

COMMENTS RECEIVED ON *BOATYARD ECONOMIC IMPACT ANALYSIS*

GENERAL THEMES

- 1) There is a high level of uncertainty about the ability of StormwaterRx[®] to consistently meet the benchmarks considering the short duration of the pilot and the large difference among boatyards.
- 2) Boatyards are currently reducing rates because of the recession. It is not realistic for boatyards to increase rates at this time.
- 3) New boatyards in Alaska and BC are competing with Washington boatyards especially for commercial fishing vessels.
- 4) The discharge requirements for boatyards in the draft permit are more stringent than for other stormwater dischargers (municipal).
- 5) Benchmarks for boatyards should be consistent with shipyard limits.
- 6) Ecology should consider that the copper loading from boatyards is small relative to other sources.
- 7) Most boatyards would have to finance the stormwater treatment. Financing any improvement is difficult at this time.
- 8) Some boatyards have installed the treatment necessary to meet the proposed benchmarks. All boatyards should be required to do the same.
- 9) The SBA notes disproportionate impact on small business boatyards under the current financial situation but then the AKART analysis assumes a 10% increase in charge for service.
- 10) The analysis does not consider water quality-based requirements.
- 11) Small businesses should not be allowed to skirt requirements just because they are small.
- 12) Ecology should explore mechanisms for financing treatment costs.

November 13, 2009

SPECIFIC RECOMMENDATIONS AND COMMENTS

- 1) The wage costs used in the report are incorrect for the Seattle area and the level of expertise required.
- 2) The report should include an analysis of secondary costs and benefits.
- 3) Use metrics other than acreage as an indicator of income.
- 4) The report misinterpreted the Arcadis report. The Arcadis report said the typical boatyard would require site improvement over 50% of the area based on observation of 12 boatyards.
- 5) The catch basin performance data in the Hart Crowser report was based on bench scale testing - Ecology should drop catch basin inserts as an option.
- 6) The report is missing Chapter 5.
- 7) The cost of enclosing hull work is underestimated.
- 8) The assumption that the demand for boatyard services will remain constant with a 10% increase in cost is incorrect.
- 9) The report does not include an estimate of loss from reduced yard space during construction.
- 10) The report underestimates monitoring and reporting costs.
- 11) The annualization period is not clearly stated.
- 12) The time required for a monitoring sample should be 5 hours/ sample.
- 13) The wash pad decontamination frequency is underestimated.
- 14) The receiving water study results are not incorporated into the report.
- 15) The Pacific Fishermen data should not be used and therefore Tables 8 – 13 are incorrect.
- 16) The report should exclude compliance costs.
- 17) The report should include the public cost of pollution from boatyards.
- 18) The report incorrectly states compliance costs for small and large boatyards (pg 24, Table 2).
- 19) The revenue estimates for large and small boatyards is incorrect.
- 20) Costs for site improvements are over-estimated.

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21) Including catch basin inserts in the AKART analysis is inappropriate.

November 13, 2009



P.O. Box 1180 • Port Townsend, Washington 98368-4624

Administration: (360) 385-0656

Operations: (360) 385-2355

Fax: (360) 385-3988

October 27, 2009

Gary Bailey
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Dear Gary,

Although the Port of Port Townsend provided comments last week via email - we wanted to further expand on the points made and provide some additional information regarding the Draft Economic Impact Analysis. Again, thank you for the opportunity to comment on this critical issue.

1. Small versus large yard:

The study used employee numbers to determine the size of the yard. That is not necessarily the best indicator. We have the largest public yard in the state here at the Port of Port Townsend with over 17 acres of yards space and lifting capabilities up to 330 tons. Yet we have only seven employees working in the yard. There are over 400 direct private marine trade jobs depending on the yard activity but they are not our employees. We would contend that numbers and types of vessels hauled out, type of work performed such as sand blasting, boat construction, et cetera, are better indicators of environmental impact.

2. The new technologies:

The study analyzes the potential cost of implementing new technologies to treat storm water in yards. Although some of the technologies have been tested - they have not been tested over extended periods encompassing all types of work, weather conditions, and activity levels. There is no guarantee that any of these will work in the long run. The study did not discuss the impact of making significant investments in these technologies and perhaps may not have the desired outcome. Most yards cannot continue to make these levels of investments in infrastructure without some assurance of continued operations.

What is the Department of Ecology's forecast for the future? If these new benchmarks are not met then what? What is the associated economic impact?

3. Estimated costs:

For public yards the study did not take into account prevailing wages. As governments, we have to pay prevailing wage. The cost of installing, maintaining, and monitoring will be substantially higher for us. Even though we are in a rural depressed county - our prevailing wages are for the most part, the same as King County.

e-mail: Info@portofpt.com

website: www.portofpt.com

4. Raising rates:

The study recommends that yards raise their rates for service to cover the increased operational cost of meeting the new benchmarks. That is a very cavalier statement. Many, if not most yards, have lowered rates to keep some acceptable level of operations during these economically difficult times.

The economic impact of boat yards in this state is huge. One must consider not just the direct jobs associated with working in these yards, but also the second and third order of impact of suppliers of materials, tools, and equipment. Plus, around every yard is a neighborhood of supporting businesses such as restaurants, hardware stores and the like which derive much of their revenue from the yards operating nearby. We saw no analysis of this.

There is growing competition from new yards in Alaska and British Columbia. If our cost increases thereby putting pressure on the rates we charge - then what will be the potential impact of lost business to yards outside Washington State? The impact will be particularly noticeable on commercial fishing vessels. With increased fuel costs and other operating costs increasing - vessel owners can and will choose to go to other yards. The study assumes everyone will still come to the same yard - bad assumption. There was no analysis of this.

Everyone in this business wants to be good stewards of the environment. As we all know the boatyards in the state are not the biggest source of pollution in Puget Sound. We, collectively, need a comprehensive strategy to tackle the entire storm water issue without undue burden on any one industry sector. We also need a common sense approach that allows science and technology and funding to all work together and not spend our precious few dollars on efforts that will not or may not, help in the long run.

We are willing to assist the effort in anyway and please let us know if we can help. If you have questions please call me at (360) 385-0656 or email: larry@portofpt.com.

Sincerely,



Larry Crockett
Executive Director

cc: Rogers Weed, WA State Dept of Commerce
Eric Johnson, Washington Public Ports Association
Marina Hench, Northwest Marine Trade Association
Port of Port Townsend Commissioners

November 13, 2009

DEPARTMENT OF ECOLOGY

OCT 27 2009

WATER QUALITY PROGRAM

HYLEBOS MARINA, INC.
1940 MARINE VIEW DRIVE
TACOMA, WA 98422-4108

TEL: 253 272-6623

FAX: 253-272-3913

October 23, 2009

Attn: Mr. Gary Bailey
Department of Ecology
P.O. Box 47800
Olympia, WA 98504-7800

Re: Comments on Economic Impact Analysis

Dear Mr. Bailey:

The draft of the Economic Impact Analysis is more of a permit overview than a comprehensive look at real boatyard income. Consideration of square footage versus cost of equipment should be made before finalizing new permit requirements.

We have a large boatyard, approximately five (5) acres. However, we only have four (4) employees, and we only offer a limited number of services. That puts our income into the small boatyard class.

The size and cost of equipment needed will be based on storm water volume, which increases with square footage—assuming the equipment cost in the report is correct. It would in no way be economically feasible for our boatyard to comply with the new storm water regulations as proposed.

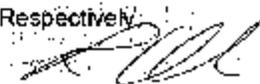
As I stated in my permit comments made early in the year, copper bench marks are too low and not reasonable. The current 229 PPB is fair and based on precedence set by prior permits issued to shipyards. Boatyards should not be required to exceed that standard.

Considering the time and cost of complying, the monthly sampling requirement is far too frequent for a small, owner-operated business to handle. The B.O.D/total coliform annual sampling makes no sense and is just an additional cost and hardship for small boatyards.

The current permit should be renewed as is, and the threats of the Puget Soundkeepers lawsuits should not be considered as part of the process. Also—the draft of the Economic Impact Analysis needs to pay much more attention to detail with regards to the income and size-situation of each individual boatyard.

Given the current economic downturn, which has resulted in a 30% decrease in revenue, the timing for these requirements could not be worse!

Respectfully,



Ron Oline,
President

November 13, 2009

Gary C. Bailey
Water Quality Permit Specialist
Dept. of Ecology
PO Box 47600
Olympia, WA 98504-7600

Subject:

Draft Boatyard Economic Impact Analysis

Dear Gary:

At the request of NMTA, I have reviewed the Draft Boatyard Economic Impact Analysis and have the following comments:

1. At several locations in the Boatyard Economic Impact Analysis, Ecology uses the statement from the ARCADIS Cost Analysis Report, that site improvements will contribute approximately one-half of the total cost to install a stormwater treatment technology, to conduct a number of their own cost analyses. Ecology should note that the one-half fraction is based on the net present value for an assumed typical boatyard. Section 1.1 of the Cost Analysis Report describes the assumptions for a typical boatyard. Because boatyards have a wide range of site improvement needs from minimal to significant, a typical boatyard was assumed to require significant improvements on 50% of the site area. The size and area requiring drainage improvements for the typical boatyard was based on a survey of 12 representative boatyards. As stated in the ARCADIS Cost Analysis Report, the largest variable in the costs presented is the extent of site improvements required at each boatyard. The actual fraction of the total area requiring improvements at each boatyard will range from 0% to greater than 50%. An engineering design will be required to determine the actual extent of site improvements required. These qualifications should be clearly spelled out.

2. In Chapter 6, two treatment technologies are discussed. The information for the Catch Basin Insert technology is taken from the 1997 Shipyard AKART Report by Hart Crowser. There were significant uncertainties regarding this technology when the report was written and these have not been resolved since that time. For instance, the treatment performance referenced is based on bench-scale testing results. Field-scale data are either missing or limited. We recommend that this technology be dropped from the Economic Impact Analysis.

3. Where is Chapter 5?

Please let me know if you have any questions.

Sincerely,
ARCADIS US, Inc.
Barry Kellems, P.E.
Principal Engineer

Copies:

Marina Hensch, Director of Government Affairs, NMTA

November 13, 2009

October 23, 2009

Mr. Gary Bailey
Department of Ecology
P. O. Box 47600
Olympia, WA 98504-7600
gbai461@ecy.wa.gov

Dear Mr. Bailey:

Thank you for giving us the opportunity to comment on the draft Economic Impact Study concerning the proposed Boatyard General Permit. CSR Marine has the following comments to make:

Assumed Labor Rate Page 25.

On page 25 you state that your assumed labor rate is \$20.66 per hour based on BOL stat for Installation Maintenance and Repair occupations from 2007. Since most boatyards do not employ installation maintenance personnel but use highly skilled yacht repair technicians in a collateral duty mode to accomplish these types of duties the real direct labor cost (no overhead amortization) is \$26.18 per hour. The costs for labor in the analysis is understated by 21%.

Enclosing Hull Refinishing Work: Page 38.

Paragraph 2 states that the typical temporary building would be 18 feet wide, 48 feet long and 18 feet high. To use a building of this type would require the purchase of a hydraulic yard trailer (current market price of \$175,000 to 250,000 depending on model) in order to move boats in and out of the structure. If using a travel lift the building must be 24 feet wide, 48 feet high and to accommodate our types of vessels 70 feet long. This will cost significantly more than the \$9K estimated in the study. Also it is invalid to assume that only one building will be needed. It is estimated that in only one of our yards we will need a minimum of 5 such building. An additional expense not considered is the cost to remove the mast of every sailboat worked on since the mast will not fit into the building. CSR Marine works on approximately 2,000 boats per year. Half of those are sailboats. Of the 1,000 sailboats we work on 10% have the mast pulled for customer requested work. Therefore to work on boat bottoms inside we would need to unstep and step the mast on 900 sailboats per year. The average cost to unstep and step a mast is \$850.00. This causes an additional \$765,000 burden on the company that cannot be passed on to the customer. This is a cost that is approximately 20% of sales. This cost alone makes this option economically unfeasible.

Earnings Test: Page 39.

The first assumption for the earnings test was that boatyards could increase their prices by 10% to cover the cost of installing and operating stormwater treatment systems and that demand would remain constant. This is not a valid assumption. First of all in the current economic climate we are already seeing more and more of our customers push needed maintenance off for a year or two because of cost. This assumption also assumes there is no price elasticity of demand. This also is not correct. The recreational maritime industry competes for funds against every other activity that the consumer can spend their recreational dollar on. This includes such things as camping, Disney World, or a trip to Cabo San Lucas. By making boating relatively more expensive we can expect a shift in dollars from boating to other leisure activities.

Solutions Discussed:

Through out the analysis reference is made to StormwaterRx. While this product certainly does an excellent job of cleaning stormwater, even Cal Noling (President of StormwaterRx) admits that his product cannot reliably meet the benchmarks in the proposed permit. His solution is the take to output of the StormwaterRx system and use it as the input to a Siemens Water Technologies WWIX (Ion Exchange) system. This will then clean the water sufficiently to reach the benchmarks in the proposed permit. The cost of this additional system must be taken into account to determine the financial impact of the permit. The estimated annual operating costs/acre/year is \$35K as estimated in the Arcadis Study. This would add an additional \$70K per year to our West yard alone. Add the \$14K operating costs for StormwaterRx and total operating costs come to \$84K per year. It is understood that when using the Ion Exchange system down stream from StormwaterRx the filter media will last a great deal longer than when it is the only filter system (as it was during the 2007 test program), however it is not possible to develop accurate operating costs with out further study. In any event when adding in the capital investment and amortizing over 5 years (the period of the permit) it can be seen that costs will be substantially higher than those estimated in the study. There also did not seem to be any recognition of the loss of revenue bearing yard space that must now be dedicated to stormwater processing

Additional cost not considered in the analysis is the cost of increased reporting. With monthly sampling, follow on samples will be taken either before previous sample results have been received from the lab or immediately after. This allows no time for management action, or time for the impact of actions taken to be felt. There is also no discussion of additional costs associated with follow on level three reports. Under this plan we can install the StormwaterRx system fail to meet the benchmarks six times and be back in a level three report requirement. What is the expectation of DOE in this regard? If we do a level three report, DOE accepts it, we execute as approved are we then exempt from further level one, two and three reporting? In five

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years when the permit expires and a new permit is issued and treatment technology has evolved will we be required to sink another \$500K into new treatment equipment?

Mitigation of Disproportionate Impacts:

It is most disappointing that some organizations feel that it is appropriate to drive small businesses out of business, rather than look to U. S. Supreme Court rulings that allow the consideration of cost in determining whether or not a technology is “reasonably available”. The idea that no mitigation can be made because the quality of the surface waters of the state is more important than the livelihood of all the employees in a \$1B+ Pacific Northwest industry is regrettable. This attitude would be more understandable if real harm was being done to the waters by the boatyard industry. Unfortunately while the boatyard industry is being held to this very high (cleaner than drinking water) standard the City of Seattle is allowed to let their stormwater from public roads flow onto our property where we are then held accountable for the contamination. For example the copper content of Seattle City stormwater from N. Northlake Way is over 1700 parts per billion. We must treat this water down to 14 parts per billion. We are glad to take responsibility for stormwater from our operations but do not feel we should be held accountable for the city’s stormwater problems. On top of this the loading from the streets far exceeds the loading from the boatyards. If you really want to clean up the surface waters of the state deal with the street runoff. This would produce real results not just a feel good accomplish nothing action. It is however obvious to both the members of the industry and to the Department of Ecology that while the numbers may be higher than desired the total loading is so small as to have little to no impact on the quality of surface waters of the state. It is believed that the political leadership of the state is owned by the environmental lobby and will do what ever is necessary to placate that group and to heck with the tax payers who will most certainly loose their jobs as a result of this proposed permit. This will be unfortunate as it will result in increased costs to the state for unemployment costs and a loss of revenue in all the various and numerous taxes levied on the recreational boating community.

Sincerely,

Scott Anderson
Owner

November 13, 2009

From: Leslie Schnick [mailto:lschnick@olyphen.com]
Sent: Thursday, October 22, 2009 11:31 AM
To: 'gary.bailey@ecy.wa.gov.'
Cc: 'Larry Crockett'; 'Gwendolyn Tracy'; 'Gordon Neilson'
Subject: FW: The Draft Comments

Gary Bailey
Dept. of Ecology

Mr. Bailey,

Below are both my comments and those from Gordon Neilson, our Chairman of Environmental Issues Committee in regards to the Draft Economic Impact Analysis, Boatyard General Permit. Thank you for the opportunity to review the document and make our comments.

Leslie Schnick
Chairman, Port Townsend Marine Trades Association

From: Leslie Schnick [mailto:lschnick@olyphen.com]
Sent: Thursday, October 22, 2009 11:25 AM
To: 'rigging'; 'Gordon Neilson'; 'Gwendolyn Tracy'
Cc: 'Larry Crockett'
Subject: RE: The Draft Comments

Hi, Gordon

Thanks for weighing-in as our Chairman of Environmental Issues Committee, I appreciate your comments and I concur with your observations.

I just finished reviewing the Economic Impact Analysis, Draft. It is difficult to analyze the impact of this document on the individual marine trade businesses that work in the Port of Port Townsend, as all the requirements for monitoring and reporting are at the Port's level, However, field performance by businesses and individuals/owners is obviously of the utmost importance to those of us who make their living in the marine trades. If we are not, or can not, meet the required performance levels, we could lose our ability to work on boats. What we do affects the amount of contaminants entering the storm water systems that needs to be intercepted and filtered-out. I am most interested in the Port of Port Townsend's demonstration project with the Dept. of Ecology using StormwaterRx technology in *this* yard, which is a better representation of real working boatyards than the previous demo. project yards. The Port of Port Townsend's yards not being paved and being of considerable larger acreage, and known for its wooden boat shipwright businesses, all are notable differences from the other yards who were in the previous demonstrations. We are supportive of the BMPs and think they should be enforced better and probably upgraded so there will be better results re contaminants getting into the storm water

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systems. I would like to know if Festool's vacuum sanders meet Ecology's requirements, since most of us in the yard here have their equipment.

Les Schnick

Chairman, Port Townsend Marine Trades Association.

From: rigging [mailto:rigging@briontoss.com]

Sent: Thursday, October 22, 2009 6:39 AM

To: Les Schnick

Subject: The Draft Comments

Hi Les,

Got through the document the other night. The comments are not specific to any one part, it is a very narrow document. Use the word narrow because it sets forth boundaries a one size fits all approach.

Here are my concerns:

1. They have set standards, which seem to have been adjusted some what, and now they are trying to find a way that looks good on paper to get to those standards. The problem is its all on paper.
2. The basic premise here is that yards can raise rates and gather the money to do the work. This will be true if and only if everything else stays the same. "All things being equal." This is seldom if ever true.
3. No one at present can raise rates. As far as we can see everyone is lowering rates to fill their yards. Suspect in this economy everyone is paring back on maintenance of buildings and equipment. So there are many unmet needs. Profits will be scattered across a broad spectrum rather than focused on just one item.
4. The standards will force this focus however. Ecology however is not the only agency that oversees the yards. So doubt all things will remain equal.
5. Since yards are lowering prices to get people to come in, a raise in rates will force boat owners to do work, not else where as in Oregon or Canada, but on the hook. The standards assumes that everyone has to come to the yards. They can choose not to.
6. There was a suggestion also that yards can borrow money to make this work. Not so sure banks are willing to do this.
7. Believe the only businesses in the Boat Haven that can meet these standards are Shipwrights, Haven, Goldstar and Townsend Bay.
8. On another issue there seems to be nothing in the draft that acknowledges run off from outside yards that enter waterways through the yards. We have that problem here. The Safeway and McDonalds parking lots drain into the ports drainage system. Suspect there are other yards who have the same problem. So a more careful conclusion might be that contaminants enter waterways from yards but do not necessarily all come from the yards.

Think you have enough. A formatting change might add a glossary either in the front of the book or at the end.

gordon

November 13, 2009

Dear Mr. Bailey,

We at Seaview Boatyard believe very strongly in improving the quality of Washington's marine waters. For over a decade we've been directly involved in the permit meetings between DOE, Puget Soundkeepers Alliance, and the NMTA. We believe in the intent of the permit and applaud its results so far.

Compliance is not easy. In an effort to meet the permit's benchmarks we made significant investments in both time and money in our site including restricting bottom prep to a designated area by Seaview personnel only. Despite our efforts improvement was negligible and we were still unable to meet the permit's benchmarks. Subsequent to the Pollution Hearings Board decision and the release of the draft modified permit we realized that if we wanted to be compliant and therefore stay in business we needed to make a major financial commitment in a storm water treatment system. In fact, the draft DOE Economic Impact Analysis states "*Ecology believes that no boatyard can currently reach these benchmarks with their current source control BMPs. To meet these new benchmarks, each boatyard will need to install a storm water treatment technology.*" We stood up to our responsibility and, during a down economy, spent the money to install the system. Now there's talk of the permit being weakened by relaxing the benchmarks. We have a permit whose goal is to improve the quality of our marine waters and there's no moral reason to negotiate away that goal.

Regards,

Phil Riise

President, Seaview Boatyard

phil@seaviewboatyard.com

206-789-3030 phone

206-789-3176 fax

November 13, 2009

Suldans Boat Works
1343 SW Bay Street, Port Orchard, WA 98366
Phone 360-876-4435 Fax 360-876-9575

Gary,

I have just finished reading the draft of the Boatyard General Permit. It appears that small boatyards like ours will be the ones negatively impacted. With the down turn in the economy, we would not be able to raise our rates enough to recover the costs of installing and operating a storm water treatment system. We would need to pave our lot, buy a travel lift, install a dock for the travel lift, and then pay for and operate a storm water treatment system. Last year we lost \$6000.00 in revenue. For the small number of boats that we pressure wash and paint each year, (80-100), this just isn't feasible for us.

In early 1990, my father, brothers, and I paved around and under our three railways. Later while working with the Seattle Metro Water Pollution Control Department, we installed sumps and built a system for recycling pressure wash water. At that time, I believe it was Richard Koch from the Department of Ecology said to me, "That they, Department of Ecology, were here to help the boat yards and mediate between us and the environmentalists." Unfortunately, that has not worked out so well for us.

I have given my opinion. I hope that this new permit does not have a negative impact on the boating industry in our state.

Sincerely,
Greg Suldan
President/Owner

November 13, 2009

Port of Edmonds

October 22, 2009

Gary Bailey
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600
gbai461@ecy.wa.gov

Dear Mr. Bailey:

Thank you for giving the boatyard industry an opportunity to comment on the Department of Ecology's draft Economic Impact Analysis (EIA) dated October 2, 2009 related to Ecology's 2008 draft Boatyard General Permit. The Port of Edmonds has the following comments:

Estimated Cost of Meeting Benchmarks, Page 24

The cost to implementing stormwater treatment to the extent necessary to meet the 14.7 ug/L annual average benchmark values may be significantly underestimated. From the draft revised Permit:

Section D.3. Revised copper and zinc benchmarks for discharges to surface waters based on the performance of StormwaterRx® in the pilot treatment study. The mean effluent concentration during the study period was used as the Long Term Average. The limits were calculated using 5% and 1% type 1 error rates using the USEPA (1991) method for calculating average and daily maximum limitations.

The new copper benchmarks (14.7 ug/L average and 29 ug/L maximum) were based on the boatyard pilot study results without an adequate factor of safety for the likely variability in the copper treatment effectiveness over time. The pilot study was only conducted for a short 3 month time frame, and the Aquip® system was tested at our yard which had the lowest influent copper and zinc concentrations. The pilot study was completed during a period of very light work yard activity relative to average conditions. In addition, it is expected that the performance of the media will decrease over time as it becomes saturated with adsorbed metals. The duration that the pH buffering and adsorptive media last before replacement was not determined in the boatyard pilot study; the expected replacement frequency and the cost of that replacement was estimated by the vendor. The cost estimates in the Arcadis report were completed prior to Ecology's selection of the 14.7 ug/L copper benchmark value, and that report did not include treatment costs that were assessed to meet this standard.

It is our understanding that StormwaterRx® will not guarantee performance levels for copper to 14.7 ppb average and 29 ppb maximum unless a secondary treatment with ion exchange resin is employed, which would be expected to increase the capital cost and about double the annual treatment cost. **Ecology's EIA should at least acknowledge that potential for a large underestimation of the stormwater treatment cost for full Permit compliance.**

The Port also has a specific question related to the annualized cost calculation. The full basis of the annualized cost calculation was stated to be 15 years, but in examining the numbers it appears that in some instances it was assumed for boatyards that the stormwater treatment equipment is being annualized over possibly a shorter 10 year period. It is unclear how exactly the annualized cost is being calculated and if those time periods are appropriate (stormwater pumps for example would not be expected to last for 10 to 15 years). Ecology should double-check the calculations and should state its assumptions and calculation methods in the report.

Monitoring and Analysis Costs, Page 25

The draft EIA labor estimate of only 1 hour for a monthly stormwater sample is greatly underestimated. The work associated with each sample includes: ordering sample bottles from the lab, collecting the samples, completing the chain of custody form, delivering the samples to the lab or arranging for lab courier, reviewing the analytical results when back from the lab, filling out a DMR form, filing the analytical report in the SWPPP, and processing the invoice from the lab. A more accurate estimate of labor hours for each sampling event would be at least 5 hours. In addition, with the signatory requirements in the Permit for the DMRs, a high ranking official with the company must review the information included with each DMR and attest to its validity.

The use of a labor rate of \$20.66 per hour does not adequately account for the full cost of staff. The fully loaded cost for our boatyard staff is estimated at \$40/hr, considering associated administrative support costs and employee benefits. At a more accurate labor rate of \$40/hr plus monthly DMR review and approval by a high-ranking official, we estimate the annual cost of monthly stormwater sampling to be at least \$4,500 for a facility with one sampling location and at least \$7,000 for a facility like the Port with two designated sampling locations, rather than the \$1,160 calculated in the draft EIA.

Wash Pad Decontamination BMP Cost, Page 27

The assumption that pressure wash pad cleaning only occurs twice per year, or even weekly, is vastly underestimated. The pressure wash pad must be cleaned every day after boat pressure washing activities are completed, and before the drainage valves can be readjusted to drain to surface water. There are only occasional days at the Port when boat washing and associated pad decontamination is not performed. The cost of this BMP needs to be recalculated, and should be done so using the more appropriate fully loaded labor rate of \$40/hr as discussed above.

Enclosing Hull Refinishing Work, Page 38

The option for installing a building to cover all boatyard operations is so impractical that it probably should not even be included as an option in the EIA. Limited covered areas for vendors to do some work are practical, but there are many issues surrounding putting up a building such as travel-lift heights, necessity to remove masts on sailboats, cost of a hydraulic trailer to move boats into the building, shoreline permitting requirements, and building height codes. These issues make full enclosure very impractical, if not impossible.

EIA Conclusions, Page 43

November 13, 2009

The EIA concluded that the draft general permit has a disproportionate impact on small businesses, but readily and unjustifiably jumped to the conclusion that boatyards can and should raise their prices 10% across the board. For one, that proposed solution completely ignores the impact of that action to decrease sales, especially given the current recession. Boat owners are already making decisions to delay maintenance for another year, and a significant cost increase would further push boat owners to avoid or postpone maintenance work for longer time periods. It is also unrealistic to call this "profit". Even though CPI is at -0.4%, all of our costs for various insurance (L&I, Medical, etc...) and other items have gone up, and the boatyard industry's revenues have gone down.

Because the EIA concluded that the draft general permit has a disproportionate impact, the EIA report should consider and present other alternatives. Those other alternatives could include reduction in the frequency of stormwater sampling and reporting, easier allowance of discharging stormwater to the sanitary sewer for treatment, and reduced scope or schedule for implementing stormwater treatment. These alternatives are discussed more below.

One option to reduce the cost impact of the permit would be for Ecology to reduce the frequency of stormwater sampling from monthly back to the current 5 times per year, or even to a quarterly schedule. Monthly sampling is not a requirement of the federal Clean Water Act or of the Washington State regulations, and there would be significant added cost with monthly sampling as described above. The latest version of the Industrial Stormwater General Permit (issued by Ecology earlier this week) requires only quarterly sampling, which should be further justification for reducing the sampling frequency.

The new restriction in the 2008 draft Permit that a boatyard can discharge stormwater to the sanitary sewer (non-delegated POTW) only with special approval by Ecology and if it can demonstrate that "*no other option is feasible*" unfairly eliminates the ability of a boatyard to consider cost in the consideration of stormwater treatment options. It also creates an uneven playing field for existing boatyards in non-delegated municipalities compared to existing boatyards in delegated municipalities that already discharge their stormwater to the sanitary sewer and are not subject to this same requirement to demonstrate that no other option is feasible. The EIA should present discharge to the POTW as an allowable cost mitigation measure.

Ecology has not yet completed the mixing zone and receiving water study that was part of the permit settlement agreement between Ecology, NMTA, and Puget Soundkeeper Alliance. Therefore, it is uncertain at what concentration or mass loading of copper would actually cause a violation of State surface water quality standards. The proposed seasonal average and maximum copper benchmark values of 14.7 and 29ug/L, respectively, were based on results of very short term performance testing of the StormwaterRx system as described above, and not on an analysis of what discharge copper concentrations are needed to be protective of surface water standards. Ways in which the permit could provide cost relief to small boatyards would be to allow a phased or contingent implementation of stormwater treatment (e.g., not requiring stormwater from all drainage areas to be collected and treated immediately, or allowing delayed implementation of stormwater treatment of the full area, or allowing sampling of the receiving

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water near the outfall to verify the copper concentration does not exceed surface water quality standards in place of installing treatment).

We ask that you please seriously consider the points that we have made and adjust the economic impact analysis accordingly.

Sincerely,

Marla Kempf
Deputy Director

cc: Bob McChesney, Executive Director - Port of Edmonds
Commissioners - Port of Edmonds
George Harris, Marina Hench - NMTA
Eric Johnson, WPPA
Bill Moore, Polly Zehm - Department of Ecology

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Draft Economic Impact Analysis

Friday, October 16, 2009 9:15:25 AM

From: vicwithsatocorporation@comcast.net

To: gary.bailey@ecy.wa.gov

Mr. Bailey,

The various comments made in the Draft Economic Impact Analysis for the National Pollution Discharge Elimination System Wastewater Discharge General Permit that marinas could cover any of the associated costs by increasing their sales (and thus supposedly profit) by ten percent would take care of any of the marinas financial problems in regards to paying for these additional requirements assumes that the boating industry is a healthy and thriving business which it is not.

Due to present (and it looks like future) economic conditions we are losing boaters, not gaining, and have had to settle for less in moorage fees in order to retain as many customers as we can - I can't even imagine how we could increase our sales by ten percent. Our list of delinquent accounts has increased substantially over this last year - even several of the boat sales companies in this area have closed their doors as customers are just not there!

Though the intentions of eliminating stormwater discharges to surface water bodies are good, more than just the boating business should be targeted for these additional costs. The marina business is being asked to provide expensive clean up of stormwater discharges when in fact a large portion of stormwater entering surface water bodies are from our roadway systems, which are used daily not just on weekend occasions. Stormwater runoff from these sources, in most instances, affect the very same body of water that the marina business is expected to clean up. To require one business to spend tremendous amounts of funds (which in many cases will not be available - can't see banks being to enthused about lending money to the boating business at this time) to clean up a universal problem is impossible.

We request you take the above into account when considering the financial impact on the marina business in relation to the effectiveness of the regulation.

Vic Loehrer
Sato Corporation
425 454 4494

PUGET SOUNDKEEPER ALLIANCE

Puget Soundkeeper Alliance's (PSA) mission is to preserve and protect Puget Sound. PSA is committed to seeing a viable boatyard industry serving Puget Sound boaters while meeting Water Quality Standards which protect marine and fresh water organisms. PSA has worked collaboratively with the Northwest Marine Trades Association in producing The Boatyard Stormwater Treatment Technology Pilot Project which tested viable treatment systems. PSA recognizes the current economic climate is challenging to all businesses but believes that attaining Water Quality Standards that preserve and protect our marine and fresh water environment is fundamental to our culture, our prosperity and to our future.

Legal Assumptions & Comments:

The cost of complying with permit conditions required by WAC 173-201A or federal law should not be included in the EIA. The Economic Impact Analysis fails to recognize that copper levels at or below the proposed copper benchmarks are necessary to comply with State Surface Water Quality Standards, WAC 173-201A, and federal law, 33 U.S.C. § 1311(b)(1)(C). *See, Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1164 – 165 (9th Cir. 1999). Because low copper benchmarks are needed to ensure compliance with water quality standards, most or all of the costs of copper controls should not be included in the EIA.

In *Puget Soundkeeper Alliance v. Ecology*, PCHB Nos. 05-150, etc. (Jan. 26, 2007), the Pollution Control Hearings Board found that the benchmarks in the Boatyard General Permit are narrative water quality-based effluent limitations, as Ecology had explained in the permit's fact sheet. *PSA* at 24. The Board held that Ecology's use of a dilution factor of ten in deriving the copper benchmarks is impermissible because the requirements for granting mixing zones are not satisfied. *Id.* at 33. As the Board explained, because boatyards are not generally implementing AKART and because no "site-specific receiving water analysis" has been performed, no mixing zone or dilution factor can be used. *Id.* at 33 – 34 and 49 – 50. The Board explained that "[w]hile a general permit does not lend itself to a site-specific analysis, the grant of a mixing zone to formulate effluent limitations (i.e. benchmarks) is not warranted in circumstances where there is a lack of application of AKART and evidence of widespread, ongoing violations of water quality standards. This is the situation in the boatyard industry." *Id.* at 51.

Until the requirements for mixing zones are satisfied, including implementation of AKART and site-specific demonstrations of water quality protection, there can be no dilution factor used in determining the copper benchmarks necessary to satisfy WAC 173-201A and federal law. Without a dilution factor, the benchmarks for copper are certain to be at least as low as those in the draft permit. *Id.* at 25 – 29 (describing the derivation of copper benchmarks in the challenged boatyard general permit).

In developing the rejected copper benchmarks, Ecology had neglected evidence concerning the effects of short-duration exposure to copper in concentrations as low as 5 ug/L on salmonids.

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Id. at 22 – 23. Ecology had also ignored the conclusion of the National Marine Fisheries Service that a proposed copper benchmark of 14 ug/L is too high because of expected effects on salmonids. *Id.* at 30. So, in addition to rejecting the permit’s copper benchmarks because of the illegal use of a dilution factor, the board further held that stringent copper benchmarks are necessary because of the likely effects of boatyard discharges on salmonids. *Id.* at 54 – 55.

To provide an adequate level of protection for salmonids as required by WAC 173-201A and federal law, the benchmarks for copper must be at least as low as those in the draft permit.

Data, Analysis and Comments:

AKART

Facts on the ground count: at least seven boatyards in Western Washington have already installed Stormwater Rx stormwater treatment systems based on its demonstrated cost effectiveness in reducing toxic metals. This raises equity issues for those boatyards who have already installed treatment and are using vacuum sanders. The internalization of these costs into the operation of these boatyards places them at an economic disadvantage to those boatyards who have not internalized these costs into their operations. From Appendix B (from Ecology Publication 92-500) “Ecology may propose a BAT treatment process based on the fact that a competitor of the permittee had a similar process. If the permittee disputes this type of comparison they must submit data to show why they are substantially different from their competitor.”

The draft permit, mutually agreed to by NMTA and PSA, contains benchmarks for copper and zinc that are based on the pilot study performance of multimedia filtration in the treatment of boatyard stormwater. Boatyards are applying AKART to include stormwater treatment like Stormwater Rx or equivalent by installing this type of treatment equipment now. Ecology must ensure a level playing field for all boatyards by requiring stormwater treatment (as necessary to meet WQS) as part of AKART.

The draft permit and the EIA does not clearly state what measures identified in this draft permit to ensure compliance with WQS, WQS based effluent requirements, and benchmarks, are required of all permittees or alternatively, are subject to further site specific analysis. PSA would propose that all permittees under this draft permit would be required to implement treatment, vacuum sanders, and other BMP requirements of this draft permit and that these BMPs are not conditioned upon level one, two, or three site-specific analysis. Ecology has concluded that the benchmark levels proposed in this draft permit can only be achieved with the industry wide application of these measures.

Pacific Fisherman Shipyard

Ecology should exclude Pacific Fisherman Shipyard data (Page 24, Table 3) from the analysis or justify its inclusion. The removal of Pacific Fisherman Shipyard data from Table 3 would reduce the weighted mean annualized costs to \$16,350 (15% decrease) for small and \$32,600 (16% decrease) for large boatyards without site improvements.. Shipyards should not be included in this analysis. Shipyards are required to comply with different and more restrictive “individual permit” standards and therefore will have disproportionately high compliance costs that can not be used in the boatyard context. Whether shipyards and boatyards are treated equitably under the stormwater regulations is a different issue. The Pacific Fishermen costs should not be included as a point of reference in this analysis.

Table 8 has arithmetic errors in the annualized totals; PSA would propose excluding the Pacific Fisherman Shipyard data and the resulting annualized totals would be: \$23,664- \$59,314 for small boatyards and \$43,139-\$114,539 for large boatyards.

Table 9 would then read as follows:

Table 9: Total Compliance Costs for Small and Large Boatyard Businesses

Small Businesses		Large Businesses	
Low	High	Low	High
\$23,664	\$59,314	\$43,139	\$114,539

Table 10 would then read as follows:

Table 10: Cost-to-Sales Ratio for Small and Large Businesses (Annualized Cost per #100 of Sales

Midrange Sales		Small		Large	
Small	Large	Low	High	Low	High
\$1,300,000	\$19,000,000	\$1.82	\$4.56	\$0.23	\$0.60

Table 11 would be more representative of the data set if it excluded Pacific Fisherman Shipyard data.

Table 11: Summary of Varied Reported Costs for StormwaterRx® without Site Improvement (without Pacific Fisherman Shipyard data)

Data Source	Capital Cost/Acre	O & M per year	NPV	Annualized Costs/Acre	Annualized Costs for a 2- Acre Boatyard
Weighted Mean	\$45,733	\$3,706	\$79,506	\$8,166	\$16,332

Table 13 would be more representative of the data set if it excluded Pacific Fisherman Shipyard data. Annualized cost without site improvements should be \$16,332 for a 2 acre boatyard.

Tables 14-17 using the industry profit margin would be more representative of the data set if they excluded Pacific Fisherman Shipyard data. With an annualized Stormwater Rx® or equivalent treatment cost of \$16,332 for a 2 acre boatyard without site improvements, how many more boatyards would be economically achievable?

Tables 18-21 using the all increase in sales as profit would be more representative of the data set if they excluded Pacific Fisherman Shipyard data. With an annualized Stormwater Rx® or equivalent treatment cost of \$16,332 for a 2 acre boatyard without site improvements, how many more boatyards would be economically achievable?

Compliance Costs Excluded from the EIA

According to the WAC requirements for the EIA those costs associated with compliance with WQS must be excluded from the EIA. The benchmarks in the draft permit are based on levels that Ecology determined are technologically achievable and necessary industry wide in order for boatyards to achieve compliance with water quality standards.

The cost impact study should consider the costs passed on to the public by allowing businesses (and municipalities, for that matter) to pollute and contaminate sediments by stormwater. This is a terrible precedent to allow business to profit at the expense of the environment, and/or to pass the cost of their neglect onto the public.

Assumptions about Costs

The report assumes (Page 24, Table 3) that the difference in the costs for a small boatyard and large boatyard is directly proportionate to the assumed yard size. The EIA author arbitrarily assumes a large yard has twice the area of a small yard, and therefore the treatment costs for a large yard are (exactly) twice the cost for a small yard. If this is the case, then how is it possible that the “general permit has disproportionate impact on small businesses?”

Small versus Large Businesses and Disproportionate Costs

Large businesses have grown this way by intent - through hard work, and investment to produce efficiencies in their business operations. The economies of scale that come with these investments should not be used as a basis for allowing small businesses to skirt the regulations.

The EIA cost test analysis (Page 29, Conclusion of Estimated Costs, and Table 10) is fundamentally flawed because of the assumptions Ecology used to source the cost and revenue data. The EIA author uses “assumed” mid-point yard sizes (which is directly proportionate to treatment cost) and “actual” mid-point revenue data for the cost comparison, and only two classes of yards (large and small.)

Ratios of Large Yard to Small Yard

Size (= Cost)	2 : 1 (assumed)
Revenue (= Sales)	15 : 1 (actual mid point)

It is unlikely revenue for the typical large yard will be 7.5 times that of a typical small yard when the work space at that typical large yard is only 2 times that of a typical small yard. Ecology should use actual data in both cases. The large/small yard size assumption biases the cost-to-sales ratio against small business. PSA suggest Ecology perform the comparative analysis using actual data from a sampling of yards for both the numerator and the denominator of the calculated ratios. For example, it should generate actual cost-to-revenue ratios for the yards that have installed a StormwaterRx or other treatment system and compare that to actual costs of installing treatment for the seven yards. Seaview might be representative of a large yard, and South Park Marina might be representative of a small yard, for example. Another more representative metric would be to use cost per employee using actual data.

The scenario described in the Arcadis (Page 36) report whereby a boatyard would undertake the level and cost of site improvements described to achieve the site improvements would not occur in practice, or would occur only in a small minority of cases. Facility owners are creative at holding costs down; PSA suggests any site improvements would be made at a fraction of the cost described in the Arcadis report. It was reported that the Seaview Boatyard and Canal Boatyard costs both included some site improvements in addition to the treatment costs.

Treatment Technologies

It is not clear why Ecology is suggesting that “some of the options will only be available to a small number of boatyards.” Since the completion of the Boatyard Stormwater Treatment Technology Study, StormwaterRx has developed two smaller Aquip enhanced stormwater filtration systems specifically for small boatyards and in response to concerns from the Northwest Marine Trade Association about affordability of stormwater treatment BMPs for boatyards. StormwaterRx Aquip 25SBE will treat runoff from a boatyard of up to 0.4 acres; and Aquip 10SBE will treat runoff from a boatyard of up to 7,000 square feet. These systems are available at a proportionately lower cost.

Comparison of catch basin inserts (Page 35, Stormwater Treatment and Discharge, Catch Basin Inserts) containing sorptive media to stormwater treatment BMPs such as StormwaterRx Aquip is inappropriate. The missing link here is the effect of mass loading on catch basin insert performance. Under no circumstances can catch basin inserts produce the suggested metal removal efficiencies for sustained durations and it is misleading to insinuate that this is possible. It is likely the catch basin inserts tested in the Hart Crowser report were tested at non-industrial runoff concentrations (e.g. vehicle parking lots) and certainly not in the high copper loading conditions that are of interest here. If Ecology had desired to weigh the performance of catch basin inserts on equal conditions to the other three treatment BMPs tested as a part of the Boatyard Stormwater Treatment Technology Study, it should have done so at that time, or should fund an equivalent study of the effectiveness of catch basin inserts on reduction of metals from boatyard runoff.

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A typical 1-acre paved boatyard in the Seattle area will generate about 1 million gallons of runoff per year. Assuming the average copper concentration in runoff of 3 mg/L copper, this translates to 25 lbs total copper per year. Assuming the copper is 60% soluble (average of all marine facility runoff data in StormwaterRx database) that one acre yard would generate 15 lbs/year of dissolved copper. StormwaterRx would require almost 1,100 lbs of sorptive filtration media to remove this mass of soluble copper, the equivalent of that amount of media contained in an Aquip 25SBE. It would require approximately 150 catch basin inserts for a one-acre yard, or 300 catch basin inserts for a 2-acre yard, by our calculations, to remove this mass of copper, under the most optimal conditions. Clearly it is misleading and inappropriate to reference a catch basin insert device in the same context as one of the stormwater treatment BMPs tested during the Boatyard Stormwater Treatment Technology Study.

Combinations of BMPs is likely the only way to approach the benchmarks. There is no doubt of the value of catch basin inserts or catch basin fabrics in preventing pollution from boatyards, however not as a stand-alone treatment BMP as is suggested in this EIA.

Economic Analysis Methodology

Costs and benefits of compliance with the provisions in the proposed permit should be included in the EIA. The draft EIA looks only at the anticipated costs to permittees of the measures intended to ensure compliance with WAS. A more robust economic analysis is required for this study to qualify as a comprehensive economic analysis. Ideally, the direct, indirect and induced economic benefits to the individual permittees and to additional beneficiaries associated with pollutant reduction, including the commercial fisheries, recreational/sports fisheries, the boatyard industry, the general public, and others should be considered in order for a balanced economic impact analysis to be presented. The commercial and recreational/sports fin and shellfish industries and the support industries that support these industries, including boatyards, equipment manufacturers and retailers, repair and service industries, tourist related industry and others are directly or indirectly affected by exceedences of water quality parameters. At a minimum the direct economic benefits to the affected parties, the beneficiaries, must be integrated into the analysis, so that the costs and benefits associated with the permit requirements are compared. Similarly, the costs of not implementing this permit should be identified.

Mitigating Measures to reduce the Cost of Regulation to Small Businesses

Ecology may need to explore alternative procurement mechanisms for treatment technologies to reduce upfront costs including leasing, low interest loan programs, etc.

Another measure to finance treatment installation could be a fee associated with all hull refinishing activities based on the length or material requirements (paint) for a boat.