



CENTRAL VALLEY REGIONAL
WATER QUALITY CONTROL BOARD

AMENDMENTS TO THE WATER QUALITY CONTROL
PLAN FOR THE SACRAMENTO AND
SAN JOAQUIN RIVER BASINS

FOR

THE CONTROL OF DIAZINON AND CHLORPYRIFOS
DISCHARGES

MARCH 2013 DRAFT STAFF REPORT

APPENDIX C

PROPOSED BASIN PLAN AMENDMENT



CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

This Appendix contains the proposed Amendment to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan). This proposed Basin Plan Amendment consists of additions and modifications to several sections of the current Basin Plan. Deletions are shown in strikeout (except where entire section are deleted), and additions are shown by underline. The Executive Summary provides a summary of this proposed Basin Plan Amendment.

Changes to Chapter III, Water Quality Objectives

Modify Table III-2A as follows:

TABLE III-2A

SPECIFIC PESTICIDE OBJECTIVES

PESTICIDE	MAXIMUM CONCENTRATION AND AVERAGING PERIOD
Chlorpyrifos	0.025 µg/L ; 1-hour average (acute) 0.015 µg/L ; 4-day average (chronic) Not to be exceeded more than once in a three year period.

APPLICABLE WATER BODIES

San Joaquin River from Mendota Dam to Vernalis (Reaches include Mendota Dam to Sack Dam (70), Sack Dam to Mouth of Merced River (71), Mouth of Merced River to Vernalis (83)), Sacramento River from Shasta Dam to Colusa Basin Drain (13) and the Sacramento River from the Colusa Basin Drain to I Street Bridge (30). Feather River from Fish Barrier Dam to Sacramento River (40). Delta Waterways listed in Appendix 42.
Ash Slough (Madera County), Bear Creek (San Joaquin and Calaveras Counties), Bear River (43), Lower (below Camp Far West Reservoir), Berenda Creek (Madera County), Berenda Slough (Madera County), Colusa Basin Drain (29), Coon Creek, Lower (Sutter County), Deadman Creek (Merced County), Del Puerto Creek, Dry Creek

(tributary to Tuolumne River at Modesto, E Stanislaus County), Duck Creek (San Joaquin County), French Camp Slough , Gilsizer Slough , Highline Canal, Ingram Creek , Jack Slough, Live Oak Slough, Lone Tree Creek, Main Drainage Canal (Butte County), Merced River, Lower (McSwain Reservoir to San Joaquin River) (81), Mormon Slough (from Stockton Diverting Canal to Bellota Weir), Morrison Slough (Sutter County), Mustang Creek (Merced County), Orestimba Creek , Pixley Slough (San Joaquin County), Salt Slough, Spring Creek (Colusa County), Stanislaus River, Lower (Goodwin Dam to San Joaquin River) (90), Tuolumne River, Lower (Don Pedro Dam to San Joaquin River) (86), Ulatis Creek (Solano County), Wadsworth Canal, Westley Wasteway (Stanislaus County), Winters Canal (Yolo County), Yankee Slough (Placer and Sutter Counties)

Waters with designated or existing¹ WARM and/or COLD beneficial uses that are not upstream of the major dams in Table Y.

¹ Existing as defined in Title 40 of the Code of Federal Regulations, section 131.3(e)

PESTICIDE MAXIMUM CONCENTRATION AND AVERAGING PERIOD

Diazinon 0.16 µg/L ; 1-hour average (acute)
0.10 µg/L ; 4-day average (chronic)
Not to be exceeded more than once in a three year period.

APPLICABLE WATER BODIES

San Joaquin River from Mendota Dam to Vernalis (Reaches include Mendota Dam to Sack Dam (70), Sack Dam to Mouth of Merced River (71), Mouth of Merced River to Vernalis (83)), Sacramento River from Shasta Dam to Colusa Basin Drain (13) and the Sacramento River from the Colusa Basin Drain to I Street Bridge (30). Feather River from Fish Barrier Dam to Sacramento River (40). Delta Waterways listed in Appendix 42.
Ash Slough (Madera County), Bear Creek (San Joaquin and Calaveras Counties), Bear River (43), Lower (below Camp Far West Reservoir), Berenda Creek (Madera County), Berenda Slough (Madera County), Colusa Basin Drain (29), Coon Creek, Lower (Sutter County), Deadman Creek (Merced County), Del Puerto Creek, Dry Creek (tributary to Tuolumne River at Modesto, E Stanislaus County), Duck Creek (San Joaquin County), French Camp Slough , Gilsizer Slough , Highline Canal, Ingram Creek , Jack Slough, Live Oak Slough, Lone Tree Creek, Main Drainage Canal (Butte County), Merced River, Lower (McSwain Reservoir to San Joaquin River) (81), Mormon Slough (from Stockton Diverting Canal to Bellota Weir), Morrison Slough (Sutter County), Mustang Creek (Merced County), Orestimba Creek , Pixley Slough (San Joaquin County) , Salt Slough, Spring Creek (Colusa County), Stanislaus River, Lower (Goodwin Dam to San Joaquin River) (90), , Tuolumne River, Lower (Don Pedro Dam to San Joaquin River) (86), Ulatis Creek (Solano County), Wadsworth Canal, Westley Wasteway (Stanislaus County), Winters Canal (Yolo County), Yankee Slough (Placer and Sutter Counties)

Waters with designated or existing² WARM and/or COLD beneficial uses that are not upstream of the major dams in Table Y.

² Existing as defined in Title 40 of the Code of Federal Regulations, section 131.3(e)

Changes to Chapter IV, Implementation

Under “Regional Water Board Prohibitions”

Delete the following prohibitions:

“7. Diazinon and Chlorpyrifos Discharges into the Sacramento and Feather Rivers”,

“ 9. Diazinon and Chlorpyrifos Runoff in the San Joaquin River Basin”, and

“ 10. Control of Diazinon and Chlorpyrifos Runoff into the Sacramento-San Joaquin Delta Waterways (as identified in Appendix 42)”

Add the following new prohibition:

7. Diazinon and Chlorpyrifos Discharges

Dischargers are prohibited from discharging chlorpyrifos and diazinon at concentrations that exceed water quality objectives unless:

- The discharge is regulated under a waiver of waste discharge requirements or individual or general waste discharge requirements, or
- The discharge is upstream of one of the dams listed in Table <Y>.

In “Pesticide Discharges from Nonpoint Sources”

Change the Section heading as follows:

Pesticide Discharges from Nonpoint Sources

Delete the following Sections:

*“Diazinon and Chlorpyrifos Runoff into the Sacramento and Feather Rivers”,
“Diazinon and Chlorpyrifos Runoff in the San Joaquin River Basin”, and
“Diazinon and Chlorpyrifos Runoff into the Sacramento-San Joaquin Delta Waterways (as identified in Appendix 42)”.*

Add the following new Section:

Diazinon and Chlorpyrifos Discharges

1. The pesticide discharge control program shall:
 - a. Ensure compliance with water quality objectives for diazinon and chlorpyrifos in the Sacramento and San Joaquin River Basins through the implementation of management practices;
 - b. Ensure measures that are implemented to reduce discharges of diazinon and chlorpyrifos do not lead to an increase in the discharge of other pesticides to levels that cause or contribute to exceedances of applicable water quality objectives or violate Regional or State Water Board policies;
 - c. Ensure discharges of pesticides to surface waters are controlled so that the pesticide concentrations are at the lowest levels that are technically and economically achievable; and
 - d. Encourage implementation of measures or practices by all dischargers that result in concentrations of chlorpyrifos and diazinon in all discharges that are below the water quality objectives.

2. Dischargers are responsible for ensuring that pesticide discharges to surface water and groundwater, including discharges of pesticides used as alternatives to diazinon or chlorpyrifos, are in compliance with applicable water quality objectives and Regional and State Water Board policies, including State Water Resources Control Board Resolution 68-16.

3. Except as stated in 3A, 3B and 3C below, compliance with diazinon and chlorpyrifos water quality objectives and any applicable diazinon and chlorpyrifos wasteload allocations and load allocations is required as soon as possible but no later than **[3 years** from the effective date of this Amendment].
 - 3A) Compliance with water quality objectives, wasteload allocations and load allocations for diazinon and chlorpyrifos in the Sacramento River from the Delta to Shasta Dam and the Feather River from the Fish Barrier to the confluence with the Sacramento River is required by 11 August 2008.
 - 3B) Compliance with water quality objectives, wasteload allocations and load allocations for diazinon and chlorpyrifos in the San Joaquin River from Mendota Dam to Vernalis is required by 1 December 2010.

3C) Compliance with water quality objectives, wasteload allocations and load allocations for diazinon and chlorpyrifos in the Sacramento-San Joaquin Delta Waterways named in Appendix 42 is required by 1 December 2011.

The water quality objectives, allocations, and specific requirements for dischargers of diazinon and chlorpyrifos will be implemented through the adoption or modification of waivers of waste discharge requirements and general or individual waste discharge requirements where provisions necessary for implementation are not already in place. To the extent that they are not already in place, waivers of waste discharge requirements and waste discharge requirements will be modified as soon as possible but no later than [two years from the effective date of this Amendment].

4. The Regional Water Board intends to review the diazinon and chlorpyrifos allocations and implementation provisions in the Basin Plan no later than [7 years from the effective date of this Amendment].
5. Wasteload allocations are assigned to all NPDES-permitted municipal Storm water and domestic wastewater dischargers to the water bodies listed in Table X or their tributaries. Wasteload allocations are also assigned to all other NPDES-permitted Storm water dischargers who discharge to the water bodies listed in Table X or their tributaries and whose Storm water includes runoff from sites where diazinon or chlorpyrifos is applied. These wasteload allocations do not apply to discharges to tributaries that are upstream from the dams listed in Table Y. Wasteload allocations are defined by the equation below:

$$S = \frac{C_D}{WQO_D} + \frac{C_C}{WQO_C} \leq 1.0$$

where

C_D = diazinon concentration in $\mu\text{g/L}$

C_C = chlorpyrifos concentration in $\mu\text{g/L}$

WQO_D = acute or chronic diazinon water quality objective in $\mu\text{g/L}$.

WQO_C = acute or chronic chlorpyrifos water quality objective in $\mu\text{g/L}$.

Available samples collected within the applicable averaging period for the water quality objective will be used to determine compliance with this

objective. For purposes of calculating the sum (S) above, analytical results that are reported as “nondetectable” concentrations are considered to be zero.

If one or more valid effluent monitoring data points from an NPDES permitted domestic wastewater discharger exceeds the method detection level (MDL) for either diazinon or chlorpyrifos, a numeric effluent limit for the detected pollutant(s) consistent with the wasteload allocation must be required in the permit when the permit is next reissued or revised. Monitoring must be conducted in accordance with the provisions contained in the Monitoring and Surveillance Chapter under “Diazinon and Chlorpyrifos Discharges”. If at least four effluent data samples have been collected during the permit term and no effluent data points for either diazinon or chlorpyrifos exceed the MDL, the discharge permit’s existing requirements will be considered consistent with the requirements of this wasteload allocation and no additional numeric effluent limitation consistent with the wasteload allocation will be required. This data analysis must be performed each time the permit is evaluated for reissuance.

6. Load allocations are assigned to all nonpoint sources that discharge diazinon or chlorpyrifos to the water bodies listed in Table X or to their tributaries. The load allocations apply where the nonpoint source discharges enter the water bodies listed in Table X, or, if the nonpoint source discharges into a tributary of a water body listed in Table X, then where the tributary flows into the listed water body. Load allocations do not apply to discharges that are upstream of the dams listed in Table Y. The load allocations are defined by the equation below:

$$S = \frac{C_D}{WQO_D} + \frac{C_C}{WQO_C} \times 1.0$$

where

C_D = diazinon concentration in $\mu\text{g/L}$

C_C = chlorpyrifos concentration in $\mu\text{g/L}$

WQO_D = acute or chronic diazinon water quality objective in $\mu\text{g/L}$.

WQO_C = acute or chronic chlorpyrifos water quality objective in $\mu\text{g/L}$.

Available samples collected within the applicable averaging period for the water quality objectives will be used to determine compliance with load

allocations. For purposes of calculating the sum (S) above, analytical results that are reported as “nondetectable” concentrations are considered to be zero. Monitoring must be conducted in accordance with the provisions contained in the Monitoring and Surveillance Chapter under “Diazinon and Chlorpyrifos Discharges”.

7. The established wasteload and load allocations for diazinon and chlorpyrifos, and the water quality objectives for diazinon and chlorpyrifos represent a maximum allowable level. The Regional Water Board shall require additional reductions in diazinon or chlorpyrifos levels if such reductions are necessary to account for additive or synergistic toxicity effects or to protect beneficial uses.

8. The Executive Officer shall require nonpoint source dischargers of diazinon and chlorpyrifos who discharge to the water bodies listed in TABLE X or their tributaries, downstream of the major dams listed in Table Y, to submit management plans that describe actions that the discharger will take to reduce diazinon and chlorpyrifos discharges to meet applicable load allocations by the required compliance dates. These management plans must describe:
 - a. The causes of the nonattainment of objectives;
 - b. The actions that the discharger will take to reduce diazinon and/or chlorpyrifos discharges and meet the diazinon and/or chlorpyrifos water quality objectives and any applicable allocations as soon as possible but no later than **three years** from the effective date of this Amendment.]
 - c. A schedule for the implementation of those actions;
 - d. A monitoring plan to track effectiveness of pollution controls; and
 - e. A commitment to revise pollution controls, as necessary.

These management plans are due no later than **one year** from the effective date of this amendment.]

9. When a water body that is not included in Table X is found to be out of attainment of the diazinon and/or chlorpyrifos water quality objectives, nonpoint source dischargers of diazinon and/or chlorpyrifos who discharge to the water body found to be in non-attainment or its tributaries that are not upstream of the major dams listed in Table Y are required to submit management plans that contain the elements in paragraph 8a-8e of this section.

For water bodies in non-attainment of the diazinon and/or chlorpyrifos objective(s) as of [the effective date of this Amendment], a management plan shall be submitted no later than [one year from the effective date of this Amendment]. For water bodies that are found to be in non-attainment with the objective(s) after [effective date of this Amendment], the Executive Officer shall require that a management plan be submitted within one year of the exceedance of the objective(s).

If a water body not attaining the diazinon or chlorpyrifos objectives is being used by the discharger to represent water quality conditions in multiple water bodies, the management plan shall address diazinon and/or chlorpyrifos in all of its represented water bodies.

10. Management plans may include actions required under state and federal pesticide laws and regulations. Management plans will include documentation of the relationship between the actions to be taken and reductions in diazinon and/or chlorpyrifos discharges that are reasonably likely to attain compliance with diazinon and chlorpyrifos water quality objectives and allocations. The Executive Officer may allow individual dischargers or a discharger group or coalition to submit management plans. The management plan must comply with the provisions of any applicable waste discharge requirements or waiver of waste discharge requirements. Management plans may address discharges to multiple downstream water bodies for which discharge reductions are required. The Executive Officer may require revisions to the management plan if compliance with applicable allocations or water quality objectives is not attained.
11. Any waste discharge requirements or waivers of waste discharge requirements that govern the control of pesticide discharges downstream of major dams listed in Table Y, must be consistent with the policies and actions described in paragraphs 1-10 of this section.
12. In determining compliance with the wasteload allocations, the Regional Water Board will consider any data or information submitted by the discharger regarding diazinon and/or chlorpyrifos inputs from sources outside of the urbanized area or collection system of the permitted discharge, including any diazinon and/or chlorpyrifos present in precipitation, and any applicable provisions in the discharger's NPDES permit requiring the discharger to reduce the discharge of pollutants to the maximum extent practicable.

13. Dischargers are responsible for mitigating environmental impacts of practices used to comply with this water quality control program.

Add the following Tables to in the section “Diazinon and Chlorpyrifos Discharges”

Table X Sacramento and San Joaquin Valley Water Bodies with Total Maximum Daily Loads (TMDLs) for Diazinon and Chlorpyrifos

<u>Water Body</u>
<u>Ash Slough (Madera County)</u>
<u>Bear Creek (San Joaquin and Calaveras Counties; to Delta boundary)</u>
<u>Bear River (43), Lower (below Camp Far West Reservoir)</u>
<u>Berenda Creek (Madera County)</u>
<u>Berenda Slough (Madera County)</u>
<u>Colusa Basin Drain (29)</u>
<u>Coon Creek, Lower (Sutter County)</u>
<u>Deadman Creek (Merced County)</u>
<u>Del Puerto Creek</u>
<u>Dry Creek (tributary to Tuolumne River at Modesto, E Stanislaus County)</u>
<u>Duck Creek (San Joaquin County)</u>
<u>Feather River from Fish Barrier Dam to Sacramento River (40).</u>
<u>French Camp Slough (confluence of Littlejohns and Lone Tree Creeks to Delta boundary)</u>
<u>Gilsizer Slough</u>
<u>Highline Canal</u>
<u>Ingram Creek</u>
<u>Jack Slough</u>
<u>Live Oak Slough</u>
<u>Lone Tree Creek</u>
<u>Main Drainage Canal (Butte County)</u>
<u>Merced River, Lower (McSwain Reservoir to San Joaquin River) (81)</u>
<u>Mormon Slough (from Stockton Diverting Canal to Bellota Weir – Calaveras River)</u>
<u>Morrison Slough</u>
<u>Mustang Creek (Merced County)</u>
<u>Orestimba Creek</u>
<u>Pixley Slough (San Joaquin County; to Delta boundary)</u>
<u>Sacramento River (Shasta Dam to Colusa Basin Drain (13) and the Sacramento River from the Colusa Basin Drain to I Street Bridge (30)).</u>
<u>Sacramento-San Joaquin Delta Waterways listed in Appendix 42</u>
<u>Salt Slough</u>
<u>San Joaquin River from Mendota Dam to Vernalis (Reaches include Mendota Dam to Sack Dam (70), Sack Dam to Mouth of Merced River (71), Mouth of Merced River to Vernalis (83)).</u>
<u>Spring Creek (Colusa County)</u>
<u>Stanislaus River, Lower (Goodwin Dam to San Joaquin River) (90)</u>
<u>Tuolumne River, Lower (Don Pedro Dam to San Joaquin River) (86)</u>

<u>Ulatis Creek</u>
<u>Wadsworth Canal</u>
<u>Westley Wasteway (Stanislaus County)</u>
<u>Winters Canal (Yolo County)</u>
<u>Yankee Slough (Placer and Sutter Counties)</u>

Table Y. Major Dams Demarking the Upstream Extent of the Water Bodies with Diazinon and Chlorpyrifos Water Quality Objectives.

<u>Dam</u>	<u>Associated Reservoir</u>	<u>River System</u>
<u>Monticello Dam</u>	<u>Lake Berryessa (55)</u>	<u>Putah Creek</u>
<u>Black Butte Dam</u>	<u>Black Butte Reservoir (26)</u>	<u>Stony Creek</u>
<u>Camanche Dam</u>	<u>Camanche Reservoir (62)</u>	<u>Mokelumne River</u>
<u>Camp Far West Dam</u>	<u>Camp Far West Reservoir</u>	<u>Bear River</u>
<u>Cache Creek Dam</u>	<u>Clear Lake (53)</u>	<u>Cache Creek</u>
<u>New Don Pedro Dam</u>	<u>Don Pedro Reservoir (85)</u>	<u>Tuolumne River</u>
<u>Buchanan Dam</u>	<u>Eastman Lake (Buchanan Reservoir) (76)</u>	<u>Chowchilla River</u>
<u>Folsom Dam</u>	<u>Folsom Lake (50)</u>	<u>American River</u>
<u>Englebright Dam</u>	<u>Harry L. Englebright Reservoir</u>	<u>Yuba River</u>
<u>Hidden Dam</u>	<u>Hensley Lake (Hidden Reservoir) (73)</u>	<u>Fresno River</u>
<u>Keswick Dam</u>	<u>Keswick Reservoir</u>	<u>Shasta River</u>
<u>New Exchequer Dam</u>	<u>McClure Lake (Exchequer Reservoir) (79)</u>	<u>Merced River</u>
<u>Friant Dam</u>	<u>Millerton Lake (68)</u>	<u>San Joaquin River</u>
<u>New Hogan Dam</u>	<u>New Hogan Reservoir (65)</u>	<u>Calaveras River</u>
<u>Oroville Dam</u>	<u>Lake Oroville (39)</u>	<u>Feather River</u>
<u>San Luis Dam</u>	<u>San Luis Reservoir (91)</u>	-
<u>Scotts Flat Dam</u>	<u>Scotts Flat Reservoir</u>	<u>Bear River</u>
<u>Goodwin Dam</u>	<u>Tulloch Reservoir (89)</u>	<u>Stanislaus River</u>
<u>Whiskeytown Dam</u>	<u>Whiskeytown Reservoir (14)</u>	<u>Clear Creek</u>

Under “Estimated Costs of Agricultural Water Quality Control Programs and Potential Sources of Financing”

Delete the following sections

- Sacramento and Feather Rivers Diazinon and Chlorpyrifos Runoff Control Program
- Diazinon and Chlorpyrifos Runoff into the San Joaquin River Control Program
- Diazinon and Chlorpyrifos Runoff into the Sacramento-San Joaquin Delta Waterways

Add the underlined text shown below:

Diazinon and Chlorpyrifos Discharges

The total estimated costs for management practices to meet the diazinon and chlorpyrifos objectives range from \$5 to \$21.6 million/year (2010 dollars). The estimated costs for agricultural discharger compliance monitoring, planning, and evaluation range from \$1.5 to \$4.4 million/year (2010 dollars). The estimated annual costs range from \$6.4 to \$26 million (2010 dollars). The estimates for the diazinon and chlorpyrifos objectives may double count costs, when considered with the cost estimate for the Irrigated Lands Regulatory Program.

Potential funding sources include:

1. Those identified in the San Joaquin River Subsurface Agricultural Drainage Control Program and the Pesticide Control Program.

Changes to Chapter 5, Surveillance and Monitoring

Delete the following Sections:

- “Diazinon and Chlorpyrifos Runoff into the Sacramento and Feather Rivers”
- “Diazinon and Chlorpyrifos Runoff in the San Joaquin River Basin”
- “Diazinon and Chlorpyrifos Runoff into the Sacramento-San Joaquin Delta Waterways (as identified in Appendix 42)”.

Add the following new Section:

Diazinon and Chlorpyrifos Discharges

The Regional Water Board requires a focused monitoring effort of pesticide discharges in the Sacramento and San Joaquin River Basins.

Dischargers are responsible for providing the necessary information. The information may come from the dischargers' monitoring efforts; monitoring programs conducted by state or federal agencies or collaborative watershed efforts; or from special studies that evaluate the effectiveness of management practices. To be used in determining compliance with the water quality objectives or allocations, diazinon and chlorpyrifos concentration data must be from laboratory analysis with limits of quantification at or below the water quality objective concentrations.

Agricultural Discharge Monitoring

The monitoring and reporting program for any waste discharge requirements or waiver of waste discharge requirements that addresses agricultural pesticide discharges downstream of the dams listed in Table Y must be designed to collect the information necessary to:

1. Determine compliance with established water quality objectives applicable to diazinon and chlorpyrifos;
2. Determine compliance with load allocations for diazinon and chlorpyrifos;
3. Determine the extent of implementation of management practices to reduce off-site migration of diazinon and chlorpyrifos;
4. Determine the effectiveness of management practices and strategies to reduce off-site migration of diazinon and chlorpyrifos;
5. Determine whether alternatives to diazinon or chlorpyrifos are causing water quality impacts;
6. Determine whether the discharge causes or contributes to a toxicity impairment due to additive or synergistic effects of multiple pollutants; and
7. Demonstrate that management practices are achieving the lowest pesticide levels technically and economically achievable.

Representative monitoring may be used to determine compliance with the water quality objectives, loading capacity, and applicable load and wasteload allocations. At a minimum, monitoring shall be representative of all water bodies listed in **Table X**, either directly or through a representative monitoring program.

Additional monitoring or reduced monitoring may be required if information such as pesticide use data, management practices, runoff potential, or other monitoring studies indicate additional or less monitoring is needed to meet the monitoring requirements.

Domestic Wastewater and Municipal Storm water Monitoring

The monitoring and reporting program for any waste discharge requirements that addresses municipal Storm water or domestic wastewater discharges, downstream of the dams listed in Table Y, must be designed to collect the information necessary to:

1. Determine compliance with wasteload allocations for diazinon and chlorpyrifos; and
2. Determine whether the discharge causes or contributes to a toxicity impairment due to additive or synergistic effects of multiple pollutants.; and
3. Determine whether alternatives to diazinon or chlorpyrifos are causing surface water quality impacts.

For municipal Storm water discharges, with Executive Officer approval, representative monitoring programs, including coordinated regional monitoring programs, may be used to meet the monitoring goals listed above.