

E. D. Hovee & Company, LLC

Economic and Development Services



MEMORANDUM

To: Sallie Edmunds, Diane Hale, Portland Bureau of Planning and Sustainability
From: Tess Jordan, Eric Hovee
Subject: River Overlay Zone Development Projection
Date: February 12, 2009

This memo estimates development over a 20 year time period on sites within the proposed Willamette River overlay zones (river industrial, river recreation and river general). These zones apply to riverfront sites extending from approximately the Broadway Bridge (to the south) north to the Columbia River, and incorporate land on both the east and west banks of the Willamette River.

Development is ultimately profiled as a dollar amount, for the purposes of estimating maximum revenue potential from a fee in lieu tied to the cost to improve the condition of the river bank for fish and wildlife habitat.

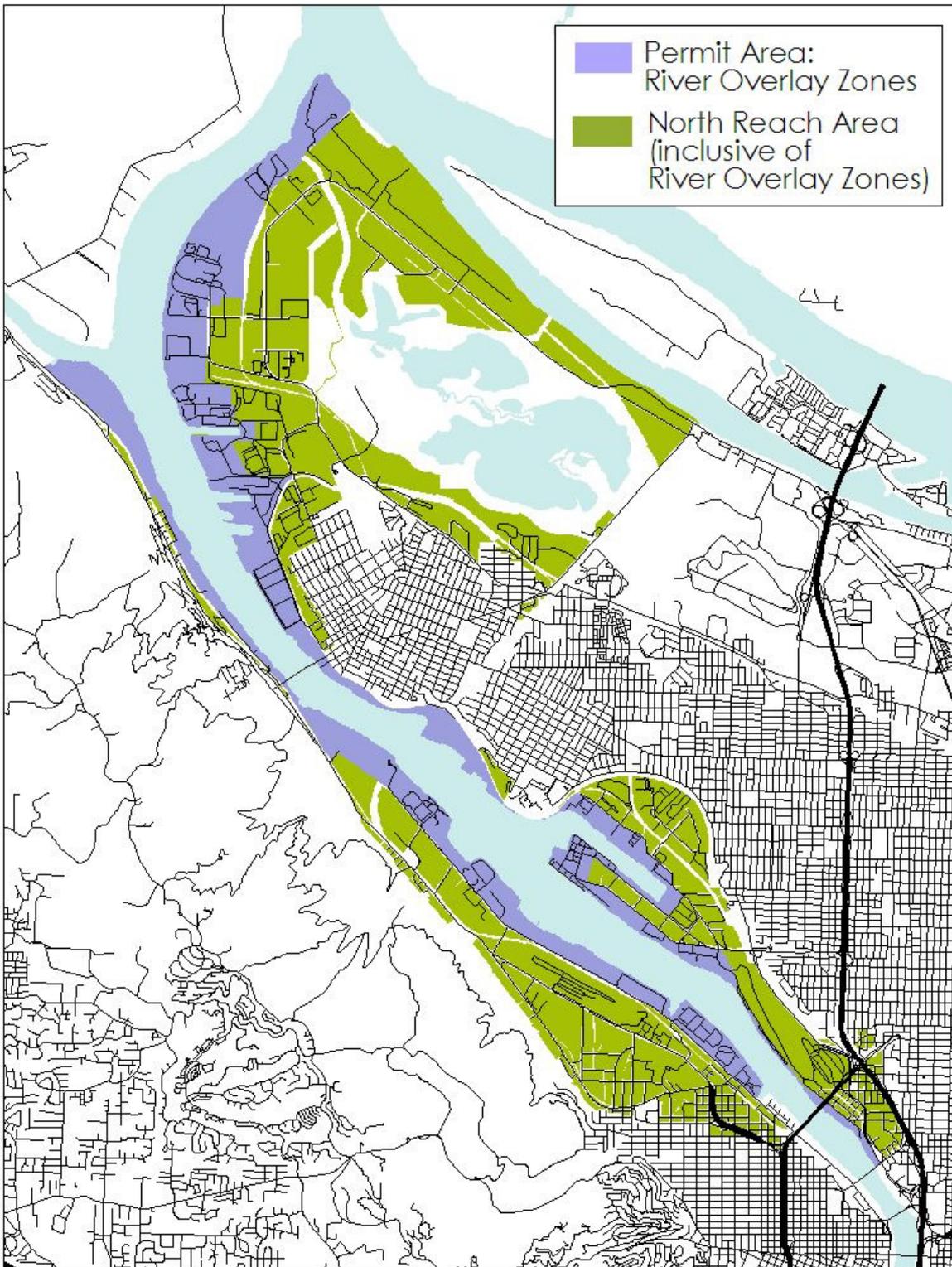
Three elements were considered in this projection:

1. The history of investment within the Willamette River North Reach, as reflected by building permits;
2. Employment forecasts for Portland's industrial sectors; and
3. Land availability and development capacity within the relatively limited set of waterfront parcels with which this memo is concerned.

Realized Investment Trends: Permit Data

Recent permit-generating investment within river overlay properties has averaged approximately \$17.7 million per year, according to permit data from 2000 to 2007. This figure includes investments that required building, zoning and site development permits. Rather than describing total investment (which would include equipment and machinery), it describes only that portion for which permits were required (which is the portion relevant to this projection as the basis for a potential revenue source).

Figure 1. River Geographies



Source: City of Portland Bureau of Planning, Metro's RLIS, E.D. Hovee & Company, LLC.

Figure 2. Investment Value Associated with Permits Obtained within the Proposed River Overlay Zones Area

Year	New Square Footage	Building Improvements	Demolition	Temporary Structures	Exterior & Site Work*	Total	New Square Feet Built
2000	\$3,992,000	\$1,196,000	\$0	\$10,000	\$1,124,000	\$6,322,000	66,400
2001	\$705,000	\$1,264,000	\$373,000	\$1,728,000	\$3,737,000	\$7,807,000	25,700
2002	\$1,504,000	\$486,000	\$48,000	\$4,000	\$1,186,000	\$3,228,000	100
2003	\$15,349,000	\$487,000	\$129,000	\$10,000	\$9,272,000	\$25,247,000	147,200
2004	\$424,000	\$2,645,000	\$1,370,000	\$0	\$3,917,000	\$8,356,000	4,800
2005	\$32,587,000	\$1,449,000	\$108,000	\$0	\$2,725,000	\$36,869,000	399,000
2006	\$12,023,000	\$577,000	\$103,000	\$0	\$9,555,000	\$22,258,000	273,700
2007	\$13,550,000	\$2,430,000	\$415,000	\$0	\$14,835,000	\$31,230,000	44,000
Total	\$80,134,000	\$10,534,000	\$2,546,000	\$1,752,000	\$46,351,000	\$141,317,000	960,900
2000-2007 Average	\$10,017,000	\$1,317,000	\$318,000	\$219,000	\$5,794,000	\$17,665,000	120,000
Firms with Permits	30	32	15	5	54	80	
Avg Value per Firm (over 7 years)	\$2,671,000	\$329,000	\$170,000	\$350,000	\$858,000	\$1,766,000	-
Percent of Total Value	57%	7%	2%	1%	33%	100%	

Note: Exterior & Site Work includes mitigation, landscaping, removing/replacing pilings (in-water), stormwater management, pads, paving, foundations, etc.

Source: Portland Planning Bureau; E.D. Hovee & Company, LLC

In contrast, Bureau of Planning, Portland Development Commission and Port of Portland staff estimated annual average total investment of \$110 million between 2004 and 2007, a significantly larger figure that includes industrial equipment and the total value of expansion, modernization and maintenance of properties.

Permit-associated investment shown on Figure 2, has been classified by type, to distinguish building and site improvements associated with on-going tenancy from new building development (either by existing or new tenants/property owners).

Distinguishing revenue in this way illustrates that an annual average of \$10 million in investment derives from *new building construction*, or 57% of the total average annual investment. The remainder 43% (\$7.6 million annually) appears to be primarily associated with *on-going improvement and maintenance* of existing site users' capital investments. One concern with projecting past trends forward is whether past investment is associated with the kinds of businesses that the City wishes to encourage on its industrial waterfront sites. Many sites are currently reserved for river-dependent uses, which has narrowed the pool of potential site users. A broadening of this pool has been suggested by also allowing rail-dependent uses within harbor industrial sites in the future. This suggests that investments experienced over the last seven years may be lower than in the future due to the expanded kinds of projects that would be permissible under new City policy.

A review of the types of firms that applied for permits between 2000 and 2007 indicates that over 97% have had a long-time presence in the harbor's industrial district. Regional and City economic policy seeks to support and encourage these firms. The remaining firms that made investments were unfamiliar, but may well have significant history in the area. This lack of new (vs. established) business investment may be indicative of challenges that new firms or industries encounter finding acceptable waterfront sites on which to locate, especially given brownfield, floodplain, infrastructure and other limitations associated with Portland waterfront development.

Looking forward, we anticipate that the annual average of \$7.6 million associated with on-going property upgrades and maintenance will continue into the future, albeit with year-to-year variations depending on economic conditions and the "lumpiness" of some of the major capital investments represented. New investment, in contrast, will respond to both larger growth trends in the industrial sectors and to land availability within the specific set of waterfront sites under consideration.

Industrial Employment Outlook

An employment forecast was prepared for all industrial areas within the River Plan/North Reach study area in 2006 as part of the Planning Bureau's Working Harbor Reinvestment Strategy (WHRS). Consistent with Metro regional forecasts, the WHRS allocation projected 14,407 net new jobs within the Swan Island, Northwest and Rivergate industrial areas over the 25 years between 2005 and 2030. This forecast covered both waterfront and upland (non-waterfront) properties.

An equivalent growth rate over a shortened 20 year time period equates to 11,526 jobs (based on uniform annual job growth). Total land needs associated with this job growth were estimated at 877 acres, or 702 acres when adjusted for the shorter 20 year timeframe.

As mentioned above, the working harbor forecast is not specific to waterfront sites. We therefore consider land available to accommodate this forecast within the River Plan/North Reach study area.

North Reach Waterfront Sites Land Supply & Development Capacity

There are approximately 173 vacant acres within the River Plan/North Reach study area with no known development constraints. These acres are entirely unoccupied, with no known floodplain or contamination issues, according to a land inventory updated by the Bureau of Planning in January 2009. This includes all parcels over 0.1 acres in size. These sites are considered easy to develop, but none are within the river overlay area; all are upland sites.

An additional 182 acres are within parcels that are partially occupied; these sites have some development but also land available for expansion, most likely by an existing business. Fifty-four of these acres are on waterfront sites. These sites are also considered easy to develop, although their availability may be limited to those businesses with excess land.

Together, these categories of vacant (unconstrained) land account for 355 acres, about 350 acres short of the 702 acres necessary to accommodate projected employment growth.

In addition to these 355 vacant acres, there are 466 additional acres within the larger North Reach geography with known impediments to development such as location within the floodplain or proposed environmental protection zone (partly buildable sites), or some level of contamination (brownfield sites). Some portion, although not all, of this constrained vacant land is expected to develop as well (as described below). Even if all develops—a scenario considered unlikely due to the significant barriers to development on some parcels—vacant land within the North Reach falls short of what is necessary to accommodate job growth. This check on land availability within the larger River Plan/North Reach geography indicates a land constrained environment, from which we conclude that sites within the river overlay zones should develop within this forecast period (20 years) so long as the cost of development is not prohibitive.

Anticipated development within the river overlay zones is outlined in detail below, as development on these sites is the focus for a possible future revenue stream. Sites are categorized by size and characteristics (brownfield, partly buildable, partly occupied and unoccupied, described below). Assumptions were developed on the likelihood and timeframe for development of land within each category based on market observations for two scenarios, conservative and aggressive. The following bullet points describe each of the categories of vacant land and outline assumptions regarding their development over a 20 year timeframe. Detailed assumptions are outlined in Appendix A.

- **Brownfield:** Sites with contamination issues identified by Oregon DEQ (not categorized in terms of expense, severity, etc). These sites are entirely unoccupied. Thirteen sites fall within this category. Vacant brownfields are unlikely to attract investment by new firms

until existing liability issues including Superfund uncertainty is more fully resolved. In the conservative scenario, only 30% of these sites develop. In an aggressive scenario, public investment is assumed to spur reinvestment of the two to three sites larger than 10 acres that remain undeveloped in the conservative scenario.

- **Partly Buildable:** This category includes vacant portions of parcels within the flood plain, proposed conservation and river environmental zones. Development within the floodplain will require balanced cut & fill. Site size describes only the portion of the site that is within the floodplain, however, many of these partly buildable lands are portions of larger taxlots on which there is existing investment. As would be expected, the majority of these sites within the North Reach fall within the river overlay zones. We assume that only sites with some upland acreage will be developed. These parcels may also be affected by in-water Superfund liability issues. In the conservative scenario, only 35% of this land develops, increasing to 55% in the aggressive scenario. No sites less than one acre are projected to develop in either scenario.
- **Partly Occupied:** Excess land that is not developed but is within the same parcel as a viable business. Parcel size describes unoccupied portion only. We assume that investment on these parcels represents existing businesses expanding on-site. These vacant portions of parcels are considered very likely to develop, as permit data indicates that almost the entirety of investment realized 2000-2007 was by businesses with long histories in the harbor industrial area. There are 26 pieces of land within this category; nine are over one acre in size. All land develops in both scenarios, but more rapidly in the aggressive scenario.
- **Unoccupied:** No known constraints to development. This category is considered very likely to develop, but no sites within the River Overlay zones fall within this category.

Figure 3. Assumptions for Development, North Reach Riverfront Parcels

		Parcels by Size (Acres)				
		0.1 - 1	1 - 5	5 - 10	10 - 20	20+
Supply						
	Brownfield	6	3	1	2	2
	Partly Buildable	24	23	6	2	3
	Partly Occupied	17	5	3	1	0
	Unoccupied	0	0	0	0	0
Conservative Timeline for Development by parcel size						
	Brownfield	30% equally spread years 5-20 (only owner-occupied)				
	Partly Buildable	None	35% equally spread years 5-20			
	Partly Occupied	25% years 5-20	All develop years 5-15			No parcels
Aggressive Timeline for Development by parcel size						
	Brownfield	30% equally spread over years 5-20		All remaining parcels years 10-20		
	Partly Buildable	None	55% equally spread years 5-20			
	Partly Occupied	40% years 5-20	All develop years 5-10			No parcels

Source: Bureau of Planning, Working Harbor: Vacant Land & Brownfields map & shapefiles updated January 26, 2009; E.D. Hovee & Company, LLC.

With both the conservative and aggressive scenarios, it is noted that no new investment is anticipated in years 0-5 (2009-2013). This is due to the nation's current recession with further business slowdown and reduced employment yet to come.

The result of these assumptions is a tally of acreage expected to develop. Uniform assumptions concerning industrial sites' floor area ratios and building value per square feet were applied to estimate the value of future (permit-related) investment on these properties. Appendix A includes tables that detail building square footage and the value of investment for 5-year increments, under both the conservative and aggressive scenarios, by parcel size and land characteristics (brownfield, partly buildable, partly occupied and unoccupied).

Conclusions: Revenue Potential

The development capacity of vacant waterfront sites equates to \$278 million of *new development* over 20 years in a conservative scenario and \$543 million over 20 years in an aggressive scenario. This dollar estimate derives from assumptions concerning the extent and nature of new development, detailed in the appendix. When combined with *reinvestment* in existing facilities (based on annual trends) the combined investment totals range from \$431-\$696 million over 20 years. Annually, this averages \$21.6 and \$34.8 million per year, although revenue for the first five years of the forecast (2009-2013) is significantly lower than in later years (see table below). This range encompasses a low of 22% above the annual investment trends over the past seven years (the conservative estimate) and a high of about 97% above those historic trends (the aggressive estimate). Both scenarios reflect development of land that has been largely passed by over the past 10-15 years, due to either contamination, environmental restrictions or land held for future expansion.

Figure 4. Waterfront Sites Investment Forecast, 5 Year Increments

	2009-2013 Year 1-5	2014-2018 Year 5-10	2019-2023 Year 10-15	2024-2028 Year 15-20	Annual Average	20 Year Total
Conservative						
New Development	0	\$92,828,000	\$92,828,000	\$92,828,000	\$13,924,200	\$278,484,000
Reinvestment	\$38,240,000	\$38,240,000	\$38,240,000	\$38,240,000	\$7,648,000	\$152,960,000
Total	\$38,240,000	\$131,068,000	\$131,068,000	\$131,068,000	\$21,572,200	\$431,444,000
Aggressive						
New Development	0	\$196,456,000	\$196,456,000	\$150,151,000	\$27,153,000	\$543,063,000
Reinvestment	\$38,240,000	\$38,240,000	\$38,240,000	\$38,240,000	\$7,648,000	\$152,960,000
Total	\$38,240,000	\$234,696,000	\$234,696,000	\$188,391,000	\$34,801,150	\$696,023,000
Historic Comparison						
New Development					\$10,017,000	
Reinvestment					\$7,648,000	
Total					\$17,665,000	

Source: E.D. Hovee & Company, LLC, Portland Bureau of Planning.

In both the conservative and aggressive scenarios, development activity peaks in years 5 through 15, reflecting recovery from the current recession, time to resolve some of the liability issues associated with contaminated sites identified as high priorities for redevelopment, and the near-

term absorption of the area's easiest sites to develop. The aggressive scenario reflects rates of new construction well above those experienced in recent years. This scenario is best supported by emerging trends for renewed interest in waterfront sites from a greater range of uses (including alternative energy related development), increased scarcity of remaining waterfront sites calling for somewhat greater intensity of development, and ability to resolve brownfield/Superfund issues encouraging investment from new as well as existing firms.

APPENDIX A. DETAILED TABLES

Building Square Feet

Uniform Site FAR: 0.3

	0.1 - 1	1 - 5	5 - 10	10 - 20	20+	TOTAL	
AVERAGE SIZE:	0.6	3.0	7.5	15.0	35.9		
Conservative Building SF							
Year 5-10							% to redev
Brownfield	4,300	11,800	9,800	39,200	93,900	159,000	30%
Partly Buildable	0	105,200	68,600	45,700	164,400	383,900	35%
Partly Occupied	10,200	65,300	98,000	65,300	-	238,800	25%
Total	14,500	182,300	176,400	150,200	258,300	781,700	
Year 10-15							
Brownfield	4,300	11,800	9,800	39,200	93,900	159,000	30%
Partly Buildable	0	105,200	68,600	45,700	164,400	383,900	35%
Partly Occupied	10,200	65,300	98,000	65,300	-	238,800	25%
Total	14,500	182,300	176,400	150,200	258,300	781,700	
Year 15-20							
Brownfield	4,300	11,800	9,800	39,200	93,900	159,000	30%
Partly Buildable	0	105,200	68,600	45,700	164,400	383,900	35%
Partly Occupied	10,200	65,300	98,000	65,300	-	238,800	25%
Total	14,500	182,300	176,400	150,200	258,300	781,700	
Aggressive Building SF							
Year 5-10							% to redev
Brownfield	4,300	11,800	32,700	130,700	313,100	492,600	30%
Partly Buildable	0	165,300	107,800	71,900	258,300	603,300	55%
Partly Occupied	16,300	98,000	147,000	98,000	-	359,300	40%
Total	20,600	275,100	287,500	300,600	571,400	1,455,200	
Year 10-15							
Brownfield	4,300	11,800	32,700	130,700	313,100	492,600	30%
Partly Buildable	0	165,300	107,800	71,900	258,300	603,300	55%
Partly Occupied	16,300	98,000	147,000	98,000	-	359,300	40%
Total	20,600	275,100	287,500	300,600	571,400	1,455,200	
Year 15-20							
Brownfield	4,300	11,800	32,700	130,700	313,100	492,600	30%
Partly Buildable	0	165,300	107,800	71,900	258,300	603,300	55%
Partly Occupied	16,300	0	0	0	0	16,300	40%
Total	20,600	177,100	140,500	202,600	571,400	1,112,200	

Value of Development (real property only)

	0.1 - 1	1 - 5	5 - 10	10 - 20	20+	TOTAL
Value of Improvements: Conservative Scenario						
Cost per SF	\$95			With soft costs	\$119	
Year 5-10						
Brownfield	\$511,000	\$1,401,000	\$1,164,000	\$4,655,000	\$11,151,000	\$18,882,000
Partly Buildable	\$0	\$12,493,000	\$8,146,000	\$5,427,000	\$19,523,000	\$45,589,000
Partly Occupied	\$1,211,000	\$7,754,000	\$11,638,000	\$7,754,000	\$0	\$28,357,000
Total	\$1,722,000	\$21,648,000	\$20,948,000	\$17,836,000	\$30,674,000	\$92,828,000
Year 10-15						
Brownfield	\$511,000	\$1,401,000	\$1,164,000	\$4,655,000	\$11,151,000	\$18,882,000
Partly Buildable	\$0	\$12,493,000	\$8,146,000	\$5,427,000	\$19,523,000	\$45,589,000
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Year 15-20						
Brownfield	\$511,000	\$1,401,000	\$1,164,000	\$4,655,000	\$11,151,000	\$18,882,000
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Partly Occupied	\$1,211,000	\$7,754,000	\$11,638,000	\$7,754,000	\$0	\$28,357,000
Total	\$1,722,000	\$21,648,000	\$20,948,000	\$17,836,000	\$30,674,000	\$92,828,000
Value of Improvements: Aggressive Scenario						
Cost per SF	\$108			With soft costs	\$135	
Year 5-10						
Brownfield	\$581,000	\$1,593,000	\$4,415,000	\$17,645,000	\$42,269,000	\$66,503,000
Partly Buildable	\$0	\$22,316,000	\$14,553,000	\$9,707,000	\$34,871,000	\$81,447,000
Partly Occupied	\$2,201,000	\$13,230,000	\$19,845,000	\$13,230,000	\$0	\$48,506,000
Total	\$2,782,000	\$37,139,000	\$38,813,000	\$40,582,000	\$77,140,000	\$196,456,000
Year 10-15						
Brownfield	\$581,000	\$1,593,000	\$4,415,000	\$17,645,000	\$42,269,000	\$66,503,000
Partly Buildable	\$0	\$22,316,000	\$14,553,000	\$9,707,000	\$34,871,000	\$81,447,000
Partly Occupied	\$2,201,000	\$13,230,000	\$19,845,000	\$13,230,000	\$0	\$48,506,000
Total	\$2,782,000	\$37,139,000	\$38,813,000	\$40,582,000	\$77,140,000	\$196,456,000
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Brownfield	\$581,000	\$1,593,000	\$4,415,000	\$17,645,000	\$42,269,000	\$66,503,000
Partly Buildable	\$0	\$22,316,000	\$14,553,000	\$9,707,000	\$34,871,000	\$81,447,000
Partly Occupied	\$2,201,000	\$0	\$0	\$0	\$0	\$2,201,000
Total	\$2,782,000	\$23,909,000	\$18,968,000	\$27,352,000	\$77,140,000	\$150,151,000
Total conservative	\$5,166,000	\$64,944,000	\$62,844,000	\$53,508,000	\$92,022,000	\$278,484,000
Total aggressive	\$8,346,000	\$98,187,000	\$96,594,000	\$108,516,000	\$231,420,000	\$543,063,000
Average annual conservative		\$13,924,200				
Average annual aggressive		\$27,153,150				