

# **Diamond State Port Corporation Pension Plan**

Actuarial Valuation as of June 30, 2015

**Produced by Cheiron** 

January 2016

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January 26, 2016

Board of Pension Trustees State of Delaware McArdle Building 860 Silver Lake Boulevard, Suite 1 Dover, Delaware 19904

Dear Members of the Board:

At your request, we have conducted the annual actuarial valuation of the Diamond State Port Corporation Pension Plan (Plan) as of June 30, 2015. The results of this valuation are contained in this report. The purpose of the valuation is discussed in the Foreword.

This report contains information on plan assets and liabilities, as well as analyses combining asset and liability performance and projections. It also discloses employer contribution levels and required disclosures under the Governmental Accounting Standards Board (GASB) Statement No. 67.

In completing the valuation and preparing our report, we relied on information (some oral and some written) supplied by staff of the Office of Pensions. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The contribution results of this report are only applicable to the employer contribution for Fiscal Year (FY) 2017 and rely on future plan experience conforming to the underlying assumptions. To the extent that actual plan experience deviates from the underlying assumptions, the results would vary accordingly.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinions contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This report was prepared for the Diamond State Port Corporation Pension Plan for the purposes described herein and for the use by the Plan auditor in completing an audit related to the matters herein. Other users of this valuation report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

Sincerely, Cheiron

Fiona E. Liston, FSA

Principal Consulting Actuary

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Elizabeth Wiley, FSA, EA

**Consulting Actuary** 

#### **FOREWORD**

Cheiron has performed the annual actuarial valuation of the Diamond State Port Corporation Pension Plan (Plan) as of June 30, 2015. The purpose of this report is to:

- 1) **Measure and disclose**, as of the valuation date, the financial condition of the Plan;
- 2) **Indicate trends** in the financial condition of the Plan;
- 3) **Determine the contribution rate** to be paid by the employer for Fiscal Year (FY) 2017; and
- 4) **Provide** accounting statement information.

An actuarial valuation establishes and analyzes plan assets and liabilities on a consistent basis and traces the progress of both from one year to the next. It includes measurement of the plan's investment performance as well as an analysis of liability gains and losses.

**Section I** presents a summary containing our findings and disclosing important trends experienced by the Plan in recent years.

**Section II** contains details on various asset measures, together with pertinent performance measurements.

**Section III** shows similar information on liabilities, measured for actuarial, accounting, and governmental reporting purposes.

**Section IV** presents the FY 2017 actuarially determined contribution.

**Section V** includes required disclosures under Governmental Accounting Standards Board (GASB) Statement No. 67 and items recommended by the Government Finance Officers Association (GFOA).

The appendices to this report contain a summary of the Plan's membership at the valuation date, a summary of the major provisions of the Plan, and a summary of the actuarial methods and assumptions used in the valuation.

The actuarial assumptions reflect our understanding of the likely future experience of the Plan, and the assumptions individually and as a whole represent our best estimate for the future experience of the Plan. The results of this report rely on future plan experience conforming to the underlying assumptions and methods outlined in this report. To the extent that the actual plan experience deviates from the underlying assumptions and methods, or there are any changes in plan provisions, the true cost of the Plan would vary from our results.



#### SECTION I – BOARD SUMMARY

### **General Comments**

The actuarially determined contribution (ADC) rate decreased from 9.70% for FY 2016 to 9.43% for FY 2017.

During the year ending June 30, 2015, the Plan's assets earned 3.6% on a market value basis. However, due to the Plan's asset smoothing method, which recognizes only a portion of the investment gains and losses, the return on an actuarial value basis was 7.4%. This return was greater than the assumed investment rate of return of 7.2% for last year, resulting in an actuarial gain on investments of \$44,200.

The Plan experienced an actuarial gain on plan liabilities resulting from salary increases different from those assumed and members retiring, terminating, becoming disabled, and dying at rates different from the actuarial assumptions. This liability gain decreased the actuarial liability by \$662,000. The Plan will experience actuarial gains or losses over time, as we cannot predict exactly how people will behave.

This valuation report also contains information to be reported in the June 30, 2015 Comprehensive Annual Financial Report (CAFR) of the Delaware Public Employees' Retirement System (Delaware PERS) under GASB Statement No. 67 as well as additional disclosure information recommended by the Government Finance Officers Association (GFOA). The GASB disclosures are based on the use of updated procedures to roll forward the 2014 actuarial valuation liability results. The calculation of net pension liability in Section V is shown as disclosed for the plan year ending June 30, 2015, based on the 2014 actuarial valuation liability results. We also present a projection of the June 30, 2016 disclosure in Section V, assuming all actuarial assumptions are met over the coming year, which is based on the 2015 actuarial valuation liability results.

As of the June 30, 2015 actuarial valuation, the Plan's unfunded actuarial liability (UAL) was \$4.87 million. This is a decrease from the \$5.45 million UAL in the funding valuation for the prior year.

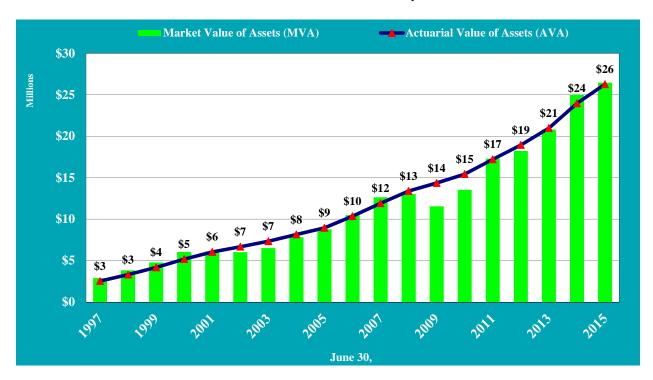


## **SECTION I – BOARD SUMMARY**

# **Trends**

### Growth in Assets

The graph below shows measurements of the Plan's assets over the last 19 years based on both market values and actuarial values. The green bars represent the market value measurements, while the blue line shows the actuarial value measurements. The black numbers are the actuarial value of asset measurements as of the valuation date for each year, in millions of dollars.



The market value of assets (MVA) returned 3.6% over the last year. The determination of the Plan's actuarial value of assets (AVA) for the current year reflects a portion of the return above the 7.2% assumed for the year, and continued recognition of prior years' gains and losses.

Over the period July 1, 1997 to June 30, 2015, the Plan's assets returned approximately 8.2% per year measured on an actuarial value basis, compared to the current valuation assumption of 7.2%.



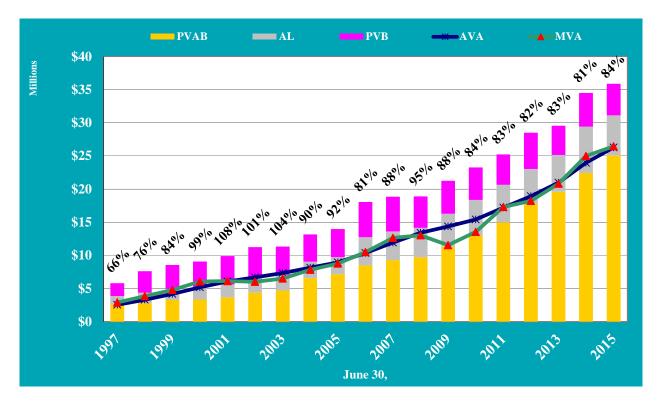
### SECTION I – BOARD SUMMARY

### Assets and Liabilities

The three colored bars below represent the three different measures of liability discussed in this report. The first measure is given by the yellow bars, the present value of accrued benefits (PVAB). The PVAB values represent the value of all benefits earned by current members through the valuation date. These values do not reflect any future additional service or salary increases for current members.

The second liability measure is the one currently used for the Plan's funding target, the actuarial liability (AL). These target amounts are represented by the top of the gray bars. The funded ratios reported by the Plan are the percentages shown above the bars and are developed by comparing these target measurements of liability to the actuarial value of assets at each valuation date. This measurement is also the basis of the liability measure used in GASB 67.

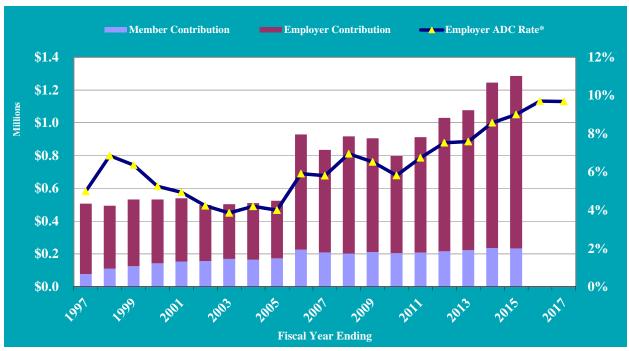
The amount represented by the top of the pink bars, the present value of future benefits (PVB), is the amount needed to provide all benefits for the current members and their beneficiaries, including reflection of assumed future service and pay increases. If the Plan had assets equal to the PVB as of a certain date, no additional contributions would, in theory, be needed for the current members if all assumptions were exactly met from that point forward.





### **SECTION I – BOARD SUMMARY**

## **Contribution Rates**



<sup>\*</sup> Formerly known as Actuarially Required Contribution (ARC), GASB No. 67/68 redefined the term for calculated contributions to Actuarially Determined Contribution (ADC).

The stacked bars in the graph above show the contributions made by the employer and the members for each fiscal year, and are read using the left-hand scale. The blue line shows the Employer ADC rate for each fiscal year as a percentage of payroll (right-hand scale).

The member contribution rate is set by the plan document, based on the Plan in which the member participates. The participating employer contribution rate is set by the actuarial process. Please note that there is a lag in the participating employer contribution rates shown. For example, the value shown for the Fiscal Year 2015 is the rate prepared by the June 30, 2013 valuation and implemented for the period July 1, 2014 to June 30, 2015.

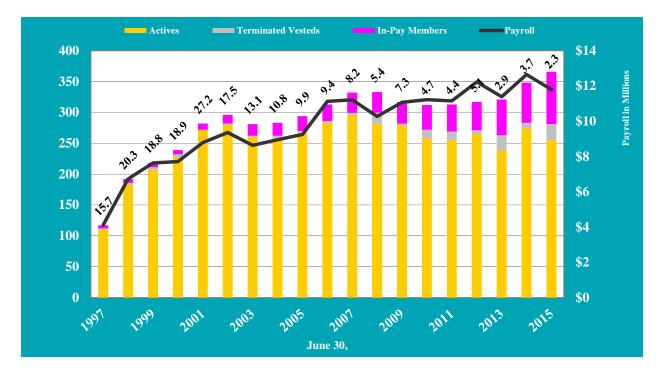


## SECTION I – BOARD SUMMARY

# **Participant Trends**

The bars below show the number of members as of each valuation date, divided between active members, terminated vested members, and retirees/beneficiaries. These bars are read using the left-hand scale. Since this is a relatively young pension plan, there are still more active members than inactive members. The numbers that appear above each bar represent the ratio of active members to inactive members (retirees, beneficiaries, and terminated vested members) at each valuation date. The active-to-inactive ratio has decreased from 15.7 actives to each inactive in 1997 to 2.3 actives for each inactive in 2015.

The black line shows the covered payroll for the Plan as of each valuation date and is read using the right-hand scale.

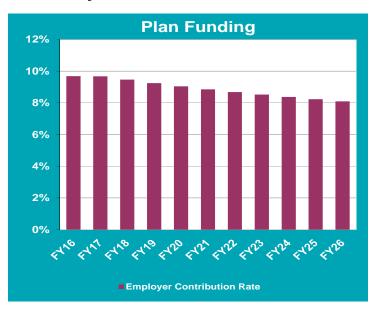




## SECTION I – BOARD SUMMARY

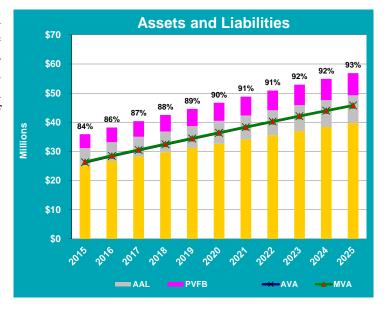
## **Future Outlook**

## **Baseline Projections**



These graphs show the expected progress of the Plan over the next ten years, assuming the Plan's assets earn 7.2% on a *market value* basis and assuming all assumptions are exactly met, including that the ADC amounts are made in full. The chart entitled "Plan Funding" shows a decrease in the Employer ADC rate from 9.43% in FY 2017, determined by the current valuation, to 8.09% at the end of this period, absent further gains or losses.

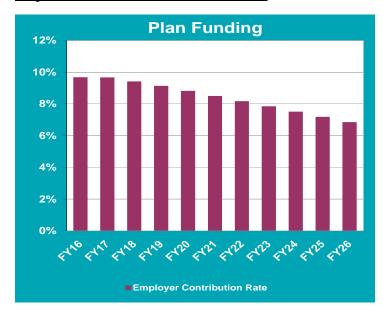
The "Assets and Liabilities" graph shows the projected funded ratios of the Plan over the next ten years. The Plan's funded status is projected to improve as the existing unfunded liability is paid off, reaching a funded percentage of 93% by 2025.





## SECTION I – BOARD SUMMARY

Projections with Asset Returns of 8.2%

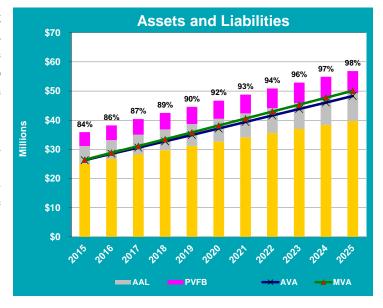


The Plan's investment earnings will affect the future funding status of the Plan. These two graphs show what the next ten years would be expected to look like if the Plan's investment performance is 8.2% each year, 1.0% higher than the valuation investment rate of return assumption.

These two graphs assume all other assumptions are exactly met, including participating employer contributions equal to the full actuarially determined amounts.

The "Plan Funding" graph shows that the Employer ADC rate under this scenario decreases even more than the baseline scenario, dropping to approximately 6.85% of payroll at the end of the projected period.

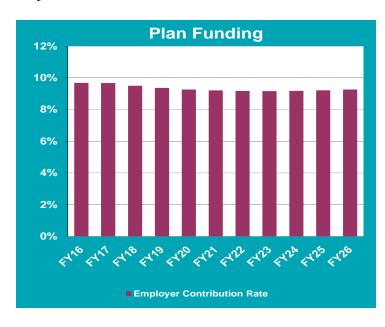
The "Assets and Liabilities" graph shows that the Plan would reach a 98% funded ratio by 2025 under this scenario, an improvement over the baseline scenario's 93%.





### SECTION I – BOARD SUMMARY

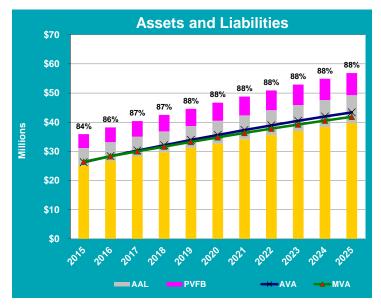
Projections with Asset Returns of 6.2%



The graphs on this page show projections of the Plan's funding status assuming the Plan's investment performance is 6.2% each year of the projection, 1.0% lower than the valuation investment rate of return assumption. While the current remaining unrecognized gains would cushion the new annual losses for a period, eventually the new losses would result in the funded ratio dropping required and the contributions increasing compared to the baseline scenario. This effect demonstrates the importance investment earnings on the Plan's future funding needs.

Note that these projections assume all other assumptions are exactly met, including payment of participating employer contributions equal to the full actuarially determined contribution.

Under this scenario, the Employer ADC rate increases to approximately 9.26% of payroll, compared to 8.09% in the baseline, and the funded ratio as of 2025 decreases to 88%, compared to 93% in the baseline scenario.





# **SECTION I – BOARD SUMMARY**

Table I-1 Summary of Principal Plan Results						
Valuation as of:	UI I	June 30, 2014		June 30, 2015	% Change	
<b>Member Counts</b>						
Active Members		274		255	(6.93%)	
Disabled Members		4		4	0.00%	
Retirees and Beneficiaries		61		76	24.59%	
Terminated Vested Members		9		26	188.89%	
Terminated Non-Vested Members		0		5	N/A	
Total		348		366	5.17%	
Covered Payroll of Active Members*	\$	12,644,400	\$	11,790,800	(6.75%)	
Annual Benefit Payments for Retirees, Disabled Members, and Beneficiaries	\$	612,100	\$	767,000	25.31%	
Assets and Liabilities						
Actuarial Liability (AL)	\$	29,409,000	\$	31,128,000	5.85%	
Actuarial Value of Assets (AVA)		23,954,700		26,262,600	9.63%	
Unfunded AL (UAL)	\$	5,454,300	\$	4,865,400	(10.80%)	
Funded Ratio on AVA Basis (AVA/AL)		81.5%		84.4%		
Funded Ratio on MVA Basis (MVA/AL)		85.0%		84.9%		
Present Value of Accrued Benefits (PVAB)	\$	22,423,500	\$	25,104,000	11.95%	
Market Value of Assets (MVA)		25,003,000		26,439,200	5.74%	
Unfunded PVAB	\$	(2,579,500)	\$	(1,335,200)	48.24%	
Accrued Benefit Funded Ratio		111.5%		105.3%		
Employer Contribution Rate	F	iscal Year 2016	F	iscal Year 2017		
Entry Age Normal Cost		5.51%		5.66%		
UAL Amortization Payment		3.89%		3.47%		
Administrative Expense		0.30%		0.30%		
Actuarially Determined Contribution (ADC)		9.70%		9.43%		

<sup>\*</sup> Assumes one year of payroll increase projection, representing payroll beginning on each valuation date.



### **SECTION II – ASSETS**

Pension plan assets play a key role in the financial operation of the plan and in the decisions that the Trustees may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely affect benefit levels, employer actuarially determined contributions, and the ultimate security of members' benefits.

In this section, we present detailed information on the Plan's assets including:

- **Disclosure** of the Plan's assets at June 30, 2014 and June 30, 2015;
- Statement of the **changes** in market values during the year;
- Development of the actuarial value of assets;
- An assessment of **investment performance**; and
- A projection of the Plan's expected **cash flows** for the next ten years.

## **Market Value of Assets Disclosure**

The market values of assets represent "snap-shot" or "cash-out" values that provide the principal basis for measuring financial performance from one year to the next. However, market values can fluctuate widely with swings in the marketplace, and as such are usually not suitable for budgeting and long-range planning.

Table II-1 below shows the market values as of June 30, 2014 and June 30, 2015, along with the changes between the two.

Table II-1 Changes in Market Values of Assets					
Market Value of Assets – June 30, 2014	· · · · · · · · · · · · · · · · · · ·		\$	25,003,000	
Additions					
Member Contributions	\$	233,400			
Employer Contributions		1,052,300			
Investment Returns		916,000			
Total Additions	\$	2,201,700			
<b>Deductions</b>					
Benefit Payments	\$	728,400			
Administrative Expenses		37,100			
Total Deductions	\$	765,500			
Market Value of Assets – June 30, 2015			\$	26,439,200	



## **SECTION II – ASSETS**

## **Actuarial Value of Assets**

The actuarial value of assets represents a "smoothed" value developed by the actuary to reduce, or eliminate, erratic results that could develop from short-term fluctuations in the market value of assets. The actuarial value for this plan equals the expected actuarial value of assets, developed from the immediately prior valuation, plus 20% of the difference between the actual market value of assets and that expected actuarial value of assets at the valuation date. The table below illustrates the calculation of the actuarial value of assets as of June 30, 2015.

	Table II-2 Development of Actuarial Value of Assets	
1.	Actuarial Value of Assets at June 30, 2014	\$ 23,954,700
2.	Amount in (1) with interest to June 30, 2015 at 7.20% per year	\$ 25,679,500
3.	Employer and member contributions for the Plan Year ended June 30, 2015	1,285,700
4.	Interest on contributions assuming payments made uniformly throughout the year to June 30, 2015 at 7.20% per year	46,300
5.	Disbursements from Trust except investment expenses, July 1, 2014 through June 30, 2015	765,500
6.	Interest on disbursements to June 30, 2015 at 7.20% per year	 <u> 27,600</u>
7.	Expected Actuarial Value of Assets at June 30, 2015 $= (2) + (3) + (4) - (5) - (6)$	\$ 26,218,400
8.	Actual Market Value of Assets at June 30, 2015	\$ 26,439,200
9.	Excess of (8) over (7)	 220,800
10.	Actuarial Value of Assets at June 30, 2015 = (7) + 20% of (9)	\$ 26,262,600



### **SECTION II – ASSETS**

## **Investment Performance**

The market value of assets (MVA) returned 3.6% during 2015, which is less than the assumed 7.2% investment rate of return. The actuarial value of assets (AVA) returned 7.4% over this same year, reflecting the standard asset smoothing method being utilized by the Plan for the measurement of the actuarial value of assets. Since only 20% of the gain or loss from the performance of the Plan is typically recognized in a given year under the asset smoothing method, in periods of very good performance, the AVA can lag significantly behind the MVA, and in a period of negative returns, the AVA does not decline as rapidly as the MVA.

# **Projection of Cash Flows**

Table II-3 Cash Flow Projections							
Year Beginning July 1,	Expected Benefit Payments	Expected Contributions*					
2015	\$ 1,116,000	\$ 1,380,000					
2013	1,426,000	1,388,000					
2010	1,622,000	1,430,000					
	, ,	, ,					
2018	1,775,000	1,473,000					
2019	1,938,000	1,517,000					
2020	2,090,000	1,563,000					
2021	2,272,000	1,610,000					
2022	2,484,000	1,658,000					
2023	2,660,000	1,708,000					
2024	2,839,000	1,759,000					

<sup>\*</sup> Expected contributions include employer contributions and member contributions. For illustration purposes, we have assumed the employer contribution rate will remain level from FYE 2017 and that payroll will increase at the actuarially assumed rate of 3.00% per year.

Expected benefit payments are projected for the closed group valued at June 30, 2015. Projecting any farther than ten years using a closed group would not yield reliable projections due to the omission of new hires in the benefit payments, compounded by their inclusion in the expected contributions.



## **SECTION III – LIABILITIES**

In this section, we present detailed information on the Plan's liabilities including:

- **Disclosure** of the Plan's liabilities at June 30, 2014 and June 30, 2015; and
- Statement of **changes** in these liabilities during the year.

### **Disclosure**

Three liability measurements are calculated and presented in this report. Each type is distinguished by the purpose, or purposes, for which they are used.

- **Present Value of Benefits (PVB):** Used for analyzing the financial outlook of plans, this represents the amount of money needed today to fund all future benefits and expenses of a plan, assuming current members continue to accrue benefits and there are no new entrants, and that all actuarial assumptions are met.
- Actuarial Liability (AL): Used for funding calculations and GASB disclosures, this liability
  is calculated by taking the present value of benefits (PVB) and subtracting the present value
  of future member contributions (PVFEEC) and the present value of future employer normal
  costs (PVFNC) under an acceptable actuarial funding method. This Plan uses the Entry Age
  Normal funding method.
- **Present Value of Accrued Benefits (PVAB):** Used for communicating the current level of liabilities, this liability represents the total amount of money needed today to fund the current accrued obligations of a plan, assuming no future accruals of benefits. These liabilities are also required for some accounting purposes (Topic No. 960) and are sometimes used as part of assessing whether a plan can meet its current benefit commitments. Note that, this also assumes that all actuarial assumptions are met, including the assets earning 7.2% per year.

Note that none of the liability amounts disclosed in this report is appropriate for measuring a settlement of the Plan's liabilities.

The following table discloses each of these liabilities for the current and immediately prior valuations. With respect to each disclosure, a subtraction of an appropriate value of plan assets yields, for each respective type, either a net surplus or an unfunded amount.



# **SECTION III – LIABILITIES**

	le III-						
Liabilities and Net (Surplus)/Unfunded Amounts							
	J	une 30, 2014	<b>June 30, 2015</b>				
Present Value of Benefits							
Active Member Benefits	\$	28,157,300	\$	27,564,700			
Retiree, Beneficiary, Disabled, and Terminated							
Members Benefits		6,349,200		8,332,900			
Present Value of Benefits (PVB)	\$	34,506,500	\$	35,897,600			
Market Value of Assets (MVA)	\$	25,003,000	\$	26,439,200			
Future Member Contributions		1,501,500		1,375,100			
Future Employer Contributions		8,002,000		8,083,300			
Total Resources	\$	34,506,500	\$	35,897,600			
Actuarial Liability							
Present Value of Benefits (PVB)	\$	34,506,500	\$	35,897,600			
Present Value of Future Employer Normal Costs		2 50 6 000		2 20 4 700			
(PVFNC)		3,596,000		3,394,500			
Present Value of Future Member Contributions		1 501 500		1 275 100			
(PVFEC)		1,501,500		1,375,100			
Actuarial Liability (AL=PVB-PVFNC- PVFEEC)	\$	20 400 000	\$	21 120 000			
,	Þ	<b>29,409,000</b>	Þ	31,128,000			
Actuarial Value of Assets (AVA)	\$	23,954,700 5 454 200	<u>\$</u>	<u>26,262,600</u>			
Net (Surplus)/Unfunded AL (AL – AVA)	Þ	5,454,300	Þ	4,865,400			
Present Value of Accrued Benefits	Φ.	24.505.500	ф	27.007.400			
Present Value of Benefits (PVB)	\$	34,506,500	\$	35,897,600			
Present Value of Future Benefit Accruals		12 002 000		10.702.600			
(PVFBA)		12,083,000		10,793,600			
Present Value of Accrued Benefits	4			<b>A=</b> 40.6 000			
(PVAB=PVB-PVFBA)	\$	22,423,500	\$	25,104,000			
Market Value of Assets (MVA)	\$	25,003,000	\$	26,439,200			
Net (Surplus)/Unfunded PVAB (PVAB –							
MVA)	\$	(2,579,500)	\$	(1,335,200)			



## **SECTION III – LIABILITIES**

# **Changes in Liabilities**

Each of the liabilities disclosed in the prior table are expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New entrants since the last valuation
- Benefits accrued since the last valuation
- Plan amendments increasing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial assumptions
- A change in actuarial methods

Unfunded liabilities (or surpluses) will change because of all of the above as well as due to changes in plan assets resulting from:

- Employer contributions different than expected
- Investment earnings different than expected
- A change in the method used to measure plan assets

In each valuation, we report on those elements of change that are of particular significance, potentially affecting the long-term financial outlook of the Plan. Below we present key changes in liabilities since the last valuation.

	Table III-2 Liability Changes	S	
(In Thousands)	Present Value of Benefits	Actuarial Liability	Present Value of Accrued Benefits
Liabilities June 30, 2014	\$ 34,507	\$ 29,409	\$ 22,424
Liabilities June 30, 2015	35,898	31,128	25,104
Liability Increase (Decrease)	1,391	1,719	2,680
Change Due to:			
Benefit Changes	0	0	0
Actuarial (Gain)/Loss	NC*	(662)	NC*
Benefits Accumulated and			
Other Sources	1,391	2,381	2,680

<sup>\*</sup> NC = not calculated



# **SECTION III – LIABILITIES**

Table III-3 below provides additional information about the liability measurements for funding purposes as of both the current and the immediately prior valuations.

	Table III-3							
	Actuarial Liabilities for Funding							
		Ju	ine 30, 2014	Ju	ne 30, 2015			
1.	Actuarial Liabilities							
	Retiree, Beneficiary, Disabled, and Terminated							
	Members Benefits	\$	6,349,200	\$	8,332,900			
	Active Members		23,059,800		22,795,100			
	Total Actuarial Liability	\$	29,409,000	\$	31,128,000			
2.	Actuarial Value of Assets	\$	23,954,700	\$	26,262,600			
3.	Unfunded Actuarial Liability (UAL)	\$	5,454,300	\$	4,865,400			



## **SECTION IV – CONTRIBUTIONS**

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level, if any, of contributions are needed to properly maintain the funding status of the plan. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that are both fairly stable and predictable.

For this Plan, the funding method employed is the **Entry Age Normal** actuarial funding method. Under this method, there are three components to the total contribution: the **normal cost contribution**, the **unfunded actuarial liability contribution** (UAL contribution), and the **administrative expense contribution**.

The normal cost contribution rate is determined in the following steps. First, for each active member an individual normal cost rate is determined by taking the value, as of entry age into the Plan, of that member's projected future benefits and dividing it by the value, also at entry age, of the member's expected future salary. Then, this total normal cost rate is reduced by the member contribution rate to produce the employer normal cost rate for each member. The employer normal cost rate times payroll for each active member equals the employer normal cost. The sum of the employer normal cost amounts for all active members is then divided by the covered payroll to produce the employer normal cost contribution rate.

The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal cost contributions or member contributions. The difference between this liability and the funds accumulated as of the same date is referred to as the unfunded actuarial liability (UAL).

The UAL contribution rate is calculated by amortizing this UAL over an open 15-year period. All payments are determined assuming total pay increases by the annual inflation rate of 3.00%.

The assumed administrative expense rate is 0.30% of payroll. This rate, when applied to payroll, is intended to provide an allowance above the cost of funding the benefits to pay for the expense of operating the Plan.

The table below presents and compares the employer contribution rates for the Plan for this valuation and the immediately prior one.

Table IV-1 Employer Contribution Rate							
	June 30, 2014 Fiscal Year 2016	June 30, 2015 Fiscal Year 2017					
Entry Age Normal Cost Rate	5.51%	5.66%					
UAL Amortization Payment	3.89%	3.47%					
Administrative Expense	<u>0.30%</u>	<u>0.30%</u>					
Actuarially Determined Contribution	9.70%	9.43%					



# **SECTION IV - CONTRIBUTIONS**

Table IV-2 below provides additional detail about the development of the contribution rate as well as the expected dollar amounts these rates will result in for FY 2017.

Table IV-2 Expected FY 2017 Employer Contributions							
	, , , , , , , , , , , , , , , , , , ,	J	In Dollars	As % of Payroll			
<ul><li>a. Total Nor</li><li>b. Expected</li></ul>	e of Projected Benefits Attributable to: rmal Cost Members Contribution Paid Normal Cost (a) – (b)	\$ 	903,200 235,800 667,400	7.66% 2.00% 5.66%			
2. Amortization	of Unfunded Liability	\$	409,700	3.47%			
3. Allowance for	or Administrative Expense	\$	35,400	0.30%			
	Ver Actuarially Determined Rate $(1) + (2) + (3)$	\$	1,112,500	9.43%			



## SECTION V - ACCOUNTING STATEMENT INFORMATION

ASC Topic No. 960 of the Financial Accounting Standards Board (FASB) requires plans subject to it to disclose certain information regarding its funded status. Statement No. 67 of the Governmental Accounting Standards Board (GASB) establishes standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in notes to financial statements and supplementary information.

Disclosures based on FASB ASC Topic No. 960 provide a quasi "snap shot" view of how the Plan's assets compare to its liabilities if contributions stopped and accrued benefit claims had to be satisfied. However, due to potential legal requirements and the possibility that alternative interest rates would have to be used to determine the liabilities, these values may not be a good indication of the amount of money it would take to buy the benefits for all members if the Plan were to terminate.

FASB ASC Topic No. 960 specifies that a comparison of the present value of accrued (accumulated) benefits with the market value of the assets as of the valuation date must be provided. The relevant amounts as of June 30, 2014 and June 30, 2015 are exhibited in Table V-1, which also includes a reconciliation of liabilities determined as of the prior valuation, July 1, 2014, to the liabilities as of June 30, 2015.

This valuation contains information reported in the June 30, 2015 Comprehensive Annual Financial Report (CAFR) of Delaware PERS under GASB Statement No. 67. Disclosures are based on the use of updated procedures to roll forward the 2014 valuation results. The calculation of Net Pension Liability in Table V-2 shows the amounts disclosed for the plan year June 30, 2015, based on the 2014 liability valuation, as well as a projection of the anticipated June 30, 2016 disclosures, based on 2015 liability valuations, assuming all actuarial assumptions are met over the coming year.

Tables V-3 through V-5 are exhibits to be used for the System's CAFR. Table V-3 is the Note to Required Supplementary Information, Table V-4 is a history of gains and losses in accrued liability, and Table V-5 is the Solvency Test, which shows the portion of accrued liability covered by assets. The Government Finance Officers Association (GFOA) has named this exhibit the Solvency Test. None of the liabilities or assets shown are appropriate for settlement purposes. Furthermore, the Solvency Test does not accurately depict a Plan's future financial condition but rather is a test developed by the GFOA to assess the level of funding that relies on the payroll for future hires to pay for the benefits that have already been accrued by the current population. This valuation does not contain any information reported based on the new GASB Statement No. 68 that will be effective for the employer beginning in its Fiscal Year 2015 CAFR.



# SECTION V – ACCOUNTING STATEMENT INFORMATION

Table V-1									
Accounting Statement Disclosure and									
Reconciliation of Present	Reconciliation of Present Value of Accrued Benefits								
FASB ASC Topic No. 960 Basis  1. Present Value of Accrued Benefits	•	June 30, 2014	•	June 30, 2015					
<ul><li>a. Members Currently Receiving Payments</li><li>b. Former Vested Members</li><li>c. Active Members</li></ul>	\$	5,979,600 369,600 16,074,300	\$	7,387,300 945,600 16,771,100					
2. Total Present Value of Accrued Benefits (1 (a) + 1(b) + 1(c))	\$	22,423,500	\$	25,104,000					
3. Assets at Market Value		25,003,000		26,439,200					
4. Unfunded Present Value of Accrued Benefits (2-3)	\$	(2,579,500)	\$	(1,335,200)					
5. Ratio of Assets to Present Value of Benefits (3 / 2)		111.5%		105.3%					
Reconciliation of Present Value of Accrued Benefits									
Actuarial Present Value of Accrued Benefits at June 30,	2014		\$	22,423,500					
Increase (Decrease) During Years Attributable to: Passage of Time Benefit Paid – FY 2015 Benefit Changes Benefits Accrued, Other Gains/Losses Net Increase (Decrease)				1,588,300 (728,400) 0 1,820,600 2,680,500					
Actuarial Present Value of Accrued Benefits at June 30, 2	2015		\$	25,104,000					



# SECTION V – ACCOUNTING STATEMENT INFORMATION

Table V-2					
GASB No. 67	<b>Discl</b>	osures			
	True 20, 2015		Estimated June 30, 2016		
Total Pension Liability	June 30, 2015		Ju	me 50, 2010	
Service cost	\$	950,000	\$	903,000	
Interest	4	2,159,000	4	2,267,000	
Changes in benefit terms		0		0	
Differences between expected and actual experience		1,403,000		(662,000)	
Changes in assumptions		0		0	
Benefit payments, including refunds of					
member contributions		(728,000)		(1,116,000)	
Net change in Total Pension Liability	\$	3,784,000	\$	1,392,000	
Total Pension Liability - beginning	\$	28,006,000	\$	31,790,000	
Total Pension Liability - ending (a)	\$	31,790,000	\$	33,182,000	
Plan Fiduciary Net Position					
Contributions - Employer	\$	1,052,000	\$	1,144,000	
Contributions - Non-employer		0		0	
Contributions - Member		233,000		236,000	
Net investment income		916,000		1,912,000	
Benefit payments, including refunds of member contributions		(728,000)		(1,115,000)	
Administrative expenses		(37,000)		(35,000)	
Net change in Plan Fiduciary Net Position	\$	1,436,000	\$	2,140,000	
Plan Fiduciary Net Position - beginning	\$	25,003,000	\$	26,439,000	
Plan Fiduciary Net Position - ending (b)	\$	26,439,000	\$	28,579,000	
Plan Net Pension Liability (Asset) - ending [(a)-(b)]	\$	5,351,000	\$	4,603,000	

Items printed in red will be replaced with actual amounts once known at the end of FY 2016.



## SECTION V – ACCOUNTING STATEMENT INFORMATION

# **Table V-3 Note to Required Supplementary Information**

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows:

Valuation date July 1, 2015

Actuarial cost method Entry age

Amortization method Percentage of pay - open

Amortization period 15 years

Asset valuation method 5-Year smoothed market

Actuarial assumptions:

Investment rate of return\* 7.2%
Projected salary increases\* 4.00%
Cost-of-living adjustments ad hoc

\*Includes inflation at 3.00%

The actuarial assumptions used have been recommended by the actuary and adopted by the Plan's Board of Trustees based on the most recent review of the Plan's experience completed in 2011. The Board of Trustees further modified the investment rate of return and inflation assumptions for the 2014 Plan Year.

The rate of employer contributions to the Plan is composed of the normal cost, amortization of the unfunded actuarial liability and an allowance for administrative expenses. The normal cost is a level percent of payroll cost which, along with member contributions, will pay for projected benefits at retirement for each active plan member. The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and the funds accumulated as of the same date is the unfunded actuarial liability. The allowance for administrative expenses is based upon the Plan's actual administrative expenses.



# SECTION V – ACCOUNTING STATEMENT INFORMATION

# Table V-4 Analysis of Financial Experience

# Gain and Loss in Accrued Liability During Years Ended June 30 Resulting from Differences Between Assumed Experience and Actual Experience

	Gain (or Loss) for Year ending June 30, (expressed in thousands)										
Type of Activity	, <u>,</u>					2014	2015				
Investment Income on Actuarial Assets	\$	(470)	\$	24	\$	(181)	\$	(37)	\$	374	\$ 44
Combined Liability Experience		(367)		186		(499)		147		(1,403)	 662
(Loss)/Gain During Year from Financial Experience	\$	(837)	\$	210	\$	(680)	\$	110	\$	(1,029)	\$ 706
Non-Recurring Items		0		(571)		0		6		(361)	 0
Composite Gain (or Loss) During Year	\$	(837)	\$	(361)	\$	(680)	\$	116	\$	(1,390)	\$ 706

# Table V-5 Solvency Test Aggregate Accrued Liabilities for

		(expressed					
Valuation Date June 30,	Active Member Contributions	utions Beneficiaries Contr		Actuarial Value of Reported Assets	Covered b	Accrued Li	Assets
	(1)	(2)	(3)		(1)	(2)	(3)
2015	\$ 3,975	\$ 7,387	\$ 19,766	\$ 26,263	100%	100%	75%
2014	3,906	5,980	19,523	23,955	100	100	72
2013	3,550	3,870	17,716	20,964	100	100	76
2012	3,480	3,564	15,995	18,930	100	100	74
2011	3,043	3,602	13,987	17,198	100	100	75
2010	2,689	2,991	12,674	15,418	100	100	77

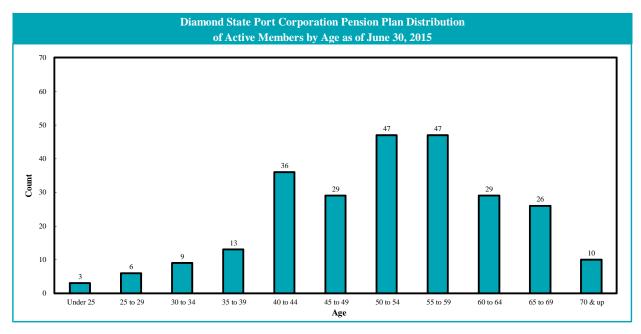


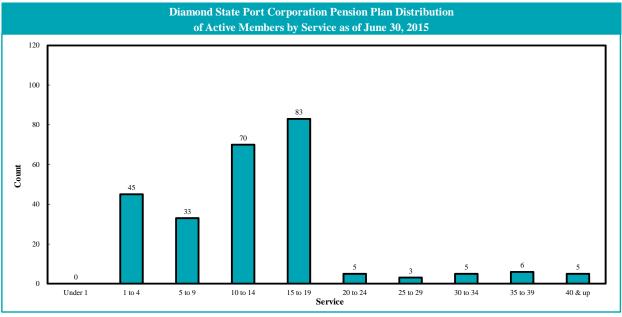
# **APPENDIX A – MEMBERSHIP INFORMATION**

#### **Diamond State Port Corporation Pension Plan Distribution** of Active Members by Age and Service as of June 30, 2015 **Counts By Age/Service** Service 20 to 24 Under 1 1 to 4 5 to 9 10 to 14 15 to 19 25 to 29 30 to 34 35 to 39 40 & up **Total** Age Under 25 25 to 29 30 to 34 35 to 39 40 to 44 45 to 49 50 to 54 55 to 59 60 to 64 65 to 69 70 & up Total



## **APPENDIX A – MEMBERSHIP INFORMATION**







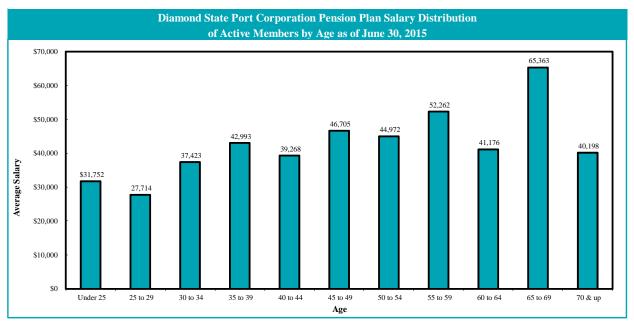
## APPENDIX A - MEMBERSHIP INFORMATION

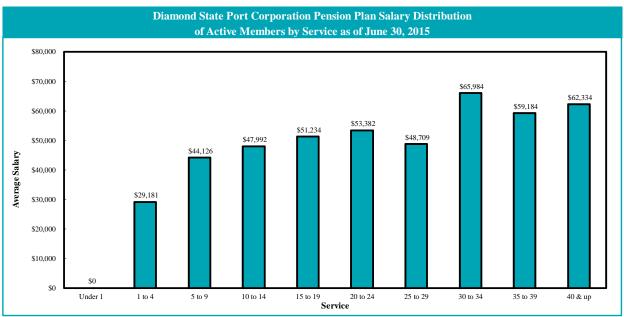
# Diamond State Port Corporation Pension Plan Salary Distribution of Active Members by Age and Service as of June 30, 2015

#### Average Salary by Age/Service Service 1 to 4 10 to 14 15 to 19 20 to 24 Under 1 5 to 9 25 to 29 30 to 34 35 to 39 40 & up **Total** Age 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ \$ 31,752 Under 25 0 \$ 31,752 \$ 0 \$ 0 0 0 0 25 to 29 0 20,742 41,659 0 0 0 0 27,714 0 0 0 37,423 0 0 0 30 to 34 0 33,179 42,297 38,169 42,993 35 to 39 0 0 0 0 0 25,743 83,170 43,806 53,903 0 28,130 39,268 40 to 44 0 40,694 44,238 51,366 0 0 0 0 0 45 to 49 30,441 48,027 0 50,872 57,463 0 0 46,705 0 41,930 59,797 41,674 49,961 44,972 50 to 54 0 34.932 36,357 0 0 79,968 55.364 0 45,838 54,182 57,656 52,262 55 to 59 0 42,840 64,184 53,984 44,384 62,015 65,194 60 to 64 0 11,192 0 41,638 43,064 32,099 0 54,866 0 52,846 41,176 89,981 65,363 65 to 69 0 0 0 54,404 0 0 0 58,331 70,391 63,224 40,198 0 0 19,465 36,109 41,095 0 70 & up 0 \$ 29,181 \$ 44,126 \$ 47,992 \$ 51,234 \$ 53,382 \$ 48,709 \$ 65,984 \$ 59,184 \$ 62,334 \$ 46,239 Total



## **APPENDIX A – MEMBERSHIP INFORMATION**







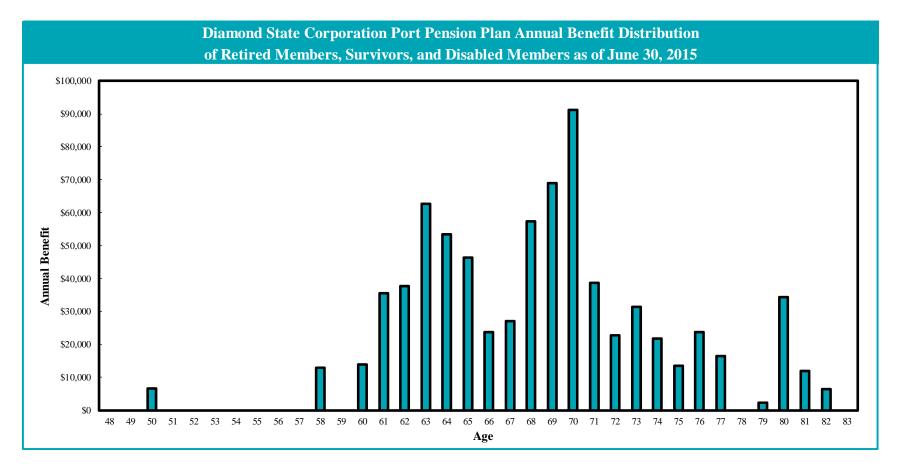
# **APPENDIX A – MEMBERSHIP INFORMATION**

# Diamond State Port Corporation Pension Plan Annual Benefit Distribution of Retired Members, Survivors, and Disabled Members as of June 30, 2015

Age	Count	Annual Benefit	Age	Count	Annual Benefit
<25	0	\$ -	73	3	\$ 31,440
25	0	-	74	2	21,820
26	0	-	75	3	13,594
27	0	-	76	4	23,661
28	0	-	77	2	16,466
29	0	-	78	0	-
30	0	_	79	1	2,241
31	0	_	80	3	34,284
32	0	_	81	1	11,947
33	2	6,531	82	1	6,338
34	0	-	83	0	-
35	0	-	84	0	_
36	0	_	85	0	_
37	0	_	86	0	_
38	0	_	87	0	
39	0	_	88	0	_
40	0		89	0	
41	0	-	90	0	
42	0		91	0	
43	0	_	92	0	_
44	0	-	93	0	-
45	0	-	93	0	-
46	0	-	95	0	-
47	0	-	95	0	-
48	0	-	90	0	-
46 49	0	-	97	0	-
50	2		99	0	-
	0	6,531		0	-
51		-	100		-
52 52	0	-	101	0	-
53 54	0	-	102 103	0	-
	0	-		0	-
55		-	104		-
56	0	-	105	0	-
57	0		106	0	-
58 59	1	12,980	107	0	-
	0	12.071	108	0	-
60	2	13,971	109	0	-
61	4	35,499	110	0	-
62	3	37,740	111	0	-
63	6	62,665	112	0	-
64	4	53,381	113	0	-
65	5	46,325	114	0	-
66	2	23,676	115	0	-
67	2	27,006	116	0	-
68	6	57,449	117	0	-
69	7	68,904	118	0	-
70	10	91,211	119	0	-
71	3	38,611	120	0	-
72	1	22,707			
			Totals	80	\$ 766,979



# **APPENDIX A – MEMBERSHIP INFORMATION**





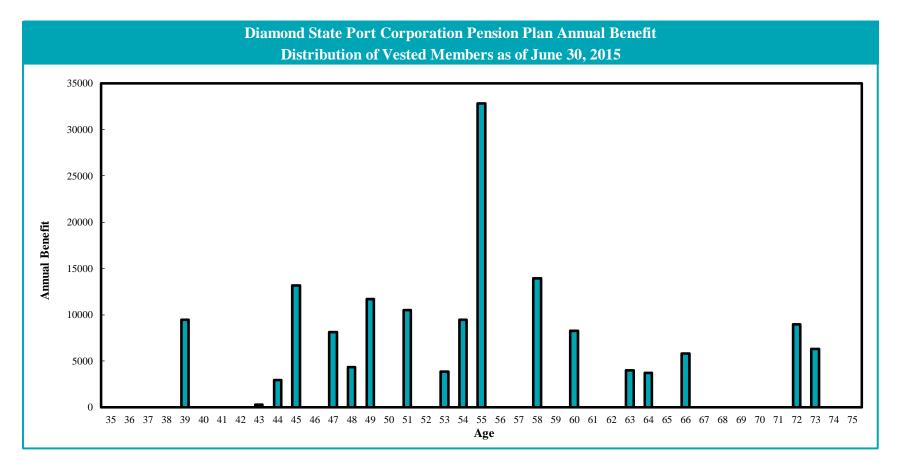
# **APPENDIX A – MEMBERSHIP INFORMATION**

# Diamond State Port Corporation Pension Plan Annual Benefit Distribution of Vested Members as of June 30, 2015

1	Age	Count	Annual Benefit	Age	Count	Annual Benefit
25         0         -         74         0         -           26         0         -         75         0         -           27         0         -         76         0         -           28         0         -         77         0         -           29         0         -         78         0         -           30         0         -         79         0         -           31         0         -         80         0         -           32         0         -         81         0         -           33         0         -         82         0         -           34         0         -         83         0         -           35         0         -         85         0         -           36         0         -         85         0         -           38         0         -         87         0         -           38         0         -         87         0         -           49         1         9,4         0         -         -           <						
26         0         -         75         0         -           27         0         -         76         0         -           28         0         -         77         0         -           29         0         -         79         0         -           30         0         -         80         0         -           31         0         -         81         0         -           32         0         -         81         0         -           33         0         -         82         0         -           34         0         -         83         0         -           36         0         -         85         0         -           36         0         -         85         0         -           38         0         -         85         0         -           38         0         -         87         0         -           40         0         -         89         0         -           41         0         -         99         0         - <t< td=""><td></td><td>0</td><td>_</td><td></td><td>0</td><td>· -</td></t<>		0	_		0	· -
27         0         -         76         0         -           28         0         -         77         0         -           30         0         -         79         0         -           31         0         -         80         0         -           32         0         -         81         0         -           33         0         -         82         0         -           34         0         -         83         0         -           35         0         -         84         0         -           36         0         -         85         0         -           37         0         -         85         0         -           38         0         -         87         0         -           38         0         -         87         0         -           40         0         -         89         0         -           41         0         -         99         0         -           42         0         -         99         0         - <t< td=""><td></td><td></td><td>_</td><td></td><td></td><td>_</td></t<>			_			_
28         0         -         77         0         -           29         0         -         78         0         -           30         0         -         80         0         -           31         0         -         81         0         -           32         0         -         81         0         -           33         0         -         82         0         -           34         0         -         83         0         -           36         0         -         84         0         -           36         0         -         85         0         -           38         0         -         86         0         -           38         0         -         86         0         -           40         0         -         89         0         -           41         0         -         99         0         -           42         0         -         99         0         -           42         0         -         99         0         - <t< td=""><td></td><td></td><td>_</td><td></td><td></td><td>_</td></t<>			_			_
29         0         -         78         0         -           30         0         -         79         0         -           31         0         -         81         0         -           32         0         -         82         0         -           34         0         -         83         0         -           34         0         -         84         0         -           36         0         -         85         0         -           36         0         -         85         0         -           37         0         -         86         0         -           38         0         -         87         0         -           39         1         9,450         88         0         -           40         0         -         89         0         -           41         0         -         99         0         -           42         0         -         99         0         -           43         1         2,967         93         0         -			_			_
30         0         -         79         0         -           31         0         -         80         0         -           32         0         -         81         0         -           33         0         -         82         0         -           34         0         -         83         0         -           35         0         -         84         0         -           36         0         -         85         0         -           38         0         -         86         0         -           38         0         -         87         0         -           39         1         9450         88         0         -           40         0         -         89         0         -           41         0         -         91         0         -           41         0         -         91         0         -           42         0         -         91         0         -           43         1         13,131         9         9         0         -			_			_
31         0         -         80         0         -           32         0         -         81         0         -           33         0         -         82         0         -           34         0         -         83         0         -           35         0         -         85         0         -           36         0         -         85         0         -           37         0         -         86         0         -           38         0         -         87         0         -           39         1         9,450         88         0         -           40         0         -         89         0         -           41         0         -         99         0         -           42         0         -         99         0         -           43         1         2,823         92         0         -           45         1         13,139         94         0         -           45         1         13,139         94         0         -						_
32         0         -         81         0         -           33         0         -         82         0         -           34         0         -         83         0         -           35         0         -         85         0         -           36         0         -         85         0         -           37         0         -         86         0         -           38         0         -         87         0         -           38         0         -         87         0         -           40         0         -         89         0         -           41         0         -         99         0         -           41         0         -         99         0         -           42         0         -         91         0         -           43         1         283         92         0         -           44         1         2,967         93         0         -           45         1         13,139         94         0         - <trr< td=""><td></td><td></td><td></td><td></td><td></td><td>_</td></trr<>						_
33         0         -         82         0         -           34         0         -         83         0         -           35         0         -         85         0         -           36         0         -         85         0         -           37         0         -         86         0         -           38         0         -         87         0         -           39         1         9,450         88         0         -           40         0         -         89         0         -           41         0         -         99         0         -         -           41         0         -         99         0         -         -         41         0         -         -         90         0         -         -         42         0         -         -         91         0         -         -         42         0         -         -         44         1         2,967         93         0         -         -         44         1         1,2967         93         0         -         - <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td>						_
34         0         -         84         0         -           35         0         -         85         0         -           37         0         -         86         0         -           38         0         -         87         0         -           38         0         -         87         0         -           40         0         -         89         0         -           40         0         -         90         0         -           41         0         -         90         0         -           41         0         -         91         0         -           42         0         -         91         0         -           42         0         -         91         0         -           43         1         283         92         0         -           44         1         2,967         93         0         -           45         1         13,139         94         0         -           47         3         8,151         96         0         -						_
35         0         -         84         0         -           36         0         -         85         0         -           37         0         -         86         0         -           38         0         -         87         0         -           39         1         9,450         88         0         -           40         0         -         89         0         -           41         0         -         90         0         -           41         0         -         91         0         -           42         0         -         91         0         -           43         1         283         92         0         -           44         1         2,967         93         0         -           45         1         13,139         94         0         -           46         0         -         95         0         -           47         3         8,151         96         0         -           48         1         4,323         97         0         - </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td>						_
36         0         -         85         0         -           37         0         -         86         0         -           38         0         -         87         0         -           39         1         9.450         88         0         -           40         0         -         89         0         -           41         0         -         90         0         -           42         0         -         91         0         -           43         1         2.967         93         0         -           44         1         2.967         93         0         -           45         1         13.139         94         0         -           46         0         -         95         0         -           47         3         8.151         96         0         -           48         1         4.323         97         0         -           50         0         -         99         0         -           51         2         10.500         100         0         - <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td>						_
37         0         -         86         0         -           38         0         -         87         0         -           40         0         -         89         0         -           40         0         -         89         0         -           41         0         -         90         0         -           41         0         -         91         0         -           42         0         -         91         0         -           43         1         283         92         0         -           43         1         283         92         0         -           44         1         2,967         93         0         -           45         1         13,139         94         0         -           46         0         -         95         0         -           47         3         8,151         96         0         -           48         1         4,3233         97         0         -           50         0         -         99         0         - <td></td> <td></td> <td>_</td> <td></td> <td></td> <td>_</td>			_			_
38         0         -         87         0         -           399         1         9,450         88         0         -           40         0         -         89         0         -           41         0         -         90         0         -           41         0         -         91         0         -           42         0         -         91         0         -           43         1         283         92         0         -           44         1         2,967         93         0         -           45         1         13,139         94         0         -           46         0         -         95         0         -           47         3         8,151         96         0         -           48         1         4,323         97         0         -           49         2         11,687         98         0         -           50         0         -         99         0         -           51         2         10,500         100         0         -			-			-
39         1         9,450         88         0         -           40         0         -         89         0         -           41         0         -         90         0         -           42         0         -         91         0         -           43         1         283         92         0         -           44         1         2,967         93         0         -           45         1         13,139         94         0         -           46         0         -         95         0         -           47         3         8,151         96         0         -           47         3         8,151         96         0         -           49         2         11,687         98         0         -           50         0         -         99         0         -           51         2         10,500         100         0         -           52         0         -         101         0         -           53         2         3,823         102         0			_			_
40       0       -       89       0       -         41       0       -       90       0       -         42       0       -       91       0       -         43       1       283       92       0       -         44       1       2,967       93       0       -         45       1       13,139       94       0       -         46       0       -       95       0       -         47       3       8,151       96       0       -         48       1       4,323       97       0       -         49       2       11,687       98       0       -         50       0       -       98       0       -         51       2       10,500       100       0       -         52       0       -       101       0       -         53       2       3,823       102       0       -         54       1       9,450       103       0       -         55       1       32,845       104       0       -						-
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63     1     3,963     112     0     -       64     1     3,675     113     0     -       65     0     -     114     0     -       66     1     5,775     115     0     -       67     0     -     116     0     -       68     0     -     117     0     -       69     0     -     118     0     -       70     0     -     119     0     -       71     0     -     120     0     -       72     1     8,925						-
64     1     3,675     113     0     -       65     0     -     114     0     -       66     1     5,775     115     0     -       67     0     -     116     0     -       68     0     -     117     0     -       69     0     -     118     0     -       70     0     -     119     0     -       71     0     -     120     0     -       72     1     8,925						-
65     0     -     114     0     -       66     1     5,775     115     0     -       67     0     -     116     0     -       68     0     -     117     0     -       69     0     -     118     0     -       70     0     -     119     0     -       71     0     -     120     0     -       72     1     8,925						-
66     1     5,775     115     0     -       67     0     -     116     0     -       68     0     -     117     0     -       69     0     -     118     0     -       70     0     -     119     0     -       71     0     -     120     0     -       72     1     8,925						-
67     0     -     116     0     -       68     0     -     117     0     -       69     0     -     118     0     -       70     0     -     119     0     -       71     0     -     120     0     -       72     1     8,925						-
68     0     -     117     0     -       69     0     -     118     0     -       70     0     -     119     0     -       71     0     -     120     0     -       72     1     8,925						-
69     0     -     118     0     -       70     0     -     119     0     -       71     0     -     120     0     -       72     1     8,925			-			-
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71 0 - 120 0 - 72 1 8,925			-			-
72 1 8,925			-			-
				120	0	-
Totals 26 \$ 157,408	72	1	8,925			
				Totals	26	\$ 157,408



# **APPENDIX A – MEMBERSHIP INFORMATION**





## APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

# A. Long-Term Assumptions Used to Determine Plan Costs and Liabilities

# 1. Demographic Assumptions

# a. Healthy Active and Inactive Mortality

Mortality Improvements Projected to 2015 (Projection Scale AA)

Male: RP-2000 Combined Mortality Table Female: RP-2000 Combined Mortality Table

Rates of Healthy Active and Inactive Mortality Rates (With Projection Scale AA)						
Age	Male	Female				
20	0.03%	0.02%				
25	0.03	0.02				
30	0.04	0.02				
35	0.07	0.04				
40	0.10	0.06				
45	0.12	0.09				
50	0.16	0.13				
55	0.27	0.24				
60	0.53	0.47				
65	1.03	0.90				
70	1.77	1.55				
75	3.06	2.49				
80	5.54	4.13				
85	9.97	7.08				
90	17.27	12.59				

Mortality table was set in conjunction with the 2011 experience study to include a static projection to 2015. The System is embarking on a new experience study in 2016 which will determine whether the margin for future mortality improvements remains and to propose revised tables.



# APPENDIX B - ACTUARIAL ASSUMPTIONS AND METHODS

# **b.** Disabled Inactive Mortality

 $2011\ PBGC$  Disabled Mortality Tables, 50% Social Security Disabled / 50% Non-Social Security Disabled.

Rates of Disabled Inactive Mortality							
Age	Male	Female					
40	1.97%	1.06%					
45	2.22	1.24					
50	2.51	1.47					
55	2.88	1.79					
60	3.33	2.21					
65	3.91	2.77					
70	4.78	3.38					
75	6.39	4.54					
80	8.93	6.46					

# c. Rates of Active Disability

Rates of Active Disability				
Age	Rate			
20	0.05%			
25	0.05			
30	0.18			
35	0.27			
40	0.38			
45	0.46			
50	0.62			
55	0.86			
60	1.24			

No Workers' Compensation offset is assumed.



## APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

# d. Termination of Employment (Prior to Normal Retirement Eligibility)

10-year Select (age- and service based) & Ultimate (age-based) Tables

Age						Servi	ce				
Select:	0	1	2	3	4	5	6	7	8	9	Ultimate
15-39	17.0%	17.0%	14.0%	14.0%	11.0%	11.0%	10.0%	10.0%	7.00%	5.00%	5.00%
40-54	15.0%	15.0%	8.00%	8.00%	7.00%	7.00%	6.00%	5.00%	5.50%	4.00%	4.00%
55-59	8.00%	8.00%	5.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
60+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

### e. Retirement

Plan I: Normal Retirement: 1-year Select & Ultimate (age-based)

Plan II and III: Early and Normal Retirement: 1-year Select & Ultimate (age-based)

#### Plan I:

Normal Retirement						
Age	Select	Ultimate				
50-61	15.00%	15.00%				
62 +	100.00	100.00				

### Plan II and III:

Early & Normal Retirement						
Age	Select	Ultimate				
50-54	10.00%	0.00%				
55-61	10.00	5.00				
62	50.00	25.00				
63-64	50.00	10.00				
65-69	60.00	60.00				
70 +	100.00	100.00				

## f. Merit/Seniority Salary Increase (in addition to across-the-board increase)

1.0% merit increase for all ages plus an inflation rate of 3.00%.

## g. Family Composition

Female spouses are assumed to be three years younger than males. 70% are assumed married for both male and female employees. Actual marital characteristics are used for pensioners.



## APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

## 2. Economic Assumptions

a.	Investment Rate of Return:	7.20%
b.	General Wage Increase Rate:	3.00%
c.	Annual Cost-of-Living Increase Rate	
	for Retirees:	0.00%
d.	Total Payroll Increase Rate	
	(for Amortization):	3.00%
e.	Administrative Expenses as a	
	Percentage of Covered Payroll:	0.30%

# 3. Rationale for Assumptions

The assumptions were adopted by the Board of Trustees as a result of the latest experience study review performed in 2011 and covering the period July 1, 2005 through June 30, 2010.

The Board continually reviews the investment return assumption and adopted a reduced rate of 7.20% effective with the 2014 valuation, at the advice of its investment consultant.

# 4. Changes Since Last Valuation

None.



## APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

### **B.** Actuarial Methods

# 1. Funding Method

The Entry Age Normal funding method is used to determine costs. Under this funding method, a normal cost rate is determined as a level percent of pay for each active member. The normal cost rate times payroll equals the normal cost for each active member. The normal cost plus member contributions will pay for projected benefits at retirement for each active plan participant.

The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and funds accumulated as of the same date is referred to as the unfunded actuarial liability.

The portion of the actuarial liability in excess of plan assets is amortized to develop an additional cost or savings that is added to each year's employer normal cost. Under this cost method, actuarial gains and losses are directly reflected in the size of the unfunded actuarial liability.

The unfunded liability is amortized over a rolling 15-year period from July 1, 2015. All payments are a level percentage of payroll and are determined assuming total payroll increases by the annual inflation rate. Use of a rolling amortization period means that the UAL amount is never anticipated to be fully paid off. This method was chosen to provide for a more level contribution rate over time.

### 2. Actuarial Value of Assets

For purposes of determining the employer contribution rate to the Plan, we use an actuarial value of assets. The asset smoothing method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

The actuarial value of assets is a weighted average giving 20% weight to the current market value and 80% weight to the prior year's actuarial value increased by expected interest and contributions and decreased by benefit payments and expenses. This is mathematically equivalent to recognizing 100% of the actuarially assumed interest rate, plus contributions, less payment each year, and 20% of the portion of each year's returns that have not already been reflected in asset values.

### 3. Changes Since Last Valuation and Rationale for Change

None.



# APPENDIX C – SUMMARY OF PLAN PROVISIONS

### 1. Membership

The Plan covers any employee who is paid regular salary or wages by the Diamond State Port Corporation.

#### 2. Member Contributions

2% of compensation. Interest is credited at the rate of 7% per year.

Member contributions are made through an "employer pick-up" arrangement which results in deferral of taxes on the contributions.

#### 3. Credited Service

A year of service is credited for every year of 1,500 hours of service. In addition, those employees who participated in the City of Wilmington Plan I, Plan II, or Plan III will receive prior credited service under the terms of those plans.

## 4. Final Average Compensation

Final Average Compensation is the five-year average base salary over the last ten consecutive years of compensation paid to the member that produces the highest average.

## 5. Normal Retirement

Eligibility: Age 65 with five years of credited service; or Rule of 90 with minimum age 55.

In addition, the benefits payable under the City of Wilmington Plan I are payable at age 60 with 15 years of service or at any age with 20 years of service.

Benefit:

1.75% of final average earnings times years of service (maximum service 30 years) since the later of the date of hire or the date of transfer for those transferring from Plans I or II.

In addition, former participants of Plan I will receive 2.50% of final average earnings times years of service, up to the date of transfer, but not less than \$1,800 annually nor greater than \$4,500 annually. Former participants of Plan II will receive 1.75% times final average earnings times years of Plan II service (maximum service 25 years) but not greater than \$11,000 annually.



# APPENDIX C – SUMMARY OF PLAN PROVISIONS

### 6. Early Retirement

Eligibility: Age 55 with five years of service.

Benefit: The benefit is determined using the normal retirement benefit formula based on

service and earnings at early retirement and reduced by 0.4% for each month the

early retirement date precedes the normal retirement date.

# 7. Disability Benefit

Eligibility: 15 years of service.

Benefit: 1.75% of final average earnings times years of service (maximum 30 years),

reduced by any workers' compensation benefits paid and further reduced by earnings in excess of one-half of the pre-disability compensation earned by the

participant.

### 8. Survivor's Benefit

Eligibility: Death while actively employed with 15 or more years of service or after

attaining eligibility for early or normal retirement benefits.

Benefit: 50% of the benefit the participant would have received had he/she retired on the

day before his/her death. Payments to the spouse will continue until death.

## 9. Post-Retirement Death Benefit

50% of the benefit the participant was receiving is payable to the surviving spouse. Such benefit continues to the spouse until death. If the participant is not married on his/her retirement date and dies before receiving 120 monthly payments, the participant's beneficiary will receive the remaining monthly benefit until a full 120 payments have been made.

## 10. Vesting

Eligibility: Five years of credited service.

Benefit: The benefit calculated for normal retirement, using final average compensation

and credited service as of the termination date. The benefit will commence on the normal retirement date. A participant may elect to receive a reduced benefit

for early retirement commencing after age 55.

If the participant is married, the benefit will be a reduced amount payable for life with the surviving spouse receiving a benefit equal to 50% of the benefit

received by the participant.



# APPENDIX C – SUMMARY OF PLAN PROVISIONS

## 11. Withdrawal of Employer Contributions

Eligibility: Terminates service and is not eligible for other benefits.

Benefit: Accumulated employee contributions with interest.

## 12. Form of Payment

The normal form of payment is a 50% joint and survivor annuity.

# 13. Cost-of-Living Adjustment

Cost-of-living adjustments are made only on an ad hoc basis.

# 14. Changes Since Last Valuation

None

