Rec. 1/14/2013

January 14, 2013 Ray D Taylor

I submit into the official record of these proceedings the following statement for inclusion as testimony in that record:

This meeting of the City Council of West Linn, Oregon, I fully believe, is not yet procedurally empowered to conduct a hearing on AP-12-02 or AP-12-03 Appeal of Planning Commission decisions denying Water Partnership application to expand a water treatment facility and new water pipeline projects, for this reason. The city has not provided the following information required by the following sections of the West Linn Community Development Code in the notice of the hearing published in the newspaper:
Section 99.270 D. List any grounds for appeal or review stated in the application for appeal or review, but state that the appeal or review is not limited to the stated grounds for appeal or review and that all relevant issues may be considered.
Section 99.270 E. State that the application shall be de novo.
Section 99.270 G. State that the application and record are available at no cost, and copies at a reasonable cost.

While the city council is authorized to enact codes for the governance of our city, surely the council must expect to follow its own rules and set the example for our citizenry. That you have patently failed to do, with the result that your attempt to continue these proceedings under color of law as a hearing on the appeals before you, along with any decisions you reach as a result of these proceedings, renders both the proceedings and any resulting decisions legal nullities on their face.

The failure of this city council to comply with the three (3) sections of the West Linn Community Development Code cited above deprives me of my right to understand and participate in a legally valid hearing on the appeals by offering testimony and evidence in that hearing on a reasonably informed basis. I respectfully request that this council act now to discontinue any effort at hearing AP-12-02 or AP-12-03 until such time as the city complies fully with the requirements of all West Linn codes and all other legal requirements for convening and conducting a hearing on those appeals.

Rather than have it later inferred by the Land Use Board of Appeals or by any court of competent jurisdiction, that my remaining here longer constitutes my accession to any legal validity for a hearing on either of the appeals until the city complies fully with all legal requirements for convening and conducting that hearing, I will excuse myself from further participation in these proceedings.

I live in the city of Tigard. My family and I have lived in this community for over 15 years. I am here tonight to express my family's opposition to the Lake Oswego & Tigard Water Partnership: the expansion of Lake Oswego's treatment plant - primarily at Tigard's ratepayers' expense, and the unfair and burdensome nature of building a *regional* water treatment plant in a quiet *West Linn* neighborhood.

Tigard water customers were just hit by a 14% rate increase this month to pay for this expensive, unneeded, and unwanted project. We already have had to endure a 30% increase that took effect two years ago. This is a whopping 44% increase in just two years! We can continue to get our water from Portland, who has some of the best water in the nation. Or, we could use water from the Willamette River like Wilsonville and Coca-Cola do. Both options would cost less than the outrageous expense Tigard's ratepayers are paying for this partnership with Lake Oswego.

West Linn residents should NOT be forced to deal with three years of construction, the unfair disruption to the livability of their everyday lives, and the burden of enduring an industrial-sized, regional water plant in their neighborhood and city.

I have a close personal friend for 10 years that recently moved back to his mother's home to care for her in her old age. She may have 3-5 years left and this needs to not be the way she spends her last years . . . listening to constant pounding from pile driving and other construction . . . and losing her water for 8 hours a day (and possibly her sewer and electric service) at the whim of a construction schedule or from utility damage? She is unable to sell her home now (for what it should be worth), as the project is public knowledge in the area. Her retirement money is in her home and she could not be moved to an assisted living center without selling her home first. The selling price she would have to settle for now is way below the market value she could have gotten if this "water treatment plant" were not happening next to her home of over 50 years! I worry about her getting emergency help quickly when her street is frequently blocked off.

My family does NOT support these two CUP applications, the Partnership's expanded plant and pipelines, or the *uncalled for intrusion* into West Linn's livability. We support West Linn citizens and *businesses* in rejecting this project. Please reject both appeals from Lake Oswego and MY city! Lives are literally at stake from this project!! Thank you.

- My name is Ken Henschel, and I am the Chairman of the Board of Commissioners of the Tigard Water District, PO Box 970281, Portland 97281.
    - We are a Special Service District serving the unincorporated area on and around Bull Mountain, supplying approx. 3500 residential customers with water.
- I am also a Board member to the Intergovernmental Water Board, consisting of representatives from Tigard, King City, Durham, and the Tigard Water District. You may not realize that the Lake Oswego/Tigard Water Partnership doesn't just supply water to those two cities. In fact, the cities of King City, Durham, and our Tigard Water District also receive water from Tigard through Intergovernmental Agreements. So the water plant expansion directly serves five municipalities, plus West Linn.
- I have been following these proceeding closely.
- I understand that some of our opponents have attempted to vilify and discredit the Lake Oswego/Tigard Water Partnership's staff and its elected officials. In my view, the partnership's staff has been extremely courteous to the opponents, and have gone out of their way to offer constructive and innovative solutions to those opposed to the expansion. From the elected officials, I have seen only professionalism as they attempt to work with their neighbors to find solutions to our common water problems.
- I understand that some of our opponents openly hold your staff in contempt and challenge their professionalism, however, I have seen only professionalism from the City of West Linn staff throughout this process.
- I understand that some of our opponents have attempted to intimidate you by rumors of recall, and that is unfortunate, especially as elected officials are simply implementing policy that was often created by previous councilors. As an elected official myself, I understand that sometimes we are caught between a rock and a hard place, and that we all do our jobs as volunteers, or for very minimal pay. Threats of recalls help nobody, and I am sad to see you having to listen to those recall rumors for just doing your job.
- What I can't understand is why we must all tolerate such bad behavior. Whether we are for or against this plant expansion, I implore everyone to keep a cool head, and to recognize that none of the elected officials involved here are enemies. They are our neighbors; just trying to do the job that they were elected to do. Please everyone, treat them with respect and courtesy as they attempt to work through this and other challenging decisions.
    - I want to remind all parties that we are not some out-of-state corporation attempting to force itself on your community. **WE ARE YOUR NEIGHBORS!** We live just down the road in Tigard, Durham, King

City, Lake Oswego, and on Bull Mountain, and we are simply trying to secure a dependable water supply, just like you. The City of West Linn receives much of your water from sources outside of your city boundaries because those communities have been nice enough to grant West Linn access to receive that water. We are only asking our West Linn neighbors to do the same as your neighbors have done for you.

- As a fellow volunteer elected official I appreciate the work you do, and ask that you concur with your professional staff that our applications have not merely met, but have wholly exceeded the decision criteria, and that you overturn the Planning Commission decision. Thank you!

1-14-13 Verbal Testimony to WL City Council on LOT Appeal:

- *This testimony is for CUP-12-02 & CUP-12-04 - now before you as AP-12-02 & AP-12-03.*
- This has been mostly a failed process. During most of it, there has been a shameful holding of WL's citizens at arm's length with no legal requirement to do so. The citizen involvement process completely broke down. Meanwhile, the applicant had constant access to all our city's decision makers. Still our PC got it right (7-0 *against* both applications). The city's *primary* planning tool worked!
- I was on the Great Neighbor Committee which worked for nearly 1 ½ years to get beneficial mitigation for three years of construction in our city. The applicant has misled, misdirected, lied, disrespected, *demonized*, and ignored our reasonable mitigation requests.
- Our efforts failed not because we didn't put in exhaustive hours or efforts, but because LOT officials and its oversight committee members offered mostly perfunctory responses that never amounted to substantial and *enforceable* mitigations. The Greg McKenzie facilitation was a joke. He insulted the neighborhood behind the scenes.
- There are no real and *permanent* community benefits with this project.

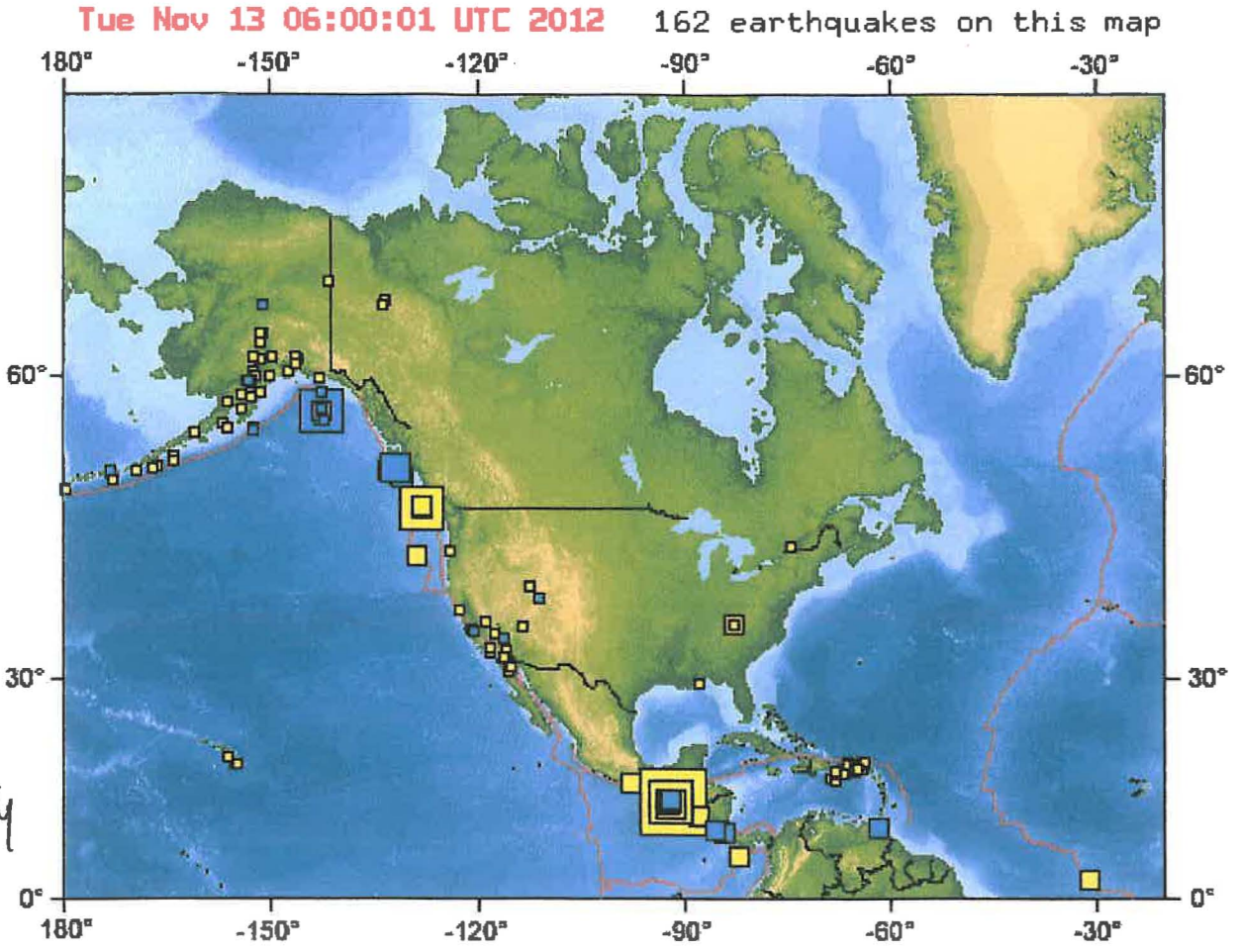
  1. The "trail" is a red herring. The "trial" is really an emergency access road - required by Tualatin Valley and not wanted by most Mapleton residents.

  2. The intertie exists now and flows *both* ways. The promise to provide water after an earthquake or other widespread disaster is also a red herring! There is NO generator at the intertie so NO water can be pumped if there is no power available to run the pumps. LOT is NOT buying a generator. The pipes will settle nearly 8" at the plant site in a large quake. Ruptured pipes and no power mean NO intertie water.

- Note several large quakes have occurred in the past several months along the Juan de Fuca Subduction zone (a 7.5 on Jan. 5!). There was a 4.3 off Oregon just Saturday. The zone is active!
- Mom moved into her house in 1960. She is 86. Her water will be off for 8 hours a day for at least 6 weeks. She has medical conditions that do not allow her to be without her utilities. She has already suffered a stroke. If she was to have a heart attack or another stroke, responders will have to drive around on Cedar Oak and Nixon – a 4-5 minute response! Those 5 minutes are literally life and death for her. And she can't sell her house for a fair price because of this project. She is stuck because her money is in her home's value. At 86, this is a life sentence!
- This project does not meet the requirements of CDC 60.070 A-1, A-3, and A-7, the comp plan, the R-10 zoning, the council's goals for citizen involvement, the city's opposition to Stafford annexation, and most of all – the requirements for common sense and open and accountable government. Please reject both appeals – for West Linn's 100 year livability and as the first step in rebuilding trust in our city government.
- Thank you!

Submitted by:

Jay Eric Jones



11/12 < 6.4
5.1
11/7 6.3

11/7 7.4

10:30pm
11/12/12

JAN. 14th 2013

Greetings Council Members:

We are opposed to the WTF project, it does not meet CDC 60.070A. I would like to address the 48 inch transmission line. See chart back page. It takes 4 -24 inch pipes to make a 48 inch, it takes 16- 12 inch, 36- 8 inch which is typical for residential. Council chambers is 39 'X 34' X 14' high to eaves. Changing to cubic feet, it would take 49 seconds to fill this entire room.

Water break at Atlantic Ave. 48 inch water main exploded, in this case this main if would have broken during rush hour it would have no doubt caused loss of life. Detroit area: Stranded motorists scrambled on top of their vehicles to escape the water. Supply to the water main was shut off by 2 pm, about 2 hours after the break. In this case if it was here 169,205.36 times 120 minutes equals 20,304,643 gallons. What plan is in effect to handle all this water? Southwest Miami Dade Florida: It's deja-vu another cracked pipe. Causing flooding and causing a sink hole that swallowed up a school bus. The flooding in May even killed some farm animals. Break was blamed on age of pipe; the new main LOT proposes will someday become old. What are we leaving for future generations? Yakima drinking water damaged air release assemblies were capped off. This is very dangerous, not allowing air to escape. Mapleton Dr. will have a minimum of 3 and they are known to plug. Waco Texas: First attempt to fix 48 inch main, when tested failed. Welds can even fail after testing from air in system and, or faulty air release assemblies. Submitted are several pictures of just one area on Mapleton Dr. Shows heavy flooding from trillium creek on a day of heavy rain. LOT is saying this will be buried 24 inch cover. With millions of gallons flowing through, how much will we hear or even feel in our homes especially near fittings such as 90s and 45s. We would strongly

urge council members to review material submitted to the planning commission thoroughly. We would like the information below to be entered into the record.

1. Vokoun vs. City of Lake Oswego, haven't satisfied court ordered settlement. Vokouns at last update were headed back to court.
2. CDC Codes we feel the project does not meet. CDC 60.070A, 1B, A2, A3, A5, A7 clearly ties to comprehensive plan. CDC55.070 B2E access and potential traffic problems, CDC 65.130 A1, A3, A5, A8 clearly ties to comprehensive plan, CDC 32.010 A, B water quality with new trench. CDC 32.020 D3 New pipeline route and stream diversion possible.
3. Comprehensive plan goal 2 section 1, Policy 8 and goal 9 Stafford. Also City Council goals Feb. 5, 2003 on page 2/117 comprehensive plan. Plan goal 1 sees finding 1C.
4. My experience with transmission lines, pumps, and reservoirs. 37 years, across the United States. Held licenses in 6 different states, including Oregon.

We strongly urge you uphold your planning commission's decision.

Carl and Linda Edwards

3,

Also would like submit power outage, 12- 12- 2010. Major outage on hiway 43, secondary outage on Mapleton Dr. Outage number 1751353. 5:29 AM To 12:44 PM. Tree came down roots and all across Mapleton Dr. and took two power poles with line down. New pole numbers, 4037 and 4038. It was due to unstable hill side. This area is near the end of Mapleton by the second creek before nixon. Also at end of Mapleton If you look west and up you can see flat platues where slides have occured. Also we would like you to listen and watch last meeting Nov. 1st 2012 of the planning commision meeting, as they so graciously performed.What ever happened to alternate sites?Any drill samples on slide areas questioned by MR. Axelrod east and southeast? What about fault line under existing plant, { River Forest Fault}.What about the 5,000,000.00 Dollars , This shouldn't have taken place until We The People were heard. It appears as if we are wasting our time, Or at least dought this process.Our, we the citizens going to get flushed down this 48 inch hole?I cannot find any 48 inch lines going strictly through a residential neighborhood.By allowing this size of transmission line that could be dangerous to property and life to me knowing what it can do is totaly irresponsable. Is one life enough ? I believe it would be too much.City of portland a while back was going to run a 24 inch line but they decided another route from which they figured it was capable of bringing down multi story buildings..I believe the citizens have the right to feel and be safe in their homes and city, afterall isn't it our city leaders resposibility?

Carl and Linda Edwards

4.

Velocity FPS	GPM
1	5640.18
2	11280.36
3	16920.54
4	22560.72
5	28200.89
6	33841.07
7	39481.25
8	45121.43
9	50761.61
10	56401.79
11	62041.97
12	67682.15
13	73322.32
14	78962.50
15	84602.68
16	90242.86
17	95883.04
18	101523.22
19	107163.40
20	112803.58
21	118443.76
22	124083.93
23	129724.11
24	135364.29
25	141004.47
26	146644.65
27	152284.83
28	157925.01
29	163565.19
30	169205.36
31	174845.54
32	180485.72

26,388.88

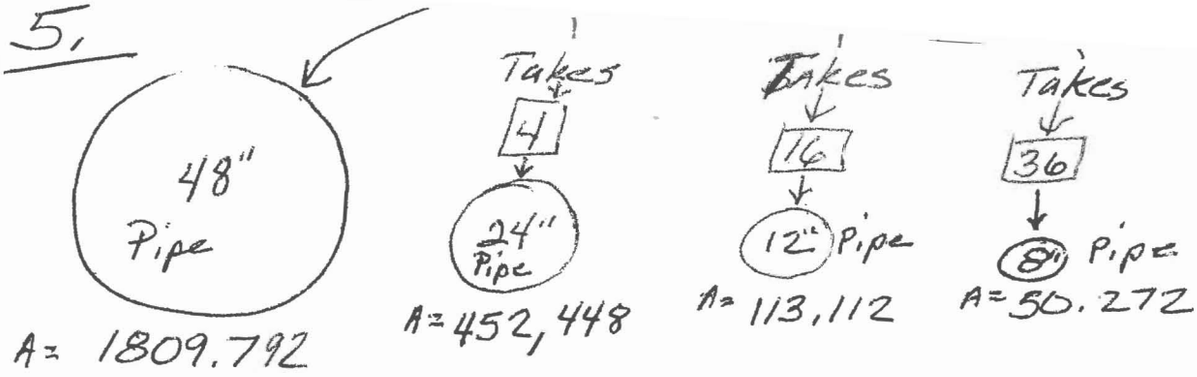
38. million gals Per day = 24 hrs.
÷ by 24 hrs = 1,583,333 Per. hr.
1,583,333. ÷ 60 minutes =
26,388.88 Pr. minute (GPM.
÷ By 60 sec. = 439.81 gal. Per second

If Pipe were to Break or seperate
Low 24 Feet per second (FPS)
30 Feet per second (FPS)
Low 135,364 (GPM) To High 169,205.36
(GPM)

48" pipe, Radius x Radius x
3.142 x 150 P.S.I = 271,468.8
Push Force at static pressure

A 48" Mueller Valve,
Sectional Valve Takes
588 Turns to Shut off,
could mean about 829,080 or more
Gallons By The Time
it Takes to shut off if They are
at valve when main comes apart.
48" valves are gear driven!

5.



1-cubic FT = FT^3 or 12" x 12" x 12", 1-cu. FT = 0.133680555555 gallon

See chart at worst case on opposite side = 169,205 ÷ G.P.M.

1 cubic FT. = 22,619.466527776207 cu. FT. Per sec.

÷ 60 sec. = 376.99

Counsel chambers is 39' x 34' x 14' High. = 18,564 cu. FT

18,564 cu. FT ÷ 60 sec. = 376.99 Per second

18,564 cu FT ÷ 376.99 = 49.242 sec. to Fill

This chamber.

News Flash: Water Main Break At Atlantic Avenue

News Update on the water main break

60

Potential Choke Hold on Flatbush Ave - Atlantic Avenue Intersection 2,3,4,5,D,N and R Trains

One Sunday February 9th a 48 inch water main exploded on Atlantic Avenue and Court Street in the most critical traffic bottleneck in the Borough. At 10:24PM on Sunday Night, the Water Department is reporting that the Main is still being worked on with an impending Monday morning rush hour lurking just a few hours away. The Traffic Department s 24 information number at **1-212-442-7070** says nothing in it's recorded message about the water main break. It does say that only that one lane on the east side of Flatbush Ave (North Bound) but gives no reason as to way. Nor does the Message say anything about the time the message was recorded.

The Water Department is unsure as to the present status of the break. For information on transit they referred you to the above phone number for the Department of Traffic. They also gave the following Phone Number for Subway information **1-718-330-3331**. No one answered the phone at this number and the TA's regular Subway information phone number is now only open from 6AM to 9PM at night.

this is the situation: At 10PM at night, with a water main break which can potentially strand East New York, Brownsville, Crown Heights, Bedford-Sty, Flatbush, Midwood, Flatlands, Sheepshead Bay, Mill Basin, and parts of Park Slope, NOT A SINGLE city agency thought Brooklyn was important enough to man phones after people would be coming home and catching the nightly news reports of the Water Main Break which can potentially strangle general access to Manhattan from all of our Subway Lines accept the A, G, and F trains and general road access to the Brooklyn and Manhattan Bridges. In addition, keep in mind that the Gouwanas Expressway is under reconstruction with limited or no access from Central Brooklyn to The Prospect Expressway accept via Hamilton Avenue and lane closures on the Gouwanas itself.

Also be aware that 48 inch water main breaks create massive damage to the roadway and construction repair can be expected in the coming weeks.

Lastly - It should be noted that the City is aware that many of our water mains need to be replaced. But up till now, it has been the position of the City that it is easier to just let them burst then doing the massive work which is needed to repair the mains. In this case, this main, if it would have broken during rush hour would have no doubt caused loss of life, and will complicate an already impossible traffic situation in downtown Brooklyn with the Manhattan Bridge, Flatbush Ave, the BQE and most of our major subway lines currently under repair.

will make an on the spot inspection of the sight tomorrow and report back to you

Mayor Guilliani's email address

Detroit-area freeway

7.

Posted 7/12/2007 2:56 PM

LIVONIA, Mich. (AP) — A massive water-main break shut down the eastbound lanes of a suburban Detroit freeway Thursday, swamping some cars in water up to 4-feet deep.

Stranded motorists scrambled on top of their vehicles to escape the water on Interstate 96.

"I see five vehicles that are in the water almost near the top of the door," said George Ellenwood, s pokesman for the Detroit Water and Sewerage Department. "They appear to all have been evacuated, but the vehicles are trapped on the freeway."

It wasn't clear what caused the break on the 48-inch main, Ellenwood said. Supply to the water main was shut off by 2 p.m., about two hours after the break, authorities said.

Flow
Refer to chart
in This case if it was here
169,205.36 X 120 = 20,304,643. gals
Gals per min. min.'s

Images of the break captured by television news helicopters showed what looked like a waterfall gushing down a freeway embankment and water bubbling up in a flooded area of the service drive above. Portions of the eastbound lanes were completely flooded.

The same main ruptured about three or four years ago, said Victor Mercado, director of the Water and Sewerage Department.

8.

Local News

Water main breaks again in neighborhood

SOUTHWEST MIAMI-DADE, Fla. (WSVN) -- It's deja-vu for a South Florida community dealing with another cracked water main pipe.

A 48-inch water main ruptured along Miller Road and Southwest 129th Avenue in Southwest Miami-Dade, at around 12:30 p.m., Tuesday. The break sent thousands of gallons of water into the streets before crews could stop the flow of water.

Adriana Lamar Miami-Dade Water And Sewer said the water main is a vital source of water for the county. "It's a transmission main that provides water to the southwest part of Miami-Dade County," she said.

Traffic was diverted away from the area, as Miller Road was shut down for several hours. By 4 p.m., one lane, in each direction, on Miller Drive was open again to traffic. However, the follwoing day, westbound traffic was totally closed on the roadway, as the repairs continued. One lane of traffic has since been reopened.

Tony Garcia lives in neighborhood and saw the water rise in the area soon after the break. "I was driving Miller," he said, "and then, when I get here on 128th, I saw water coming, and then I got around to my neighborhood, and the water was this high, and then it started coming up, coming up."

pipes . neath the pavement, after the neighborhood saw a similar scene back on May 3. The same water main ruptured about four blocks away from the latest scene, causing flooding and creating a sinkhole that swallowed up a school bus. The flooding in May even killed some farm animals.

That water main break was blamed on the age of the pipe, but it remains unknown what caused the most recent break.

Residents are not being ordered to boil water but are urged to conserve it.

According to Water And Sewer officials, the water main should be fixed by Thursday.

Miami - Dade, Fla.
more than once

This new Main will some day Become old, what are we Leaving For Future Generations?

10.

Main Pipe for Yakima Drinking Water Fixed

By Robin Wojtanik|Published: Jun 1, 2011 at 1:50 PM PDT (2011-06-1T20:50:9Z)

CITY OF YAKIMA NEWS RELEASE – Thanks to a receding Naches River and some good luck, the City of Yakima's 48-inch drinking water main pipe has been repaired and is operating without any problems.

Late last week, water levels in the river unexpectedly dropped enough to allow crews to get a better look at the extent of damage flooding had done to an air vacuum release assembly connected to the water main. The release assembly allows air that might build up in the main pipe to escape. This is very dangerous!

AT MINIMUM (3) on Mapleton Dr.

Initially it was feared that cracks in the main pipe may have developed as a result of the air vacuum release assembly having been damaged by flood waters. However, on Friday crews were pleased to discover that the 48-inch main was intact. The damaged release assembly was removed and capped off, and the system was cleaned and tested over the Memorial Day weekend. The tests confirmed that the water main is sound and it was slowly put back in service. By noon today, the system was operating at full capacity.

"We really are fortunate," said City Water/Irrigation Manager Dave Brown. "As it turns out, the fix was relatively easy. We thought that when the flooding receded, we might find a much bigger problem. But we didn't, and we were able to get the system back up and running," said Brown.

Two weeks ago, the City shut down the main pipe coming from its drinking water plant located west of the city along the Naches River due to damage caused by flooding. Most of the customers served by the system relied on the City's three deep wells and some water supplied by Nob Hill Water Association while the damage was assessed and a repair plan was developed. Customers served by the system in Gleed, meanwhile, had their drinking water provided by tanker trucks.

Even late last week, Brown was working on ordering supplies to install a temporary bypass section of pipe that would have been laid across an unused railroad trestle which crosses the Naches River near the Nelson Bridges. The temporary bypass was expected to cost as much as $300,000 to put in. By comparison, the City spent about $25,000 to removed and cap the damaged air vacuum release assembly, test the system, and bring it back on line.

"The orders that we put in for the temporary bypass pipe and supplies have been cancelled," said Brown. "We've been able to get the system delivering drinking water again for a lot cheaper and a lot earlier than we thought we were going to. As I said, we are fortunate."

MOST POPULAR


3-year-old Yakima girl crushed by TV identified
(http://www.kimatv.com/news/local-year-old-Yakima-girl-crushed-by-TV-identified-150078935.html)


Shoreline children found unharmed, Amber Alert canceled
(http://www.kimatv.com/news/local-stabbed-in-Shoreline-150053275.html)


23 Charges filed against Yakima dog hoarder
(http://www.kimatv.com/home/vide-Charges-filed-against-Yakima-dog-hoarder-149931725.html)


Deputy fired for making inmates dance to Usher song
(http://www.kimatv.com/news/offbe-fired-for-making-inmates-dance-to-Usher-song-150025995.html)


4th Union Gap city employee quits since start of year
(http://www.kimatv.com/home/vide

Attempt To Repair Massive Waco Main Fails

Water Woes In Waco

Raw Video: Waco Water Main Break

WACO (August 20, 2010)—The first attempt to repair the broken 48-inch main that feeds water to Waco's Mount Carmel treatment plant failed Friday and now officials say work will continue through the weekend.

Until the pipe is repaired, officials are asking residents to avoid outdoor water use and to conserve indoor use.

City Of Waco Water Main Break Information Website

Jonathan Echols, spokesman for the Waco city water utility, said the repair crew installed a new piece of steel pipe to replace the damaged section that failed Wednesday and said it had to be welded into place.

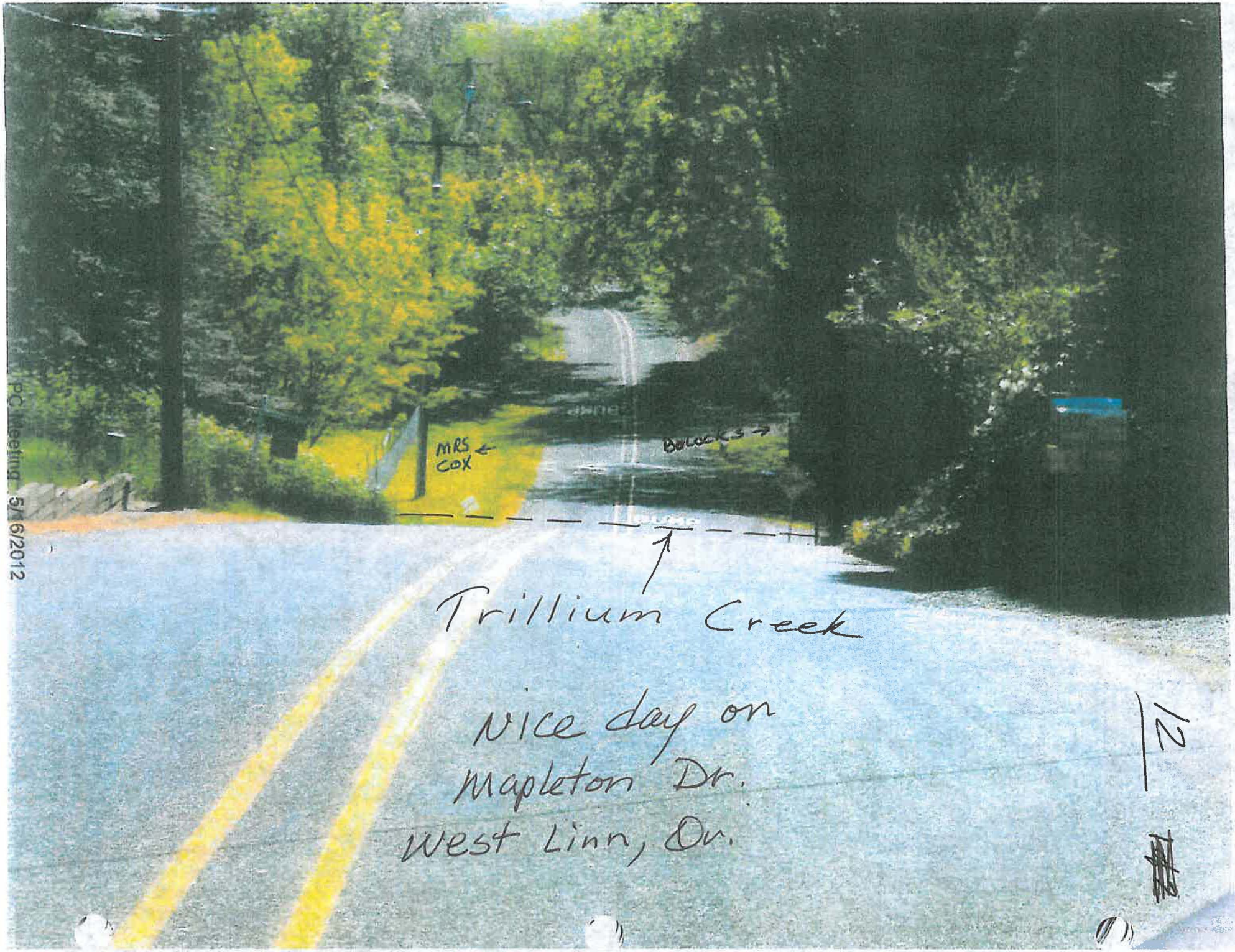
When the line was tested the welds failed, he said.

"It set us back a little bit but it's not terrible," Echols said.

Echols said he expects crews to work through the weekend and he said he was hopeful the repair would be completed by Sunday.

The break occurred Wednesday in the 48-inch pipe that carries raw water from Lake Waco to the Mount Carmel treatment plant, which officials say provides water to about two-thirds of the city.

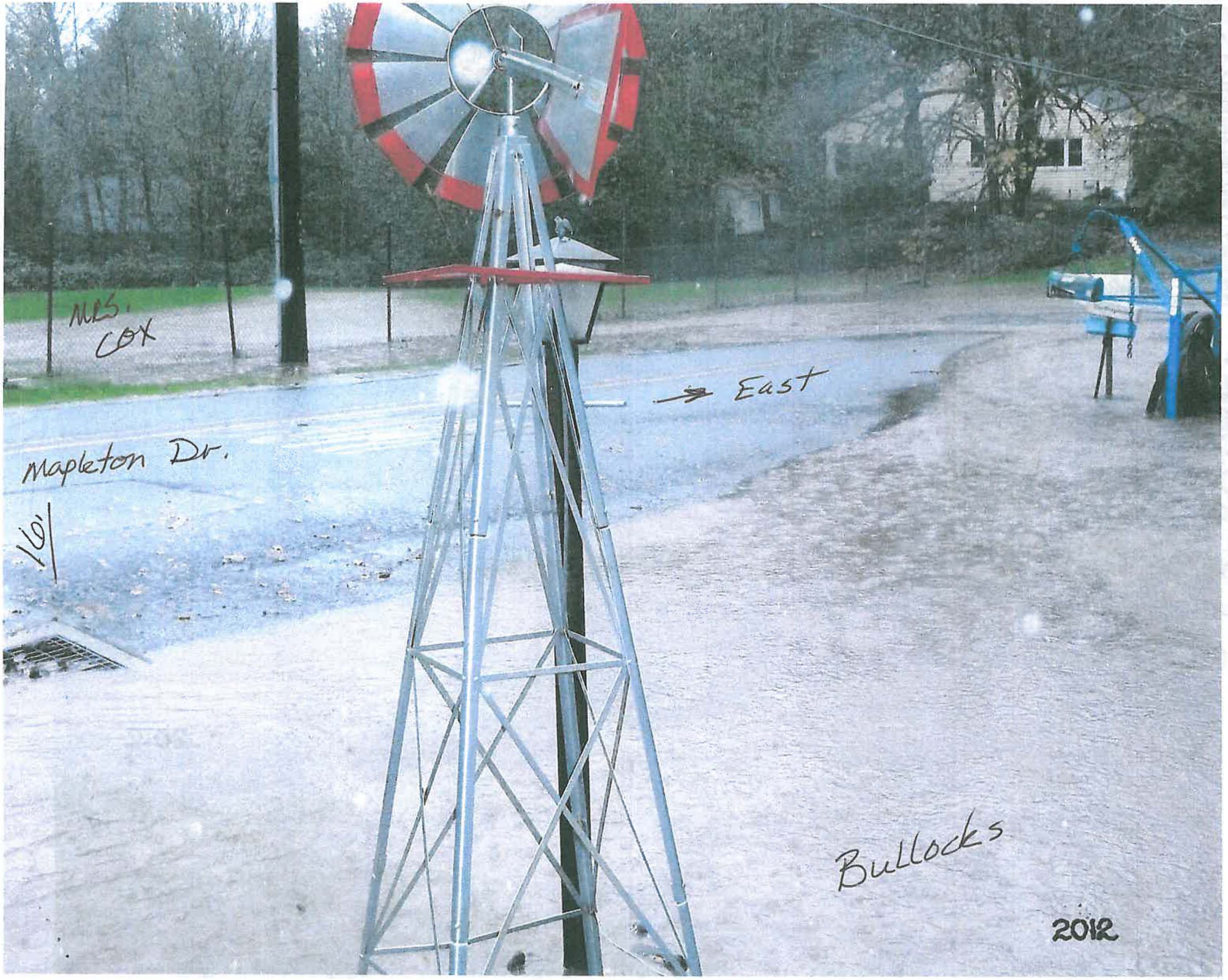
Welds can even Fail after Testing From air in system and/or Faulty Air Release assemblys


PC Meeting 5/16/2012
MRS COX
Trillium Creek
Nice day on
Mapleton Dr.
West Linn, Or.
12


Mrs. Cox
Mapleton Dr.
BUMP
Heavy Rain day


Bullocks
2012

15.


Mrs. Cox
East
Mapleton Dr.
Bullocks
2012


MRS. COX
Mapleton Dr. → East
2012
Bullocks

To: West Linn City Council, January 14, 2013
RE: CUP-12-02 and CUP-12-04

My name is Mary Hill. I've lived at 19050 Nixon since 1956, and served as treasurer, secretary and president of the Robinwood Community Club and Neighborhood Association.

CDC 60.070 A 3 requires that a conditional use proposal be consistent with the overall needs of the community. The community you are charged with representing is the one which elected you to office: the community of West Linn. The applications for CUP-12-02 and CUP-12-04 contain projects designed to provide daily water to Tigard and Lake Oswego, not West Linn.

Unfortunately, this project has a long history of failing to provide a benefit to West Linn and of disrespecting the very planning process which permits these projects to go forward.

I am very familiar with the first campaign to build the Kenthorpe plant. In February, 1967, the Clackamas County Planning Commission received petitions with 321 signatures opposing the Kenthorpe site for the Lake Oswego water plant. Lake Oswego appealed to the County Board of Commissioners and my husband wrote a letter of opposition. At that time, my brother, Bill Bryant, was Fire Chief and Water Superintendent for the Robinwood Fire and Water District. From the time we moved here (and before), our water came from the neighborhood well, located at the fire station between Cedaroak and Kenthorpe. When Robinwood switched to West Linn's water, our well was capped.

The initial decision to deny the permit was overturned April 19, 1967, by the Board of Commissioners with an interesting condition of approval: Lake Oswego would be providing for the future water needs of Robinwood. Was this condition inserted at the last moment to make the water facility appear to have some benefit to its neighbors? Did this condition even make sense since Robinwood was already purchasing water from West Linn and would soon be annexed to West Linn?

Three months later West Linn passed Ordinance 717, described as "annexing a portion of real property contiguous to the city limit (Robinwood)." By the time the Kenthorpe plant was producing water for Lake Oswego, Robinwood was already part of West Linn and was already drinking West Linn water. As someone closely connected to the water district, I remember no discussion of Lake Oswego ever providing water to Robinwood. Eleanora Larson who has also lived here since the sixties remembers the same. We first heard of this issue last year when neighbors researching plant history showed us the clause.

Lake Oswego never met that condition of approval or even tried. It shows tremendous disrespect for the entire planning process to have that condition, know about it and never say anything.

Please do not make the same mistake made 46 years ago. Please uphold your Planning Commission's unanimous decision to deny these applications.

Mary Hill

RECOMMENDATION

FILE NUMBER: PCU-13-67

APPLICANT: City of Lake Oswego

STAFF RECOMMENDATION: The Staff recommendation is to deny this application.

BASIS: The proposal is for a plant to treat water taken from the Willamette River, presumably for use in the City water system. It is a three-story building proposed in an area of single family dwellings on small-to-medium sized lots. A water treatment plant seems to be an incompatible use in this area which would lower property values of the existing property owners and preclude any further development. The possibility exists, in uses of this type, of objectionable noise and odor.

Rcd. RPM 27 Feb. 67 320 321 Signers

P E T I T I O N

TO THE CLACKAMAS COUNTY PLANNING COMMISSION AND/OR THE COUNTY COURT

We, the under-signed of the Robinwood Cedar Oaks Park Area protest the request for a conditional use within a residential zone for the construction of a water treatment plant for the city of Lake Oswego for the following reasons:

1. It would destroy the beauty of our suburban surroundings.

2. It would ruin twelve homes and potential residential property.

3. It would be a mosquito menace.

4. There would be an objectional odor.

5. The noise from such a plant would be objectionable.

6. We would receive no benefit whatever from such a plant.

7. We have no voice in Lake Oswego's civic or political affairs.

8. We are absolutely against any change of zoning, even conditional.

Hearing 4-5-67

RECEIVED
APR 4 1967
Board of Commissioners

19050 S. Nixon Ave.
Lake Oswego, Oregon
April 3, 1967

Clackamas County Board of Commissioners
Oregon City, Oregon

Dear Sirs:

This letter is written in reference to the City of Lake Oswego's appeal for a conditional use for a water treatment plant on Kenthorpe Way. As the appeal is at 10 A.M. April 5, most residents of the Robinwood area are unable to attend the hearing but feel as I do about the proposed installation. This feeling is reflected in the signatures on the petition presented to the Planning Commission on February 27, 1967. The decision of that body was just and correct and in keeping with the projected residential and commercial character of our small but proud area.

This planned development was done in conjunction with the Planning Commission and the Robinwood Community Club as a cooperative effort to prevent unsightly structures from corrupting the community. There was no attempt to restrict commercial progress as areas have been designated for this purpose. The West Linn School District has followed this pattern as has the Robinwood Water District with its office and fire station. These are a part of our community. The proposed plant is not. The Planning Commission has demonstrated the same opinion.

In our county as in others the trend is toward promoting the annexation of areas such as ours if incorporation is not feasible and this may be in the best interest of all. But there are certain rights these unincorporated, unrepresented areas do have - one of these is to be accorded equality with the larger, more powerful, and more articulate cities that exert an undue pressure when they have desires to be gratified.

Lake Oswego has turned down many similar zone changes within their city and continue to do so. Lake Oswego has land within its city limits on which to build this plant. Lake Oswego had no plans for water transmission from Kenthorpe to Oswego on the Feb. 27 hearing by admission of the engineer-designer when I questioned him. Elaborate plans were made with Gladstone but evidently none with the County concerning Robinwood. One can only assume they will plow through where they wish or lay it along the river and ruin our waterfront property. On March 28 Lake Oswego project engineer Kenneth Bielman indicated that the site acquisition had been only delayed and that they hoped to call for bids on schedule. Does Lake Oswego already know the decision of the Clackamas County Commissioners?

There is no attempt here to question the integrity of any of the bodies or persons mentioned herein but I do question the motive for the placement of the three story concrete and steel treatment plant that is unquestionably a totally nonconforming structure.

Sincerely,

Charles F. Hill

Charles F. Hill

BEFORE THE BOARD OF COUNTY COMMISSIONERS

OF CLACKAMAS COUNTY, STATE OF OREGON

FILED

APR 20 1967

ROBERT SCHUMACHER, County Clerk

By ..... Deputy

In the Matter of the Appeal of the CITY OF LAKE OSWEGO for a water treatment plant to be classified as a Conditional Use on property located on the south side of Kenthorpe Way at its easterly terminus, Robinwood Area

NO. 14810

This matter coming on regularly at this time to be heard, and it appearing to the Board of County Commissioners that Deane Seeger, representing the City of Lake Oswego, has made application to the County Planning Commission to construct a water treatment plant as a Conditional Use within an R-10 Single Family Residential District, on property located as stated above, and more particularly described as Tax Lots 11-11, 11-12, 11-16, 30, 31, 32, and 33, George Walling D.L.C., Section 24, T2S, R1E, W.M., and

It further appearing to the Board that said application was heard at the regular meeting of the County Planning Commission on February 27, 1967, at which time the Commission denied the Conditional Use request, and

It further appearing to the Board that, subsequent to the Planning Commission's decision, Mr. Seeger, again representing the City of Lake Oswego, did, on the 9th day of March, 1967, file an appeal with the governing body of the County, and

It further appearing to the Board that said appeal application was heard by the Board of County Commissioners, after due notice, pursuant to the provisions of the Clackamas County Zoning Ordinance, at their regular session on Wednesday, April 5, 1967, at which time this matter was continued, and

It further appearing to the Board that subsequent to their afore-mentioned hearing, and after due consideration, the Board reached a decision on the appeal, now therefore,

IT IS HEREBY ORDERED that the appeal of the City of Lake Oswego for a water treatment plant as a Conditional Use on the above-described property be and the same is hereby approved subject to the regulations of the Clackamas County Zoning Ordinance and recommendations of the County Health Department, and (1) adequate landscaping and design so as not to detract from the residential character of the area; (2) and that said treatment plant will provide for the future needs of water users in Robinwood, Glenmorrie, Marylhurst and Lake Oswego areas.

DATED this 19th day of April, 1967.

BOARD OF COUNTY COMMISSIONERS

Chairman

Commissioner

Commissioner

COUNCIL OF CITY OF WEST LINN

13 JAN 14 AM 10:44

Re: Lake Oswego Appeal in the matter of the request by the Lake Oswego-Tigard Water Partnership to expand an existing water treatment plant at 4260 Kenthorpe Way in West Linn

January 14, 2013

Greetings –

I came home from the hospital last week to a city torn with outraged cries; messages on my phone, and phone calls because West Linn City Council is potentially selling out our city for a preposterous five-million-dollar ($5,000,000) offer from the City of Lake Oswego for their proposed water treatment plant expansion. This five million dollar offer is a cheap and insulting bribe! That's what it is – make no mistake about it! Definitely a Mafioso direct!

For 44 years the city of Lake Oswego has had ample time to rebuild their water plant within their city. Although, back then the County denied this expansion project. Who knows how Lake Oswego might have previously bribed their way to encroach county property at Clackamas County residents expense? I promise you, had any of West Linn's infrastructures been in Lake Oswego City, they would have evicted us or taxed us at an exorbitant cost.

Never have I heard of a city attempting to encroach in another city to build their civic facilities when they have enough terrain in their own city ... and not pay annuities to boot!

Here is another considerably critical assertation: This site's land foundation is questionable; as fragile as the swimming pool site the City denied to one tax payer and subsequently imposed a huge penalty to that tax payer. This site, and all along Highway 43 and east to the river, is Missoula flood residues; it harbors stagnant waters, soggy wet patches, and visible petrified matters. I've walked through this area from a friend of mine's adjoining property to this water plant. West Linn City's 2004 storm & surface waters studies plan demonstrates this whole area need be protected. I believe, too, it is included in our Goal 5.

Again, Lake Oswego had ample time to act responsibly by relocating their water structure within their city. Now is their time to do so.

What potential troubles do we invite to our city with global climate phenomena attesting extreme flooding and disasters, plus factual earthquakes awaiting us, and predicted ocean water surges ebbing to the falls! Ah, but of course – Lake Oswego speculates and assumes they still could bully West Linn citizens. It shows their pretentiousness and their ostentatious attitudes.

Council, you have sworn to your loyal constituents your integrity to serve them well! Your oath (just last Monday) pledged to hear their voices and stand by your people. Now is the time to represent West Linn residents with your upstanding and worthy initiatives. One, ten and upwards of twenty years from today, our children and grandchildren will bless you for denying this gigantic project. I ask you to secure the West Linn's Planning Commission's decision. Refute this project. We all still applaud our planning commissioners for their integrity displayed to their people. You should do no less!

West Linn Council – refuse and deny the appeal! You love West Linn as much as we do! I rest my case.

Alice Richmond – West Linn resident since December 1958 = 54 years
3939 Parker Road
West Linn, OR 97068
(503) 723-0101

(previously lived on Midhill Drive in West Linn)

GIVING AWAY WEST LINN SENIOR WATER RIGHTS

West Linn and South Fork have senior water rights of 50MGD. The law says, **use it or lose it**. If Lake Oswego uses their 38MGD, there will be no remaining water left to exercise the senior water rights of South Fork. Water Watch of Oregon has a lawsuit in State court because if this project goes through, there won't be enough water in the Clackamas to meet Federal requirements for minimum water flows to protect 5 threatened species. As it is now, before the new plant is built, the Clackamas is already at minimum flow in August and September. Another 22 MGD will push the flows lower, way below the Federal standard.

The Future

The Clackamas water comes from Timothy Lake. The snowpack that feeds Timothy Lake is between 6000 and 8000 feet. At this elevation, global warming will melt the snowpack much earlier and there will be no snowmelt to augment Timothy Lake in August and September when demand is at its highest. The Oregonian on Sunday January 13, 2013 has an excellent article on the predictions for our area. This article states that these elevations will be the most impacted and warmed temperatures will melt the snowpack much earlier than ever.

If Lake Oswego maximizes their rights, they are vested. A vested user has priority over new users even if the new users have Senior Water Rights, effectively eliminating any use of the South Fork Senior Water Rights.

IS YOUR LEGACY TO BE THE CITY COUNCIL

THAT GAVE AWAY OUR WATER RIGHTS FOR 5 MILLION DOLLARS?

Good evening

My name is Jack Norby and I live on Kenthorpe Way.

Sir Walter Scott said many years ago, "What a tangled web we weave when we set out to deceive."

I am here today because 5 years ago we had a meeting in my living room with neighbors. We had heard the water treatment plant was going to dramatically change. I called the city of Lake Oswego and Joel Komarek was sent to talk to us. He reassured us that nothing major was going on. There might be some small upgrades in the future but no big deal. He deliberately deceived us.

The Carollo report, which lays out the justifications of this project, also made conclusions meant to mislead. When I read report estimates that if LO had a conservation program they would save an average of only a half a percent a year. I thought, where in the world did that figure come from? Even Beverly Hills would do way better than that. LO saved 36% in 2011.

The cost estimates were wrong and have grown substantially. Curiously, these estimates were prepared by the same firm that did the estimates on the OHSU tram.

Although the LO attorney said differently, Stafford development is central to their plans. It is referenced on 15 pages of the report and is included on their service map. I have included the 15 pages in your packets. It is the justification used for LO's need to increase the capacity. With conservation, hey have no need for it otherwise.

This whole project was formed from an imaginary need and is tailored to use all of their water rights. Once that use is established, West Linn and South Fork with senior water rights won't be able to exercise them. This is state law. Use it or lose it. If you overturn your planning commission, you will eliminate our senior water rights. Is that to be your legacy?

In the report there is a line about the downsides of chlorine manufacturing on-site, " A past history of explosions from improper venting of generated hydrogen gas". I wonder why we haven't heard about that. It would have been nice if City planners had read the report but Zach Peltz admitted he hadn't.

I want to point out just one more thing, If you vote to overturn, your chances of a positive vote to raise rates 18% to pay for our infrastructure are zero. For instance, I would ask, where did out street money go? Not into streets.

Look, Your planning commission saw right through LOT's deceptions and denied it with a unanimous vote. Commissioner Axelrod's statement "What I think I see here is perhaps the greatest example of trying to put a square peg into a round hole that I have ever had the chance to consider" sums it up. Trust the team that you yourselves were part of. Don't **you** be deceived by their tangled web. 60.070 says this plant must be compatible with the neighborhood. This huge project is not compatible. You must deny the application.

STAFFORD REFERENCES IN THE CAROLLO REPORT

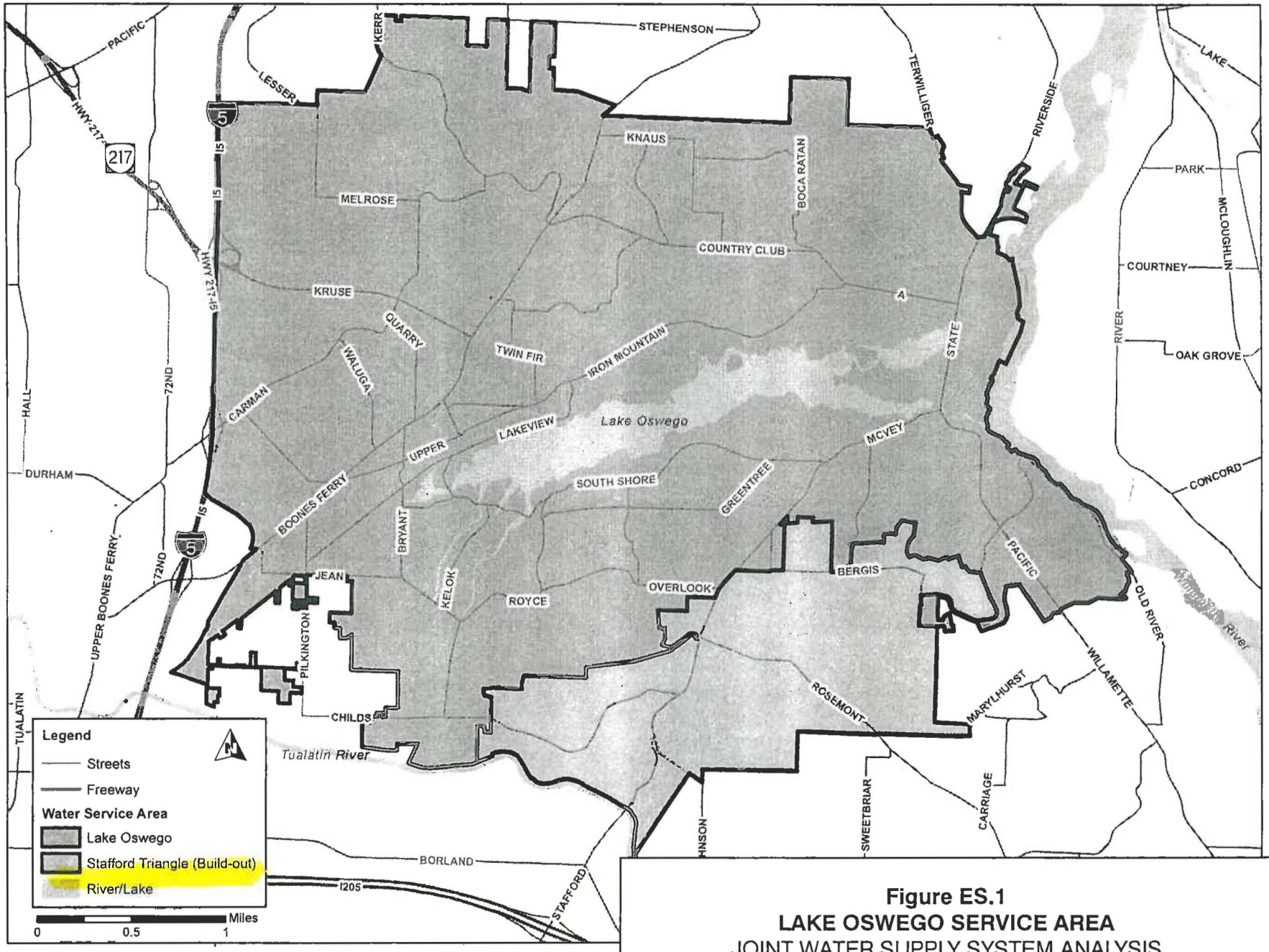


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Figure ES.1
LAKE OSWEGO SERVICE AREA
JOINT WATER SUPPLY SYSTEM ANALYSIS
CITY OF LAKE OSWEGO AND TIGARD WATER SERVICE AREA

each type of treatment, as well as the associated infrastructure, will be addressed as part of Chapter 2.

1.3.2.4 Transmission and Storage

Based on the results of the hydraulic evaluation, elements of the transmission system infrastructure will likely need to be expanded to meet the ultimate demands of the two water service areas. Recommendations regarding the expansion of the existing infrastructure will be presented in Chapter 2.

1.3.2.5 Bonita Pump Station

Lake Oswego currently has only one significant water supply source: the Clackamas River. By relocating the Bonita Pump Station one block further west along Bonita Road (at the intersection with SW 72nd Avenue) a connection could be made to Tigard's existing 36-inch pipeline, which conveys raw water from Bull Run, an acknowledged high quality water source. This would provide a redundant water source for Lake Oswego, and would create the flexibility needed to increase reliability to both water service areas.

1.4 DEMAND PROJECTIONS

The demand projections are based on historical per capita demands and projected population growth for the water service area. The Lake Oswego per capita demands are based on historical demands from 2000-2005. Per direction from Lake Oswego staff, the demand projections for the Lake Oswego wholesale customers and the Stafford Triangle are based on the Lake Oswego per capita demands. The Tigard demand projections are based on the per capita demands identified in the "Water Distribution System Hydraulic Study" (MSA, May 2000). Population projections for Lake Oswego and Tigard service areas are based on data provided by the Metro Regional Center for the year 2030.

A summary of the basis used to determine the historical population, per capita demands, and projected population for each water service area is presented in Table 1.2.

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Table 1.2	Basis for Per Capita Demands and Historical and Projected Population Joint Water Supply System Analysis City of Lake Oswego and Tigard Water Service Area		
Factor	**Lake Oswego Service Area**	**Stafford Triangle**	**Tigard Service Area**
Historical Population	Portland State University and Metro Regional Center	Metro Regional Center	U.S. Census Bureau
Per Capita Demands	Lake Oswego Water Treatment Plant Data 2000-2005 [1]	N/A	City of Tigard Data 2000-2005
Projected Population	Saturation Build-out Analysis [2]	Metro Regional Center[3]	Metro Regional Center

Notes:

1. The three-day peak demand was used to determine the "Peak-Day" per capita demands for the Lake Oswego City Only service area. Definitions for the peak day demands, etc. are provided in Section 1.4.3.
2. "City of Lake Oswego Water Management and Conservation Plan," CH2M Hill, 2007.
3. The Lake Oswego Water Service Area in 2030 will include both the Stafford triangle and the water districts currently located within the Urban Services Boundary.

1.4.1 Service Areas

1.4.1.1 Lake Oswego Water Service Area

For the purposes of this study, the Lake Oswego Water Service Area is defined as the area within or adjacent to the current Urban Services Boundary (USB). The water service area includes Lake Oswego City Only, as well as Alto Park, Forest Highlands, Glenmorrie, Lake Grove, portions of Palatine Hill, Rivergrove, Southwood Park, and Skylands water districts.

Lake Oswego City Only is defined as the Lake Oswego city limits, less the existing wholesale areas within the city limits. This area was defined in order to provide an accurate correlation between population and water demand. Further explanation for the use of this area is contained in section 1.4.2.1.1.

The Stafford Triangle comprises approximately 925 acres north of the Tualatin River, as shown in Figure 1.1. The Stafford Triangle, which although currently not within the USB, is expected to be served by the City of Lake Oswego in the future and be included in the water service area. It is assumed that the City of Lake Oswego will be responsible for providing water to all customers (including existing wholesalers and the Stafford Triangle) by build-out. The Lake Oswego Water Service Area is presented in Figure 1.1.

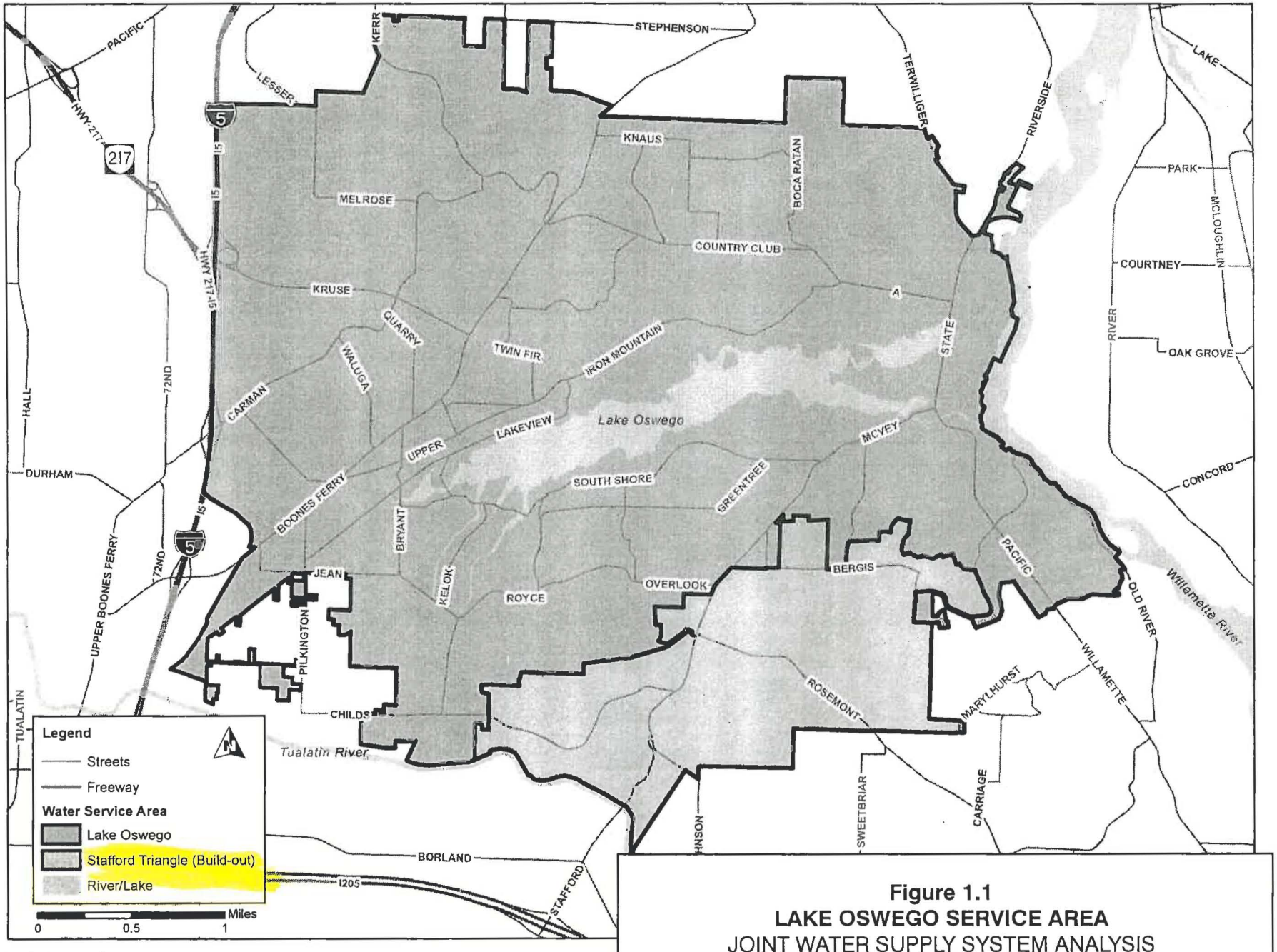

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Figure 1.1
LAKE OSWEGO SERVICE AREA
JOINT WATER SUPPLY SYSTEM ANALYSIS
CITY OF LAKE OSWEGO AND TIGARD WATER SERVICE AREA

The Lake Oswego City Only population for the years 2000-2005 is provided in Table 1.3.

Table 1.3	Lake Oswego City Only Population Estimates from 2000-2005 Joint Water Supply System Analysis City of Lake Oswego and Tigard Water Service Area					
Year	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Population	32,669	32,822	32,978	33,080	33,145	33,278

1.4.2.1.2 *Tigard Water Service Area*

The Tigard historical population estimates from 2000-2005 were obtained from the United States Census Bureau. The estimates encompass the area within the Tigard water service boundary, and are escalated from the published estimates for the Tigard city limits based on census block data for the surrounding areas from the decennial census in 2000. The Tigard service area population estimates are provided in Table 1.4.

Table 1.4	Tigard Population Estimates from 2000-2005 Joint Water Supply System Analysis City of Lake Oswego and Tigard Water Service Area					
Year	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Population	49,954	51,468	52,700	53,286	54,395	55,850
Note: The Tigard water service area boundary used in this study differs slightly from that used in the 2000 master plan "Water Distribution System and Hydraulic Study" (MSA, 2000) and includes an area in the eastern portion of the Tigard city limits which is part of the Tualatin Valley Water District but is served by Tigard. Therefore, a direct comparison of the population estimates in this study and that of the master plan cannot be made. However, it should be noted that the population estimate for 2005 (based on the revised service area and the US Census Bureau data) is very similar to the population estimate that is currently being used by Tigard staff (55,900 persons) to determine per capita demands.						

1.4.2.2 Population Forecasts

1.4.2.2.1 *Lake Oswego Water Service Area*

The Lake Oswego water service area 2030 population forecast was developed by escalating the 2005 population estimate by the following rates[4]:

- Lake Oswego City Only: 0.5%
- Outside Lake Oswego City Limits[5] and Stafford Triangle: 1.69%

[4] Per direction from Lake Oswego staff based on historical growth rates and Metro projected growth rates.

[5] 2005 population estimates for Lake Oswego water service area outside the City Limits (6,543) indicate that build-out conditions have been attained for 711 persons. The remaining population (5,832) is projected to grow at 1.69% (per Metro growth rate).

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To fully evaluate the potential build-out population forecast, a saturation analysis was conducted. The saturation analysis-based population forecast predicts a total of 54,098 people within the Lake Oswego water service area. Further explanation of this analysis can be found within the CH2M Hill report, "City of Lake Oswego Water Management and Conservation Plan," to be finalized in 2007.

A summary of the population forecasts is provided in Table 1.5.

1.4.2.2.2 *Stafford Triangle*

The 2030 population forecast for the Stafford Triangle was determined by escalating the Metro 2005 population estimate of 1,707 people at a 1.69% growth rate over 25 years.

The build-out population forecasts for the Stafford Triangle were evaluated based on two methodologies: a low estimate based on zoning capacity (2,633 people), and a high estimate based on Metro forecasts (6,918 people). It is recommended that the build-out Stafford Triangle population be based on the more conservative Metro estimate, and an available 782 net developable acres at 8.85 persons/acre.

1.4.2.2.3 *Tigard Water Service Area*

The population forecasts for the year 2030 are based on data provided by the Metro Regional Center. The population projection for the Tigard Water Service Area was determined using an intersecting polygon method to determine the percentages of the TAZ jurisdictions (and associated populations) within the service area.

Table 1.5 Summary of Population Forecasts
Joint Water Supply System Analysis
City of Lake Oswego and Tigard Water Service Area

Service Area	2005	2030	Build-Out
Lake Oswego[1]	39,821	47,275	54,098
Stafford Triangle[2]	1,707	2,595	6,918
Tigard	55,850	64,045	85,560[3]

Notes:

1. The Lake Oswego Population includes Lake Oswego City Only and current wholesalers within the Urban Service Boundary.
2. The Stafford Triangle is located within the build-out Lake Oswego water service area boundary. This area is not currently served water by the Lake Oswego WTP.
3. The Tigard Build-out population is based on a service area which includes all of Urban Reserve Areas Nos. 47-49. These areas are not included in the 2005 population estimate or the 2030 population projection.

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These per capita demands were applied to the entire Lake Oswego USB and the Stafford Triangle, per direction from Lake Oswego staff.

Table 1.8 Summary of Per Capita Demands for Lake Oswego City Only Joint Water Supply System Analysis City of Lake Oswego and Tigard Water Service Area				
Year	**Population**	**Average Day Per Capita Demand (gpcd)**	**Peak Day Per Capita Demand (gpcd)**	**3-Day Peak Per Capita Demand (gpcd)**
2000	32,669	173	385	384
2001	32,822	164	415	390
2003	33,080	172	369	355
2004	33,145	173	418	353
2005	33,278	169	368	328
Average	32,999	170	391	362

The historical average of the average day per capita demand over the six year timeframe (2000-2005), as well as the average of the peak day per capita demand, was used to determine the average and peak day per capita demand for the Tigard Water Service Area. The Tigard service area per capita demands are summarized in Table 1.9.

Table 1.9 Summary of Per Capita Demands for Tigard Joint Water Supply System Analysis City of Lake Oswego and Tigard Water Service Area				
Year	**Population**	**Average Day Per Capita Demand (gpcd)**	**Peak Day Per Capita Demand (gpcd)**	**3-Day Peak Per Capita Demand (gpcd)**
2000	49,954	125	262	253
2001	51,468	114	225	211
2002	52,700	119	241	236
2003	53,286	124	268	264
2004	54,395	120	243	239
2005	55,850	108	240	220
Average	52,942	118	247	237

The recommended per capita demands for the Lake Oswego City Only and Tigard service area are provided in Table 1.10.

Table 1.10 Summary of Historical Per Capita Demands for Lake Oswego and Tigard Joint Water Supply System Analysis City of Lake Oswego and Tigard Water Service Area

	Average Day Demand (mgd)	Peak Demand (mgd)	Average Day Per Capita Demand (gpcd)	Peak Demand (gpcd)
Lake Oswego Service Area [1]	5.62	12.91	170	391
Tigard Service Area	6.26	13.05	118	247

Notes:

1. Per Lake Oswego staff, the Stafford Triangle (which lies within the build-out Lake Oswego service area) is assumed to have the same average day per capita and 3-day maximum per capita demands as the City of Lake Oswego.

1.4.5 Demands Projections

Based on the per capita demands presented in Table 1.10, and the population forecasts In Table 1.5, the projected water demands for the Lake Oswego and Tigard service areas were calculated. These demand projections are presented in Figures 1.3 and 1.4, as well as in Table 1.11. It should be noted that the demand projections presented in Figures 1.3 and 1.4 are based on the average historical demands for each water service area from 2000-2005.

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Table 1.11 Current and Projected Demands for Lake Oswego and Tigard Joint Water Supply System Analysis City of Lake Oswego and Tigard Water Service Area

	2005			2030			Build-out		
	Average Day Demand (mgd)	Peak Day Demand (mgd)	3-Day Peak Demand (mgd)	Average Day Demand (mgd)	Peak Day Demand (mgd)	3-Day Peak Demand (mgd)	Average Day Demand (mgd)	Peak Day Demand (mgd)	3-Day Peak Demand (mgd)
Lake Oswego[1]	5.6	12.3	10.9	8.1	18.5	17.1	9.2	21.2	19.6
Stafford Triangle	N/A[2]	N/A[2]	N/A[2]	0.4	1.0	0.9	1.2	2.7	2.5
Subtotal of Lake Oswego Water Service Area	5.6	12.3	10.9	8.5	19.5	18.0	10.4	23.9	22.1
Tigard	6.0	13.4	12.3	7.6	15.8	15.2	10.1	21.1	20.3
Total	11.6	25.7	23.2	16.1	35.3	33.2	20.5	45.0	42.4

Notes: N/A: Not applicable

1. The Lake Oswego demands for 2030 and build-out include the Other Wholesaler demands within the Lake Oswego water service area.
2. The Stafford Triangle is not currently provided water by Lake Oswego.

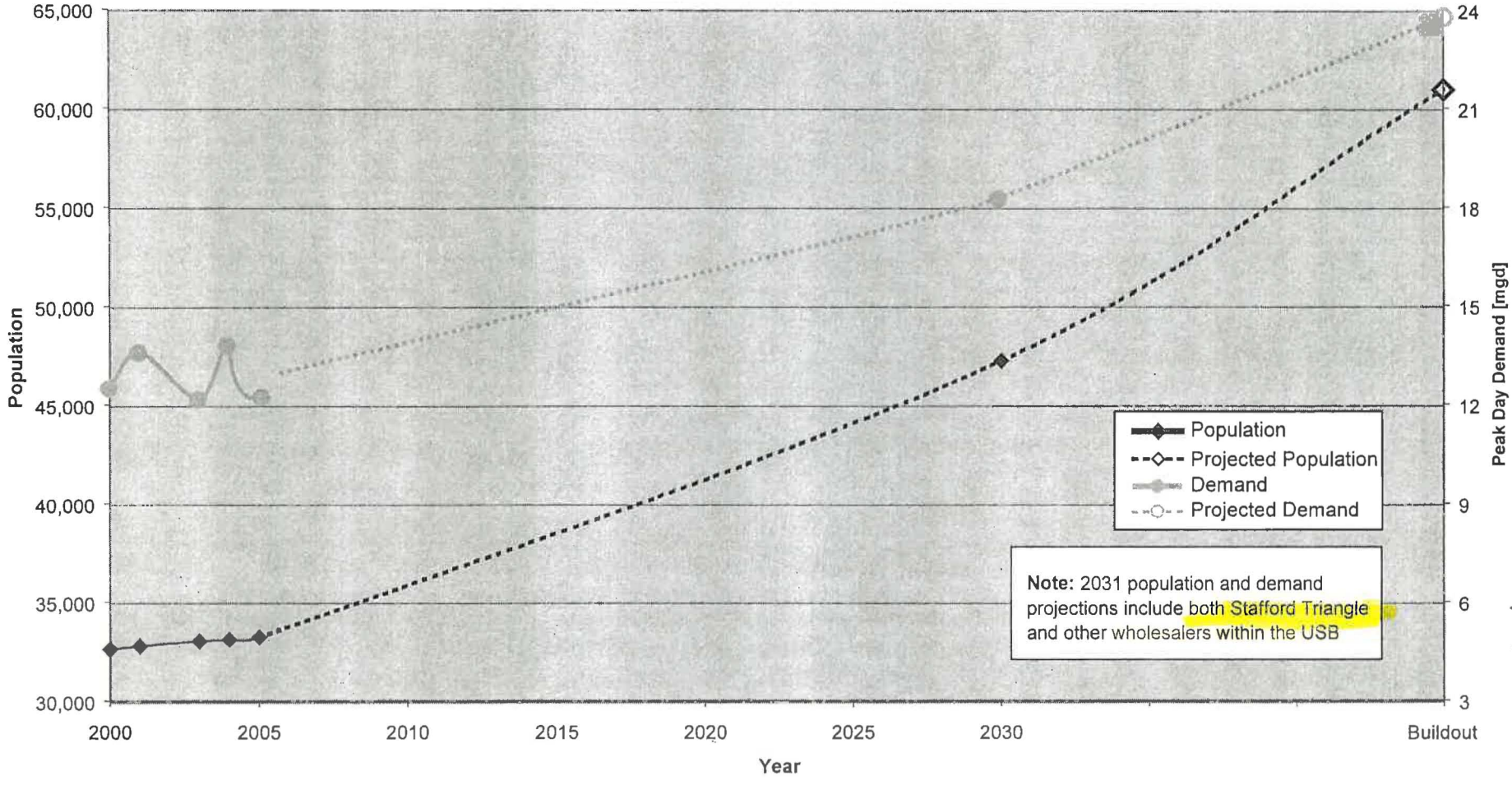

Figure 1.3
LAKE OSWEGO POPULATION AND DEMAND
JOINT WATER SUPPLY SYSTEM ANALYSIS
CITY OF LAKE OSWEGO AND TIGARD WATER SERVICE AREA

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The maximum Build-out demand (45.0 mgd) for Lake Oswego, the Stafford Triangle, and Tigard is the ultimate capacity the Lake Oswego water supply system would need to accommodate. However, as discussed in Section 1.3.1.6, Tigard has the ability to obtain a reliable 3.5 mgd of supply via Aquifer Storage and Recovery. Therefore, the maximum, build-out demand for Lake Oswego, the Stafford Triangle, and Tigard will be considered as 41.5 mgd. The combined junior and senior water rights capacity for Lake Oswego and Tigard is 38 mgd. Because it is unlikely that Lake Oswego will be permitted to withdraw more than the 38 mgd for which they have existing rights, it is assumed that Tigard will obtain the remaining 3.5 mgd peak day demand from another supplier.

The combined junior and senior water rights capacity of 38 mgd will be used as the basis for sizing the raw water intake, raw water transmission main, water treatment plant, and distribution system which serves the Lake Oswego water service area. The Joint Water Supply System Analysis will address the capacity of the existing infrastructure and will develop scenarios regarding implementation of a joint water supply for the Cities of Lake Oswego and Tigard.

1.5 SUPPLY SCENARIOS

As part of the Joint Water Supply System Analysis, an evaluation of various water supply scenarios will be conducted. The scenarios range from the existing capacity of the LO WTP to the ultimate demand scenario for serving water to both the Lake Oswego and Tigard water service areas at build-out. Table 1.12 presents one description of the available capacities to each service area based on the proposed supply scenarios and the assumption that the Lake Oswego water service area demand has priority in receiving available capacity. This assumption is subject to change based on the governance agreement developed for the two service areas as part of the Joint Water Supply System Analysis (see Chapter 7 for further description of the potential governance agreements).

As seen in Table 1.12, Scenario No. 2, "Go It Alone" is entirely a Lake Oswego only scenario (including Stafford and wholesale customers within the USB). Because of the inherent advantage of increasing capacity in multiples (such as basin sizing, multiple pump capacity, and overall treatment configuration), it was determined that for this scenario the Lake Oswego demand of 23.9 mgd should be considered as 24 mgd. In this scenario, at build-out, no remaining capacity would be available to other wholesalers during peak flows. However, before build-out is reached, and during periods of off-peak water use, the opportunity would exist to lease unused water rights to other entities for their use.

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Scenario 3: Senior Water Right Capacity (32 mgd)

Scenario 3 represents the capacity needed to convey the 32 mgd of Clackamas senior water rights that Lake Oswego has been permitted. This capacity exceeds the build-out demands of the Lake Oswego water service area. Therefore, this scenario would allow the Tigard and Other Wholesaler demands to be met up to 18.6 mgd in 2010, 17.9 mgd in 2020, 17.2 mgd in 2030, and 8.1 mgd of the Tigard demand at build-out.

Scenario 4: Combined Junior and Senior Water Right Capacity (38 mgd)

Scenario 4 represents the capacity needed to convey the combined junior and senior water rights that Lake Oswego has been permitted to withdraw from the Clackamas River. This capacity exceeds the build-out demands of the Lake Oswego water service area. However, 38 mgd is the maximum build-out demand of the Lake Oswego, Stafford Triangle, and Tigard water service areas. Therefore, expansion to 38 mgd would allow the Tigard and Other Wholesaler demand to be met up to 24.6 mgd in 2010, 23.9 mgd in 2020, 23.2 mgd in 2030, and 14.1 mgd of the Tigard demand at build-out.

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Chapter 2

EVALUATION OF WATER SUPPLY FACILITY ALTERNATIVES

2.1 INTRODUCTION

The purpose of this chapter is to present the findings and recommendations of the water supply facilities alternatives conducted for the City of Lake Oswego and the Tigard Water Service Area as part of the Joint Water Supply System Analysis. This effort includes an evaluation of, and facility alternatives for, the Clackamas River raw water intake, the raw water transmission main, the Lake Oswego water treatment plant, and the finished water transmission system, including transmission main, storage, and pumping improvements.

2.1.1 Demand Scenarios

Improvements were developed based on three of the four demand scenarios which are described in detail as part of Chapter 1. These scenarios are described below:

- Scenario 1: Existing Capacity (16 mgd). The existing capacity of the Lake Oswego water infrastructure.
- Scenario 2: Lake Oswego "Go It Alone" (24 mgd). The required capacity to treat the build-out demands of the Lake Oswego water service area.
- Scenario 3: Senior Water Right Capacity (32 mgd). The capacity needed to convey the 32 mgd of Clackamas senior water rights that Lake Oswego has been permitted. This capacity exceeds the build-out demands of the Lake Oswego water service area.
- Scenario 4: Senior and Junior Water Right Capacity (38 mgd). The capacity needed to convey the combined junior and senior water rights that Lake Oswego has been permitted to withdraw from the Clackamas River. 38 mgd is also the maximum build-out demand of the Lake Oswego, Stafford Triangle, and Tigard water service areas.

It should be noted that demand Scenario 1 was not included in the evaluation of proposed system improvements.

2.1.2 Cost Estimates

Project costs are presented in September 2006 dollars based on the Engineering News Record (ENR) Twenty-City Average construction cost index of 7763. Project costs include construction costs with a 30%-40% construction contingency and a 20% contingency for engineering, legal, and administrative costs. The construction contingency for the intake, treatment plant, reservoir, and pump station was allocated at 30% based on standard preliminary cost estimating guidelines. The construction contingency for the raw and finished water pipelines was increased to 40% to account for the additional unknowns related to geotechnical considerations, final pipeline alignment, and impacts of delays in timing of project implementation. Operations and maintenance (O&M) costs are also presented in September 2006 dollars and include labor and supply costs (including power)

However, additional considerations warrant further consideration of the possible construction of a connection to the WSCL in Tigard.

- Tigard is currently purchasing pumped water from Portland via their existing connection at Bradley Corner, at a cost of about $1.02/ccf. Should a connection to the WCSL be made, Tigard might be able to purchase non-peak water from Portland at the gravity rate (a likely cost of $0.73/CCF). Depending on operational strategies and availability of non-peak season water, this scenario could result in a savings to Tigard of approximately 15% of their annual cost of water from the City of Portland. Further analysis of these savings is presented in Section 8.3.4 of this chapter.
- The new connection by Tigard to the WCSL would provide both Tigard and Lake Oswego with additional reliability through interconnections to the regional water supply infrastructure. Lake Oswego would be able to receive emergency supply via Portland. Similarly, Lake Oswego could potentially provide emergency supply to Tigard and/or the City of Tualatin. The long-term reliability benefit to the region's water providers may help further justify the cost of the new intertie.

5.3.3 Implications of Interim Supply on Timing of Future Expansion Needs

As discussed in Section 8.3.2, the interim supply from the WCSL-Tualatin Line does not have sufficient capacity to offset Lake Oswego's peak day demands. Therefore, this alternative does not allow for expansion of Lake Oswego's supply infrastructure to be deferred. The timing of the supply improvements is presented in Table 5.1, and is further discussed in Chapter 2, Evaluation of Water Supply Facility Alternatives.

Table 5.1 Supply Improvement Implementation Timing
Joint Water Supply System Analysis
City of Lake Oswego and Tigard Water Service Area

Service Area	Scenario 1 (16 mgd) Do Nothing	Scenario 2 (24 mgd) LO Go It Alone	Scenario 3 (32 mgd) LO and Tigard	Scenario 4 (38 mgd) LO and Tigard
Lake Oswego Service Area[1]	2009	2045	N/A[2]	N/A
Lake Oswego and Tigard Water Service Area	Now	Now	2019	2035

Notes:
1. Lake Oswego Service Area includes current wholesalers and the Stafford Triangle (to be served in 2030).
2. Scenario capacity not applicable for this option.

5.3.4 Conceptual Capital and Operations Costs for Interim Supply

The capital costs for the interim supply to Lake Oswego from the WCSL-Tualatin Line are presented in Table 5.2.

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Another important matter will be the shape of any agreement between the two cities. Tigard policymakers expect Lake Oswego will take the lead, but want to know what say they'll have in drinking water affairs, and what assurances will be given: "The real questions are political, not technical." All parties seem confident a workable deal can be arranged: "It will be up to the two city governments to iron out the details and present a salable deal to the public."

Motivating factors for each participating city are apparent to most observers. It's no secret why both cities are interested. For Lake Oswego, the primary driver is thought to be cost savings. Facing substantial costs to upgrade its water system, Lake Oswego can lessen the impact on rates by spreading the costs over a larger customer base. Another impetus is the necessity to protect its undeveloped water rights on the Clackamas River. For Tigard, the main motivator is the prospect to share ownership of water resources, and along with it, the assurance of future supply for the community: "It's time for Tigard to secure its drinking water future."

A multitude of additional benefits are foreseen. Participants say merging the two water systems offers numerous advantages to Lake Oswego, Tigard, West Linn and other communities, as illustrated in Table 7.2.

A leading concern is the need to expand Lake Oswego's treatment facility. Located outside town in West Linn's Robinwood neighborhood, the plant must be expanded to meet the needs of Lake Oswego. Therefore, stakeholders are concerned its neighbors will raise questions about how they are to be impacted. The potential does exist, however, to develop a win-win opportunity, by upgrading the facility and installing new membrane technology, while minimizing the impact of the facility footprint and providing other benefits to the Robinwood community, such as a connection to the community hike and bike trails.

Another top issue is Lake Oswego's future growth. Although Lake Oswego is a mature community with slow population growth, policymakers want to be certain that future water needs can be met if a portion of Lake Oswego's water is allocated for Tigard. Uncertainty about future development scenarios for the Stafford area fuels these concerns.

Deliberations on Lake Oswego / Tigard water supply issues will require an education process. A few policymakers report they have been deeply involved in this topic. Most say they'll need to know more about the two cities' water systems, pros and cons of the various alternatives – including effects of the "status quo". A frequent suggestion is to convene a joint meeting of the two City Councils, to background elected leaders and foster collaboration.

17 yrs.

My name is Karlene Norby, and I live at 4040 Kenthorpe Way. Thank you Mayor and Commissioner's for hearing my testimony today. 1ST time speaker- My Delivery might not come off with out a little shaking- But please Don't Let that stop you from hearing out my 1st Amd

First of all, I would like to congratulate to each of you..... on being elected by the citizens of West Linn to your position.

Let's go down memory lane for a minute. Remember when you were campaigning for your position you hold today. Each of you listed, as one of your highest qualifications to be elected, was the fact that you served time on the West Linn Planning Commission Board. You regard this qualification as one of the most important you have obtained.

Infact in today's time..... you still regard this as a very important accomplishment. When you visit the city's web site each of you mention in the first few sentences of your biography you have served on the Planning Commission Board. That means you are all very well versed in CODE CDC 60.070 You know there are 4 standards and 20 separate conditions that must be met to apply for an application ~~for~~ of conditional use.

Now that I brought up your qualification of expertise, let's take a look at your current Planning Commissioner Team. They have done due diligence for the past several months listening to testimony for hundreds of hours, and have read thousand of pages of documentation to become well informed, and to make a sound decision. They surely put their heart and soul into understanding the L.O.T. proposal. At the end of their scrupulous process of review, re-review and re-review... the Planning Commissions unanimously voted to DENY the L.O.T. application. They adhered to city Municipal Community Development CODE CDC 60.070.

Board...Listen to your planning team. Remember when each one of you held this position. Remember your feeling of being proud to hold this position. You knew your vote was done with the up-most integrity. Now ...look again at your planning team. Didn't they do exactly what you did when you held the position of planner? Do not disgrace your planning team by overturning their decision. They followed the city Municipal Community Development CODE CDC 60.070 . You must do the same.

Mayor Kovash – I was so proud of you to make a campaign promises to keep Stafford Rural.

You even went so far as to publicly state in the Tidings (Hold Up Newspaper) **Stafford should not be developed, and the city is appealing Metro's designation of Stafford as an urban Renewal.**

"You also submitted a letter to the Tidings with the headlines "Experience and Competence Does Matter" Let me use your quote: **"We are planning for our future. One of the things I would like to include is to keep Stafford rural."**

Mayor Kovash, your strong statement to keep Stafford rural clearly ~~tells~~ was your citizens to believe you will not vote for L.O.T. as its founding documents "The Corella Report" clearly supports the development of Stafford.

The citizens of West Linn are counting on you to fulfill your campaign promise – Keep Stafford Rural .

Don't succumb to a last minute troubling LOT offer of $5Million. It's really "Blood Money" paving the way for Lake Oswego to develop Stafford, and West Linn will loose it water rights to the Clackamas River.

Lastly.... I'm tired of being referred to "The small group of angry people" Over 1,000 West Linn residents have signed the petition to deny L.O.T.

I also find it very disturbing in the Komarek appeal to the city dated Dec 10 2012, he denies the citizens of West Linn to have any feeling about Lake Oswego trying to build a massive structure in our neighborhood. to see in the letter from

Quote "The strongly held emotional view of those who testify about the presence of the existing plant and the proposed project should play no role in how the applicable criteria are applied by the hearing body"

Another words – LO wants you to only listen to them … to believe what the ~~sheep~~ wolf in ~~wolves~~ sheep clothing has to say.

They report false information, twist the facts, and have no regard for the WL citizens.

Remember who voted you into office ' West Linn's Residents – Not Lake Oswego and broken promises.

- **Hold true to your campaign promises**
- **Believe in your planning team**
- **Listen to your citizens**

Testimony Against Lake Oswego Tigard (LOT) Water Partnership Applications: CUP-12-02and CUP-12-04
Presented to West Linn City Council on January 14, 2013

Councilors:

LOT has contracted experts to write reports to convince you that engineers can analyze and solve most types of physical problems presented. I bring this to you to show that an expert hired to evaluate will often come up with the result which will make their client happy. I will also show that these applications should be denied based on CDC 60.070 Section A Item 2, which requires, "The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, and natural features."

In a project of this scope involving many proposals which involve risk to the public either during construction or upon completion, West Linn deserves to have these reports be accurate and completely objective. Bias is unavoidable since the nature of the contractor (expert) is to please the client (LOT).

New experts have recently come into our neighborhood and reported on the Nixon/Mapleton intersection, "We don't find that there are any safety issues under existing conditions with the intersection and that the project won't create any additional issues." Citing recommended sight distance for intersections as 280 feet, that same engineer finds adequate sight distance in all directions. (see p. 50 of Attachment 10, Testimony Submitted 1/7/2013, attached) Yet sight distance for a sedan driver southbound on Nixon is actually closer to 20 feet.

The West Linn Traffic Safety Committee reported correctly: "Both Police Department and Public Works Department recognize the topographic difficulty at this intersection. Driver must make a wider turn and approach into the other traffic direction in order to make a right turn from Nixon to Mapleton." They also state if this project goes forward, "a flagger or other traffic control method approved by the City Engineer, needs to be at this intersection." The six to nine month parade of dump trucks careening down the hill and around the blind curve will be driven by strangers to the neighborhood, not by "people who are well aware of this situation [who] normally will slow down and be extra careful when approaching this intersection." Dangers increase when pedestrians, bicycles and neighborhood traffic enter the mix. (See Traffic Committee Safety Committee Summary November 29, 2012, TC 12-22 and my 11/27/12 narrative, attached)

Whom do you believe? Outsiders hired by LOT or your own citizens, police and public works department who drive there every day?

If the experts can't get it right regarding a simple and obvious intersection which you yourselves can check out, are you really so sure they get it right when they want to build a 2 million gallon clear well on red zone soils close to a bluff and subject to liquefaction? Are their "trust me" assurances enough to make you believe that an unsupported pipe will not fail while the earth moves in that same red zone soil during the severe earthquake they agree is predicted? Are you really willing to subject your own citizens to the danger of that 42" or 48" pipe sending a rushing torrent of water toward their homes and undermining the land downhill from the break? Doesn't the need for nearly 1000 pilings below all their structures make you wonder if this whole project isn't in the wrong location?

Take a little drive southbound on Nixon tomorrow and see if you still believe the "expert" who claims there is 280 feet of clear view in all directions at the intersection with Mapleton. Try staying in your lane

and turning right onto Mapleton; if you do you'll probably ruin your car because it plainly and simply cannot be done.

Then consider the wise decision your Planning Commission made in denying this same project.

Please vote to uphold the Planning Commission's denial of CUP-12-02 and CUP-12-04.

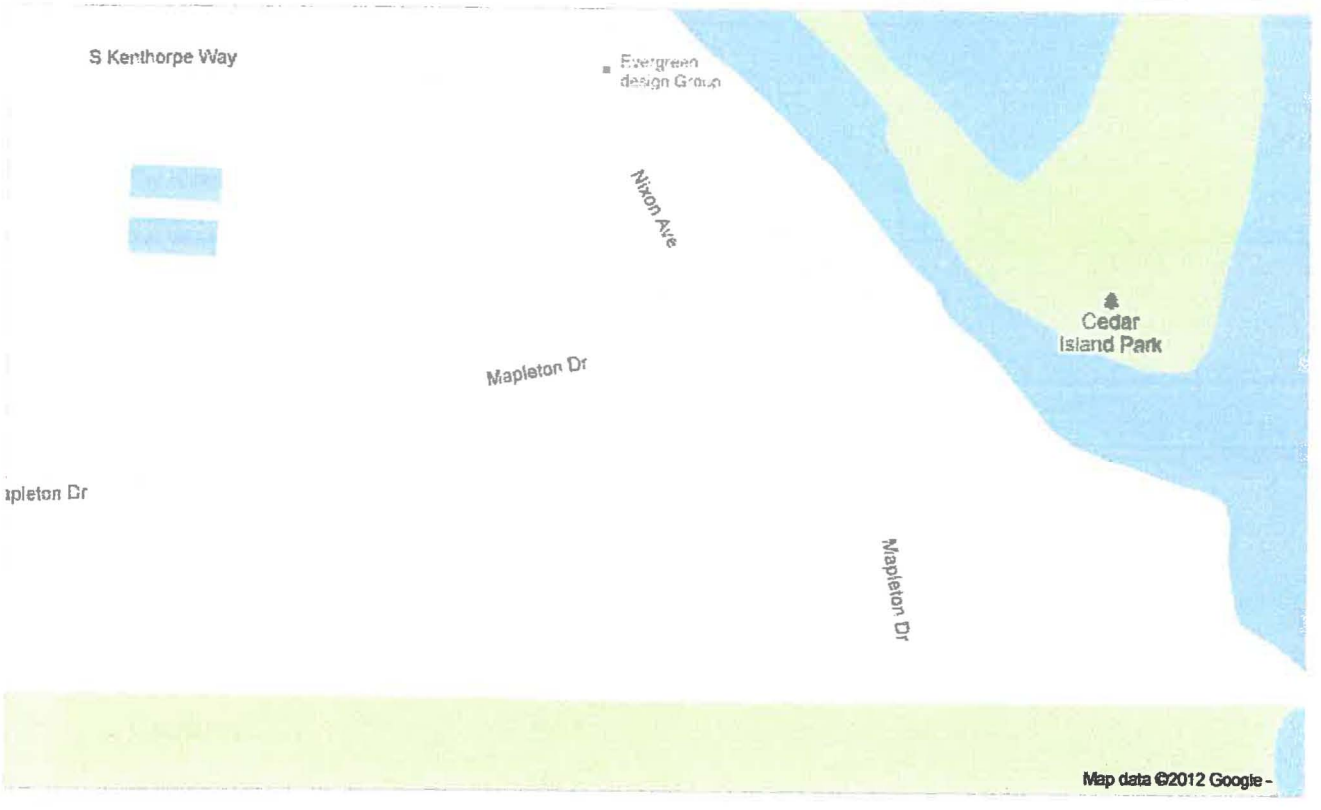
Gwen Sieben
4950 Mapleton Drive
West Linn

CUP-12-02, CUPA2-04
1/14/2013

Google

To see all the details that are visible on the screen, use the "Print" link next to the map.

All Maps Starred More



West/Northbound Mapleton ↖

Northbound Nixon ↑

Police westbound on Mapleton

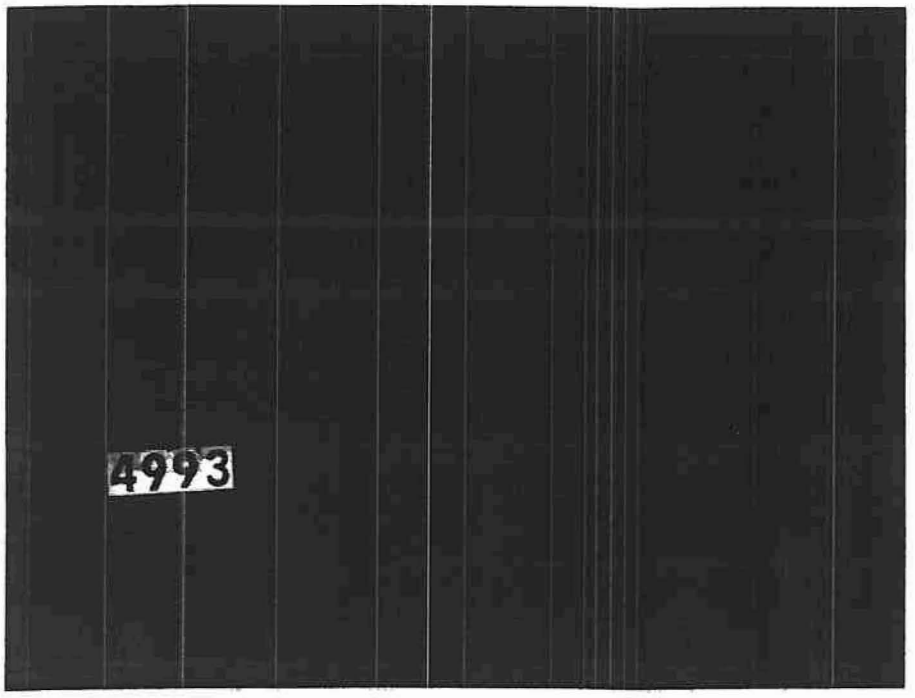
Southbound Nixon (Mapleton) in proper lane

Turn conflict with oncoming eastbound traffic

UPS-sized Vehicle

Wide turn

Wide turn in wrong lane.



The first picture was taken at 4993 Mapelton during night time. It is the southbound view of Mapleton taken from Mapleton and Nixon intersection. There is no illumination.

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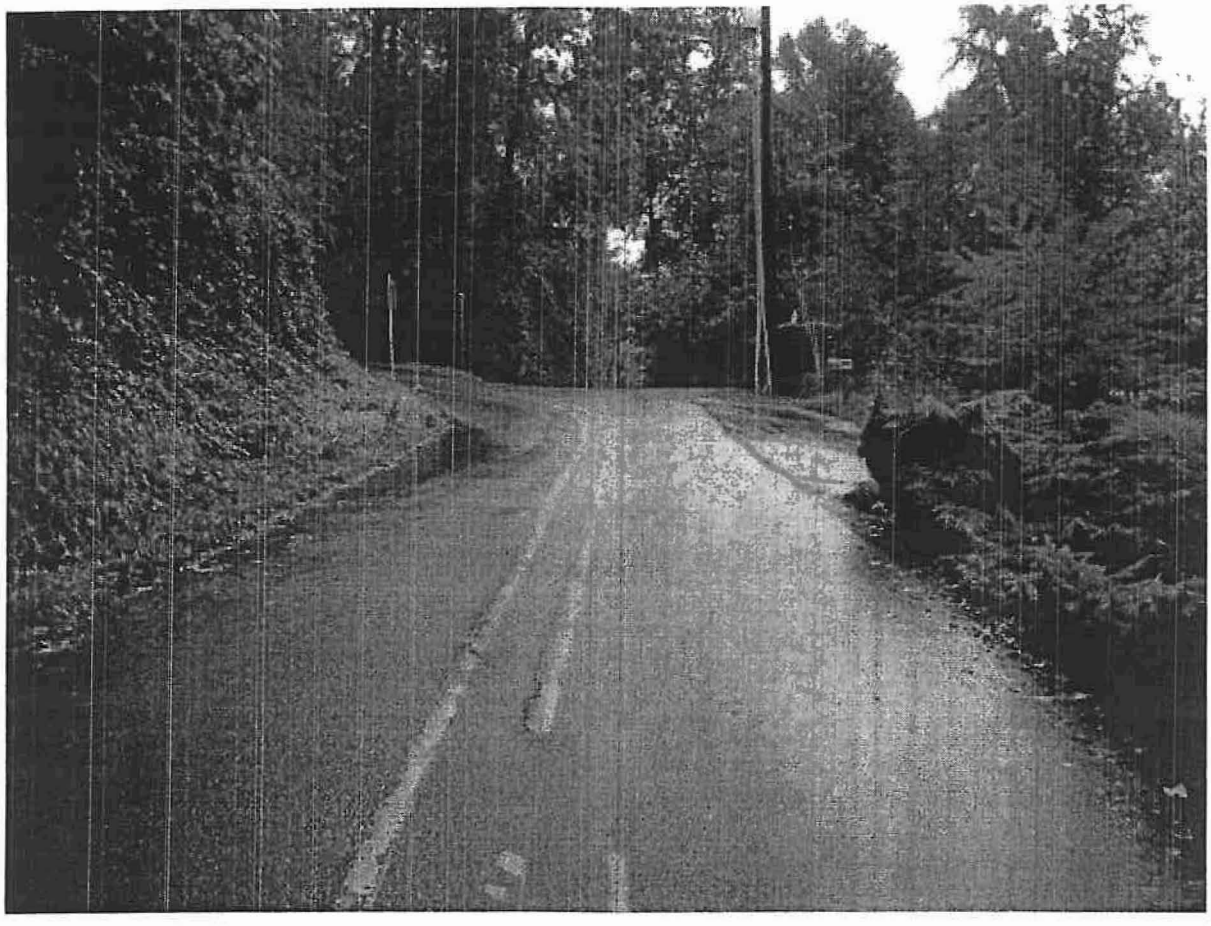
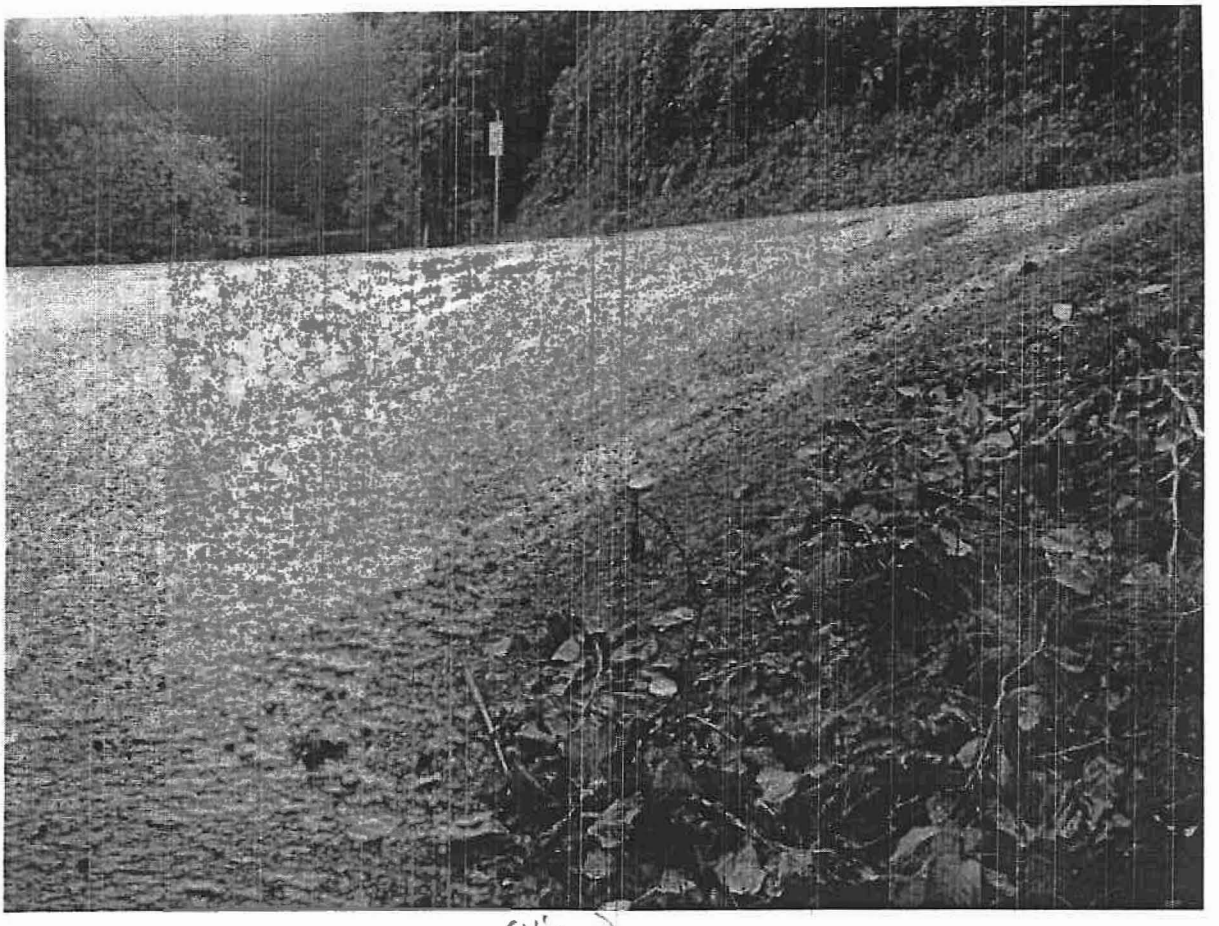
Day time photo taken from the north side of the crest of the hair pin turn when Mapleton turns in to Nixon. This view would be the same view southbound drivers have of on coming northbound Mapleton drivers. In order to execute a right turn on to Mapleton, the southbound driver has to enter in to the north bound lane to the left side of the photo in order to have a wide enough turning radius to complete the turn quickly. If the right turn can not be completed quickly the southbound vehicle is unsafely in the west bound land of Mapleton which has very poor visibility. This is a very unsafe intersection for north, south, east and west bound drivers. And it will be all the more unsafe once LOT adds thousands of construction vehicles in to the mix.

The main reason why there are not accidents at this intersection is because it is not a main access road. It is primarily used by local residents. However during peak seasons of Mary S Young Park and river use, a number of users park at the end of Mapelton to access the park and river. When they leave the area, they are northbound on Mapleton and then turn left or west on to Mapleton. Those not familiar with the precarious nature of the intersection, often drive through this intersection at a rate of speed that is not safe increasing the potential for an accident. Adding thousands of construction vehicles is ludicrous.



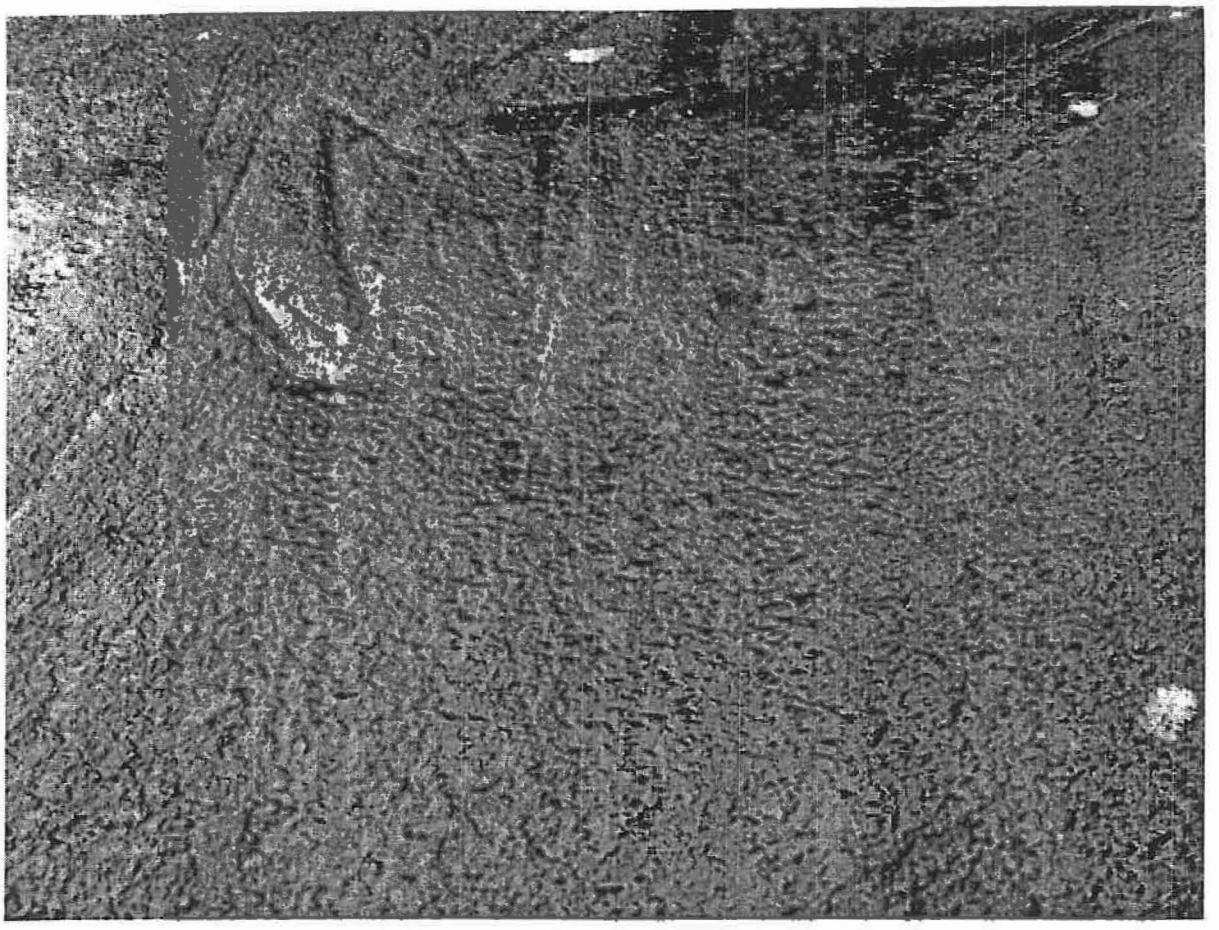
Same intersection from northbound view. Mapeton curves to the left.

Continuing over the crest north leads in to Nixon ave. Note the poor visibility for drivers who can not see oncoming traffic from Nixon, or eastbound Mapleton and vice versa Nixon drivers for Mapelton.

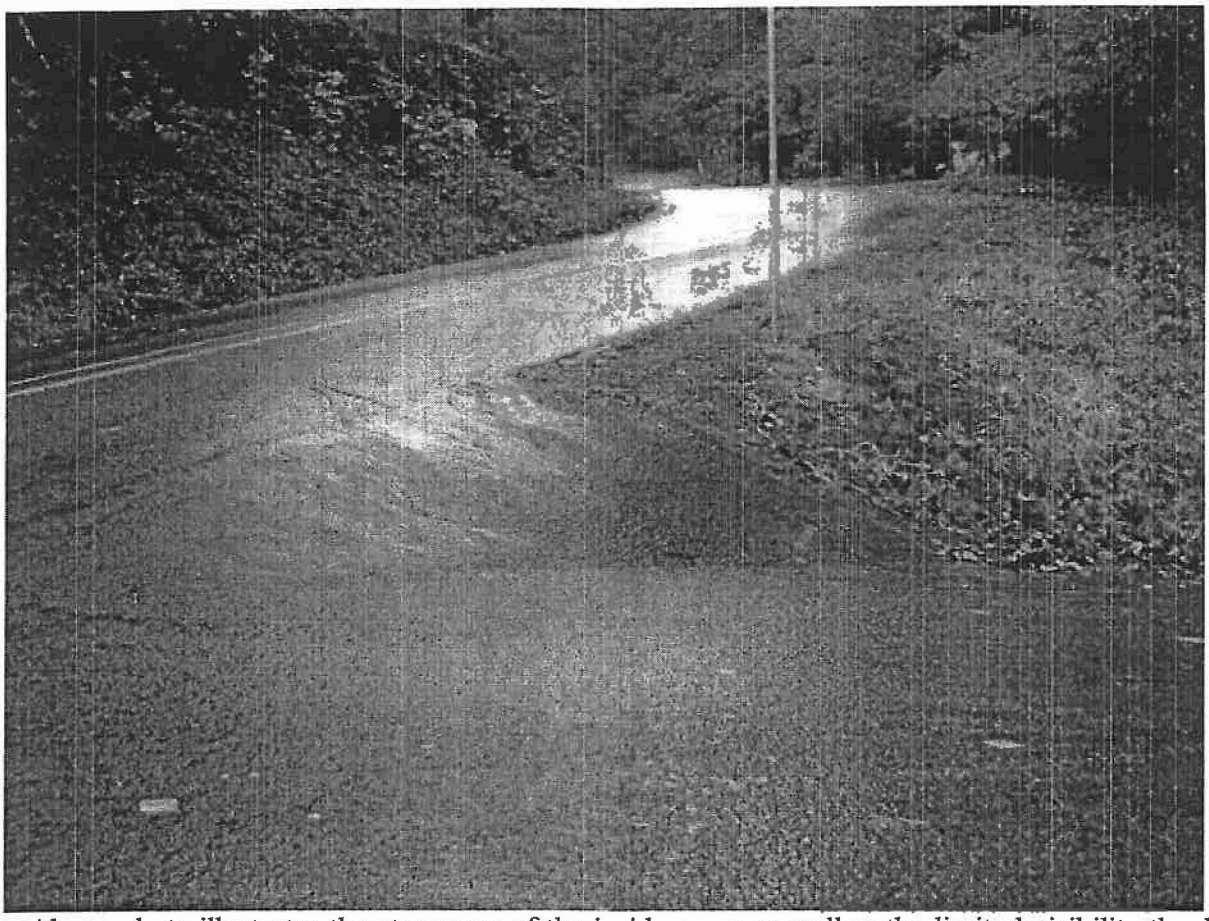


(Nixon)

The reason drivers from southbound Mapleton wanting to turn right or west on to upper Mapleton have to turn out in to the northbound lane of Mapleton (Nixon) is due to this sharp elevated inside corner of the curve. When this corner is slippery for any reason, it is impossible to negotiate this right turn on this hillside corner. The driver has to go wide to execute the turn quickly to avoid traffic coming down Mapleton in an easterly direction. On Nov 3, I was trying to turn right on to Mapleton. A vehicle was coming down the hill on Mapleton which forced me to stay in the right or southbound lane. I had to put my full size truck in to four wheel drive to finish the turn. The hill is too steep.



Physical evidence of scrapes in the pavement made by oil pans, hitches and other low hanging objects on vehicles. Many have "bottomed out" or get high centered. Those that live in the area have witnesses large vehicles like school buses, trucks with trailers, getting high centered because they did not know how to negotiate this turn properly.



Above photo illustrates the steepness of the inside curve as well as the limited visibility the driver has of down hill traffic on Mapleton while trying to execute on to west bound Mapleton. When a vehicle is eastbound, very often their speed is accelerated due to the fact they are going down hill.

CUP-12-02 and CUP-12-04; 1/14/2013

TC-_____-_____

REQUEST FOR TRAFFIC CONTROL INVESTIGATION/IMPROVEMENT

TODAY'S DATE: 9-19-12
APPLICANT'S NAME: Gwen Sieben
ADDRESS: 4950 Mapleton Dr
West Linn, OR 97068

-TELEPHONE (H) 503-675-5001
(E) gwensieben@att.net

DATE PROBLEM NOTED: Ongoing
TIME OF DAY: _____ AM/PM
CONTRIBUTING FACTORS: (CHECK ONE):
( ) Weather ( ) Road Surface Condition
( ) Hedges/Trees ( ) Street Lighting
(x) Others: See below

LOCATION OF PROBLEM Nixon/Mapleton Intersection at the east end of Mapleton Dr.

REQUEST: Reconfigure the Nixon/Mapleton intersection to West Linn standards before the Lake Oswego Tigard Water Partnership (LOTWP) closes Mapleton during construction of their 42" and 48" water transmission lines in Mapleton right-of-way.

REASON REQUESTED: This intersection is extremely unsafe due to visual obstructions, extreme turning angles, elevation changes and curves. Southbound Nixon traffic has only two options when approaching the Mapleton intersection: 1. Turn right onto Mapleton to travel west; or 2. Turn left (in effect, go straight) onto eastbound Mapleton. Southbound Nixon traffic cannot turn right (west) onto Mapleton without intruding "wrong way" onto both northbound Nixon and eastbound Mapleton due to extreme turn angle and elevation change which causes vehicles to "bottom out" (note scrape marks in lane). Southbound Nixon traffic cannot safely turn left (go straight) because the elevation change obstructs view of westbound Mapleton traffic and the curve obstructs view of eastbound Mapleton traffic. Both choices for Nixon traffic are dangerous because Nixon traffic must enter the intersection "blind". Furthermore, long vehicles or those pulling boat or utility trailers cannot negotiate this intersection without turning, backing up and trying again. TVF&R has claimed they can negotiate the intersection by doing a few turns and backing up, but I have difficulty with a Chevy Suburban and cannot really imagine how fire equipment can do it without backing into a private driveway. All Mapleton drivers risk head-on encounters with Nixon traffic turning "blind" into the intersection. This intersection is essentially one-lane and blind.

ADDITIONAL COMMENTS: Use of this intersection is currently optional because Mapleton residents can choose to enter and exit their neighborhood via Mapleton. During construction of the LOTWP transmission line, Mapleton will be closed daily up to 12 hours (hopefully not 24 hours), forcing all residents east of the construction point to use this failed Nixon/Mapleton intersection. By requiring Mapleton residents to use this intersection, LOTWP and the City of West Linn are forcing drivers to use an extremely dangerous intersection for all ingress and egress in all types of weather and driving needs. Allowing LOTWP to merely put the intersection back the way it is now dooms this intersection to remain in its failed state permanently. Should West Linn desire to improve the intersection in the future, West Linn would be constrained by LOTWP's 42" transmission line in West Linn's right-of-way. The time to fix it is now, before someone is hurt.

Thank you for completing this informational form. Your input is an important part of analyzing the above described problem. City Staff will review your request and conduct the necessary investigations. Please use the back of this form for a sketch or diagram as appropriate.

Please return to: *Attn: Jeff Randall*
Public Works Department
4100 Norfolk Street
West Linn, OR 97068

Phone (503)656-6081 x2103
email: jrandall@westlinnoregon.gov

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CUP-12-02, CUP-12-04; 1/14/2013

In addition to my testimony, I offer a narrative of a typical incident which occurs every day at the Nixon/Mapleton intersection. I am also providing you with photos of the intersection so you can see more clearly what the problem is at that location. These photos were taken by a neighbor who used them for another matter. I have deleted the beginning and ending sections of his letter so I could focus on the issues of the intersection only. Below each photo is its description.

"On Tuesday, 11/27/2012, at 8:30 am, I was again reminded of the dangerous nature of this intersection. As I drove eastbound on Mapleton intending to turn left onto northbound Nixon, I had to stop quite a distance from the intersection because of four other vehicles which all needed to use the same lane despite going different directions: On eastbound Mapleton, there was 1) a bicycle going fast downhill in my lane intending to turn left onto northbound Nixon and 2) another car behind me, also turning left onto Nixon. Southbound on Nixon was 3) a truck pulling a trailer preparing to turn right onto westbound Mapleton, which had to get into the northbound lane in order to make the turn, and 4) another car following him also turning right onto westbound Mapleton. Fortunately, all drivers seemed familiar with the intersection. From where I was stopped I could see the truck with trailer and flashed for him to go while I waited. (If I didn't wait, the truck with trailer and the car behind him would have had to back up out of the northbound lane for me to turn north onto Nixon.) As the truck started to turn the bicyclist rode past me and conflicted with the truck, which stopped mid-intersection and waited for the bicyclist to make his left turn onto northbound Nixon. As the truck entered the intersection another car previously unseen to me because of the hill also made the turn. Finally, the truck and the car following it cleared the eastbound Mapleton lane and got into the correct lane for the direction they were travelling. Then I could finally make my left turn onto Nixon as well as the vehicle behind me."

Technically, I suppose I had the right-of-way because Nixon has the stop sign, but truly, it was confusing even to those of us who live there. The added component of the bicyclist made it more dangerous – where was he to go with southbound vehicles in the northbound lane of Nixon? Vehicles and especially bicycles do travel fast down the hill and around the bend near this intersection. By the time they see someone turning from Nixon onto Mapleton, they may not be able to stop soon enough. It's very confusing. Tuesday morning's confusion could very well have been a crash, with a bicycle involved, no less. This strange intersection has been optional, so each driver can usually choose to leave the neighborhood via another route to avoid the danger at Nixon/Mapleton. Soon it may be the only way in and out of the neighborhood.

Due to the LOT project, Mapleton will be torn up to trench and lay pipe, closing the street during construction hours. During construction in certain areas of Mapleton, the street will also be closed at night. Whenever Mapleton is closed, all Mapleton residents east of the construction will have to use the Nixon/Mapleton intersection for all trips. It will no longer be optional to use this failed intersection. Additionally, for six to nine months before the pipe goes under Mapleton, heavy earth-moving trucks will travel back and forth to the end of Mapleton to bring an HDD pipe under the Willamette. These heavy trucks will come barreling down the hill and around the curve toward Nixon. Who knows if they will be able to stop for a vehicle with trailer travelling west in the eastbound lane because the intersection cannot accommodate the turn?

CUP-12-02; CUP-12-04

TRAFFIC SAFETY COMMITTEE MEETING
SUMMARY NOTES
November 29th, 2012

MEMBERS PRESENT: Rose Bird, Scott Sether, Zach Pelz, Khoi Le, Neil Hennelly

MEMBERS ABSENT: Karen Mohling

GUESTS: Joe Valenti, Craig S. Bell, Gwen Sieben

All recommendations will be taken to the Public Works Director for approval.

AGENDA

TC-12-19 Joe Valenti and Paula Novak – Summit St and Horton Rd – Request speed enforcement and consideration of a 3-way stop at the intersection of Summit and Horton due to vision problem.

Discussion
Necessary traffic control measures such as warning signs, posted speed signs and speed bumps are placed along Summit Street. Since Summit is a collector street and Horton Rd is a neighborhood route, a stop sign is not recommended on Summit Street at this intersection. It would be the last resort for a traffic control measure. In accordance with the MUTCD, stop sign warrants must be met in order to install a stop sign. To determine warrants, speed and traffic volume studies must be done.

Recommendation
Police Department will provide enforcement between the hours where speed-violations are likely to occur and a radar sign will be installed temporarily.

TC-12-20 Jerry Anderson – Ostman Rd and Dollar St - Request of a 4-way stop at the intersection.

Discussion
Ostman Rd and Dollar St are both collector streets. This intersection was not one analyzed in the TSP. Similar to the situation on Summit St and Horton Rd, installation of a stop sign on Dollar St would be the last resort for a traffic control measure. In accordance with the MUTCD, stop sign warrants must be met in order to install a stop sign. To determine warrants, speed and traffic volume studies must be done. Ostman Rd meets Dollar St at angle other than 90 degree; it may create a sight vision issue.

Transportation Operations Division thought a speed study had been done at this location. Operations will check their records. If it has not been done, Operations will get one done so the City can review the volume and speed at this location

Recommendation
Transportation Operations Division will look at placing a sign under the stop signs notifying "Cross-Traffic Does not Stop" on Dollar St. Reconfigure the stop bar on Ostman Road to obtain better vision of vehicles approaching the intersection from Dollar St.

CUP-12-02; CUP-12-04

TC-12-21 Craig Bell – Skyline Dr (between Bolton Reservoir and Clark St) – Pedestrian Safety concern – Requests some variety of effective speed enforcement on Skyline Dr or completing the sidewalks or installing speed bumps.

Discussion
The City does recognize the need of having sidewalks along Skyline Drive. This is indicated in the TSP as a project to do, however, due to the topographic difficulty, this project is very expensive. It was estimated as close to 1 million dollars in the TSP.

There was discussion about installing a path/trail in the Wilderness Park as an alternative. Since Skyline Dr is classified as a collector street, any temporary path installed along/adjacent to the roadway must provide a buffer and a safeguard measure to provide safety for pedestrians.

Recommendation
Staff will recommend that the Public Works Director talk to the Parks Director regarding the possible installation of a gravel path or bark path on the north border of Skyline Dr to keep pedestrians off the road and/or continue the discussion about a path/trail in Wilderness Park to see if this can be done.

TC-12-22 Gwen Sieben – Mapleton Dr and Nixon Ave – The intersection is extremely unsafe due to visual obstructions, extreme turning angle, elevation changes and curbs – Request the reconfiguration of the Nixon/Mapleton intersection to the West Linn standards.

Discussion
Both Police Department and Public Works Department recognize the topographic difficulty at this intersection. Driver must make a wider turn and approach into the other traffic direction in order to make a right turn from Nixon to Mapleton.

"No Turn Around for Trucks Over 40 feet" was placed at the intersection of Nixon Ave and Elmran Dr to warn drivers about the disability of turning around on Nixon Ave due to the geographic configuration of Mapleton Dr and Nixon Ave. A yield sign is also in place on Nixon Ave at this intersection. Although there is traffic control signage and speed bumps on Mapleton Dr, no other signage along Mapleton Dr., between the Lake Oswego Water Treatment Plant (WTP) and Nixon Avenue to warn drivers of the difficult alignment at the intersection of Mapleton and Nixon.

If construction of a 42" and 48" water transmission line happens, a flagger or some other traffic control method approved by the City Engineer, needs to be at this intersection. This concern was already well reflected in the Land Use Application of the Lake Oswego-Tigard Water Partnership Water Transmission Line through a condition of approval.

Although there is difficulty making a right turns at this intersection, the majority of people who are well aware of this situation normally will slow down and be extra careful when approaching this intersection.

The intersection can be improved, but due the topographic difficulty, it would be extremely expensive.

Recommendation
Transportation Operations Division can look into if there are signs that can be installed along Mapleton Dr between the WTP and Nixon Ave to warn drivers of the geographic difficulty at the intersection of Mapleton and Nixon.
Ask the Public Works Director for advice on what can be done to improve this intersection.

TC-12-23 and TC-12-24 Elizabeth Holden and Rian Flad – Salamo Rd and Day Rd (in front of City Hall) – The crosswalk needs better markings to make the pedestrian crossing more visible and safe. How about placing blinking lights similar to Bland and Salamo?

Discussion
Crosswalk signs and markings are in place and well marked at this location. West bound on Salamo Rd from Rosemont Rd to Day Rd is fairly flat. Sight distance and visual ability of crosswalk should not be an issue. Although crosswalk warning signs are in place, visibility Eastbound on Salamo Rd immediately before approaching the crosswalk is not optimal due to roadway radius. Installation of flashing crosswalk signs for the East bound travel lane can improve visual awareness.

Although flashing lights can be an additional traffic control measure, it is not enforceable. Crosswalk signs and markings are enforceable. At crosswalk locations where visibility is limited and drivers fail to stop to yield for pedestrians, flashing lights at the crosswalk can be installed to improve awareness.

There was discussion of the possibility of installing flashing crosswalk signs at necessary locations throughout the City as a capital improvement project if funds are available.

Recommendation
Transportation Operations Division will check with the Public Works Director if funding is available to install flashing crosswalk signs at this location and other locations in the City.

these roadways are treated differently from a design perspective given their very low volume than is a typical roadway.

Pedestrians share the roadway or utilize gravel or dirt shoulder areas that are generally wide and prevalent along much of each of these roadways. Testimony has been provided regarding potential conflicts between pedestrians and construction traffic. We conducted several measurements along each of the roadways and found that, while the roadways are narrow in some locations, vehicles have more than sufficient visibility to see both pedestrians and oncoming vehicles at most every location in order to slow or stop to avoid a potential conflict. As described in the January 4, 2013 DKS Associates memorandum, there is one location on Mapleton Drive that lacks sufficient stopping sight distance. However, that location will be mitigated. Generally, each roadway also has clear shoulder areas where pedestrian can find refuge if needed.

Again, there is sufficient visibility where users of the roadway can slow or stop or otherwise act appropriately to avoid any conflict along each of these roadways.

A review of the recent reported crash history (Appendix A of this report) of Mapleton Drive, Kenthorpe Way, Cedar Oak Drive, Old River Road and Nixon Avenue indicates that there are very few historical reported traffic crashes and there are no existing traffic safety patterns along any of these roadways. We fully anticipate that there will continue to be no safety issues with any of these roadways with the provision of the planned mitigation and recommended mitigation included herein.

As described in the January 4, 2013 DKS Associates memorandum, construction vehicles will be held to a speed of 20 MPH or less enforceable by contract, which will offer likely the greatest safety and livability assurance. Additional measures such as additional speed bumps, radar speed signs, which display the speed of vehicle to a driver and encourage them to slow to an appropriate speed, should be considered as should the signage suggested by DKS Associates to enhance the safety or livability of the roadways.

Also important to note is that there are a few short sections of roadway where vegetation encroaches on the right-of-way, which would require that pedestrians walk within the paved surface of the roadway for brief moments. If it is a concern of the City of West Linn, the City could trim the vegetation within the right-of-way or allow the project to remove the vegetation. This should be considered regardless of the presence of the project. However, again, this vegetation exists in locations where there is ample visibility for vehicles to see pedestrians and vice versa to be able to act appropriately to avoid conflicts.

Intersection of Mapleton/Nixon

We evaluated the intersection of Mapleton/Nixon for potential safety issues. The proposed traffic management plan includes detouring traffic from Mapleton Drive to Nixon Avenue, then to Cedar Oak Drive and vice versa during a temporary closure of Mapleton Drive. The intersection will experience a temporary increase in traffic during this closure.

We evaluated the intersection to determine if there were any existing sight restrictions that could potentially result in safety issues. Adequate intersection sight distance ensures that vehicles approaching an intersection have adequate visibility to turn from one roadway to another roadway without hindering traffic on the other roadway.

Based upon AASHTO's "A Policy on Geometric Design" recommended intersection sight distance is 280 feet. When approaching the intersection from Nixon Avenue and looking up the hill to the west on Mapleton Drive, intersection sight distance is adequate. Intersection sight distance is well in excess of 280 feet looking in that direction. Similarly, looking to the south on Mapleton Drive, intersection sight distance is adequate for movements from Nixon Avenue. Lastly, for eastbound vehicles turning left from Mapleton Drive to Nixon Avenue, intersection sight distance is adequate. We don't find that there are any safety issues under existing conditions with the intersection and that the project won't create any additional issues.

January 14, 2013 Testimony to the West Linn City Council
Lake Oswego Tigard (LOT) applications CUP-12-02 and CUP-12-04

My name is Tom Sieben, 4950 Mapleton Drive, West Linn

The City Council should deny CUP-12-02 and CUP-12-04 based on CDC 60.070 Approval Standards and Conditions Section A Item 3 which states: "The granting of the proposal will provide for a facility that is consistent with the overall need of the community."

The joint purpose application form by the city of Lake Oswego submitted to the Department of State Lands states on pages 6 & 7 Appendix A under Section 4.1.3 "Project Purpose":

1. Provide water to Lake Oswego and Tigard to satisfy current demands and for the anticipated growth in demand forecast to occur over the 30-year planning horizon.
2. Creates opportunities for new or upsized interconnections to other regional sources of supply, increasing reliability and providing a backup water source;
3. Is the lowest-cost option for the City of Lake Oswego and for the City of Tigard;
4. Ensures the City of Tigard an ownership interest in supply facilities and a reliable long-term source of water.
5. Minimizes environmental impacts by trenchless pipeline crossings of Oswego lake and avoidance of Springbrook Creek, both located in Lake Oswego.

Conclusions:

A. Lake Oswego has reaped all the benefits since 1968. They want to do the same for 30 more years on the backs of West Linn citizens or until they decide to expand or replace the plant again.
B. Lake Oswego states that upsized interconnections provide a backup water source for LOT, another benefit for LOT not West Linn.
C. Locating a major utility for the benefit of Lake Oswego and Tigard in the residential neighborhood of West Linn is cited as the lowest cost option for the Lake Oswego Tigard partnership.
D. Notice that West Linn is mentioned nowhere in Project Purpose. Instead, ownership interest by the City of Tigard is specified.
E. Extreme measures and expense are taken to minimize environmental impacts to the city of Lake Oswego.
F. No (zero!) benefits are listed for West Linn. In fact, West Linn is only mentioned 15 times in 288 pages, and none of those references mention benefits to West Linn.
G. Lake Oswego never did and never will solve West Linn water problems such as replacing Bolton reservoir or aging water pipes.

Please deny this application.

Dear City Council:

The Lake Oswego Tigard Project clearly does not comply with the applicable policies of the Comprehensive Plan and Zoning Requirements.

Requirements:

1. **Land Use Planning**, Residential Development. Policy 8: Protect residentially zoned areas from the negative impacts of commercial, civic and mixed-use development, and other potentially incompatible land uses.

This proposal does not protect our residential areas from the negative impacts of this industrial water treatment expansion and its extensive pipe work.

2. **Citizen Involvement**- The statement by the applicants that they "visited each business and multi-family complex along the Highway 43 portion of the alignment to deliver a letter and informational packet about the project" is totally disingenuous since they just dropped off to anyone at the place of business in the middle of the Christmas Holidays. This does not constitute citizen involvement.

Requirement: The applicable zoning requirements are met.

a. The zoning is R-10, Single-family Residential Detached: R-4.5, Single-family Residential Attached/Duplex; GC, General Commercial.

   Allowing for the disruption of a residential area by the expansion of an industrial plant in a residential area is contrary to the Zoning.

b. Re-building an industrial plant with a larger footprint in a residential zone is prohibited. Expanding it to a regional use is prohibited.

This is not a minor remodel, but a new major regional infrastructure project with a complete re-design and expansion of the facility, for a new use i.e. to provide water to another city.

As a new industrial use it should require a zoning change to General Industrial Zone. And as part of that process, the LOTWP should present an exhaustive alternative site analysis showing that no other site was feasible, especially in the cities of Lake Oswego and Tigard.

This is a gross miss-use of the CUP provisions in our code and opens the door for any entity to use residential land in West Linn anywhere they want for any utility that benefits another jurisdiction. It is a horrible precedent to set and harms all of our West Linn citizens.

We need a solution other than digging up miles of Highway 43 and expanding this industrial operation in residential neighborhoods.

Other solutions are available, but that they have not been seriously considered by Lake Oswego and Tigard as they have been solely focused on their plan, not a plan considering West Linn.

Good faith, fairness and compliance with West Linn's land use standards is what we should all be concerned with. No developer would be permitted to do what the Lake Oswego Tigard Project is proposing. Alternatives would be considered.

The land use process doesn't allow one set of rules for applicants like Lake Oswego and Tigard and another set for the rest of us. Lake Oswego and Tigard need to go back to the drawing board and consider alternative sites.

Additionally, the City of West Linn and its citizens need to independently re-analyze all of our long term water needs and then establish a plan that the entire community can believe in and support.
Thank you,

CDC 60.070(A)(7): The use will comply with the applicable policies of the comprehensive plan

I reference this code as it is one of the partnerships prime failures to comply. In the planning commission's unanimous decision to deny this project, it references the project's failure to comply with City Council goals 1, 2, 6, 9, and 11 as well as Goal 2,(Land use), Sec 1, Policy 8.

- **Council Goal #1: "Maintain and protect West Linn's quality of life and livability"**
- **Council Goal #2: "Actively support and encourage West Linn's neighborhood associations and promote citizen involvement in civic life. Establish and maintain policies that give neighbors real control over their future"**
- **Council Goal #6: "Promote land use policies, both local and regionally, that are based on the concepts of sustainability, carrying capacity, and environmental quality"**
- **Council Goal #9: "Oppose urbanization of the Stafford Triangle and pursue policies that would permanently retain that area as a rural buffer between West Linn and neighboring communities"**
- **Council Goal #11: "Assert through both planning and policy that compatibility with existing development should be a primary goal in west Linn's land use process"**
- **Goal 2, Sec 1, Policy #8: "Protect residentially zoned areas from the negative impacts of commercial, civic, and mixed use development, and other incompatible land uses"**

Staff and the appellant have attempted to relegate the noncompliance as irrelevant as many of them are goals as opposed to policy. However, the comprehensive plan clearly states, "The goals and policies within this plan have the force of law and the city is obligated to adhere to them in implementing the plan" It furthermore states," A policy may not be the only action the city can take to implement the goals".

I would like to address Council Goal #6: Promote land use policies, both local and regionally, that are based on the concepts of sustainability, carrying capacity, and environmental quality" and Goal #2 Section 1, Policy 9: " Foster land use planning that emphasizes livability and carrying capacity"

Both of these refer to carrying capacity which is defined in the plan as: "The level of use that can be accommodated without unacceptable damage to the environment, including air, land, and water quality, the transportation network, storm water management, and overall quality of life". (See separate document regarding air quality degradation)

This project in its scope and scale is unlike anything that has ever been proposed in this city. It should be examined far more closely than any conditional use permits that have preceded it, and in doing so, it becomes clear that it far exceeds the "carrying capacity". Staff and appellant assert that since major utilities are allowed as a conditional use, temporary

construction impacts are contemplated. Two and a half years is not temporary. The impact on the quality of life to the citizens of West Linn is simply too excessive. I don't believe it could have ever been the intent of any land use planning to create such an island of conflictive use in the middle of a residential area.

This brings me to compatibility as it is used many times in the comprehensive plan as relates to land use. While staff and appellant solely refer to this in reference to structural similarity.... which by the way also is problematic...I would reference this definition of the word compatible: "Capable of orderly, efficient integration and operation with other elements in a system with no modification or conversion required" I would have to say that by that definition this project is as far from compatible as it can be. It certainly doesn't take an engineer or land use expert to see that building an industrial scale water plant in the middle of a seismically vulnerable neighborhood where it is surrounded by families, elderly, and children is contrary to compatible land use planning. Regardless of the up to date seismic technologies used to build the plant, why would anyone increase potential risk to life and property by placing it where it would cause more harm in a seismic event.

I could go on, but am forced by time to close on the note that this project very clearly violates multiple goals and principles of the city comprehensive plan, not to mention the CDC. The planning commission agreed unanimously with the many citizens who are opposed to this project. LOT is appealing the decision with the hope that you will overturn a decision filled with compliance failures. Keep in mind that one is all that is necessary for denial. Without complete conviction on your part that the planning commission failed totally in its assessment, overturning its decision should not be considered. The burden of proof is upon the appellant. The burden of civic responsibility is upon you.

Scott Gerber

West Linn, OR

AIR QUALITY STATEMENT:

I would like to address the issue of air quality degradation as relates to the Lake Oswego-Tigard water treatment plant and pipeline. This is a subject that has not been adequately considered in previous comments, and it is one that deserves close attention.

I have reviewed the various figures and charts put forth by LOT regarding number of truck trips related to the two combined permit applications. Using conservative estimates based on LOT's figures, there will be at least 43,000 HDDV (heavy duty diesel vehicle) trips associated with this project. These will be combined into trips going either direction on 43 as well as up and down Kenthorpe and Mapleton. Peak days will result in nearly 86 of these trips per day, 144 during the 24 hour pullback and if workforce trips are added to this the peak daily number rises even more

CDC 60.07(A)(7) states in relation to conditional use permits: "The use will comply with the applicable policies of the Comprehensive Plan".

Goal 6 of the Comprehensive Plan: Air, Water, and Land Resources Quality

"The quality of the area's air, water, and land resources have a considerable impact on overall livability. Only through careful preservation and management of these resources will West Linn assure a healthy environment for all its residents."

In Section 1: Air Quality it states, "The primary source of air pollution within the City of West Linn is automobile and truck emissions. At this time there are no known major single point sources of air pollution in the City. However, it is important to be aware of existing or future industrial facilities, which could be major point sources."

The Goal under this heading is "Maintain or improve West Linn's air quality."

The average HDDV emits 15 to 20 times the number of particles per mass unit of fuel than the average light duty vehicle. It would appear very obvious that 43,000 or more additional dump trucks in our neighborhoods and on our main thoroughfare will put a serious crimp in this goal. In fact, all of these trips combined with the additional work force trips will no doubt seriously degrade the quality of West Linn's air. I would also add here the volumes of additional dust created by this traffic during the dry summer months. And there would have to be included what I am assuming to be diesel powered machines that will dig the holes for the 1000 pilings.

It would seem to me that Staff has committed a serious oversight when it addresses Goal 6 of the Comprehensive Plan. Staff reports findings related to Water and Land Quality, but nowhere is "Section 1: Air Quality" mentioned.

The addition of this truck and equipment traffic to our city will undeniably have a huge impact on the quality of our air, and Staff and LOT have blatantly ignored the issue altogether.

This project is in serious violation of this goal and I would suggest also violates CDC 60.090A (3) as it refers to reconstruction of roads.

"Project design minimizes environmental impacts to identified wetlands, wildlife habitat, AIR, water quality, cultural resources, and scenic qualities, and a site with fewer environmental impacts is not reasonably available."

As has been stated many times, LOT has refused to consider an alternative site, so would appear to be in violation here as well.

This is but another example where the LOT project not only does not meet requirements, but will also do additional damage to our city and way of life.

Scott Gerber

RIGHT OF WAY FEE:

I would like to comment on the recent "right of way fee" just approved by the West Linn city council for the Lake Oswego-Tigard Partnership project.

Simply put, this agreement smacks of impropriety and presents a dangerous precedent for future development. Call it what you will, but in the current context, it appears to be nothing more than a bribe. I don't think it is appropriate for the city to be engaged in any discussion of monetary remuneration prior to a land use decision. Should the decision go in favor of the developer, it appears as though one can buy one's way through the land use process. I am not a lawyer, and there may well be legal backbone to this, but in outward appearance, this sends out a strong negative connotation.

Additionally, in the event this project is approved, West Linn has fed itself right into LOT's well conceived plan. Instead of West Linn imposing a long term franchise fee based on project revenue, it has allowed LOT to set its own one time steal of a fee. This is a bad move, politically and financially.

Scott Gerber

West Linn, OR

My name is Yvonne Davis.

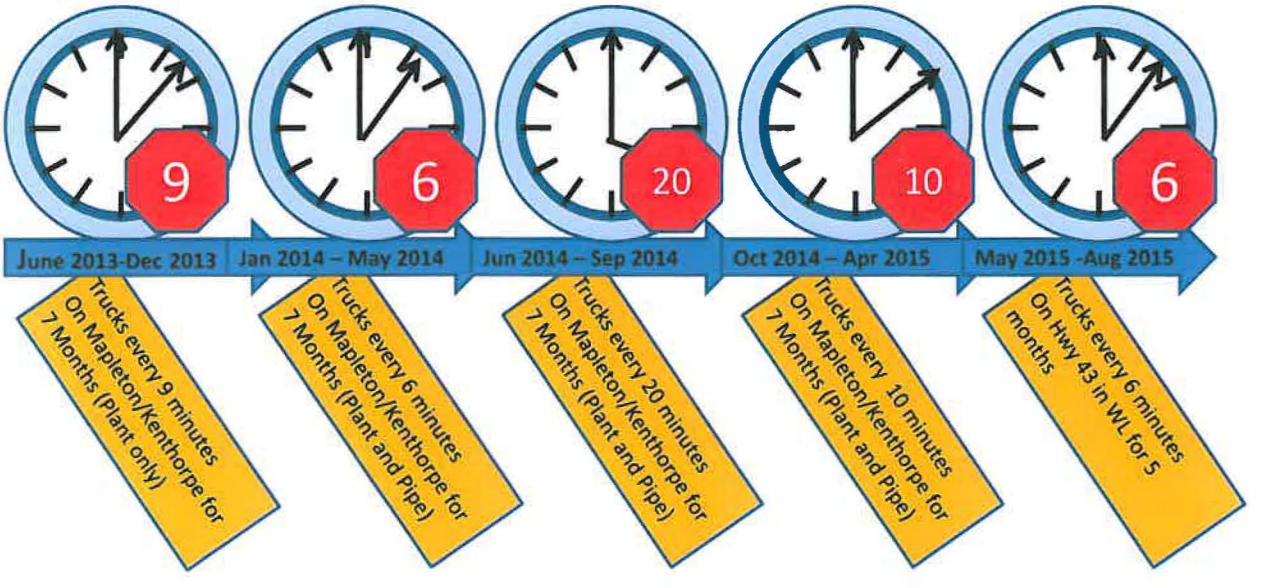
I wanted to see for myself just how construction is going to affect our streets, so I broke out the numbers that LOT provided in their public documents. What I learned is very disturbing.

Please turn to the spreadsheet included with my written testimony.

CDC 60.090 A(2) states that: "*the project design is **compatible with abutting land uses in regard to noise generation and public safety** and is consistent with applicable zoning and development standards and criteria for the abutting property.*" Someone please explain to me how an industrial facility with this impact can be considered compatible with abutting land use on Mapleton and Kenthorpe.

The planning commission got it right when they voted unanimously to deny the application. I ask that you do the same.

Frequency of Truck Trips for *Combined* Plant and Pipe work June 2013 – August 2015



Supporting docs:

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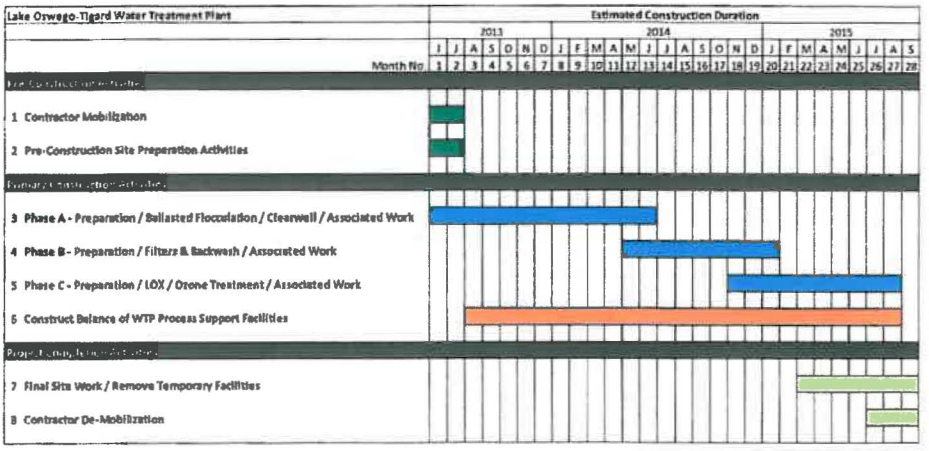

Figure 14A-1. WTP Construction Schedule

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Table 14A-1. Construction Traffic Estimates

WATER TREATMENT PLANT - CONSTRUCTION TRAFFIC ESTIMATES	
Average Traffic Volume over 28 Month Construction Period	**Average Hourly Trips**
Truck trips (1)	4
Workforce trips (during commute hour) (2)	25
Average hourly trips (during commute hour) (3)	29
Peak 12 Month Trip Volume	**Peak 12 Month Hourly Trips**
Truck trips (1)	6.6
Workforce trips (during commute hour) (2)	32.5
Average hourly trips (during commute hour) (3)	37.3
Peak 3 Month Trips Volume	**Peak 3 Month Hourly Trips**
Truck trips (1)	10.2
Workforce trips (during commute hour) (2)	34.5
Average hourly trips (during commute hour) (3)	38.9
Notes: (1) Hourly truck trips are based on daily truck trips per day spread over an 8 hour work period. (2) Workforce trips (commutes to / from the site) occur during A.M or P.M. commute periods assumed as follows: -A.M. commute hour: 6:00 a.m. to 7:00 a.m. -P.M. commute hour: 4:00 p.m. to 5:00 p.m. (3) Highest construction traffic volume occurs during A.M. and P.M. workforce commute hour.	
Trip Dateline Information A. Peak 12 month truck trip volume occurs during months 1 through 12. B. Peak 12 months of workforce trip volume occurs during months 8 and 21 C. Peak 12 months of combined trip volume occurs during months 7 and 18 D. Peak 3 months of truck trip volume occurs during months 8 through 10. E. Peak 3 months of workforce trip volume occurs during months 12 through 18. F. Peak 3 months of truck trip volume occurs during months 8 through 10. G. See Figure 14A-1 - "WTP Construction Schedule" for month number references.	

Pipeline Construction Plan

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Table 1. Project Phasing by Pipeline Segment			
Phase	**Anticipated start of construction window**	**Anticipated end of construction window**	**Estimated construction duration**
HDD construction (access from Mapleton Drive)	March 2014	October 2014	6 Months
Open-cut construction on Mapleton Drive	November 2014	March 2015	3 Months
Open-cut construction on Highway 43 (West Linn portion)	June 2014	August 2015	5 Months

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Table 3. RWP and FWP Truck Trip Volume by Phase[1]				
Phase	**Truck trips per Hour[2]**	**Typical work hours**	**Anticipated start of construction window**	**Anticipated end of construction window**
HDD construction (via Mapleton Drive) – normal	2	7 a.m. to 7 p.m.	March 2014	October 2014
HDD construction (via Mapleton Drive) – pullback	6	NA[3]	NA[3]	NA[3]
Open-cut construction on Mapleton Drive	6	7 a.m. to 7 p.m.	November 2014	March 2015
Open-cut construction on Highway 43	8	8 p.m. to 5 a.m.	June 2014	August 2015

[1]Additional daily truck trips will result from WTP construction activities which are not included in this table.

[2]All truck trip volume reported is one-way (each round trip results in two (2) one-way trips).

[3]HDD pullback activities will occur once over a continuous 24- to 48-hour period.

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Table 1. One-way Traffic Volume for Pipeline Construction Phases

Pipeline Phase	Construction Traffic (ADT, one-way trips per day)[1]	Work Hours (hours per day)[2]	Construction Traffic (one-way trips per hour)[3]	Construction Duration (days)[4]	Total Construction Traffic (one-way trips)[5]
HDD Construction (via Mapleton) normal	32	12	3	155	4,960
HDD Construction (via Mapleton) pullback	144	24	6	1 or 2	144
West Linn AC Waterline Replacement on Mapleton Drive	38	12	3	36	1,368
Open-Cut Construction on Mapleton Drive	86	12	7	78	6,708
Open-Cut Construction on Highway 43	86	9	10	129	11,094
Total One-Way Construction Traffic					24,274

[1] Construction traffic volume from CUP 12-04 Section 10-4.2.1 and reported in ADT or one-way trips

[2] Work hours per day from CUP 12-04 Section 10-4.4

[3] Construction traffic per hour calculated by dividing one-way construction traffic per day by the work hours

[4] Construction duration based on estimated construction duration in CUP 12-04 Section 10-2.3, with 30 day months and 6 work days per week

[5] Total construction traffic is based on the physical properties of each project, not duration, and can be back-calculated by multiplying one-way construction traffic per day by the number of days in the construction duration. Note that hourly traffic from HDD pullback is based on a duration of one workday, if it were based on two workdays the hourly volume would decrease to 3 trips per hour and the daily volume would decrease to 72 trips per day.

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Table 2. One-way Truck Traffic Volume for WTP Construction

Average Truck Traffic (one-way trips per day)[1]	Work Hours (hours per day)[2]	WTP Truck Traffic (one-way trips per hour)[3]	Construction Duration (days)[4]	Total WTP Truck Traffic (one-way trips)[5]
28	8	3.5	672	18,816

[1] Average truck trip volume calculated by dividing the total WTP truck trips by construction duration, note that for a more detailed analysis of WTP construction traffic refer to the update memorandum provided September 27, 2012, Figures 1 and 2, which provides anticipated construction traffic values by month.

[2] Work hours per day from CUP 12-02 Section 14A-Appendix A and reported as 7 a.m. to 4 p.m. with a one hour lunch break.

[3] Average hourly truck trips reported in CUP 12-02 Section 14A-5 1.1 Table 14A. These values were calculated by dividing total truck trips by the construction duration and planned work hours

[4] Construction duration based on 32 month construction duration from CUP 12-02 Section 14A, with 30 day months and five work days per week

[5] Total construction traffic is based on the physical properties of each project, not duration, and can be back-calculated by multiplying one-way construction traffic per day by the number of days in the construction duration. This value will be evenly split between Mapleton Drive and Kenthorpe Way.

City of West Linn Community Development Code - Excerpts

60.090 ADDITIONAL CRITERIA FOR TRANSPORTATION FACILITIES (TYPE II)

A. Construction, reconstruction, or widening of highways, roads, bridges or other transportation facilities that are (1) not designated in the adopted West Linn Transportation System Plan ("TSP") or (2) not designed and constructed as part of an approved, active, development order are allowed in all zoning districts subject to the conditional use and all other applicable provisions of the CDC and satisfaction of all of the following criteria:

1. The project and its design are consistent with West Linn's adopted TSP and consistent with the State Transportation Planning Rule, OAR 660-012 ("the TPR").

2. The project design is compatible with abutting land uses in regard to noise generation and public safety and is consistent with the applicable zoning and development standards and criteria for the abutting properties.

3. The project design minimizes environmental impacts to identified wetlands, wildlife habitat, air and water quality, cultural resources, and scenic qualities, and a site with fewer environmental impacts is not reasonably available.

4. The project preserves or improves the safety and function of the facility through access management, traffic calming, or other design features.

WTP and Pipeline Truck Trips Combined (sub)

Phase	1 Way Trips/Hr	Typical Work Hours	Hours per work day	1 Way Trips per Work Day	Days per week	Frequency in Minutes	Months Duration	Start Date	End Date	Work days	Total Trips	
Water Treatment Plant Demolition and Excavation												This table is composed of numbers from the Plant and Pipe construction management plans, the 12/10 Appeal and those provided in the rebuttal memorandum from Brown and Caldwell dated 11/1/2012. **It does not include workforce travel.**
1. WTP demolition and excavation - average over 32 months	4		8	32	5	15	28	6/1/2013	9/30/2015	588	18,816	Rows 1-3 relate to the 28 month Plant project. Given an average one way trip count of 4 an hour, I extrapolated that to derive a trip frequency of every 15 minutes. This means that every 15 minutes a truck will leave or enter the plant property 5 days a week, 8 hours a day. This is only the 28 month average. It gets worse. There will be nearly 19,000 such trips in total for the Plant work only.
2. WTP demolition and excavation - peak 12 month	6.6		8	52.8	5	9.1	12	6/1/2013	6/30/2014	~252		Every 9 minutes, we will see a dump truck on Mapleton or Kenthporpe and Highway 43. This will run through the entire 2013-2014 academic year. Please look at the photos included. One is an actual photo I took last week. The other is a composite showing a similar truck on Mapleton with its dimensions. At this point the pavement is 19 feet from edge to edge. A typical mid size dump truck is 12 feet from mirror edge to mirror edge. Assuming a 1 foot buffer on the road margin, all other traffic, including bikes and pedestrians has 6 feet to maneuver. This is not the widest spot on Mapleton. But it's also not the narrowest. I am sure I wil not be the only parent who no longer allows their child to walk on Mapleton. An average walk the length of Mapleton takes about 15 minutes, so chances are good that any walk we take we will encounter a dump truck.
3. WTP demolition and excavation - peak 3 month	10.2		8	81.6	5	5.9	3	1/1/2014	3/30/2014	~63		During this peak 3 month period a truck will run down Mapleton or Kenthorpe almost every 6 minutes..
												For the Pipeline portion I rely primarily on the figures published in the November 1, 2012 memorandum, table 1, One-way Traffic Volume for Pipeline Construction Phases.
Pipeline Construction												
4. HDD construction (via Mapleton) - normal	3	7 am - 7 pm (12)	12	32	6	20	6	4/1/2014	9/30/2014	155	4,960	During the 6 months of drilling shown in row 4, we can expect to see a truck on Mapleton every 20 minutes, twelve hours a day, 6 days a week. Total trips come in at just under 5000. It should be noted that according to the construction timelines found in the construction management plans there is an overlap between the start of HDD work and the 12 month **peak** of the plant work as shown in rows 2 above. By my reckoning, this will result in almost 10 trips an hour (6.6 per hour for Plant and 3 per hour for Pipe), or a **one-way trip every 6 minutes for a 2 month period.** Additionally based off the published timelines, during the period of April 2014 - August 2015, both the plant and pipeline will be underway concurrently. With the bifurcated applications of the plant and pipe as two separate projects, the impact of the two concurrent construction projects is easily overlooked.
5. HDD construction (via Mapleton) - pullback	6	24 hours straight	24	144	6	10	NA	NA	NA	1 or 2	144	Every 10 minutes 24 hours straight, a truck will be lumbering up or down Mapleton and on through town. This will be at 3:00 am when most of us are trying to sleep, and 3:00 pm when the bus drops off the primary school kids.
6. Open-cut construction on Mapleton & Map/Kenthorpe Waterline repl.	6	7 am - 7 pm (12)	12	72	6	10	3	10/1/2014	4/30/2015	114	8,208	During the Mapleton Open Cut, not only will we have a heavy truck drive by every 10 minutes for 3 months, but we will also have a narrowed road and limited access to our homes. During this same period we will be seeing This will be happening during the rainy season. And it will be dark when the work starts each day, and dark when it finishes.
7. Open-cut construction on 43	10	8 pm - 5 am (9)	9	86	6	6	5	6/1/2014	8/31/2015	129	11,094	For the duration, the people who live on or near Highway 43 will have trucks coming and going every 6 minutes. The window for this work is so broad that is appears possible that it could run concurrent with the Mapleton work, meaning that some people will be getting barraged around the clock. Total trips exceed 11,000. Anyone who wants to sell their home then, or lease out a nearby apartment will be out of luck. Night businesses will suffer when patrons avoid the area. Light sleepers will probably go ballistic. (It should also be noted that this 5 month period only covers the work within West Linn city limits. An equal amount of construction will take place on 43 north of the border, which will surely affect West Linn businesses and residents.)
									Total RWP and FWP truck trips		**24,406**	Plant and Pipe trips combined exceed 43,000.
									Total WTP truck trips		**18,816**	
									Grand total one way truck trips		**43,222**	

WTP and Pipeline Truck Trips Combined (sub)											
Phase	1 Way Trips/Hr	Typical Work Hours	Hours per work day	1 Way Trips per Work Day	Days per week	Frequency in Minutes	Months Duration	Start Date	End Date	Work days	Total Trips
Water Treatment Plant Demolition and Excavation											
Line 1 source and methodology	12/10 Appeal Table 14A-1		12/10 Appeal Table 14A-1	Calc: Trips per hour * 8	12/10 Appeal Table 14A-1	Calc: 60 min/trips per hour	12/10 Appeal Fig. 14A-1	12/10 Appeal Fig. 14A-1		Calc: 28 mo * 21 days = 588	11/1 memo Table 2
Line 2 source and methodology	12/10 Appeal Table 14A-1		12/10 Appeal Table 14A-1	Calc: Trips per hour * 8	12/10 Appeal Table 14A-1	Calc: 60 min/trips per hour	12/10 Appeal Table 14A-1	12/10 Appeal Table 14A-1		Calc: 12*21	
Line 3 source and methodology	12/10 Appeal Table 14A-1		12/10 Appeal Table 14A-1	Calc: Trips per hour * 8	12/10 Appeal Table 14A-1	Calc: 60 min/trips per hour	12/10 Appeal Table 14A-1	12/10 Appeal Table 14A-1		Calc: 3*21	
Pipeline Construction											
Line 4 source and methodology	11/1 Memo Table 1	Pipeline Constr Mgmt Plan Table 3	11/1 Memo Table 1		11/1 Memo Table 1 Point 4	Calc: 60 min/trips per hour	Pipeline Constr Mgmt Plan Table 1	12/10 Appeal p. 36 Fig. 1		11/1 Memo Table 1	
Line 5 source and methodology	11/1 Memo Table 1	Pipeline Constr Mgmt Plan Table 3	11/1 Memo Table 1		11/1 Memo Table 1 Point 4	Calc: 60 min/trips per hour				11/1 Memo Table 1	
Line 6 source and methodology	Pipeline Constr Mgmt Plan Table 3	Pipeline Constr Mgmt Plan Table 3	Pipeline Constr Mgmt Plan Table 3	Calc: Trips per hour * 12	11/1 Memo Table 1 Point 4	Calc: 60 min/trips per hour	Pipeline Constr Mgmt Plan Table 1	12/10 Appeal p. 36,37 Figs. 1 &2		Sum of Mapleton days -11/1 memo Table 1	Calc: Trips per day * 114
Line 7 source and methodology	11/1 Memo Table 1	Pipeline Constr Mgmt Plan Table 3	11/1 Memo Table 1		11/1 Memo Table 1 Point 4	Calc: 60 min/trips per hour	Pipeline Constr Mgmt Plan Table 1	Pipeline Constr Mgmt Plan Table 3		11/1 Memo Table 1	

Dear Councilor

LOT has submitted a list of the alleged benefits of the project.

Let's look at the facts.

- LOT Claims that Lake O's water treatment plant serves as West Linn's **sole** emergency and backup water source.

Fact- This is not true. Other Clackamas River water plants inter-tie to our South Fork system and have provided water to West Linn in the past. Additionally, portable emergency water systems such as Tempest Environmental units can be used for emergency water if needed.

- LOT claims that the water treatment plant cannot deliver emergency supply year-round unless it is expanded through the partnership with Tigard.

Fact-This is not true. The Corollo Report and a recent report submitted by Oswego to Water Resource Board stated that Lake Oswego reduced its consumption in 2011 by 36% since 2007. The expansion is not necessary for Lake O except for Lake O to sell our Clackamas River water to Tigard and to supply the Stafford Triangle.

- LOT claims that West Linn ratepayers would save millions of dollars by avoiding construction of a new 8.4 million gallon water storage reservoir in West Linn and relying on Lake O to store water for us.

Fact- The inter-tie agreement with Lake O is subject to water being available. If water is not available as LOT claims, the Lake O storage is not available and we have nothing.

Additionally, the agreement is for a limited period of time so in the future we need to solve our problem.

- LOT claims that a larger underground reservoir for treated water (a clear-well) at the plant will allow water to be fully treated before it leaves the treatment plant – a key to providing high quality potable water to West Linn residents when needed.

Fact-If we cannot be guaranteed the water as LOT claims, not being able to drink cleaner water does us no good. Additionally, there is no generator to pump Lake Oswego water into the West Linn system in the event of a power outage. So much for 'emergency' water!

- LOT claims that West Linn's Water Master Plan (2008) explains that West Linn does not currently have adequate storage to meet system-wide needs under emergency conditions.

Fact-Based upon the Corollo report, West Linn has adequate storage to meet emergency needs and even if it didn't, what Lake Oswego is proposing does not solve West Linn problems since it is totally based upon the water being available and is for only twenty nine years.

- LOT claims that improving the inter-tie with Lake Oswego is identified as the least expensive option to meet storage supply needs.

Fact-Based upon the Corollo report we do not have any emergency problems. And if we did, which we disagree with, we cannot be guaranteed water when needed since it is solely based upon the water being available.

Please ratify the unanimous vote of the City Planning Commission and reject the Lake Oswego Tigard Projects.

Let's go back to the drawing board and come up with a master plan of action that is truly good for everyone!!!!

Sincerely,