PROPOSAL
TO RETIRE THE ORCA KNOWN AS LOLITA
TO HER NATIVE HABITAT IN THE PACIFIC NORTHWEST

On January 24, 2014 NOAA Fisheries proposed a rule to grant Lolita equal status with her family, described in 1975 as the Southern Resident Killer Whales (SRKW) as a member of an endangered population. The comment period drew more than 10,000 comments, with the final determination expected in late January 2015.

The Marine Mammal Commission, an independent agency of the U.S. Government, established by Congress to provide independent oversight of the marine mammal conservation policies and programs being carried out by federal regulatory agencies, said this in an August 2013 letter to NOAA and the USDA:

> If NMFS agrees that it should not exclude captive animals from a listing under the Endangered Species Act, then it also will need to consider what can or should be done with Lolita. The petitioners advocate that Lolita be transferred to a sea pen within the range of the wild southern resident killer whale population or be released back into the wild.

See comments by Steve Mashuda of Earthjustice (http://www.orcanetwork.org/Main/PDF/EarthjusticeCommentsLolitaInclusion032714.pdf) and Naomi Rose of the Animal Welfare Institute (https://awionline.org/sites/default/files/uploads/documents/AWI-LolitaESAListingComments-03272014.pdf).

For those who write articles or blogs, please consider this plan in your media. The issue now is not whether the science and precedents support this plan. If Lolita's future is ultimately decided by NOAA Fisheries, it will be a judgment call largely based on the answer to the question: Would Lolita be safer in the undersized display tank in Miami, or back in her home waters with human companionship and care?

Even if/when she is finally determined to be a member of her family under the ESA, if NOAA Fisheries believes her health or her family's health could be harmed by her return to her native waters they may not allow her to be retired. We have drafted some basic points to make here to clarify those issues:

3 essential points to make:

1. There is no significant risk to Lolita in any stage of Orca Network's proposal for Lolita's retirement in her native waters.

a. Transport of orcas according to established protocols can be stressful and must be done professionally and cautiously, but is commonly done and has never resulted in serious health issues for orcas;

b. Immersion of captive marine mammals in their native waters is considered therapeutic in veterinary literature;

c. The initial immersion is likely to be followed by exploration of the seapen environs, and heightened energy and metabolic strength, as demonstrated by Keiko upon immersion in Icelandic waters;

d. Her ability to catch and eat wild fish is likely to begin to resume in a matter of weeks or months, again as demonstrated by Keiko.

2. A thorough examination will be conducted by a team of veterinarians and pathologists prior to transport to detect any potential communicable diseases. Assuming there are not, there will be no significant risk to any members of the Southern Resident Community as a result of Lolita's return to her native waters.

Conclusion: there is no harm to Lolita or her family involved in returning her to her home waters.

3. Remaining in captivity will result in continuing mental and physical stresses and health issues.

a. Abundant evidence, including peer-reviewed scientific publications, indicate that captivity increases mortality rates for orcas;

b. Due to her loneliness from living without the companionship of another orca for over three decades, and due to her exposure to the midday Miami sun, and due to the extremely small size of the tank that has been her only environs for over four decades, she is continually suffering as long as she remains in captivity;

c. Despite Lolita's unlikely good health at over 45 years of age, she is still subject to the adverse effects of captivity on her emotional, mental and physical health.

Remaining in captivity DOES constitute real harm to Lolita, and given her relatively good health notwithstanding her conditions, she is an excellent candidate for return to her native waters for retirement under human care in a seapen, and potentially for eventual full release.

Why retirement of an orca held captive for decades would be safe and beneficial

The physical form and function of orcas and other odontocetes were adapted over 15 to 30 million years for long distance travel and acute awareness in vast and thriving ecosystems. Their intelligence developed over eons for lives in large, complex, extended families. Their brains, their cardiovascular systems, their senses, like echolocation, are all the result of millions of years of adaptations for life in marine environments as members of large societies.

Lolita's family is well known, her probable mother is still alive, and there is no reason to believe she and her family would not recognize one another. Other captive orcas whose families can't be located could be retired to bay pens that would provide comfortable, healthy surroundings. Captive born orcas, even if they don't have memories of the natural world, can be cared for in a bay pen and have access to that world. All these captives would gain strength and return to good health in natural seawater suroundings. There is no real risk involved in rescuing any of these captives.

See ***A Review of the Releasability of Long-Term Captive Orcas*** (http://www.orcanetwork.org/nathist/releasability/homepage.html)

Proposal to Retire Lolita

This draft proposal is submitted for discussion and revision in the assumption that all concerned want the best for Lolita. All lines of inquiry indicate that moving Lolita from Miami to her home in the Pacific NW would provide for her best welfare.

The underlying assumption, evident throughout this draft proposal and the entire Lolita Retirement Plan, is that the owners of the Miami Seaquarium are responsible for Lolita's welfare, and that by contributing to her retirement planning they will honor her service and demonstrate their affection for her. The sustained and willing assistance from trainers, veterinary staff and park management will be essential to ensure Lolita's transport and transition back to her native waters are accomplished as smoothly as possible. This proposal is intended to be the basis for substantive discussions and will be subject to suggestions and revisions by representatives of the Miami Seaquarium, the scientific advisory staff of the Lolita Retirement Plan, and officials involved in permitting processes.

Prepared by Center for Whale Research Friday Harbor, WA 98250 and Orca Network, Freeland WA 98249.

Executive Summary: How to safely return Lolita to her home waters

All concerned parties agree that Lolita's well-being is of paramount importance. This proposal will set forth:

That all phases of transporting Lolita to a well-prepared, professionally supervised rehabilitation and retirement facility in a protected inland cove in her native waters can be accomplished safely and will provide the best outcome for her long terms health and safety;

That a major national public relations outreach program describing LolitaÕs move to Washington waters, combining news media with publicity paid by the Lolita Retirement Plan and the Miami Seaquarium, will ensure positive recognition and publicity for the Miami Seaquarium;

Details of the step-by-step process of preparation, transportation, rehabilitation, and readaptation to Northwest marine conditions. The plan will also describe the contingencies by which any consideration may be made to allow Lolita to return to her immediate family - L pod - and her extended family, the Southern Resident killer whales (SRKW).

Background and introduction

The orca known as Lolita (first called Tokitae) was captured in Penn Cove, Whidbey Island, Washington State, on August 8, 1970, one of a group of seven orcas captured at that time, among over 40 orcas captured between 1965 and 1973, for sale to marine parks. Recent information from a biologist present at the capture indicates that she was probably 2 to 4 years old at capture. She was, and remains, a member of the Southern Resident Orca community.

After capture Lolita was sent to a whale stadium at the Miami Seaquarium, where she joined a juvenile male named Hugo. Hugo had been captured at an estimated three years of age from the same orca community in February, 1968, though there was no knowledge about orca communities at that time. He died in March of 1980 of a brain aneurism after repeatedly ramming his head against the walls and windows.

Since 1980 Lolita has not come into contact with any other orca. Several Pacific white-sided dolphins and a Risso's dolphin and at least one sea lion have shared the whale stadium pool with Lolita from time to time.

It is reasonable to assume that in spite of the chlorination of her tankwater, Lolita was exposed, through shared water sources, to pathogens potentially carried by other captive dolphins and pinnipeds at MSQ or by humans or her water or food supply. Thus, it will be required that Lolita undergo a complete examination for such pathogens prior to her transport to Washington State.

All the other captured members of the Southern Resident Community died in captivity by 1987. By virtue of her survival in relatively good health, Lolita is an extraordinary orca. As described by Dr. Jesse White when he chose her for the Seaquarium, Lolita is "so courageous, and yet so gentle." Her longevity as a performing orca is remarkable, in part probably due to the high quality diet, medical care and activity regimen provided by the Seaquarium, and her immersion in chilled, natural seawater.

Lolita continues to vocalize in the unique calls used only by her family and community, indicating that she retains her memories of her days prior to capture. These memories may also be a factor in Lolita's longevity, and bode well for the prospect that she could successfully recall, and readapt to, her native habitat with the likelihood of enhancing her life-span, and potentially reintegrate with her natal society.

If Lolita is able to reintegrate with her family she could play an important role as surrogate mother for orphaned males. For example, the orphaned teenaged males L87, and L95 have been adopted by much older females and are seen with them continuously. Obviously this is important to the males and probably to the females, and Lolita could in years to come play the role of surrogate mother to young males. Alloparenting is also common among Southern Residents, in which females take charge of the juvenile offspring of other females for a few hours, allowing the mothers to focus on foraging or other activities. Lolita could perform that role as well. After a few years of re-acquainting herself with the best foraging locations, times, and strategies, Lolita could become a leader for her matriline, and could become the source of guidance for her immediate family at the least.

It is hoped that all involved parties can share in this great adventure.

Photographic and historical records show that Lolita was a member of the SRKW. Unlike any other mammalian species known, this orca community experiences no dispersal or recruitment, except by birth and death. Thus it is a genetically and behaviorally unique and intact extended family that has been intensively studied consistently since 1973. Three female members of the community who were present at the time of Lolita's capture in 1970 are still alive, two of which could be her mother.

The SRKW's association patterns, genealogical structure, maturation rates, birth rates, longevity and mortality rates, and habitat usage patterns are photographically documented on a daily basis by the Center for Whale Research on San Juan Island, WA. Those data provide the foundation for studies conducted by federal and state agencies and other organizations and researchers.

In 2001 a landmark paper was published in the British Journal of Behavioural and Brain Sciences called Culture in Whales and Dolphins, by Rendell and Whitehead. The authors conclude that: *The complex and stable vocal and behavioural cultures of sympatric groups of killer whales (Orcinus orca) appear to have no parallel outside*

humans and represent an independent evolution of cultural faculties.

Since 1970 Lolita has performed reliably, entertaining countless visitors to the Miami Seaquarium with her immense power, her graceful performances and the trust and cooperation she demonstrates with her trainers. She has proven to be exceptionally robust, outliving by over two decades all of the more the 40 other orcas from her community that were captured and delivered to marine parks within three years before or after her capture. Since 1987, when Lolita became the last surviving captive from her community, she has represented a unique opportunity to examine the strength and durability of the memories and communication systems of Orcinus orca. Various research projects were proposed at that time and in following years to engage Lolita in a communication experiment to test those abilities. It would be technologically feasible to facilitate two-way communication between Lolita, in the tank in Miami, and her family members along the west side of San Juan Island, to test the level and quality of communications between them.

Since 1993 a broad-based constituency, aware of Lolita's situation, has been dedicated to her return to her home waters. Worldwide, a consensus has developed that the capture of wild orcas for marine parks harms the animals and typically shortens their life spans, resulting in a de facto moratorium on further captures. Despite breeding programs, the overall captive orca population has decreased from about 55 in 1989 (at the time of the last capture program) to approximately 44 today. [Note: Russia has recently captured 8 orcas and has shipped at least one of them to China, increasing the global number of known captive orcas to 55.] This downward trend indicates that no replacement is likely to be found for Lolita when she dies or leaves the Miami Seaquarium.

Summary of retirement plan and procedures for retiring Lolita to her native waters

Beyond general acceptance of the merits of Lolita's retirement, Seaquarium staff are needed for pre-transport preparation and research, all stages of transport, and for Lolita's initial care in her retirement facility, both to apply their long-term familiarity with her daily habits and the details of care protocols and to reduce stress and enhance Lolita's confidence and trust as the transport proceeds. Seaquarium staff will be invited to examine the retirement facility in advance of transport to advise on any particulars of the facility or procedures. The best results will come when all principle parties effectively collaborate in the planning process.

The Lolita Retirement Project, in partnership with the Miami Seaquarium and other professional marine mammal care personnel, will make arrangements and preparations to transport Lolita to a netted sea-pen in a protected cove on San Juan Island.

On San Juan Island Lolita will be medically supervised, provided with the same fish diet she is accustomed to and given structured companionship sessions. Initially she will be provided the same diet she is accustomed to, while gradually testing her responses to live salmon.

If deemed advisable by scientific and veterinary personnel, Lolita will gradually be allowed to swim outside the netted enclosure while accompanied by her care staff on a boat equipped with a recall signal device. Over time she should be given the opportunity to swim greater distances while rebuilding her strength and stamina.

If she appears to be unwilling or unable to venture outside her pen, she will be provided with sustenance, medical care, training regimens and human companionship indefinitely.

As a prime mover in this well-publicized retirement project, the Miami Seaquarium would gain immensely in highly positive free publicity by publicly facilitating the retirement of the whale that has been identified with the Seaquarium for over 43 years. The following proposal provides details of all phases of LolitaÕs retirement to her native waters. There is no significant risk to Lolita involved in any phase of this project. In fact, remaining in the undersized tank in Miami presents a far greater risk to LolitaÕs health than her transport and placement in a baypen in her native waters.

It is important to note that transport of orcas by air is a routine practice among marine parks and has never resulted in any harm to an orca. Also important is the successful return of Keiko to Iceland, where his health improved and his energetic activity increased immediately upon immersion in his native waters.

Lolita's Retirement Plan Proposal

A. The goal

The primary goal of the Lolita Retirement Plan is to relocate Lolita to a rehabilitation/retirement facility in an ocean water sea-pen in a protected cove in her native habitat in Washington State. Kanaka Bay, on the west side of San Juan Island has been selected for Lolita's pen. In 1976 two orcas were held in Kanaka Bay for 55 days prior to release. Throughout the transport and relocation, and as long as she remains in human care, she will continue to receive high quality food and medical care. The rehabilitation phase will be considered accomplished when Lolita demonstrates satisfactory metabolic strength and medical parameters, including a healthy diet, longer dive times and sustained power swims.

The secondary goal is to train Lolita for gradual open water exercises with progressively longer boat-follow training (based on US Navy Operation Deep Ops) to further build her strength to eventually approximate the physical condition of her family pod members. Control by training staff will continue to be exerted throughout this phase of the project.

This proposed plan includes some of the valuable scientific research opportunities associated with every phase of this project. This proposal is intended to offer a plausible process for Lolita's retirement in her natal habitat in Washington State, and to stimulate discussions about how best to accomplish that goal. The following is a general outline of the plan and the organizational structure needed to carry it out. Many details of this plan are expected to be reconsidered and modified as principle parties work together for Lolita's best interests.

B. Pre-transport preparations and research goals

Natal population research: As discussed by Brill and Freidl (1993) in their report to Congress concerning reintroduction of surplus Navy dolphins, an important component to any reintroduction program is a thorough understanding of the native population into which the animal is to be released. Since 1973, Lolita's natal community has been, and continues to be, comprehensively documented, and is considered the most intensively researched cetacean population worldwide. Demographic parameters such as longevity, birth rates, maturation rates, mortality rates, prey selection and availability, social systems, reproductive strategies, contaminant exposure, habitat usage, genetic profile and acoustic communication systems are well documented on an on-going basis. Little or no additional effort will be required to accomplish this goal.

Environmental assessment of retirement site: Space requirements, water quality, perimeter security, etc. will be examined prior to transport.

Permitting: Applications will be made for all relevant permits for use of retirement site (US Army Corps of Engineers, sate, county and town permits and approvals), and all required federal permits will be applied for and fully complied with.

Preparation for transport: Lolita will be comprehensively examined by a team of veterinarians for overall health and any communicable pathogens (e.g., normal blood and chemistry parameters, no morbillivirus, no hepatitis B virus). Seaquarium staff will condition Lolita to position herself in a sling. Other pre-transport protocols will be followed.

Transport: A transport crate will be found or built to ride on a flatbed semi-truck for transport to Miami-Dade International Airport. Either a commercial carrier or military aircraft will carry Lolita in her crate to Whidbey Island. A 6,700' runway is available at the Bellingham International Airport, located 3 miles from the Bellingham wharf, where industrial dockage allows Lolita's transfer from a flatbed truck carrying her in her sling and still in her cradle. She would be lowered in her sling, slowly, into a floating seapen at least 40' x 60' with a rigid frame to be towed the fifty miles to the seapen at Kanaka Bay. This will be her first contact with her native waters since her capture in 1970. At that point the gates of the floating pen and the seapen would be opened and she would be allowed to enter her seapen.

See more at: Transport of Lolita from Miami to her Natal Water (http://www.orcanetwork.org/Main/PDF/Lolitatransportplan.pdf).

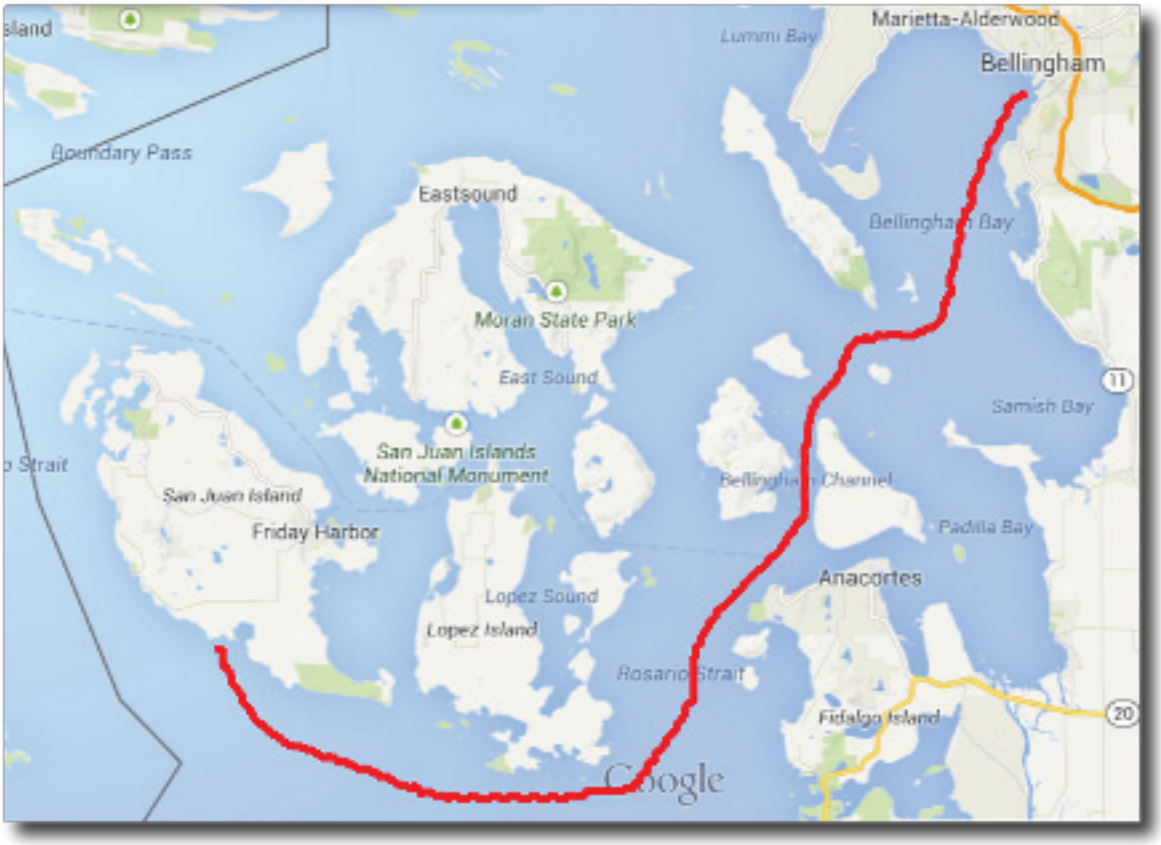
The Facility: A protected cove on the west side of San Juan Island, Kanaka Bay, will be the site of Lolita's retirement facility. This cove was used in 1976 to care for two captured orcas for two weeks prior to their release. The eyebolts are still in place for holding the sea-pen net. In addition to the stationary sea-pen, and the floating sea-pen for use as needed for medical procedures, the facility will include a live-aboard boat or boats for accomodations for veterinary, training and security staff, and fish storage.

A variety of measures will be taken to prevent public intrusion during the course of Lolita's rehabilitation and retirement. The site is away from public roads and access can be controlled with security personnel. Kanaka Bay is recessed from view from the travelled waters along the west side of San Juan Island, and can be partitioned with bouy lines to prevent boat traffic from a 200-300 yard perimeter. A 1,000 yard aircraft ceiling will be enforced by video security. 24-hour security will be employed to prevent unauthorized approaches.

C. Rehabilitation procedures

Procedures to be followed after Lolita's return to Washington State will be adapted to her behavioral and medical responses. Protocols will be adjusted by veterinary staff, training staff and scientific advisors, and coordinated by the Project Manager, depending on foreseeable and unforeseeable contingencies.

See more detail about protocols for the training and acclimatisation of Lolita in her natal waters here: Rehabilitation Training Plan (http://www.orcanetwork.org/Main/PDF/rehabilitationtrainingplan.pdf).



Phase one - Transport, post-transport and transitional period

Before, during and immediately after transport Lolita should be provided with as much continuity with her previous conditions as possible. In addition to pre-transport training and other preparations, her trainer(s), veterinarian(s), and other support staff should accompany her in flight and during all stages of the transport.

They should remain with her for as long as possible after her arrival in Washington. Her current dietary regime, her medical prodecures and any medications, supplements, etc., should be continued at the discretion of her veterinarian.

The medical staff should include at least one experienced marine mammal veterinarian responsible for a written program of health care. Routine site visits should be conducted as prescribed by the veterinary staff and husbandry staff, including physical examinations and blood sampling and collection of other specimens, as directed by the veterinarian.

Lolita's progress from any given phase of these procedures to the next will be contingent on her ability to demonstrate sufficient health, vigor and behavioral adaptability to proceed to the next phase. Thus, an exact timetable for the duration of each phase cannot be determined in advance of concurrent observations of her behavior and condition. The immedate goal is to provide Lolita with a suitable retirement situation in her native waters. Lolita will be maintained in the sea-pen unless and until she consistently demonstrates clean health records for a period acceptable to the consulting veterinarian. At that time a National Marine Fisheries Service (NMFS) scientific research permit (SRP) pplication may be submitted to reintroduce Lolita to her family.

Phase two - Subsequent maintenance and training protocol

After Lolita is fully acclimatized to her sea-pen, surroundings and staff, and is observed to exhibit normal metabolic strength, stress levels and physical parameters, boat-follow exercises should be carried out, partly based on PROJECT DEEP OPS: Deep Object Recovery with Pilot and Killer Whales. (Bowers, C.A. and R.S. Henderson, 1972). In 1970 and 1971 two juvenile male killer whales were maintained in US Navy sea-pens in Hawaii and were trained to follow boats up to fifty nautical miles and dive hundreds of feet deep on an almost daily basis. Similar Navy training regimens continue to be carried out using bottlenose dolphins. With the consent of veterinary and scientific staff, Lolita will begin boat-recall training, in which she will be trained to come to an acoustic signal, while remaining within the sea-pen. During this time, she should demonstrate the ability to forage effectively on live fish for essentially all her caloric requirements. Subsequently, boat-recall training should take place outside her sea-pen, in a larger area which has been temporarily netted off.

When recall-training is accomplished within the larger netted area, she should be led out of Kanaka Bay for boat-follow exercises for varying lengths of time in Haro Strait, Rosario Strait and the Strait of Juan de Fuca to further rebuild her swimming and diving strength, stamina and skills. She should be monitored for several months during extended boat-follow exercises, with food supplementation available if needed. If her behavior and condition do not warrant inception or continuation of boat-follow exercises, they should be discontinued and rehabilitation procedures within the sea-pen will be resumed.

Use of a radiotag for monitoring in case of her refusal to return to the boat or the sea-pen should be considered. It is anticipated that a tag would provide two to four months of telemetry data before it is shed, and that the tag would leave no permanent mark on Lolita. No additional identifying factor is required because photoidentification and visual recognition will suffice for monitoring purposes.

If efforts to rehabilitate Lolita to a level of health and stamina that is normal for the species are not successful after six months to a year of extended boat-follow exercises, long-term care and facilities should be arranged for Lolita's permanent retirement (see below).

Phase three - Potential reintroduction procedures

After a succession of extended boat-follow exercises for a period of several months, soft-release will occur for a period of two months after she demonstrates normal health and stamina. Soft-release is defined as providing a permanent opening in the perimeter fence of the sea-pen, while maintaining the infrastructure at the facility to assist her should she return to the sea-pen and solicit companionship or food. Her medical behaviors will be maintained until two weeks prior to soft-release.

If soft-release proves successful as determined by her behavior and condition, post-release monitoring, in

which Lolita will be located by radio tag or a network of trained shore observers operating from boats, and by aerial surveys, will be conducted for a minimum of twelve months after initial release (approximately two months soft-release followed by ten months monitoring).

If her condition and behavior continue to indicate successful readaptation at the end of this period, reintroduction will be considered complete and a final report will be submitted to NMFS. Systematic and opportunistic monitoring will continue indefinitely through an established observer network consisting of American and Canadian marine mammal researchers, commercial whale-watch operators, the Soundwatch and Straitwatch boater education programs, and hundreds of boat and shore-based observers. Observations should be received and coordinated by the Orca Network Sightings Network to be transmitted to appropriate personnel and authorities.

D. Potential retirement procedures

If, during or after the soft-release or monitoring phases, she does not return to the sea-pen and does not appear to be successfully readapting to the wild (e.g., if she is exhibiting weight loss, erratic or aberrant behavior such as begging for food or attention, or other nuisance behaviors), a recapture plan should be initiated using a professional orca capture team if necessary to return her to the sea-pen for additional rehabilitation. If a second effort at reintroduction proves unsuccessful, she should be maintained indefinitely at a permanent bay pen facility. An endowment fund should be created to provide financial support expenses for her long-term care and nutritional needs.

E. Project management

Steering commitee

An executive steering committee should be created and tasked with overall direction of the project. The steering committee should include members of the Lolita Retirement campaign, the Project Manager, a representative of the Seaquarium, NOAA FIsheries officials, and respected members of the marine mammal scientific community.

Project manager

A salaried project manager should enact on-site management and day-to-day operations. The Project Manager should have knowledge of the Southern Resident orca community, the natural history of Orcinus orca and knowledge of cetacean care and maintenance, financial and personnel management experience, and fund-raising abilities.

Scientific committee

The scientific committee, to be chosen by the Project Manager, should advise the Project Manager on all aspects of procedures involving diet, care, training, transport, rehabilitation and reintroduction.

Fund-raising, fiduciary and legal committee

Should include members of the Lolita Retirement campaign, an impartial accountant and legal representatives of the Miami Seaquarium and the Lolita Retirement campaign. This committee should oversee fund-raising and expenditures.

Budget

The Lolita campaign requires continual expenses for daily obligations and activities, such as printing, travel to deliver presentations or attend meetings, etc. Much of these expenses are part of the operation of Orca Network, including our other programs, including the Whale Sighting Network, Education Programs, The Langley Whale Center, and the Central Puget Sound Marine Mammal Stranding Network.

In a best case scenario no major expenses are likely to be incurred until early 2015. The final ESA inclusion determination probably won't be made until late January 2015, or later. At that point NOAA may prohibit Lolita's further performances and may mandate that she be retired in her native waters as described in our proposal, as

per ESA protections. Other than possible travel expenses to meet with potential donors or contractors no major expenses are expected until that time.

The prospects for Lolita's retirement will depend almost entirely on a judgment call by NOAA about where she would be safest and best protected. The conventional wisdom declared by the industry for decades is that she's safe in the tank and the relocation to native waters would somehow be dangerous, but there isn't any phase of our retirement plan that is specified as risky. The opinions of scientists and informed writers could be crucial to NOAA having the information and the confidence to mandate that Lolita be returned to her home and family.

When we see a green light from NOAA to go ahead with the relocation of Lolita to her home waters some significant expenses will be required. The overall budget will depend on many contingencies, but some expenses can be anticipated. The budget below is presented in narrative form to explain the contingencies and potential variabilities.

See the transport plan for details about the following items. Prior to transport, the cost for fabrication of a transport cradle in Miami has been estimated at between $28-40,000. It is possible we could locate and borrow a cradle. We will request that SeaWorld in Orlando allow us to use one of the cradles stored there.

The cost for fabrication of the sling is estimated to be around $2,000.

The cost of contracting for professional services of at least three veterinarians and pathologists selected by NOAA and/or the USDA to examine Lolita to ensure she has a healthy immune system and carries no communicable diseases could amount to approx. $20-30,000.

The cost of air transport is hard to predict, considering the unusual cargo and the potential for services granted gratis in exchange for the massive publicity from the move. UPS moved Keiko to Oregon and said it was the best advertising money they ever spent. We hope to land the C-130, or C17 Globemaster, 747 Dreamlifter, or C5 Galaxy, or Hercules aircraft at Bellingham International Airport (runway 6700'). We will then transport her, still in her sling in her cradle partially immersed in icewater, on a flatbed truck 3 miles to Bellingham harbor, where she will be lowered into a floating seapen approx. 40' by 60' or larger, to be towed by tug the 45-50 miles to Kanaka Bay, where the floating pen will be tied to the stationary pen and the gates opened between them.

Air transport could cost up to $50,000 if not donated.

Truck transport and crane services at both the Miami end and in Bellingham are estimated at maximum $25,000.

Construction of temporary floating pen = maximum $3,000.

Tug services = approx. $2-8,000.

A fine-mesh net will be needed for holding live and freshly caught salmon. The cost of Chinook salmon from the boat varies from $1 to about $8/lb. Lolita may consume approx. 150 lbs/day, so that means $150 to $1500 per day for fish, so maximum $500,000/ yr., although in all likelihood she will be catching at least some of her food herself within a few months.

Security personnel will be required, both by land and by sea, which can be unarmed professional staff ready to call authorities in case of any intrusion. Anticipated expenses are approximately $5,000/month.

We estimate about $10-20,000 to contract for veterinary and companion services from Lolita's current staff per month for at least the first several months. Thereafter the project will require marine mammal vets on call if needed.

A small team of trained professionals will be required to act as guardian/companions for Lolita as long as she chooses to remain in or return to the care station. There are many knowledgeable, competent people who would gladly be her companion, but there will be a need to allocate approx. $20,000/month for her care.

Totals for maximum expenses would run about $916,000 for the first year. If additional funds are needed after a year for salmon or professional services an appeal will be made to donors accordingly.

Literally millions of people are eager to see Lolita return to her native habitat, so when the need for major funding approaches, fund-raising is not expected to be problematic.