# ACTUARIAL VALUATION REPORT 

## CITY OF NEW ORLEANS

## EMPLOYEES' RETIREMENT SYSTEM

Annual Actuarial Valuation
as of January 1, 2012

CONEFRY \& COMPANY, LLC

ACTUARIAL AND EMPLOYEE BENEFIT CONSULTING NEW ORLEANS, LOUISIANA

## INTRODUCTION

We present in this report the results of our actuarial valuation of the City of New Orleans Employees' Retirement System as of January 1, 2012. The plan is intended to be actuarially funded, and we have performed this actuarial valuation using conventional and generally accepted actuarial methods, assumptions, and principles as would typically be applied to a qualified defined benefit pension plan subject to the funding standards of the Employee Retirement Income Security Act of 1974 (ERISA), but applied, of course, in the context of governmental plans within the meaning of the Internal Revenue Code and Regulations. We have performed the actuarial valuation using the Entry Age Normal Cost Method. A full description of the funding method is contained beginning on page 4 of the report.

The Summary of Plan Provisions presented in the Appendix is intended to describe the principal benefits provided by the plan, particularly from the perspective of their significance in affecting the actuarial liability and cost of the plan. The summary is not, of course, intended to be a comprehensive or complete description of all benefits payable under all circumstances under the pension plan.

## CITY OF NEW ORLEANS

EMPLOYEES' RETIREMENT SYSTEM

## SUMMARY

I. FINANCIAL AND ACTUARIAL STATUS
as of January 1, 2012

| Market Value of Assets | $\$ 317,609,637$ | Page 4 |
| :--- | :--- | :--- |
| Actuarial Value of Assets | $\$ 379,526.159$ | Page 6 |

II. EMPLOYER AND EMPLOYEE CONTRIBUTIONS for the Plan Year Beginning January 1, 2012
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Contribution (As \% of Payroll) $\$ 23,510,234(25.108 \%) \quad$ Page 10
Expected Total Employee
Contributions (As \% of Payroll) \$ 4,681,815 (5.000\%) Page 10
Recommended Employer
Contribution (As \% of Payroll) $\$ 18.828,419$ (20.108\%) Page 10
III. NET ACTUARIAL EXPERIENCE for the Plan Year Ending December 31, 2011

| $0.919 \%$ | Page 11 |
| :---: | :--- |
| Loss |  |

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## 1. FINANCIAL AND ACTUARIAL STATUS as of January 1, 2012

We have conducted this actuarial valuation using employee data and asset information furnished by the plan administrator and the auditors. This section of the report presents a summary of the assets of the plan at Fair Market Value. The funding method used to determine the actuarial liabilities is described in Section II and the actuarial assumptions upon which the liabilities are based are summarized in Exhibit II of the report.

## ASSETS

The following table showing the composition of the assets as of December 31, 2011 is based on information supplied by the auditors through the System administrative staff.

## Table 1

Statement of Assets at Fair Market Value
as of December 31, 2011

## Assets

Market Value

| Bonds and Fixed Income Type Securities | \$ |
| :--- | ---: |
| Stocks and Equity Type Securities | $204,347,338$ |
| Cash \& Equivalents | $13,387,043$ |
| Alternative Investments | $28,044,911$ |
| Accrued Interest \& Dividends | 148,287 |
| Accounts Receivable (Net) | $1,132,056$ |
| Net of Accounts Payable and Other Liabilities | $-468,904$ |

Net Assets Available for Benefits
$\$ 317,609,637^{*}$

* The actuarial value of assets used in this valuation is Adjusted Markct Value as determined in Table 3.


## COST OF LIVING RESERVE

Historically, the Board of Trustecs had adopted the policy of maintaining a "Cost of Living Account" representing a "reserve" to provide for cost of living payments to retirees and beneficiaries from excess realized investment earnings. In the January 1, 1996 and prior actuarial valuations, this reserve was used as an offset to assets in developing the actuarial value of assets. Beginning with the January 1, 1997 and in subsequent actuarial valuations, this reserve was included with other actuarial liabilities in Table 5, item (1). Effective with the January 1, 2007 actuarial valuation, the Board eliminated the inclusion of this "reserve" in system actuarial liabilities in favor of the direct demonstration of the amount available for cost of living payments as described below.

The "reserve" described above was intended to represent the amount available for such cost of living payments pursuant to Section $114-204$ (7) of the New Orleans Code governing System bencfits. After analysis of the language of the foregoing section, to wit that the Board ". . . shall be authorized to retain interest earnings in excess of an average 3.5 percent on investments of the system to be used to provide a cost of living increase in benefits for members who have retired in the past or who may retire in the future, in an amount not to exceed three percent of the original benefit for each year of retirement; . ..", the Board has adopted a revised policy of determining the amount available pursuant to the foregoing section as follows. The Board has made the interpretation that "interest earnings" represents cumulative market-to-market investment performance of the fund and that "in excess of an average 3.5 percent" means cumulative investment performance in excess of 3.5 percent compounded annually. Reference to Exhibit VI in the Appendix indicates that a cumulative investment performance of 3.5 percent compounded annually would have resulted in total system assets of $\$ 75,476,525$ as of December 31, 2011 based on the assumption that there had not been any "one time" cost of living payments during the 23 year period considered. Actual fund performance during the 23 year period considered resulted in a market value of $\$ 317,609,637$ after recognition of the "one time" cost of living payments actually made.

By reference to Exhibit $V$ in the Appendix, it will be noted that the cumulative compound annual rate of return based on market values has been $7.03 \%$, compounded annually, for the period January 1, 1989 through December 31, 2011.

## ACTUARIAL VALUE OF ASSETS

Beginning with the January 1, 1997 actuarial valuation, the method of determining the actuarial value of assets was changed to adjusted market value from the former adjusted book value basis. This method reflects actual market value performance over a seven year period ending on the valuation date. The market value performance is averaged over the seven year period by reflecting the actual external cash flow and adjusting each prior year's market value to the current valuation date using the actuarial interest assumption in effect for each year.

The following table develops the Adjusted Market Value of Assets to be used as the Actuarial Value of Assets in the actuarial valuation.

Table 3
Actuarial Value of Assets
As of December 31, 2011

| Plan | Beginning | Net External Market Value |  | Ending | Market Value Adj. Market |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Market | Cash Flow | Inv. Income | Market | Performance | Value |
| Ending | Value | For Year | For Year | Value | For Year | Component |
| 2005 | 390,480,525 | -15,798,710 | 17,464,439 | 392,146,254 | 4.5649\% | 447,960,534 |
| 2006 | 392,146,264 | -29,263,702 | 41,708,472 | 404,591,034 | $11.0482 \%$ | 466,013,810 |
| 2007 | 404,591,034 | -25,563,484 | 33,770,375 | 412,797,925 | $8.6191 \%$ | 470,578,826 |
| 2008 | 412,797,925 | -24,565,671 | -120,890,979 | 267,341,275 | -30.1829\% | 280,493,447 |
| 2009 | 267,341,275 | -17,055,427 | 59,869,583 | 310,155,431 | 23.1323\% | 326,700,568 |
| 2010 | 310,155,431 | -18,232,506 | 42,485,923 | 334.408,848 | 14.1131\% | 347,326,293 |
| 2011 | 334,408,848 | -12,523,028 | -4,276,183 | 317,609,637 | -1.3031\% | 317,609,627 |

Years Included: $7 \quad-143,002,528 \quad 70,131,630$
Average Adj. MV: \$379,526,159

## II.

 EMPLOYER AND EMPLOYEE CONTRIBUTIONSfor the Plan Year Beginning January 1, 2012

## DESCRIPTION OF ACTUARIAL COST METHOD

Under the Entry Age Normal Cost Method, the normal cost of the plan is designed to be a level percentage of payroll, calculated on an aggregate basis, spread over the entire working lifctime of the participants. The future working lifetme is determined from each participant's hypothetical entry age into the plan assuming the plan had always been in existence, to his expected retirement date. The actuarial accrued liability is the amount of total liability not covered by future entry age normal costs. This amount is composed of the actuarial value of benefits already funded (assets) and those not yet funded (unfunded actuarial liability).

The plan's funding cost for the year is the sum of the Entry Age Normal Cost and the amount necessary to amortize the remaining unfunded actuarial liability as of the valuation date over the adopted amortization period as discussed below. Effective with this January 1, 2012 actuarial valuation, the investment return assumption has been changed from $7.75 \%$ annually to $7.50 \%$ annually,

Governmental Accounting Standards Board (GASB) Statements 25 and 27 permit the amortization basis to be "open" (that is, a constant number of years) or "closed" (that is, with the remaining period reducing by one each year). GASB 25 and 27 further permit either a level dollar amortization method (more conservative) or a method based on increasing valuation payroll (less conservative). Beginning with the January 1, 2011 actuarial valuation, the actuarial cost method was changed from the Frozen Initial Liability Method to the Entry Age Normal Cost Method. The former amortization basis used through the January 1, 2009 actuarial valuations consisted of a level dollar amortization for a ten (10) year "closed" amortization period from January 1, 2008 through December 31, 2017. Effective January 1, 2011, this was replaced by a level dollar amortization for an "open" ten (10) year amortization period effective on each valuation date. Beginning with this January 1, 2012 actuarial valuation this open ten (10) year amortization amount has been changed to an open fifteen (15) year amortization and that amount is developed later in this section and presented in Table 5.

Table 4
Normal Cost for Plan Year
Beginning January 1, 2012
(1) Actuarial Present Value at Entry Age of All Expected Benefits of Active Participants \$ 45,381,401
(2) Actuarial Present Value at Entry Age of Future Payroll of Active Participants $595,652,815$
(3) Entry Age Normal Cost Percentage:
(1) divided by (2)
$7.619 \%$
(4) Current Payroll of Active Participants* \$ 93,636,301
(5) Normal Cost: (3) $x$ (4) 7,134,150

* There are 2,289 active participants: 1,144-fully vested; 0-partially vested; 1,145 -not vested.

Table 5
Entry Age Normal Cost Unfunded Actuarial Liability as of January 1. 2012
(1) Actuarial Present Value of Expected Benefits to Plan Participants
(a) Total Active $\$ 235,913,950$
(b) Ordinary \& Separation Retirement 241,911,119
(c) Beneficiaries 16,674,935
(d) Disabled Retirement
(e) Terminated Vested
(f) D.R.O.P. Account Balances 20,438,268 3,998,496
11,976,842
(g) D.R.O.P. Future Benefits
47.178 .946

Total Inactive \$ 342,178,606
Grand Total
(2) Actuarial Value of Assets
(from Table 3)
379,526,159
(3) Normal Cost as a Percentage of Payroll (from Table 4)
$7.619 \%$
(4) Actuarial Present Value of Future Payroll of Active Participants $\$ 627,773,842$
(5) Actuarial Present Value of Future

Normal Cost Contributions:
(3) X (4)

47,830,089
(6) Unfunded EAN Actuarial Liability as of January 1, 2012:
(1) - (2) - (5)

150,736,308

## TOTAL CONTRIBUTION FOR PLAN YEAR BEGINNING January 1, 2012

The contribution for a plan year cquals the normal cost, plus the expense assumption cost, plus the amount necessary to amortize the Entry Age Normal Cost (EAN) Unfunded Actuarial Liability. This Unfunded Liability for funding purposes is $\$ 150,736,308$, as discussed on page 4. The annual amount required to amortize this EAN Untunded Liability over the open 15 year period ending December 31, 2026 at $7.50 \%$ annual interest is $\$ 16,095,175$.

The total plan contribution on this basis is developed in the following Table 6.

## Table 6

Total Required Contribution for the Plan Year Beginning January 1. 2012
(1) Normal Cost
(From Table 4)
(2) Expense Assumption Cost ( $0.3 \%$ of Annual Covered Payroll)

280,909
(3) Net Annual charge Required for 15 Year Amortization of EAN Unfunded Liability (See Above)

$$
16,095,175
$$

(4) Total Plan Contribution as of January 1, 2012: (1) + (2) + (3) \$ 23,510.234 (25.108\%) *
(5) Annual Employee Plan Contributions as of January 1, 2012
$\$ 4,681,815(5.000 \%)^{*}$
(6) Employer Contribution as of January 1, 2012: (4) - (5)
$\$ 18,828.419(20.108 \%) *$

* Expressed as a percentage of annual participant payroll of $\$ 93,636,301$.


## III.

Actuarial experience refers to the comparison of actuarial results of each valuation with those expected from the previous valuation according to the actuarial assumptions. Under the Entry Age Normal Cost Method the basis of comparison is the change in the total plan actuarial cost, expressed as a percentage of payroll. A decrease or increase in the total plan actuarial cost percentage is normally indicative of favorable (gains) or untavorable (losses) experience, respectively. If the overall experience follows the general pattern indicated by the assumptions presented in the Appendix, the percentage of payroll will remain unchanged, except for routine fluctuations.

The method of determination of the actuarial gain or loss over the past plan year is presented in the table below.

## Table 7

Net Actuarial Experience for the Plan Year Ending December 31, 2011
(1) Total Plan Actuarial Cost Percentage as of January 1, 2012
$25.108 \%$
(2) Total Plan Actuarial Cost Percentage as of January 1. $2011 \quad 28.266 \%$
(3) Net Change in Total Plan Cost Percentage:
(1)-(2)
$-3.158 \%$
(4) Change in Total Plan Cost Percentage Due to Change in Assumptions and Amortization Period:
$-2.843 \%$
(5) Change in Total Plan Cost Percentage Due to Plan Amendments:
$-1.234 \%$
(6) Change in Total Plan Cost Percentage Due to Actuarial Experience: $(3)-(4)-(5) \quad+0.919 \%$

Table 8
Net Actuarial Experience by Component for the Plan Year Ending December 31, 2011

| Component | Effect on Employer cost <br> Gain (-) or Loss $(+1)$ |
| :--- | :---: |
| Interest Assumption | $+2.470 \%$ |
| Salary Scale | $-0.363 \%$ |
| New Retirements (Including Disability) | $+0.781 \%$ |
| New Entrants | $-3.383 \%$ |
| Inactive Mortality | $+0.184 \%$ |
| Active Mortality and Turnover | $+2.013 \%$ |
| Net Change From All Other Sources | $-0.783 \%$ |
| Grand Total |  |

## APPENDIX

## EXHIBIT I

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF NEW ORLEANS

## SUMMARY OF PLAN PROVISIONS

| EFFECTIVE DATE: | 1947; Restated fo: Plan Qualification, January 1, 1994 Last major amendment date - January 1, 2012. |
| :---: | :---: |
| CREDITABLE SERVICE: | Prior service plus membership service for which credit is allowable. Also, one month service credit given for every twenty-one days accumulated sick andior annual leave Credit for prior military service may be purchased (maximum 4 years) by active contributing member who reaches age 65 or who has at least 10 years of service; lump sum payment required based on $4 \%$ of excess over first $\$ 100$ monthly average for each month claimed plus $4 \%$ compound interest. After March 1, 1980, military service available only to those who will not receive a benefit from another public pension plan. (except Social Security) |
| EARNABLE COMPENSATION: | Annual compensation paid to an employee; includes tenure pay and excludes overtime pay. |
| AVERAGE COMPENSATION: | Average annual earned compensation of a member for highest thirty-six successive months (fory-eight effective January 1. 2014 and sixxy months effective January 1 2015) of service as a member, mimus $\$ 1,200$. Effective June 1, 2002, $\$ 1,200$ removed. After April 29, 1979 earned compensation based on pay for regular required work and excludes State supplemental pay. |
| EMPLOYEE CONTRIBUTIONS: | $4 \%$ of earnable compensation over $\$ 1,200$ per year Effective June 1, 2002, \$1,200 removed. Effective January 1. 2012 the rate is $5 \%$ and effective January 1,2013 the rate is $6 \%$. |
| EMPLOYER CONTRIBUTIONS: | Certain percentage of carnable compensation of each member, known as "Normal Contributions," determined on basis of regular inerest and mortality tables adopted by the Board, and addinonal percentage of earnable compensation, known as "Accrued Liability Conrributions, determined by actuary on basis of the amortization period adopted by the board from time to the. |

## EXHIBIT I (Continued)

## MEMBERSHIP:

## RETIREMENT:

Eligibility:

Benefits:

Includes:

1) Employees hired on July 1, 1947 and atter, who become members as condition of employment, except for those over 65 unless 10 years prior service.
2) Employees hired before July 1, 1947 became members, unless they elected not to join.
3) For officials elected or apponted for fixed terms, membership is optional.
4) All officers and employees of various judicial and parochial offices of we parish, except those covered by another system and those for whom no contributions are made by respective officers, are eligible.
5) For employees of French Market Corporation, membership is optional; eligibility is contingent on not having attained age 55 .
6) Effective November 1, 1993. membership includes the full-time employees of the Coroner's Office.
7) Effective April 1, 1997, membership includes the fulltime employees of the District Attomey's Office.

Age 60 and 10 years of service: age 65 and 5 years of service; any age and 30 years of service. Effective January 1, 2002, any member whose age and service total 80 may retire with no age reduction.

Retirement allowance, consisting of (1) and (2) below:

1) An annuity, which is the actuarial equivalent of employee's accumulated contribution; plus
2) Effective for members retiring on or after January 1 , 2002, an annual pension, which. together with above annuity, provides total retirement allowance equal to $2.5 \%$ of average compensation times first 25 years, plus $4 \%$ of average compensation times creditable service over 25 years.
3) Effective for members retiring before 2002, but on or after January 1, 1983, an annual pension, which, together with above annuity, provides total recirement allowance equal to $2 \%$ of average compensation times first 10 years, plus $21 / 2 \%$ of average compensation times next 10 years, plus $3 \%$ of average compensation times next 10 years, plus $4 \%$ of average compensation times creditable service over 30 years.
4) Effective January 1.1983. additional pension equal to $2 \%$ of $\$ 1,200$ times first 10 years, plus $21 / 2 \%$ of $\$ 1,200$ times next 10 years, plus $3 \%$ of $\$ 1,200$ times next 10 years, plus $4 \%$ of $\$ 1,200$ times service over 30 years. Ceases at 62 or at eligibility for Social Security. whichever comes first. Effective January 1, 2002, the $\$ 1,200$ exclusion will not apply.
5) Additional pension for member who reaches age 65 with 20 or more years and the retirement allowance under (1) and (2) above is less than $\$ 1.200$ per year; to produce total retirement allowance of $\$ 1,200$ per year.
6) Effective January 1,1982, for service retirement prior to age 62 with less than 30 years of Service, (3) and (4) above are reduced by $3 \%$ for each year below 62 . However, effective January 1, 1996, this reduction is not made if employee has at least 30 years of service. Effective January 1, 2002, no reduction if age and service total at least 80.
7) Maximum Benefit: Benefit not to be greater than $100 \%$ of average compensation, unless member has already accrued a larger benefit as of April 1978.

## EXHIBIT I (Continued)

8) Minimum Benefir: Effective June 1, 1999, benefit of $\$ 300$ per month for retirees with 10 years of service at retirement.
9) Form of Benefit: Modified cash refund annuity - If a member dies after retirement and before receiving the amount of his accumulated contributions in annuity payments, then lump sum balance of his contributions is paid to beneficiary.
10) Cost-of-Living: Board of Trustees retains excess over average $31 / 2 \%$ interest carnings to provide Cost-ofLiving increases in benefits to retirees (past or future) not to exceed $3 \%$ of original benefit per each year of retirement. Effective January 1. 2001, additional one-time increase of $1 \%$ times member's or beneficiary's curren monthly benefit times whole calendar years from date benefit commenced.

## DISABILITY:

## Ordinary Disability Retiremen:

Eligibility:

Benefil:
10 years of credited service and totally and permanenty incapacitated for performance of duty (certified by physician nominated by Board).

If eligible, service retirement allowance:
a) An annuiry, which is the actuarial equivalent of employee's accumulated contributions; and
b) An annual pension, which, together with a) equats $75 \%$ of service allowance that would have been payable at age 65 had member continued in service to age 65 , computed on average compensation (minimum benefil $\$ 300$ per year).

## Accidental Disability Retirement:

Eligibility:

## Benefit:

Accident sustained in service as member and while in performance of duty (and certification by physician nominated by Board of incapacity).

1) If eligible - service retirement allowance.

Nore:

## DEATH BENEFITS:

## Ordinary Death Benefits:

Eligibility:

Benefits:

Notes:
2) If ineligible for retirement allowance, then accidental disability retirement allowance, consisting of:
a) An annuity which is the accuatial equivalent of employee's accumulated contributions; and
b) An annual pension, equal to the difference between the annuity and $65 \%$ of earmable compensation for year preceding Date of Accident.

Medical examinations required every three years for those disability retirees under 60. Accidental disability benefis are offset by workmen's compensation payments, if any.

Death of member in active service.

Employee's accumulated contributions paid to beneficiary.

1) If member has three years Creditable Service, additional Lump Sum Benefit equal to $1 / 4$ of earnable compensation for year preceding death, plus $5 \%$ of such earnable compensation for each additional year of creditable service (benefit not to exceed compensation made before death).
2) If, at date of death, member was eligible for retirement and leaves Surviving Spouse, Surviving Spouse shall be eligible to elect either Option Number 2 or Lump Sum refund of Employee's contributions.
3) Offset by Worker's Compensation benefits.
4) If, at date of death, member was ineligible for retirement, but was at least 55 years of age and had

10 or more years of creditable service, or was under age 55 and had at least 20 years of creditable service, then surviving spouse may elect to receive benefit equal to an actuarially reduced amoum based upon the members" age and years of creditable service. Benefit to cease when surviving spouse reaches age of eligibility for Social Security.

1) Effective January 1, 2002, a member who separates with 5 years of Creditable Service may allow his accumulated contributions to remain on deposit and service retirement allowance to begin as early as age 65 .

Prior to January 1. 2002, withdrawal with 10 years of Creditable Service prior to separation, member may allow accumulated contributions to remain on deposit and service retirement allowance to begin as carly as age 60 (subject to reduction if retirement is elected before age 62). If death before retirement, retum of accumulated contributions with interest.
2) Upon withdrawal without 5 years Creditable Service. Employee is entitled to return of his accumulated contributions with interest or may allow contributions to remain on deposit for maximum of five years. (In case of employee's death, then accumulated contribution plus interest are paid to beneficiary.)

If employee re-enters after receipt of refund and continues service thereafter for at least six months, he may repay amount of refund plus the amount of employer contributions, with compound interest, to receive prior creditable service again.

1) If a member dies before receiving, in annuity payments, the value of his annuity at the time of his retirement, then balance is payable to his beneficiary.
2) $100 \%$ survivor's benefits - reduced retirement benefit continued to beneficiary at member's death. If the spouse predeceases the retiree, the benefit reverts back to the maximum amount.

## PAYMENT OF BENEFITS:

## RECIPROCITY:

## DROP ACCOUNT:

3) $50 \%$ survivor's benefits - $50 \%$ of reduced retirement benefit continued to beneficiary at member's death. If the spouse predeceases the retiree. the benefit revers back to the maximum amount.
4) Other benefits of equal acruarial value, upon approval of Board.

On monthly basis, except when total retirement allowance is less than $\$ 120$ per year; then, quafterly, semi-annually, or annually, as Board decices.

Effective July 16, 1974. provisions made for reciprocal transfers of service and funds between this System and Employees' Retirement System of the Sewerage and Water Board of New Orleans, in the event an employee transfers from one employing agency to the other; service credits were transferred from sending system to receiving system provided all employee contributions plus earned interest and all employer contributions plus agreed-upon interest were transferred: effective September 23, 1993 retroactive for transfers on and after October 17, 1988), agreement was amended to provide for a transfer from the sending system to the receiving system equal to the GASB \#5 liability of the sending system at $7 \%$ interest, $5 \%$ salary scale, the remaining GASB \#5 actuarial assumptions and the salary and benefit structure in effect for the sending system at time of transfer.

From January 1, 1987 through April 30, 1987 an early retirement window was avallable. Any member who had at least 15 years of service and whose age plus service totalled at least 70 , could retire during the window with no reduction for early retirement. Member must have converted all sick leave into service credits.

Effective January 1, 1994, any member who is eligible for a service retirement under Section 114-201(a) may participate in the DROP program:

1) A member can participate for up to five years.
2) When a member joins the DROP, he stops contributing to and earning benefits in the system. Employer contributions also stop. His retirement benefit begins being paid into his DROP account.
3) Interest is earned on the DROP account at an annual rate set by the Board. Members of the DROP receive cost-of-living increases, as if they would have received such raises as a retiree.
4) Upon termination of employment at the end of the specified period of DROP participation, the DROP account is paid out. After his DROP period ends and upon continued or re-employment, the member may resume contributions and earn a supplemental benefit based on current covered compensation.
5) If at the end of a Member's period of OROP participation he does not terminate employment, payments into the DROP shall cease and no further interest shall be earned or credited to the account. Payments shall not be made until employment is terminated.

## SUMMARY OF PLAN CHANGES IN RECENT YEARS

April 27. 1978

January 1, 1979

April 29, 1979

September 17, 1981

January 1,1982

January 1. 1983

January 1,1987

May 21. 1987

Monthly retirement benetit shall not exceed average monthly compensation of a member.

Mandatory retirement age is 70.

Defined "Average Compensation" and "Based earned compensation".

Allows for purchase of credit for prior military service.
"Ordinary Death Benefits" is described.
Any member who has 30 years of creditable service may retire regardless of age.

Additional pension allotment was outhined.

Normal Retirement Benefits amended by the addition of $4 \%$ of average compensation times creditable service over 30 years. Also, $4 \%$ of $\$ 1,200$ nimes service over 30 years is provided for in the additional pension.

For those retiring under age 55 , benefit reduced by $2 \%$ for each year under 55 .

Any member with a minimum of 15 years of creditable service and age pius service equal to 70 , providing that he converts all sick leave to membership credit, may retire with no reduction in benefits during the period of January 1, 1987 through April 30, 1987 only.
"Average Compensation" re-defined for computing benefits from September 30, 1986 through November 30.1989.

## SUMMARY OF PLAN CHANGES IN RECENT YEARS (Continued)

| Mav 21, 1987 | Offset of plan benefits with Workers" Compensation and Social Security benefits is clarified. |
| :---: | :---: |
| January 19.1989 | "Employee" re-defined to provide for part-time service credit. |
|  | Purchase of part-time service credits allowed. |
| September 23, 1993 | Reciprocity agreement with Sewerage and Water Board amended retroactive for transfers on and after October 17. 1988 (see Page 15 of this report for details). |
| November 1, 1993 | Membership extended to Coroner's Office. |
| January 1, 1994 | Plan amended for qualification under Internal Revenue Code for Governmental Plans. |
|  | The Deferred Retirement Option Plan was adopted to allow members terminating employment and accepting a service retirement allowance under plan section $55-34(1)$ to participate in this program. |
|  | For members retiring on or after January 1, 1994, and choose either Option 2 or Option 3, if the beneficiary predeceases the retiree, the reduced bonefit reverts back to the maximum amount beginning the month following notification of death. |
| January 1, 1996 | Any member with 30 years of creditable service may retire regardless of age, with no reduction in benefits. |
|  | The DROP period extended from two to five years. The two-year waiting period was removed. |
| April 1. 1997 | Membership extended to District Attorney's Office. |
| June 1. 1999 | Minimum benefir of $\$ 300$ per month for retirees with 10 years of service at retirement. |

January 1. 2001

January 1,2002

January 1,2002

January 1,2002

January 1. 2002

June 1, 2002

January 1, 2012

January 1. 2012

Additional cost of living increase to members and beneficiaries equal to a $1 \%$ increase times the current monthly benefit times whole calendar years since benelit commenced (one-time increase).

Rule of 80 adopted. Age plus service equal 80 . No reduction in benefit.

Normal Retirement Benefit formula amended to $2.5 \%$ of average compensation times the first 25 years of creditable service plus $4 \%$ limes service over 25 years.
"Creditable service" redefined.

Any member who separates from service before age 65 with 5 years of service and leaves his accumulated contributions on deposit may receive a retirement allowance beginning at or after age 65.
$\$ 1,200$ exclusion on earnings removed.

Period for calculation of average compensation changed to 48 months effective January 1, 2014 and 60 months effective January 1, 2015.

Employee contribution percentage changed to $5 \%$ of all pension compensation effective January 1,2012 and to $6 \%$ effective January 1, 2013.

## EXHIBIT 11

## CITY OF NEW ORLEANS

 EMPLOYEES' RETIREMENT SYSTEMSTATEMENT OF ACTUARIAL BASIS FOR FUNDING PURPOSES

## Actuarial Funding Method:

Cost Method:

Asset Valuation Method:

Actuarial Assumptions

Interest:

Mortality:

Turnover:

Salary Increases:

Entry Age Normal Cost Method.

Adjusted Market Value using seven year smoothing.
$7.50 \%$ compounded annually.

1971 Group Annuity Mortality Tablo for males and females.

Table developed from the 1985-1989 Actuarial Experience Study (age rates were leff unchanged based on the 1996 2000 Study). As a result of, and as recommended in, the 1996-2000 Study, additional rates of withdrawal were applied on a graded scale for service less than five years, as follows: $60 \%, 50 \%, 40 \%, 30 \%$ and $15 \%$ for the first through fith year of service. respectively. Typical annual rates of withdrawal are as follows:

Age Annual Rate of Withdrawal

| Males | Females |
| :---: | ---: |
| $8.7 \%$ | $8.5 \%$ |
| $8.0 \%$ | $8.5 \%$ |
| $7.0 \%$ | $7.2 \%$ |
| $6.3 \%$ | $5.7 \%$ |
| $5.9 \%$ | $5.2 \%$ |
| $4.8 \%$ | $4.3 \%$ |
| $4.7 \%$ | $3.3 \%$ |
| $4.1 \%$ | $4.5 \%$ |
| $6.2 \%$ | $2.9 \%$ |
| $3.7 \%$ | $3.9 \%$ |
| $2.0 \%$ | $4.5 \%$ |
| None | None |

$5.0 \%$ compounded annually.

## STATEMENT OF ACTUARIAL BASIS FOR FUNDING PURPOSES

Actuarial Assumptions (Continued)

Retirement:

Disability Incidence:

Based on the results of the $1990-1995$ periodic actuarial experience study, it has been assumed that employees retire one year (changed from two years because of elimination of two year wait for D.R.O.P. entry) after the earliest of: first, attainment of 30 years of service; second. the later of age 60 and completion of 10 years of service: third, attainment of age 65 and completion of 20 years of service; fourth, satisfaction of the "Rule of $80^{\prime \prime}$ (age plus service equals or exceeds 80 . However, all employees are assumed to retire not later than age 70.

Table developed from the 1985-1989 Actuarial Experience Study (left unchanged based on the 1990-1995 Study; reduced to $50 \%$ of male and $70 \%$ of female rates based on the $1996-2000$ Study). This valuation used those reduced rates of disability incidence. Typical annual rates of disability incidence in the original $1985 \times 1989$ table are as follows:

| Age | Annual Rate of Disability |  |
| :--- | :---: | :---: |
|  |  |  |
| 25 | Males | Females |
| 30 | $0.17 \%$ | $0.11 \%$ |
| 35 | $0.17 \%$ | $0.11 \%$ |
| 40 | $0.28 \%$ | $0.06 \%$ |
| 45 | $0.42 \%$ | $0.09 \%$ |
| 50 | $0.77 \%$ | $0.22 \%$ |
| 55 | $0.90 \%$ | $0.35 \%$ |
| 60 | $1.42 \%$ | $0.37 \%$ |
| 65 | $0.80 \%$ | $0.66 \%$ |
| 68 | $0.80 \%$ | $0.56 \%$ |
| $70+$ | $0.80 \%$ | $0.71 \%$ |
|  | $0.80 \%$ | $0.80 \%$ |

## EXHIBIT III

December 31, 2011 ACCOUNTING INFORMATION FOR FINANCIAL STATEMENTS

This section is included to provide information required by the Governmental Accounting Standards Board Statement Number 25. The Projected Benefit Obligation (PBO) as of December 31, 2011 is based on all of the assumptions outlined in Exhibit II including future salary growth. The Unfunded Accrued Liability (UAL) is that used in funding the plan and is developed in Table 4.

## SCHEDULE OF FUNDING PROGRESS






CITY OF NEW ORLEANS EMPLOYEES RETIREMENT SYSTEM
1/1/2012 INACTIVE PARIICIPANI PROFILE
JANuARY 1, 2012 actuarial valuation
....... ordinary REIIREMENT







## EXHIBIT $V$

MARKET VALUE AND ACTUARIAL VALUE ASSET INVESTMENT PERFORMANCE

0 COLAN YEAR
CO ENDING

| 12/31/89 | 133,386,566 | 9,078,892 | 2,226,412 | 6.918 | 11,546,681 | 924,842 | 59,880 | $-1,219,181$ | 13,892,547 | 146,059.932 | 10.4631\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12/31/90 | 146,059,932 | 8,947,779 | 2,456,143 | 15,663 | 12,398,801 | 940.873 | 0 | -1,920,089 | 5,462,388 | 149.602,231 | 3.7646\% |
| 12/31/91 | 149,602,231 | 8,938,947 | 2,639,973 | 138,771 | 12,106,676 | 1,762,120 | 213,613 | $-2,364,718$ | 26,846,336 | 174,083,849 | 18.0881\% |
| 12/31/92 | 174,083,849 | 9,258,071 | 2,769,427 | 135,055 | 11,896,989 | 1,503,162 | 117,862 | -1,355,460 | 17,272,173 | 190,000,562 | 9.9605\% |
| 12/31/93 | 190,000,562 | 9,274,320 | 2,728,107 | 62,742 | 12,573,696 | 1,326,681 | 186,607 | $-2,021,815$ | 24,849,967 | 212,828,714 | 13.1489\% |
| 12/31/94 | 212,828,714 | 9,238,967 | 2,646,225 | 60,643 | 13,254,585 | 1,338,486 | 297,357 | $-2,944,593$ | -3,197,363 | 206,686,758 | -1.5128\% |
| 12/31/95 | 206,686,758 | 10,629,702 | 2,921.784 | 214,735 | 13,119,259 | 1,368,009 | 863,462 | $-1,584,509$ | 43,229,352 | 248,331,601 | 20.9959\% |
| 12/31/96 | 248,331,601 | 9,858,968 | 2,761,098 | 159,681 | 13,135,573 | 1,414,345 | 1,687,069 | -3,457,240 | 33,571,866 | 278,446,227 | 13.6137\% |
| 12/31/97 | 278,446,227 | 9,063,207 | 3,036,531 | 44,423 | 13,785,309 | 1,458,386 | 460,082 | -3,559,616 | $44,255,400$ | 319,142,011 | 15.9959\% |
| 12/31/98 | 319,142,011 | 8,739,480 | 3,481,930 | 93,077 | 14,045,949 | 1,465,548 | 162,565 | -3,359,575 | 39,783,953 | 355,566,389 | 12.5319\% |
| 12/31/99 | 355,566,389 | 5,532,936 | 3,717,531 | 798,061 | $15,128,484$ | 1,633,925 | 286,607 | $=7,000,488$ | 27,236,487 | 375,802,388 | 7.7362\% |
| 12/31/00 | 375,802,388 | 6,044,588 | 3,237,744 | 883,698 | 16,260,880 | 1,701,048 | 828,404 | $-8,624,302$ | 4,731,448 | 371,909,534 | 1.2736\% |
| 12/31/01 | 371,909, 534 | 6,369,982 | 3,289,714 | 136.633 | 16,224,519 | 3,150,264 | 1,317,841 | $-10,896,295$ | -12,222,626 | 348,790,613 | -3.3353\% |
| 12/31/02 | 348,790,613 | 6,665,119 | 3,500,753 | 632,479 | 18,167,527 | 3,152,822 | 1,082,938 | $-11,604,936$ | - $23,149,025$ | 314,036,652 | -6.7492\% |
| 12/31/03 | 314,036,652 | 6,648,233 | 3,660,906 | 782,396 | 20,628,009 | 3,276,815 | 335,010 | $-13,148,299$ | 65,492,332 | 366, 380,685 | 21.3009\% |
| 12/31/04 | 366,380,685 | 7,592,093 | 4,771,376 | 144,249 | 20,252,982 | 3,432,714 | 520,140 | $-11,698,118$ | 35,797,958 | 390,480,525 | $9.9292 \%$ |
| 12/31/05 | 390,480,525 | 6,396,358 | 3,642,894 | 591.914 | 22,590,610 | 3,553,237 | 286,029 | $-15,798,710$ | 17,464,439 | 392,146,254 | 4.5649\% |
| 12/31/06 | 392,146,264 | $4,510,813$ | 2,735,241 | 1,188,916 | 32,138.912 | 3,517,039 | 2,042,721 | -29,263,702 | 41,708,472 | 404,591,034 | 11.0482\% |
| 12/31/07 | 404,591,034 | 4.894,439 | 2,986,023 | 779,955 | 28,270,387 | 4,390,096 | 1,563,418 | -25,563,484 | 33,770,375 | 412,797,925 | 8.6191\% |
| 12/31/08 | 412,797,925 | 4.991,193 | 3,429,766 | 632,232 | 28,375,247 | 4,379,663 | 863,952 | $-24,565,671$ | $-120,890,979$ | 267,341,275 | -30.1839\% |
| 12/31/09 | 267,341,275 | 12,614,236 | 3,855,051 | 1,418,335 | 30,342,718 | 3,808,797 | 791.534 | - $17,055,427$ | $59.869,583$ | 310,155,431 | 23.1323\% |
| 12/31/10 | 310,155,431 | 13,031,810 | 3,781,490 | 1,792,875 | 32,158,476 | 3,269,131 | 1,411,074 | $-18,232,506$ | 42,485,923 | 334,408,848 | 14.113\% |
| 12/31/11 | 334,408,848 | 19,917,899 | 4,087,034 | 2,281,255 | 34,784, 101 | 2,856,770 | $1.168,345$ | -12,523,028 | $-4,276,183$ | 317,609,637 | -1.3031\% |
|  | Number of Years | Included: 23 |  |  |  |  |  | -229,761.762 | 413,984,823 |  |  |

[^0]MVBVHIST.R1

| $\begin{aligned} & \text { YEAR } \\ & \text { ENDING } \end{aligned}$ | $\begin{aligned} & \text { ENDING } \\ & \text { MARKET VALUE } \end{aligned}$ | market value INV. PERF. FOR YEAR | Market VALUE MEAN FUND | ACTUARIAL VALUE MEAN FUND | ENDING <br> ACTUARIAL <br> VALUE OF ASSETS | ACTUARIAL ASSETS INV. PERF. FOR YR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12/31/1989 | 146,059,932 | $10.4631 \%$ | 132,776,976 | 134,474,947 | 145,400,919 | 8.5782\% |
| 12/31/1990 | 149,602,231 | 3.7646\% | 145,099,888 | 144,440,875 | 152.159.905 | 6.0087\% |
| 12/31/1991 | 174,083,849 | 18.0881\% | 148,419,872 | 150,977,546 | 158, 285,109 | $5.6233 \%$ |
| 12/31/1992 | 190,000,562 | 9.9605\% | 173,406,119 | 157,607,379 | 165,981,703 | $5.7434 \%$ |
| 12/31/1993 | 212,828,714 | 13.1489\% | 188,989,655 | 164,970,796 | 172,649,085 | $5.2671 \%$ |
| 12/31/1994 | 206,686,758 | -1.5128\% | 211,356,418 | 171.176.789 | 180.625.703 | 6.38014 |
| 12/31/1995 | 248,331.601 | 20.9959\% | 205,894,504 | 179,833,449 | 221,866,292 | $23.8138 \%$ |
| 12/31/1996 | 278.446,227 | 13.6137\% | 246,602,981 | 220,137.672 | 242,897,086 | $11.1240 \%$ |
| 12/31/1997 | 319,142,011 | 15.9959\% | 276,666,419 | 241,117,278 | 270.561.907 | 12.9499\% |
| 12/31/1998 | 355,566,389 | $12.5319 \%$ | 317,462.224 | 268,882,120 | 300,107.935 | 12.2379\% |
| 12/31/1999 | 375,802,388 | 7.7362\% | 352.066.145 | 296.607.691 | 328, 133,916 | $11.8090 \%$ |
| 12/31/2000 | 371,909,534 | 1.2736\% | 371,490,237 | 323,821,765 | 351,735,022 | $9.9516 \%$ |
| 12/31/2001 | 348,790,613 | -3.3353\% | 366,461,387 | 346,286, 575 | 374,022,897 | 9.5829\% |
| 12/31/2002 | 314,036,652 | -6.7492\% | 342,988,145 | 368,220,429 | 384,415,399 | $5.9740 \%$ |
| 12/31/2003 | 366,380,685 | $21.3009 \%$ | 307,462,503 | 370,269,833 | 402,773,504 | 10.5539\% |
| 12/31/2004 | 390,480,525 | 9.9292\% | 360,531,626 | 396,924,445 | 412,486,855 | $5.3943 \%$ |
| 12/31/2005 | 392,146,254 | 4.5649\% | 382,581,170 | 404, 587,500 | $412,970.222$ | $4.0244 \%$ |
| 12/31/2006 | 404,591,034 | $11.0482 \%$ | 377,514,413 | 398,338,371 | 403,370,965 | $4.9366 \%$ |
| 12/31/2007 | 412.797 .925 | 8.6191\% | 391,809,292 | 390,589,223 | 398,490,554 | $5.2954 \%$ |
| 12/31/2008 | 267,341,275 | -30.1839\% | $400,515,090$ | 386,207,719 | 381,604,003 | $1.9883 \%$ |
| 12/31/2009 | 310,155,431 | 23.1323\% | 258,813,562 | 373,076,290 | 387,146,017 | $6.0571 \%$ |
| 12/31/2010 | 334,408,848 | 14.1131\% | 301.039.178 | 378,029,764 | $384,105.611$ | $4.0188 \%$ |
| 12/31/2011 | 317,609,637 | -1.3031\% | 328,147,334 | 377,844,097 | 379,526.159 | $2.1023 \%$ |



[^1]
## EXHIBIT VI

DEMONSTRATION OF AVAILABLE "RESERVE" FOR COST OF LIVING PAYMENTS PURSUANT TO ORDINANCE SECTION 114-204 (7)


ACTUAL
NET EXTERNAL CASH FLOW

| -1,219,781 | 146,059,932 |
| :---: | :---: |
| $-1,920,089$ | 149,602,231 |
| $-2,364,718$ | 174,083,849 |
| -1,355,460 | 190,000,562 |
| $-2,021,815$ | 212,828,714 |
| $-2.944 .593$ | 206,686,758 |
| $-1,584,509$ | 248,331,601 |
| $-3,457,2$ | 278,446,227 |
| $-3,559,616$ | 319,142,011 |
| $-3,359,575$ | 355,566,399 |
| -7,000,488 | 375,802,388 |
| $-8,624,302$ | 371,909,534 |
| $-10,896,295$ | 348,790,613 |
| -11,604,936 | 314,036,652 |
| $-13,148,299$ | 366,380,685 |
| $-11.698,118$ | 390,480,525 |
| -15,798,710 | 392,146,254 |
| $-29.263 .702$ | 404,591,034 |
| -25,563,484 | 412,797,925 |
| $-24,565,671$ | 267,341,275 |
| $-17,055,427$ | 310, 155,431 |
| -18,232,506 | 334,408,848 |
| $-12,523,028$ | 317,609,637 |

hypothetical market value
AT END OF YEAR ASSUMING NO MONE TIME: COLA PAYMENTS AND $3.5 \%$ ANNUAL RETURN SINCE $1 / 1 / 1989$

## ACTUARIAL PRESENT VALUE OF "PERMANENT"

 COLA INCREASES| 137,739,421 | 0 |
| :---: | :---: |
| 141,547,483 | 0 |
| 145,857,665 | 0 |
| 151,086,604 | 0 |
| 155:644,182 | 0 |
| 159,434,091 | 0 |
| 164,770,055 | 0 |
| 168,433,610 | 0 |
| 172,165,263 | 0 |
| 176,238,228 | 0 |
| 176,917,495 | 0 |
| 176,035,428 | 0 |
| 174,259,951 | 9,942,496 |
| 171,703,849 | 553.302 |
| 167,611,905 | 1,240,046 |
| 165,008,200 | 1,831,186 |
| 158,261,537 | 1,643,499 |
| 137.541.913 | 1,816,172 |
| 120,735,131 | 4,366,253 |
| 104,344,953 | 0 |
| 94,451,927 | 0 |
| 82,475,300 | 0 |
| 75,476,525 | 0 |

Number of Years Included:

## CERTIFICATION

The foregoing report presents fairly the actuarial position of the City of New Orteans Employees Retiremen System as of Jnuary 1.2012 in accordance with generally accepted actuarial principles, applied on a basis consistent with that of the preceding valuation, except where noted. In our opinion, the assumptions used in preparing the liabilities and estimated costs are in the aggregate reasonably related to the experience of the plan and to reasonable expectations and represent our best estimate of anticipated experience under the plan.

CONEFRY \& COMPANY, L.L.C.


[^2]V1112.CNO


[^0]:    * "transfers out" includes administrative expenses

[^1]:    Number of Years included:

[^2]:    New Orleans, Louisiana
    May, 2012

