PUGET SOUND ENERGY

TREEWATCH PROGRAM

ANNUAL REPORT

Issued May 1, 2003

TREEWATCH PROGRAM REPORT

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I. Program Implementation

On July 8, 1998, the WUTC, in Docket UE-980877, granted an order authorizing PSE to implement PSE's Tree Watch program (originally known as VROW). In the proposed program, PSE had demonstrated that it could realize significant reliability improvements for its customers as a result of a focused and targeted off right-of-way tree removal plan. This plan entailed identification of trees whose structural integrity had been compromised, often from disease or recent exposure to greater wind forces via the creation of tree buffer strips or improper logging operations. The program would essentially "harden" the electric delivery system for both routine and significant weather events. The benefits from the program will be realized during 20 years while the Program expenditures occur within the first five years, and thus a "regulatory asset" was considered a reasonable accounting mechanism for the program. Upon receiving the approved order, the Tree Watch program commenced by significantly increasing the vegetation resources available, by communicating the program within PSE's jurisdictions and by initiating communication with owners whose property bordered selected circuits.

A. Report Content

This report covers several different data time periods.

- The financial data and cost analysis covers the period January 2002, through December 2002.
- The outage data covers two periods.
    - Full calendar year outage data 2002 (and prior years) are included for Tree Watch circuits which were complete as of the beginning of 1999, 2000, 2001 and 2002.
    - October 2002 through March 2003 (winter season) outage data is included for Tree Watch circuits which were complete by October 2002.
- Weather data is for calendar years 1996 through 2002.

B. Program Continuation

It is recommended that the Tree Watch program continue. While the outage data does not show a significant everyday outage reduction, weather data appears to reflect that the electric distribution system is able to withstand more inclement weather, including higher velocity winds. As a consequence, more non-storm outages are being recorded and fewer major storms are being experienced. Since storm outage data is less precise, more outages and outage minutes are being reflected in non-storm measures. With the reduction of major storm costs, as computed on page 16, the program appears to provide O&M economic benefits in excess of amortization expense. The Tree Watch case study did not expect economic benefits to be realized until approximately year four, so this cost benefit exceeds expectations in the case study. This, together with the positive customer response to the program, justifies program continuation.

C. Program Recommendations

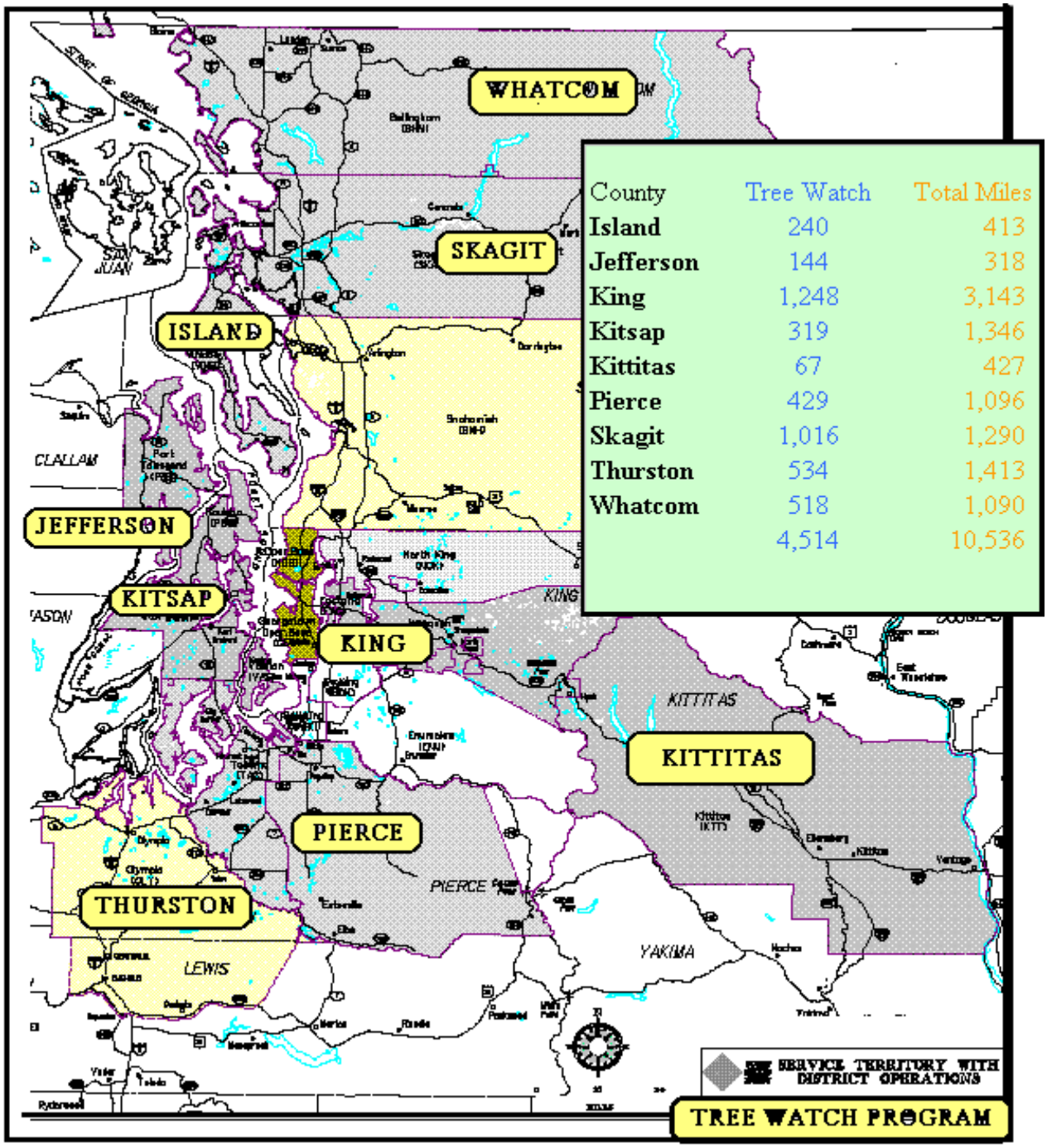
As part of its ongoing review of the Tree Watch program, PSE has learned much over the past four-and-a-half years. This includes:

1. More information regarding the causes of tree-related outages. PSE has cataloged and analyzed over 4,900 tree-related outages with specific, detailed information to track trends and construct hazard tree profiles. This has helped to evolve the Tree Watch strategy over time to ensure its effectiveness.
2. Increases in permitting and mitigation costs related to the removal of hazard trees in sensitive areas decreased the cost-benefits of these removals resulting in fewer trees being targeted. However, recent cooperative agreements have been reached, including a King County Programmatic Permit, that will reduce these costs, making future removals far more cost-effective.
3. Increasing acceptance by customers and governmental agencies have resulted in an ever-decreasing refusal rate.
4. While Tree Watch has lowered the number of outages, certain circuits still have customer outage minutes that are higher than expected or desired. Different potential strategies have been developed to address these particular concerns in the future.
5. Tree Watch is a distribution line program that has been proven successful and could likely be applied to the transmission system with equal or better results.
6. Disease infestations and land clearing activities continue to create new pockets of hazard trees and a continued effort is needed to evaluate these and act as needed.

Tree Watch is currently scheduled to end on June 30, 2004. Based on what it has learned, Puget Sound Energy is currently studying the benefits of extending this program into the future. Assuming any proposed extension would have to prove to be beneficial to ratepayers and shareholders, PSE is carefully reviewing all the options and would hope to have a plan of action ready to be presented to the Washington Utilities and Transportation Commission by October 2003. This extension plan could include applying the Tree Watch program with a selected set of guidelines to a smaller number of distribution circuits (or sub-circuits) and applying the Tree Watch program to the PSE transmission system.

D. Map

Completed TreeWatch Circuit Miles per County (as of December 31, 2002) and total Overhead Line miles.



County	Tree Watch	Total Miles
Island	240	413
Jefferson	144	318
King	1,248	3,143
Kitsap	319	1,346
Kittitas	67	427
Pierce	429	1,096
Skagit	1,016	1,290
Thurston	534	1,413
Whatcom	518	1,090
	4,514	10,536

II. Effectiveness Evaluation

A. Weather Characteristics

The following summarizes the effect of wind over the past seven years. In the original Tree Watch technical analysis, it was found that the outages experienced within PSE correlated relatively well to Maximum Sustained Wind Speed recorded at Sea-Tac Airport. While the data is limited to Sea-Tac, and is not a comprehensive review of all weather stations within the full service territory, it is generally considered to be representative of the weather events occurring throughout the service territory.

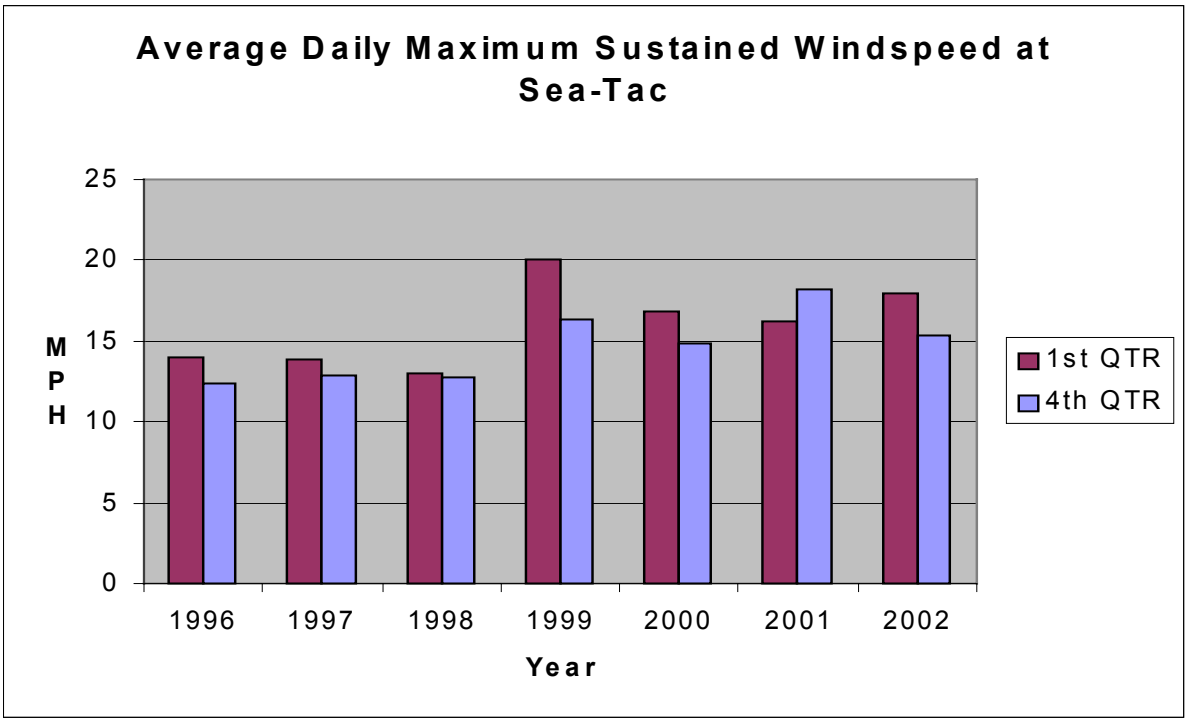
The following table shows the Maximum Sustained Wind Speeds averages for the calendar years 1996 through 2002.

This data confirms that in comparing seven years of data, 1999 experienced the highest Maximum Sustained Wind Speed average, followed by the year 2002, which had significant winds in the first quarter.

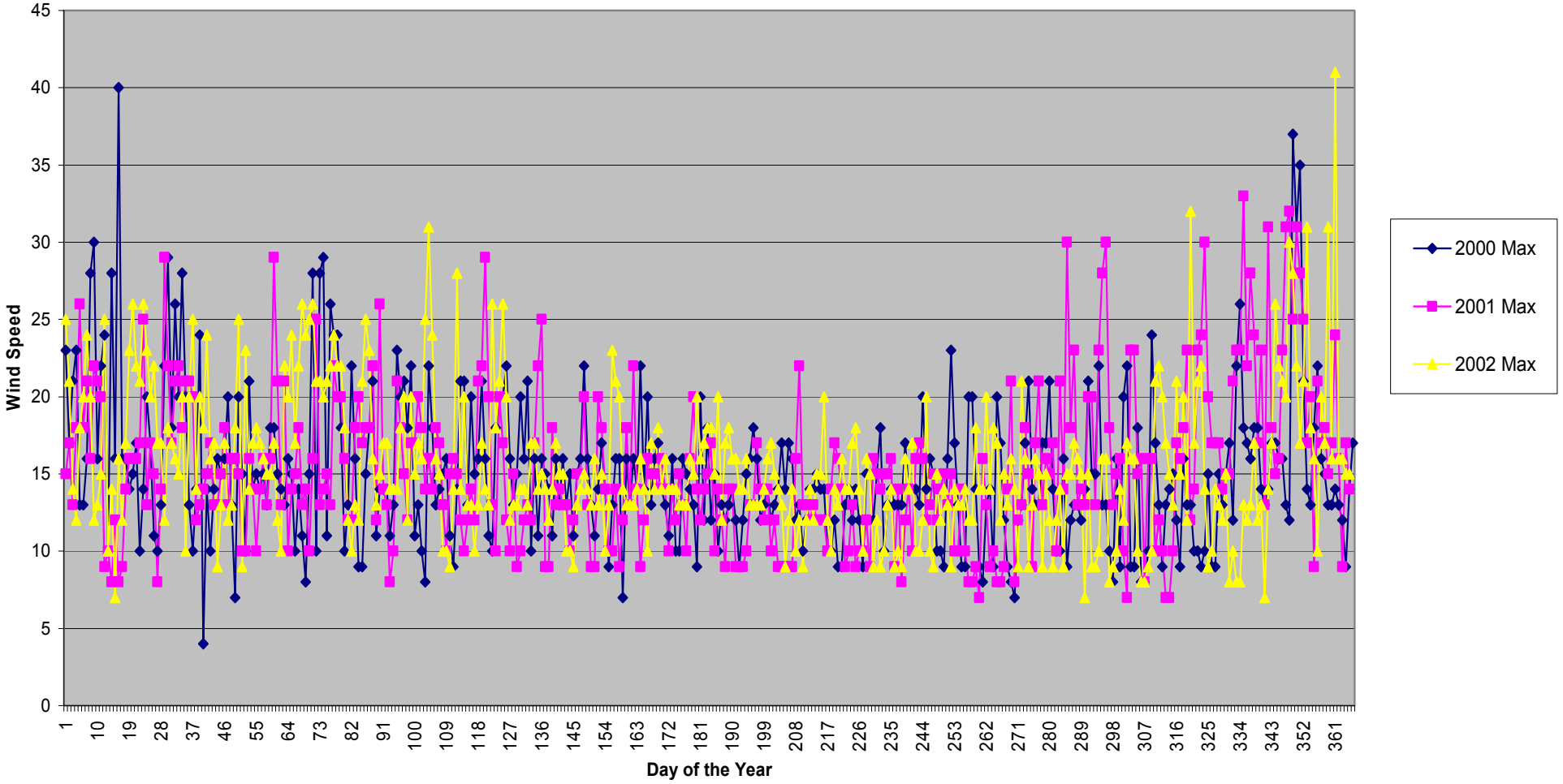
Maximum Wind Speed Averages

Period Average	1996	1997	1998	1999	2000	2001	2002
1st Quarter	14.0	13.8	13.0	20.0	16.8	16.2	18.0
4th Quarter	12.4	12.9	12.7	16.3	14.9	18.2	15.4
1st and 4th Qtr. Average	13.2	13.4	12.9	18.2	15.9	17.2	16.7
Full-year average	12.8	11.9	11.3	16.1	15.1	15.3	15.7

The following shows the above data for first and fourth quarters in graphical format.



2000 - 2002 MAXIMUM WIND SPEEDS



III. Storm Statistics

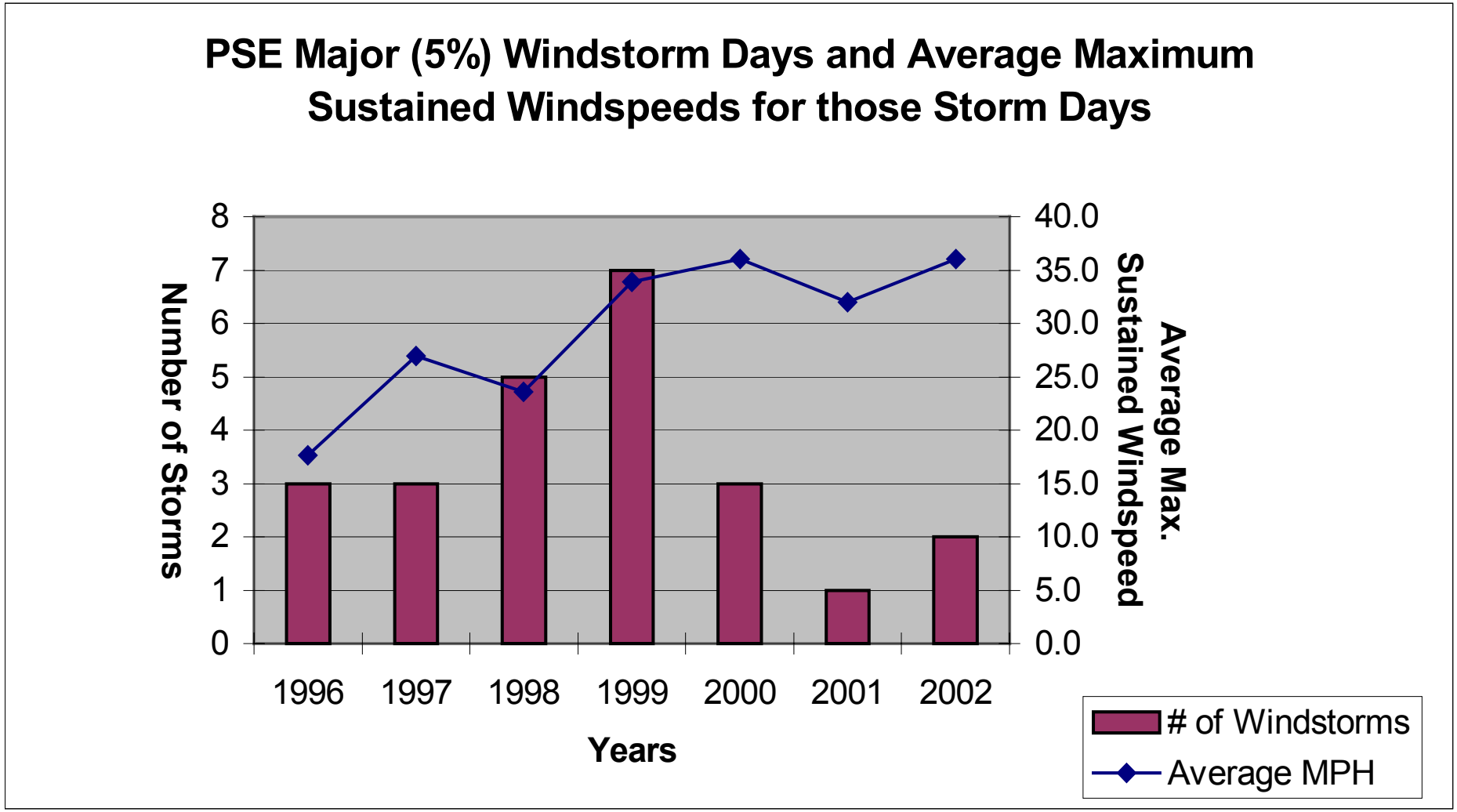
For the purposes of the SQI measurement, a Major Storm is defined as an event where more than 5% of PSE's electric customers are without power due to weather-related causes. Weather-related causes may include wind, ice, snow, rain or some combination of the above.

For the purposes of Storm Deferral Accounting, a Catastrophic Storm is defined as an event where more than 25% of PSE's electric customers are without power due to weather-related causes.

For the purposes of PSE accounting purposes, employees charge their time to storm expense whenever the Company's Emergency Operations Center is opened, regardless of whether or not the 5% threshold is met.

Taking both the first and fourth quarters into consideration, the year 2002 was a moderate windstorm year for Puget Sound Energy, with the first quarter having significant winds. There were two Major Storms in 2002, both due to wind (4/14/2002 and 12/27/2002). There were no Catastrophic Storms in 2002.

The following chart shows how PSE appears to have "hardened" the electric overhead system, through TreeWatch and other capital reliability projects. Thus even with increased sustained wind speeds, fewer customers are affected so that the Company does not need to declare as many events a Major Storm. We believe that the advantage of this work is that Major Storms affects fewer customers. However, an unanticipated outcome is that because we have fewer Major Storms, more outage data is reflected in our SQI measures. Since outage events that would have been excluded in the past are now being included, it may appear as though our SAIDI and SAIFI performance is deteriorating when clearly that is not the case when you take into consideration the reduction in Major Storm events.


PSE Major (5%) Windstorm Days and Average Maximum Sustained Windspeeds for those Storm Days
Number of Storms
Average Max. Sustained Windspeed
0
1
2
3
4
5
6
7
8
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
1996
1997
1998
1999
2000
2001
2002
Years
# of Windstorms
Average MPH

IV. Summary Circuit Statistics Results

A. Summary of TreeWatch Treated Circuit Outages
Full Year Data
Pre- and Post-TreeWatch Treatment

Number of Outages

Tree Watch Year	1996	1997	1998	1999	2000	2001	2002	Average Pre-TW	Average Post-TW	Percent Change
2001 (82 Circuits)	345	202	199	295	256	332	170	272	170	-37.4%
2000 (62 Circuits)	279	175	191	253	143	248	170	208	209	0.4%
1999 (26 Circuits)	331	222	205	207	113	212	192	241	172	-28.6%
	955	599	595	755	512	792	532	242	184	-24.0%

SAIDI

Tree Watch Year	1996	1997	1998	1999	2000	2001	2002	Average Pre-TW	Average Post-TW	Percent Change
2001 (82 Circuits)	72.0	30.4	52.5	46.3	53.2	66.0	47.8	53.4	47.8	-10.4%
2000 (62 Circuits)	177.0	101.1	64.5	76.8	80.7	81.0	92.3	100.0	86.7	-13.3%
1999 (26 Circuits)	156.4	82.1	92.4	153.1	55.2	143.2	109.4	121.0	102.6	-15.2%
	122.5	64.1	65.6	79.8	61.5	87.1	77.5	87.0	88.2	1.4%

Note: Shaded area represents Post TreeWatch Treatment.

B. Summary of Tree Watch Treated Circuit Outages
October through March Data
(Winter Storm Season)
Pre- and Post-Tree Watch Treatment

Number of Outages

Winter Data	October - March							Average Pre-TW	Average Post-TW	Percent Change
	96-97	97-98	98-99	99-00	00-01	01-02	02-03			
TreeWatch Year										
2002 (87 Circuits)	249	149	339	210	156	423	186	254	186	-26.9%
2001 (82 Circuits)	174	96	239	144	123	256	138	155	197	26.9%
2000 (62 Circuits)	156	99	198	118	70	208	139	143	139	-2.6%
1999 (26 Circuits)	186	124	196	72	63	176	149	169	115	-31.8%
Total (257 Circuits)	765	468	972	544	412	1063	612	721	637	-11.6%

SAIDI

Winter Data	October - March							Average Pre-TW	Average Post-TW	Percent Change
	96-97	97-98	98-99	99-00	00-01	01-02	02-03			
TreeWatch Year										
2002 (87 Circuits)	73.83	18.11	126.78	36.33	14.20	136.48	115.30	67.29	115.30	0.71
2001 (82 Circuits)	28.90	17.50	52.00	25.80	46.80	46.00	74.98	34.20	60.49	0.77
2000 (62 Circuits)	176.70	42.00	68.20	43.60	34.80	85.00	64.91	82.63	61.57	-0.25
1999 (26 Circuits)	91.00	76.00	151.90	29.70	30.90	95.80	147.78	106.30	79.52	-0.25
Total (257 Circuits)	82.70	32.20	94.50	34.10	29.30	95.00	72.47	290.41	316.88	0.09

Note: Shaded area represents post-TreeWatch Treatment

V. Community Acceptance

Community Acceptance

Community and customer acceptances to the TreeWatch program and to PSE's vegetation management program, in general, have met acceptance levels documented in previous reports. With direct interaction and efforts educating property owners on the power reliability benefits of both TreeWatch and routine vegetation management, acceptance levels continue to be outstanding.

For the third year in a row, PSE has been designated as a Tree Line USA utility. This award is given by the National Arbor Day Foundation, in cooperation with the National Association of State Foresters. Tree Line USA is a program of the National Arbor Day Foundation to promote the dual goals of dependable utility service and abundant, healthy trees along America's streets and highways. PSE also received awards from the Washington Arbor Day Council, recognizing our efforts in establishing public and private partnerships and promoting the public's interest and participation in proper tree planting and care. Public education and outreach continue to be a key component of our efforts to improve community acceptance.

VI. Expenditures

	Tree Watch Deferred	Tree Watch Amortization	Vegetation Management O&M
Jan-02	$594,033	$231,015	$427,328
Feb-02	401,260	235,282	435,822
Mar-02	776,454	239,429	787,150
Apr-02	592,547	244,337	642,206
May-02	750,156	250,041	715,823
Jun-02	467,697	255,635	636,856
Jul-02	444,995	260,710	535,788
Aug-02	596,396	264,513	734,373
Sep-02	347,708	268,852	483,474
Oct-02	574,760	272,785	1,058,593
Nov-02	6,909	276,629	1,123,058
Dec-02	641,515	309,505	691,850
2002 Spending	**$6,194,431**	**$3,108,733**	**$8,272,320**

Note:

In 2002 an additional $719,703 was spent on vegetation management during Major Storms. This $719,703 is not included in the summary above.

TreeWatch Spending Inception to Date
July 1998 through December 2002
And projected 2003 & 2004

Inception to date	**$34,321,479**
Projected 2003	**6,300,000**
Projected 2004	**2,378,521**
Total Program	**$43,000,000**

A. Economic Analysis

The TreeWatch report and filing contained the following table, which projected the first 5-year revenue requirement with and without TreeWatch. **Note that the program was not expected to produce expense savings until approximately year 4.**

Projected	1st Year	2nd Year	3rd Year	4th Year	5th Year	Total
Comparison Rev. Requirement						
With Tree Watch	19,660	19,600	19,600	19,270	18,120	96,250
Without Tree Watch	19,250	19,250	19,250	19,250	19,250	96,250

The following table compares 1999 and 2000, 2001, 2002 Actuals vs. Year 1 and 2, 3 and 4 projections (from the VROW filing), Delivery Business Unit, O&M expense only.

		Years 1 & 2 Projected (1999& 2000)	**Years 1 & 2 Actual (1999& 2000)**	**3rd Year Projected (2001)**	**3rd Year Actual (2001)**	**4th Year Projected (2002)**	**4th Year Actual (2002)**
1	**With Tree Watch**						
2	Major Storm Expense	$11,620	$14,002	$4,190	$6,418	$3,110	$4,958
3	Non-storm tree damage repair						
4	Reduced Repair Costs**	(1,600)	(584)	(1,600)	(0)	(2,140)	(116)
5	Proactive Vegetation Management						
6	Dedicated right-of-way	14,934	15,246	6,900	7,917	6,550	8,272
7	Additional Mile value accomplished***		(1,139)		(438)		(967)
8	Virtual right-of-way amortized (18 mos.)	1,640	2,268	2,110	2,360	2,990	3,109
9	**Without Tree Watch**						
10	Major Storm Expense*	12,800	14,572	6,400	12,418	6,400	12,358
11	Proactive Vegetation Management						
12	Dedicated right-of-way	14,600	15,246	7,300	7,917	7,300	8,272
14	**Comparison Expense***						
15	With Tree Watch	26,010	29,793	11,600	16,257	10,510	15,256
16	Without Tree Watch	27,400	29,818	13,700	20,335	13,700	20,630

B. Notes and Calculations

***The company's actual storm expense for 2002 was $4,958,300. The estimated number without Tree Watch (line 10) is computed as follows:**

From the graph under storm statistics depicting PSE major (5%) windstorm days, and average maximum sustained wind speeds for those storm days, it can be seen that PSE has hardened its system, from wind events averaging less than 27 MPH causing Major or Catastrophic Storms to wind speeds in excess of 32 MPH causing the same level of damage. The following shows the number of days winds were in this "hardened" range and how many did cause a storm.

Year	Total Days	Caused Storm	% Causing Storm	Average	96-98 less 99-02.
1996	1	1	100.00%		
1997	3	2	66.67%		
1998	4	2	50.00%	72.22%	
1999	13	2	15.38%		
2000	8	1	12.50%		
2001	9	1	11.11%		
2002	7	1	14.29%	13.32%	58.90%

Based on this information, it appears in the year 2002, 5 to 8 potential storm days were avoided, compared to the years 1996 through 1998. Of these, 59% may have historically caused a storm. Therefore, we estimate that a minimum of three major storm days were avoided.

Two Major Storm events did occur in 2002 for a total cost to PSE of $4,958,300. Each day of storm equates to $2,479,150. If three storm events were avoided, there would be additional savings of approximately $7.4 million.

Without TreeWatch and other capital improvements (tree wire, conductor replacement), it is anticipated that the O&M storm cost would have been approximately $12,358,300.

****Reduced repair costs in non-storm conditions.**

- The circuits which had TreeWatch treatment prior to 2002, had 58 less outages than pre-TreeWatch (page 12).
- 58 outages * $2,000 per outages = $116,000 less costs incurred for non-storm outages.

*****Vegetation Management Expense**

- While PSE is continuing to spend more than the level of vegetation management expense allowed in the last rate case, by working TreeWatch and 6-year cycle trimming together, PSE has saved over $523 per mile in vegetation management expenses. (We eliminate the need for two sets of mobilization, flagging, notification, and supervision costs, etc.) Prior to TreeWatch, maintenance work was costing in excess of $3,500 per mile. This O&M work is now being done for approximately $2,977 per mile.
- An additional 325 miles of 6-year cycle work was accomplished. 325 miles @ $2,977 = $967,500.