

# **2007 Annual Group Monitoring Results**

**For**

**Herbicide Applications to Freshwater Emergent Noxious and  
Quarantine Weeds performed under the Noxious Weed National  
Pollutant Discharge Elimination System (NPDES) Permit**

DEPARTMENT OF ECOLOGY

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WATER QUALITY PROGRAM

**Prepared by**

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## Introduction

Based on a 9<sup>th</sup> Circuit court decision, the Washington Department of Ecology (DOE) determined that national pollutant discharge elimination system (NPDES) permits are required for the application of pesticides to “waters of the state” in Washington State.

Over the life of NPDES Permit Number WAG-993000 the Washington State Department of Agriculture (WSDA) has sampled representative sites where various methods of applications were used to treat different noxious or quarantine list weeds at different types of locations. The concentration and transport of pesticides after application, relative pesticide persistence in the water column, and target plant species were recorded.

## Results

In consultation with DOE and according to the 2007 group monitoring plan for herbicide applications made to freshwater emergent noxious and quarantine list species under NPDES permit WAG 993000, WSDA did not collect water samples at aquatic sites where freshwater emergent noxious or quarantine list weeds were treated in 2007. Data

**Table 1. Summary of water sample analysis for herbicide concentrations.**

Application Equipment	Analyte	Site	County	Target Plant(s)	Pre-treat (ppb)	1 hour post-treat (ppb)
backpack	glyphosate	Yakima River	Yakima	Parrotfeather	ND	343
boat mounted spray-tank	glyphosate	Chehalis River	Grays Harbor	Purple loosestrife	ND	ND
backpack	glyphosate	Spring Lake	King	Water lily, Yellow flag iris, Purple loosestrife	ND	30
backpack	glyphosate	Spring Lake	King	Water lily, Yellow flag iris, Purple loosestrife	ND	120
backpack	glyphosate	Cottage Creek	King	Purple loosestrife	ND	ND
backpack	glyphosate	Yakima River	Yakima	Purple loosestrife	ND	ND
boat mounted spray-tank	glyphosate	Spring Lake	King	Yellow flag iris	ND	50
backpack	imazapyr	Naches River	Yakima	Knotweed	ND	ND
boat mounted spray-tank	triclopyr	Foster Island	King	Garden loosestrife	ND	3.6
pressurized spray-tank	imazapyr	Willapa River	Pacific	Knotweed	ND	ND
injection	glyphosate	Little Creek	Skamania	Knotweed	ND	50
injection	glyphosate	Washougal River	Skamania	Knotweed	ND	12.1
backpack	imazapyr	Willapa River, Trap Creek	Pacific	Knotweed	ND	ND
injection	glyphosate	Newaukum River	Lewis	Knotweed	ND	ND
backpack	imazapyr	Buena Creek	Yakima	Yellow flag iris	ND	205
injection	glyphosate	Big River	Clallam	Knotweed	Not available	ND
boat mounted spray-tank	triclopyr	Borst Lake	King	Purple loosestrife	ND	27.4
injection	glyphosate	Canyon Creek	Skamania	Knotweed	ND	ND
injection	glyphosate	Big River	Clallam	Knotweed	ND	ND

ND = not detected  
ppb = parts per billion

collected over the life of NPDES Permit Number WAG-993000 are representative of the various methods of applications, location types, and noxious or quarantine list species that were treated in 2007.

**Table 1** summarizes the results of water sample analysis. This data-set has been used to answer the questions that were outlined in Section S2 of NPDES General Permit Number WAG-993000. All concentration units are parts per billion. Samples were taken at sites where knotweed, parrotfeather, water lily, purple loosestrife, garden loosestrife, or yellow flag iris were treated. Sites were located at lakes, rivers, creeks, gravel bars, islands, and

riparian areas. WSDA selected locations where different application methods and equipment were used.

Water samples were analyzed for the presence of glyphosate, imazapyr, or triclopyr. In cases where herbicide was detected in the water samples, the concentrations were less than the maximum allowable concentrations as outlined in Environmental Protection Agency drinking water standards.

## **Signatory Page**

I certify under penalty of law, that this document and all attachments were prepared under my direction, or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiries of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

*Signed by Brad White on January 14, 2008*  
Brad White, Ph.D., Pest Program Manager  
Washington State Department of Agriculture