What follows are a small sample of the costs incurred by Property Owners within the Willamette River Newberg Pool. These ten properties are shown as "Property Owner #1, #2, #3, etc.: Location". We have been asked to omit their names and addresses so that these do not appear in the public record (for obvious privacy and safety reasons). If the Committee wishes to contact a homeowner directly, please ask us to obtain permission. Below is a <u>Summary Table of Costs</u> incurred for the last 5-6 years or planned. Please keep in mind that this is just a sample of the growing impact of larger and larger high-energy wake.

| | Property Damage Report (Summary) – 2019-03-05v7 | | | | |
|---------------------|---|-----------|---|------------------|--|
| Property Owner # | Location | Year | Type of Damage | Cost | |
| 1 | Yamhill County | 2016 | Erosion Remediation | \$4,875 | |
| 2 | Wilsonville | 2015 | Ramp & Steps Replacement | \$37,800 | |
| | | 2015 | Retaining Wall | \$46,000 | |
| 2 | Butteville | 2016 | Lower Retaining Wall | \$14,000 | |
| | (3 Slides) | 2019 | Shoreline Remediation | \$40,000 | |
| 4 | Wilsonville | 2016 | Dock Replacement | \$7,900 | |
| 5 | Wilsonville | 2013 | Lift & Repairs | \$6 <i>,</i> 298 | |
| 5 | | 2014-2018 | Strengthen Boathouse | \$1,750 | |
| 6 | Newberg | 2017 | Ramp Repair | \$3 <i>,</i> 520 | |
| 7 | Yamhill County | 2019 | <u>Future</u> Cost Estimate for Shoreline Remediation | \$150,000 | |
| 8 | Yamhill County | 2015 | New Dock & Lift | \$47,125 | |
| 9 | Clackamas County | 2013-2018 | Dock Repair | \$5,000 | |
| 10 | Yamhill County | 2017 | Landing, Gangway Repair | \$2,000 | |
| | Sample Damage Cost – TOTAL: | | | | |

NOTE: This Information has been collected by the Oregon River Safety & Preservation Alliance, Willamette Greenway Alliance, Butteville residents, and the Ladd Hill Neighborhood Association.

NOTE: Please review the letter from R&B Tree Service (page 2) that describes the increasing impact on shoreline trees that they have seen over the last several years.

R & B Tree Services

P. O. Box 145 Forest Grove, Or 97116 503-268-9575 rnbtreeservice@gmail.com

February 25, 2019

To whom it may concern,

My company has been servicing Portland and the surrounding areas for over 25 years, this has included multiple properties along the shore line. I would approximate that we have seen over a dozen trees severely suffering from weak roots and declining health that is directly related to soil erosion. We have also seen a drastic increase in trees that are starting to lean and have already fallen on their own which can be potentially dangerous. The soil erosion to the shoreline has been and continues to be a problem for the surrounding trees. If the water activity continues unchecked I believe we will continue to lose more trees and foliage, which not only effects the soil but also has an environmental impact for fish and wildlife. I hope that I have provided an insight into the effects soil erosion has on tree growth along the shoreline in our community.

Thank you for your time.

Sincerely,

Brett Batchelder

Owner

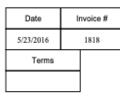
R&B Tree Services

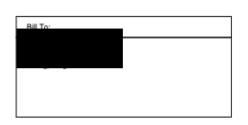
Property Owner #1: Yamhill County Resident

Here is documentation for House Committee on Natural Resources to consider as it relates to bank remediation. You will note that I included the PLI bid as well as the bid from Marine Indus that essentially is the Wilsonville Cement contractor that would have performed this activity from the water. You will see that mobilizing and demobilizing the barge was over \$30k with no work being done. Doing anything from the water is crazy expensive.

| 6 | SYSTEMS | 7/22/2016 | Proposa | al & Acce | ptance |
|--------|--|---|---|-------------------------|----------|
| 045 SI | STEMS (Contractor) E 61" Ct, Hillsboro, OR 97123 03)649-8111 F- 503-649-4621 | LICENSED, BONDED & INS CCB # 158751 MBE/DBE 7 WASHINGTON UBI # 60236 | 013 | | |
| | | PHONE 503-754-3824. | don@donfuchs. | com | |
| IREE | T | JOB NAME Fuchs Don pi | o wall? | | |
| | TATE, ZIP CODE | JOB LOCATION/ADDRES | | nvile Rd., Newberg | OR 97 |
| IGIN | | JOB PHONE | | | |
| | TED START DATE | EXPECTED COMPLETIC | N DATE | | |
| | of work Mobilization and Demobilizatio | on: Required. Toilet by | others | s | 4,538.00 |
| 2. | DELETED: Topographic survey. | | | s | 0.00 |
| 3. | DELETED: Geotechnical Service and special geotechnical inspections and save on the mark ups. NOT INC | NOTE: Owner can hir | | | 0.00 |
| 4. | DELETED: Preliminary drawing owner's review. NOTE: These draw used if approved by the engineer. N | vings are not for construc | | | 0.00 |
| 5. | DELETED: Structural Engineerin Owner can hire the engineer directly | | | | 0.00 |
| 6. | DELETED: Special inspections li firm. NOTE: Owner can hire a spec INCLUDED. | | | | 0.00 |
| 7. | OPTIONAL: Provide Yamhill Co item doesn't include cost if the count federal agencies involved like the An | ty decides that we need to | get the state a | | 3,100.00 |
| 8. | OPTIONAL: Scope the sewer lin damage them during construction. T don't damage utilities that we can't so NOTE: The owner can save the mon this work and take the risk for damage | This cost also covers a pri ee when we are installing ney for this line item by r | vate locator to piles and, or a tot authorizing | insure we nchors. | 840.00 |
| 9. | Temporary Erosion Control Meas Newberg in order to get a permit. | sures: This will be requir | ed by the City o | of \$ | 2,513.00 |
| 10. | OPTIONAL: Clear plant material approx. 8 cubic yards of material. T necessary, hauling and dump fees. N replacement is not included. No larg | his price includes cutting OTE: Owner may choos | down plant ma e to do this wo | aterial as rk. Plant | 690.00 |

Invoice





Terra Dolce Consultants, Inc. 4706 NE 75th Ave Portland, OR 97218

| | | Clair | n # | \square | | |
|---|---|--|------------|-----------|----------------|------------|
| | | | | | | |
| | Description | | Unit | | Rate | Amount |
| Terra Dolce Consultant Services for the referen- investigation on May 5 of our May 23 2016 Ge Drilling contractor | ced project. Our servi 2016, engineering ana | ces included a field lyses, and preparation | | 1 | 3,000.00 | 3,000.00 |
| | | | | | | |
| | | | | | | |
| | | | | _ | | |
| b | Minority Women Eme | erging Buisness #6128 | 3 | | Total | \$4,875.00 |
| Phone # | Fax # | E-m | ail | | Payments/Credi | ts \$0.00 |
| 503-502-5114 | 503-206-5114 | clhovind@co | omcast.net | Ī | Balance Due | \$4,875.00 |

Property Owner #2: Wilsonville Resident

2015-Stairs to dock: We replaced the ramp and installed three concrete steps up into the yard to anchor the ramp for \$36,800. Steve Notman of Steve's Marine did the work. Then it cost an additional \$1,000 to haul the old ramp out. The old steps and ramp had been fine for 55 years.





Property Owner #3: Butteville Resident

Photo #1 (westernmost point of our property): caused by a broken pipe on our property, the water undercut the bank causing a portion of it to slide into the river. Whether any erosion caused by high energy waves was not considered at this time. Our Geotechnical Engineer surveyed our and neighboring properties and noted a crack at the top of the riverbank that runs about 1/4 mile to the west of our house. Extensive retaining wall was installed costing approx. \$46k. May 2015



Photo #2 (center of property): Crack in riverbank soil caused the top of the "middle" portion of our riverbank to slide. We installed the first portion of our lower retaining walls at this time. Cost approx. \$14k. February 2016.



Even with taking our broken pipe and heavy rain into consideration, it seems obvious to us (Photo #3) was augmented by the undercutting of the bank by high energy waves. All retaining wall work was done by PLi Systems, Inc.



Our neighbors directly to the west of us experienced a major slide similar to ours about 18 months ago. They lost their stairs and decking as well as a sizeable portion of their bank. Last winter they also lost their dock. I do not know if any river activity contributed to their losses, although it seems likely to me the loss of their dock was a result of high-energy waves.

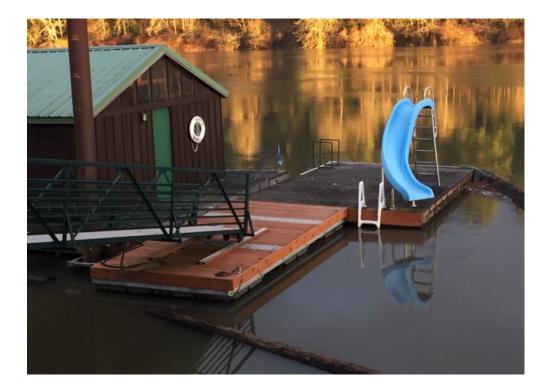
We have not included any copies of receipts as we have about a 3" thick stack of documentation and to be honest, we would like to protect our privacy a bit. We have not exaggerated any of the costs ~ we estimated at the conclusion of the three slides, we spent about \$100k including decorative rock installation, new soil and native plants.

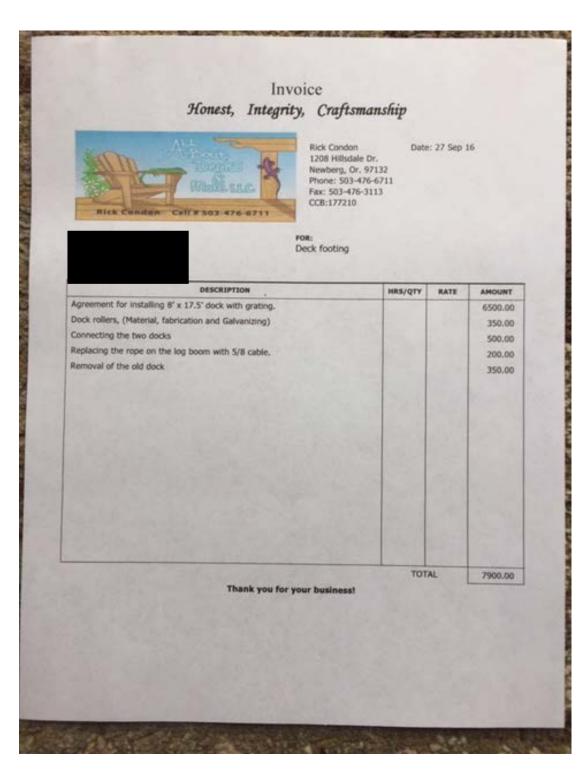


Property Owner #4: Wilsonville Resident

The first photo shows our float next to the boathouse. The lighter colored portion is the newer portion of what once was a single float. This was a single float when we purchased the property in 2001, and we believe for many years prior going back to when our previous owner had the boathouse installed in 1957. We do not know if there had been any repairs prior to our purchase.

In 2016, the float was broken, we believe in a large part, due to the high-energy wakes that have become a problem on this stretch of the Upper Willamette (River Mile 40). Because of the length of the original float being perpendicular to the high energy waves, and because the original float was not designed for this size wake, the spine of the structure was broken. To address the issue of the wake, instead of repairing the float to a single structure, we had the connection hinged to allow the two portions to move without a rigid structure. This seems to have worked since then, but the result is that when the big waves hit, it requires a lot of balance to stay upright when standing on either portion.

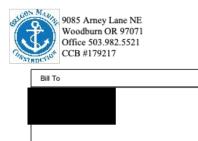




Property Owner #5: Wilsonville Resident

This was done to stabilize the downstream/bank side corner of our boathouse - it was getting separated from the structure by wakes.

Guessing another \$1,500-2,000 in time and materials over the past 5 years to repair/strengthen other sections of the boathouse that where getting damaged over the summer.



| Date | Invoice # |
|------------|-----------|
| 10/22/2013 | 1312 |

Invoice

| | | | P.O. Number | Terms |
|------------------|--------------|---|-------------|----------------|
| | | | PER STEVE | Due on receipt |
| Quantity | Item Code | Description | Price Each | Amount |
| | 5000UL2 | *5000UL2-2T V-HULL HYDROHOIST BOAT LIFT 12 & UNDER SLIP WIDTH 2 - 15's 40'' 201" POLYETHYLENE TANKS & 110V CONTROL UNIT ALL GALVANIZED STEEL ABOVE THE WATER LINE FULL WIDTH 4' RANGE CHANNEL WTH 3" ADJUSTABLE EXPANSION CHANNEL HEAVY DUTY 1/4' TORSION BARS BOAT SIDE PADDED STOP PITMANS HEAVY DUTY HULL SUPPORT SYSTEM GRADE 5 PIVOT HARDWARE **LOW PROFILE**. HEAVY DUTY STRUCTURAL GRAD DOCK BRACKETS w/MOLDED BUMPER GUARDS HD BLOWER MOTOR w/HOUSING **DOCK 116/w POWER REQUIRED** | 8,399.00 | 8,399.00 |
| | INSTALLATION | ASSEMBLY- DELIVERY & INSTALLATION TO WILLAMETTE RIVER | 1,500.00 | 1,500.00 |
| 2 | PT2X12X16 | PT LUMBER 2" X 12" X 16' | 42.00 | 84.00 |
| 2 | PT6X8X10 | PT LUMBER 6" X 8" X 10' | 65.00 | 130.00 |
| | WH-A | 3" x 5" GALVANIZED ANGLE | 7.50 | 75.00 |
| 50 | DH | DOCK HARDWARE - HD GALVANIZED - 1/2 CARRIAGE BOLT SET + LAG BOLTS | 2.00 | 100.00 |
| 5 | 5002B | 10' BLACK DOCK EDGING | 42.00 | 210.00 |
| 1 | INSTALLATION | DEMOLITION/DISPOSAL EXISTING FACIA & CARPETED BUMPER RAIL - INSTALLATION OF BRACKETS & NEW 2x BEAMS & CUSTOM 6x BEAMS | 800.00 | 800.00 |
| | DEPOSIT | *** DEPOSIT PREVIOUSLY COLLECTED \$5000.00*** | -5,000.00 | -5,000.00 |
| Fhank you for yo | ur business. | · · | Total | \$6,298.00 |

Property Owner #6: Newberg Resident

Photos of property shoreline and dock damage in the Dog Ridge area, followed by the Invoice to repair the damage.



KEN'S FLOATATION SERVICE INC.



ERIC DYE 1701 CLACKAMETTE DRIVE OREGON CITY, OR 97045 CELL 503-449-6667 FAX 503-650-6362 WWW.KFSDOCKS.COM CCB# 70064 KFSDOCKS@COMCAST.NET

INVOICE

November 8, 2017



Hang ramp and cut crossbeam. Pull ramp pile and redrive. \$1,100.00 hourly rate covers tug, crane,7 man crew and material barge. 11:30 to 1:30

Vibro rental at \$325.00 per pile Return and weld cross beam and modify pile hoop \$400.00 1 hour MOB COST FOR CRANE Wilsonville to Newberg \$595.00

BALANCE DUE \$3,520.00

Any questions, please call. Thank you, Eric Dye

Property Owner #7: Yamhill County Resident

We have lived on the Willamette River since the beginning of 2003. In 2014, we began noticing undercutting along parts of our shoreline. As we were restricted by the state to place rip rap, we were left hoping for the best. Our situation was then complicated when our neighbors lost over 15 ft of their vertically sloping shoreline. As they felt their hands were tied by regulations, they chose to illegally dump \$30,000 worth of boulders over the top of their property onto the shoreline. The effects of doing this was not only significant to the fish & wildlife, but it also places the adjoining properties at greater risk because it changes how the water flows. In 2016, we had a vertical slide resulting in over 10 ft loss of embankment on the west side of our property due to the undercutting. This undercutting we attribute directly to high energy waves. Unfortunately, we did not get pictures before this occurred. On the east side of our property, we are now seeing a large cutout and we believe our ramp, stairs and deck are in jeopardy. We also attribute this to high energy waves. The boulders that were placed along our neighbors shoreline is causing the wave energy to flow back up when it hits all the rock. In 2017 we had an engineer do a site visit and we were told verbally that to remediate both areas would cost around \$150,000. We chose not to get this in writing for 2 reasons. First of all, the engineer said he would only work above the Ordinary High Water (OHW) Mark because of permitting issues with the State. We believe that working only above the OHW level is not going to permanently resolve the problem and the restoration work will be at risk due to high wave energy. Secondly, we also felt that once we had a written estimate, it would bring our property value down. This scenario is not unique to our family and is shared with many other landowners. We are literally between a rock and a hard place.



Property Owner #8: Yamhill County Resident

By Fall Of 2015, high energy wakes had repeatedly damaged our shoreline, dock and boat (tearing off cleats even with spring lines in place). We were faced with having to replace our entire dock and add a Hydro-Hoist boat lift to better protect our boat. The work was completed in late Fall 2015, for a total cost of \$47,125. Unfortunately, our shoreline continues to get undermined resulting in trees becoming unstable – either falling into the river or needing to be taken down before causing additional damage. See the attached letter from R&B Tree Services (Page 2 at the beginning of this Property Damage Report).



| | KEN'S FLOATATION SERVICE INC. |
|---|--|
| W | ERIC DYE 1701 CLACKAMETTE DRIVE OREGON CITY, OR 97045 CELL 503-449-6667 FAX 503-650-6362 <u>WW.KFSDOCKS.COM</u> CCB#70064 <u>KFSDOCKS@COMCAST.NET</u> |
| Septemb | Dock Quote/ Contract ber 6, 2015 |
| bumpers I have ad deck foo Purchase Two new Trucking | his float comes with Thru- Flow deck panels. Wood trim, and cleats. dided the extra 2' in the width and the length to give a total tage of 606 sq. ft. e cost for this dock is \$27,270.00 v roller steel pile hoops \$700.00 t o Wilsonville, assembly and delivery \$1,100.00 old dock and install new one \$500.00 of old dock \$1,700.00 sels repair on ramp \$75 rigation pump \$100.00 |
| New who Install in | k installed price \$31,445.00 |

One 6600 Hydro Hoist boat lift \$9,800.00 (price is if we install at same time as dock)

Project total is \$47,145.00

INVOICE

October 26, 2015

Above work has been completed

Contract total \$47,145.00 Payments received to date Down payment \$15,000.00 $\rightarrow \#_{6064}$ q(n) is Boat lift \$9,800.00 $\rightarrow \#_{6067}$ is 15/15

Balance due \$22,345.00 -

Any questions, please call. Thank you, Eric Dye

pars in full pars in full 10-26-15

Property Owner #9: Clackamas County Resident

Bolts have continued to be re-drilled, as the force of the wakes slamming the dock against the fixed piling is pulling the "collar" away from the dock and the metal plate below it. Picture 1 shows the collar flat before a wake impacts it. Picture two shows how the entire plate pulls away from the dock when a large wake hits the dock. The cost of repairing this is around \$1,000 per year. The entire system needs to be replaced. The decking on our dock is just a couple years old.

Also included in our bid was the cost to fix the lift. As the wakes slam the boat house, the lift shifts and becomes wedged under the log float and our lift doesn't work. We have had to get someone with a chainsaw to come shave the log so the boat lift works.





Oregon Marine Construction LLC DBA NW Marine Supply

9085 Arney Ln NE Woodburn OR 97071 OR - CCB#179217 WA - OREGGOM860BM

Name / Address

NMAD

| I | Estimate |
|------|------------|
| Date | Estimate # |

2521

2/22/2019

| Descri | otion | Qty | Rate | Total |
|--|-----------------------|-----|----------------|------------|
| TIME & MATERIALS PROJECT | ESTIMATE | | | |
| 4" X 8" PT LUMBER PLF (PILE I | BRACKET FRAMING) | 10 | 5.75 | 57.50 |
| GALVANIZED STEEL 3" X 5" A w/HARDWARE | NGLE BRACKET | 4 | . 9.95 | 39.80 |
| 3" X 6" UHMW ROLLER (1/2" R | DLLER HARDWARE) | 8 | 62.35 | 498.80 |
| 35' ALUMINUM CRANE/SERVIG HOUR (TIME WILL BE CLOCKED FRO | | , 6 | 395.00 | 2,370.00 |
| R&R UHMW ROLLERS R&R PILE BRACKET FRAME L' WELD PILE BRACKET HYDROHOIST TROUBLESHOO | | | | |
| | 卡 | 80 | | |
| | | | | |
| | 2 | | | |
| | | | | |
| | | | | |
| We look forward to working with | ou. | | Total | \$2,966.10 |
| Phone # | E-mail | | Website | |
| (503)982-5521 | info@oregonmarine.net | | nwmarinesupply | 1.0000 |

Property Owner #10: Clackamas County Resident

We are property owners along the upper Willamette River. We actively use the river all year long and have for many years.

Since purchasing our home in 2015 we have been forced to absorb "abnormal" repair work on our dock and gangway. As you can see from the attached photos, we've had to replaced several support beams, large iron anchor bolts (which snapped in half), and numerous metal brackets. The repair work was done by a company in Newberg, All About Decks, Docks & Moore. Rick Condon the owner of the company advised us that the repair work performed on our dock and gangway was unusual and not consistent with what he would classify as "normal wear" on a private dock located on the Upper Willamette River. Mr. Condon has been one of three companies servicing home owners on the upper Willamette River for over a decade. In his professional opinion he attributes this recent surge of damage on private and commercial docks to the large wakes being generated by the new surf and wake boats being sold in the industry today.

| H | onest, Integrity, | "Craftsmanship¶ | | |
|-----------------------------------|-------------------|--------------------|---------|------------|
| | Decks | ¶ Rick Condon → | - Date: | 6 Aug 17 ¶ |
| TO: 1 | FOR: | | | |
| ····¶ | Landing, gar | ngway 📲 | | |
| × | ESCRIPTION× | HRS/QTY× | RATE× | AMOUNT× |
| Repair dock piling anchor next to | the gangway × | × | × | 2000.00 |
| × | | × | × | × |
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