

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. 6-93-26A5
WDID NO. 6A318511300

AMENDED WASTE DISCHARGE REQUIREMENTS

FOR

THE RESORT AT SQUAW CREEK

Placer County

The California Regional Water Quality Control Board, Lahontan Region (Board), finds:

1. Permit History

The Board adopted Waste Discharge Requirements (WDRs) for the construction of the Resort at Squaw Creek and associated golf course under Board Order No. 6-87-102 on September 10, 1987. The Board later adopted WDRs for construction and operation of ski facilities under Board Order No. 6-90-50 on August 9, 1990. Board Order No. 6-93-26 was adopted on April 8, 1993 and regulates the operations of the resort, golf course, and ski facilities. Board Order No. 6-93-26 has been amended four times (Board Order Nos. 6-93-26A1, 6-93-26A2, 6-93-26A3, and 6-93-26A4) to approve changes to the Chemical Application Management Plan (CHAMP) regarding fungicide and fertilizer use at the golf course. This Order amends Board Order No. 6-93-26, as previously amended by 6-93-26A1, 6-93-26A2, 6-93-26A3, and 6-93-26A4.

2. Reason for Action

A minor change to the CHAMP regarding herbicide use has been requested by the Dischargers, and has been approved and recommended by the Technical Review Committee (TRC). Board approval of any TRC-recommended changes to the CHAMP regarding herbicide, fungicide, and fertilizer use is required prior to the changes becoming effective. This Order constitutes Board approval of the TRC-recommended changes to the CHAMP.

The Dischargers have requested that Lontrel, which contains a 40.9 percent concentration of the active ingredient clopyralid, be added to the list of approved herbicides for the golf course. Clopyralid is a chemical which can travel (seep or leach) through soil and under certain conditions contaminate groundwater which may be used for irrigation and drinking water purposes. The manufacturer of Lontrel gives a 61-day aerobic half-life for clopyralid, whereas other sources give aerobic half-lives ranging from 11 to 43 days, and anaerobic half-life of clopyralid was given at 693 days. Clopyralid is moderately

persistent in soils. Because it is degraded entirely by soil microbes, soil conditions that maximize microbial activity (warm and moist) will facilitate clopyralid degradation. Though the average half-life of clopyralid in soils is about one to two months, it can range from one week to one year depending on the soil type, temperature, and rates of application. Warm, moist soils treated at low rates will lose clopyralid in a comparatively short period, whereas when applied to cold, dry soils, or waterlogged soils, and at higher rates, clopyralid residues may persist for several years. Although some soils lose clopyralid quickly (3-4 weeks), it may take a year or more for clopyralid to decrease to undetectable levels in treated soils.

The TRC has reviewed the Dischargers' proposal and recommends that Lontrel be added to the list of approved herbicides. Given the high mobility of clopyralid in soils, Board staff worked with the Dischargers' consultant to ensure that an effective application and monitoring plan could be developed to avoid groundwater contamination. The Dischargers will annually submit a Clopyralid Application and Monitoring Plan to the Board for approval. At a minimum, samples will be collected and analyzed for clopyralid from monitoring wells near areas of application in any year in which the herbicide clopyralid is to be used on the golf course. Monitoring will be based on consideration of upgradient target clover or dandelion patch size, vertical migration rate, and anticipated arrival time at the well location.

Detection of clopyralid in groundwater or surface water will terminate the Dischargers' privilege of using clopyralid-containing herbicides for weed control under this monitoring and reporting program. If detected, the Dischargers must select another means of weed control, including herbicides of lesser mobility as a substitute. Additionally, the Dischargers may be subject to enforcement action, including administrative civil liability, resulting from any discharge of clopyralid to waters of the State.

This Order modifies Attachment "C" and Monitoring and Reporting Program No. 93-26 of the original Board Order to incorporate Lontrel as an approved herbicide.

Further, Board approval is currently required for any changes to the CHAMP regarding herbicide, fungicide, and fertilizer use. This Order constitutes the fifth amendment to the Waste Discharge Requirements since 1993, with three of the amendments occurring within the last four years. Each of the amendments has been brought before the Board following rigorous study and approval by both the TRC and Board staff. New herbicides, fungicides, and fertilizers regularly become available on the market to combat increasingly resistant pests and promote desired plant growth. Once the TRC conducts its literary and field studies of a potentially useful product, Board staff reviews the data and recommends additional conditions, such as an intensified application, monitoring, and reporting program.

3. CEQA Compliance

This action is being taken by this regulatory agency to revise an existing permit issued pursuant to the California Water Code for an existing discharge and as such is exempt from the provisions of the California Environmental Quality Act (Public Resource Code, Section 21000 et seq.) in accordance with Title 14, California Code of Regulations, Sec. 15263.

4. Notification of Interested Parties

The Board has notified the Dischargers and interested agencies and persons of its intent to amend the waste discharge requirements for these facilities.

5. Consideration of Public Comments

The Board in a public meeting heard and considered all comments pertaining to this Board Order.

IT IS HEREBY ORDERED that the following provisions be incorporated into Board Order No. 6-93-26:

1. In Attachment "C," page 2, change paragraph 5.2.2 to read:

"The CHAMP shall be followed explicitly with respect to the type of herbicides, fungicides, fertilizers, and application rates approved for use in the CHAMP. Any change from the document must be approved by the Regional Board.

2. In Attachment "C," page 4; change Paragraph 4.4.2 to read:

"Only the following approved herbicides, fungicides and fertilizers may be used at the site:

Herbicides:

- 2,4-D and MCCP for the control of broadleaf plants (as found in Weed-B-Gon by Ortho). The use of 2,4-D on the project will be dependent on an evaluation of 2,4-D by the State Scientific Advisory Board relating to the carcinogenic aspects and/or Prop 65's aspect of 2,4-D. If the state decides it is a Proposition 65 compound, 2,4-D cannot be used on the project at any time, in any amount.
- Glyphosate for spot eradication of weeds (as found in Roundup by Monsanto).
-
- Clopyralid for control of clover and dandelions (as found in Lontrel by Dow AgroSciences).

Fungicides [no change]
Fertilizers and fertilizer type products [no change]”

3. In Attachment “C”, page 6; change Paragraph 4.2.13 (5.2.8 and 5.3.6) to read:

“Weed control will be accomplished by mechanical methods only. In the event all practical mechanical methods fail to produce sufficient weed control the golf course superintendent may apply approved herbicides in the form of 2,4-D (Weed-B-Gon), clopyralid (Lontrel), and glyphosate (Roundup) to maintained, fertilized fairway and tee areas only. At no time may any herbicide be applied to any green or rough areas, any unfertilized play areas, any natural vegetation or wetland and surface water area. In the event of herbicide application, the drainage from the treated area will be isolated from the surrounding environment. This isolation process must remain in effect for a minimum of three days after herbicide application. If surface waters accumulate in the isolated areas, the isolation process should continue until there is no remaining compounded water.”

4. In Attachment “C”, page 8; change Paragraph 4.3.7 to read:

“Should fungicide or herbicide testing of greens show elevated levels of Chloroneb, 2,4-D, clopyralid, or glyphosate, application levels will be reduced in an amount sufficient to offset the residual amounts of these compounds.”

5. In Attachment “C”, page 9; change Paragraph 4.4.3.2.3 to read:

“All herbicides shall be applied in liquid form only. The “weed and feed” type granular products should not be applied. The treatment shall be conducted using hand-trigger applicators only. The use of hose end sprayers is prohibited. A backpack sprayer or wick applicator, however, may be used for clopyralid applications as described in Paragraph 5.3.8.”

6. In Attachment “C”, page 9; change Paragraph 4.4.3.2.4 to read:

“At no time may maintenance personnel transport herbicide application mixtures (as described in 4.4.3.2.2) in excess of:

- 2,4-D and MCCP (as found in Weed-B-Gon) prescribed application mixtures in the amount of 10 gallons (37.5 liters)
- Glyphosate (as found in Roundup) prescribed application mixtures in the amount of 10 gallons (37.5 liters)
- Clopyralid (as found in Lontrel) prescribed application mixtures in the amount of 10 gallons (37.5 liters).”

7. In Attachment “C”, page 11; change Paragraph 5.3.5 to read:

“The only herbicides approved for use are:

- Weed-B-Gon by Ortho containing 10.8 percent 2,4-D and 11.6 percent MCPP
- Roundup by Monsanto containing 18 percent Glyphosate
- Lontrel by Dow AgroSciences containing 40.9 percent clopyralid

The prescribed herbicide application rates as provided by the manufacturer shall be less than:

- Weed-B-Gon = 3.3 oz (20 teaspoons) per gallon per 1,000 ft² spot application only (limited to an area no greater than 5000 ft²).
 - Roundup = 6 oz. (12 tablespoons) per 1 gallon.
 - Lontrel = 0.125 to 0.2 fl. oz. (0.75 to 1.2 teaspoons) (for control of clover), or a maximum of 0.25 fl. oz. (1.5 teaspoons) (for control of dandelions), per 1,000 ft².”
8. In Attachment “C”, page 11; change Paragraph 5.3.7 to read:
- “Weed-B-Gon, Lontrel, or Roundup application areas shall be limited as possible to complete the task. Individual or “spot” application areas should not exceed 5000 ft².”
9. In Attachment “C”, page 12; change Paragraph 5.3.8 to read:
- “Weed-B-Gon, Lontrel, or Roundup shall be applied using a hand-held applicator equipped with hand-trigger device. No fogger, aerial or hose end application is allowed. A backpack sprayer will be used for the initial Lontrel application each season. If a follow-up Lontrel application is required within the same season, re-application will be performed using a backpack sprayer or a wick applicator.”
10. In Attachment “C”, page 12; change Paragraph 5.3.9 to read:
- ”Areas treated with Weed-B-Gon, Lontrel, or Roundup shall be identified with markers at four points. No irrigation will be allowed on the treated area for at least 48 hours.”
11. In Attachment “C”, page 12; change Paragraph 5.6.9 to read:
- “Should fungicide or herbicide of testing greens show elevated levels of Chloroneb, 2,4-D, clopyralid, or glyphosate, application levels will be reduced in an amount sufficient to offset the residual amounts of these compounds.”
12. In Attachment “C”, page 17; change Paragraph 5.5.2 to read:
- “The maximum irrigation rate will be 1.5 inches per week, and may be reduced during the growth season as geographic locations, climatic trends, and turf requirements dictate.

In any season that the herbicide Lontrel is to be used, irrigation rates will be matched as closely to evapotranspiration (ET) rates as possible to minimize potential leaching of the herbicide past the root zone to groundwater. The superintendent can adjust the irrigation volumes based on average ET rates. The site weather station and other available real-time data, including Internet sources and nearby golf courses, will be used to calculate ET rates. Any change from these irrigation rates will require the approval of the Executive Officer.”

13. In Monitoring and Reporting Program No. 93-26, pages 1-2; change Section I.A.1 to read:

“Locations of Sampling Stations

Water quality sampling stations shall be established at the following locations, as shown on Attachment “A” to this Monitoring and Reporting Program¹¹:

Station R-9: Squaw Creek at western boundary of Resort at Squaw Creek

Station R-5: Squaw Creek at Squaw Valley Road

Station R-10: Outflow from pond “A”

Well 301: shallow aquifer (even years^{1 22})

Well 302: deep aquifer (fourth years^{2 33})

Well 303: shallow aquifer (odd years^{3 44})

Well 304: deep aquifer (second years^{4 55})

Well 305: shallow aquifer (odd years)

Well 306: shallow aquifer (odd years)

Well 307: shallow aquifer (even years)

Well 308: deep aquifer (fourth years)

Well 309: shallow aquifer (even years)

Well 310: deep aquifer (fourth years)

Well 311: deep aquifer (fourth years)

Well 312: shallow aquifer (even years)

Well 313: shallow aquifer (even years)

Well 314: deep aquifer (fourth years)

Well 315: deep aquifer (fourth years)

Well 316: shallow aquifer (even years)

Well 317: deep aquifer (fourth years)

¹ For any year in which the herbicide clopyralid is to be used on the golf course, specific groundwater wells will be sampled as designated in the approved Clopyralid Application and Monitoring Plan for that year.

²² 1994, 1996, 1998 and even years thereafter

²³ 1996, 2000 and every fourth year thereafter

³⁴ 1993, 1995, 1997 and odd years thereafter

⁴⁵ 1994, 1998 and every fourth year thereafter

Well 318: shallow aquifer (even years)
Well 319: deep aquifer (second years)
Well 320: shallow aquifer (odd years)
Well 321: deep aquifer (second years)
Well 322: shallow aquifer (odd years)
Well 323: shallow aquifer (odd years)
Well 324: deep aquifer (fourth years)
Well 325: shallow aquifer (even years)
Well 326: deep aquifer (second years)
Well 327: shallow aquifer (second years)
Well 328: shallow aquifer (odd years)
Well 329: deep aquifer (second years)
Well 330: deep aquifer (second years)
Well 331: shallow aquifer (odd years)
Well 332: deep aquifer (second years)

Carbon filter discharge, green No. 1 (previous No. 10)
Carbon filter discharge, green No. 7 (previous No. 16)
Carbon filter discharge, green No. 14 (previous No. 5)

Turf (soil), green No.1
Turf (soil), green No.7
Turf (soil), green No.14
Turf (soil), tee No.1
Turf (soil), tee No.7
Turf (soil), tee No.14
Turf (soil), fairway No.1
Turf (soil), fairway No.7
Turf (soil), fairway No.14”

14. In Monitoring and Reporting Program No. 93-26, page 3; change Section I.A.3 to read:

“Frequency of Water Quality Sampling

Samples will be collected on the following frequency:

| <u>Sample Type</u> | <u>Frequency</u> |
|---|--|
| Surface water samples at Squaw Creek and Pond “A” outfall | May, October (every year); additionally, if clopyralid is detected in groundwater samples, surface water at the upstream and downstream Squaw Creek sampling locations will be sampled monthly, from the date of clopyralid detection in groundwater through the October sampling event. |
| Shallow Ground Water | May, October (one half wells sampled) |

well samples in odd numbered years, other half
Sampled in even numbered years); additionally, in
any year that the herbicide clopyralid is to be
applied wells specified in the approved Clopyralid
Application and Monitoring Plan for that year will
be sampled.

Deep Ground Water
well samples October (one half wells sampled every
second year, other half sampled every fourth
year); additionally, in any year that the herbicide
clopyralid is to be applied, wells specified in the
approved Clopyralid Application and Monitoring
Plan for that year will be sampled.

Ground Water Flow
and Direction May (in any year that the herbicide clopyralid
to be applied, from each well scheduled to be
sampled in the approved Clopyralid Application
and Monitoring Plan for that year).

Green carbon
filter samples Three times during period April-June

Turf (soil) samples,
nutrients June

Turf (soil) samples,
Chloroneb Three times during period April-June

No sample will be collected if discharge is frozen, or if there is no ephemeral
runoff late in the season, but those conditions should be noted in the monitoring
report.”

15. In Monitoring and Reporting Program No. 93-26, page 4; change Section I.A.4 to read:

Constituents will be analyzed for each sample according to the following schedule:

| | | Surface Samples | Ground Water Samples | Carbon Filter Samples | Turf (soil) Samples |
|----------------------------------|-----------------|--------------------|----------------------------|-----------------------------|------------------------|
| Volumetric flowrate | CFS; ft per day | X (CFS) | X (ft per day) | | |
| Groundwater direction | | | X | | |
| Total Dissolved Solids (TFR) | mg/L | | X | | |
| Total Suspended Solids (TNFR) | mg/L | X | | | |
| Turbidity | mg/L | X | X | | |
| Chloride | mg/L | X | X | | |
| Sulfate | mg/L as N | X | X | X | X |
| Nitrate Nitrogen | mg/L as N | X | X | X | X |
| Total Kjeldahl Nitrogen | mg/L as N | X | X | X | X |
| Total Nitrogen | mg/L as P | X | X | X | X |
| Total Phosphorus | mg/L | X | X | X | X |
| Total Iron | mg/L | X | | | |
| Grease and Oil | mg/L | X | | | |
| Dissolved Oxygen | | X | X | | |
| pH | ° Celsius | X | X | | |
| Temperature | c.u | X | X | | |
| Electroconductivity | mg/L | | | X | X |
| Total Organic Carbon* | ug/L | X | X | X | X |
| Fungicides* | ug/L | X | X | X | X |
| Herbicides* | | | | | |

* Each herbicide or fungicide applied to greens or any other part of the golf course shall be analyzed. Analysis may be for Total Organic carbon (TOC) rather than Chloroneb once a correlation is established.”

16. In Monitoring and Reporting Program No. 93-26, pages 9-11; change Section II. to read:
“REPORTING

The above data, including sampling results and inspections, shall be submitted to the Board in accordance with the schedule described below (i.e., July 15, November 15). The Dischargers shall arrange and compile data in a concise form for quick review by Board staff.

The Dischargers shall submit an annual Clopyralid Application and Monitoring Plan to the Board for approval in accordance with the schedule noted below (i.e., May 15). If the Dischargers determines that clopyralid will not be applied in any given year, the Clopyralid Application and Monitoring Plan shall consist of a brief statement to that fact. In any year of proposed use, the application and monitoring plan shall consist of the following:

- A map showing the target clover and dandelion locations relative to each of the groundwater monitoring wells on the site.
- A groundwater elevation map, illustrating groundwater flow and direction, produced during the May sampling event.
- The specific wells which will be sampled, including the rationale for choosing these wells, based on consideration of upgradient clover patch size, vertical migration rate, and anticipated arrival time at the well location. Certain wells may need to be sampled prior to anticipated arrival time, due to annual October

sampling schedule requirements. The application and monitoring sampling schedule shall not preclude any scheduled well sampling as described in Section I.A.1, above.

- A travel time summary table which contains the sample well numbers, groundwater velocity and direction, distance to nearest upgradient clover/dandelion patch, travel time range, size of the clover/dandelion patch, duration (days), and calculated first and last arrival duration range (days).
- A summary table for the groundwater sampling schedule, including the sample well numbers, approximate depth to water, the vertical migration rate (previously calculated to be 1 foot/month), the vertical migration time (days), the first and last arrival duration range (days), and the calculated groundwater sampling schedule (days).

The November Water Quality Monitoring Report shall include a report of findings from the clopyralid application and monitoring, including a discussion of the methods used, analytical results, and conclusions.

| <u>Report</u> | <u>Frequency</u> | <u>Report Submittal Dates</u> |
|---|------------------|-------------------------------|
| Water Quality Monitoring* | Semiannual | July 15, November 15* |
| Clopyralid Application and Monitoring Plan | Annual | May 15 |
| Parking Lot Monitoring | Semiannual | July 15, November 15 |
| Erosion Control Monitoring of Ski Area | Semiannual | July 15, November 15 |
| Golf Course Monitoring | Semiannual | July 15, November 15 |
| Snow Conditioning Monitoring | Annual | July 15 |
| Snowmaking Enhancement Chemicals Monitoring | Annual | July 15 |

* The November Water Quality Monitoring Report shall also contain the clopyralid groundwater and surface water monitoring findings, collected in accordance with the Clopyralid Application and Monitoring Plan.

Any erosion, surface runoff problems, wastewater disposal problems, or other adverse conditions which are found on the subject property shall be clearly described and the corrective measures proposed by the Dischargers shall be included in the monitoring report. In the event that no such problems are found on the property, a statement certifying this condition must be included for each monthly inspection.

In reporting the monitoring data, the Dischargers shall arrange the data in a tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner as to clearly illustrate compliance with the discharge requirements. All analysis shall be performed in accordance with the current

edition of "Standard Methods for the Examination of Water and Waste Water", in a laboratory certified to perform such analysis by the California State department of Health or the Executive Officer."

17. All other provisions of Board Order No. 6-93-26 as amended by Board Order Nos. 6-93-26A1, 6-93-26A2, 6-93-26A3, and 6-93-26A4 shall remain in effect.

I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on April 12, 2006.

A handwritten signature in blue ink that reads "Harold J. Singer". The signature is written in a cursive style with a large initial "H".

HAROLD J. SINGER
EXECUTIVE OFFICER

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MONITORING AND REPORTING PROGRAM NO. 93-26A1

FOR

Resort at Squaw Creek

Placer County

I. MONITORING

A. Water Quality Monitoring

1. Locations of Sampling Stations

Water Quality sampling stations shall be established at the following locations, as shown on Attachment "A" to this Monitoring and Reporting Program¹:

Station R-9: Squaw Creek at western boundary of Resort at Squaw Creek

Station R-5: Squaw Creek at Squaw Valley Road

Station R-10: Outflow from pond "A"

Well 301: shallow aquifer (even years²)

Well 302: deep aquifer (fourth years³)

Well 303: shallow aquifer (odd years⁴)

Well 304: deep aquifer (second years⁵)

Well 305: shallow aquifer (odd years)

Well 306: shallow aquifer (odd years)

Well 307: shallow aquifer (even years)

Well 308: deep aquifer (fourth years)

Well 309: shallow aquifer (even years)

Well 310: deep aquifer (fourth years)

Well 311: deep aquifer (fourth years)

Well 312: shallow aquifer (even years)

¹ For any year in which the herbicide clyoyalid is to be used on the golf course, specific groundwater wells will be sampled as designated in the approved Clopyralid Application and Monitoring Plan for that year.

² 1994, 1996, 1998 and even years thereafter

³ 1996, 2000 and every fourth year thereafter

⁴ 1993, 1995, 1997 and odd years thereafter

⁵ 1994, 1998 and every fourth year thereafter

Well 313: shallow aquifer (even years)
Well 314: deep aquifer (fourth years)
Well 315: deep aquifer (fourth years)
Well 316: shallow aquifer (even years)
Well 317: deep aquifer (fourth years)
Well 318: shallow aquifer (even years)
Well 319: deep aquifer (second years)
Well 320: shallow aquifer (odd years)
Well 321: deep aquifer (second years)
Well 322: shallow aquifer (odd years)
Well 323: shallow aquifer (odd years)
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Well 325: shallow aquifer (even years)
Well 326: deep aquifer (second years)
Well 327: shallow aquifer (second years)
Well 328: shallow aquifer (odd years)
Well 329: deep aquifer (second years)
Well 330: deep aquifer (second years)
Well 331: shallow aquifer (odd years)
Well 332: deep aquifer (second years)

Carbon filter discharge, green No. 1 (previous No. 10)
Carbon filter discharge, green No. 7 (previous No. 16)
Carbon filter discharge, green No. 14 (previous No. 5)

Turf (soil), green No. 1
Turf (soil), green No. 7
Turf (soil), green No. 14
Turf (soil), tee No. 1
Turf (soil), tee No. 7
Turf (soil), tee No. 14
Turf (soil), fairway No. 1
Turf (soil), fairway No. 7
Turf (soil), fairway No. 14

2. Sample Collection Procedures

Samples shall be collected by a person with at least two years of water quality experience. Water samples shall be taken in appropriate bottles which have been cleansed with a non-phosphorus detergent, and tripled rinsed with stream water prior to collecting the grab sample. Samples will be preserved in accordance with standard methods or approved EPA Methods until delivery to the laboratory for analysis.

A measurement or estimate of the flowrate shall be made each time a surface water sample is taken. A measurement of the depth to groundwater shall be made each time a well sample is taken.

Turf (soil) samples shall be a soil plug cut from the representative green, tee, or fairway. Turf (soil) samples shall be taken by a person with at least two years of soil sample extraction experience.

3. Frequency of Water Quality Sampling

Samples will be collected on the following frequency:

| <u>Sample Type</u> | <u>Frequency</u> |
|---|--|
| Surface water samples at Squaw Creek and Pond "A" outfall | May, October (every year); additionally, if clopyralid is detected in groundwater samples, surface water at the upstream and downstream Squaw Creek sampling locations will be sampled monthly, from the date of clopyralid detection in groundwater through the October sampling event. |
| Shallow Ground Water well samples | May, October (one half wells sampled in odd numbered years, other half sampled in even numbered years); additionally, in any year that the herbicide clopyralid is to be applied wells specified in the approved Clopyralid Application and Monitoring Plan for that year will be sampled. |
| Deep Ground Water well samples | October (one half wells sampled every second year, other half sampled every fourth year); additionally, in any year that the herbicide clopyralid is to be applied, wells specified in the approved Clopyralid Application and Monitoring Plan for that year will be sampled. |
| Ground Water Flow and Direction | May (in any year that the herbicide clopyralid to be applied, from each well scheduled to be sampled in the approved Clopyralid Application and Monitoring Plan for that year). |
| Greens carbon filter samples | Three times during period April-June |
| Turf (soil) samples, nutrients | June |
| Turf (soil) samples, chloroneb | Three times during period April-June |

No sample will be collected if surface water is frozen, or if there is no ephemeral runoff late in the season, but those conditions should be noted in the monitoring report.

4. Constituents to be Monitored

Constituents will be analyzed for each sample according to the following table:

| | | Surface Samples | Ground Water Samples | Carbon Filter Samples | Turf (soil) Samples |
|-------------------------------|-----------------|-----------------|----------------------|-----------------------|---------------------|
| Volumetric flowrate | CFS; ft per day | X (CFS) | X (ft per day) | | |
| Groundwater direction | | X | X | | |
| Total Dissolved Solids (TFR) | mg/L | | X | | |
| Total Suspended Solids (TNFR) | mg/L | X | | | |
| Turbidity | NTU | X | | | |
| Chloride | mg/L | X | X | | |
| Sulfate | mg/L | X | X | | |
| Nitrate Nitrogen | mg/L as N | X | X | X | X |
| Total Kjeldahl Nitrogen | mg/L as N | X | X | X | X |
| Total Nitrogen | mg/L an N | X | X | X | X |
| Total Phosphorus | mg/L as P | X | X | X | X |
| Total Iron | mg/L | X | X | X | X |
| Grease and Oil | mg/L | X | | | |
| Dissolved Oxygen | mg/L | X | | | |
| PH | | X | X | | |
| Temperature | °Celsius | X | X | | |
| Electroconductivity | c.u | X | X | | |
| Total Organic Carbon* | mg/L | | | X | X |
| Fungicides* | ug/L | X | X | X | X |
| Herbicides* | ug/L | X | X | X | X |

*Each herbicide or fungicide applied to greens or any other part of the golf course shall be analyzed. Analysis may be for Total Organic Carbon (TOC) rather than chloroneb once a correlation is established.

B. Inspections and Record Keeping of Golf Course

(Extracted from the indicated sections of the Chemical Application Management Plant (CHAMP))

1. (4.2.8) An inspection of the project shall be made by the operator on a monthly basis during those months in which ground cover by snow is not complete. The purpose of this investigation is to discover potential erosion and surface runoff problems on the project site so that corrective measures may be immediately undertaken. Only employees designated by the golf course superintendent shall perform the inspections. The completed inspection forms shall be maintained in a file by the golf course superintendent. The inspection shall include at least the following:

a) Infiltration Trenches

- (1) Clogging of pipes by debris
- (2) Accumulation of sediment
- (3) Disrepair of trenches
- (4) Runoff movement into infiltration trenches
- (5) Damage by vehicles

b) Drop Inlets

- (1) Clogging by debris, ice, or sediment
- (2) Runoff movement into the infiltration gallery
- (3) Damage by vehicles or snow play equipment

c) Drainage Collection System

- (1) Clogging by debris, ice, or sediment
- (2) Free movement of water through pipes, channels, and appurtenances
- (3) Damage

d) Erosion Control

- (1) Healthy and productive vegetation
- (2) Gully or rill erosion on slopes
- (3) Sediment buildup at toe of slopes
- (4) Vegetation damage by vehicles or heavy foot traffic
- (5) Bare areas in need of revegetation

e) General

- (1) Accumulated debris (pine needles, refuse, etc.) on parking areas and roof tops
- (2) Illicitly dumped wastes from recreational vehicles
- (3) Illicitly dumped oil and gasoline from vehicles; spilled chemicals
- (4) Illicitly dumped or discharged grease, cooking oil, non-specification product or product component
- (5) Parking and traffic area restrictions in place.

2. (4.2.9) Records shall be kept on an ongoing basis of the use of herbicides and fungicides. The records will include entries with the following:

a) Herbicides/Fungicides

(1) Herbicides/Fungicides purchased

- (a) Each type of herbicide/fungicide purchased
- (b) Amount of each type purchased
- (c) Date of each purchase
- (d) Place of purchase
- (e) Date of onsite arrival
- (f) Onsite storage location

(2) Herbicide/Fungicide application

- (a) Types of herbicide/fungicide applied
- (b) Locations of application
- (c) Dates of application
- (d) Amounts of application
- (e) Method of application
- (f) Name of person(s) responsible for application

3. (5.3.11) The following information shall be reported for all herbicides/fungicides removed from the project site:
- a) Type of herbicide/fungicide removed from the project site
 - b) Amount of herbicide/fungicide removed from the project site
 - c) Location of herbicide/fungicide disposal
4. (5.4.3 and 4.2.15)
- a) All fertilizer applications shall be documented on forms available from the superintendent. The records shall reflect the following:
 - (1) Locations of fertilizer applications
 - (2) Type of fertilizer applied
 - (3) Amounts of applications
 - (a) Total pounds
 - (b) Pounds per acre
 - (4) Dates of application
 - (5) Composition of fertilizer
 - b) Records shall be kept of all fertilizers, pesticides, herbicides, fungicides, and rodenticides stored and/or used on the golf course. The following shall be reported on a quarterly basis:
 - (1) Amounts stored at the facility
 - (2) Amounts used during past quarter
 - (3) Dates used
 - (4) Application rates

5. (5.6.3) All drainage collection and installed treatment systems shall be inspected weekly during the irrigation season and every other week during the off season. The systems will be inspected for leaks, sediment buildup, clogging, and algae growth. The golf course superintendent shall be notified immediately of any deficiencies. The attached inspection form shall be used during the inspection. Only employees designated by the golf course superintendent shall perform the inspections. The completed inspection forms shall be maintained in a file by the golf course superintendent.
6. (5.6.13) The project site shall be checked daily for fungus growth, insect infestations, weed invasion, or any other pest problem.

C. Erosion Control Monitoring of Ski Area

1. Inspections shall be made by the Dischargers on a monthly basis during those months in which ground cover by snow is not complete. The purpose of the inspection is to identify potential erosion and surface runoff on the project site so that corrective measures may be immediately undertaken.

The inspection shall include and note damage to:

- a) revegetated areas
- b) culverts at drainage crossings
- c) designated roadways
- d) adequate closure and control of use of closed roadways
- e) energy dissipaters on culverts
- f) sedimentation basins/irrigation ponds
- g) rock-lined channels
- h) mechanical stabilization measures (e.g., riprap and gabions)
- i) drop inlets
- j) water bars
- k) unprotected soil piles
- l) grease traps
- m) infiltration trenches
- n) gully/rill erosion on slopes
- o) other erosion control and stormwater runoff facilities

The Dischargers shall develop and annually update a run by run checklist of erosion control facilities as listed above to be used during the inspection and for reporting the results of the inspection. The checklist should include date of inspection, inspector(s), problems noted, corrective measures taken, etc.

D. Parking Lots Monitoring

1. The Dischargers shall inspect the parking lots and lodge on a monthly basis during those months in which ground water by snow is not complete. The purpose of this inspection is to identify potential erosion and surface runoff on the project so that corrective measures may be immediately undertaken. The inspection shall include:

a) Drop Inlets

- (1) Clogging by debris, ice, or sediment
- (2) Runoff movement into the infiltration gallery
- (3) Damage by vehicles or snow plow equipment

b) Drainage Collection System

- (1) Clogging by debris, ice, or sediment
- (2) Free movement of water through pipes, channels, and appurtenances
- (3) Damage to drainage collection system
- (4) Adequate energy dissipation

c) Erosion Control

- (1) Healthy and productive vegetation.
- (2) Gully or rill erosion on slopes
- (3) Sediment buildup at toe of slopes
- (4) Vegetation damage by vehicles or heavy foot traffic

d) Culvert Outlet

- (1) Adequate energy dissipation
- (2) Removal of trash and debris from drainageway

e) Spilled chemicals, paints, fuels, sealants, oils, greases, anti-freeze, etc.

f) Sediment/sand build-up on parking lot

g) Grease traps

Resort at Squaw Creek shall develop and annually update a checklist of erosion control facilities as listed above to be used during the inspection and for reporting the results of the inspection.

The checklist should include date of inspection, inspector(s), problems noted, corrective measures taken, etc.

E. Snow Conditioning Monitoring

If snow conditioning chemicals are used on ski slopes, a log of the following information shall be kept:

1. Locations of application
2. Dates of applications
3. Amounts of applications
 - a) Total pounds
 - b) Pounds per acre
4. Compositions of the conditioning chemicals

F. Snowmaking Enhancement Chemicals Monitoring

If snowmaking enhancement chemicals are used on ski slopes, a log of the following information shall be kept:

1. Locations of application
2. Dates of application
3. Amounts of applications
 - a) Total pounds
 - b) Pounds per acre
4. Composition of the conditioning chemicals

II. REPORTING

The above data, including sampling results and inspections, shall be submitted to the Board in accordance with the schedule described below (i.e., July 15, November 15). The Dischargers shall arrange and compile data in a concise form for quick review by Board staff.

The Dischargers shall submit an annual Clopyralid Application and Monitoring Plan to the Board for approval in accordance with the schedule noted below (i.e., May 15). If the Dischargers determines that clopyralid will not be applied in any given year, the Clopyralid Application and Monitoring Plan shall consist of a brief statement to that fact. In any year of proposed use, the application and monitoring plan shall consist of the following:

- A map showing the target clover and dandelion locations relative to each of the groundwater monitoring wells on the site.
- A groundwater elevation map, illustrating groundwater flow and direction, produced during the May sampling event.

- The specific wells which will be sampled, including the rationale for choosing these wells, based on consideration of upgradient clover patch size, vertical migration rate, and anticipated arrival time at the well location. Certain wells may need to be sampled prior to anticipated arrival time, due to annual October sampling schedule requirements. The application and monitoring sampling schedule shall not preclude any scheduled well sampling as described in Section I.A.1, above.
- Travel time summary table which contains the sample well numbers, groundwater velocity and direction, distance to nearest upgradient clover/dandelion patch, travel time range, size of the clover/dandelion patch, duration (days), and calculated first and last arrival duration range (days).
- A summary table for the groundwater sampling schedule, including the sample well numbers, approximate depth to water, the vertical migration rate (previously calculated to be 1 foot/month), the vertical migration time (days), the first and last arrival duration range (days), and the calculated groundwater sampling schedule (days).

The November Water Quality Monitoring Report shall include a report of findings from the clopyralid application and monitoring, including a discussion of the methods used, analytical results, and conclusions.


| <u>Report</u> | <u>Frequency</u> | <u>Report Submittal Dates</u> |
|---|------------------|-------------------------------|
| Water Quality Monitoring* | Semiannual | July 15, November 15* |
| Clopyralid Application and Monitoring Plan | Annual | May 15 |
| Parking Lot Monitoring | Semiannual | July 15, November 15 |
| Erosion Control Monitoring of Ski Area | Semiannual | July 15, November 15 |
| Golf Course Monitoring | Semiannual | July 15, November 15 |
| Snow Conditioning Monitoring | Annual | July 15 |
| Snowmaking Enhancement Chemicals Monitoring | Annual | July 15 |

*The November Water Quality Monitoring Report shall also contain the clopyralid groundwater and surface water monitoring findings, collected in accordance with the Clopyralid Application and Monitoring Plan.

Any erosion, surface runoff problems, wastewater disposal problems, or other adverse conditions which are found on the subject property shall be clearly described and the corrective measures proposed by the Dischargers shall be included in the monitoring report. In the event that no such problems are found

on the property, a statement certifying this condition must be included for each monthly inspection.

In reporting the monitoring data, the Dischargers shall arrange the data in a tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner as to clearly illustrate compliance with the discharge requirements. All analysis shall be performed in accordance with the current edition of "Standard Methods for the Examination of Water and Waste Water", in a laboratory certified to perform such analysis by the California State Department of Health or the Executive Officer."

Ordered By:  Dated: April 12, 2006
HAROLD J SINGER
EXECUTIVE OFFICER

Attachment A: Sampling Location Map