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CLEARWATER PORT LNG PROJECT
October 3, 2007 – Public Hearing re EIS/EIR Scoping

Testimony of Nathan Alley
Environmental Defense Center

Good afternoon. My name is Nathan Alley. I am an attorney with the Environmental Defense Center.

Today, I will briefly address the analysis of public safety and geologic risks for the proposed Clearwater Port Draft EIS/EIR.

LNG is a highly flammable substance. Contact with the liquid gas or its evaporant can cause cryogenic burns. The evaporant displaces oxygen in proximity to a leak and can cause asphyxiation. The vapor from the liquid gas, whether it be streaming from a pipeline or pooled on the ocean surface, ignites easily and can cause a "vapor cloud" flash fire. A flash fire burns quickly throughout its dispersion zone, which can reach for miles and into shipping lanes, and rushes quickly back to its source.

The DEIS/EIR must analyze the full range of impacts, including worst case scenarios, from a potential leak or accident. LNG terminals, tankers, and pipelines are susceptible to a number of potential release events, including: accidental collision with another vessel; a collision between the terminal and an offloading tanker; terrorist attacks; airplane strike; operating error; equipment malfunction and seismic activity.

The DEIS/EIR must include a full analysis of seismic hazards and fault-lines.

The DEIS/EIR must also analyze the impacts to the seafloor that will result from construction, anchoring, and pipeline installation activities.

LNG release events in the United States and in other countries should be analyzed.

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The proximity of the proposed project (both tanker traffic and the terminal) to shipping lanes must be addressed.

A 2007 report from the U.S. Government Accountability Office (GAO) indicates that the risk of a terrorist attack, in particular, has grown in recent years. Previous studies and risk modeling of LNG release events have been limited. Experts agree that the risks associated with LNG transport and processing, and the impacts associated with those risks, are ill-defined. The GAO's primary conclusion was that more and better studies must be done in order to protect public health and safety. Sandia National Laboratories is currently revising its 2004 Guidance on Risk Analysis and Safety Implications of a Large LNG Spill Over Water. An updated version will be available in 2008, and the DEIS/EIR should examine its analysis and conclusions.

The DEIS/EIR should set an appropriate Area to Be Avoided, based on FERC-approved methods, developed by ABS Consulting, for determining vapor dispersion and thermal radiation hazards.

The Coast Guard should prepare a Waterway Suitability Assessment for the proposed project.

The DEIS/EIR should evaluate the national security risks associated with increasing our dependence on foreign sources of fossil fuels.

Thank you, and we will look forward to seeing you again.

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Testimony of Karen Kraus
Environmental Defense Center

My name is Karen Kraus, and I am here tonight on behalf of the Environmental Defense Center.

The starting point for federal and State decision makers evaluating this Project is assessing whether California actually needs this natural gas. In evaluating need, the EIS/EIR should include up-to-date information on the State's current and projected energy *demand*. According to the California Gas & Electric Utilities, the projected demand for natural gas in the State is relatively flat. This is in line with historical data, which shows that natural gas consumption in California has actually *decreased* by 8.9% since 2000, even with a growing population.

The EIS/EIR should also evaluate all current and projected sources of energy *supply*, including conservation, efficiency, and renewable sources. For example, the document should consider the effect of the State's Renewable Portfolio Standard. This State law requires us to achieve 20% of our electricity demand from renewable energy sources by 2010, and the California Energy Action Plan requires us to achieve 33% of our demand from renewable sources by 2020.

Federal and State decision makers must also, of course, consider the wide range of adverse environmental impacts that would result from this Project. I will focus just on air quality impacts tonight.

The fundamental issue with this Project from an air quality perspective is that *offshore* sources of air pollutants create *onshore* air quality problems. The California Air Resources Board has determined that emissions within what it terms "California Coastal Waters" – an area up to 100 miles off the California coast – are likely to be transported onshore and affect onshore air quality.

Ventura County's air quality has improved over the years, but we still struggle to meet State and federal standards. Clearwater Port's platform and vessel emissions would include large amounts of Nitrogen Oxides, Reactive

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Organic Compounds, Particulate Matter, and other pollutants. These emissions will impact Ventura County's ability to meet state and federal standards, and the EIS/EIR must acknowledge and evaluate these *onshore* air quality impacts.

To do this, the document must inventory the full extent of Project emissions that are likely to impact onshore areas, including emissions from LNG carriers once they enter "California Coastal Waters." The document must also utilize reasonable, conservative, and transparent assumptions to estimate Project emissions. In addition, the document must identify mitigation measures that will mitigate impacts to *Ventura County's* air quality. This Project's air quality impacts would directly affect the health of Ventura County's residents, and those adverse health effects are not mitigated by providing air quality benefits in other regions.

Project emissions will also include significant levels of greenhouse gas emissions. Therefore, the EIS/EIR must address global climate change impacts. To do so, the document must include an inventory of all greenhouse gas emissions resulting from the full life cycle of the Project – from extraction to consumption. Global climate change impacts from all phases of the Project will be felt worldwide, including in California.

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Testimony of Shiva Polefka
Environmental Defense Center

Good Afternoon, my name is Shiva Polefka, and I represent the Environmental Defense Center in Santa Barbara, California. My comments focus on the scope of two of the most important sections of the forthcoming EIS/EIR, ocean water quality, and marine biological resources.

With regard to the first of these two sections, the bottom line is that this project likely embodies significant potential for harmful discharges, whether purposeful or accidental, to not only degrade ocean water quality surrounding the proposed site, but to illegally enter and harm nearby marine protected areas, such as California State Areas of Biological Significance, the Channel Islands National Marine Sanctuary, and the Federal and State Marine reserves.

These discharges could include intentional and unintentional sewage discharges from ships and the platform, spills of diesel of bunker fuel from the ships or platform, or accidental damage to-- or rupturing of-- the existing oil and gas pipelines the run from Gail to Grace to the Mainland.

Due to complex sea bed construction and vessel anchoring that may occur around the site, the latter scenario must be particularly scrutinized. In general. The EIS/EIR should include thorough disclosure of the potential extent of environmental harm from such spills, as well as detailed spill prevention and response plans for agency and public review. Given the proximity of the facility to numerous highly sensitive and legally protected MPA's, development of these plans and their disclosure for scrutiny must begin with the first draft of the EIS/EIR, and cannot be deferred.

Second, NorthernStar's application identified that the driving of at least two "anchor piles" is to be associated with installation of the SSP floating dock system. and could involve major disturbance of the existing shell and oil drilling debris mounds on the seafloor around Platform Grace. Such debris mounds are

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known to include numerous constituents that, if resuspended, could seriously impair surrounding water quality and expose marine biota to toxic and bioaccumulative chemicals.** In order to protect the environment and assure the public and other agencies that the SSP floating dock installation will not result in illegal discharge of toxic water pollutants, the EIS/EIR must include detailed analysis of the metals and compounds that exist within Platform Grace's debris mounds, an accurate estimate of the extent and duration of proposed disturbance of the mounds, the quantity and constituent profile of toxic material that will be suspended in the water column due to Northernstar's proposed disturbance, and detailed plans to minimize both intentional and accidental disturbance of these potentially toxic piles. In addition, the potential impacts of pollutant resuspension on the marine biological communities that exist around the mounds and on the Platform's jacket and legs must be thoroughly detailed and mitigated.

With regard to marine biological resources, at least four major issues of concern must be rigorously analyzed for impacts and mitigation, including general degradation of resources and illegal takes of protected species that could impact recovery of depleted, threatened or endangered populations.

First, Pile driving – the applicant proposes extensive high intensity pile driving into the seafloor. A large body of scientific research demonstrates that pile driving noise harm or kill proximate fish, which is a major concern given the large numbers of rock fish that are known to exist around the legs and jacket of Platform Grace. In addition, noise from pile driving like that proposed by the applicant is known to significantly exceed NOAA's regulatory thresholds for harassment and harm of marine mammals and turtles, a major concern given the array of these species that exist year round in the area.

Second, underwater noise pollution–noise from the LNG carriers arriving, docking and departing the facility is likely to impact marine mammals and fish. The high intensity, low frequency noise caused by large vessels can result in threshold shift, masking, harassment and habitat avoidance in marine wildlife. Because this project will add significant additional ship traffic to the region. the extent of the ships' underwater noise pollution, and its direct and cumulative effects must be disclosed, analyzed and mitigated. In particular. the EIS/EIR must depict the NOAA-established acoustic harassment and harm isopleths for all major activities associated with the project, including construction, incoming and departing LNG ship traffic, ship docking and undocking activities including both LNG carrier and tug boat emissions with both one and two LNG tankers docked at the SSP. Also the SLC and USCG should initiate consultation with NOAA fisheries at the beginning of this process rather than at the end to ensure impacts are comprehensively disclosed and analyzed, and appropriately mitigated.

- [The applicant should not be given a pass on these discrete, predictable, and analyzable emissions and their potentially

significant impacts to the areas rich and sensitive marine biota simply because other shipping occurs in the area.]

Shipstrike – Large vessel traffic associated with the terminal undeniably portends an increase in the likelihood of collisions with whales resulting in serious harm or death for the animals. Given the very low levels of human caused mortality that local populations of blue, sperm, fin and right whales can sustain, the EIS/EIR must not only include detailed analysis of this impact, but an exhaustive mitigation plan to prevent ship strikes in the Channel. Again, NOAA Fisheries should be consulted early in the process, before release of the DEIS/EIR.

Night lighting – Given the profoundly adverse effects that artificial night lighting can have on sea birds and migratory song birds, and the close proximity of the proposed terminal to key reproductive habitats on the Channel Islands for an array of protected bird species, the EIS/EIR must include detailed, enumerated lighting plans that include a catalog of lights proposed for the retrofitted platform, the SSP, and the vessels themselves, as well as a detailed plan of how adverse lighting effects will be mitigated. Regional ornithologists and expert State and Federal staff should be consulted early on in this process to ensure lighting effects are minimized the maximum extent.

Like the Cabrillo Port terminal that the State Lands Commission rejected, the proposed project is likely to cause an array of significant negative impacts on water quality and marine wildlife. Given both extraordinary proximity of the proposed site to the Northern Channel Islands and its extraordinary biodiversity, and because of the myriad challenges associated with redeveloping an old oil-drilling platform, in many areas the impacts could be comparatively worse.

Consequently, EDC and public deserves and expects a DEIS/EIR comprising meticulous scrutiny and impact analysis of a rigor commensurate with the gravity of environmental risks this project appears to embody.

**Debris mound analysis at the site of Platform Hazel contracted by the SLC and CCC in 2001 identified numerous harmful heavy metals and organic compounds at levels that significantly exceeded those of reference sites. Testing of debris mound sediments revealed a level of toxicity capable of killing 50% of a given invertebrate test organism at 48% concentration. "Strata 1 and Strata 2 of the debris mounds have relatively high concentrations of several metals and organics and would not meet offshore disposal criteria."]