



# California Regional Water Quality Control Board

## Central Coast Region



Alan C. Lloyd, Ph.D.  
Agency Secretary

Arnold Schwarzenegger  
Governor

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April 13, 2005

CERTIFIED MAIL: 7004 1160 0007 5116 5198

Mr. Steve Hammack  
City of Santa Cruz  
Department of Parks and Recreation  
323 Church Street  
Santa Cruz, CA 95060-3811

**ADMINISTRATIVE CIVIL LIABILITY COMPLAINT – VIOLATIONS OF THE  
CONSTRUCTION STORM WATER GENERAL PERMIT; DE LAVEAGA GOLF  
COURSE, SANTA CRUZ, SANTA CRUZ COUNTY; WDID# 3 44C330064**

Mr. Hammack:

Enclosed is an Administrative Civil Liability Complaint (Complaint No. R3-2005-0067) issued by the Executive Officer of the Central Coast Regional Water Quality Control Board (Central Coast Water Board) for violations of the Construction Storm Water General Permit.

On **May 12 or 13, 2005** in the City of Watsonville, the Central Coast Water Board will hear public testimony and decide whether to affirm the Executive Officer's recommended liability of one hundred fifty thousand dollars (\$150,000), increase or decrease the amount, or refer the matter for judicial civil action.

Should the City of Santa Cruz, Department of Parks and Recreation, choose to waive its right to a public hearing, an authorized agent must sign the enclosed waiver form and submit it to the Regional Water Quality Control Board, Central Coast Region, 895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-7906, no later than **May 11, 2005**.

If you choose to waive your right to a hearing, the Executive Officer will present an Order for the amount of liability proposed in the Complaint to the Regional Board at the May 12-13, 2005 Central Coast Water Board meeting in Watsonville. The Central Coast Water Board may adopt or reject the Order. If the proposed Order is adopted, payment will be due and payable by June 13, 2005 (Check payable to State Water Resources Control Board). If the Order is rejected, the Central Coast Water Board may direct the Executive Officer to issue a new Complaint and schedule another hearing.

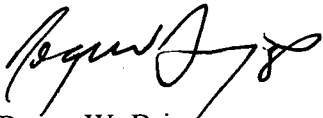
***California Environmental Protection Agency***



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If you have questions regarding this matter, please call Kimberly Gonzalez at (805) 549-3150 or Chris Adair at (805) 549-3761.

Sincerely,



Roger W. Briggs  
Executive Officer

Encl: Administrative Civil Liability (ACL) Complaint No. RB3-2005-0067  
ACL Attachment 1 - Referenced Permit Requirements  
ACL Attachment 2 - Procedural Information and Waiver of Hearing  
State Water Board Economic Benefit Analysis Memo

cc w/Encl: Lori Okun, State Water Resources Control Board, Office of Chief Counsel  
Miles Hicks, De Laveaga Golf Course, 401 Upper Park Road, Santa Cruz, CA 95060  
Scott Monn, Golf Course Builders International, 1109 North Palmetto Circle, Eustis, FL 32726

CKG\S:\Storm Water\Construction\Santa Cruz Co\330064 De LaVeaga Golf\ACL\R3.2005.0067 DLV Complaint Cover.DOC  
File: Storm Water: 3 44C330064  
Task: Storm Water Enforcement



**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION**

**ADMINISTRATIVE CIVIL LIABILITY COMPLAINT NO. R3-2005-0067**

**In the Matter of:**

**City of Santa Cruz Parks and Recreation Department  
De Laveaga Golf Course  
Santa Cruz County**

**CITY OF SANTA CRUZ PARKS AND RECREATION DEPARTMENT IS  
HEREBY GIVEN NOTICE:**

The City of Santa Cruz Parks and Recreation Department (Discharger) is alleged to have violated provisions of law and an Order of the State Water Resources Control Board (State Water Board), for which the Central Coast Regional Water Quality Control Board (Central Coast Water Board) may impose civil liability pursuant to California Water Code Section 13385.

Unless the Discharger waives its right to a hearing, a hearing on this matter will be held before the Central Coast Water Board within 90 days of receipt of this administrative civil liability complaint (Complaint). The Discharger and/or the Discharger's representative(s) will have the opportunity to be heard, and to contest the allegations in the Complaint and the imposition of civil liability by the Central Coast Water Board. A hearing is tentatively scheduled for May 12-13, 2005, in Watsonville, California.

An agenda will be mailed to you separately, not less than ten days before the hearing date. At the hearing, the Central Coast Water Board will consider whether to affirm, reject, increase, or decrease the proposed administrative civil liability, or whether to refer the matter to the State Attorney General for recovery of judicial civil liability.

**ALLEGATIONS**

1. The Discharger owns and operates the 108.5-acre De Laveaga Golf Course (Site) at 401 Upper Park Road in Santa Cruz, Santa Cruz County.
2. On August 19, 1999, the State Water Board adopted *Order No. 99-08-DWQ National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002* (Permit). In accordance with the *Clean Water Act* (United States Code, Title 33, Chapter 26) and the *Porter-Cologne Water Quality Control Act* (California Water Code Sections 13000 et seq.), the Permit, as amended, serves as waste discharge requirements regulating storm water discharges associated with construction activity of sites disturbing one acre or more.

3. On May 27, 2003, Steve Hammack, Superintendent of Parks, signed the *DeLaveaga Golf Course Master Plan Initial Study/Mitigated Negative Declaration, May 2003*. This document identifies potential significant impacts relating to construction activities at the Site and mitigation measures that would be incorporated into the project design, or as conditions of approval, to ensure potential significant environmental impacts would not be significant. Mitigation Measure #3 of the document specifically addresses mitigation for potential erosion, sedimentation, and water quality impacts to adjacent drainages due to grading and construction.
4. On July 22, 2003, the Santa Cruz City Council adopted a resolution adopting the *DeLaveaga Golf Course Master Plan Initial Study/Mitigated Negative Declaration, May 2003*.
5. On September 16, 2004, Mr. Hammack signed a Notice of Intent (NOI) to comply with the Permit. The NOI indicates construction commenced on September 20, 2004, and is projected to be complete on April 30, 2005. The NOI identifies "Parks & Recreation Department" as the owner, and "Golf Course Builders International" as the developer/contractor. The NOI listed "Jeff Ball, Construction Manager, Golf Course Builders International" as having responsibility for pre-storm and post-storm best management practice (BMP) inspections to identify effectiveness and necessary repairs or design changes. The NOI specifies "Miles Hicks" (the Golf Course Superintendent) as the Site contact person. The construction project disturbed up to 28.43 acres of the Site.
6. On January 21, 2005, Mr. Hammack signed a second NOI containing a change of information. The changes included adding a Storm Water Pollution Prevention Plan (SWPPP) amendment date (January 14, 2005), and listing "Miles Hicks, Golf Course Superintendent, City of Santa Cruz, California" as the qualified person assigned responsibility for pre-storm and post-storm BMP inspections to identify effectiveness and necessary repairs or design changes.
7. Site storm water runoff flows into storm drains and canyons that discharge to Branciforte Creek and Arana Gulch. Branciforte Creek is tributary to Carbonera Creek, which is on the 303(d) list for impairment due to excess sediment/siltation. The Central Coast Water Quality Control Plan (Basin Plan) lists the following as beneficial uses of Branciforte Creek:
  - a. agricultural supply
  - b. cold fresh water habitat
  - c. commercial and sport fishing
  - d. ground water recharge
  - e. migration of aquatic organisms
  - f. municipal and domestic supply
  - g. non-contact water recreation
  - h. spawning, reproduction, and/or early development

- i. water contact recreation
- j. wildlife habitat

Santa Cruz County's February 2004 Steelhead and Salmon Distribution Map indicates both Branciforte Creek and Arana Gulch have steelhead trout.

8. Central Coast Water Board staff inspected the Site four times after construction began: October 5, 2004 by Amanda Bern, December 8, 2004 and January 12, 2005 by Kimberly Gonzalez, and January 21, 2005 by Peter von Langen. Ms. Gonzalez inspected all active construction areas on Site during her two inspections. Ms. Bern and Mr. von Langen inspected portions of the Site, and Ms. Bern obtained a copy of the Site's Notice Inviting Sealed Bids and unsigned August 2004 SWPPP during her inspection. Violations identified in this complaint only include evidence from Ms. Gonzalez's two Site inspections and from documents received from the Discharger. Ms. Bern and Mr. von Langen's inspections are included in the "Proposed Liability" section of this Complaint as factors to consider.
9. Following is a list of Permit requirements and alleged violations. The first part of each item identifies the subject, relevant Permit section(s), and a summary of the Permit requirements (Attachment 1 contains actual Permit text). Subsequently, dated paragraphs are presented, which describe alleged violations.
  - a. **Storm Water Pollution Prevention Plan (Permit item C.2)** – The Discharger must develop and implement a SWPPP in accordance with Permit 'Section A'.

September 20, 2004 to April 4, 2005 – The SWPPP does not comply with Permit 'Section A'. Until January 14, 2005 the SWPPP was not signed. (Other deficiencies are included in following sections.) Failure to develop a SWPPP in accordance with Permit 'Section A' is a violation of Permit item C.2.

December 8, 2004 – Staff briefly reviewed the Site's SWPPP at the end of the inspection. The SWPPP (dated August 2004) was not signed, did not document amendments, and did not document personnel training. Additionally, the Site map identified locations for various BMPs, but those BMPs were not fully implemented on site. Failure to develop a SWPPP in accordance with Permit 'Section A' and failure to implement the SWPPP are violations of Permit item C.2.

January 12, 2005 – The Site's SWPPP was not reviewed during the inspection, however, at the time of inspection, Mr. Hicks said the site map had not been revised to reflect their decision to use fewer fiber rolls than prescribed in the SWPPP. The SWPPP was not signed until January 14, 2005. Failure to develop a SWPPP in accordance with Permit 'Section A' and failure to implement the SWPPP are violations of Permit item C.2.

- b. **Pollutants** (*Permit item C.2 and 'Section A' item 1.c*) – The Discharger must implement measures to reduce or eliminate pollutants in storm water discharges.

The Site's August 2004 SWPPP (Section III.B. Practices to Minimize Contact with Storm Water, item 1) specifies:

“During rainy periods, the Contractor will store materials in covered areas and within secondary containment (such as earthen dikes, horse troughs or spill blanket, with surrounding berms.) All chemicals stored on the site will be stored in a lockable storage shed, in their original container, and well labeled.”

December 8, 2004 – Central Coast Water Board staff observed and photographed gasoline containers exposed to rain and runoff in the contractor's staging/storage yard, outside a storage shed. Failure to implement measures to reduce or eliminate pollutants and failure to implement the SWPPP are violations of Permit item C.2 and 'Section A' item 1.c.

January 12, 2005 – Central Coast Water Board staff observed and photographed a variety of chemical containers and batteries exposed to rain and runoff in the contractor's staging/storage yard, outside a storage shed. Failure to implement measures to reduce or eliminate pollutants and failure to implement the SWPPP are violations of Permit item C.2 and 'Section A' item 1.c.

- c. **Erosion Control** (*Permit item C.2 and 'Section A' item 6*) – The Discharger must implement an effective combination of erosion and sediment control on all disturbed areas during the rainy season.

The Site's August 2004 SWPPP (Section III.B. Practices to Minimize Contact with Storm Water, item 1) specifies:

“Erosion and sediment transport control mechanisms will be put in place prior to the onset of the first major winter storms to avoid discharge from the construction sites into the drainage ways.”

The SWPPP (Section IV.B. Control Practices to Prevent a Net Increase of Sediment Load in Storm Water Discharges, items 1 and 2) specifies:

“1. The soils exposed during grading operations will typically be seeded as soon as each area is finished (ESC10). Temporary sedimentation measures such as silt fences, sand bags, and fiber rolls (ESC50, ESC52, SC8) will be installed along the limits of grading to prevent increased sediment load to drainage areas, where appropriate to the small construction envelopes.

“2. The graded slopes on the project are to be gentle in nature – an overall design maximum at 4:1, with some variation up to 3:1 – and all disturbed areas to be seeded...”

The SWPPP includes a matrix named "SWPPP Best Management Practices Matrix, Erosion, Sediment and Dust Control for Given Sites." The matrix also prescribes BMP number ESC10 (Seeding and Planting) for protecting slopes and channels. The SWPPP fact sheet for this BMP specifies Seeding and Planting is "Appropriate for site stabilization both during construction and post-construction."

September 20, 2004 to April 4, 2005 – The SWPPP is not clear as to whether or not it prescribes erosion control ESC10 (Planting and Seeding) for use after grading completion or after construction completion. If ESC10 is not prescribed as a temporary erosion control measure to be implemented after grading, the SWPPP is deficient, and failure to develop an adequate SWPPP is a violation of Permit item C.2 and 'Section A' item 6. (If ESC10 is prescribed for use as a temporary erosion control measure, then the Discharger failed to implement the SWPPP, which is a violation of Permit item C.2 and 'Section A' item 6 as described below.)

December 8, 2004 – There were large areas of exposed soil with no erosion controls. Lack of erosion controls contributed to silt fence failure at Greens Complex 18, Greens Complex 5, and various tees. Disturbed areas had no erosion controls covering erodible soil. The Discharger's failure to implement an effective combination of erosion and sediment controls on all disturbed areas during the rainy season and failure to implement the SWPPP are violations of Permit item C.2 and 'Section A' item 6.

January 12, 2005 – Disturbed areas had no erosion controls covering erodible soil. The Discharger's failure to implement an effective combination of erosion and sediment control on all disturbed areas during the rainy season and failure to implement the SWPPP are violations of Permit item C.2 and 'Section A' item 6.

- d. **Sediment Control** (*Permit item C.2 and 'Section A' item 8*) – The Permit requires sediment controls at appropriate locations along the site perimeter and at all operational storm drain inlets. Effective filtration devices, barriers, and settling devices shall be selected, installed, and maintained properly. Sediment controls are required at all times during the rainy season.

The Site's August 2004 SWPPP (Section III.B Practices to Minimize Contact with Storm Water, item 1) specifies:

"Erosion and sediment transport control mechanisms will be put in place prior to the onset of the first major winter storms to avoid discharge from the construction sites into the drainage ways."

The SWPPP includes a matrix named "SWPPP Best Management Practices Matrix, Erosion, Sediment and Dust Control for Given Sites" (this page of SWPPP is not numbered). The matrix prescribes the following BMPs: ESC50

(Silt Fence) and SC5 (Fiber Rolls), for protecting slopes and channels. The SWPPP fact sheets for these BMPs specify appropriate BMP installation and maintenance. The ESC50 (Silt Fence) fact sheet maintenance requirements include: silt fence inspection weekly and after each rainfall, silt fence repair wherever fence is damaged, and sediment removal when sediment reaches 1/3 the fence height. The fact sheet also specifies the following silt fence limitation: "Do not use in streams, channels, or anywhere flow has concentrated." The SWPPP map (identified in Section II.B. Site Map) specified where silt fence and fiber rolls are required.

December 8, 2004 – In various areas throughout the site, sediment controls, when present, were not effectively filtering sediment:

- There were several discharges of sediment-laden water from failing silt fences along the Site perimeter. Failure was partly attributable to the significant sediment load from erodible slopes (without erosion controls), improperly installed or unmaintained silt fencing, and concentrated pipe discharges on the upstream side of silt fences.
- The drain in Greens Complex 18 had no sediment controls.
- Stockpiles in the clubhouse parking lot had no erosion or sediment controls, and sediment-laden runoff from the parking lot was discharging off-site.
- Sediment from Tee Complex 1 buried the curb and a paved golf cart path directly adjacent to the main street.
- Sediment controls were not installed in full accordance with the SWPPP map.
- The onsite pond is an existing feature, and was not designed as a sediment basin. The pond contained sediment-laden water from the Site and was discharging without sediment controls.

Lack of effective sediment controls and failure to implement and maintain sediment controls in accordance with the SWPPP are violations of Permit item C.2 and 'Section A' item 8.

January 12, 2005 – Although some work had been done to maintain, repair, replace, and/or install sediment controls since the last inspection, there were still sediment controls in need of maintenance, repair, and/or replacement.

- Throughout the site, silt fences were improperly installed, damaged, and intentionally bypassed with pipes. In Greens Complex 5, the purpose of the pipes was reportedly to direct runoff to turf areas and use turf as a bioswale. However, the flow was concentrated through the pipes and the turf was on a slope just above the discharge point at Greens Complex 5. Evidence showed the sediment-laden water had reached the discharge point. Sandbags at the discharge point had sediment on them, and there was sediment in the canyon just below the discharge point. In other areas on Site where pipes had been placed through or under silt fences, riprap was placed below pipe discharges to dissipate discharge, but there were no sediment controls or turf. Placing



pipes through or under silt fencing does not remove sediment from runoff and is not a design or practice that is endorsed anywhere in the SWPPP.

- The drain at Greens Complex 18 was not adequately protected; filter fabric covering the drain had a hole in it. At least two drain inlets in other areas were not protected.
- Fiber rolls were placed above the curb along Tee Complex 1, but the fiber rolls were deteriorating and in need of replacement. Fiber rolls placed on slopes in two areas were not effective, as evidenced by rills on slopes. Fiber rolls in Greens Complex 18 were not installed properly, as they were not installed in accordance with SWPPP fact sheet SC5 (Fiber Rolls).
- According to Mr. Hicks, the SWPPP map had not yet been revised. Sediment controls were not installed in full accordance with the SWPPP map.
- The onsite pond was receiving sediment-laden water from construction areas and there were no sediment controls at the pond to remove sediment before discharge. The pond was discharging sediment-laden water during the inspection.

Lack of effective sediment controls and failure to implement and maintain sediment controls in accordance with the SWPPP are violations of Permit item C.2 and 'Section A' item 8.

- e. **Non-Storm Water Management** (*Permit item C.2 and 'Section A' item 9*) – Non-storm water discharges should be eliminated or reduced to the extent feasible. Unavoidable non-storm water discharges and associated BMPs must be described in the SWPPP. The SWPPP must include the location of non-storm water discharges and descriptions of all BMPs designed for the control of pollutants in such discharges. Onetime discharges must be monitored during the time that such discharges are occurring. The SWPPP must list a person responsible for ensuring no materials other than storm water are discharged in quantities that will have an adverse effect on receiving waters or storm drain systems. Discharge of sediment-laden water that will cause or contribute to an exceedance of the Basin Plan from a dewatering site or sediment basin into any receiving water or storm drain is prohibited without filtration or equivalent treatment.

The SWPPP specifies discharges of "unpolluted groundwater and other discharges from excavated dewatering" are allowed, and specifies "BMP's require Contractor to avoid or minimize the use of water that may result in a discharge."

September 20, 2004 to April 4, 2005 - The SWPPP fails to clarify that discharge of sediment-laden water that will cause or contribute to an exceedance of Basin Plan standards from a dewatering site or sediment basin into any receiving water or storm drain is prohibited without filtration or equivalent treatment; therefore the SWPPP is deficient. The SWPPP also fails to require monitoring of non-storm water discharges, and fails to list a person responsible for ensuring no materials other than storm water are discharged in quantities that will adversely

affect receiving waters or storm drain systems; therefore the SWPPP is deficient. Failure to have an adequate SWPPP is a violation of Permit item C.2 and 'Section A' item 9.

December 8, 2004 – Sediment-laden water was discharging from the onsite pond without treatment. Failure to ensure sediment-laden water is treated to meet Basin Plan requirements before discharge is a violation of Permit item C.2 and 'Section A' item 9.

January 12, 2005 – Sediment-laden water (from dewatering) was being pumped from the clubhouse parking lot landscaped area without filtration and without monitoring of the discharge area. Sediment-laden water was discharging from the on-site pond without treatment. Failure to ensure sediment-laden water is treated to meet Basin Plan requirements before discharge is a violation of Permit item C.2 and 'Section A' item 9.

- f. **BMP Maintenance, Inspections, and Repair** (*Permit item C.2 and 'Section A' item 11*) – BMP inspection, maintenance, and repair are required as soon as possible (with respect to worker safety) after conclusion of each storm and after a problem is noted. Inspections are required before and after storms, and every 24 hours during an extended storm event. Inspection reports must contain the inspection date, weather information, description of inadequate BMPs, BMP observations, required corrective actions, and inspector's name, title, and signature.

The August 2004 SWPPP includes fact sheets for various BMPs prescribed in the SWPPP. Those fact sheets specify maintenance requirements for each of the various BMPs, as appropriate. The SWPPP (Section IV.B. Control Practices to Prevent a Net Increase of Sediment Load in Storm Water Discharges) specifies: "The selected BMP's will be implemented by the Contractor and maintained throughout construction." The SWPPP (Section XI. Monitoring Program, Reports, and Records) specifies:

"A. General: The General Contractor will provide a representative to perform weekly inspections of the installed Best Management Practice Improvements. The inspections will be documented in writing with the attached inspection form. Site inspections are also required before and after a storm event of 0.5" or greater.

"B. Site Inspections: On days before a predicted rainfall, a walk-through inspection will be conducted to check for any potential damage. The Contractor's Representative will direct the Contractor's Crew to immediately prevent such damage. Each BMP will be closely inspected within 24 hours after each rainfall of 0.5" or more. Each BMP will be checked for functionality and sediment accumulation. Contractor will check for evidence of excessive sedimentation and construction materials outside of the construction activity areas. A log of inspections will be kept with this report.

“SWPPP will be updated as needed to identify the Contractor and the Contractor’s Representative responsible for monitoring, inspection, and maintenance of the SWPPP.”...

September 20, 2004 to April 4, 2005 – The SWPPP does not specify inspections are required before and after storms, and every 24 hours during an extended storm event; therefore the SWPPP is deficient. Inspection reports did not contain the minimum required information. Weather information (an estimate of beginning of storm event, duration of event, and time elapsed since last storm), and inspector’s title and signature were missing from the inspection forms. Failure to have an adequate SWPPP and failure to adequately document inspections are violations of Permit item C.2 and ‘Section A’ item 11.

December 8, 2004 – It was raining during the inspection. Sediment controls were failing in various locations, and discharging sediment-laden water. Central Coast Water Board staff did not see any maintenance person or maintenance crew repairing control measures or responding to sediment control failures. Central Coast Water Board staff also saw no evidence (such as footprints, tire tracks, repair materials, repair equipment, etc.) to indicate a maintenance crew was repairing or maintaining controls during the inspection. Additionally, Site personnel did not indicate there were any maintenance crews repairing BMPs during the inspection. However, Mr. Hicks assured staff the problem areas would be addressed, but did not specify when. Failure to inspect, maintain, and repair BMPs as soon as possible (with respect to worker safety) and failure to implement the SWPPP are violations of Permit item C.2 and ‘Section A’ item 11.

January 12, 2005 – It was not raining during the inspection, and according to the Site contact, there had been approximately one inch of rain over the previous two days. Sediment controls were in need of repair or maintenance in various locations. Early in the inspection as Mr. Hicks escorted staff in his truck to active construction areas, Mr. Hicks pointed out a BMP maintenance person. However, at no time during the inspection did staff observe the maintenance person working with BMPs or carrying any BMPs or tools. At some times during the inspection, Mr. Hicks was on his cell phone or radio describing problem areas after Central Coast Water Board staff pointed them out. However, staff did not observe any evidence that repairs were underway during her inspection. The SWPPP did not specify that inspections are required before and after storms, and every 24 hours during an extended storm event; therefore the SWPPP is deficient. Failure to inspect, maintain, and repair BMPs as soon as possible (with respect to worker safety) and failure to implement the SWPPP are violations of Permit item C.2 and ‘Section A’ item 11.

- g. **Training** (*Permit item C.2 and ‘Section A’ item 12*) – Site BMP installation, inspection, maintenance, and repair are the responsibility of trained Site personnel. Training must be documented in the SWPPP.

The August 2004 SWPPP (Section IX. Training) specifies "Contractor will be responsible for employees and subcontractors training...", and does not document personnel that have been trained.

September 20, 2004 to April 4, 2005 – The August 2004 SWPPP did not specify who was responsible for Site BMP inspections and did not document personnel training. The January 14, 2005 revised SWPPP specifies "Miles Hicks" is responsible for regular BMP inspections. The revised SWPPP specified "Stephen Halsey, Landscape Architect" is responsible for "training employees about BMPs affecting their job," but did not document personnel training. Failure to document personnel training in the SWPPP is a violation of Permit item C.2 and 'Section A' item 12.

September 20, 2004 to October 5, 2004 – The NOI indicates construction began on September 20, 2004; however, documents submitted by the Discharger on April 5, 2005, state that Mr. Hicks was first trained in "storm water management, erosion and sedimentation control measures" on October 6, 2004. For the period of September 20, 2004 to October 5, 2004 the Discharger failed to have qualified (trained) individuals responsible for BMP installation, inspection, maintenance, and repair, which is a violation of Permit item C.2 and 'Section A' item 12.

- h. **Proper Operation and Maintenance** (*Permit item C.6 and 'Section C' item 5*) – At all times the discharger must properly operate and maintain facilities, treatment systems, and control systems that are installed or used by the discharger to achieve compliance with Permit conditions and SWPPP requirements.

The August 2004 SWPPP specified erosion and sediment control BMPs and included fact sheets for BMPs, which specified appropriate applications, installation, limitations, and maintenance.

December 8, 2004 – Sediment controls were not effective. Sediment-laden water was discharging from various locations due to lack of erosion controls and ineffective sediment controls. Failure to properly operate and maintain treatment and control systems at all times and failure to implement the SWPPP are violations of Permit item C.6 and 'Section C' item 5.

January 12, 2005 – In many areas, sediment controls needed maintenance or repair, or were improperly installed. Effectiveness of silt fences in filtering runoff was also compromised due to pipes intentionally placed through or under silt fencing. Failure to properly operate and maintain treatment and control systems, and failure to implement the SWPPP are violations of Permit item C.6 and 'Section C' item 5.

- i. **Duty to Provide Information** (*Permit item C.2 and 'Section A' item 15, and Permit item C.6 and 'Section C' item 7*) – The Discharger is required to provide the Central Coast Water Board with a copy of the SWPPP upon request. The

Discharger is required to provide to the Central Coast Water Board any information requested to determine Permit compliance, including copies of records the Permit requires Dischargers to keep.

January 27, 2005 to April 4, 2005 – In a Notice of Violation dated December 21, 2004, Central Coast Water Board staff requested a copy of the Discharger's SWPPP, Monitoring and Reporting Program, Inspection Records, and Corrective Action and Cleanup Efforts. The Discharger submitted an incomplete SWPPP (pages were missing), and failed to submit the Monitoring and Reporting Program. Staff contacted the Discharger in late March 2005 and learned that the Discharger intentionally submitted only amended portions of the SWPPP. However, the Notice of Violation required a copy of the "updated SWPPP and amendments." Failure to submit a copy of the SWPPP is a violation of Permit item C.6 and 'Section C' item 7.

- j. **Signatory Requirements** (*Permit item C.6 and 'Section C' item 9.a and 9.b*) – All SWPPPs must be signed by a principal executive officer, ranking elected official, or duly authorized representative (for a municipality).

September 20, 2004 to January 13, 2005 – The August 2004 SWPPP was not signed by a principal executive officer, ranking elected official, or duly authorized representative (for a municipality). Failure to have an appropriately signed SWPPP is a violation of Permit item C.6 and 'Section C' item 9.a and 9.b.

10. Overall, the Discharger remained in violation of Permit requirements regarding failure to implement the Site's SWPPP, SWPPP deficiencies, exposed potential pollutants, lack of erosion controls, ineffective sediment controls, inadequate BMP maintenance, inspection, and repair, failure to document and assign trained personnel, and failure to properly operate and maintain controls throughout the period of the Complaint. Although there were some changes in Site conditions and the SWPPP with respect to these violations, the Discharger did not bring the Site or the SWPPP into compliance with Permit requirements.
11. Central Coast Water Board staff discussed concerns with Mr. Hicks during the October inspection. Central Coast Water Board staff discussed violations with Mr. Hicks during the December 8, 2004 and January 12, 2005 inspections.
12. Central Coast Water Board staff issued a Notice of Violation letter after the December 8, 2004 inspection. The letter was addressed and mailed to Mr. Hammack and copies were mailed to the Site contact and developer/contractor listed in the NOI.
13. Central Coast Water Board staff issued a second Notice of Violation after the January 12, 2005 inspection and receipt of documents from the Discharger. The second Notice of Violation was mailed to Mr. Hammack and copies were mailed to the Site contact and developer/contractor listed in the revised NOI.

14. Prior to the announced December 8, 2004 inspection and rain event, there was sufficient time to implement an effective combination of erosion and sediment controls. Additionally, sufficient time elapsed after staff's December 8, 2004 inspection to bring the Site into compliance before staff's January 12, 2005 inspection.
15. The Discharger was in violation of the Permit for at least 197 days during the period of September 20, 2004 to April 4, 2005.

## PROPOSED LIABILITY

In determining any liability to be imposed, California Water Code Section 13385 requires the Central Coast Water Board to consider the following factors and any other factors as justice may require:

### VIOLATIONS

- a. Nature, Circumstances, Extent, and Gravity - This Complaint is issued to address the Discharger's failure to comply with Permit requirements.

The Discharger violated Permit requirements, the Federal Clean Water Act, and the California Water Code by having an inadequate SWPPP, not adequately reducing or eliminating pollutants in storm water, not implementing erosion controls, not implementing effective sediment controls, discharging sediment-laden water and not monitoring a non-storm water discharge, not adequately documenting Site inspections, not properly operating and maintaining controls at all times, not providing information required by Central Coast Water Board, and not having a signed SWPPP on Site.

The Discharger said "five inches of rain fell that day [December 8, 2004] following a series of previous rain storms." Rainfall data from California Irrigation Management Information System, Department of Water Resources, for the monitoring station at De Laveaga Golf Course (Station #104) are presented below.

**De Laveaga Golf Course, Santa Cruz**

<b>Date</b>	<b>Precipitation (inches)</b>
December 6, 2004	0.05
December 7, 2004	1.47
December 8, 2004	3.56
December 9, 2004	0.04

While the storm may have been an unusually extended or heavy rain event, failure of sediment controls and resulting discharges are partly attributable to the lack of erosion controls on Site. Additionally, observed sediment control failures were also

partly attributable to improper installation, need of maintenance, and improper placement and design of sediment controls. The Permit does not exempt non-compliance during heavy or extended rain events. The only possible exception regards BMP maintenance: "All corrective maintenance shall be performed as soon as possible after the conclusion of each storm depending upon worker safety."

Self-monitoring and voluntary compliance with Permit requirements are important aspects of the Storm Water Program. Non-compliance with Permit requirements is a serious violation.

Arana Gulch and Branciforte Creek are habitat to "threatened" steelhead trout. Beneficial uses of Branciforte Creek that may be adversely affected by sediment discharge include:

- a. agricultural supply
- b. cold fresh water habitat
- c. commercial and sport fishing
- d. ground water recharge
- e. migration of aquatic organisms
- f. municipal and domestic supply
- g. non-contact water recreation
- h. spawning, reproduction, and/or early development
- i. water contact recreation
- j. wildlife habitat

Additionally, Branciforte Creek is tributary to Carbonera Creek, which is impaired due to sedimentation/siltation. Discharge of sediment-laden water may adversely affect steelhead trout, impact beneficial uses of Branciforte Creek, and contribute to existing impairment of Carbonera Creek. The Basin Plan's general sediment objective states:

"The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses."

The above factors do not support liability less than the maximum. The issue of unmaintained BMPs (during the December 8, 2004 inspection) due to potentially unsafe working conditions may warrant consideration of liability that is less than the maximum.

- b. Cleanup or Abatement – In general, sediment-laden storm water and sediment are not susceptible to cleanup because they often move rapidly downstream to other receiving waters, and/or disperse over extensive areas. Sediment is the main constituent of concern, and is not easily cleaned up after discharge. This consideration does not warrant liability that is less than the maximum.

- c. Toxicity – There is evidence of sediment-laden water discharged to the canyons/tributaries that flow to Arana Gulch and Branciforte Creek, which are habitat to “threatened” steelhead trout. Branciforte Creek is also listed as a “cold freshwater habitat.” *The Water Boards’ Communications Guidelines, January 2005*, defines toxic pollutants as:

“Those pollutants or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism can, on the basis of information available, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions or physical deformation in such organism or their offspring. The quantities and exposures necessary to cause these effects can vary widely.”

Sediment can cause the following problems for cold-water fish (such as Chinook, Coho, and Steelhead)<sup>1</sup>:

- Spawning (September through April): Siltation of gravels results in smothered eggs or easily washed away nests.
- Rearing (year-round): Sedimentation results in loss of escape cover and pool depth. Turbid water reduces feeding efficiency.
- Overwintering (December through April): Sediment fills pools; deep pools protect fish from high streamflows.
- Juvenile Fish Ocean Migration (March through June): Turbid streamflows interfere with fish’s ability to see, and stop or reduce feeding and growth.

This consideration does not warrant liability that is less than the maximum.

#### VIOLATOR

- d. Ability to Pay – Central Coast Water Board staff does not have any information regarding the Discharger’s ability to pay the maximum, recommended, or minimum liability.
- e. Ability to Continue Business – Central Coast Water Board staff does not have any information regarding the Discharger’s ability to continue operating and maintaining the golf course.
- f. Voluntary Cleanup Efforts – The Discharger included a list of “Cleanup Efforts and Corrective Actions” in their January submittal. Since the Permit requires dischargers to take corrective action, a discharger’s efforts are not considered ‘voluntary’ unless they exceed Permit requirements. The Discharger’s efforts did not bring the Site into compliance with Permit requirements and did not exceed Permit requirements. This consideration does not warrant liability that is less than the maximum.

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<sup>1</sup> Smith, Jerry J., *Winter Steelhead and Chinook and Coho Salmon Life Cycles and Habitat Requirements*. Department of Biological Sciences, San Jose State University.



- g. History of Violations – Staff is not aware of any historic violations prior to enrollment in the Permit in September 2004.
- h. Degree of Culpability – There were no erosion or sediment controls on Site during Ms. Bern's October 5, 2004 inspection. During Ms. Gonzalez's December 8, 2004 inspection, the Site had ineffective sediment controls and no erosion controls. Central Coast Water Board staff contacted the Discharger before the October 5, 2004 and December 8, 2004 inspections to announce staff's intent to inspect the Site. The Discharger had sufficient time to bring the Site into compliance before staff's December 8, 2004 inspection.

Additionally, since Central Coast Water Board staff spent time discussing violations with the Site contact during the December 8, 2004 inspection, and since Central Coast Water Board staff identified violations in the December 21, 2004 Notice of Violation, the Discharger had sufficient time to bring the Site into compliance before staff's January 12, 2005 inspection. At the January 21, 2005 inspection, Mr. von Langen did not meet with the Site contact, but observed a lack of erosion controls and was concerned about receiving water quality.

The Discharger chose to grade the Site and construct during the rainy season without implementing any erosion controls, and without effective sediment controls.

The Permit and the Site's Mitigated Negative Declaration both require erosion and sediment controls. The *DeLaveaga Golf Course Master Plan Initial Study/Mitigated Negative Declaration, May 2003* states:

“Mitigation Measure #3: Implement erosion control measures during and after construction to prevent inadvertent erosion and offsite transport of sediments into Arana Gulch, including but not limited to:

- “Install well-anchored silt fences and/or straw bales at the top of drainages adjacent to the following Holes/Fairways: 1, 3, 5, 8, 9, 10, 13, 17; adjacent to the retaining wall construction zone; the driving range; and the onsite pond in order to prevent any physical movement or placement of materials or equipment outside the construction area into drainages and waterways.
- “Limit ground disturbance and vegetation removal during construction to the minimum necessary to complete work on a given hole/fairway.
- “Complete work prior to the onset of the rainy season (generally November 1), if possible, and avoid grading during the rainy season (generally between November 1 and April 1).
- “If excavation activities extend beyond November 1, require implementation of all measures to prevent silt laden water from entering adjacent drainages, the onsite pond and Arana Gulch. Require use of sediment/detention basins or similar protection to temporarily contain construction runoff and to prevent sediment-laden runoff from entering drainages. Install filter fabric at drain inlets.

- “Protect any disturbed areas during the rainy season with appropriate erosion control measures. Prior to November 1, disturbed soils at each site should undergo erosion control treatment consisting of temporary seeding, straw mulch or other measures pursuant to an approved erosion control plan.
- “Immediately revegetate disturbed areas with appropriate plant species.”

The Discharger signed the *DeLaveaga Golf Course Master Plan Initial Study/Mitigated Negative Declaration, May 2003*, signed the Notice of Intent to comply with the Permit, knew of two of staff's planned inspections, chose to construct in the rainy season instead of the dry season, and had a list of information that should have been submitted to Central Coast Water Board staff; therefore, the Discharger is culpable for failure to comply with the Permit. The above information does not warrant liability that is less than the maximum.

Central Coast Water Board staff's delay in sending the second Notice of Violation letter (sent on March 14, 2005, 61 days after the January 12, 2005 inspection, and 48 days after receiving the Discharger's January 26, 2005 letter and documents) may warrant consideration of liability that is less than the maximum.

Central Coast Water Board staff did not observe any BMP maintenance or repair efforts occurring during the January 12, 2005 inspection despite the fair weather conditions and despite inspecting all construction areas once with Mr. Hicks and revisiting some construction areas alone. However, the property is over one hundred acres and staff may not have seen the BMP maintenance person if he was working in areas other than those revisited by staff or if he was retrieving BMP materials from an offsite location (Mr. Hicks indicated BMP materials are not stored at the Site, but near by). This information may warrant consideration of liability that is less than the maximum.

- i. Economic Benefit and Savings – The Discharger realized economic benefit by scheduling golf course grading and construction during the rainy season<sup>2</sup>, thereby allowing the golf course to stay open to customers during the dry season. Although that in itself is not a violation, the *DeLaveaga Golf Course Master Plan Initial Study/Mitigated Negative Declaration, May 2003* specified construction should be completed prior to the rainy season to prevent inadvertent erosion and offsite transport of sediments. The Discharger implemented BMPs, but they were insufficient to prevent water quality impacts. If the project had been scheduled for completion before the rainy season, the threat to water quality would have been significantly lower. Completing construction before the rainy season may have been the only way to prevent erosion and offsite transport of sediments without implementing more costly BMPs (such as hydroseeding with bonded fiber matrix, constructing sedimentation basins, operating storm water filtration systems, etc.).

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<sup>2</sup> The Permit does not define the dates on which the rainy season begins and ends. For purposes of the Permit, the Central Coast Water Board generally defines the rainy season as October 1 to April 30 of each year.

Regional Board staff estimates the Discharger realized an economic benefit of up to one hundred thirty thousand, five hundred dollars (\$130,500) by constructing during the rainy season instead of the dry season. California Water Code Section 13385(e) requires the Central Coast Water Board to assess liability at least equal to "the economic benefits ... derived from the acts that constitute the violation."

#### OTHER MATTERS

- j. Staff Time – Central Coast Water Board staff spent time traveling to and inspecting the Site, and preparing and reviewing enforcement documents. Estimated staff costs (including Central Coast Water Board technical staff, administrative staff, supervisors, and legal council) are twelve thousand dollars (\$12,000). (\$75/hour \* 160 hours = \$12,000)

#### PROPOSED LIABILITY

Proposed Liability – Upon consideration of factors as required by California Water Code Section 13385, the Executive Officer recommends civil liability in the amount of one hundred fifty thousand dollars (\$150,000) for the Discharger's violations of the Permit from September 20, 2004 through April 4, 2005.

Maximum Liability – Pursuant to California Water Code Section 13385, the Central Coast Water Board can impose civil liability up to ten thousand dollars per day of violation of waste discharge requirements. Waste discharge requirements include NPDES permits (California Water Code Section 13374). The Discharger was in violation of the Permit for at least 197 days, from September 20, 2004 through April 4, 2005. Maximum liability that may be imposed is one million nine hundred seventy thousand dollars (\$1,970,000). The Discharger violated multiple provisions of the Permit during this period. The one million nine hundred seventy thousand dollars (\$1,970,000) maximum liability is a conservative estimate because it counts only one violation per day.

Minimum Liability – In accordance with California Water Code Section 13385, the minimum liability that may be imposed is recovery of economic benefits (if any) derived from the acts that constitute the violations. Central Coast Water Board staff estimates the Discharger's economic benefit to be up to one hundred thirty thousand, five hundred dollars (\$130,500). The proposed liability is greater than the maximum estimated economic benefit realized by the Discharger, and would therefore meet California Water Code Section 13385 specifications for assessing at least the minimum penalty.

#### ATTACHMENTS

1. Referenced Permit Requirements
2. Procedural Information and Waiver of Hearing



Roger W. Briggs, Executive Officer

4-13-05

Date

CKG\\S:\Storm Water\Construction\Santa Cruz Co\330064 De LaVeaga Golf\ACL\R3.2005.0067 DLV Complaint.doc  
Task: Storm Water Enforcement  
File: 3 44C330064, DeLaveaga Golf Course

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION

ADMINISTRATIVE CIVIL LIABILITY COMPLAINT NO. R3-2005-0067

Attachment 1

Referenced Permit Requirements

City of Santa Cruz Parks and Recreation Department  
De Laveaga Golf Course  
Santa Cruz County

The following excerpts from the State Water Resources Control Board *Order No. 99-08-DWQ, National Pollutant Discharge Elimination System General Permit No. CA000002, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity* apply to Complaint No. R3-2005-0067:

a. **Storm Water Pollution Prevention Plan**

Permit item C.2: "All dischargers shall develop and implement a SWPPP in accordance with Section A: Storm Water Pollution Prevention Plan. The discharger shall implement controls to reduce pollutants in storm water discharges from their construction sites to the BAT/BCT performance standard.

b. **Pollutants**

Permit item C.2: See "a. Storm Water Pollution Prevention Plan" above.

'Section A' item 1.c: "...The SWPPP shall be developed and amended or revised, when necessary, to meet the following objectives:

"...c. Identify, construct, implement in accordance with a time schedule, and maintain Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized nonstorm water discharges..."

c. **Erosion Control**

Permit item C.2: See "a. Storm Water Pollution Prevention Plan" above.

'Section A' item 6: "...The most efficient way to address erosion control is to preserve existing vegetation where feasible, to limit disturbance, and to stabilize and revegetate disturbed areas as soon as possible after grading or construction.

“...At a minimum, the discharger/operator must implement an effective combination of erosion and sediment control on all disturbed areas during the rainy season. These disturbed areas include rough graded roadways, slopes, and building pads. Until permanent vegetation is established, soil cover is the most cost-effective and expeditious method to protect soil particles from detachment and transport by rainfall. Temporary soil stabilization can be the single-most important factor in reducing erosion at construction sites. The discharger shall consider measures such as: covering with mulch, temporary seeding, soil stabilizers, binders, fiber rolls or blankets, temporary vegetation, permanent seeding, and a variety of other measures.

“...The discharger must consider the full range of erosion control BMPs. The discharger must consider any additional site-specific and seasonal conditions when selecting and implementing appropriate BMPs.”...

**d. Sediment Control**

Permit item C.2: See “a. Storm Water Pollution Prevention Plan” above.

Permit ‘Section A’ item 8: “...Sediment controls are required at appropriate locations along the site perimeter and at all operational internal inlets to the storm drain system at all times during the rainy season. Sediment control practices may include filtration devices and barriers (such as fiber rolls, silt fence, straw bale barriers, and gravel inlet filters) and/or settling devices (such as sediment traps or basins). Effective filtration devices, barriers, and settling devices shall be selected, installed and maintained properly. A proposed schedule for deployment of sediment control BMPs shall be included in the SWPPP. These are the most basic measures to prevent sediment from leaving the project site and moving into receiving waters...”

“...At a minimum, the discharger/operator must implement an effective combination of erosion and sediment control on all disturbed areas during the rainy season.”...

**e. Non Storm Water Management**

Permit item C.2: See “a. Storm Water Pollution Prevention Plan” above.

Permit ‘Section A’ item 9: “Describe all non-storm water discharges to receiving waters that are proposed for the construction project. Non-storm water discharges should be eliminated or reduced to the extent feasible. Include the locations of such discharges and descriptions of all BMPs designed for the control of pollutants in such discharges. Onetime discharges shall be monitored during the time that such discharges are occurring. A qualified person should be assigned the responsibility for ensuring that no materials other than storm water are discharged in quantities which will have an adverse effect on receiving waters or storm drain systems (consistent with BAT/BCT), and the name and contact number of that person should be included in the SWPPP document.

“Discharging sediment-laden water which will cause or contribute to an exceedance of the applicable RWQCB’s Basin Plan from a dewatering site or sediment basin into any receiving water or storm drain without filtration or equivalent treatment is prohibited.”

**f. BMP Maintenance, Inspection, and Repair**

Permit item C.2: See “a. Storm Water Pollution Prevention Plan” on page two.

Permit ‘Section A’ item 11: “The SWPPP shall include a discussion of the program to inspect and maintain all BMPs as identified in the site plan or other narrative documents throughout the entire duration of the project. A qualified person will be assigned the responsibility to conduct inspections. The name and telephone number of that person shall be listed in the SWPPP document. Inspections will be performed before and after storm events and once each 24-hour period during extended storm events to identify BMP effectiveness and implement repairs or design changes as soon as feasible depending upon field conditions. Equipment, materials, and workers must be available for rapid response to failures and emergencies. All corrective maintenance to BMPs shall be performed as soon as possible after the conclusion of each storm depending upon worker safety.”...

**g. Training**

Permit item C.2: See “a. Storm Water Pollution Prevention Plan” on page two.

Permit ‘Section A’ item 12: “Individuals responsible for SWPPP preparation, implementation, and permit compliance shall be appropriately trained, and the SWPPP shall document all training. This includes those personnel responsible for installation, inspection, maintenance, and repair of BMPs. Those responsible for overseeing, revising, and amending the SWPPP shall also document their training. Training should be both formal and informal, occur on an ongoing basis when it is appropriate and convenient, and should include training/workshops offered by the SWRCB, RWQCB, or other locally recognized agencies or professional organizations.”

**h. Proper Operation and Maintenance**

Permit item C.6: “All dischargers shall comply with the standard provisions and reporting requirements contained in Section C: Standard Provisions.”

‘Section C’ item 5: “The discharger shall at all times properly operate and maintain any facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with the conditions of this General Permit and with the requirements of Storm Water Pollution Prevention Plans (SWPPP). Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance may

require the operation of backup or auxiliary facilities or similar systems installed by a discharger when necessary to achieve compliance with the conditions of this General Permit.”

**i. Duty to Provide Information**

Permit item C.2: See “a. Storm Water Pollution Prevention Plan” on page two.

‘Section A’ item 15: “The SWPPP shall be provided, upon request, to the RWQCB. The SWPPP is considered a report that shall be available to the public by the RWQCB under section 308(b) of the Clean Water Act.”

Permit item C.6: See “h. Proper Operation and Maintenance” above.

‘Section C’ item 7: “The discharger shall furnish the RWQCB, State Water Resources Control Board, or USEPA, within a reasonable time, any requested information to determine compliance with this General Permit. The discharger shall also furnish, upon request, copies of records required to be kept by this General Permit.”

**j. Signatory Requirements**

Permit item C.6: See “h. Proper Operation and Maintenance” above.

‘Section C’ item 9.a: “All Notice of Intents (NOIs), Notice of Terminations (NOTs), SWPPPs, certifications, and reports prepared in accordance with this Order submitted to the SWRCB shall be signed as follows:

“...(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer, ranking elected official, or duly authorized representative...”

‘Section C’ item 9.b: “All SWPPPs, reports, certifications, or other information required by the General Permit and/or requested by the RWQCB, SWRCB, USEPA, or the local storm water management agency shall be signed by a person described above or by a duly authorized representative...”



**PROCEDURAL INFORMATION**  
**For**  
**ADMINISTRATIVE CIVIL LIABILITY COMPLAINT**

**HEARING**

Unless you waive your right to a hearing (see section below), a hearing on this matter will be held before the Central Coast Water Board within 90 days of receipt of this administrative civil liability complaint (Complaint). You and/or your representative(s) will have the opportunity to be heard and to contest the allegations in the Complaint and the imposition of civil liability by the Central Coast Water Board. A hearing is tentatively scheduled for:

May 12 or 13, 2005  
Watsonville City Council Chambers  
205 Main Street  
Watsonville, California

At the hearing, the Central Coast Water Board will consider whether to accept, decrease, or increase the amount of the proposed liability.

**WAIVER AND PAYMENT**

You may waive your right to a hearing. If you wish to waive your right to a hearing, you or a duly authorized person must check and sign the attached "Waiver of Hearing" form. Send the "Waiver of Hearing" form to:

Central Coast RWQCB  
Attn: Kimberly Gonzalez  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401-7906

A duly authorized person is defined as a principal executive officer of at least the level of vice president in a corporation, a general partner or the proprietor in a partnership, a principal executive officer or ranking elected official in a public agency, or a duly authorized representative.

If you choose to waive the right to a hearing, the Executive Officer will present an Order for the amount of liability proposed in the Complaint to the Central Coast Water Board at the May 12-13, 2005 Central Coast Water Board meeting in Watsonville. The Central Coast Water Board may adopt or reject the Order. If the proposed Order is adopted, payment will be due and payable by June 13, 2005 (Check payable to State Water Resources Control Board). If the Order is rejected, the Central Coast Water Board may direct the Executive Officer to issue a new complaint and schedule another hearing.

**WAIVER OF HEARING**

By marking this box and signing below, I agree to waive my right for a hearing before the Regional Water Quality Control Board with regard to the violations alleged in Administrative Civil Liability Complaint No. R3-2005-0067. Also, I agree to remit payment for the civil liability proposed. I understand that I am giving up my right to be heard and to argue against allegations made by the Executive Officer in the Administrative Civil Liability Complaint, and against imposition of the amount of civil liability proposed.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name, printed

\_\_\_\_\_  
Title



# State Water Resources Control Board



Alan C. Lloyd, Ph.D  
Agency Secretary

Office of Statewide Initiatives  
1001 I Street • Sacramento, California 95814 • (916) 341-5276  
Mailing Address: P.O. Box 100 • Sacramento, California • 95812-0100  
Fax(916) 341-5284 • <http://www.swrcb.ca.gov>

Arnold Schwarzenegger  
Governor

**TO:** Kimberly Gonzalez,  
Central Coast Regional Water Quality Control Board

**FROM:** Rafael Maestu,  
Research Program Specialist  
Office of Statewide Initiatives,  
State Water Resources Control Board

**DATE:** April 12, 2005

**SUBJECT:** Economic Benefit of noncompliance. City of Santa Cruz Parks and Recreation Department. De Laveaga Golf Course - NPDES Permit NO. CAS000002

The Effectiveness and Economics Unit of the State Water Resources Control Board has prepared the following analysis of economic benefit of noncompliance for the De Laveaga Golf course for the period of April 21, 2004 to April 30, 2005. The economic analysis was prepared following USEPA guidelines on calculation of economic benefit and following the procedures set forth in the Water Boards Enforcement Policy.

## Summary and Conclusions

Based on the assumptions specified in this document, we conservatively estimate that De Laveaga Golf Course, as of April 12, 2005, derived the present value of economic benefit in the amount of \$130,500 by delaying the grading operations to the wet season when the number of golfers are lower and by not installing an adequate erosion control system to comply with the requirements set forth in NPDES Permit No. CAS000002. To reach this determination, we considered that the least cost alternative would have been to "complete work prior to the onset of the rainy season..." as specified in the De Laveaga Golf course Master Plan Initial Study/Mitigated Negative Declaration dated May 2003.

The estimated revenue based on the hypothetical compliance scenario is \$581,000 and the estimated revenue under the actual noncompliance scenario is \$711,500. Economic benefit is the difference between the after-tax net present values of the cash flows associated with the two scenarios: The economic benefit is estimated to be \$130, 500.

In our calculations, we also took into consideration other compliance scenarios and costs. According to the Central Coast Water Board, the Discharger failed to implement adequate best management practices (BMPs), and the Stormwater Pollution Prevention Plan was not properly implemented and failed to implement erosion controls. However, we were not able to identify a specific economic benefit due to the use of inadequate BMPs. We assumed that, in order to prevent erosion and offsite transport of sediments, it might have required the Discharger to deploy more costly BMPs (e.g., such as hydroseeding with bonded fiber matrix, constructing temporary sediment basins, operating stormwater filtration systems, etc). These alternative BMPs would have been more costly than doing the grading during the dry season. In economic benefit analysis we assume that the compliance scenario would have been done under the least cost alternative. In this case we assume that doing the grading during the dry season would have been the least cost scenario compared to implementing more costly BMPs.

In addition, we believe our estimates are conservative because:

- The Discharger was not able to provide specific numbers on the number of golfers for the period under consideration. The Discharger estimated that during the dry session the average number of golfers was 200 per day and during the wet season may had been as many as 50 per day. Based on these higher numbers the economic benefit of noncompliance may have been as high as \$520,400. We have not recommended that amount because the number of golfers may include high school students that play for free.
- In our calculations and analysis we have not included other potential income generated from golfers besides golf fees such as golf cart rental fees (normally \$17 per rental), proshop and restaurant sales and driving range fees. We have also conservatively considered that holidays would have the same number of golfers as a regular weekday.
- We did not have information to evaluate whether De Laveaga Golf Course gained any other economic benefits.

### **Methodology and Assumptions**

USEPA guidelines recommend separating the avoided cost from the delayed cost in calculating the economic benefit of noncompliance. The process of calculating the economic benefit may be summarized as:

*“Economic benefit is the difference between the after-tax net present values of the cash flows (or change in asset values) associated with two scenarios: A) The hypothetical compliance scenario B) The actual noncompliance scenario...”*

The California Water Boards' Water Quality Enforcement Policy establishes the methodology to estimate economic benefit of noncompliance. In cases where the violations occurred because the Discharger postponed improvements to a treatment system, failed to implement adequate control

measures or did not take other measures needed to prevent the violations, economic benefit should be estimated as follows:<sup>1</sup>

- (a) Determine those actions required by an enforcement order or an approved facility plan, or that were necessary in the exercise of reasonable care, to prevent the violation.
- (b) Determine when and/or how often these actions should have been taken.
- (c) Estimate the delayed and avoided costs of these actions.
- (d) Calculate the present value of economic benefit using the BEN computer program.
- (e) Determine whether the Discharger has gained any other economic benefits.

In calculating the economic benefit for De Laveaga Golf Course we made the following assumptions and used the following information:

- (a) The least cost alternative to comply with the permit requirements would have been to complete construction before the rainy season.
- (b) Before construction, we estimated 160 golfers per day on weekends and 80 on weekdays if construction is done during the dry season, and 80 on weekends and 40 on weekdays during the wet season. During construction we estimated 40 golfers per day on weekends and 20 on weekdays if construction is done during the dry season and 20 on weekends and 10 on weekdays during the wet season. We assumed that on weekdays half as many people golfed as on weekends. We also assumed that during the dry season the number of people golfing is double than during the wet season.
- (c) Construction will take less time during the dry season than during the wet season. We assumed that construction would have take 163 days if done during the wet season and that will take 223 days in wet season. The 223 days in the wet season is based on the actual expected day of completion.
- (d) Greens fees before construction are \$50 during weekends and \$40 during weekdays. During construction fees are reduced significantly to \$10 every day. After the construction project is done the green fees are predicted to increase to \$55 on weekends and \$45 on weekdays.
- (e) We have not considered any other impact on other revenue sources apart from the green fees.
- (f) For the compliance scenario, we assumed the initial construction date to be April 21, 2004. For the noncompliance date we used the actual construction commencement date of September 20, 2004.
- (g) Due to the short period of time (less than a year) we have not considered the time value of money in our calculations and we believe it is not significant to factor into our calculation the inflation rates.

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<sup>1</sup> Water Quality Enforcement Policy, Section VII. F. (Pg 39.)

- (h) We have considered fixed costs for both alternatives; we assumed that variable costs are not significant since the use of the facilities by more or less golfers does not impact the variable and fixed costs. Therefore the difference in revenues will constitute the economic benefit,
- (i) The City of Santa Cruz Parks and Recreation Department is a non-profit organization and it is exempt from federal and state taxes.
- (j) We did not identify any other economic benefit derived from inactions to comply or any other gain in competitive advantage this may have provided the Discharger. Further research would be necessary to estimate this potential economic benefit.

State Water Board staff expended 8 hours in preparing this analysis.

**Summary of Calculations and Tables**

Revenues Hypothetical Compliance Scenario = \$581,000  
 Revenues Actual Noncompliance Scenario= \$711,500  
 Economic benefit of Noncompliance= \$130,500

**Table 1: Fees and Number of Golfers Before, During and After Construction**

**Before Construction**

	October - April		May - September	
	Weekend	Weekday	Weekend	Weekday
# Golfers:	80	40	160	80
Fees:	\$50	\$40	\$50	\$40

**During Construction**

	October - April		May - September	
	Weekend	Weekday	Weekend	Weekday
# Golfers:	20	10	40	20
Fees:	\$10	\$10	\$10	\$10

**After Construction**

	October - April		May - September	
	Weekend	Weekday	Weekend	Weekday
# Golfers:	80	40	160	80
Fees:	\$55	\$45	\$55	\$45

**Table 2: Daily Revenue Calculations Compliance and Noncompliance scenarios**

Date	Income from Green Fees		Comparison of starting construction in April vs September
	Compliance Scenario (hypothetical)	Noncompliance Scenario (estimated actual revenue)	
21-Apr-04	\$100	\$1,600	Dry Season Construction
22-Apr-04	\$100	\$1,600	2
23-Apr-04	\$100	\$1,600	3
24-Apr-04	\$200	\$4,000	4
25-Apr-04	\$200	\$4,000	5
26-Apr-04	\$100	\$1,600	6
27-Apr-04	\$100	\$1,600	7
28-Apr-04	\$100	\$1,600	8
29-Apr-04	\$100	\$1,600	9
30-Apr-04	\$100	\$1,600	10
1-May-04	\$400	\$8,000	11
2-May-04	\$400	\$8,000	12
3-May-04	\$200	\$3,200	13
4-May-04	\$200	\$3,200	14
5-May-04	\$200	\$3,200	15
6-May-04	\$200	\$3,200	16
7-May-04	\$200	\$3,200	17
8-May-04	\$400	\$8,000	18
9-May-04	\$400	\$8,000	19
10-May-04	\$200	\$3,200	20
11-May-04	\$200	\$3,200	21
12-May-04	\$200	\$3,200	22
13-May-04	\$200	\$3,200	23
14-May-04	\$200	\$3,200	24
15-May-04	\$400	\$8,000	25
16-May-04	\$400	\$8,000	26
17-May-04	\$200	\$3,200	27
18-May-04	\$200	\$3,200	28
19-May-04	\$200	\$3,200	29
20-May-04	\$200	\$3,200	30
21-May-04	\$200	\$3,200	31
22-May-04	\$400	\$8,000	32
23-May-04	\$400	\$8,000	33
24-May-04	\$200	\$3,200	34
25-May-04	\$200	\$3,200	35
26-May-04	\$200	\$3,200	36
27-May-04	\$200	\$3,200	37
28-May-04	\$200	\$3,200	38

Date	Income from Green Fees	
	Compliance Scenario (hypothetical)	Noncompliance Scenario (estimated actual revenue)
29-May-04	\$400	\$8,000
30-May-04	\$400	\$8,000
31-May-04	\$400	\$8,000
1-Jun-04	\$200	\$3,200
2-Jun-04	\$200	\$3,200
3-Jun-04	\$200	\$3,200
4-Jun-04	\$200	\$3,200
5-Jun-04	\$400	\$8,000
6-Jun-04	\$400	\$8,000
7-Jun-04	\$200	\$3,200
8-Jun-04	\$200	\$3,200
9-Jun-04	\$200	\$3,200
10-Jun-04	\$200	\$3,200
11-Jun-04	\$200	\$3,200
12-Jun-04	\$400	\$8,000
13-Jun-04	\$400	\$8,000
14-Jun-04	\$200	\$3,200
15-Jun-04	\$200	\$3,200
16-Jun-04	\$200	\$3,200
17-Jun-04	\$200	\$3,200
18-Jun-04	\$200	\$3,200
19-Jun-04	\$400	\$8,000
20-Jun-04	\$400	\$8,000
21-Jun-04	\$200	\$3,200
22-Jun-04	\$200	\$3,200
23-Jun-04	\$200	\$3,200
24-Jun-04	\$200	\$3,200
25-Jun-04	\$200	\$3,200
26-Jun-04	\$400	\$8,000
27-Jun-04	\$400	\$8,000
28-Jun-04	\$200	\$3,200
29-Jun-04	\$200	\$3,200
30-Jun-04	\$200	\$3,200
1-Jul-04	\$200	\$3,200
2-Jul-04	\$200	\$3,200
3-Jul-04	\$400	\$8,000
4-Jul-04	\$400	\$8,000
5-Jul-04	\$200	\$3,200
6-Jul-04	\$200	\$3,200
7-Jul-04	\$200	\$3,200
8-Jul-04	\$200	\$3,200

Comparison of starting  
 construction in  
 April vs September

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Date	Income from Green Fees		
	Compliance Scenario (hypothetical)	Noncompliance Scenario (estimated actual revenue)	
9-Jul-04	\$200	\$3,200	80
10-Jul-04	\$400	\$8,000	81
11-Jul-04	\$400	\$8,000	82
12-Jul-04	\$200	\$3,200	83
13-Jul-04	\$200	\$3,200	84
14-Jul-04	\$200	\$3,200	85
15-Jul-04	\$200	\$3,200	86
16-Jul-04	\$200	\$3,200	87
17-Jul-04	\$400	\$8,000	88
18-Jul-04	\$400	\$8,000	89
19-Jul-04	\$200	\$3,200	90
20-Jul-04	\$200	\$3,200	91
21-Jul-04	\$200	\$3,200	92
22-Jul-04	\$200	\$3,200	93
23-Jul-04	\$200	\$3,200	94
24-Jul-04	\$400	\$8,000	95
25-Jul-04	\$400	\$8,000	96
26-Jul-04	\$200	\$3,200	97
27-Jul-04	\$200	\$3,200	98
28-Jul-04	\$200	\$3,200	99
29-Jul-04	\$200	\$3,200	100
30-Jul-04	\$200	\$3,200	101
31-Jul-04	\$400	\$8,000	102
1-Aug-04	\$400	\$8,000	103
2-Aug-04	\$200	\$3,200	104
3-Aug-04	\$200	\$3,200	105
4-Aug-04	\$200	\$3,200	106
5-Aug-04	\$200	\$3,200	107
6-Aug-04	\$200	\$3,200	108
7-Aug-04	\$400	\$8,000	109
8-Aug-04	\$400	\$8,000	110
9-Aug-04	\$200	\$3,200	111
10-Aug-04	\$200	\$3,200	112
11-Aug-04	\$200	\$3,200	113
12-Aug-04	\$200	\$3,200	114
13-Aug-04	\$200	\$3,200	115
14-Aug-04	\$400	\$8,000	116
15-Aug-04	\$400	\$8,000	117
16-Aug-04	\$200	\$3,200	118
17-Aug-04	\$200	\$3,200	119
18-Aug-04	\$200	\$3,200	120

Comparison of starting  
 construction in  
 April vs September

Date	Income from Green Fees		Comparison of starting construction in April vs September
	Compliance Scenario (hypothetical)	Noncompliance Scenario (estimated actual revenue)	
19-Aug-04	\$200	\$3,200	121
20-Aug-04	\$200	\$3,200	122
21-Aug-04	\$400	\$8,000	123
22-Aug-04	\$400	\$8,000	124
23-Aug-04	\$200	\$3,200	125
24-Aug-04	\$200	\$3,200	126
25-Aug-04	\$200	\$3,200	127
26-Aug-04	\$200	\$3,200	128
27-Aug-04	\$200	\$3,200	129
28-Aug-04	\$400	\$8,000	130
29-Aug-04	\$400	\$8,000	131
30-Aug-04	\$200	\$3,200	132
31-Aug-04	\$200	\$3,200	133
1-Sep-04	\$200	\$3,200	134
2-Sep-04	\$200	\$3,200	135
3-Sep-04	\$200	\$3,200	136
4-Sep-04	\$400	\$8,000	137
5-Sep-04	\$400	\$8,000	138
6-Sep-04	\$200	\$3,200	139
7-Sep-04	\$200	\$3,200	140
8-Sep-04	\$200	\$3,200	141
9-Sep-04	\$200	\$3,200	142
10-Sep-04	\$200	\$3,200	143
11-Sep-04	\$400	\$8,000	144
12-Sep-04	\$400	\$8,000	145
13-Sep-04	\$200	\$3,200	146
14-Sep-04	\$200	\$3,200	147
15-Sep-04	\$200	\$3,200	148
16-Sep-04	\$200	\$3,200	149
17-Sep-04	\$200	\$3,200	150
18-Sep-04	\$400	\$8,000	151
19-Sep-04	\$400	\$8,000	152
20-Sep-04	\$200	\$200	153 <i>Actual Construction</i>
21-Sep-04	\$200	\$200	154 2
22-Sep-04	\$200	\$200	155 3
23-Sep-04	\$200	\$200	156 4
24-Sep-04	\$200	\$200	157 5
25-Sep-04	\$400	\$400	158 6
26-Sep-04	\$400	\$400	159 7
27-Sep-04	\$200	\$200	160 8
28-Sep-04	\$200	\$200	161 9

Date	Income from Green Fees		Comparison of starting construction in April vs September	
	Compliance Scenario (hypothetical)	Noncompliance Scenario (estimated actual revenue)		
29-Sep-04	\$200	\$200	162	10
30-Sep-04	\$200	\$200	163	11
1-Oct-04	\$1,800	\$100		12
2-Oct-04	\$4,400	\$200		13
3-Oct-04	\$4,400	\$200		14
4-Oct-04	\$1,800	\$100		15
5-Oct-04	\$1,800	\$100		16
6-Oct-04	\$1,800	\$100		17
7-Oct-04	\$1,800	\$100		18
8-Oct-04	\$1,800	\$100		19
9-Oct-04	\$4,400	\$200		20
10-Oct-04	\$4,400	\$200		21
11-Oct-04	\$1,800	\$100		22
12-Oct-04	\$1,800	\$100		23
13-Oct-04	\$1,800	\$100		24
14-Oct-04	\$1,800	\$100		25
15-Oct-04	\$1,800	\$100		26
16-Oct-04	\$4,400	\$200		27
17-Oct-04	\$4,400	\$200		28
18-Oct-04	\$1,800	\$100		29
19-Oct-04	\$1,800	\$100		30
20-Oct-04	\$1,800	\$100		31
21-Oct-04	\$1,800	\$100		32
22-Oct-04	\$1,800	\$100		33
23-Oct-04	\$4,400	\$200		34
24-Oct-04	\$4,400	\$200		35
25-Oct-04	\$1,800	\$100		36
26-Oct-04	\$1,800	\$100		37
27-Oct-04	\$1,800	\$100		38
28-Oct-04	\$1,800	\$100		39
29-Oct-04	\$1,800	\$100		40
30-Oct-04	\$4,400	\$200		41
31-Oct-04	\$4,400	\$200		42
1-Nov-04	\$1,800	\$100		43
2-Nov-04	\$1,800	\$100		44
3-Nov-04	\$1,800	\$100		45
4-Nov-04	\$1,800	\$100		46
5-Nov-04	\$1,800	\$100		47
6-Nov-04	\$4,400	\$200		48
7-Nov-04	\$4,400	\$200		49
8-Nov-04	\$1,800	\$100		50

Date	Income from Green Fees		Comparison of starting construction in April vs September
	Compliance Scenario (hypothetical)	Noncompliance Scenario (estimated actual revenue)	
9-Nov-04	\$1,800	\$100	51
10-Nov-04	\$1,800	\$100	52
11-Nov-04	\$1,800	\$100	53
12-Nov-04	\$1,800	\$100	54
13-Nov-04	\$4,400	\$200	55
14-Nov-04	\$4,400	\$200	56
15-Nov-04	\$1,800	\$100	57
16-Nov-04	\$1,800	\$100	58
17-Nov-04	\$1,800	\$100	59
18-Nov-04	\$1,800	\$100	60
19-Nov-04	\$1,800	\$100	61
20-Nov-04	\$4,400	\$200	62
21-Nov-04	\$4,400	\$200	63
22-Nov-04	\$1,800	\$100	64
23-Nov-04	\$1,800	\$100	65
24-Nov-04	\$1,800	\$100	66
25-Nov-04	\$1,800	\$100	67
26-Nov-04	\$1,800	\$100	68
27-Nov-04	\$4,400	\$200	69
28-Nov-04	\$4,400	\$200	70
29-Nov-04	\$1,800	\$100	71
30-Nov-04	\$1,800	\$100	72
1-Dec-04	\$1,800	\$100	73
2-Dec-04	\$1,800	\$100	74
3-Dec-04	\$1,800	\$100	75
4-Dec-04	\$4,400	\$200	76
5-Dec-04	\$4,400	\$200	77
6-Dec-04	\$1,800	\$100	78
7-Dec-04	\$1,800	\$100	79
8-Dec-04	\$1,800	\$100	80
9-Dec-04	\$1,800	\$100	81
10-Dec-04	\$1,800	\$100	82
11-Dec-04	\$4,400	\$200	83
12-Dec-04	\$4,400	\$200	84
13-Dec-04	\$1,800	\$100	85
14-Dec-04	\$1,800	\$100	86
15-Dec-04	\$1,800	\$100	87
16-Dec-04	\$1,800	\$100	88
17-Dec-04	\$1,800	\$100	89
18-Dec-04	\$4,400	\$200	90
19-Dec-04	\$4,400	\$200	91

Date	Income from Green Fees		Comparison of starting construction in April vs September
	Compliance Scenario (hypothetical)	Noncompliance Scenario (estimated actual revenue)	
20-Dec-04	\$1,800	\$100	92
21-Dec-04	\$1,800	\$100	93
22-Dec-04	\$1,800	\$100	94
23-Dec-04	\$1,800	\$100	95
24-Dec-04	\$1,800	\$100	96
25-Dec-04	\$4,400	\$200	97
26-Dec-04	\$4,400	\$200	98
27-Dec-04	\$1,800	\$100	99
28-Dec-04	\$1,800	\$100	100
29-Dec-04	\$1,800	\$100	101
30-Dec-04	\$1,800	\$100	102
31-Dec-04	\$1,800	\$100	103
1-Jan-05	\$4,400	\$200	104
2-Jan-05	\$4,400	\$200	105
3-Jan-05	\$1,800	\$100	106
4-Jan-05	\$1,800	\$100	107
5-Jan-05	\$1,800	\$100	108
6-Jan-05	\$1,800	\$100	109
7-Jan-05	\$1,800	\$100	110
8-Jan-05	\$4,400	\$200	111
9-Jan-05	\$4,400	\$200	112
10-Jan-05	\$1,800	\$100	113
11-Jan-05	\$1,800	\$100	114
12-Jan-05	\$1,800	\$100	115
13-Jan-05	\$1,800	\$100	116
14-Jan-05	\$1,800	\$100	117
15-Jan-05	\$4,400	\$200	118
16-Jan-05	\$4,400	\$200	119
17-Jan-05	\$1,800	\$100	120
18-Jan-05	\$1,800	\$100	121
19-Jan-05	\$1,800	\$100	122
20-Jan-05	\$1,800	\$100	123
21-Jan-05	\$1,800	\$100	124
22-Jan-05	\$4,400	\$200	125
23-Jan-05	\$4,400	\$200	126
24-Jan-05	\$1,800	\$100	127
25-Jan-05	\$1,800	\$100	128
26-Jan-05	\$1,800	\$100	129
27-Jan-05	\$1,800	\$100	130
28-Jan-05	\$1,800	\$100	131
29-Jan-05	\$4,400	\$200	132

Date	Income from Green Fees		Comparison of starting construction in April vs September
	Compliance Scenario (hypothetical)	Noncompliance Scenario (estimated actual revenue)	
30-Jan-05	\$4,400	\$200	133
31-Jan-05	\$1,800	\$100	134
1-Feb-05	\$1,800	\$100	135
2-Feb-05	\$1,800	\$100	136
3-Feb-05	\$1,800	\$100	137
4-Feb-05	\$1,800	\$100	138
5-Feb-05	\$4,400	\$200	139
6-Feb-05	\$4,400	\$200	140
7-Feb-05	\$1,800	\$100	141
8-Feb-05	\$1,800	\$100	142
9-Feb-05	\$1,800	\$100	143
10-Feb-05	\$1,800	\$100	144
11-Feb-05	\$1,800	\$100	145
12-Feb-05	\$4,400	\$200	146
13-Feb-05	\$4,400	\$200	147
14-Feb-05	\$1,800	\$100	148
15-Feb-05	\$1,800	\$100	149
16-Feb-05	\$1,800	\$100	150
17-Feb-05	\$1,800	\$100	151
18-Feb-05	\$1,800	\$100	152
19-Feb-05	\$4,400	\$200	153
20-Feb-05	\$4,400	\$200	154
21-Feb-05	\$1,800	\$100	155
22-Feb-05	\$1,800	\$100	156
23-Feb-05	\$1,800	\$100	157
24-Feb-05	\$1,800	\$100	158
25-Feb-05	\$1,800	\$100	159
26-Feb-05	\$4,400	\$200	160
27-Feb-05	\$4,400	\$200	161
28-Feb-05	\$1,800	\$100	162
1-Mar-05	\$1,800	\$100	163
2-Mar-05	\$1,800	\$100	164
3-Mar-05	\$1,800	\$100	165
4-Mar-05	\$1,800	\$100	166
5-Mar-05	\$4,400	\$200	167
6-Mar-05	\$4,400	\$200	168
7-Mar-05	\$1,800	\$100	169
8-Mar-05	\$1,800	\$100	170
9-Mar-05	\$1,800	\$100	171
10-Mar-05	\$1,800	\$100	172
11-Mar-05	\$1,800	\$100	173

Date	Income from Green Fees	
	Compliance Scenario (hypothetical)	Noncompliance Scenario (estimated actual revenue)
12-Mar-05	\$4,400	\$200
13-Mar-05	\$4,400	\$200
14-Mar-05	\$1,800	\$100
15-Mar-05	\$1,800	\$100
16-Mar-05	\$1,800	\$100
17-Mar-05	\$1,800	\$100
18-Mar-05	\$1,800	\$100
19-Mar-05	\$4,400	\$200
20-Mar-05	\$4,400	\$200
21-Mar-05	\$1,800	\$100
22-Mar-05	\$1,800	\$100
23-Mar-05	\$1,800	\$100
24-Mar-05	\$1,800	\$100
25-Mar-05	\$1,800	\$100
26-Mar-05	\$4,400	\$200
27-Mar-05	\$4,400	\$200
28-Mar-05	\$1,800	\$100
29-Mar-05	\$1,800	\$100
30-Mar-05	\$1,800	\$100
31-Mar-05	\$1,800	\$100
1-Apr-05	\$1,800	\$100
2-Apr-05	\$4,400	\$200
3-Apr-05	\$4,400	\$200
4-Apr-05	\$1,800	\$100
5-Apr-05	\$1,800	\$100
6-Apr-05	\$1,800	\$100
7-Apr-05	\$1,800	\$100
8-Apr-05	\$1,800	\$100
9-Apr-05	\$4,400	\$200
10-Apr-05	\$4,400	\$200
11-Apr-05	\$1,800	\$100
12-Apr-05	\$1,800	\$100
13-Apr-05	\$1,800	\$100
14-Apr-05	\$1,800	\$100
15-Apr-05	\$1,800	\$100
16-Apr-05	\$4,400	\$200
17-Apr-05	\$4,400	\$200
18-Apr-05	\$1,800	\$100
19-Apr-05	\$1,800	\$100
20-Apr-05	\$1,800	\$100
21-Apr-05	\$1,800	\$100

**Comparison of starting  
construction in  
April vs September**

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Date	Income from Green Fees	
	Compliance Scenario (hypothetical)	Noncompliance Scenario (estimated actual revenue)
22-Apr-05	\$1,800	\$100
23-Apr-05	\$4,400	\$200
24-Apr-05	\$4,400	\$200
25-Apr-05	\$1,800	\$100
26-Apr-05	\$1,800	\$100
27-Apr-05	\$1,800	\$100
28-Apr-05	\$1,800	\$100
29-Apr-05	\$1,800	\$100
30-Apr-05	\$4,400	\$200

**Comparison of starting  
 construction in  
 April vs September**

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 Expected end date

**Total**  
**Revenues:                      \$581,000                      \$711,500**  
  
**Benefit:                              \$130,500**