringency</b>	<b>Alternative</b>	<b>Parties in Support</b>	<b>Basis for Species List Selected</b>	<b>Primary Reason cited by Parties in Support</b>	<b>HMWMD/EPA Superfund Argument Against</b>
<b>HMWMD/EPA Superfund Proposal</b>					
	Modified Recalculation (Rainbow)	HMWMD, EPA Superfund, EPA WQU, WQCD, NWCOG, USFS, Ginn, Minturn	Stakeholder approved species list with Sculpin removed	Recalculation not attainable, by removing Sculpin from species list and providing additional 40 lbs/day zinc removal, result is attainable standard	Supported by Proponents' Testimony

**Least Stringent**



**Table 1 – Alternatives for Eagle River Standards for Zinc  
 (From HMWMD Rebuttal, page 3)  
 Continued**

<b>Stringency</b>	<b>Alternative</b>	<b>Parties in Support</b>	<b>Basis for Species List Selected</b>	<b>Primary Reason cited by Parties in Support</b>	<b>HMWMD/EPA Superfund Argument Against</b>
<b>Least Stringent</b>	Modified Recalculation (Brown Trout)	CBS	Stakeholder approved species list with Sculpin and Rainbow trout removed	Neither Sculpin nor Rainbows are resident species in the Eagle River	Not protective of brown trout

**Table 2 – Load Reduction Necessary to Attain Standards  
For Zinc in Segment 5a in High Load Season  
(From HMWMD Rebuttal, page 5)**

	Load Reduction Needed in lbs/day	
	Acute	Chronic
<b>TVS</b>	<b>97</b>	<b>103</b>
<b>Recalculation (sculpin)</b>	<b>77</b>	<b>84</b>

Feasible load reduction for the site is estimated at 40 lbs/day.

# Comparison of Options for Zinc at hardness of 75 mg/l

	Acute (ug/l)	Chronic (ug/l)
<b>TVS (sculpin)</b>	<b>n/a</b>	<b>54</b>
<b>TVS</b>	<b>112</b>	<b>97</b>
<b>Recalculation</b>	<b>161</b>	<b>137</b>
<b>Modified Recalculation (rainbow trout)</b>	<b>328</b>	<b>279</b>
<b>Modified Recalculation (brown trout)</b>	<b>447</b>	<b>380</b>