Attachment A - Special Protections for Trinidad Head Area of Special Biological Significance, Governing Telonicher Marine Laboratory Waste Seawater and Storm Water Discharges

Terms and Conditions:

Seawater System Waste Seawater

The discharge must comply with all other applicable provisions, including water quality standards, of the Ocean Plan. Natural water quality conditions in the receiving water must not be altered as a result of the discharge(s) and marine communities must be protected from pollution. Natural ocean water quality will be determined by a comparison to the range of constituent concentrations in reference areas agreed upon via the regional monitoring program(s) or in the absence of a North Coast regional monitoring program by the State Water Board in consultation with the North Coast Regional Water Quality Control Board (Regional Water Board).

TML will not discharge chemical additives, including antibiotics and chlorine, in the seawater discharge system effluent. In addition and at a minimum, TML, for its seawater effluent, must comply with effluent limits implementing Table B water quality objectives as required in Section III.C. of the Ocean Plan.

TML must pursue and implement a program for prevention of Biological Pollutants (non-native invasive species) in consultation with the California Department of Fish and Game Marine Resources Division.

Dry Weather Flows

TML must continue to prevent all discharges of non-storm water facility runoff (i.e., the discharge of facility runoff that reaches the ocean that is not composed entirely of storm water, not inclusive of waste seawater discharges), except those associated with the operation and maintenance of the seawater system, and emergency fire fighting.

TML must specifically address the prohibition of non-storm water runoff and the reduction of pollutants in storm water discharges draining to the ASBS in a Storm Water Management Plan/Program (SWMP).

The SWMP must describe the measures by which non-storm water discharges have been eliminated, how these measures will be maintained over time, and how these measures are monitored and documented.

Storm Water Runoff

The SWMP must also address storm water discharges, and how pollutants have been and will be reduced in storm water runoff into the ASBS through the implementation of BMPs. The SWMP must describe the BMPs currently employed and BMPs planned (including those for construction activities), with an implementation schedule.

Discharges must be free of trash, petroleum products and pesticides.

The BMPs and implementation schedule must be designed to ensure natural water quality conditions in the receiving water, and must meet effluent limitations for the co-mingled waste seawater and storm water effluent. The implementation schedule must be developed to ensure that the BMPs are implemented within one year of the approval date of the SWMP by the Regional Water Board.

The SWMP must include a map of surface drainage of storm water runoff, including areas of sheet runoff, and any structural Best Management Practices employed. The map must also show the storm water conveyances in relation to other facility features such as the laboratory seawater system and discharges, service areas, sewage treatment, and waste and hazardous materials storage areas. The SWMP must also include a procedure for updating the map and plan when other changes are made to the facilities.

TML is required to submit their final SWMP to the Regional Water Board within one year of the effective date of this exception.

Monitoring

Rocky Intertidal Marine Life Survey

At least once every permit cycle (every five years), a quantitative survey of rocky intertidal marine life must be performed near the discharge and at a reference site. The Regional Water Board staff, in consultation with the State Water Board's Division of Water Quality staff, must approve the survey design. The results of the survey must be completed and submitted to the Regional Water Board within six months of permit expiration. Alternatively this requirement may be met by participation in a regional monitoring program approved by the State Water Board staff.

Bioaccumulation Study

Once during the upcoming permit cycle, a bioaccumulation study using California mussels (*Mytilus californianus*) must be conducted to determine the concentrations of metals near the discharge and at a reference site. The Regional Water Board staff, in consultation with the State Water Board's Division of Water Quality staff, must approve the study design. The results of the survey must be completed and submitted to the Regional Water Board at least six months prior to the permit expiration. Based on the study results, Regional Water Board staff, in consultation with the Division of Water Quality staff, may adjust the study design in subsequent permits, or add additional test organisms. Alternatively this requirement may be met by participation in a regional monitoring program approved by the State Water Board staff.

Sediment Study

Once annually, the subtidal sediment and storm water outfall must be sampled and analyzed for Ocean Plan Table B constituents. For sediment toxicity testing, only an acute toxicity test using the amphipod *Eohaustorius estuarius* must be performed. Based on the first year sample results the Regional Water Board staff will determine specific constituents to be tested during the remainder of each permit cycle, except that acute toxicity for sediment must be tested annually. Alternatively this requirement may be met by participation in a regional monitoring program approved by the State Water Board staff.

Waste Seawater Effluent Monitoring

Flows for the seawater discharge system discharging to the ASBS must be measured monthly and reported quarterly to the Regional Water Board.

Once annually, an effluent sample collected from the waste seawater discharge during a filter backwash event during the dry season, must be analyzed for Ocean Plan Table A constituents (except oil and grease), Biochemical Oxygen Demand, salinity, temperature, and Ocean Plan Table B constituents (for marine life, except cyanide, phenolic compounds, endosulfan, endrin, and HCH). Ammonia must be measured at a detection limit of 10 µg/L. Based on the results from the first year Regional Water Board staff will determine the Table B constituents to be tested annually during the remainder of the permit cycle, except that ammonia nitrogen and chronic toxicity (for at least one consistent invertebrate or algal species) must be tested at least annually for the waste seawater effluent.

Storm Water Runoff Monitoring

Flows for storm water runoff (by storm event) must be measured (or estimated) monthly and reported annually to the Regional Water Board.

Once annually, during wet weather (storm event greater than 0.5 inch per day), the storm water runoff effluent (co-mingled with waste seawater effluent if necessary) must be sampled and analyzed from the storm drain for all Ocean Plan Table A constituents, and indicator bacteria.

Once every permit cycle, during wet weather (storm event), the storm water effluent must be sampled and analyzed additionally for Table B constituents (for marine aquatic life except acute toxicity) and PAHs.

The Regional Water Board may, at its discretion, and after receiving and analyzing the required water quality monitoring data, at the request of (MBA,HMS, TML), choose to reduce and/or eliminate certain monitoring requirements for constituents that routinely are found in concentrations below Ocean Plan objectives.

Receiving Water Monitoring

Pre-storm monitoring: At least once per permit cycle the receiving water adjacent to the seawater discharge system and storm water discharges must be sampled 24 hours prior to a storm event.

Post storm-receiving water adjacent to the seawater discharge system and storm water discharges must also be monitored every time the effluent is sampled and analyzed for the same constituents as annual waste seawater samples and storm water samples. The sample location for the receiving water will be in the surf zone immediately adjacent to the outfall location where effluent is sampled.

For receiving water monitoring, alternatively, this requirement may be met by participation in a regional monitoring program approved by the State Water Board staff.

Reference Site Monitoring

Reference samples must also be monitored at the same time as the effluent samples (twice annually) and analyzed for the same constituents as annual waste seawater samples and storm water samples. Reference samples will be collected in the ocean at a station determined via a regional monitoring program, or in the absence of such program by the State Water Board. Samples at the reference station during wet weather may be collected immediately following a storm event, but in no case more than 24 hours after, if sampling conditions are unsafe during the storm. Wet weather reference samples must be collected at the point where runoff from a reference watershed enters the ocean in the surf zone.

Alternatively this requirement may be met by participation in a regional monitoring program approved by the State Water Board.

Metals Analysis

For metals analysis, waste seawater, co-mingled waste seawater and storm water effluent, reference samples, and receiving water samples must be analyzed by the approved analytical method with the lowest minimum detection limits (currently Inductively Coupled Plasma/ Mass Spectrometry) described in the Ocean Plan.

Alteration of Natural Water Quality

If monitoring information indicates that *natural ocean water quality* is not maintained, but there is sufficient evidence that a discharge is not contributing to the alteration of natural water quality, then the Regional Water Board may make that determination. In this case, sufficient information must include runoff and seawater system effluent sample data that has equal or lower concentrations for the range of constituents at the applicable reference area(s).

If the results of receiving water monitoring indicate that the storm water runoff is causing or contributing to an alteration of natural water quality in the ASBS, as measured at the reference station(s), TML is required to submit a report to the Regional Water Board within 30 days of receiving the results. Those constituents in storm water that alter natural water quality or Ocean Plan receiving water objectives must be identified in that report. The report must describe BMPs that are currently being implemented, BMPs that are planned for in the SWMP, and additional BMPs that may be added to the SWMP. The report shall include a new or modified implementation schedule. The Regional Water Board may require modifications to the report. Within 30 days following approval of the report by the Regional Water Board, TML must revise its SWMP to incorporate any new or modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required. As long as TML has complied with the procedures described above and is implementing the revised SWMP, then TML does not have to repeat the same procedure for continuing or recurring exceedances of the same constituent.

Construction Activity Potentially Affecting the ASBS

TML will notify the Regional Water Board within 180 days prior to any construction activity that could result in any discharge or habitat modification in the ASBS. Furthermore TML must receive approval and appropriate conditions from the Regional Water Board prior to performing

any significant modification, re-building or renovation of the facilities within the ASBS, per the requirements of Section III.E.2 of the Ocean Plan.

Implementation in Permits

The Regional Water Board will include these mitigating conditions in a National Pollutant Discharge Elimination System (NPDES) permit, or a General NPDES permit, for the seawater effluent.