



**Date:** March 23, 2004

**To:** *[Signature]* Members of the Economic Development and Finance Committee

**From:** Gerald R. Miller, City Manager  
Robert E. Shannon, City Attorney *RES*

**Subject:** Workers' Compensation Study

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DISCUSSION

Recognizing that increasing costs associated with Workers' Compensation had to be addressed, the Three-Year Financial Strategic Plan called for an outside review of the City's Workers' Compensation, Occupational Health, and Safety Programs. The goal of the review was to identify operational changes that would result in efficiency improvements and budget savings.

On August 5, 2003, the City Council approved an agreement with Deloitte Consulting LLP to perform the Workers' Compensation Study. The Study has been completed and is attached for your review. The Study includes a comprehensive review of the City's workers' compensation, occupational health and safety functions and makes specific recommendations on changes in operations that, at the end of four years, could result in savings of over \$3 million annually, and over \$4.5 million when recent legislative changes are taken into account. The savings will be predicated on implementation of the best practice procedures recommended in the report.

Representatives from Deloitte Consulting LLP will present the report to the Economic Development and Finance Committee at the meeting scheduled for Tuesday, March 23, 2004, from 2-4 p.m., in the City Council Chambers.

We look forward to reviewing the recommendations with you and have already initiated implementation of the key recommendations.

IT IS RECOMMENDED THAT THE ECONOMIC DEVELOPMENT AND FINANCE COMMITTEE:

Refer the Workers' Compensation Study to the City Council.

GRM:SRM:kdh  
Attachment

cc: Mayor and Members of the City Council

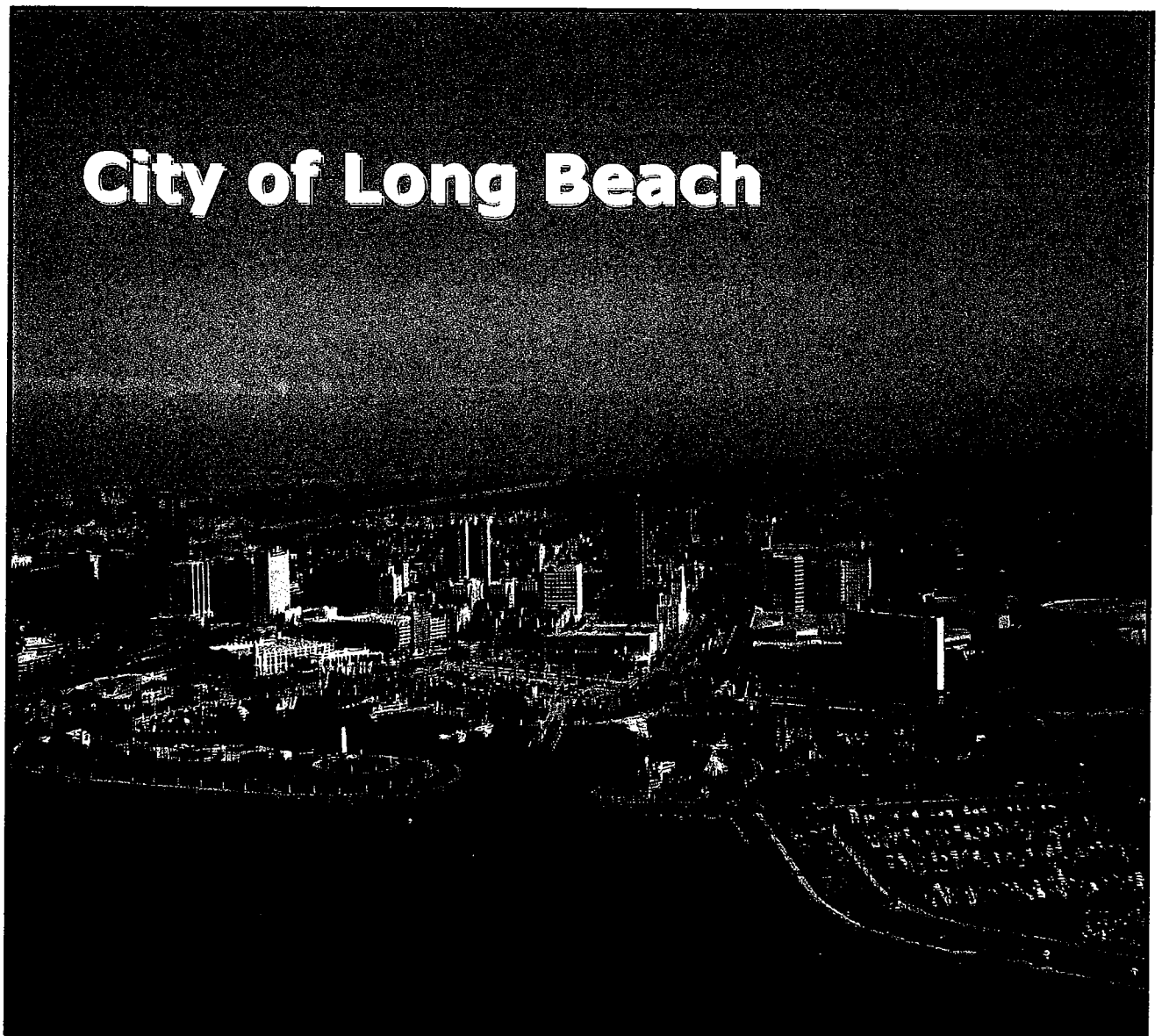
# **Workers' Compensation Assessment & Improvement Project - Observations and Recommendations**

March 12, 2004

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**Deloitte Consulting LLP**

**Deloitte.**



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## **I. Introduction**

### **Project Scope**

Deloitte Consulting LLP (Deloitte Consulting) has been retained by the City of Long Beach (the City) to provide a written report (Report) on the current state of the City's workers' compensation (WC) program and to identify available opportunities to reduce the program's costs and improve its effectiveness. The agreed-upon scope of the project was as follows:

- Report on the current state of the WC program, determine appropriate best practices and identify gaps between current state and best practice.
- Evaluate the effectiveness of the WC program coordination among Human Resources, Risk Management, Occupational Health, Safety, Finance and Claims Administration functions.
- Conduct a claims audit to determine the appropriateness of critical actions related to claims management and claims administrative processes. Identify opportunities to reduce both claims costs and administrative expenses.
- Review the City's existing Risk Management Information System (RMIS) and provide comments on its functionality. If appropriate, complete a needs assessment for a new system and discuss other options available to the City.
- Complete an actuarial analysis to determine the City's appropriate balance sheet liability related to the unpaid portion of its past WC claims and to estimate the City's future WC costs in the next two fiscal years.
- Review legislative changes to the California WC system and discuss what foreseeable impact they will have on City claim costs.

Deloitte Consulting strongly concurs with the City's intention to review all aspects of related programs. WC cost management is a multi-constituent process that requires all parties to follow

through on defined individual responsibilities in a timely fashion. This involves close monitoring of cases and issues, built-in stakeholder accountabilities to comply with documented best practices, adequate management reporting of program results, and a willingness to expend commensurate effort in human resource alignment to bring about meaningful process changes known to impact cost management performance.

To assist the City, our Report is broken down into eleven sections and appendices. This *Introduction* Section summarizes the objectives of the study and describes our data sources, the caveats and limitations of the report, and its intended use and distribution.

**Section II** (“*Executive Summary*”) provides a high-level summary of our study and lays out our findings and recommended changes for the City’s WC organizational structure according to its needs and priorities.

**Section III** (“*Background*”) includes a general discussion / summary of Deloitte Consulting’s understanding of the history of the City’s WC program, the scope of the study, and our approach to completing the project.

**Section IV** discusses the City’s current WC program structure, compares it with leading industry public and private sector organizational practices, and provides recommendations related to the City’s WC structure.

**Section V** discusses the efficiency of the various procedures which the departments and employees usually follow after a work-related illness or injury and the adequacy of the City’s oversight of this process.

**Section VI** discusses our evaluation of the WC claims department as it relates to best practices and outlines areas for improvement.

**Section VII** discusses the Occupational Health Department’s roles and responsibilities within the WC process and outlines our findings and recommendations for improved efficiencies.

**Section VIII** discusses the Human Resource department's role in the WC process. This section also covers the supporting functions of Risk Management and Safety & Loss Prevention.

**Section IX** provides a summary of the Operating Departments' role in the WC process and outlines areas for improvement.

**Section X** provides a summary of the results of the claim file audit.

**Section XI** summarizes the results of a two-day working session with City stakeholders and four different industry-leading claims administration information system vendors. It includes a comparison of the key strengths, weaknesses and potential challenges for each vendor which was compiled from team analyses of product and service demonstrations.

**Section XII** provides the results of actuarial analysis, including estimated WC reserves required as of June 30, 2003, the expected losses to be incurred in fiscal year 2003-04, and the estimated cash payments for the next five fiscal years.

**Section XIII** describes the various benchmarks used by Deloitte Consulting to compare the City's performance across a wide range of activity and results standards. These benchmarks are drawn from public and private entities and include California-specific and national sources.

**Section XIV** provides estimates of potential WC program savings related to both legislative and recommended process improvements. We note that these estimates are subject to significant fluctuation depending on the City's prioritization of issues and allocation of resources to implement the various recommended initiatives.

**Section XV** provides a description of recommended next steps for the City.

### **Caveats and Limitations**

We understand that the City has provided us with all of the relevant information that would materially affect our Report. To the extent that new information is provided, we reserve the right to add or revise comments as appropriate.

The comments, suggestions, and recommendations made in this report are based on our understanding of the California WC regulations as of today. However, if future legislative action materially affects WC benefits or the delivery of such benefits, then our comments and estimates may no longer apply.

Deloitte Consulting has performed the work consistent with the scope outlined in the engagement contract with the City and in accordance with accepted standards of practice for the intended use as described in the **Distribution & Use** section. In preparing this report, it was assumed that persons competent in the areas addressed would utilize the report. Judgments as to the conclusions drawn should be made only after studying the report in its entirety.

Deloitte Consulting staff members are available to explain and/or amplify any matter presented herein subject to the terms in our engagement contract. It is assumed that an authorized user of this report will seek such explanation and/or amplification as to any matter in question.

In estimating the potential cost savings related to changes within the WC program, it is necessary to project future loss and loss adjustment expense payments. It is certain that actual future losses and loss adjustment expenses and any related reductions will not develop exactly as projected and may, in fact, vary significantly from the projections. No warranty is expressed or implied that such variance will not occur. Further, our projections make no provision for the broadening of coverage by legislative action or judicial interpretation or for extraordinary future emergence of new classes of losses or types of losses not sufficiently represented in the City's historical database or which are not yet quantifiable.

In addition, the City acknowledges that Deloitte Consulting's engagement does not constitute an audit made in accordance with generally accepted auditing standards, the object of which is the

expression of an opinion on the elements, accounts, or items of a financial statement. Deloitte Consulting's engagement is limited in nature and does not comprehend all matters relating to the City that might be pertinent or necessary to the City. The report cannot be relied on to disclose errors or fraud should they exist.

### **Distribution and Use**

It is understood and agreed that Deloitte Consulting services may include advice and recommendations, but all decisions in connection with the implementation of such advice and recommendations shall be the responsibility of, and made by, the responsible employees or representatives of the City.

The report's conclusions are developed in the accompanying text, exhibits, and tables, which together comprise the report. This report is prepared solely for the use of the City of Long Beach, and is intended to assist them in assessing its WC program. It is not intended for any other purposes. In addition, because of the specific facts involved, this report should not be provided to, nor relied upon, by third parties. Any other use or distribution of this report must be preceded by our written consent.

This report should be considered in its entirety. If this report is distributed with our consent, it should be distributed in its entirety (with discussions, exhibits, and tables). Deloitte Consulting's project team is available to answer any questions that might arise in reviewing this report.



## **II. Executive Summary**

### **Approach**

Deloitte Consulting's approach to the project followed a logical progression of discovery and documentation of current WC processes and programs, best practice comparisons and gap analyses, and presentation of program enhancements or alternatives where indicated. Our conclusions and recommendations are based on a culmination of a variety of discovery activities including:

- Study of functional work process flows;
- Synthesis of industry best practice research;
- Claims review of 200 individual WC case files;
- Marketplace overview of potential claims administration technology solutions;
- Frequent interaction with City stakeholders;
- Analysis of regulatory WC reform legislation; and
- Actuarial analysis of the City's WC loss experience.

Deloitte Consulting's approach was highly collaborative, working closely with a City Executive Task Force, the Risk Management department, and operational department representatives to ensure that we obtained a clear and complete picture of the current state of WC management throughout the City. We believed that a thorough understanding of program features, departmental idiosyncrasies and process variations, required interactions, and specific challenges was critical to success in identifying high value recommendations.

The overwhelming positive aspect of this project has been the unfailing articulated intention by all parties involved to effect meaningful change, both in enhancement of benefit delivery systems to City employees and in achievement of best practices in cost containment. All City leaders with whom we have interacted over the course of this study revealed an open and honest assessment of the current state and a willingness to consider alternative approaches and practices.

### ***Findings***

The City's specific circumstances reveal a number of WC business systems and process inefficiencies that likely have contributed to escalating WC costs. In our review, we found the following:

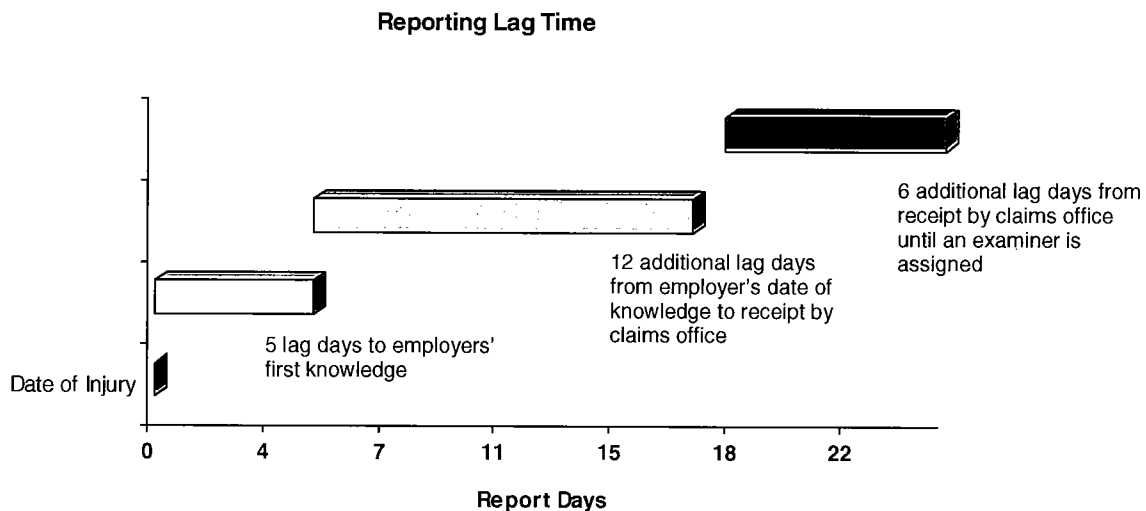
- The City's current WC organization structure lacks the ability to implement change or enforce policies and procedures. Accountability for reasonable cost control among stakeholders is largely absent throughout the City's programs. Management responsibilities for program oversight are fragmented, disbursed and delegated among the various departments / divisions of the City Attorney and City Manager Offices. The City Attorney maintains responsibility for WC claims administration and litigation, while the City Manager has the responsibility for Human Resources, Risk Management, Occupational Health, Return-to-Work (RTW), Safety, and City Operating Departments and attendant budgets. All of these areas are critical to a workers compensation program and, to be successful, they require strong integration. In the City's present organizational structure, there is limited integration among these critical areas.

Neither the City Manager nor the City Attorney is accountable to one another, or to common constituencies. As we understand it, the City Attorney is accountable to the citizens of Long Beach via the election process, and the City Manager is accountable to the Mayor and City Council. This lack of inter-departmental accountability extends through the overall organization where there are few negative consequences for participants in the process who do not act timely, appropriately, and in a cost-effective manner. Statutory guidelines are largely followed, but key benefit delivery systems and cost containment strategies are lacking. This has resulted in a disjointed program that has contributed to escalating costs. Further discussion on this subject can be found in section IV. City Wide Organizational Structure, page 21.

- There is a general lack of defined WC policies and procedures to guide individuals throughout the administrative process, from initial claim reporting through ultimate claim settlement and closure. This results in considerable confusion among claimants and

departmental representatives. Accountability for effective timing and action among constituents is problematic throughout the WC claims process. Further discussion on this subject can be found in section V. Claims Management and Procedures, page 30 of this report.

- The reporting lag time from the date of injury to the assignment of a WC claim examiner greatly exceeds industry acceptable standards. The City has an average claim reporting lag time of 23 days. Several industry studies have determined that the cost of a WC claim increases with the length of this reporting lag. The National Council for Compensation Insurance (NCCI) reports that for every 5 days delay in reporting a claim, the average additional cost is \$3,500. Extrapolation from one major source (The Hartford – 2000) indicates that if the City reduced its average lag time between date of injury and claim examiner assignment from 23 days to one week, claim costs could be reduced by up to 29%. The following graph depicts the City's average lag time from the date of injury to the time the claim is assigned to the examiner. Further discussion is found in section V. Claims Management and Procedures, page 34.



- There is a lack of accountability for follow-through by participants throughout the WC system. Delays in initial claim reporting contribute to claimant confusion over benefits and next steps and likely drives some to retain attorney representation.

- Departments have inadequately staffed certain critical functions which have had adverse effects on the quality and delivery of WC services in certain critical functions (e.g. Occupational Health, Return to Work).
- Without any changes to existing processes and technology, the current staffing model is insufficient to administer claims under industry best practices described in this report. Refer to section IV. City Wide Organizational Structure, page 25 and section V. Claims Management and Procedures, pages 31-32 for further information.
- The WC claims department has not established written claim handling policies and procedures aligned with industry best practices. Refer to section VI. WC Claims Department, pages 41-42.
- The current WC claims administration system is very paper intensive. It is deficient in managing workflows, prompting supervisory intervention, providing ongoing performance measurement and automating highly clerical, low-value functions. Current City technology is a major impediment to effective claims management. Refer to section V. Management and Procedures, page 30 for further information.
- There is no formal medical case management program in place. Medical case management provides assistance to employees in acquiring appropriate medical treatment while containing costs through network utilization and specialist provider referrals, and coordinates communication with the medical community to assist in return to work efforts. Nurse case managers work in conjunction with the examiners to facilitate the medical aspect of the claims process. Refer to section VI. WC Claims Department, page 39 for further information.
- The City's Occupational Health (OH) clinic appears understaffed to adequately support its current service mission. A broad scope of services and constrained resources has created significant backlogs in completing required medical exams, patient chart filings and inter-departmental communications. Routine workflows are severely disrupted by large groups of conditional-hire, pre-placement medical examinations for Police recruits that impact the total delivery of OH services. The police academy's screening process

simultaneously completes both a background check and a medical examination of up to 300 applicants to select approximately only 60 recruits for acceptance into the Police Academy. Past results indicate that less than one percent of applicants are eliminated due to information uncovered in a medical exam and that an overwhelming majority of academy applicants eliminated are due to information discovered in background checks. OH has to outsource other crucial patient services to accommodate Police applicant exams adding additional and otherwise avoidable costs. Attending delays in other services during these “spikes” impact the timing and quality of workers compensation supporting services related to medical treatment and referral, and return-to-work efforts. Refer to section VII. Occupational Health, page 49 for further information.

- Safety management, loss prevention and regulatory compliance training do not appear to be critical priorities among many operating departments. Refer to section VIII. Human Resources, page 55.
- The City’s overall Return-to-Work (RTW) program lacks priority attention, coordination and follow through to ensure its continued success. Refer to section VIII. Human Resources, page 53 for further discussion.
- The methodology to allocate WC costs among the various City departments is reasonable, but it lacks key incentive measures for continuous WC claims improvement. Under the current scenario, the departments are routinely allocated more dollars in the budget to compensate for poor loss experience. The lack of information technology functionality precludes effective and timely measurement of departmental information necessary to establish and track loss-driving indicators. Regular reporting of loss frequency and severity numbers by department, work group, etc. is not in place. Specific goals are not established to drive improved performance. Alternative incentives should be considered that would financially penalize poor performing departments and reward those with good loss experience.
- There is a lack of accountability that is pervasive throughout the organization. The lack of effective coordination at the highest levels is manifested in a lack of accountability to

best practice administration at lower levels. Refer to section IV. City Wide Organizational Structure, pages 22-25 for further information.

### ***Recommendations***

The City can recognize significant cost savings and improvements in its WC program by implementing the various recommendations we have identified in this Report. Although some parts of the current process require only minor adjustment, many require substantial development and/or alteration, change management, and others offer new and innovative approaches not currently resident in the City's programs.

The following is a summary of recommended program changes which we believe will have the greatest impact on the City's WC program:

- They City should consider the option of consolidating all WC-related management functions under one governing City Office. This would not include litigation which is the responsibility of the City Attorney. The governing Office should then assign roles and responsibilities for each major function related to WC Claims Administration, OH, Safety, and Return-to-Work and establish measurable outcomes to create the needed accountabilities in each major function. This new structure will facilitate the close coordination among critical WC areas that is currently absent in the present structure. In our experience with other city's and municipalities, we generally find that the ultimate responsibility of the WC program falls under the chief executive office with oversight of finance and operations (e.g., City of San Diego – City Manager, Miami Dade County Schools – County Manager, City of Miami – City Manager). Establishment of job-specific performance metrics will provide accountabilities to drive improved performance through a centralized executive management structure. Measures of accountability should include compliance to newly established standards, targeted loss frequency and severity reductions, and other specialized programs to target specific departmental needs.
- Engage an integrated managed care services firm to provide nurse case management, utilization review, and preferred provider network services. Deloitte Consulting believes that the City can reduce its WC medical costs by up to 15% through implementation of

these initiatives. Generally the overall cost of managed care services is up to 5-7% of medical claim costs. Therefore, the net estimated savings are projected up to be in the range of 8-10% of medical costs. A recent study by the NCCI estimated the impact of managed care services as follows:

- Claim costs fall 23 percent when medical management techniques are used within three months of the reported injury.
- Claims that underwent medical management techniques closed 27 percent faster than unmanaged claims.
- The average claim cost dropped 22 percent when medical management techniques were applied.

In addition to the reduction of the medical costs, recent industry studies indicates that there would also be a reduction in indemnity costs of approximately 5% as a result of managed care interventions.

- Develop a WC Executive Steering Committee representing the City Attorney, City Manager and City Auditor's Offices. We include City Auditor to provide independent review and measurement of critical system functions. A higher level of coordination is required at executive levels to oversee the re-engineering process.
- Develop, communicate and provide training of written City-wide WC policies and procedures incorporating best practices (via large WC management level committee).
- Remove low-value functions from the OH workflow, allowing more time for performance of core services.
  - The governing City Office is advised to work with City Police Department representatives responsible for recruiting to explore ways to reduce the number of pre-placement Police applicant medical exams completed by OH. Under the current program, the Police Department may schedule more than 300 exams to fill 60 positions or less (240 unnecessary exams). By comparison, Fire may schedule 37 exams for 35 open positions. We recommend that the City consider waiting to complete pre-placement medical exams until after other prescreening criteria is

complexity of infrastructure, and degree of software customization. Data conversion is not contemplated in the estimate as many options are available with respect to which (if not all) data is converted from legacy systems. We estimate a three-year “payback” period for the costs of the new information system tied to improved productivity and enhanced claim outcomes. Associated lost cost savings are estimated at 5% of total claim costs.

- Develop, communicate and provide training for claim adjusters to incorporate industry claims-handling best practices via the governing City Office responsible for the WC program. Best practices will lead to more efficient and timely claims handling.
- Initiate an Accelerated Claims Closure Project. This project is a formal review of all open claims with prolonged periods of inactivity. Based on our claims review, we believe that 15% to 20% of current open claims could be either closed or moved to an inactive status. This will assist the claims staff in achieving a manageable inventory of claims and will allocate more time to active claims where timely intervention can have the greatest impact on cost savings.
- Initiate best practice standards of telephonic 3-point contact on all new claims. 3-point contact requires the assigned claims examiner to make telephonic contact with the claimant, health care provider and employing department within 2 days of assignment of all new lost-time claims. Such contact will result in improved benefit delivery to claimants and reduction in attorney represented claims.
- Shift the focus of the WC Claims Manager from claims handling to more strategic management of the WC Claims department.
- “Change Management”: The communication of policies and procedure changes and training requirements must be effectively communicated throughout the organization to effectively implement change. This is most effective when you have a centralized reporting structure where all departments or function report to the same governing City Office.



- Deloitte Consulting believes that the City will be best served in the long term (3+ years) through the in-house retention of WC claims administration. There may be short-term (<3 years) savings available through out-sourcing. Savings may include the avoided cost of a claims administration system, expected immediate improvement in claim handling resulting in lower loss costs, and a proven best practice infrastructure. A considerable risk in doing so subjects the City to fluctuating insurance market conditions as third-party claims administration generally mirrors insurer provided service pricing known to have increased significantly over the last two years. The current California WC insurance servicing pricing environment is in great flux at present and self-administration is largely immune to such volatility. We believe that once the City implements and refines the recommended best practices (including the purchase of a new electronic claims information system) as outlined in our report, the City would be challenged to contract with a TPA for equivalent costs to in-house administration.

It is important to note that these recommendations are subject to organizational tolerances. Each recommended practice, and timing of its implementation, must make sense in the City's context of available resources (both human and financial), and must comply and respond to challenges presented in collective bargaining agreements and civil service requirements.

Throughout all of our conversations, it was apparent that there is a strong commitment among the many City stakeholders to improve the current system. The advantages of implementing these process improvements include:

- Reduction in the costs of work-related injuries / illness claims;
- Improvement in delivery of benefits to injured workers;
- Improvement in the productivity of assigned personnel;
- Automation of low-value claims management functions;
- Standardization of program requirements
- Defined roles and responsibilities to create accountability necessary to drive process efficiencies.

### Actuarial Analysis

Deloitte Consulting's actuarial reserve analysis indicated that the reserves required as of June 30, 2003, for the claims incurred from inception of the self-insurance program through June 30, 2003, to be between \$85.8 million and \$96.4 million on an undiscounted basis. This reserve estimate represents the estimated remaining payments to settle all known claims as of June 30, 2003 and those claims incurred but not yet reported as of June 30, 2003.

As part of the analysis, we also estimated the losses expected to be incurred and paid during the next two fiscal years. The expected ultimate *incurred* losses are estimated to be \$30.6 million in fiscal year 7/1/03-04 and \$32.7 million in fiscal year 7/1/04-05, assuming no cost reductions. The ultimate incurred losses represents the total loss costs for those claims incurred (i.e., injuries which happen) during each respective fiscal year.

The expected *paid* losses are estimated to be \$21.1 million in fiscal year 7/1/03-04 and \$23.1 million in fiscal year 7/1/04-05. The estimated paid losses represent the City's expected loss payments during each fiscal year on all claims, regardless on when the claims occurred.

### Cost Reductions

Recent legislative reforms will advance cost savings initiatives, and in combination with implementation of recommendations contained in this Report, the City is well positioned to reduce new WC losses by as much as eighteen to twenty-eight percent (18% to 28%). If we rely upon the actuarial estimates stated above, the estimated reduction in annual *incurred* losses related to the implementation of Deloitte Consulting's recommendations and the recent legislative reforms could be in the range of \$6 million to \$8 million.

Initially, the City will have to invest in new technology solutions, contract with an integrated managed care services firm, and re-align staffing to those functions we believe are critical to success. Due to the long payout patterns in workers' compensation claims, the City will not see these savings immediately. However, recommendations outlined in this report, when strategically implemented will yield significant savings within a 3-year period. Levels of savings achieved by the City will be highly dependent on City prioritization of recommended actions,

commitment of resources, and implementation timelines and follow-through. Some of the recommendations and strategies are interdependent of other strategies. We want to emphasize that a half-hearted approach will not yield the desired or expected outcomes. The impact of estimated cost savings are discussed in more details in Section XIV. Cost Savings Opportunities, on page 94 of this report.

Deloitte Consulting has utilized major public sector and insurance industry benchmarks to estimate potential cost savings through implementation of refined programs and supporting systems. Ultimate results are subject to the City's prioritization of recommended actions, investment of time and money to implement required changes, and a continued focus on performance measurement.

Recently enacted legislative reforms, and many more currently under consideration, are expected to provide significant and essential relief to employers statewide. Urgent interest has been expressed by the Mayor and City Council to assume a leading role in networking with state public agency associations to continue to develop a coordinated package of proposed reforms. We understand that the City Attorney has initiated orientation sessions with the Council. Although the actual drafting of specific legislative reform language is beyond Deloitte Consulting's project scope, we provide commentary on general areas of proposed and imminent cost containment reform initiatives. We encourage continued interest and action at the highest levels of City government. Workers' compensation reform is a key target of the new Governor, the Legislature and various business groups to provide cost relief to California employers. Estimated potential savings associated with reforms already passed are contained in Section XIV. Cost Savings Opportunities, on pages 95-98 of this report.

California is currently considered the most expensive state in the country for employer coverage of WC costs. A study by the Workers' Compensation Research Institute of twelve of the largest WC exposure states (CA, CT, FL, IL, IN, LA, MA, NC, PA, TN, TX, WI) determined Average Benefit Payment per Claim with More Than 7 Days of Lost Time in 2001/2002. California appears as the highest average at \$25,026. The lack of many systemic medical and administrative controls has driven up costs for both medical and indemnity benefits. A

cumbersome dispute resolution process, a lack of medical utilization guidelines, and increases in wage replacement benefits have contributed to escalating costs across the state in recent years. The City's costs, like other employers', can be reduced through consideration of the following major reform initiatives:

- Movement of the threshold for coverage of cumulative trauma conditions from 1% work-related to work as the predominant cause.
- Removal of the "Presumption of Correctness" of pre-designated treating physicians.
- Establishment of expanded medical utilization protocols and guidelines, to be presumed correct unless special conditions are evident, documented and independently reviewed.
- Cap permanent disability awards to 100% in aggregate.
- Base permanent disability awards on only Objective Findings.
- "Credit" prior disability awards in present/future cases where same major Diagnostic Related Groups (DRG) are involved.
- Allow employers to recoup overages paid to employees for permanent disability that exceed final rating and award amounts.
- Limit employer penalties for late payment to only those amounts that don't meet timing standards.
- Clarify vocational rehabilitation lump-sum benefit qualifications.

Overall program savings are available and attributable to both legislative reform and City WC process improvements. A high-level estimate of savings is included in the following table. Please note that these savings will not be immediate; rather they will occur over time as the losses are paid out. Columns (4) through (7) show the potential savings for the City's workers' compensation payments' expected to be made during each of the next four fiscal years.

**Workers' Compensation Assessment & Improvement Project**

<b>Savings Initiative</b>	<b>Savings Type</b>	<b>% of Savings</b>	<b>Projected Cashflow Savings by Fiscal Year</b>			
			<b>7/1/04-05</b>	<b>7/1/05-06</b>	<b>7/1/06-07</b>	<b>7/1/07-08</b>
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Legislative Reforms (AB 227 / SB 228)	Med \$	12%	260,000	610,000	940,000	1,210,000
Integrated Managed Care Services	Med \$	8%	160,000	360,000	550,000	710,000
Integrated Managed Care Services	Indemnity \$	3%	70,000	170,000	260,000	330,000
Prompt Claim Reporting	Total \$	5%	210,000	470,000	730,000	940,000
Return-to-Work Programming	Indemnity \$	5%	110,000	250,000	390,000	510,000
New Claims Admin System	Total \$	5%	190,000	440,000	670,000	870,000
<b>Total Savings</b>			<b>1,000,000</b>	<b>2,300,000</b>	<b>3,540,000</b>	<b>4,570,000</b>

These estimates are net of the costs related to implementing Managed Care Services. They are gross of the cost of implementing a new claims administration system. The approximate cost to implement a new system is between \$600,000 and \$900,000 initially and an annual cost between \$150,000 and \$225,000.

These savings estimates have been computed for future reported claims only. The City may also experience a significant savings on open workers compensation claims as well. However, we have not attempted to quantify the savings at this point. We recommend that the City revisit this estimate after the recommended changes have been implemented.

### **III. Project Background**

California Workers compensation (WC) laws have been in place since the early 1900s. These laws were created to protect employees and employers when an employee is injured at work. The laws guarantee certain types of benefits when an employee is injured, regardless of fault. These benefits include: medical care to cure the injury; indemnity payments for lost wages and permanent impairments; and rehabilitation services to enable injured claimants to return to work.

Typically, an employer will either fully transfer its risks associated with WC benefits via the commercial insurance market (i.e., purchases insurance), fully self-insure the risks, or some combination of both. Up until 1967, the City purchased insurance from the State Compensation Insurance Fund to cover its WC risks. In 1967, the City began to retain a portion of its WC risk via a self-insurance retention and purchased insurance only to protect itself against the portion of a loss that exceeds the retention (e.g., insure against a very severe injury or catastrophic event). The City's self-insured retention level has varied over the past twenty-six years, usually the first \$1 million, \$2 million, or \$5 million per employee injury.

With a self-insurance program, an employer can either handle claims internally or engage a third party to administer the claims. Since the program's inception, the administration of the City's WC claims has been handled internally by City employees under the direction of the City Attorney's office.

The City's costs for WC benefits have risen dramatically over the past five years due to a convergence of factors including medical inflation, increased utilization, a regulatory system in crisis, and a lack of internal effective claim management cost controls measures. The City should expect to pay about \$21.1 million in WC benefits in fiscal year 2003-04 and, without any changes to the California WC laws, these payments are expected to increase by roughly 7% to 8% per year.

On May 12, 2003, The City issued a Request for Proposal (RFP) for Professional Consulting Services related to its Workers' Compensation Administration. The City desired to engage a professional consulting firm to provide assistance in evaluating its WC Program, Occupational Health function, and related Risk Management programs.

In June 2003, Deloitte Consulting submitted a proposal response to the City's original RFP. Our proposal outlined our understanding of the project scope, our qualifications to complete the project, and our proposed project team. We understand that our proposal was one of several proposals submitted to the City. In September 2003, after a competitive bidding process, the City formally engaged Deloitte Consulting to complete this project.

Briefly stated, the project goal is to determine where there are opportunities to reduce costs and improve effectiveness in the WC program and Risk Management functions. Deloitte Consulting was asked to evaluate and make best practices recommendations in all areas of the program including, but not limited to, the following:

- Organizational Structure;
- Management and Procedures;
- Benefits Provided;
- Evaluation of current Occupational Health Functions;
- Resources currently invested in Prevention, Training, Claims Administration, Program Management and Occupational Health;
- In-sourcing versus out-sourcing; and
- Commentary on legislative reforms.

Our discovery / research period spanned approximately two and a half months from mid-September through the end of November 2003. It included:

- Individual interviews (A list of interviewees and a data and document inventory are contained in an appendix to this report);
- Focus groups with over one hundred fifty people;
- Extensive data and documentation reviews;

- Summary loss analysis;
- Individual claim file reviews;
- Monthly meetings with a multi-functional management level committee; and
- Weekly meetings with a core executive management team comprised of representatives from the City Manager and City Auditor's offices. (A representative from the City Attorney's office was designated as part of the team but was not an active participant in the weekly update meetings.)

This report contains the culmination of a variety of discovery activities that include:

- Study of functional work process flows;
- Synthesis of industry best practice research;
- Claims review of 200 individual case files;
- Marketplace overview of potential claims administration technology solutions;
- Frequent interaction with City stakeholders;
- Analysis of regulatory reform legislation; and
- Actuarial analysis of the City's WC loss experience.

Deloitte Consulting has utilized major public sector and insurance industry benchmarks to estimate potential cost savings through implementation of refined programs and supporting systems. Ultimate results and savings are subject to the City's prioritization of recommended actions, investment of time and money to implement required changes, and a continued focus on performance measurement. Although some parts of the current process require only minor adjustment, many require substantial development and/or alteration, change management, and others offer new and innovative approaches not currently resident in the City's programs.

Deloitte Consulting believes strongly in the recommended actions contained in this report and stands ready to assist the City in its implementation wherever City resources lack the expertise or time required to follow through on specified recommendations.



## **IV. City-Wide Organizational Structure**

In this section, we discuss the current organizational structure of the City's WC program, compare that to leading public and private sector practices, and make recommendations to improve the structure. For ease of reading, we have separated the discussion into two subsections: Citywide organizational structure and Resource Allocation.

### **A. Organizational Structure**

#### ***Findings***

Executive level responsibility for management of WC is widely disbursed between the City Attorney and City Manager. These align loosely as follows:

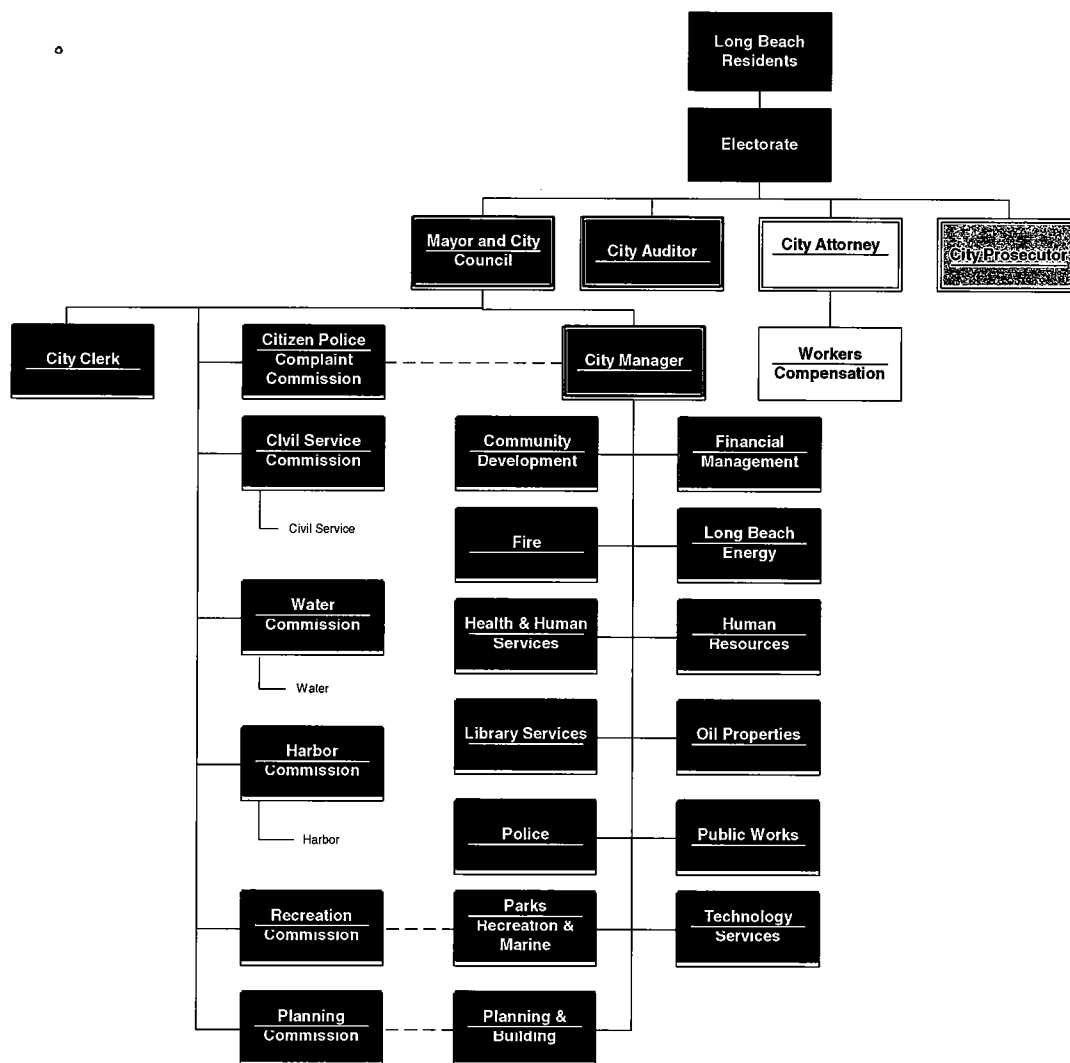
- The City Attorney's Office handles WC claims administration and litigation.
- The City Manager's Office is responsible for operating departments, Human Resources, Occupational Health, Safety functions.

Page 21 shows an organizational chart for the City. The overriding issue which emerged from our review is that the City's current structure lacks accountability for the management of the WC system. Administration and litigation of workers' compensation claims fall under the purview of the City Attorney. The City Attorney is an elected official, and as such, is accountable only to Long Beach residents and Electorate.

The City has many other departments and functions within departments which are involved in the workers compensation process, including Occupational Health, Human Resources, Risk Management, Safety and Loss Prevention, Finance, and representatives from each department. These departments and functions fall under the direction of the City Manager's Office, which is responsible for the proper delivery of WC benefits and the financial outcomes within this process. The City Manager reports to the Mayor and the City Council. The disparity in reporting relationships between the City Attorney and City Manager compounds process inefficiencies and lacks accountability as there is no one person or department head which is held accountable for managing the overall workers compensation process.

To further clarify this issue, City management which includes the Mayor's Office, City Council and City Manager's Office, has no authority to enforce policies and procedures or hold an elected office accountable. To achieve best practices in the delivery of WC benefits and to reduce costs and control financial outcomes, all functions involved in the WC process should ultimately fall under the direction of the same Department head. The proper re-alignment within the current City structure will create the needed accountability to monitor and enforce compliance with best practices. It will also create a structure that will increase coordination, communication and cooperation at all levels necessary to achieve industry best practices in all areas of WC claim management.

### City Organization Chart



The lack of coordination between City Manager and City Attorney Offices results in a highly fragmented and ineffective approach to managing WC losses. The lack of effective coordination at the highest levels is manifested in a lack of accountability to best practice administration at lower levels. As an example, WC Claims Examiners will sometimes make repeated attempts to retrieve necessary records timely from other departments without success. Alternatively, department representatives expressed a “powerless” situation over making changes to claims administration protocols and indicated they have routinely sent WC administration the same information on numerous occasions.

City Manager subsidiary departments have little input and no control over claim strategies (e.g., whether to contest or settle) relating to disputed claims about whether to contest or settle, and if settlement, at what value. We believe that higher levels of coordination, communication and cooperation at executive levels are necessary and that consolidation of functional responsibilities under one governing office should take place.

### ***Best Practice***

Based on our experience, the most effective organizational structures for WC programs have clearly defined the roles and responsibilities for each individual involved in the process, established performance requirements / standards for those individuals, and measurements of their performance throughout a given period against those standards. Furthermore, functions within these organization are aligned to a single area of responsibility. By defining the roles and responsibilities and then measuring performance against those responsibilities on a timely basis (e.g., annual performance reviews), these organizations have established the proper accountability to drive effective behavior and an efficient delivery system.

Large public-sector employers benefit from an executive level WC steering committee whose members represent internal department stakeholder interests. The committee maintains responsibility for advancing new initiatives, implementing policy changes, establishing attendant supporting systems, allocating resources and monitoring overall system performance. Functional responsibility for data gathering, research, procedural change proposals, and issue identification is frequently delegated to a larger committee of stakeholder managers

### ***Recommendation***

The City should consider consolidating all WC related management functions under one governing City Office, either the City Attorney's or the City Manager's, to integrate responsibilities and establish reasonable accountabilities in major functions related to Claims Administration, Occupational Health, Safety, and Return-to-Work. These require close coordination that is currently absent in present structure. This would not include litigation which is the City Attorney's responsibility.

Implement a committee of three, at the assistant level, representing the City Attorney, City Manager and City Auditor's offices to fulfill duties as described in Best Practices above. This committee should be charged with implementing consolidation of responsibility for major workers compensation functions as described above. Effective transitional planning and change management will need to be spearheaded at the executive level and these three Offices are most appropriate to lead the initiative. City Manager and City Attorney Office for resident and legacy knowledge and responsibility, and City Auditor for independent review of the process.

The City has a standing WC study committee at the manager level in which all relevant functions have representation. This committee presents an ideal vehicle to conduct the groundwork necessary to implement work process solutions. However, a newly established executive steering committee should first task the larger management group to validate recommendations contained in this report, distinguish roadblocks to their successful implementation, and identify possible remaining issues that may not be addressed in this report.

## **B. Resource Analysis**

### ***Findings***

Appropriate staffing is a critical issue for the WC Claims Administration, Occupational Health and Safety functions.

- In the claims administration function, we found that the current caseload for some examiners is over 300 claims. This caseload is well above industry standard for effective

management of lost-time cases. It should be noted that these case loads also reflect companion cases some which do not involve lost time and have little to no activity.

- In OH, clinical staff, particularly OH nurses, spend considerable time on administrative and low-value functions that impede their ability to meet core nursing objectives. In addition, Police recruit exams impede smooth workflows and cause delays in providing claims examiners and departments needed information.
- Safety program functions suffer from a lack of sustained commitment in many operating departments. The City has only three full-time employees dedicated specifically to loss prevention and two are segregated to specific departments.

Significant delays are experienced throughout the WC management processes that contribute to increasing costs.

The lack of a fully-integrated, highly functional claims information system has contributed to the claims organizations inefficient and paper-intensive process. As an example, the medical bill review and payment process requires various parties to handle each bill as many as eight times. An integrated information system could afford electronic interface that could eliminate as many as five steps in the current process. This would allow the claims examiners to strategically manage their claims in a proactive fashion rather than the reactive manner in which claims are managed in today's environment. The current system requires hard programming by Technical Services to make even slight changes (e.g. change of injury date).

The claims staff has indicated it is difficult to get approval from management to attend outside seminars or continuing education programs due to budget constraints.

Competencies of staff assigned to respective areas are appropriate in Claims, OH and Safety functions. We make note of particular leaders in essential WC functions.

- The City's Occupational Health Doctor brings critical skills and credentials as a board certified Occupational Health physician with significant prior experience in private industry.

- The City Safety Manager has significant previous experience in City Risk Management administration and Safety management.
- The Deputy City Attorney heading WC Claims has litigated WC cases for an extended period, both with the City and previously with insurance carriers.

Interviews with OH nurses and claim examiners reveal an appropriate level of knowledge and experience to perform at high levels if afforded additional tools and resources.

### ***Best Practices***

Best practices are not by themselves sensitive to budget reductions, nor to available time and resources of resident staff. Deloitte Consulting recognizes that these industry-leading practices must be tempered to accommodate the City's present programs and current budgetary constraints. Our recommendations are made with this in mind. We understand that many required human resources may be obtained through shifting incumbent staff responsibilities and realignment of key positions. Anywhere we make specific staffing or budget increase recommendations, we view these as most critical to program success. We have deliberately avoided making specific suggestions about "nice-to-have" program features and have concentrated our recommendations in major areas expected to have the largest cost savings over time.

Two specific best practices / benchmarks emerge to address OH and WC Claims Administration.

- 1) OH nurses spend at least 85% of their time in direct care and patient education.
- 2) WC claim examiners are typically assigned either indemnity (lost-time) or medical-only claims based on knowledge and experience. Claim caseloads for indemnity claims examiners should not exceed 150 to 160 claims per adjuster. Medical-only (no lost-time) claim caseloads should not exceed 300 to 350 files per adjuster.

### ***Recommendations***

Deloitte Consulting recognizes that the City has had, and continues, to take important steps to reduce budget deficits through staff reductions and realignments, and that this has been a

widespread issue across the state of California for most large municipalities. We are also aware that recommendations made to invest new sums of money for WC program development and improvement must be justified with respect to future anticipated savings.

We recommend that the City re-align its staff resources and consider creating a full-time administrative assistant position in Occupational Health to handle routine filings, basic communications with the medical community and operating departments, supply requisition and receiving, patient scheduling and Occupational Health Manager (OHM) data maintenance. With the exception of OHM maintenance which is not fully functional, nurses currently handle all of the above duties. It is clearly not cost-effective from a resource allocation perspective to pay clinical staff to perform routine administrative functions. These competing interests for nurses' time detract from patient treatment, service and education, which are core objectives of an effective Occupational Health program. Further recommendations to narrow the scope of OH services are presented for consideration in the Management and Procedures section of this report.

In our claims review of 200 cases and the review of summary loss statistics over the prior three years, we estimate that up to 20% of all current open claims could be closed, either officially with the WCAB or with some "administrative" closure designation that would remove these claims from examiners' active caseloads. Currently, many cases lay dormant for extended periods of time with no activity. The Claims department has recently and appropriately begun an initiative to move "lifetime medical" cases away from more experienced examiners to claim assistants. Many of these cases are fairly routine in handling requirements.

We recommend an "Accelerated Claims Closure" project be initiated by the City to reduce current caseloads, validate that the overall book of claims is appropriately designated, and evaluate whether the claims are assigned to appropriate parties. The estimated average caseload per examiner (i.e., 300 indemnity claims per examiner described above) is based on current claim counts and not on the 20% projected reduction in the overall portfolio. We make further recommendations on claim settlement procedures in section VI, page 44, that if accepted, will impact the number of claims subject to closure.

Until the current book of claim designations is cleaned up, Deloitte Consulting is not prepared to make a recommendation to change the current staffing model. Another consideration will be if the City makes a timely investment in an integrated claims administration information system. Examiner and claim assistance associated efficiencies of a new technology solution will also have a major impact, as routine, time-intensive, low-value functions will be automated. However, if, after these tasks are implemented and the number of remaining opening claims still exceed 150 per adjuster, resources may have to be re-aligned to increase claims staff so that the caseload becomes manageable and falls in line with industry norms.



## **V. Management and Procedures / Claims Process**

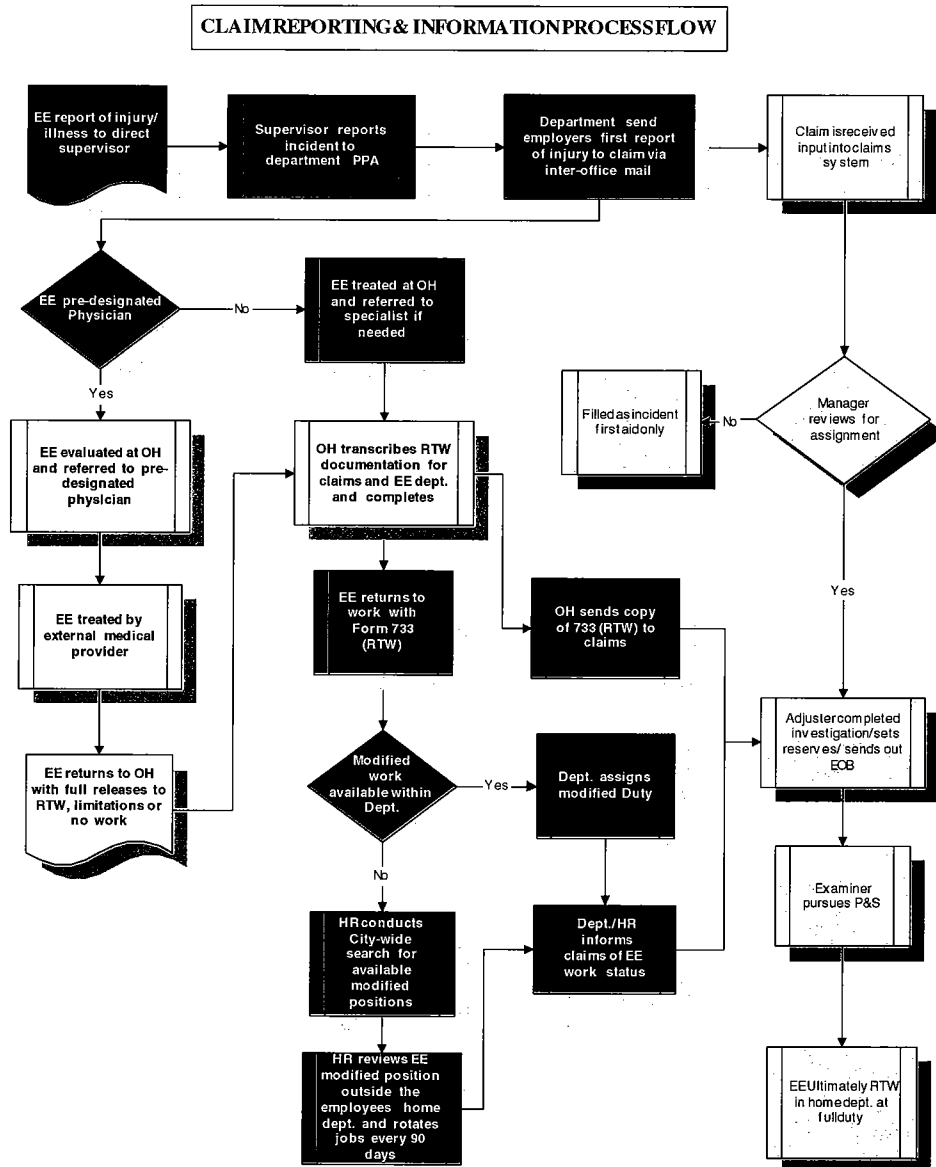
Section V discusses the efficiency of the various procedures which the departments and employees follow after a work-related illness or injury and the adequacy of the City's oversight of this process.

### ***Findings***

There is a lack of designated procedures to guide constituents through the process. Many departments have different procedures for how they report, monitor, and track the claims process. The lack of standardized protocols makes accountability difficult to determine and enforce.

The workflow chart on page 31 depicts a high-level view of the City's most typical, current, non-emergency claim reporting and information process flow among the various City departments and functions. The left side of the chart follows the process where a "pre-designated" physician was selected by the employee. The pre-designation of a workers compensation physician is prevalent throughout the City, particularly among Safety positions (Police and Fire). The center of the map depicts those cases where a particular physician has not been pre-designated by the employee. In such situations, Occupational Health assumes the treating provider role and makes specialist referrals as necessary.

This process map assumes that employees ultimately return to their pre-injury departments and positions. It doesn't apply in cases of moderate to severe permanent disability that precludes an employee's RTW.



Deloitte Consulting believes that there is significant redundancy in the current process that serves to escalate delays in the process with little or no return on significant time invested. We assert that the steps colored in yellow – all involving Occupational Health – could be eliminated. In our opinion, these four steps provide little or no value to the overall process because of the following:

- If an employee has pre-designated a workers compensation physician, OH has no authority to make changes to neither the treating physician nor his or her recommendations.
- Personnel / Payroll Assistants (PPA) or Administrative Officers within operating departments, rather than OH, could assist employees in securing timely appointments with their pre-designated physicians for anticipated medical-only claims where no lost-time is expected. This would give employing departments more flexibility in scheduling non-serious injury treatment during non-work hours. This would free up considerable time on the part of OH nurses.
- We believe that transcription of treating physician RTW notes onto City prescribed forms is an inefficient use of OH's time. Again, departmental administrative staff can likely interpret treating physician return-to-work forms in a more timely fashion and, as necessary, can work with Claims and contact medical providers for clarification. We are not suggesting that departmental administrative staff have access to privacy-protected medical information relating to diagnosis and treatment. Departments need only know what work restrictions are prescribed, for how long, and when follow-up appointments are required.
- OH is not equipped with enough staff to assume an adequate "Gatekeeper's role" when dealing with all City-employee WC claims.

Management of the claims administration organization is also hampered by extensive manual handling of low-value activities and a lack of outcome measurements. For example, communication by claim examiners with claimants is almost exclusively done via written correspondence. Such communication is distinctly "low-touch" and far from best practice. In addition, significant claim reporting delays impede claim examiners' ability to effectively manage cases. The lack of information system functionality of notes and diary functions makes it difficult to follow individual claim histories and hard to hold staff accountable for timing and content of critical claim management actions. A new claims administration system will allow for accurate performance appraisal as electronic files will provide date and time stamps on each critical data entry.

There is a distinct lack of performance measurement data throughout the entire system. This has a profound impact on effective management and oversight of various WC management processes. Basic claims administration functional measurements (e.g. examiner caseloads, open-to-close ratios, average disability durations by diagnosis (ICD9 codes)), easily retrievable in most claims information systems, are not currently available from the City's existing technology. Specific data extracts from the larger system require export to other spreadsheet or database applications for analysis. Typically, departments spend a great deal of time tracking and monitoring their own cases due to the current claims system's inability to produce specific standard monthly reports and the lack of case updates from the Claims Section.

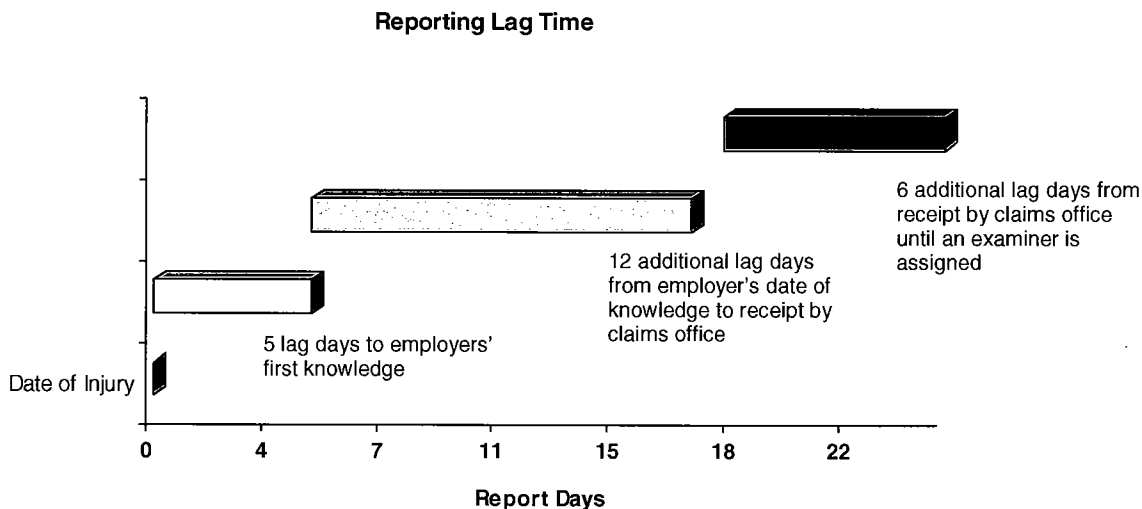
The lack of reliable, easily retrievable comparative data also impedes an otherwise effective cost allocation system. The City currently administers a process where individual departments pay for their own losses. The "loss sensitivity" component of this program is considered a best practice. It ensures that low-loss, high performing departments are not saddled with subsidizing high-loss, low performing departments. In best practice settings, where loss measurement by department is reviewed on a monthly basis, cost allocation programs similar to the City's work well in motivating desired loss control behaviors. However, the lack of ongoing, regular departmental loss analysis by the City causes the program to fall short. Interviewees from many departments and functions indicated that the only relevant impact of the current system is to increase budgets for poor performing departments. There is little motivation to improve loss experience if the cost allocation program inherently just drives bigger budgets for poor performers.

Other forms of incentives should be considered tied to targeted loss reductions. Employing departments retain primary control over return-to-work, a key strategy to improved recovery of injured workers and subsequent cost containment. Departmental targets should be developed to improve on historical loss experience. Performance can be measured in the numbers of lost-time claims and attendant periods of disability. Financial incentives can be tied to both measures.

The City has an average claim reporting lag time of 23 days. Failure to report claims on a timely basis results in higher average costs per claim. The National Council for Compensation Insurance (NCCI) reports that for every 5 days delay in reporting a claim, the average additional cost is \$3,500. The City of Long Beach average claim reporting lag times are:

- 5 days from the date of injury to the date the claim is reported to City department.
- 12 days from date of report to City department to the date City Attorney's Office receives the first report of injury.
- 6 days from the time claims department is in receipt of the first report of injury until the date the first claim note is entered.

The following graph depicts the average lag time from the date of injury to the time the claim is assigned to the examiner.



### ***Recommendations***

Establish a 24-hour claim reporting requirement from the time / date the operating department knows about an injury to the time / date the Claims division is informed. This should be required of all departments and included in newly standardized procedures. Options exist in both telephonic and/or electronic transmission of injury reports.

Our experience tells us that management's increased awareness and attention to specific deteriorating performance metrics yield a proper focus on loss-leading characteristics relating to department-specific work activities, positions, shifts, etc. Through effective measurement, City management can be properly directed in its improvement efforts.

The following subsections provide greater detail on operational observations and recommendations in the major functional areas of Claims Management, Occupational Health, Human Resources, Safety and Loss Prevention, and Operating Departments.

## **VI. WC Claims Department**

Although the WC Claims Section of the City Attorney's office (Claims) retains primary responsibility for claims administration, it is important to note that other City constituent departments play a major role in the process and can facilitate or hinder success in claims management. Operating departments and subsidiary specialties in OH, Safety and HR all have secondary roles in achieving industry best practices for claims administration.

### **Outsourcing**

Claims administration is a common function that many self-insureds choose to out-source to third-party administrators (TPAs). There are significant trade-offs that require examination when making these decisions. The benefits of outsourcing claims administration often exist in professional staffing qualifications and expertise, robust technology enablement, and specialized functional resources when compared to self-administered programs. On the other hand, a general theory holds that any time an organization chooses to contract with an outside entity to perform functions that could be handled internally, the organization will pay a premium for that transfer of responsibility. In addition, a certain amount of program control will, most likely, be lost when an external party is contracted for claims administration. Profit is obviously not an expense issue in self-administration at the City but will necessarily be built-in to any out-sourced solution.

The added expense of third-party administration needs to be weighed against quality of performance in claims administration. Questions to consider include: Do staff competencies vary significantly between the internal claim organization and the TPA? Does claims experience warrant a completely dedicated unit by the TPA to handle only the City's claims? Will staff turnover at the TPA affect consistency in program administration? Other considerations are also important, i.e. if out-sourced, what effect will changing TPAs in subsequent years have on the program, and how difficult will it be to bring administration back in-house if TPA costs become prohibitive?

Employee compensation by position within the WC Claims division is consistent with like positions in other California public self-administered and TPA organizations. Aggregate salary and benefit comparisons are unreliable due to staffing levels (the City's claim examiners' caseloads are twice industry averages) and the lack of technology enablement of the administration process. Out-sourcing of claims administration would displace up to 21 employees of the City Attorney's WC division with associated costs of approximately \$2.4 million per year. These costs are based on aggregate salaries, wages and benefits, materials, supplies and services, internal support and capital as provided by the City's Financial Management department. In order to get an accurate cost comparison, the City would have to solicit bids from the marketplace. TPA costs have increased substantially over the past few years in conjunction with the hardening of the insurance market. Market quotes may also not reflect an accurate comparison, since TPA's will undercut their pricing during the first contract year to secure the business and then raise their pricing substantially at the time of the next contract renewal.

The City currently out-sources medical bill review services and special investigation (sub-rosa surveillance), contracting with Diversified Health Care for bill review and a variety of insurance specialized investigators.

### ***Recommendations***

Deloitte Consulting believes that the City will be best served in the long term by continuing to handle claims in-house. We believe the City would be challenged to contract with a TPA for equivalent costs of in-house administration. However, we further believe that specific improvements need to be made throughout the process to improve the system's efficiency and quality of claims handling. Critical to achievement of improved practices will be a modest investment of an integrated claims administration information system and the implementation of our recommendations. We further recommend that a plan be developed to contract for bundled managed care services of utilization review (UR), preferred provider organization services (PPO), medical case management, and medical bill review services or capabilities to interface with the bill review vendor (Diversified Health Care).



## **Claim Operations**

Many of the process inefficiencies enumerated in this report tie to the City's WC claims division of the City Attorney's office. These are largely attributable to a deficient claims information system, lack of consistent best practice claim handling protocols, general lack of defined policies and procedures and are not generally associated with staff competencies. Through interviews and file reviews, we have found the claims examiners and legal staff assigned to WC to have significant prior experience, knowledge of regulatory requirements, and a strong desire to improve current programs.

The inflated caseloads for claims examiners and a paper-intensive administrative process have combined to contribute to increasing costs. Claim handlers have neither the time nor the proper tools available to achieve best practice standards in claims administration. In addition, the late reporting of claims by operating departments is beyond the control of the Claims division, but it seriously hampers their ability to adequately manage claims. Aligning these functions under one department to enforce compliance in these areas is key to the success of implementing time requirements and best practice claim handling standards.

A critical feature that is missing in the current City WC program is medical case management. In most WC programs of similar municipalities and other public entities, nurse case managers are assigned to relevant cases to assist in gathering required medical documentation, to serve as a liaison with treating physicians, to promote and facilitate the City's RTW program and to act as an employee advocate in acquiring appropriate and timely medical care. In the current program, there is little oversight or control over medical costs. Disagreements with physicians over appropriateness and length of treatment are currently handled exclusively through the Qualified Medical Examination (QME) process. This is a Workers Compensation Appeals Board (WCAB) directed administrative process that has experienced significant delays in adjudicating treatment and disability issues.

Our experience with other California employers has shown us that medical case management can shorten disability periods, facilitate early return to work and play an important role as the liaison

between the medical provider, injured worker and claims examiner. Through early intervention by knowledgeable clinical staff, many QMEs can be avoided and issues resolved without the delay and the adversarial climate associated with litigated cases at the WCAB.

Medical case management services are typically “bundled” with other WC managed care programs, including medical bill review, preferred provider organization (PPO) networks and utilization review (UR). Recent legislation has mandated UR in 2004 for a number of prevalent medical conditions.

### ***Findings***

- Claims administration does not meet best practice standards across a variety of important functions, in part attributable to lack of procedures and deficient technology.
- A recent audit completed on behalf of the Department of Industrial Relations, Division of Workers' Compensation, Audit Unit reported strong compliance with regulatory requirements. This audit focused on timely delivery of required notices and the timely payment of benefits; it did not focus on best practice claim handling or medical management procedures which assist in controlling the overall cost of claims. Our review focused on the latter.
- Inter-departmental communications lack consistency in process and accountability for action. The comments made during our interviews with claims administration staff indicated that operating department management does not consistently, nor promptly, respond to Claims involving routine matters (e.g. claim reporting, inquiries of work status). Conversely, operating departments receive repeated requests from the claims departments after these requests were responded to on numerous occasions.
- Requests made by claims staff and departments are often directed to department heads. The department heads generally do not handle the processing of these requests, thereby creating an unnecessary delay and bottleneck of information.

- Roles, responsibilities and accountabilities for WC management have not been adequately defined, articulated or enforced. The lack thereof has resulted in confusion among claimants, departmental representatives, and claim handlers. As discussed previously, there is a lack of centralized leadership over the entire process.
- Employees who assist in the administration of WC lack performance-driven metrics as part of their performance review process.
- Management and employee representatives expressed strong support of the City's RTW program, but the overall success is compromised by a lack of attention and coordination.
- Communication by claims examiners with claimants is largely confined to written, official correspondence.
- Medical case management of claims is lacking in the present program. We believe that this component of claims handling should be outsourced to a managed care organization, under the direction and control of the claims department. The claims department and adjuster have the ultimate responsibility of the claim outcome. Managed care services are routinely contracted by large self insureds, third party administrators and insurance carriers.
- Claims usually contracts special case investigations to outside vendors. This is understandable in the context of high case loads, but should be a target for more self-reliance as other efficiency recommendations are acted upon. The Claims staff could handle more routine investigation activities such as major database searches and other administrative functions (exclusive of sub rosa investigation) if allowed more time to manage claims and a more strategic approach is taken.
- Technology Services in the past has not responded timely to user ID requests for system access. We understand that recently claims examiners could not get access to the system for an unreasonable extended length of time. We have been advised that current improvements to system access wait times have been addressed and reduced by 80%.

- There are no claim handling policies and procedures for the current claims staff to follow and, more importantly, for new examiners that are hired.
- The manager of Claims focuses a significant amount of his time on claim handling, at the expense of managing and leading the department.

### ***Recommendations***

#### **Program Documentation and Procedures**

- The recommended WC Executive Steering Committee in coordination with the department head responsible for WC claims charge the standing WC Management Committee with development of standardized procedures across departments. This should be done in consideration of a new claims information system.
- The department head responsible for WC claims should assume immediate responsibility for development of a Claims Management Policy and Procedure Manual to clearly define claim handling protocols and expectations. This should also be done in consideration of a new claims information system.
- Develop a WC Coordination responsibility matrix and training curricula for operating department Administrative Officers and PPAs. HR should assume this responsibility exclusive of internal claims administration. There is a strong need for City-wide policy and procedure development.
- Establish both activity- and outcome-based performance standards for city employees who are involved in the WC management process. We believe this is achievable only if all functions involved in the WC process are under the control of one governing office, where accountabilities of supporting functions are clearly established.
- Designate a City Auditor staff member to assume internal audit responsibilities for the WC program for newly adopted claims best practices.
- Designate and formalize legislative reform advocate positions in the City Attorney and City Manager Offices (essentially implemented in both Offices).

## **File Administration**

- Assign new cases to examiners within 24 hours of Claims receipt of notice of loss.
- Consider assignment of claims administration staff to align with specific operating departments to improve consistency in process and establish better inter-departmental working relationships. Currently, claims are assigned according to alphabetic designation of claimant last names. Assignments could be rotated on an occasional basis to expose examiners to all departments over time.
- Initiate best practice standards of “3-Point Contact.” This protocol calls for a claims examiner to make telephonic contact with the injured employee, the initial treating medical provider, and the employing department within 24 hours of claim assignment for all lost-time and modified duty cases. See the Industry Benchmarks and Cost Savings Opportunities for substantiation of 3-Point Contact as a best practice.
- The Manager of Claims should spend less time on individual file handling. Shift the focus of the Manager from handling of individual claims file to more strategic management of the Claims department (e.g., improve process efficiencies, write claims manual, develop staff, create performance measures, etc.).
- Initial communications with a claimant, both oral and written, should clearly delineate the Claim Examiner assigned to the case as the key resource for employee inquiries.
- “Medical-Only” (MO) case files:
  - Establish diary and review criteria for cases involving modified work.
  - Establish a claim-value threshold that escalates MO claims to assignment of experienced claim examiners as these claims can often lead to lost time claims.
  - Complete a supervisor review on all MO claims which exceed a pre-set dollar threshold and/or that extend beyond 180 days. Value thresholds for review are often set at \$5,000 or \$10,000.

### **Ongoing Constituent Contacts**

- Establish a standard for telephoning the injured worker every 14 days during initial periods of disability.
- Establish a protocol for regular communication with operating departments regarding injured status and RTW updates (This could be driven and automated by a new claims system).
- Contact treating physicians every 14 to 21 days to update medical status and to communicate RTW options during periods of Total Temporary Disability (TTD) (in coordination with Nurse Case Manager (NCM)).
- Contact treating physicians every 30 days upon RTW, until claimant reaches P&S status (in coordination with NCM).

### **Claim Investigation**

- Claims examiners should conduct their own case investigations whenever possible with the distinct exclusion of sub rosa surveillance. This should include taking recorded statements from claimants and witnesses as appropriate.
- Continue to forward claims to the Index Bureau to discover past and present claims, establish pre-set criteria for claim submission.
- Develop a "Red Flag" list of criteria for questionable claims to require additional investigation.

### **File Documentation**

- Current information system deficiencies make it difficult for claim handlers to document claim developments. Electronic notes and diaries lack functionality required to effectively record significant claim events and summarize constituent communications. Should the City decide to act on Deloitte Consulting's recommendation to purchase a

new claims administration information system, specific required documentation procedures should be implemented.

- Medical records should be stored in chronological order.

### **Medical Management**

- Medical care drives WC claim results, both in clinical outcomes and financial results. Deloitte Consulting is making substantial recommendations relative to implementation of integrated managed care services. The focus of these integrated programs is on the quality, timeliness, and appropriateness of medical care delivery. The benefits of such programs extend beyond reducing medical costs to improving clinical treatment paths and benefit delivery systems for City employees. In addition, confidence in appropriateness of treatment, expedited and coordinated care has a positive impact on indemnity (wage replacement) costs. Specific medical management recommendations include:
  - Develop a Request for Proposal (RFP) and solicit the marketplace for integrated managed care services to include the following:
    - Preferred Provider Organization of treating and review providers (e.g. Urgent care centers, hospitals, medical specialist networks, AME/QME medical consultants).
    - Utilization Review (both prospective and retrospective). Prospective Utilization Review (UR) refers to clinical review of recommended treatment for appropriateness to condition, often involving pre-authorization of prescribed treatment or surgery. Retrospective UR takes place after the fact where treatment billings unrelated to the WC injury, inappropriate or unauthorized is denied.
    - Electronic interface with Diversified Health Care for WC medical bill review and re-pricing to expedite the payment process.
    - Nurse Case Management (both telephonic and field-based).
- Establish evaluation criteria and bidder scoring matrix with appropriate weighting of desired services.

- Select the best vendor with an appropriate balance of service quality and price.
- Claims should purchase widely accepted Disability Duration Guidelines to assist Claim Examiners in determining appropriateness of length of disability and in estimating indemnity reserves (e.g. The Reed Group's Medical Disability Advisor, and/or Work Loss Data Institute's Official Disability Guidelines).
- Establish internal criteria to govern assignment of cases to nurse case management (e.g. by diagnosis, by length of treatment, length of disability).
- *Medical management and managed care services should be administered through the Claims department and not OH.* This is customary in most claims administration organizations since Claims retains responsibility for any added costs or achieved saving to a file.
- The integrated managed care services provider should be required to demonstrate case impact and cost savings. A standard package of management reports should be developed to summarize allocated resources and their influence on incurred costs.

### **Claim Settlement**

- Claims routinely pay stipulated permanency-of-disability awards consistent with regulatory requirements upon P&S status determinations and disability ratings approved by the Workers Compensation Appeals Board (WCAB). Claims and City Attorney's Office do not however, routinely pursue Compromise and Release (C&R) settlements to "buy out" future medical treatment awards. We view this as a lost opportunity in many cases where claimants are unable to return to work at the City. C&R settlements have been successful with some terminated or retired employees. Many claimants who have not been treated for extended periods and don't expect to, can settle claims for reduced amounts when compared to ultimate potential liabilities of leaving claims open for a lifetime. We recommend that City Attorney legal staff consider expanding its use of C&R settlements as part of an overall claim closure strategy.



- City policies require the City Council to review all settlements in excess of \$5,000. This is a very low value threshold when one considers Claims can authorize six figure medical amounts without third party review.
- Department interviews indicated a lack of communication by the City Attorney's office when settlements are under consideration or being negotiated. Departments have missed opportunities to provide valuable information to the City Attorney's office which may have impacted settlement strategies. Best practices call for escalation and review by increasingly higher authorities depending on settlement value, and input by parties with financial interest (City Manager and departments). As a point of reference, the City of San Diego employs increasing levels of financial settlement authorization by staff levels from claim examiner, claim supervisor, claim manager, risk manager, and city manager (financial management). Employing departmental management is involved in a Claims Review whenever a settlement of any size is contemplated. Interviews with departmental leaders in Long Beach indicated frustration with lack of knowledge as to which cases are selected to litigate or settle (and how those decisions are made), how settlement values are determined and negotiated, and powerlessness over potentially significant impacts on budgets.
- We further recommend review by the WC Executive Steering Committee (earlier recommendation in this report) for all claims with a settlement value exceeding \$10,000. It is suggested that City Council be removed from the approval of low-value settlements and that their threshold be raised to \$15,000 or greater. If the City chooses to keep the current authority levels for purposes of negotiation strategies, we then suggest the city develop different degrees of claims settlement summary forms requiring more detail on claims which fall above \$15,000 and a more simplified process for those valued under \$15,000.

## **VII. Occupational Health**

### **Outsourcing**

Occupational Health services are out-sourced when work backlogs due to Police Recruit exams. Local hospitals and clinics are utilized to assist in treatment of City employee injuries. OH staffing appears stretched beyond its capabilities to fulfill its many service requirements. This is evidenced by three-month delays in scheduling Special Medical Exams, large backlogs in patient chart filings and follow-up correspondence, and lack of full utilization of the Occupational Health Manager (OHM) information system which was installed over six months ago. Deloitte Consulting views a number of functions within OH to be redundant or otherwise of low value to the overall program.

### **Best Practices**

Best practices among self-insured, self-administered employers include out-sourcing of non-core competencies in technical services to assist in claims adjudication and management. Managed care services as described above, along with those for special investigation comprise the most common.

Occupational Health best practices are such that core services are completed timely, clinical resources routinely provide important patient education, and low-value, routine, administrative functions are properly delegated to non-clinical staff.

### **Findings**

Occupational Health (OH) provides clinical treatment and referral for injured employees and administers a variety of employee monitoring programs, many related to the Department of Transportation and Cal-OSHA compliance. OH provides a very broad range of services which include: physical exams for police, fire, peace officer status, various departments, DOT exams and Fitness for duty exams. OH provides, American with disability act (ADA) assessments and recommendations, Medical review officer (MRO) assessments, Retention physicals as well as injury and illness treatments. OH also offers consultative advice to the risk management/safety

program, city attorney/claims department with legal proceedings and participates in the case review committee meetings. Responsibility for OSHA compliance (medical) and bio-terrorism protection of workers also fall with OH. Staffing levels and the lack of supporting systems has severely constrained OH's ability to adequately fulfill its many expectations.

Our interviews yielded a variety of perceptions as to the effectiveness of the City's OH functions. Some opinions were based on personal experience while others were presented to us as prevailing attitudes. Historical issues pertaining to long delays for scheduling exams and communicating results, long wait times at the clinic, a less-than-comforting "bedside manner" by physicians, and a general perception that OH plays the role of the "Company Doctor" (and does not always balance patient advocacy) were the most common critiques. Many were quick to suggest that since Dr Grace's arrival last year that long-held negative perceptions of OH were turning around. To our knowledge, Dr. Grace is the first board-certified physician in Occupational Health to lead the function for the City.

OH staff described a cumbersome and delay-prone medical supply requisition and receiving process. This has resulted in necessary supplies being out of stock, purchasing or borrowing such supplies from local pharmacies, and a lack of patient confidence when required supplies are unavailable.

### ***Recommendations***

Since OH performs many critical employee service functions for the City, we do not believe wholesale out-sourcing of all current OH functions is appropriate. Core basic services related to health monitoring for Cal-OSHA compliance, employee inoculations, initial injury treatment and triage could not likely be performed as cost-effectively by outsiders as administered by the City. However, we recommend removing low-value functions from the OH workflow to allow more time for the performance of OH core services. Costs related to WC in OH are estimated at slightly over \$600,000 for salaries, wages and benefits, materials, supplies and services, internal support and capital. The City would likely find it difficult to hire a more cost-effective provider of OH services.

Deloitte Consulting believes there are redundant and low-value functions currently performed by OH professionals that compete for available resources and impede timely completion of more important tasks. As depicted in the “Claim Reporting & Information Process Flow” in section V, on page 30 of this report, we question the need for OH to officially “clear” WC claimants for RTW when treating physicians have already done so. This applies to both continuing temporary partial disability claimants and those that have reached P&S status. If permanent restrictions are cited for a P&S status claimant by a treating physician, we believe RTW decisions are best handled by the employing department and Human Resources. OH could consult on an as-needed basis. OH transcription of RTW limitations from treating providers is a low-value activity. Both take needed resources away from other activities and tend to accentuate already critical delay paths in claims management and RTW.

Likewise, we question the validity and necessity of completing Special Medical Exams for non-occupational Disability Retirements. Assuming most, if not all, disability retirement applicants are under a qualified physician’s care, we question what value a separate OH exam brings to the process. While OH should review the results of all outside medical exams, a separate exam by OH may not be necessary. A review of Cal-PERS employer requirements for disability retirement determinations reveals no obligation for OH to conduct separate medical exams. We recommend that the Health department re-evaluate the current process and discontinue the Special Medical Exam practice for non-occupational disability retirement unless there is a questionable recommendation or clear benefits can be articulated with an attendant return-on-investment analysis.

Industrial Disability Retirement is available to Safety Members (Police & Firefighters) under Cal-PERS for work-related injuries/illnesses that prevent members from returning to work. Here again, there is no requirement that the employer submit results of an OH medical exam. Cal-PERS program documentation indicates that Cal-PERS will request medical information from the WC carrier (in this case the City). Deloitte Consulting is making recommendations for contracting with an integrated managed care organization (see Claims Management section above). If this recommendation is accepted and implemented, a network of Agreed Medical Examiners/Qualified Medical Examiners (AME/QME) and specialists will be in place that could

replace the current Special Medical Exam function. From an OH image perspective, Deloitte Consulting maintains that if contradictory opinions between physicians regarding a member's disability retirement eligibility exist, the unpopular decisions regarding such important benefits are often better left to outside providers.

Police recruit exams present another process bottleneck. Up to 300 exams per recruiting class are requested by the Police Academy to be completed by within a 16-18 week period. This has a major effect on routine operations and causes temporary out-sourcing of other clinic functions for up to five months while exams are completed. We recommend the City lower the number of required candidate exams and to tighten the process such that applicants must bring medical records with them to OH exams. Concerns have been legitimately raised that question the legality under the Americans with Disabilities Act (ADA) of performing medical exams before conditional offers of employment are made. Currently, a significant amount of time is spent retrieving applicant medical histories that compromise timely exam completion. We encourage OH's continued efforts with the Police Academy to reduce the number of exams and to expedite the medical review portion of officer candidate evaluation.

Deloitte Consulting believes that services related to patient triage and treatment, drug and alcohol testing, immunizations, hearing, pulmonary and other required functional testing are core OH services. It is likely more cost-effective and more customer service friendly if such services are delivered by the City than if out-sourced.

We suggest that the previously recommended WC Executive Steering Committee work with Department of Health & Human Services leadership to redefine the existing scope of services provided by OH and to consider the ramifications of following Deloitte Consulting's recommendations above. Should our recommendation for contracting with an integrated managed care organization be accepted and acted upon, a network of specialist physicians presents many options to supplement or replace existing OH Special Medical Exams.

## **VIII. Human Resources**

Human Resources (HR) maintains responsibility for the City's return-to-work program when temporarily disabled employees are unable to return to their pre-injury jobs. An HR representative is designated to conduct a City-wide search to identify and assign modified work when reasonable accommodation cannot be made in the employee's home department. The program calls for regular monitoring of employees who are assigned outside of their regular department and a formal review and placement in a different position every ninety days.

HR is also responsible for scheduling ergonomic worksite assessments when repetitive stress disorders (RSD) are diagnosed. These assessments are out-sourced to a local contracted resource. Another critical function of HR is scheduling of "Special Medical Exams" (SMEs) with OH. SMEs are currently required for a Disability Retirement determination, and / or to determine if an injured employee can be returned to work after his or her injury has reached Permanent and Stationary (P&S) status.

Human Resources (HR) has critical responsibility for four areas that greatly impact workers compensation management performance:

- Risk Management
- Return-to-Work
- Job Analysis
- Disability Retirement coordination

Each is addressed below. Similar to other departments, HR has experienced constraints in resources due to budget reductions. Lower staffing levels and financial resources have similar detrimental effects on WC benefit administration and cost containment.

*City-Wide Return-to-Work*

HR assumes responsibility for placement of temporarily, partially disabled employees who cannot return immediately to their pre-injury jobs within their department. Structurally, the program meets best practice standards in charging affected payroll to the “home” department and providing incentive for managers to return employees to their regular jobs as soon as practicable. Currently, there is one full-time employee in HR who dedicates approximately 20% of her time to this effort. During our interviews, some departments indicated that they were not aware that this program existed.

We were not provided an exact count of how many employees are currently in the City Wide RTW program; HR estimated that between 70 and 90 employees are in the program at any given time.

Concurring with many of our interviewees, Deloitte Consulting believes RTW is another under-resourced, but important area that impacts both employee customer service and WC cost containment. The program requires that an employee transfer to another position every 90 days to prevent the creation of a permanent modified position. However, we could not confirm that this routinely takes place. This is an urgent need requiring prompt attention. RTW is a key in both employee recovery from injury and in critical avoidance of unnecessary wage replacement. Observations by interviewees that many employees remain out-of-work for days and sometimes weeks due to administrative delays were confirmed in our claims review. Modified-duty job decisions should be routinely made first by the employing department within one day of receiving appropriate work restrictions, and by one day by HR if the department is unable to make a reasonable accommodation. Best practices call for a strong sense of urgency by a central RTW coordinator when injured employees' temporary work restrictions cannot be accommodated within their home departments. The function appears to be under-prioritized within HR and we estimate that proper administration would require half-time of one full-time employee with knowledge and interest in assisting employees and departments with identifying appropriate work. A simple tracking spreadsheet/database should be developed to prompt

transfers as required, track follow-up medical re-checks on restrictions and to document modified-duty dates and placements.

### *Job Analysis*

HR is responsible for scheduling worksite assessments and job analyses in all cases where repetitive stress disorder (RSD) diagnoses, cumulative trauma or other ergonomic conditions are indicated. The majority of cases are related to repetitive motion conditions such as carpal tunnel syndrome and epicondylitis (tennis elbow). Job analysis is out-sourced to a local vendor with appropriate ergonomic and rehabilitation expertise, if there is no essential function job analysis (EFJA) for the classification in question. Typical worksite improvements include bio-mechanical education, desk and chair adjustments and replacements.

Interviewees indicated excessive delays of up to 6 months to a year in scheduling on-site workplace assessments. There are some cases where employees remain out-of-work during this period. In other situations, the departments have to staff positions with overtime employees paying time and a half, thereby increasing operational costs. We view these delays as excessive and avoidable under most circumstances.

We recommend that HR develop internal policies and procedures outlining its time requirements to respond with actionable steps. HR should develop a process whereby the vendor responds within three days when an employee has not returned to work. The program calls for individual assessments by employee and not by job title or classification. Deloitte Consulting believes there is significant redundancy in the present program and recommends HR review the current "bank" of job analyses by position and EFJA where available to determine where similarities exist to cross reference these for future use. Although there will be occasions (due to special conditions) when the job analysis must be completed on an individual basis, we maintain that a majority could fit a general profile. This approach will also assist in the development of detailed physical requirements of essential job functions by position. We further recommend that these should be shared with treating physicians so that they can make informed decisions citing an employee's work restrictions. This accountability needs to be managed and measured and



included as part of the performance review process for the individual responsible for this process.

**Disability Retirement Application**

HR retains primary responsibility for scheduling Special Medical Exams for both service-related and non-occupational disability retirement. HR coordinates necessary employer information, assists employees in retirement applications, and deals directly with Cal-PERS on determinations. As recommended in the OH section of this report, we urge further study by responsible parties in HR and Health and Human Services of the benefits associated with conducting SMEs in all cases. The study should measure concurrence and variance between treating physician and subsequent OH disability permanence determinations. General administration of disability retirement applications appears to be compliant with Cal-PERS requirements.

**A. Safety and Loss Prevention**

The City Safety Manager reports through Human Resources. The lack of functionality in supporting risk technology has precluded the effective identification of loss trends and monitoring of other relevant performance measurements that are common in most RM settings. The lack of information system support has likewise complicated safety performance reporting. A new software solution (OHM) has been fully implemented in the Safety department that will probably address most, but not all, reporting requirements. However, departmental access to OHM has been problematic since installation over six months ago, and OH, the primary intended user, has not fully implemented all relevant modules of the program.

Safety programs within the City are coordinated centrally by the City Safety Officer but lack commitment and follow-through at departmental levels. The City Safety Officer (reporting through Risk Management and Human Resources), directs all City-Wide loss prevention activities exclusive of Water and Harbor departments. The Safety Officer relies on two full-time Safety Officers in Parks, Recreation & Marine and Energy departments and volunteer Safety Coordinators within all other departments (who have other full-time job responsibilities) to carry out the various regulatory compliance, accident prevention and training initiatives.

During the interviews, there was a strong consensus that safety responsibilities are delegated too far down the accountability ladder within departments to carry enough “clout” to ensure safety program compliance in a number of areas. Among the departmental safety coordinators, there is a significant variability in skill sets and competing priorities. The entire group meets on a monthly basis to review program performance, coordinate upcoming safety-related activities and highlight emerging trends in accident experience. Deloitte Consulting attendance at the September Safety Coordinators meeting found the group highly interested and properly focused on accident prevention.

The City-Wide Safety Program is comprised of a variety of loss prevention and risk management initiatives to address both physical hazards and safe work behaviors. All City locations are scheduled for routine workplace Safety Audit Inspections on a rotating basis. These are completed by the City Safety Officer with participation of the appropriate Safety Coordinator. A written audit report is then sent to department management. The City Safety Office maintains a spreadsheet log of departments and locations, contact names and numbers, inspection dates, dates of audit reports and dates of department responses. This is considered a best practice for physical workplace inspection.

The audit reports require a written response to address remediation efforts to eliminate hazard exposures identified in inspections. However, we note that, as of August 18, 2003, 19 of the 41 inspections completed in 2003 failed to file follow-up reports to the City Safety office. One is still outstanding from 2002. This validates the perception that Safety is not elevated to its proper priority within many operating departments and communication may not be directed to the right level within the organization.

The City Safety Officer has spearheaded a new initiative with the WC management committee to reduce the paperwork and improve workflows related to initial reporting of injuries and illnesses. He is working with the Claims Manager to assure that all, and only relevant, information is gathered and reported.

Effective Safety Management includes Cal-OSHA regulatory compliance related to injury/illness record keeping and required safety trainings as determined by work exposures to injury. The City Safety Officer concurs with Deloitte Consulting that these are minimum standards of performance. Cal-OSHA record keeping is maintained at the department level with report to and guidance by the City Safety Office. Safety uses the Occupational Health Manager (OHM) software to generate summary OSHA reports but finds the system deficient in its ability to capture hierarchical information relating to individual workplace locations within departments.

Safety trainings are coordinated by the City Safety Officer, and departments are required to schedule appropriate employees for relevant sessions. Because there are a variety of curricula targeted at specific audiences, this is a large undertaking. 2002 records showed approximately 6,000 training participants across the spectrum, and 2003 shows approximately 11,000. Training is conducted by both the Safety Office and outside vendors. Until recently compliance with safety training requirements has been substandard. Department heads have undertaken increased efforts at completing all required safety training and establishing regular schedules for ongoing compliance. Training curricula appropriately address Cal-OSHA compliance, common workplace hazard identification, personal protective equipment (PPE) requirements, ergonomics, and behavioral safety management.

Analysis of overall safety performance is rooted in avoided workplace accidents, and loss frequency has improved over the last year. The lack of regular reporting of departmental financial loss data complicates Safety's mission to educate operations managers in effective loss avoidance and mitigation. This is largely a result of inadequate reporting functionality of the claims administration system. The City Safety Officer serves in an internal consultant role and is under-utilized in that capacity. We expect that as loss-cost performance reporting is improved, and attendant accountability is established within departments, that the skills and expertise of the City Safety Officer will be more proactively solicited by serviced departments.

Safety resource allocation is unbalanced in its present structure. The two departments with full-time dedicated safety professionals (Parks, Recreation & Marine and Energy) are afforded greater expertise and responsiveness than other departments with greater injury exposure and

loss experience, most notably Police and Fire. Ideally, the largest departments should have their own dedicated professional safety staff. Given the present budget constraints, we respectfully decline to make specific additional staffing suggestions. We do, however, recommend that the two existing full-time Safety Officers be redeployed centrally under the direction of the City Safety Officer. Under this recommended re-structuring, City Safety staff should be re-assigned to multiple departments, based on departmental size and needs. This will afford a better span of control, improved reporting relationships and enhanced spread of safety expertise across the City.

## **B. Risk Management**

The Risk Management function is largely confined to insurance procurement. The major responsibilities include marketplace solicitation, self-insured retention determinations, bidder evaluation and selection, and financing of programs. Historically the Risk Manager's position has been filled through internal transfer of administrative managers, and the City has not required significant prior RM professional experience or common industry certifications. This is not unusual in public sector clients.

The current Risk Manager appears to be meeting present requirements and expectations. She is active in learning risk management through self-education and industry seminars and is highly motivated to improve the City's performance. The lack of an integrated risk management information system compounds a lack of overall strategy and direction for risk management City-wide. Best practices in RM call for a robust system that can extract and summarize data across a wide spectrum of elements to provide direction and assistance to departments in preventing and controlling losses. Our recommendations for a new claims administration system should provide this needed functionality.

The lack of strategic risk management programming is not an urgent need and does not require immediate reconciliation. The WC management committee and others involved in this project will ensure proper focus is maintained on performance improvement. We recommend that the City consider adding professional risk management qualifications to the Risk Manager Candidate profile.

## **Risk Financing**

Beginning with a comparison of self-insurance versus risk transfer through traditional insurance, the City has been well served over time in its self-insurance program. It has been a stable program that is largely insulated from commercial insurance market conditions that have driven employer premiums to rise significantly. This is particularly true in the current “hard” insurance market where coverage may be limited and premiums at least doubling over recent years for many large employers. The City’s exposure base and claims experience is of sufficient scale to create a favorable self-insurance setting. At a high level, with other administrative costs of WC coverage being equal, self-insurance will likely continue to be less expensive than fully-insured programs offered by commercial carriers over time.

## **IX. Operating Departments**

Individual operating departments have a major role in the reporting of injuries / illnesses, accident investigation and completing corrective actions, and coordinating modified duty jobs within the department whenever possible. We noticed that the programs across the departments lack standardization, and that late reporting of claims is a recurrent problem in most departments.

### ***Best Practices***

In industry-leading practices, WC program constituents are held accountable to defined timeliness provisions and quality standards of critical claims management actions. Non-compliance results in issue escalation to superiors. Some of these actions may include:

- Holding injured employees responsible for immediate reporting of work related injury/illness;
- Supervisory and administrative compliance with functions related to claim reporting, accident investigation, safety management and return-to-work;
- Claim examiner adherence to best practice protocols; and
- Timely completion and documentation of Occupational Health exams.

Through individual performance appraisal systems, parties are held accountable to defined standards. Often incentive programs are implemented to motivate specific behaviors.

### ***Findings***

At a high level, the current organizational model is appropriately aligned among the various departments responsible for WC management and is common among large public sector employers. Reporting relationships of Safety, Occupational Health and Risk Management, through Human Resources to the City Manager's office is typical in large municipality settings. The City is self-insured and self-administered for WC, and claims administration falls under the purview of the City Attorney. It is common in our experience to see claims administration

organizations reporting through Risk Management, Legal, Finance, or Human Resources departments.

Although alignment of major responsibilities is appropriate, process inefficiencies among all parties have developed over time that yield significant delays in claims management, and return-to-work (RTW). Injured employees are often not aware of required next steps in the overall claims process from clinical treatment and modified-duty assignment, through claim settlement and closure. Examples of these inefficiencies include:

- No formal training is standardized and provided to Personnel and Payroll Assistants within operating departments to guide the administrative processes of claim reporting, accident investigation reporting, and RTW.
- Roles and responsibilities are not defined between the examiner and department personnel involved in the process which sometimes creates confusion and complacency.
- Communications between claim examiners and claimants are primarily through written correspondence, a “low-touch” and slow overall process.
- Accountability for compliance to required procedures is lacking throughout the system.
- Safety program and training compliance do not receive appropriate prioritization in many operating departments.

All of the above contribute to adverse effects in claim outcomes and increased costs. In addition, process inefficiencies are exacerbated by less-than-optimal staffing levels in critical functions, most notably in OH, HR and WC Claims. We believe that a lack of staff in critical areas has created justification, or legitimate excuses, for specific inability to achieve best practice standards.

### ***Recommendation***

We recommend that the management level WC committee assemble all department-required documentation for accident reporting and investigation and the return-to-work program.

Through a full review of present requirements, a standard set of protocols can be developed that will apply to all injured employees, supervisors/managers, Administrative Officers, and Personnel/Payroll Assistants. Although minor variations will exist in departmental requirements, the goal remains to standardize processes to the greatest extent possible. Employee performance appraisal systems should be reviewed to ensure that WC program compliance is properly weighted in relation to other fiscal responsibilities.



## **X. Claim Audit**

### **Claims Review Summary**

Deloitte Consulting has completed a WC claim file audit of 200 claims. As part of the initial study, Deloitte Consulting agreed to conduct a claim file review of fifty (50) cases. An additional 150 claims were included to meet the California State Association of Counties (CSAC) Excess Insurance Authority (EIA) claim audit obligations. In addition, we incorporated EIA specific questions to the appropriate fields in our best-practice assessment database to satisfy EIA audit requirements. A key deliverable of the Claims Review is a completed database along with a template that the City can use in internal quality assurance reviews into the future.

Deloitte Consulting has developed a bank of industry best practices for both claims handling and employer participation in the claim process. When measuring the city's performance, we compared the city's practices to these established best practices. The following section details the best practices for each major category in our review and provides our findings and recommendations. Note that the percentages cited below refer to the 200 claims studied.

### **Case Reserving**

#### ***Best Practice***

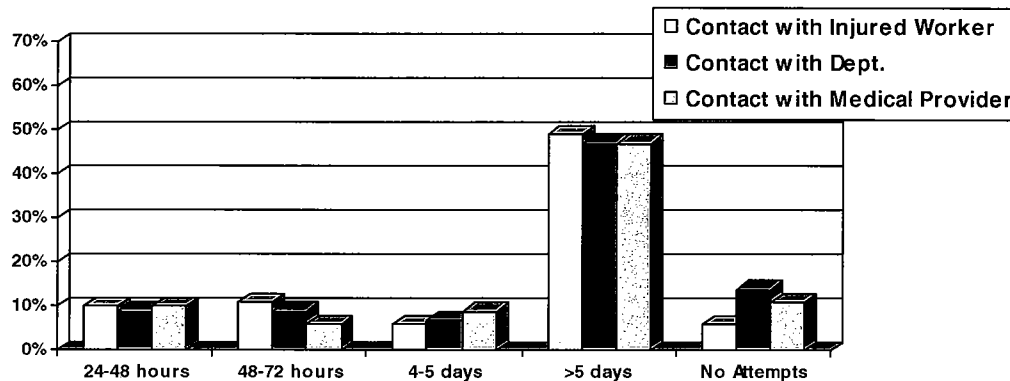
Reserves should not be set in anticipation of the best or worst possible result, but should reflect the probable outcome based upon both known and reasonably foreseeable factors. Reserves should be systematically estimated and well documented according to anticipated costs of medical, indemnity and expense. They should be reviewed on a regular basis and adjusted whenever an event occurs that affects the material value of the claim.

#### ***Findings***

- The documentation explaining how reserve estimates are calculated is not routinely addressed in the claim file notes.

- In over 45% of the cases, contact with the injured worker, departments, and medical provider was not made until 5 days after receipt of the claim.
- In over 10% of the cases, no contact was made with the departments or medical provider.

The following graph depicts the time frame parameters in which contacts were made.



### ***Recommendation***

Require that telephonic three-point contact be made within 24 hours of claim assignment on all lost-time claims and any medical-only claims involving modified duty. Immediate contact is the examiners' greatest opportunity to establish rapport with the injured worker and investigate injury circumstances with the employing department.

Three-point contact should be made on all claims, involving lost time or modified duty, to determine if the medical condition of the injured worker requires medical case management and to monitor the claim for potential lost time. Deloitte Consulting recognizes that current staffing levels and lack of technology preclude full implementation of this recommendation at present. We present it as a best practice that should be phased in as resources allow.

### **Claim Investigation**

#### ***Best Practice***

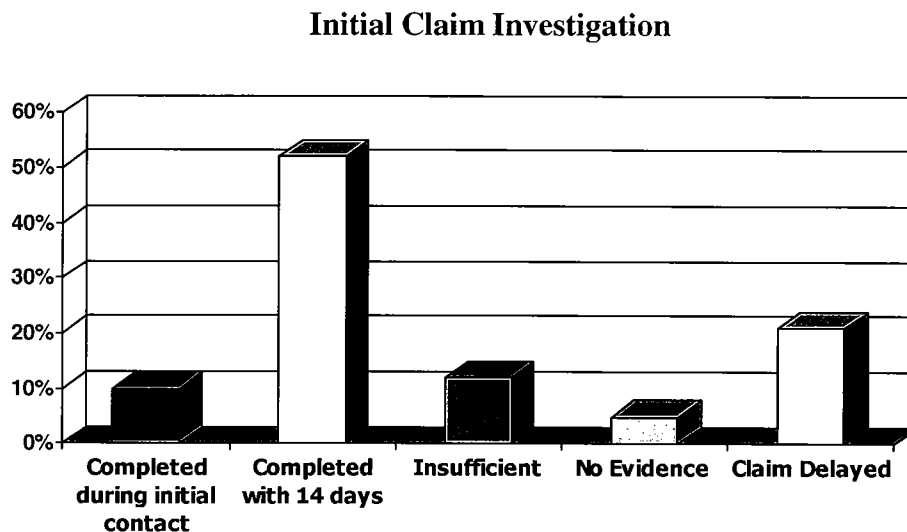
Investigation involves determination of issues regarding compensability (work related), apportionment (pre-existing or caused by another accident), or subrogation potential, and the causal relationship between injury and treatment plan. The necessity for investigation beyond the three-point contact should be identified based either upon the information provided in the injury report or obtained during initial contacts. Investigations may include, but are not be

limited to: recorded statements of the employee, interviews of supervisor or witnesses, concurrent employment discovery, personnel records review, on-site inspections, photographs, police reports, court records, medical records review; index bureau reporting, prior WC claims review. All indemnity claims should be reported to the Index Bureau.

### ***Findings***

- Investigation was completed in 52% of the files reviewed within 14 days of receipt of the assignment.
- Statements were taken of the injured employee on cases involving issues of compensability or indications of questionable causation in 87% of the files reviewed.
- Claims were reported timely to the Index Bureau in only 46% of the files reviewed.

The following chart depicts the time frames in which the investigation was completed:



### ***Recommendations***

Develop investigation criteria for all new claims. In our review, we found that the claims examiners are capable of completing an initial investigation of claims. However, 29% of the files reviewed indicated that either investigation was insufficient or there was not evidence of

investigation noted in the file. We recommend the establishment of “red flag” criteria which would trigger the need for investigation.

These red flags may include claim characteristics such as:

- Late reporting;
- New hire;
- Prior claims;
- Questionable claims; and
- Personnel or performance issues.

We would also recommend requiring that indexing be completed on all indemnity claims and medical only claims that are converted to indemnity. The index bureau is a national reporting agency where insurers report all injury claims. This allows you to determine if there were any subsequent or over lapping injuries or accidents where the injury might have occurred.

### **Subrogation / Recovery**

#### ***Best Practice***

In cases where an injury is caused by a third-party, a timely evaluation and pursuit of recovery should be made by the examiner within 10 days. Further, apportionment and/or other credit or recovery opportunities should be identified and pursued whenever possible. The statute of limitations should be preserved and the necessary complaint filed to protect subrogation and recovery if needed.

#### ***Findings***

- In cases involving a third party and a subrogation potential exists, we found that the third party was notified within 10 days with the City’s right to subrogation and recovery in 58% of time.
- The statute of limitations was preserved and the necessary complaint was filed to protect subrogation and / or recovery on 100% of the files reviewed where this was applicable.

### ***Recommendations***

Standardize subrogation identification and pursuit time frames.

- Initial identification of subrogation potential should be recognized and follow-through activities completed.
- Specific standards should be developed to assure that in addition to the timely identification of third party liability, the appropriate actions are completed to assure statutes are preserved.
- Develop protocols for identification and follow through on apportionment issues.
- Additional training of the claim staff will be necessary to aid in the identification of potential apportionment, as well as an understanding the appropriate information needed for its pursuit.

### **Medical / Disability Management**

#### ***Best Practice***

Medical Management / Cost Containment best practices include, but are not limited to: medical bill audits/fee schedule reviews, periodic receipt and review of medical reports, establishment and utilization of preferred provider networks – including direction to these providers, pre-certification / pre-admission review, retrospective utilization review, and assignment of nurse case management according to pre-set protocols. Medical reports are obtained and reviewed prior to payment of bills. Bills are reviewed in accordance with the fee schedule. Other considerations in disability management best practices include proper and timely use of AME/QME, aggressive pursuit of return to work, timely assignment of telephonic or field nurse case manager and/or vocational rehabilitation manager, and timely pursuit of maximum medical improvement and P&S status.

#### ***Findings***

While Claims is effective in referring all bills to review and in obtaining medical reports prior to payment of bills, there is inconsistent use of other cost containment strategies, resulting in low

scores in many of the categories. For example, second surgical opinions are not routinely obtained prior to authorization. In addition, utilization review is not considered on cases where there is extensive treatment, such as physical therapy, and direction to PPO providers was not noted.

- Examiners pursued early return to work, when applicable, in only half of the cases.
- Limitation on work restrictions were obtained within 2 days following each doctor visit to assess the extent of disability and RTW options in only 10% of the claim files reviewed.
- The examiner pursued and made the request for P&S status on 45% of the claim files reviewed.
- The adjuster utilized the AME/QME process and pursued where appropriate in 76% of the claim files reviewed.
- Utilization review was completed, when appropriate, for excessive treatment in only 10% of the claim files reviewed.

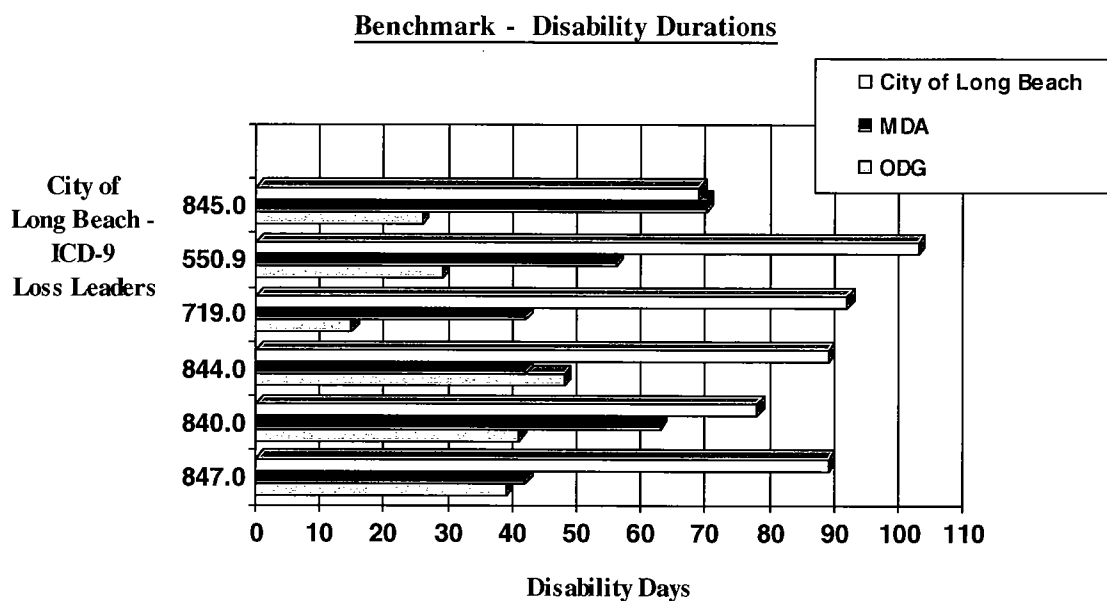
### ***Recommendations***

If the City acts on Deloitte Consulting's recommendation to contract with an integrated managed care services provider, then specific protocols will need to be developed to govern the assignment of specific resources (e.g. nurse case management, utilization review). In particular, a matrix of service assignment "triggers" should be established to identify what claim characteristics (e.g., diagnosis, treatment plan, duration of disability) will prompt what resources when, and for what duration, before formal review is required.

**Disability Durations Benchmark study**

As part of our Claim File Review, we captured disability durations and diagnosis codes (ICD-9) in order to compare City experience to nationally recognized disability duration guidelines. The following displays the City's top 6 disorders and their average disability durations from our review, compared to the Medical Disability Advisor ("MDA") and Official Disability Guidelines ("ODG") average disability durations.

Top ICD-9 Loss Leaders Identified in the Claim Audit	City of Long Beach Average Number of Disability Days	(MDA) The Medical Disability Advisor (4 <sup>th</sup> Edition, Presley Reed, MD, 2001)	ODG Official Disability Guidelines (7 <sup>th</sup> Edition, Work Loss Data Institute, 2002)
845.0 - Sprains & Strains of Ankle & Foot	69	70	26
550.9 - Inguinal Hernia	103	56	29
719.0 - Joint Disorders	92	42	15
844.0 - Sprains & Strains of Knee or Leg	89	42	48
840.0 - Strains & Sprains of Arm	78	63	41
847.0 - Sprains & Strains of Back	89	42	39



The Official Disability Guidelines (ODG) published by the Work Loss Data Institute, is an evidenced-based reference for return-to-work standards. Return-to-work “Best Practices” guidelines are based on national norms as obtained from OSHA (Occupational Safety and Health Administration), CDC (Centers for Disease Control), and NHDS (National Hospital Discharge Survey), representing over 3 million cases.

The Medical Disability Advisor, (MDA) is also organized by ICD-9 diagnoses. Produced by the Reed Group, the MDA is in its 4<sup>th</sup> Edition with its 1<sup>st</sup> published over a decade ago. The MDA provides disability duration tables that are physiologically-based. Durations reflect both actuarial experience and expectancy figures for normal recovery from a medical condition, injury, or procedure. MDA duration guideline tables provide minimum, optimum and maximum recovery time by job classification.

### **File Documentation**

#### ***Best Practice***

Best practices related to file documentation require that all significant events and activity be recorded in claim file notes. File notes should reflect a chronological record of claim activity throughout the life of the claim. Recorded statement summaries and the examiners’ evaluation for acceptance, denial or delay of a claim should be documented. Information regarding work restrictions/modified duty and medical management efforts should be included. File documentation should also reflect supervision, as indicated by the complexity of the case. Supervisor entries should provide a set of detailed instructions to the examiner when appropriate and should assure timeliness of benefits and pursuit of appropriate claims management strategies.

#### ***Findings***

We recognize that claim note functionality within the present claims information system is deficient when compared to industry standards. Therefore, our findings and recommendations should be considered with this in mind.



- All file activity is documented in the claim file notes in only 3% of the claim files reviewed. There is a lack of consistency in the files reviewed regarding the quantity and quality of file documentation. Much of the file documentation is too brief to determine claim history, current status of the claim, and future actions needed to reach resolution. All of these components of file documentation are essential to assess exposure on the claim, as well as to determine the examiners' ability to effectively resolve claim issues.
- The examiner reviewed his/her file at least every 45 days in only 33% of the claim files studied. 67% of the files had documented examiner activity greater than every 45 days.
- We found that the supervisor monitors significant activity on the files at least every 120 days in only 20% of the files reviewed.

### ***Recommendations***

Require that all pertinent activity that occurs on a claim file be documented in claim file notes. The claim staff should be trained and made aware of the appropriate use of file documentation, with emphasis on the need for clear and concise documentation. Full compliance is likely not achievable without new technology and reduced caseloads.

### **Payments**

#### ***Best Practice***

State forms and DWC notices must be timely and accurate and this applies to payment of benefits as well. Prior to payment of any benefit to the injured worker, the examiner should investigate and document what information was used to determine the timing and amount of the benefit. Prior to payment of Temporary Disability, the Examiner or Claims Assistant must contact the physician to confirm the benefit is due. In addition, they should contact the department to determine if modified work is available at the time and to verify the employee is still off work. The examiner and assistant must maintain a diary of all claims receiving disability or Vocational Rehabilitation benefits. Medical billing should be processed though bill review, reviewed for correctness, and paid within 45 calendar days of receipt

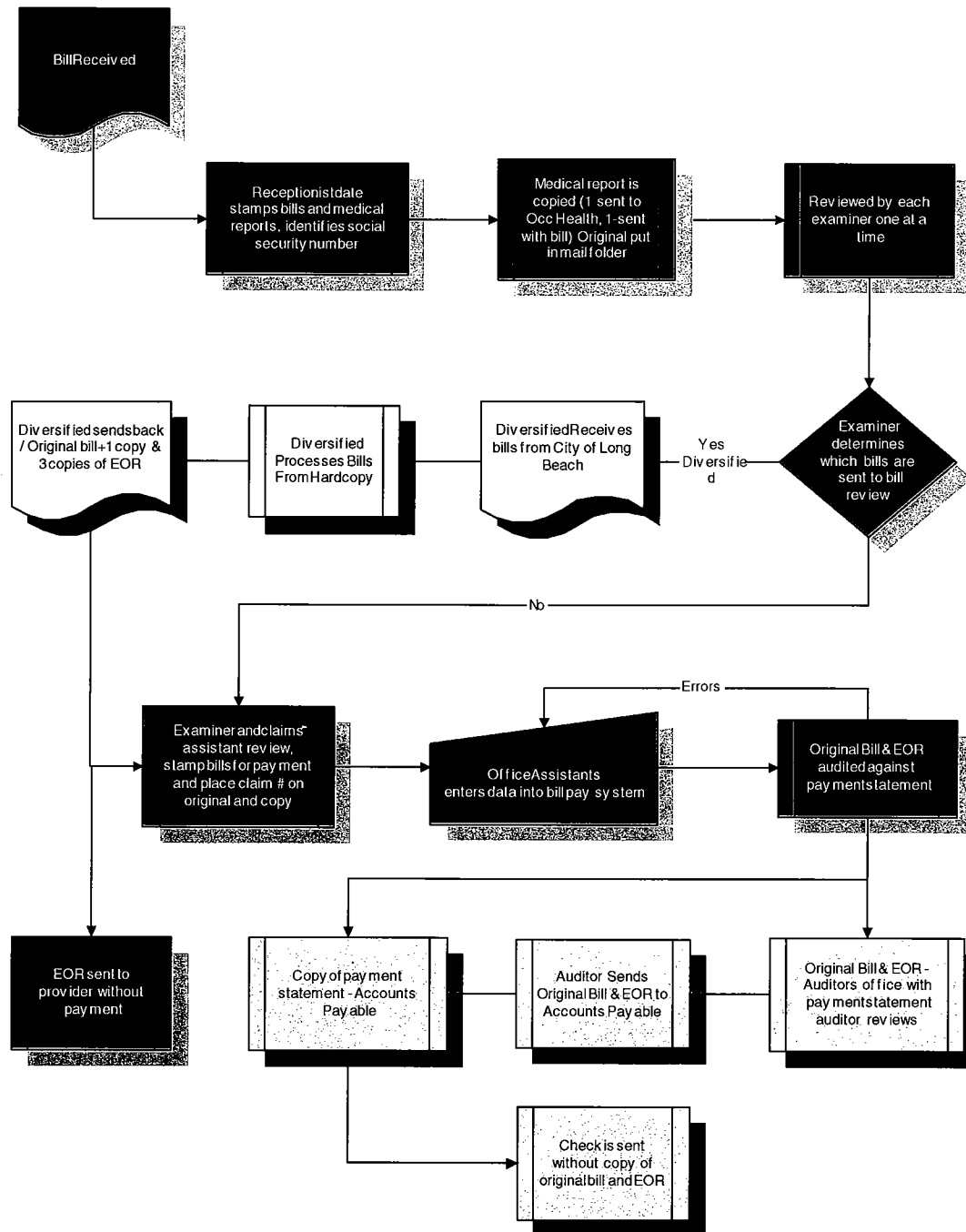
***Findings***

- Initial indemnity payments were issued and mailed to the employee within 14 days of disability with the completed DWC benefit notice on 94% of the files reviewed.
- Medical treatment billings were matched to the file, reviewed for correctness, approved for payment and paid within 60 calendar days of receipt on 86% of the claim files reviewed.
- Written notification was sent within 30 days for all contested medical bills (e.g., bills which are incomplete or denied) on 82% of the files where applicable.
- The bill review process was utilized in 97% of the claim files reviewed.

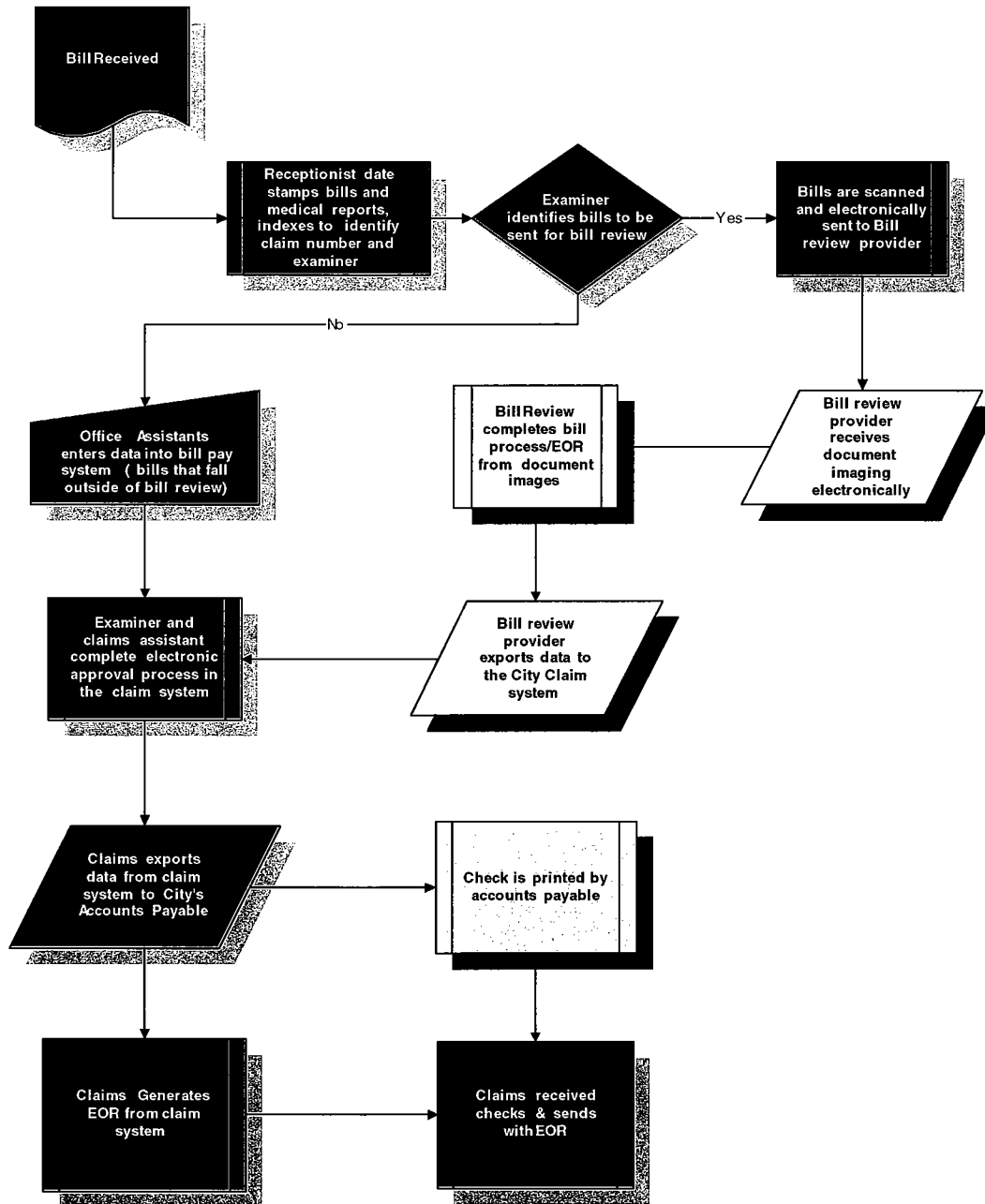
***Recommendations***

Re-engineer the bill pay process if a new claims information system is implemented. The following process flow charts depict the current “as is” process compared to “best practice.”

**BILL PAYMENT PROCESS "AS IS"**



BillPaymentProcess"BestPractice"



## **Action Plan**

### ***Best Practice***

A claim file should contain a current and thorough plan of action that outlines the strategies to move toward resolution and closure. This plan of action should be continually updated as factors change. Follow up on open action items should have a future diary and documented in the claim file notes.

### ***Findings***

- Only 14% of the files reviewed contained an action plan to resolve outstanding issues to bring the claim to resolution.
- The file contained evidence of follow up on open action items in only 20% of the claim files reviewed.

### ***Recommendations***

Develop guidelines for documentation. When files are reviewed for diary, the examiner should be prompted to document the file appropriately. They should address their current actions and explain the action plan they intend to follow to move the case towards resolution. These guidelines should be monitored during the supervisor's review to ensure quality and uniformity. Implement a Supervisor Diary. The supervisor should be monitoring all cases where there is significant exposure to the case or complex issues. Criteria should be developed for necessary supervisor involvement according to incurred values of cases, disability duration thresholds and pre-selected diagnoses.

## **Communication**

### ***Best Practice***

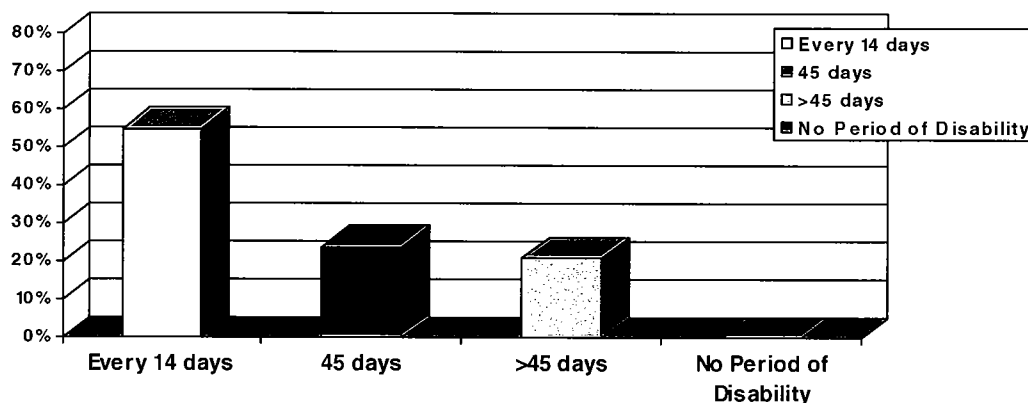
Best practices related to communications include telephone contact, written correspondence, and/or electronic correspondence to inform program constituents of expected actions, obtain P&S or work restriction status and make general inquiries, etc. Communication among the following parties is highly recommended: claimants, treating doctors, nurse case managers, outside investigators, City departments and attorneys. Consistent and frequent communication

with the injured worker should be maintained during periods of disability at least every 14 days. All correspondence received has the date of receipt, clearly stamped on the front side. Correspondence requiring a written answer is completed and sent within 5 working days from receipt.

### ***Findings***

- Many of the form letters currently utilized are inappropriately worded and some have incorrect first person references. Regulatory-required communications are appropriately contained in outgoing correspondence, but in general, additional City provided language could be “softened” to portray a more humanistic and empathetic approach.
- Communication was maintained during periods of disability at least every 14 days in 55% of the files reviewed.

The following graph depicts the time frame in which communication was maintained during periods of disability:



### ***Recommendations***

Develop and follow protocol for claimant contact every 14 days while injured employee is on TTD. The contact can verify that there is extended disability and inform the claims examiner how the injured worker is progressing with treatment. Once the injured worker has returned to work, the contact should be initiated at least every 30 days, unless the examiner can document why a longer diary is necessary. This assists in monitoring the P&S status and any potential extensive medical treatment or additional TTD issues.

Develop practice of explaining delays and denials to non-represented injured workers. Explaining the process and why an action has occurred will further educate the employee about the WC process and what is happening with the claim. The implementation of this process is directly linked with a reduction in representation and litigated files.

### **Litigation Management**

#### ***Best Practice***

Based upon established protocols and file complexity, there is prompt assignment to defense counsel. "Assignment" includes an outline of the issues, direction on immediate activities to be completed by defense counsel, and clarification of the activities to be maintained by the claim examiner. Additional investigation, information gathering and AME/QME scheduling is handled by the examiner whenever possible. Defense counsel provides periodic and appropriate status reports that reflect current and future activities on the case, as well as recommending strategy for resolution and closure. Finally, the file should reflect a timely follow up by the assigned examiner and attorney on recommended activities.

#### ***Findings***

- Additional investigation, information gathering and scheduling continued to be handled by the examiner in 86% of the files reviewed.
- The examiner completed a transmittal letter to defense counsel outlining the current status and outstanding issues of the case in 55% of the files reviewed.

- The examiner acted on defense counsels' recommendations timely on 71% of the files reviewed.

### ***Recommendations***

Especially since electronic documentation is so limited in files, examiners should complete a transmittal memorandum to defense counsel summarizing the case and outlining current issues that need to be addressed.

### **Settlement / File Closure**

#### ***Best Practice***

Once the examiner receives final determination, it is processed within 10 days from receipt. Payments on undisputed awards, commutation, or C&R are issued within 10 days following acceptance of appropriate documents. Upon proper documentation of conclusion of treatment, full RTW in pre-injury positions, regulatory compliance with claim closure requirements, and full settlement of all future liability, claims should be officially closed in the system and outstanding reserves reduced to total amounts paid. Timely closure is critical in establishing confidence in numbers of claims in the overall loss portfolio.

#### ***Findings***

- Out of the 200 claim files audited, we found numerous files which lacked recent activity. We estimate that 13% of the claims we reviewed could have been and still may be processed for closure.
- The following is a list of claims that should be considered for closure:  
20020168, 20020634, 20020688, 20020704, 20020758, 20021023, 20030010,  
20030295, 20030365, 20030436, 20030517, 20030644, 20030646, 20030648,  
20030661, 20030672, 20030712, 20030719, 20030767, 20030784, 20030810,  
20030818, 20030868, 20030931, 20031033, 20031070
- The examiners took action steps to close claims within 10 days from receiving medical information indicating that a claim can be finalized in 39% of the claim files reviewed.



- Payments on undisputed awards, commutations, or C&R were issued within 10 days following receipt of appropriate documents in 88% of the files reviewed.
- In about two-thirds of the files reviewed, the examiner notified the employee's department of his or her permanent work restrictions so that the department can determine the availability of permanent modified work.
- The examiner notified the injured worker of their potential rights to rehab benefits, and after 90 days of aggregate TD the examiner pursued the treating doctor to determine "Qualified Injured Worker" (QIW) status in 74% of the files reviewed.
- The examiner made attempts to secure the prompt conclusion of vocational rehabilitation benefits and settle rehab, where appropriate, in 53% of the files reviewed.

***Recommendations***

Diaries should be maintained and claims reviewed at least every 45 days to validate case status and so appropriate letters of inactivity can be sent out to administratively process and close out files where appropriate.

## **XI. Risk Management Information Systems – RMIS/Lab Marketplace Overview**

Section XI is a compilation and summary of the key strengths, weaknesses and potential challenges for each vendor presented during our two-day RMIS/Lab session in November 2003. The main objectives of this session were to provide a marketplace overview of leading claims administration information systems, expose interested parties to enhanced functionality, and support the City in its Risk Management Information System (RMIS) decision making process. The information included is based upon feedback from the combined City / Deloitte Consulting Team, system attributes or deficiencies noted during the software demonstrations, and Deloitte Consulting's experience with the respective software packages.

Four industry-leading claims administration information systems were previewed. In order to protect vendor confidentiality we have referred to these vendors as A through D:

- Vendor A
- Vendor B
- Vendor C
- Vendor D

These four vendors were selected because, in our experience, they have delivered quality products to their customers in the past. We note that this list does not represent the entire group of potential vendors. Rather, we believe these four vendors would showcase the different approaches to the RMIS issue. Certainly, if the City proceeds with an RFP other vendors should be included and would be expected to respond. If there is an Enterprise Resource Planning solution (ERP) being deployed in other parts of the City that may add some additional interface requirements to the RMIS issue.

The information below is presented in two views. The first is a high-level comparative vendor matrix that compares each vendor to the other based key functionality factors. Following the comparative matrix, there is a section on each software vendor that contains text commentary on

the software solution along with a high-level matrix of each vendor's key strengths, weaknesses and opportunities / threats (SWOT). The SWOT analysis was an exercise completed by session participants immediately following each system demonstration.

### Comparative Vendor Matrix

	Vendor A	Vendor B	Vendor C	Vendor D
<b>General Evaluation Criteria</b>				
▪ Integrated RMIS	3	3	2	4
▪ Flexible Database	2	2	5	3
▪ Web Accessibility	3	4	5	5
▪ California WC Experience	4	5	3	5
▪ All Coverages Processed-WC, GL, AL, Property, Prof. Liab	4	4	3	4
▪ Public Sector Experience in CA	4	4	3	5
▪ Scalability	3	3	3	3
▪ Security Levels	3	4	5	5
▪ Audit Tracking	3	5	4	5
▪ Years of Experience	4	5	2	4
▪ Reporting Capability	3	4	3	4
<b>Total</b>	<b>37</b>	<b>43</b>	<b>38</b>	<b>47</b>
<b>Key:</b> Scoring: From 5 (very favorable) to 1 (very unfavorable)				

Note: These scores are based on Deloitte Consulting's experience with the vendors' ability to deliver successfully in each of these areas, and their level of experience in installations similar to the City's setting.

### Supporting Considerations:

- **Flexible Database:** Oracle or MS SQL is available from Vendor A, C and D. Vendor B utilizes a proprietary DB, Universe.
- **Web Accessibility:** Each vendor's claims to be web accessible. Vendors C & D have built their systems using JAVA and represent the true Browser-based applications.

- **California WC Experience:** Each vendor has California workers' compensation experience. B & D vendors are based in California, vendor A was formerly based in CA. Vendor D resides in Utah.
- **All Coverages:** All vendors offer the ability to process multiple coverages. Vendor C is beta-testing its Property and Liability claim process and several workers' compensation reports. Vendors A, B & D have experience in multi-line processing claims. Vendors B & D offer separate modules for management of non-occupational disability claims.
- **Scalability:** All products reviewed are capable of handling the volume needs of the City.
- **Security Levels:** All vendors handle their claim security through "groups." Vendor B allows security to a limited number of fields.
- **Audit Tracking:** Vendors A & C track to a log, and record changes by Date, Time, Original Value, New Value, and User on any field a customer requests. Vendor B tracks the same information, but is limited to certain fields. Vendor D, if requested, will track certain field changes by placing key information into Notepads. This Vendor does not have a log from which you can run reports.
- **Years of Experience:** Vendor b has 25 years of experience in the Insurance Industry with 12 California based customers. This Vendor has converted several California-based systems. The County of Los Angeles has been on this vendors system since 1986. Vendors C & D have 8 years of experience with California customers. Vendor A originated in California and has been in business 17 years.
- **Reporting Capability:** All vendor products are open data base connectivity (ODBC) compliant, provide many standard reports, and have the ability to schedule reports. Crystal Reports is included in the packets from vendors C & D. Vendor B offers Create-a-Proc with the packet, with English Wizard and / or InfoMaker for an additional cost. Vendor A uses a proprietary reporting tool. Vendor B offers "WebAdHoc" which is an internet application for Ad-Hoc report writing. This vendor also offers WebOSHA which is an internet application allowing users to view and print OSHA Logs, and WebIPS for

incident reporting through the web. Vendor D offers internet publishing of reports in a PDF file.

- **Interface experience:** Vendors B & D have significant experience in developing complex interfaces to internal systems.

**Strengths, Weaknesses, Opportunities/Threats Analysis (SWOT)**

**Vendor A**

Strengths	Weaknesses	Opportunities/Threats
<ul style="list-style-type: none"><li>• Interfaces</li><li>• Web Based Entry</li><li>• Check Writing</li><li>• Filenet</li><li>• Bill review</li><li>• CA experience</li><li>• Reports</li></ul>	<ul style="list-style-type: none"><li>• Client/Server setup required</li><li>• OSHA locations</li><li>• Real-time interfaces</li></ul>	<ul style="list-style-type: none"><li>• Ownership Question: small company, privately held.</li></ul>

**Vendor B**

Strengths	Weaknesses	Opportunities/Threats
<ul style="list-style-type: none"><li>• Customization &amp; Carry Forward – Fixability</li><li>• Workflow</li><li>• Reporting Tool-English Wizard</li><li>• Flexibility</li><li>• Perm Disability Packet</li><li>• Jurisdiction Updates</li><li>• Citrix</li><li>• Mature references</li></ul>	<ul style="list-style-type: none"><li>• UDB vs. Oracle or MSSQL</li><li>• Limited Web Users</li><li>• E-mail capability question</li></ul>	<ul style="list-style-type: none"><li>• Privately held, many large clients may control product direction</li><li>• Conversion to new DB may create difficulty for them to continue.</li></ul>

## Vendor C

Strengths	Weaknesses	Opportunities/Threats
<ul style="list-style-type: none"><li>• Web Based</li><li>• Customizable</li><li>• Crystal Report Writer</li><li>• Work Station Support</li><li>• Honest</li><li>• DB2, on mainframe?</li></ul>	<ul style="list-style-type: none"><li>• Leading edge</li><li>• Workflow</li><li>• Staff Size</li><li>• Incomplete reporting package</li></ul>	

## Vendor D

Strengths	Weaknesses	Opportunities/Threats
<ul style="list-style-type: none"><li>• California Experience (CSAC)</li><li>• Oracle</li><li>• Navigation</li><li>• E-mail</li><li>• System Admin</li><li>• No third-party reporting package</li><li>• 6 level hierarchy</li><li>• customizable</li><li>• Medical Dictionary</li><li>• Business Rules</li></ul>	<ul style="list-style-type: none"><li>• Imaging</li><li>• Non claim related diary</li></ul>	

The core need of the City remains technology enablement of claims administration functions. Other RMIS applications that could also be improved include the following elements:

- *Single point of Entry:* All incidents, claims, and near misses should be entered into a common database with multiple views to satisfy the needs of the stakeholders. There are many methods to achieve this. The overriding theme needs to be consistency.
- *Interfaces to other internal and external data systems:* It appears that a large group in the City's Tech Services department is involved with supporting legacy applications for specific departments, which were not being met by the City's current RMIS infrastructure. There appears to be a large amount of duplicate data storage and maintenance.

- *RMIS reporting:* This is extremely difficult in the current infrastructure. Timeliness and accuracy of data are key to identifying trends and responding with appropriate measures. Data edits to prevent bad data from entering the RMIS reporting database should be minimal requirements.
- *Compatibility with the City IT Master Plan:* Regardless of what application or solution set is employed for the City, the integration with the core HR / Financial system is key to maximizing the benefits of the RMIS system.
- *There should be no "sacred cow":* All systems currently in use at the City should be evaluated not only on meeting the business needs but whether or not they fit into the RMIS vision for the future.
- The degree of change for the RMIS area should not be underestimated. Training and user acceptance of new procedures and systems supporting those practices will be a critical success factor.

### ***Recommendations***

- Deloitte Consulting strongly recommends that the City immediately proceed with a RFP to continue the selection of a new RMIS. Appropriate interfaces for Medical, Safety, Claims and Risk Management should be built into the RFP.
- Details of the IT master plan should be inserted into the RFP to allow vendors to respond to the true future state of the City.
- A detailed requirements document should be developed and included in the RFP to get a fixed price bid from those eligible vendors.
- A selection team should be formed representing all functional areas and Tech Services to be involved throughout the entire selection process.

## **XII. Actuarial Analysis**

This Section provides the results of Deloitte Consulting's actuarial analysis of the City's WC program. It includes tables for the estimated required reserves as of 6/30/03, the projected losses expected to be incurred during the next two fiscal years, and the expected loss payments during the next five fiscal years.

### **Estimated Required Reserves as of August 31, 2003**

The table below summarizes the results of Deloitte Consulting's actuarial reserve analysis for the claims incurred from inception of the self-insurance program through June 30, 2003. It shows the required reserves separately for known claims and incurred but not reported (IBNR) claims and for short-term versus long-term.

#### **The City of Long Beach Workers' Compensation**

##### **Estimated Total Loss Reserves Required as of 6/30/03 (Losses Limited to Policy Period Retentions; Dollars Shown in \$000s)**

<u>Reserve Type</u>	<u>Reasonable Low</u>	<u>Reasonable High</u>
(1) Reserve for Known Claims	\$81,000	\$91,600
(2) IBNR Reserve	4,800	4,800
(3) Estimated Total Required Reserves	85,800	96,400
(4) Short-Term Liability	16,700	18,700
(5) Long-Term Liability	69,100	77,700

The reserve estimates are based on the City's historical loss experience through June 30, 2003, the actuarial estimation techniques outlined in the *Methodology* section of Appendix C, and professional judgment.



The estimated reserves shown in the above table are defined as the future loss payments, including allocated loss adjustment expenses (ALAE), expected to be made for occurrences that took place prior to June 30, 2003. ALAE are those expenses clearly assignable to an individual claim (i.e., legal and expert witness fees) but exclude claim adjuster fees. They do not include a provision for any other expenses, such as excess insurance premiums, brokerage or reinsurance commissions, or third party claims administration costs.

The following list below describes the provisions included in the loss and ALAE reserve estimates for the City:

- ☐ Case reserves: claim adjuster estimates for known claims.
- ☐ Case development: future development on known, recorded claims.
- ☐ Reopened claims: future reopened claims, which are coded to the year in which the claim was originally incurred.
- ☐ "Pipeline" IBNR: claims known but not yet recorded in the loss system.
- ☐ "Pure" IBNR (Incurred But Not Reported): claims which have occurred but which are not yet known and, therefore, not recorded in the loss system.

**Projected *Incurred* Losses for Fiscal Years 7/1/03-04 and 7/1/04-05**

The next table summarizes the results of Deloitte Consulting's loss forecast analysis for claims expected to be *incurred* in fiscal years 7/1/03-04 and 7/1/04-05. These projections have been made assuming that the City will continue to retain the first \$5 million on each occurrence and that the future exposures provided by the City are reasonable.

**The City of Long Beach  
Workers' Compensation**

**Estimated Ultimate *Incurred* Losses for Next Two Fiscal Years  
(Losses Limited to \$5 Million Per-Occurrence; Dollars Shown in \$000s)**

<u>Fiscal Year</u>	<u>Reasonable Low</u>	<u>Reasonable High</u>
7/1/03-04	\$29,100	\$32,200
7/1/04-05	31,200	34,400

These projected losses are defined as all payments, including allocated loss adjustment expenses (ALAE), ultimately expected to be made for occurrences that take place during each prospective fiscal year. Similar to the estimated reserves above, these losses do not include a provision for any other expenses, such as excess insurance premiums or third party claims administration costs.

**Estimated Loss *Payments* during Fiscal Years 7/1/03-04 through 7/1/07-08**

The following table shows Deloitte Consulting's estimated workers' compensation payments during the next five fiscal years. These estimates have been made assuming that the City will continue to retain the first \$5 million on each occurrence after 7/1/05 and that the City's payroll will remain relatively stable.

**The City of Long Beach  
Workers' Compensation**

**Estimated Ultimate Loss *Payments* during Next Five Fiscal Years  
(Losses Limited to Per-Occurrence Retentions; Dollars Shown in \$000s)**

<u>Fiscal Year</u>	<u>Estimated Loss Payments</u>
7/1/03-04	\$21,100
7/1/04-05	23,100
7/1/05-06	25,100
7/1/06-07	27,000
7/1/07-08	29,000

## **Discounting**

The dollar amounts expressed in the tables above are full nominal dollar amounts expected for the time at which payments will be made. No adjustment has been made for any potentially offsetting investment income (amounts are undiscounted).

## **Variability of Results**

In evaluating the various loss estimates for City's WC program, it was necessary to project future loss and loss adjustment expense payments. It is certain that actual future losses and loss adjustment expenses will not develop exactly as projected and may, in fact, vary significantly from the projections. No warranty is expressed or implied that such variance will not occur. Further, our projections make no provision for the broadening of coverage by legislative action or judicial interpretation or for extraordinary future emergence of new classes of losses or types of losses not sufficiently represented in the City's historical data base or which are not yet quantifiable.

### **XIII. Industry Benchmarks**

Deloitte Consulting has used a variety of credible WC industry sources to compare the City's performance across a wide range of activity and results standards. These benchmarks are drawn from public and private entities and include California-specific and national sources. Best practice references contained throughout this report have been developed from both industry sources and Deloitte Consulting's extensive experience with WC for large clients.

Timely reporting of claims has been highlighted as a specific improvement opportunity for the City with average lag time from date of injury to claim set-up of 23 days. Major WC insurance carriers have measured the impact of timing lags of critical actions on claims costs. The initial claim reporting has been noted as one of the most important action steps. A study by Kemper Insurance indicated the longer the reporting period, the higher the probability of litigation. Research by Liberty Mutual found correlation between reporting lag time and duration of claim. A study by The Hartford in 2000 demonstrated increased costs associated with injury dates and claim process initiation.

- Claim reported in Week 2 – 18% higher costs than claims reported in Week 1
- Claim reported in Week 3 – 29% higher costs than claims reported in Week 1
- Claim reported in Week 4 – 31% higher costs than claims reported in Week 1
- Claim reported in Week 5 – 45% higher costs than claims reported in Week 1
- Back Claims – 35% higher claim costs if reported after Week 1
- Strains/Sprains – 13% higher claim costs if reported after Week 1
- Carpal Tunnel Syndrome – 11% higher claim costs if reported after Week 1.

Disability Duration Guidelines were used to compare the City's length-of-disability averages by frequent conditions against experienced-based averages for our Claims Review of 200 files. (See Claims Review section page 61). The two leading industry references of Presley Reed's Medical Disability Advisor and Work Loss Data Institute's Official Disability Guidelines were utilized. One or both are highly recommended for purchase by the City to assist claim examiners in making reasonable disability duration and indemnity reserve estimations.

Managed care organizations are frequently called on to demonstrate their cost effectiveness across a number of service metrics. Diversified Health Care provides routine savings calculations for the City resulting from medical bill re-pricing. Formulas for determination of bill reductions and shared savings are within general industry guidelines.

A significant study conducted by the Workers Compensation Research Institute (WCRI) in 1999 analyzed the impact of WC preferred provider networks on medical costs and disability payments. The selected claim sample included over 160,000 closed claims in California, Texas and Connecticut. Research found in all three states that WC networks are associated with significantly lower costs and that related savings do not increase either the duration of disability, or wage replacement costs. Controlling for medical diagnosis, injury type, claimant age, jurisdiction, and gender, California network costs were generally 30 to 50 percent lower than non-network costs. Indemnity costs were not higher in network versus non-network comparisons. <Source – *The Impact of Workers' Compensation Networks on Medical Costs and Disability Payments*. Dr. William G. Johnson, Dr. Marjorie L. Baldwin and Steven C. Marcus. November 1999. WC-99-5>

Health care provider networks in WC generally require specific credentialing criteria that often include proper orientation of providers to employer WC and occupational health issues. Recognizing the benefits of return-to-work, immediate access to care, timely reporting, meaningful functional capacity assessment and notation of work restrictions are common standards. The California Commission on Health and Safety and Workers' Compensation (CHSWC) published a Fact Sheet on the Quality of WC Medical Care in California in August 2003. Citing a survey completed by the California Division of Workers' Compensation (DWC), it reports that almost 25 percent of respondents were dissatisfied with the medical care provided for their work injury. <Source – Rudolph, L., et al. "What Do Injured Workers Think About Their Medical Care and Outcomes After Work Injury?" *Journal of Occupational and Environmental Medicine*, 2002 44:425-434>.

Of this 25% of dissatisfied claimants,

- 26% indicated providers' skills as either "poor" or "fair" in showing courtesy and respect
- 36% - providers fair or poor in conducting examinations carefully and thoroughly
- 30% - providers fair or poor in explaining medical findings in an understandable way
- Nearly 40% - provider did not understand the impact of the injury on their ability to perform job duties.

Quality of Care for WC claimants and reduced medical costs can be significantly enhanced through implementation of preferred provider organization.

Implementation of a formal Medical Case Management is one of Deloitte Consulting's primary recommendations. Given the proprietary and competitive nature of major WC managed care organizations, we decline to cite specific sources but summarize from a number of large managed care providers.

- Claims costs dropped more than 20 percent when managed care techniques were applied
- The longer, more severe the claim, the greater the savings - claims closed between six and nine months, often resulted in a 10-15 percent savings, vs. nearly a 40 percent savings for longer claims
- There was a dramatic decrease in overall claims duration when injuries received early intervention and effective managed, with more than 25 percent of claims closing within a year or less.
- Proper management of sprain and strain injuries often yielded a cost-savings ranging from 20-25 percent per claim.

A national managed care leader in telephonic case management, in performing services for one of the largest WC insurers demonstrated savings from 7/02 to 6/03 of:

- Over \$5,000 per average case on disability durations of over 250 days
- Almost \$2,000 per average case on disability durations of 100 days

Blue Cross of California offers medical management programs for workers' compensation injuries which includes Total Case Management and Utilization Review. In 2002, WC managed care services clients achieved an average savings of \$700 on each utilization review referral.

The National Council on Compensation Insurance (NCCI) demonstrates the impact of managed care services as follows:

- Claim costs fall 23 percent when medical management techniques are used within three months of the reported injury.
- Claims that underwent medical management techniques closed 27 percent faster than unmanaged claims.
- The average claim cost dropped 22 percent when medical management techniques were applied.

These benchmarks are offered to provide context to available cost savings within the City's WC administration program. Timely reporting of claims and the inclusion of an integrated managed care services program will afford significant claim cost savings.

## **XIV. Cost Savings Projections**

Estimates of savings are presented in ranges as described below, and are subject to significant fluctuation depending on the City's prioritization of issues and allocation of resources to implement the various recommended initiatives. Deloitte Consulting emphasizes that these the cost savings projections are estimates, and, as such, actual results will vary from stated ranges due to unforeseen claims administration circumstances, regulatory changes, and degree of follow through on Deloitte Consulting recommendations.

Saving estimates are divided into two major areas, Legislative Reforms and Best Practice Implementations. Many pending regulatory and administrative reforms under consideration by legislative and executive branches of state government will undoubtedly extend and compound savings estimates in this report in specific areas as reforms are enacted. This report considers only reforms as officially enacted as of November 30, 2003.

### **A. Legislative Reforms**

It is important to note that most changes in the Labor Code and administrative requirements will apply to new cases only, i.e. old cases fall under old laws in place at date of injury. One notable exception is the removal of "Presumption of Correctness" of the treating physician for claimants without pre-designated providers; this change is retroactive to January 1, 2003.

Shortly before leaving office, former California Governor Gray Davis signed two significant WC reform bills adopted by the Legislature in September 2003. Assembly Bill (AB) 227 and Senate Bill (SB) 228 comprise parallel legislation that reflects the most significant reforms to the California system in over ten years. Key provisions will require changes in medical billing and reimbursement systems, claims operations and adjudication, utilization review and vocational rehabilitation.



Newly elected Governor Arnold Schwarzenegger made workers compensation a key campaign issue and has proposed a further set of cost containment initiatives. Some key provisions of the Governor's bill include:

- A requirement that physicians use "Objective Medical Findings," in determining job-relatedness of injuries and illnesses. Subjective responses that are not "reproducible, measurable or observable" will be prohibited.
- A three-tiered system for Permanent Disability Ratings such that:
  - Workers who can't return to work would be rated based on the nature of injury, claimant age, occupation and adaptability to perform a given job. (Tier 1)
  - Workers who returned to work, refused to return to work, or were terminated for a non-injury reason would be rated based on the nature of injury only. (Tier 2)
  - A worker's injury, age and occupation would be considered in a permanency rating if offered a different job within reasonable commuting distance and paid at least 85% as much as the pre-injury position. (Tier 3)
- Cumulative Injuries would require claimants to prove the injuries were mainly caused by work. A specific injury that happens one time would have to be at least 10% work-related.
- To qualify for Death Benefits, a job-related injury must be the predominant cause of death.
- A "Cure or Relieve" standard for medical care that would define the requirement that medical treatment be based on "high-grade, evidence-based" guidelines, was "clinically appropriate and effective," and "not more costly than alternative treatment like to produce equivalent results."
- Physician Choice would restrict an injured worker in choosing his/her physician for medical treatment only if the employer agreed.
- Independent Medical Review would utilize outside doctors to settle WC medical disputes. The physician reviewers' decisions would be binding.

- Apportionment rules would be adjusted to make it easier for employers to prove a worker's previous injury experience or pre-existing condition(s) contributed to a new work-related injury. New apportionment regulations would not allow employees to be rated at over 100% disabled, despite a series of injuries.
- Fines would put stricter limits on the amount that benefits could be increased when payments were unreasonably delayed or denied.
- Higher benefits would provide additional weeks of benefits for the most severely injured (rated more than 70%), provided the cost of WC insurance in the state falls to or below the national average.

These provisions, along with proposed rollbacks on indemnity benefit increases enacted in 2002 in AB 749, and other initiatives submitted by various industry and employee group representatives are currently under debate by the Legislature.

The Workers Compensation Insurance Rating Bureau of California (WCIRB) has issued a synopsis of projected savings of recent reform legislation. *<See WCIRB Preliminary Estimate of the Cost Impact of Assembly Bill 227 and Senate Bill 228 as Adopted by the Legislature September 12, 2003, dated September 15, 2003.>* These are preliminary analyses that will require further validation. Highlights follow:

- Amendments to Labor Code Section 5307 provide for reduced physician service rates in 2004 and 2005 at 5% below the current state fee schedule. Total statewide medical costs are expected to be \$13.8 billion. The 5% fee schedule reduction impact is projected at \$0.1 billion for 2004, and \$35 million for 2005 injuries statewide.
- Labor Code Section 5307 also provides for a Pharmaceutical Fee Schedule, (assumed) to be indexed at 100% of the Medi-Cal Schedule. Amendments to Section 4600 further require that generic drugs be dispensed in favor of more expensive brand names, unless there is no generic equivalent or the treating physician provides that a non-generic drug be dispensed. These changes were brought about by passage of AB 749 in 2002.

WCIRB estimates provisions of AB 749 will reduce the average cost of pharmaceuticals by 21% by 2005.

- Labor Code Section 5307 amendments establish a maximum facility fee for services performed in an ambulatory surgical center at 120% of the Medicare fee for the same service performed in a hospital outpatient facility. Based on a consolidation of a number of external studies, and not accounting for potential changes in utilization, WCIRB estimates annual savings of 41% on outpatient surgery facility costs.
- Amendments to Labor Code Section 4603 reduce the mandated period in which to pay medical bills from 60 to 45 working days, and increase the penalty on late medical payments from 10% to 15%. Further established is a requirement that an electronic billing system be adopted in 2004, and that employers must be functional to accept bills in the electronic format in 2005. The WCIRB had no basis on which to project cost impacts. Limiting lag times associated with medical billings is a key improvement feature contemplated in a new City claims administration system. Direct electronic interface with the City's medical bill review vendor should be a primary system requirement.
- Amendments to Labor Code Section 139.3 prohibit doctors from referring patients to outpatient surgery centers that they own. A lack of data on these circumstances provides no basis for cost impact estimations.
- Amendments to Labor Code Section 4604.5 cap Chiropractic visits at 24 per claim. WCIRB projects a 45% reduction in related costs.
- Further amendments to Section 4604.5 cap Physical Therapy visits at 24 per claim will save a projected 40% in related costs.
- Amendments to Labor Code Section 5307 provide that an Official Medical Utilization Schedule be in place by December 1, 2004. This schedule will be presumed to be correct and can only be overturned by a preponderance of medical opinion. This will have a profound but yet unknown impact on program costs.

- Proposed amendments to Labor Code Section 4062 provide for a special process related to resolving medical disputes concerning spinal surgeries. Lack of data and a good basis for projecting cost impacts were unavailable.
- AB 749 repealed the Primary Treating Physician presumption of correctness in cases where claimants have not pre-designated a physician for WC treatment. Those with pre-designated physicians on file are not affected. The WCIRB estimates that the repeal will reduce by medical costs by 9% by accident year 2005.
- AB 227 and SB 228 repeal mandatory vocational rehabilitation in favor of non-transferable education vouchers for injured workers who are not back to work within 60 days after termination of temporary total disability benefits, and who have not received a qualified offer of modified work. WCIRB did not provide specific estimated savings percentages.

Overall, WCIRB estimates medical cost savings of 12% for claims occurring in 2004. This and preliminary cost impact projections described above are likely to change as statutory language is further clarified and panels of experts continue the review.

#### **B. *Best Practice Implementations***

Five areas emerge from this study where best practice implementation is highly likely to have a major impact on program costs.

- Centralization of overall WC management function
- New claims management system
- Integrated Managed Care Services
- Immediate Claims Reporting
- Improved Return-to-Work program application

The cost savings potential of a centralized WC management function and a new claims management information system are difficult to quantify. However, we believe they are critical components to successful implementation of integrated managed care services, immediate claims reporting and improved return to work program applications.

***Integrated Managed Care Services***

Managed Care Organizations (MCO) routinely measures their impact on claim costs of serviced clients using a variety of methods including medical bill review and re-pricing, utilization review, medical case management, and preferred provider networks. All these methods carry quantifiable savings achieved through medical bill reduction calculations, avoided or improved treatment durations, return-to-work success through active case management, and service value provided through network penetration. The National Center for Quality Assurance (NCQA/URAC) has promulgated national guidelines for MCOs, and many of the largest are either accredited or are in the application process. Requirements for each of the areas noted above are addressed.

Many of the managed care services used in other states are just now being implemented in California. The State of New Jersey completes an annual "report card" for MCOs authorized under the state WC program. Recent report cards show savings in aggregate of 37% when comparing total billed provider charges with totals paid to those providers (does not include administrative cost of medical bill review and re-pricing services). The top national providers are among 18 separate MCOs that have reported savings of 25% to 55%. Fees charged by MCOs are customarily tied to program savings. Vendor services are usually priced according to per-line or per-bill review transactions with both vendor and client sharing in subsequent bill reductions.

Deloitte Consulting's experience has shown widespread use of WC integrated managed care services among the majority of our large employer clients. We strongly recommend that the City begin steps to formalize a program. Recent reforms have opened many opportunities within the medical case management and utilization review arenas that provide strong leverage to the recommendation. Based on the various industry statistics published for managed care services, we believe the City can save an additional 8% on WC *medical* costs, over and above the 12% predicted through administrative reforms. We expect that the additional savings resulting from managed care services implementation is both achievable and practical for the first two years. As performance improves over time, smaller savings potential is available due to diminishing returns. We further maintain that integrated managed care services will drive savings of 3-5% in

indemnity (wage replacement) costs through early intervention strategies and clinical case management along similar savings timelines. Proposed rollbacks of increases in indemnity rates enacted in 2001 will be a key determinant of future indemnity costs and savings. AB 749 mandated maximum indemnity benefit increases from \$602/week in 2003, \$728/week in 2004, \$840/week in 2005, and the greater of \$840/week or the state average weekly wage in 2006. It is impractical to make assumptions as to whether these legislated benefits will be continued or repealed. They obviously have a great impact on wage replacement costs with 30% increases identified over a two year period.

### ***Immediate Claims Reporting***

Average lag times are 22 days from date of injury to claim examiner assignment for claims reported over the last 3 years. Using the Hartford's study cited earlier, claims could cost could be reduced by up to 29% if received by claims examiner within seven days of injury. Savings associated with immediate claims reporting relate to early intervention strategies that could channel a claimant to an appropriate health care provider, may prompt a fraud investigation, may facilitate return-to-work, etc. The underlying principle is that when claims experts are involved early in the life of a claim, more strategies are available, and the sooner they are implemented the more positive effect on claim costs.

The City may wish to consider out-sourcing the claim intake function to a 24-hour Call Center if recommendations to contract for managed care services and installation of a newly functional claims administration information system are accepted. Call Centers can be contracted independently or are sometimes included in managed care service offerings.

At the very least, the City should streamline existing process flows such that Claim Examiners are notified with two days of injury. We conservatively estimate 5% savings are available in the expected costs of new claims which are directly related to the timely reporting of new claims.

### ***Improved Return-to-Work (RTW) Program Application***

Deloitte Consulting asserts that a potential savings of 5% to 10% are available in indemnity costs through increased attention and timely application of the City's RTW program. RTW should be

assessed immediately following each medical treatment, restrictions solicited and interpreted from treating physicians, and appropriate modified-duty assignments made within a day of each physician appointment. This is a shared responsibility among employing departments, Human Resources, WC Claims and Occupational Health.

We believe Human Resources must take a leading role in facilitation of the overall process and in directing employees to alternative placements when reasonable accommodations are not available in injured worker home departments. HR currently retains control over Americans with Disabilities Act (ADA) compliance and return-to-work in the WC arena typically mirrors ADA guidelines for reasonable accommodation of disabilities. This will need to be elevated as a stronger priority within HR than is currently the case. A stronger sense of urgency is required across all departments to return employees as soon as physically able. Clearly, if nurse case management is implemented it will facilitate the process.

## **XV. Recommended Next Steps**

We made many recommendations throughout the report. This section provides a list of high priority recommended next steps for the City. We believe these steps will help improve the efficiency and effectiveness of the City's WC program. We realize that these recommendations will be subject to the City's organizational tolerances and that each recommended practice must make sense in the City's context of available resources (both human and financial).








- Re-align City structure to consolidate all departments and functions involved in WC under one governing office.
- Obtain additional staffing in critical areas identified.
- Select New Claims Administration System:
  - RFP for Claims Administration System
  - Marketplace Solicitation
  - Vendor Evaluation, Scoring Methodology, and Selection
  - Project Management System Implementation Services
- Engage an Integrated Managed Care Services Firm:
  - RFP for Integrated Managed Care Services
  - Marketplace Solicitation
  - Vendor Evaluation, Scoring Methodology, and Selection
  - Project Management and Implementation Services
- Initiate Accelerated Claims Closure Project (Claims review – dormant claims).
- Develop Executive Steering Committee and WC Management Teams.
- Develop written policies and procedures incorporating best practices.
- “Change Management”: The communication of policies and procedure changes, training requirements must be effectively communicated throughout the organization to effectively implement change.



The following table provides some more details around the recommended steps. It indicates the Ease of Implementation for each step along with the relative level of time, effort, and resources required to implement the recommendations.

<b>Ease of Implementation</b>	<b>Description</b>
○ <b>Easy</b>	Can be implemented quickly (less than 1 month) with minimal use of resources.
○ <b>Moderate</b>	Requires a moderate degree of time (up to 3 months) and a moderate level of resources to implement.
● <b>Difficult</b>	May require more time (over 3 months) and a high level of resources to implement.

<b>Recommendation</b>	<b>Area</b>	<b>Ease of Implementation</b>
▪ Re-align city structure to obtain accountability within WC system	<b>Organizational Structure</b>	●
▪ R-align staff in and apply resources in critical areas identified.	<b>Organizational Structure</b> <b>Resources</b>	○
▪ Establish monthly department performance measurements and metrics.	<b>Management and Procedures</b> <b>Safety</b>	○
▪ Implement performance-driven metrics as part of the performance review process.	<b>Management and Procedures</b> <b>Human Resources</b>	○

Recommendation	Area	Ease of Implementation
<ul style="list-style-type: none"> <li>▪ Select New Claims Administration System: <ul style="list-style-type: none"> <li>➢ RFP</li> <li>➢ Marketplace Solicitation</li> <li>➢ Vendor Evaluation</li> <li>➢ Project Management System Implementation Services</li> </ul> </li> </ul>	Risk Management Information Systems /Technology	
<ul style="list-style-type: none"> <li>▪ Engage an Integrated Managed Care Services Firm: <ul style="list-style-type: none"> <li>➢ RFP</li> <li>➢ Marketplace Solicitation</li> <li>➢ Vendor Evaluation, Scoring Methodology, and Selection</li> </ul> </li> </ul>	Management and Procedures  Claims Management	
<ul style="list-style-type: none"> <li>▪ Initiate Accelerated Claims Closure Project (Claims review – dormant claims)</li> </ul>	Management and Procedures  Claims Management	
<ul style="list-style-type: none"> <li>▪ Develop Executive Steering Committee and WC Management Teams</li> </ul>	Organizational Structure  Executive Level	
<ul style="list-style-type: none"> <li>▪ Develop claim reporting protocols and re-engineer the claim reporting process to ensure timely claim reporting to all involved parties.</li> </ul>	Management and Procedures  City Wide	
<ul style="list-style-type: none"> <li>▪ Develop written policies and procedures incorporating best practices for claim handling within the claim department and city departments</li> </ul>	Management and Procedures  Claims Management	
<ul style="list-style-type: none"> <li>▪ “Change Management”: The communication of policies and procedure changes, training requirements must be effectively communicated throughout the organization to effectively implement change.</li> </ul>	Management and Procedures  City Wide	

**City of Long Beach - Data Request Log**  
**Deloitte Touche WC Audit**  
**I. Operational**

<b>Status</b>	<b>Requested Information</b>	<b>Provided By</b>	<b>Date</b>	<b>Notes</b>
Complete	List of Key individuals involved in the workers' compensation process: name, contact number, job title and WC job duties.	Risk Management - RLS	Preliminary - 9/4/2003 - Updated List 9/30/03	Started list - need to update after AO meeting on 9/4/03. Per Todd, need list by 9/4 to start to schedule interviews with various departments. The operating departments should be identified/grouped by greatest number of claims for one-on-one interviews. The less impacted departments may be scheduled for group meetings to talk to several depts at one time. Initial interviews scheduled. Updated list of contacts and emailed new copy to Todd.
Standard risk Management Reports to districts/operating facilities:				
Complete	Timelines and distribution	Risk Management - Margaret Shobert/RLS	9/11/2003	Mostly internal - used to provide information upon request to Financial Management, Excess Workers' Comp Insurance carrier, Deloitte & Touche for actuarial and departments as needed. In the process of finalizing report format for distribution to departments. Discuss and review samples at Risk Management meeting.
Complete	Sample Reports	Risk Management - Margaret Shobert/RLS	9/11/2003	Gave Todd hard copies of reports received from Risk Management - 1) Quarterly Workers Comp Lost Hours Report by Department (5 Year History) 2) Claims Report by Department - Cumulative Dollars with injury types 3) 4850 Hours History for Fire and Police.
Service Instructions for Claims Handlers:				
Complete	Procedural Manuals	Robert Johnson	9/10/2003	None

**City of Long Beach - Data Request Log**  
**Deloitte Touche WC Audit**  
**I. Operational**

<b>Status</b>	<b>Requested Information</b>	<b>Provided By</b>	<b>Date</b>	<b>Notes</b>
Complete	Training Documentation	Robert Johnson	9/10/2003	None
Complete	Job Descriptions	Barbara De Jong	8/28/2003	Barbara prepared a memo on 8/22/03, with WC Claims organization chart and claims job descriptions attached. Faxed to Todd on 8/28
Complete	Claim Departments Org. Chart	Barbara De Jong	8/28/2003	Barbara prepared a memo on 8/22/03, with WC Claims organization chart and claims job descriptions attached. Faxed to Todd on 8/28
Complete	Claim Reporting Procedures	Robert Johnson	9/10/2003	None
Complete	First Report of Injury Log	Robert Johnson	9/30/2003	Deloitte Team will review log during claims section review on-site. Audit performed 9/30/03 - 10/10/03.
Provided upon Request	OSHA Logs	Mike Alio	9/18/2003	Following up with Mike Alio. Mike met with Deloitte on 9/18/03 and they will request information as needed.
Complete	In-force Collective Bargaining Agreements (MOU's)	Risk Management - RLS	9/4/2003	Gave Todd information and a list of MOU's available on the City's website at the 9/4/03 weekly meeting. Deloitte can print off each MOU as needed.
Complete	Identify outside vendors involved in the claims handling process: special investigation firms, hearing representatives, outside defense counsel, etc.	Robert Johnson	9/10/2003	Email listing outside vendors used in the Claims Handling process was provided by Robert Johnson and forwarded to Todd by email.
Complete	Vendor management policies and procedures in place	Robert Johnson	9/10/2003	None
Complete	Description of WC and non-occupational disability cost allocation program	Risk Management - RLS	9/8/2003	Emailed Todd WC Allocation Summary description and WC FY04 Allocation Calculation spreadsheet 9/8. As far as we know, there is no formal allocation for non-occupational disability costs.

# City of Long Beach - Data Request Log

## Deloitte Touche WC Audit

### I. Operational

Status	Requested Information	Provided By	Date	Notes
Complete, depending on add'l requests	HR Policies as they relate to: Return-to-Work Program	HR - Ernie Hernandez	9/10/2003	Refer to Administrative Regulations AR36-1, AR36-2 and AR8-19
Complete, depending on add'l requests	Coordination between claims admin. and operating facilities	HR - Ernie Hernandez	9/10/2003	Refer to Administrative Regulations AR36-1, AR36-2 and AR8-19
Complete, depending on add'l requests	Absence benefits: sick time, wage/salary continuation personal time off dependent care, etc.	Risk Management - RLS	9/4/2003	HR Website - under MOU's. Gave website to Todd at 9/4 weekly meeting. May need additional information later.
Complete, depending on add'l requests	ADA and FMLA compliance	Risk Management - RLS	9/4/2003	HR Website - ADA and FMLA under MOU's. Gave website to Todd at 9/4 weekly meeting. May need additional information later.
Complete, depending on add'l requests	Employee injury and illness	Risk Management - RLS	9/4/2003	HR Website - under MOU's. Gave website to Todd at 9/4 weekly meeting. May need additional information later.
Complete	In-force contracts with managed care organizations: Provider networks Utilization review (UR) Bill re-pricing	Robert Johnson NA Robert Johnson	9/10/2003 NA 9/10/2003	Yes (included with Bill Review Contract) None Yes - Bill review contract with contract provided to Todd on 8/10/03 (one contract which includes provider network) None Copy of
	Medical case management	NA	NA	None

**City of Long Beach - Data Request Log**  
**Deloitte Touche WC Audit**  
**I. Operational**

<b>Status</b>	<b>Requested Information</b>	<b>Provided By</b>	<b>Date</b>	<b>Notes</b>
	Vocational Rehab	NA	NA	None
Complete, depending on add'l requests	Description of Safety & Loss Control RLS on support services	RLS	9/4/2003	Safety Website. Gave website to Todd at 9/4 weekly meeting. Interviewed Safety Coordinators and Mike Alio on 9/18/03.
Complete	Org. Chart and Related Census - All Departments City		9/19/2003	Organization Charts indicating number of employees. Basic organization charts provided for entire city in the Preliminary RAP for FY04. Some departments provided additional organization charts with their departmental information, but some did not have organization charts other than what was in the budget. Check with Deloitte to see if they need any more.
Complete	2002-03 Risk Mgmt. Annual Report submissions	Robert Johnson		City Attorney's Annual Report - Robert will provide a copy of last year's report. Checking to see if other reports are available. Check with Deloitte to see if they received copies.
Complete	Operating dept's policies and procedures relating to injury/illness reporting	Various Departments	Due 9/12/03	Requested from Departments in City Manager memo dated 9/4/03 due by 9/12/03. See Departmental Tab for information received.
Complete	Copy of City's FY04 Budget	Suzanne Mason	8/21/2003	Suzanne gave a copy of the FY04 Preliminary Resource Allocation Plan (Budget) to Todd at the initial meeting.

**City of Long Beach - Data Request Log**  
**Deloitte Touche WC Audit**  
**II. Claims Audit-File Select**

<b>Status</b>	<b>Requested Information</b>	<b>Provided By</b>	<b>Date</b>	<b>Notes</b>
Complete	Most recent loss run in Excel format (open and closed claims listing for both indemnity and medical-only claims with loss dates from July 1, 2001-June 30, 2003 - two years) showing the following:	Risk Management (RLS)	8/22/2003	This data will be used to select specific claims to conduct file audit. Sample will include some medical only and various sizes. Emailed Excel file to Todd after confirming available data.
Complete	Employee name	RLS	8/22/2003	Provided last name only
Complete	Department	RLS	8/22/2003	Requested by Todd over the phone - RLS
Complete	Claim number ID	RLS	8/22/2003	Yes
Complete	Date of loss	RLS	8/22/2003	Yes (date of injury)
Complete	Claims status (open v. closed)	RLS	8/22/2003	City has 3 types of status: A - Active (Open), C - Closed, and S -Suspended (Open for future medical only)
Complete	First report of injury date		9/30/2003	First report date not available in system - obtain manually during audit - audit performed 9/30/03 - 10/10/03
Complete	Date reported to claims dept.	RLS	8/22/2003	Yes (claim date)
Complete	Claim type (indemn or med)	RLS	8/22/2003	Use Indemnity and Medical incurred fields to identify whether the claim was indemnity or medical only
Complete	Total incurred (indemn/med/exp)	RLS	8/22/2003	Total paid plus open reserves for each claim (cumulative)
Complete	Total paid (indemn/med/exp)	RLS	8/22/2003	Cumulative dollars paid as of 6/30/2003 broken down by Indemnity, Medical, Rehab & Other Exp.
Complete	Current reserves (ind/med/exp)	RLS	8/22/2003	Same as Open reserves
Not needed	Current paid (ind/med/exp)	RLS	8/22/2003	Current paid (not cumulative) is only available for 1 year - discussed with Todd and this field is not necessary for the file selection portion of the study
Complete	Adjuster's name	RLS	9/4/2003	Refer to alphabetical assignment list is included with the contact list for each WC Claims Adjuster's name. Gave contact list to Todd on 9/4

**City of Long Beach - Data Request Log**  
**Deloitte Touche WC Audit**  
**III. RMIS**

<b>Status</b>	<b>Requested Information</b>	<b>Provided By</b>	<b>Date</b>	<b>Notes</b>
Complete	Please provide electronically a current or recent claim system information or pertinent claims, policy and accounting documents that provide a strategic or tactical overview (operational or detailed documentation is not required) of the business systems and operations.	Dan Payne/Phillis Melia-Arguello	9/16/2003	Emailed request to Technical Services - Dan Payne on 9/8/03. Technology Services Provided an overview updated as of 9/15/03 and a copy of the original overview dated 2/10/82.
Complete	System and/or Data Flow Chart	Dan Payne/Phillis Melia-Arguello	9/16/2003	Emailed request to Technical Services - Dan Payne on 9/8/03. Provided several flowcharts including payroll process, injured worker process, workers' comp process, reporting process, and workers' comp/disability interfaces.
Complete	Name of individual most familiar with claims information system.	Dan Payne/Phillis Melia-Arguello	9/16/2003	Emailed request to Technical Services - Dan Payne on 9/8/03. Deloitte met with Nap Cachero, who is the primary systems programmer.
Complete	Provide name of provider and contact person if the claim information system is not proprietary.	Dan Payne/Phillis Melia-Arguello	9/16/2003	Emailed request to Technical Services - Dan Payne on 9/8/03. Not applicable.



**City of Long Beach - Data Request Log**  
**Deloitte Touche WC Audit**  
**IV. Actuarial**

<b>Status</b>	<b>Requested Information</b>	<b>Provided By</b>	<b>Date</b>	<b>Notes</b>
	Current and historical descriptions of the self-insurance workers' compensation plan including:			
Complete	The per occurrence self-insured retention. Include the time and amount of any changes over time.	Margaret Shobert-Risk Mgmt.	9/4/2003	File from Margaret with SIR's dating back to 1985. Updated and gave to Todd on 9/4. Emailed to Kathy on 9/4.
Complete	The total aggregate annual amount of claims for which the client retains responsibility. Include time and amount of any changes over time.	Margaret Shobert-Risk Mgmt.	9/4/2003	Emailed to Kathy on 9/4 with explanation regarding aggregate amount responsible for (100%)
Complete	The effective date of the self-insurance program.	Margaret Shobert-Risk Mgmt.	9/4/2003	Effective date of self-insurance program - 1967. Emailed to Kathy 9/4.
Complete	Loss and ALAE loss expense valued at 6/30/2003 for as many historical claim runs as possible (losses should be grouped by fiscal year of loss occurrence):	RLS - Risk Mgmt.	9/3/2003	RLS discussed with Kathy Midgley on 8/28/03. We discussed providing the following fields to satisfy both this request and the claims over \$100,000 request. Claim #, Date of Loss, Date of Claim, Status of Claim, Paid Indemnity, Paid Medical, Paid Rehab, Paid Expense (as these paid fields are available). Also Incurred Indemnity (which includes 4850 and Rehab) and Incurred Medical.
	Paid Losses			Include individual fields broken down by Indemnity, Medical, Rehab and Expense.
	Reported Loss (Incurred)			Paid plus Open Reserves (Total anticipated cost of each claim.
	Paid ALAE			ALAE are the additional expenses (legal, rehab, other expense, etc.) that can be identified with a particular claim. What information we have included within the system is included in Paid Losses.

**City of Long Beach - Data Request Log**  
**Deloitte Touche WC Audit**  
**IV. Actuarial**

<b>Status</b>	<b>Requested Information</b>	<b>Provided By</b>	<b>Date</b>	<b>Notes</b>
	Reported (Incurred) ALAE			The system does not track anticipated costs for ALAE. It only tracks Indemnity and Medical. Other costs are added as they are paid.
	Number of Closed Claims			Get from status column (C only)
	Number of Reported Claims			Total number of records, which can be grouped by year based on first four digits of claim number.
	Number of Open Claims			Get from status column (includes both A and S)
Complete	List of all historical claims that are greater than \$100,000 per occurrence valued as of June 30, 2003. Detail of claims should include, paid loss, reported loss, paid ALAE and reported ALAE, whether claim is open or closed. List of all claims sorted by reported amounts would also satisfy.	RLS - Risk Mgmt.	9/3/2003	RLS discussed with Kathy Midgley on 8/28/03. Can use the Loss Data file and sort by Total Incurred to filter all claims greater than \$100,000.
Complete	Payroll amounts and employee counts for each fiscal year for which data is provided above. Also provide estimated payroll for future fiscal years 2003-04 and 2004-05.		9/17/2003	RLS discussed with Kathy Midgley on 8/28/03. Since historical data for claims goes back to 1967, it is adequate to provide 10 years historical payroll data for this process. Provided payroll amounts from the WC Self-Insured annual report from 1993-2003. Estimated a flat projection due to budget cutbacks.
Complete	Kathy requested a copy of the reserve triangles for the last 5 years with the Hard copy summary report used to generate the triangle.		9/19/2003	Requested by Kathy Midgley over the phone on 8/28/03. The above data will be used to develop loss triangles as part of the process. The City currently updates a loss triangle based on Incurred Claim to project needed reserve amounts. Deloitte will also generate Paid Loss Triangles and Number of Claims Loss Triangles. Gave copies of last five years to Todd on 9/19/03 to give to Kathy.

**City of Long Beach - Data Request Log**  
**Deloitte Touche WC Audit**  
**V. Departments**

<b>Department</b>	<b>Provided By</b>	<b>Date</b>	<b>Notes</b>
City Attorney	Tyler Pike	9/15/2003	Email stating no department specific guidelines, just rely on WC group.
City Auditor			None
City Clerk	Monique De La Garza	9/14/2003	Document describing City Clerk WC procedures along with some forms used.
City Council (Legislative)	Roxana Valencia	9/10/2003	Email stating no department specific guidelines.
City Manager			None
City Prosecutor	Linda Kalte (Sherri Seldon)	9/12/2003	Email stating no department specific guidelines.
Civil Service			None
Community Development	Barbara Wiseman	9/12/2003	Email describing some of the City's policies they follow and Medical/WC leave log.
Financial Management	David Gonzalez	9/10/2003	Email from David Gonzalez stating that Financial Management has no separate procedures - gave copy to Todd on 9/11/03.
Fire	Dan Gooch	9/12/2003	Material used by the Fire Department including letters, reports, safety training, modified duty program and article on 4850 costs.
Long Beach Energy	John Hough and Jerry Wolfe	9/16/2003	Material describing modified duty, illness prevention policies, injury logs, and reporting procedures.

**City of Long Beach - Data Request Log**  
**Deloitte Touche WC Audit**  
**V. Departments**

Harbor Dept	Toni Whitesell and Jim Warsawski	9/12/2003	Safety Policy and Procedures Manual and Harbor Safety Training 2003 Catalog
Health & Human Services			Occupational Health Documentation provided as function area. No department policies.
Human Resources	Kevin Boylan	9/16/2003	Modified Duty Program Documentation and reference to safety and personnel HR policies on the website.
Library Services	Theressa Graham	9/13/2003	Email stating no department specific guidelines.
Oil Properties			None
Parks, Recreation and Marine	Christina Cota	9/11/2003	Parks Injury & Illness Program Manual, Disaster Manual, Payroll procedures, safety procedures, forms and letters, safety bulletins and committee minutes, training statistics and reports.
Planning and Building	Willie Miranda	9/10/2003	Email from Willie Miranda outlining general procedures. Received hard copies of safety training flyers on 9/11/03.
Police	Debra Bonesteel- Smith	9/17/2003	Manual with various memos, emails, policies, logs, reports, procedures. RFP info for an Employee Risk Management System that pulls information from other databases and integrates it into a single database. Updated Safety Policy Addendum - new.
Public Works	Brian Burns	9/12/2003	Email stating no department specific guidelines.
Technology Services	Patty Heintzelman	9/12/2003	Email stating no department specific guidelines.

**City of Long Beach - Data Request Log**  
**Deloitte Touche WC Audit**  
**V. Departments**

Water Department

None

August 2003						
Mo	Tu	We	Th	Fr	Sa	Su
					1	2
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

September 2003						
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29	30					

October 2003						
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20	21	22	23	24	25	26
27	28	29	30	31		

# September 15 - September 21, 2003

	Monday 15	Tuesday 16	Wednesday 17	Thursday 18	Friday 19
7					
8		08:00 AM - 10:00 AM HR/Risk Mgmt - Kevin Boylan, Margaret Shobert, Mike Alio, Rebecca Skidmore - Include Dave Duden (D&T) Location: City Auditor's Conf. Room - 8th Floor	08:00 AM - 09:30 AM Police Dept - Debbie Bonesteel-Smith, Nancy Morlock, Crystal King - (include Dave Duden D&T) Location: City Auditor's Conf. Room - 8th Floor	08:30 AM - 10:00 AM Safety Coordinators - Jerry Wolfe, Laurie Browning, Debbie Russell, Scott Phemister Location: 13th Floor Large Conference Room	08:00 AM - 09:00 AM Misc Depts Group Meeting Location: City Auditor's Conf Room - 8th Floor
9	09:00 AM - 11:00 AM Workers' Comp - Robert Johnson Location: Robert's Office - 8th Floor		09:30 AM - 11:00 AM Fire Dept - Dan Gooch, Georgia Pon, Sandy		09:00 AM - 10:00 AM Health Dept Location: City Auditor's Conf. Rm - 8th Floor
10		10:00 AM - 11:30 AM Administrat Officers (AO's) Location: Library	11:00 AM - 12:00 PM Payroll Personnel Assistants (PPAs) Location: Library Foyer	10:00 AM - 11:00 AM Misc Depts Group Meeting Location: 10th Floor Conf. Room	10:00 AM - 11:00 AM City Manager's Staff Location: 13th Floor Large Conf Room
11		10:30 AM - 11:30 AM Tech Svc - Curtis Tani		11:00 AM - 12:00 PM Safety Officer Meeting - Mike Alio Location: Mike Alio's Office - 10th Floor	11:00 AM - 12:00 PM Public Works - Brian Burns Location: City Auditor's Conf Room - 8th Floor
12			12:30 PM - 01:30 PM Lunch Meeting Location: Charlie Brown's, 3030 Cherry		
1		01:00 PM - 03:00 PM WC Claims Section - Barbara De Jong Location: City Auditor's Conf. Room - 8th Floor	01:30 PM - 02:30 PM Long Beach Energy - Environmental Location: Temple/Willow Facility - 2929 E. Willow	01:30 PM - 02:30 PM Water Dept - Ken Walker Location: City Auditor's Conf Room - 8th Floor	01:30 PM - 03:00 PM Harbor Dept - Toni Whitesell and Jim Warsawski Location: City Hall - 13th Floor Conf Room
2	02:00 PM - 04:00 PM Occupational Health - Irene Grace, Ron Arias, Darryl Sexton Location: Health Dept - 2525 Grand Avenue, Conf. Room 290			02:30 PM - 04:00 PM Parks, Recreation & Marine Location: City Auditor's Conf Room - 8th Floor	
3		03:00 PM - 04:30 PM Technology Services with Dave Duden - Dan, Phyllis, Nap Location: Small Conf Room - 12th Floor (Ask for Phyllis)	03:00 PM - 03:45 PM Long Beach Admin & Gas Location: 2400 E. Spring		03:00 PM - 04:00 PM Misc Depts Group Mtg - CANCELLED Location: City Hall - 13th Floor Conf Room
4			03:45 PM - 04:30 PM Long Beach Energy - Fleet and Towing	04:00 PM - 05:00 PM Financial Management Dept Location: City Auditor's 8th Floor Conf Rm	
5					
6					



**SIGN-IN SHEET**  
**Administrative Officers**  
**Workers' Compensation Focus Group Session**  
**Main Library Auditorium Lobby**  
**10 AM - 11:30 AM**

No.	PRINT NAME	Department	Signature
1	HERMAN LONG	Civil Service	Herman Long
2	WILLIE MIRANDA	Planning / Bldg	Willie Miranda
3	Sherril Seldon	City Prosecutor	Sherril Seldon
4	JIM WARSZAWSKI	HARBOR	Jim Warszewski
5	John Hough	LB Energy	John Robert Hough
6	Brian Burns	Public Works	Brian Burns
7	Barbara Wiseman	Community Develop	Barbara Wiseman
8	Ken Walker	Water	Ken Walker
9	Dan Gooch	FIRE	Dan Gooch
10	George Pen	Fire	George Pen
11	Cristina Cota	Parks, Rec & Marine	Cristina Cota
12	LAURIE BROWNIE	PARKS, REC & MARINE	Laurie Brownie
13	Nancy Maelock	Police	Nancy Maelock
14	PATTY HEINTZELMAN	TECHNOLOGY SERVICES	Patty Heintzelman
15	BRUCE ALLEN	"	Bruce Allen
16	David Gonzalez	FM	David Gonzalez
17	Kenil Arayo	Oil Properties	Kenil Arayo
18	Theresa Graham	Library	Theresa Graham
19			
20			
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22			
23			

948 3467



**SIGN-IN SHEET**  
**Payroll Personnel Assistants**  
**Workers' Compensation Focus Group Session**  
**September 17, 2003**  
**Main Library Auditorium Lobby**  
**11 AM - 12:00 NOON**

PA's

No.	PRINT NAME	Department	Signature
1	Beatriz Lacerda	Civil Service	<i>[Signature]</i>
2	Georgette Wittman	Community Dev.	<i>[Signature]</i>
3	Barbara Alhadeff	Parks, Rec + Marine Payroll/Personnel	Barbara Ann Alhadeff
4	Deborah M. Soto	Parks, Recreation & Marine-Payroll/Pers.	Deborah M. Soto
5	Jeannine Dune	Tech Servs	Jeannine Dune
6	Dina Lopez	TECH SERVICES	Dina Lopez
7	Gardmy Flores	Oil Properties	<i>[Signature]</i>
8	Betty Garibay	Oil Properties	Betty Garibay
9	JADY ESCUERA	Harbor	Judy Escuena
10	Jim Warszawski	HARBOR	Jim Warszawski
11	Irma Heinrichs	City Clerk	Irma Heinrichs
12	Monique DelaGarza	City Clerk	M. Dela Garza
13	Caterina Palmeri	Health Dept - Contract	Caterina Palmeri
14	Nancy Myers	Fire	Nancy Myers
15	Sandy O'Dowd	Fire	Sandy O'Dowd
16	Sherri Seldon	City Prosecutor	Sherri Seldon
17	Francine Wiegman	Financial Management	Francine Wiegman
18	Cathy Chace	Human Resources	<i>[Signature]</i>
19	Maria Macias	Police	Maria Macias
20	ELENA BARNETT	POLICE	Elena Barnett
21	Crystal King	Police	Crystal King
22	Melissa E. Swift	Public Works	Melissa E. Swift
23	Michelle O'Neill	Prosecutor	Michelle O'Neill



No.	PRINT NAME	Department	Signature
24	Elisa Galvan	Public Works	Elisa Galvan
25	Roxana Valencia	LEGISLATIVE	R. Valencia
26	Erma VARNADO	LEGISLATIVE	Erma Varnado
27	ELVIRA DICE	PLNG & BLDG	Elvira Dice
28	Kathleen Bangma	Plan & Bldg	Kathleen Bangma
29	Anne Herrera	LBEN	Anne Herrera
30	Nerlita Grassi	LBEN	Nerlita Grassi
31	Jeanine Franklin	LBEN	Jeanine Franklin
32	Gloria Harper	Fin. Mgmt	Gloria D. Harper
33	Wanda Mariner	Water	Wanda Mariner
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RMIS Lab Attendees

WC - RMIS LABS			
Name	Dept	Wednesday - Nov. 5	Thursday - Nov. 6
Barbara DeJong	City Attorney	Yes <del>No</del>	Afternoon Only
Denis Perez	City Attorney	Yes <del>OP</del>	Yes <del>OP</del>
Kim Mills	City Attorney	Not available <del>ECM</del>	Yes <del>ECM</del>
Lynda Heinrich	City Attorney	Yes <del>2H</del>	Yes <del>2H</del>
	City Attorney		
	City Attorney		
	City Attorney		
Robert Johnson	City Attorney	On Vacation <del>KW for RJ</del>	On Vacation <del>KW for RJ</del>
J.C. Squires	City Auditor	Yes <del>R</del>	Not available
Suzanne Mason	City Manager	Drop-In <del>No</del>	Drop-In <del>No</del>
Dave Duden	Deloitte	Yes <del>✓</del>	Yes <del>✓</del>
Steve Beigbender	Deloitte	Yes <del>✓</del>	Yes <del>✓</del>
Todd Neuman	Deloitte	Yes <del>✓</del>	Yes <del>✓</del>
Claudia Santos	Finance	Yes <del>On</del>	Afternoon Only <del>On</del>
Elizabeth Haynes	Finance	Not available	Yes <del>EXT</del>
Dan Gooch	Fire	Afternoon Only <del>No</del>	Not available
Dr. Irene Grace	Health Dept	Yes <del>TH</del>	Yes <del>TH</del>
Cristina Cota	Parks, Rec. & Marine	Yes <del>insl = Cota</del>	Yes <del>use</del>
Laurie Browning	Parks, Rec. & Marine	Yes <del>LB</del>	Yes <del>LB</del>
Crystal King	Police	Yes <del>OK</del>	Yes <del>No</del>
Debbie Bonesteel-Smith	Police	On Vacation	On Vacation
Nancy Morlock	Police	Not available	Morning Only <del>NM</del>
Margaret Shobert	Risk Management	Yes <del>ma</del>	Yes <del>ma</del>
Rebecca Skidmore	Risk Management	Not available	Yes <del>ls</del>
Mike Alio	Safety	Yes <del>UA</del>	Yes <del>MA</del>
Bruce Allen	Tech Services	Yes <del>PM</del> <del>BA</del>	Yes <del>OP</del> <del>BA</del>
Dan Payne	Tech Services	Yes <del>OP</del>	Yes <del>OP</del>
Nap Cachero	Tech Services	Yes <del>AC</del>	Yes <del>NC</del>
Phyllis Melia	Tech Services	Yes <del>DSM</del>	Yes <del>DSM</del>
Peggy Davis	"	" <del>DSM</del> <del>PMD</del>	" <del>DSM</del> <del>PMD</del>

**Workers' Compensation Assessment & Improvement Project**  
**Appendix C – Actuarial Report**

March 8, 2003

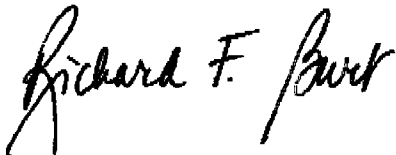
Ms. Suzanne R. Mason  
Assistant City Manager  
City of Long Beach  
Office of the City Manager  
333 West Ocean Boulevard  
Long Beach, California 90802

Dear Ms. Mason:

Deloitte Consulting LLP is pleased to enclose its 2003 actuarial analysis of the City of Long Beach's workers' compensation insurance program for losses reported as of June 30, 2003.

We have enjoyed working with you and your staff on this project. If you have any questions, please call either Rick at (213) 553-1250.

Sincerely,

A handwritten signature in black ink that reads "Richard F. Burt". The signature is written in a cursive, flowing style.

Richard Burt, FCAS, MAAA  
Principal  
Actuarial & Insurance Solutions

# Workers' Compensation Assessment & Improvement Project

## Appendix C – Actuarial Report

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Methodology	6
Caveats and Limitations	9
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# Workers' Compensation Assessment & Improvement Project

## Appendix C – Actuarial Report

### Introduction

#### ***Scope of the Report***

Deloitte Consulting LLP (“Deloitte Consulting”) has been retained by City of Long Beach (“the City”) to estimate the reserves required for its workers’ compensation self-insurance program as of June 30, 2003 and to forecast the workers’ compensation losses expected to be incurred during the next two upcoming fiscal years, from July 1, 2003 through June 30, 2004 (“7/1/03-04”) and from July 1, 2004 through June 30, 2005 (“7/1/04-05”).

The City has self-insured its workers’ compensation program since 1967. Prior to that time, the City was fully insured for its workers’ compensation exposures with State Compensation Insurance Fund.

This analysis is based on historical loss and exposure information for the City as of June 30, 2003. This information was provided by responsible employees at the City. A specific audit of this data and information is beyond the scope of this project. We have conducted reasonableness tests of the loss data as we felt appropriate. In all other respects, we have relied without audit or verification on the data and background information provided and have assumed they are accurate and complete. If the information is found to be inaccurate or incomplete, then our findings and conclusions may need to be revised.

#### ***Report Layout***

This report contains three sections. Section 1 is the current introduction section which describes the scope of the analysis and a background of the specific programs being evaluated. Section 2 is the executive summary, which summarizes the results of our analysis and describes the methodology and limitations of this analysis. Section 3 contains the appropriate exhibits which support our projections.

#### ***Report Distribution***

This study’s conclusions are developed in the accompanying text and exhibits, which together comprise the report. This report is prepared solely for the internal use of the City and is intended to assist the City in assessing the required reserves as of June 30, 2003, and the costs of its 7/1/03-04 and 7/1/04-05 workers’ compensation insurance programs. It is not intended for any other purposes, such as a debt offering. Any other use or distribution of this report must be preceded by our written consent.

This report should be considered in its entirety. If this report is distributed with our consent, it should be distributed in its entirety (with discussions and exhibits). We will be available to answer any questions that might arise in reviewing this report.

# Workers' Compensation Assessment & Improvement Project

## Appendix C – Actuarial Report

### Executive Summary

#### *Estimated Required Reserves as of August 31, 2003*

The table below summarizes the results of Deloitte's actuarial reserve analysis for the period from inception of the workers' compensation self-insurance program through June 30, 2003. It shows the required reserves separately for known claims and incurred but not reported (IBNR) claims and short-term versus long-term.

#### **The City of Long Beach Workers' Compensation**

#### **Estimated Total Loss Reserves Required as of 6/30/03 (Losses Limited to Policy Period Retentions; Dollars Shown in \$000s)**

Reserve Type	Reasonable Low	Reasonable High
(1) Reserve for Known Claims	\$81,000	\$91,600
(2) IBNR Reserve	4,800	4,800
(3) Estimated Total Required Reserves	85,800	96,400
(4) Short-Term Liability	16,700	18,700
(5) Long-Term Liability	69,100	77,700

The reserve estimates are based on the City's historical workers' compensation loss experience through June 30, 2003, the actuarial estimation techniques outlined in the *Methodology* section, and professional judgment.

The estimated reserves shown in the above table are defined as the future loss payments, including allocated loss adjustment expenses (ALAE), expected to be made for occurrences that took place from inception of the self-insurance program through June 30, 2003. ALAE are those expenses clearly assignable to an individual claim (i.e., legal and expert witness fees) but exclude claim adjuster fees. They do not include a provision for any other expenses, such as excess insurance premiums, brokerage or reinsurance commissions, or third party claims administration costs.

The following list below describes the provisions included in the workers' compensation loss and ALAE reserve estimates for the City:

# Workers' Compensation Assessment & Improvement Project

## Appendix C – Actuarial Report

- ☐ Case reserves: claim adjuster estimates for known claims.
- ☐ Case development: future development on known, recorded claims.
- ☐ Reopened claims: future reopened claims, which are coded to the year in which the claim was originally incurred.
- ☐ "Pipeline" IBNR: claims known but not yet recorded in the loss system.
- ☐ "Pure" IBNR (Incurred But Not Reported): claims which have occurred but which are not yet known and, therefore, not recorded in the loss system.

### ***Projected Incurred Losses for Fiscal Years 7/1/03-04 and 7/1/04-05***

The next table summarizes the results of Deloitte's loss forecast analysis for workers' compensation claims expected to be *incurred* in fiscal years 7/1/03-04 and 7/1/04-05. These projections have been made assuming that the City will continue to retain the first \$5 million on each occurrence and that the future exposures provided by the City are reasonable.

#### **The City of Long Beach Workers' Compensation**

##### **Estimated Ultimate *Incurred* Losses for Next Two Fiscal Years (Losses Limited to \$5 Million Per-Occurrence; Dollars Shown in \$000s)**

<u>Fiscal Year</u>	<u>Reasonable Low</u>	<u>Reasonable High</u>
7/1/03-04	\$29,100	\$32,200
7/1/04-05	31,200	34,400

These projected losses are defined as all payments, including allocated loss adjustment expenses (ALAE), ultimately expected to be made for workers' compensation *occurrences that take place* during each prospective fiscal year. Similar to the estimated reserves above, these losses do not include a provision for any other expenses, such as excess insurance premiums or third party claims administration costs.

### ***Projected Losses Payments for Fiscal Years 7/1/03-04 and 7/1/04-05***

The following table shows Deloitte's estimated workers' compensation *payments* during the next five fiscal years. These estimates have been made assuming that the City will continue to retain the first \$5 million on each occurrence after 7/1/05 and that the City's payroll will remain relatively stable.

# Workers' Compensation Assessment & Improvement Project

## Appendix C – Actuarial Report

### The City of Long Beach Workers' Compensation

#### Estimated Ultimate Loss *Payments* During Next Five Fiscal Years (Losses Limited to Per-Occurrence Retentions; Dollars Shown in \$000s)

Fiscal Year	Estimated Loss Payments
7/1/03-04	\$21,100
7/1/04-05	23,100
7/1/05-06	25,100
7/1/06-07	27,000
7/1/07-08	29,000

These projected loss *payments* are defined as all workers' compensation loss and ALAE payments expected to be made in each of the next five fiscal years, regardless of when the occurrences took place. Similar to the estimates above, these losses do not include a provision for any other expenses, such as excess insurance premiums or third party claims administration costs.

#### ***Discounting***

The dollar amounts expressed in the tables above are full nominal dollar amounts expected for the time at which payments will be made. No adjustment has been made for any potentially offsetting investment income (amounts are undiscounted).

#### ***Variability of Results***

In evaluating the various loss estimates for City's workers' compensation program, it was necessary to project future loss and ALAE payments. It is certain that actual future losses and ALAE will not develop exactly as projected and may, in fact, vary significantly from the projections. No warranty is expressed or implied that such variance will not occur. Further, our projections make no provision for the broadening of coverage by legislative action or judicial interpretation or for extraordinary future emergence of new classes of losses or types of losses not sufficiently represented in the City's historical data base or which are not yet quantifiable.



# Workers' Compensation Assessment & Improvement Project

## Appendix C – Actuarial Report

### Methodology

Deloitte's approach to estimating the City's workers' compensation losses is outlined below. Throughout this section, all references to losses pertain to losses and allocated loss adjustment expenses (ALAE). ALAE refer to the expenses incurred during the settlement of claims which can be directly related to a specific claim (e.g. attorneys' fees or investigative fees).

#### ***Report-Year Analysis***

The workers' compensation loss data provided by the City was sorted on a report year basis, that is, by the date of report. Therefore, the incurred losses for fiscal year 7/1/02-03 represent the incurred losses for all claims reported between July 1, 2002 and June 30, 2003. Therefore, we have completed our analysis on a report-year basis. One concern when completing an analysis on a report-year basis is that the incurred but not reported ("IBNR") claims are not captured in the analysis. Therefore, we have completed a separate analysis to determine an appropriate provision for IBNR.

#### ***Estimated Ultimate Losses***

The actuarial methods used to estimate ultimate report-year losses include the incurred and paid loss development methods, the paid and incurred expected loss and development methods, and the frequency-severity method. A brief discussion of these methodologies is listed below:

- ***Incurred Loss Development Method (Incurred LDF)***

The incurred LDF method is a multiplicative method in which reported incurred losses are projected to an ultimate level based on historical development patterns. An analysis of the changes in report year incurred losses between various valuation points provides a basis for estimating future changes. This method is dependent upon reasonably stable claim reporting patterns and case outstanding loss reserving practices.

- ***Paid Loss Development Method (Paid LDF)***

This method is similar to the incurred LDF method, but is based on reported paid losses. Paid losses are projected to an ultimate level based on historical paid loss development patterns. This method is dependent upon stable claim payment and settlement patterns. Unlike the incurred LDF method, the paid LDF method is not dependent on consistent case outstanding loss reserving practices.

- ***Incurred Expected Loss & Development Method (Incurred EL&D)***

The incurred EL&D method blends the results of the incurred LDF method with an "a priori" expected loss amount by splitting expected losses into two distinct pieces: expected reported incurred losses and expected unreported losses.

For this analysis, the "a priori" expected losses are based on an expected loss rate method. The expected loss rate method adjusts the historical losses to reflect changes in the benefit levels and

## Workers' Compensation Assessment & Improvement Project

### Appendix C – Actuarial Report

loss cost levels, and then calculates historical loss rates. Loss rates are defined as the estimated loss cost per exposure unit (e.g., payroll for workers' compensation). A loss rate is selected for the projected policy year and multiplied by the projected payroll supplied by the City to project ultimate losses. The expected losses are first calculated by limiting losses to \$250,000 per-occurrence and then adjusted to the historical retentions by using increased limits factors.

The expected losses and the assumed incurred loss development factor used in the incurred LDF method are then used to generate estimates of expected reported and expected unreported losses. The estimate of ultimate loss equals actual reported incurred loss plus expected unreported losses. As the fiscal year matures, the initial expected reported loss estimate becomes less important while the actual reported experience increases in importance.

- *Paid Expected Loss & Development Method (Paid EL&D)*

This method is similar to the incurred EL&D method, except that expected losses are split between expected paid and unpaid amounts using the selected payment pattern from the paid LDF method.

- *Frequency Severity Method*

The frequency-severity method independently estimates the ultimate number of occurrences which are expected to generate a loss during the policy period and the average loss (or severity) expected to be paid on each occurrence. Because we are using report year data, the number of claims/occurrences is fixed. It is equal to the number of claims reported during the year.

The estimated ultimate severity is based on historical losses and occurrence counts, adjusted to reflect changes in the benefit levels and loss cost levels. Similar to the expected loss rate method, expected severities are first estimated by limiting losses to \$250,000 per-occurrence and then adjusted to historical retention levels using increased limits factors.

A loss severity is selected for each policy period and multiplied by the estimated number of occurrences to determine the estimated ultimate losses.

#### ***Reserve for Known Claims***

The estimated reserve for known workers' compensation claims as of June 30, 2003 is calculated as the difference between the estimated ultimate report-year losses and the losses paid as of June 30, 2003.

# Workers' Compensation Assessment & Improvement Project

## Appendix C – Actuarial Report

### ***Estimated IBNR Losses***

To estimate the IBNR losses, we used a frequency-severity approach. The number of IBNR claims (“frequency”) is estimated by converting the report-year workers’ compensation claim information into accident-year information. Accident years sort claims based on the date of injury, rather than date of report. The frequency model then analyzes the time lag between date of injury and the report date (“the reporting lag”) to estimate how many claims have been incurred but have not yet been report. The reporting lags are shown in Table 10. The expected claim severity is taken from the frequency-severity approach completed earlier, adjusted for the appropriate benefit and loss cost trends. The product of the estimated IBNR claims and the expected claim severity equals the IBNR provision to be included in the estimated required reserves as of June 30, 2003. This calculation is shown on Table 11.

### ***Total Required Reserves as of June 30, 2003***

The required workers’ compensation reserves equal the sum of the reserve for known claims as of June 30, 2003, and the estimated IBNR losses as of June 30, 2003. The reader will notice that the majority of the required reserves relates to expected future development for known claims, and not IBNR losses. This is very typical for a workers’ compensation program like the City’s.

### ***Estimated Ultimate Losses Incurred in Fiscal Years 7/1/03-04 and 7/1/04-05***

The estimated ultimate losses expected to be *incurred* during the next two fiscal years is based on a frequency-severity approach similar to the IBNR loss provision. We expanded the analysis of claim frequency through June 30, 2005 to estimate the claims expected to be incurred in each of the next two years. The expected claims severity is derived from the City’s historical workers’ compensation loss experience, adjusted for benefit level and loss cost changes. The product of the estimated incurred claims and expected claim severity equals the estimated ultimate incurred losses. This calculation is shown on Table 12.

### ***Reasonable Reserve Range***

Throughout this report we have provided, for informational purposes, a reasonableness range around the estimated ultimate workers’ compensation losses. This range is based on the results of the various methodologies described above, the strengths and weaknesses of these methodologies, and professional judgment.

We present these estimates as a range, rather than a point estimate, to emphasize that there is variability in these estimates. The range is meant to portray a range of reasonableness in which we expect the actual future loss payments to fall. We want to emphasize that the endpoints of the range are not meant to be the “best” or “worst” case scenarios, but rather endpoints of a reasonable range for the estimated ultimate losses.

# Workers' Compensation Assessment & Improvement Project

## Appendix C – Actuarial Report

### **Caveats and Limitations**

#### ***Audit of the Data***

This analysis relies upon the historical workers' compensation loss and exposure information of the City evaluated as of June 30, 2003. This information was provided to us by responsible employees of the City. We have conducted reasonableness tests of the loss data as we felt appropriate. However, a specific audit of this data and information is beyond the scope of this project. We have relied upon this data and information without audit or verification and have assumed they are accurate and complete. If the information is found to be inaccurate or incomplete, then our findings and conclusions may need to be revised.

#### ***Provisions in the Projected Losses***

The estimated ultimate workers' compensation losses contained in this report are defined as all payments, including allocated loss adjustment expenses (ALAE), ultimately expected to be made by the City. ALAE are those loss adjustment expenses clearly assignable to an individual claim (e.g., legal and expert witness fees) but exclude claims adjuster fees. The projections do not include a provision for any other expenses, such as excess insurance premiums, third party claims administration costs, or brokerage or reinsurance commissions.

In addition, our estimates do not include a provision for extraordinary exposures which are not included in historical data. Examples of such exposures include: environmental liability losses, employment practices claims or class action suits. Based on conversations with the City personnel, we are unaware of any large employment practices claims or any class action suits against the City. Should such exposure be identified, the results of this report may need to be adjusted or such exposure should be reviewed separately.

#### ***Variability of Results***

In evaluating whether the reserves make a reasonable provision for unpaid losses and loss adjustment expense, it is necessary to project future loss and loss adjustment expense payments. It is certain that actual future losses and loss adjustment expenses will not develop exactly as projected and may, in fact, vary significantly from the projections. No warranty is expressed or implied that such variance will not occur. Further, our projections make no provision for the broadening of coverage by legislative action or judicial interpretation or for extraordinary future emergence of new classes of losses or types of losses not sufficiently represented in the City's historical data base or which are not yet quantifiable.

In addition, with the recently passed workers' compensation reforms and several new proposals being discussed by the California legislature, there is greater uncertainty than normal. No one is quite sure how these reforms and proposals will ultimately affect the workers' compensation system as a whole and the City's current program. Our current estimates do not make an adjustment for any of the recently-passed reforms.

# Workers' Compensation Assessment & Improvement Project

## Appendix C – Actuarial Report

### ***Report Distribution***

This study's conclusions are developed in the accompanying text and exhibits, which together comprise the report. This report is prepared solely for the internal use of the City and is intended to assist the City in assessing the costs of the City's workers' compensation insurance programs. It is not intended for other purposes, such as a debt offering. Any other use or distribution of this report must be preceded by our written consent.

This report should be considered in its entirety. If this report is distributed with our consent, it should be distributed in its entirety (with discussions and exhibits). We will be available to answer any questions that might arise in reviewing this report.

**City of Long Beach  
Workers Compensation  
Estimated Required Reserves as of June 30, 2003**

Report Year	Selected Ultimate Losses — Low	Selected Ultimate Losses — High	Estimated Reserve — Low	Estimated Reserve — High	Actual Paid Losses	Actual Case Reserve	Estimated IBNR — Low	Estimated IBNR — High
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7/1/90-91	11,500,000	11,700,000	1,053,173	1,253,173	10,446,827	917,491	135,682	335,682
7/1/91-92	8,600,000	8,800,000	438,312	638,312	8,161,688	202,501	235,811	435,811
7/1/92-93	10,400,000	10,600,000	1,458,543	1,658,543	8,941,457	845,810	612,733	812,733
7/1/93-94	12,200,000	12,400,000	2,223,700	2,423,700	9,976,300	1,401,474	822,226	1,022,226
7/1/94-95	8,800,000	9,000,000	1,184,664	1,384,664	7,615,336	495,807	688,856	888,856
7/1/95-96	9,100,000	9,300,000	1,941,845	2,141,845	7,158,155	1,205,553	736,292	936,292
7/1/96-97	9,400,000	9,600,000	2,053,628	2,253,628	7,346,372	1,120,927	932,701	1,132,701
7/1/97-98	14,900,000	15,100,000	3,981,051	4,181,051	10,918,949	2,066,216	1,914,835	2,114,835
7/1/98-99	16,600,000	17,000,000	5,699,264	6,099,264	10,900,736	2,806,739	2,892,525	3,292,525
7/1/99-00	23,000,000	24,200,000	10,026,726	11,226,726	12,973,274	5,593,599	4,433,126	5,633,126
7/1/00-01	20,600,000	22,600,000	11,596,204	13,596,204	9,003,796	5,149,569	6,446,635	8,446,635
7/1/01-02	22,800,000	24,800,000	15,543,386	17,543,386	7,256,614	5,824,239	9,719,147	11,719,147
7/1/02-03	24,500,000	27,500,000	21,122,939	24,122,939	3,377,061	5,859,879	15,263,060	18,263,060
<b>Total</b>	<b>192,400,000</b>	<b>202,600,000</b>	<b>78,323,434</b>	<b>88,523,434</b>	<b>114,076,566</b>	<b>33,489,806</b>	<b>44,833,628</b>	<b>55,033,628</b>
Case Reserve for Open Claims Incurred prior to 7/1/90			2,673,139	3,070,000				
Pure IBNR			4,770,000	4,770,000				
Total Estimate Required Reserves			<b>85,766,573</b>	<b>96,363,434</b>				

Notes: (2) Appendix C, Table 2, Column (8)  
 (3) Appendix C, Table 2, Column (9)  
 (4) = (2) - (6)  
 (5) = (3) - (6)  
 (6) Appendix C, Table 3, Column (11)  
 (7) = [Appendix C, Table 3, Column (5)] - [Appendix C, Table 3, Column (11)]  
 (8) = (4) - (7)  
 (9) = (5) - (7)

**City of Long Beach  
Workers Compensation  
Selected Estimated Ultimate Losses**

Report Year	Limited Incurred Losses @ 06/30/2003	Indicated Ultimates					Selected Estimated Ultimate Losses -- Low	Selected Estimated Ultimate Losses -- High
		Incurring Loss Development Method	Paid Loss Development Method	Expected Loss and Development Incurred	Expected Loss and Development Paid	Frequency- Severity Method		
		(3)	(4)	(5)	(6)	(7)	(8)	(9)
7/1/90-91	11,364,318	11,630,000	11,280,000				11,500,000	11,700,000
7/1/91-92	8,364,189	8,610,000	8,900,000				8,600,000	8,800,000
7/1/92-93	9,787,267	10,470,000	10,520,000				10,400,000	10,600,000
7/1/93-94	11,377,774	12,280,000	11,860,000				12,200,000	12,400,000
7/1/94-95	8,111,144	8,860,000	9,200,000				8,800,000	9,000,000
7/1/95-96	8,363,708	9,270,000	8,860,000				9,100,000	9,300,000
7/1/96-97	8,467,299	9,570,000	9,400,000				9,400,000	9,600,000
7/1/97-98	12,985,165	15,040,000	14,730,000				14,900,000	15,100,000
7/1/98-99	13,707,475	16,670,000	15,960,000	17,110,000	16,980,000		16,600,000	17,000,000
7/1/99-00	18,566,874	24,160,000	21,650,000	23,450,000	21,430,000	22,110,000	23,000,000	24,200,000
7/1/00-01	14,153,365	20,990,000	18,780,000	21,660,000	21,000,000	22,550,000	20,600,000	22,600,000
7/1/01-02	13,080,853	23,280,000	22,710,000	24,480,000	24,950,000	25,420,000	22,800,000	24,800,000
7/1/02-03	9,236,940	23,830,000	23,570,000	26,530,000	27,570,000	28,700,000	24,500,000	27,500,000
Total	147,566,372	194,660,000	187,420,000				192,400,000	202,600,000

Notes: (2) All Policy Years Valued as of 06/30/2003  
(3) Appendix C, Table 3, Column (7)  
(4) Appendix C, Table 3, Column (13)  
(5) Appendix C, Table 4, Column (7)  
(6) Appendix C, Table 4, Column (12)  
(7) Appendix C, Table 5, Column (11)  
(8) & (9) D&T selected based on Columns (3) through (6)

**City of Long Beach  
Workers Compensation  
Estimated Ultimate Losses  
Methods 1 and 2: Loss Development Methods  
(Losses Limited to Policy Period Retentions)**

**A. Incurred Loss Development Method**

Report Year	Unlimited Incurred Losses @ 06/30/2003	Number of Claims with Incurred Loss in Excess of Retention	Incurred Losses in Excess of Retention	Limited Incurred Losses @ 06/30/2003	Incurred Loss Development Factor	Indicated Ultimate Losses Limited to Retention
(1)	(2)	(3)	(4)	(5)	(6)	(7)
7/1/90-91	11,364,318	0	0	11,364,318	1.023	11,630,000
7/1/91-92	8,364,189	0	0	8,364,189	1.029	8,610,000
7/1/92-93	9,787,267	0	0	9,787,267	1.070	10,470,000
7/1/93-94	11,377,774	0	0	11,377,774	1.079	12,280,000
7/1/94-95	8,111,144	0	0	8,111,144	1.092	8,860,000
7/1/95-96	8,363,708	0	0	8,363,708	1.108	9,270,000
7/1/96-97	8,467,299	0	0	8,467,299	1.130	9,570,000
7/1/97-98	12,985,165	0	0	12,985,165	1.158	15,040,000
7/1/98-99	13,707,475	0	0	13,707,475	1.216	16,670,000
7/1/99-00	18,661,093	1	94,219	18,566,874	1.301	24,160,000
7/1/00-01	14,153,365	0	0	14,153,365	1.483	20,990,000
7/1/01-02	13,080,853	0	0	13,080,853	1.780	23,280,000
7/1/02-03	9,236,940	0	0	9,236,940	2.580	23,830,000

**B. Paid Loss Development Method**

Report Year	Unlimited Paid Losses @ 06/30/2003	Number of Claims with Paid Loss in Excess of Retention	Paid Losses in Excess of Retention	Limited Paid Losses @ 06/30/2003	Paid Loss Development Factor	Indicated Ultimate Losses Limited to Retention
(1)	(8)	(9)	(10)	(11)	(12)	(13)
7/1/90-91	10,446,827	0	0	10,446,827	1.080	11,280,000
7/1/91-92	8,161,688	0	0	8,161,688	1.091	8,900,000
7/1/92-93	8,941,457	0	0	8,941,457	1.177	10,520,000
7/1/93-94	9,976,300	0	0	9,976,300	1.189	11,860,000
7/1/94-95	7,615,336	0	0	7,615,336	1.208	9,200,000
7/1/95-96	7,158,155	0	0	7,158,155	1.238	8,860,000
7/1/96-97	7,346,372	0	0	7,346,372	1.279	9,400,000
7/1/97-98	10,918,949	0	0	10,918,949	1.349	14,730,000
7/1/98-99	10,900,736	0	0	10,900,736	1.464	15,960,000
7/1/99-00	12,973,274	0	0	12,973,274	1.669	21,650,000
7/1/00-01	9,003,796	0	0	9,003,796	2.086	18,780,000
7/1/01-02	7,256,614	0	0	7,256,614	3.129	22,710,000
7/1/02-03	3,377,061	0	0	3,377,061	6.980	23,570,000

Notes: (2) - (4) All Policy Years Valued as of 06/30/2003  
 (5) = (2) - (4)  
 (6) Appendix C, Table 8  
 (7) = (5) x (6), rounded  
 (8) - (10) All Policy Years Valued as of 06/30/2003  
 (11) = (8) - (10)  
 (12) Appendix C, Table 9  
 (13) = (11) x (12), rounded



**City of Long Beach  
Workers Compensation**

**Estimated Ultimate Losses  
Methods 3 and 4: Expected Loss & Development Method**

**A. Based on Incurred LDF**

Policy Period	Preliminary Estimated Ultimate Losses	Incurred Loss Development Factor	Percentage of Ultimate Losses Not Yet Reported	Expected Additional Incurred Loss Development	Limited Incurred Losses @ 06/30/2003	Indicated Ultimate Losses
(1)	(2)	(3)	(4)	(5)	(6)	(7)
7/1/98-99	19,170,000	1.216	18%	3,405,197	13,707,475	17,110,000
7/1/99-00	21,100,000	1.301	23%	4,881,706	18,566,874	23,450,000
7/1/00-01	23,040,000	1.483	33%	7,503,924	14,153,365	21,660,000
7/1/01-02	26,010,000	1.780	44%	11,397,640	13,080,853	24,480,000
7/1/02-03	28,240,000	2.580	61%	17,294,264	9,236,940	26,530,000

**B. Based on Paid LDF**

Policy Period	Preliminary Estimated Ultimate Losses	Paid Loss Development Factor	Percentage of Ultimate Losses Not Yet Reported	Expected Additional Paid Loss Development	Limited Paid Losses @ 06/30/2003	Indicated Ultimate Losses
(1)	(2)	(8)	(9)	(10)	(11)	(12)
7/1/98-99	19,170,000	1.464	32%	6,075,738	10,900,736	16,980,000
7/1/99-00	21,100,000	1.669	40%	8,457,699	12,973,274	21,430,000
7/1/00-01	23,040,000	2.086	52%	11,994,938	9,003,796	21,000,000
7/1/01-02	26,010,000	3.129	68%	17,697,440	7,256,614	24,950,000
7/1/02-03	28,240,000	6.980	86%	24,194,155	3,377,061	27,570,000

Notes: (2) Appendix C, Table 7, Column (12)  
 (3) Appendix C, Table 3, Column (6)  
 (4) =  $1 - 1 / (3)$   
 (5) = (2) X (4)  
 (6) Appendix C, Table 3, Column (5)  
 (7) (5) + (6), rounded  
 (8) Appendix C, Table 3, Column (12)  
 (9) =  $1 - 1 / (8)$   
 (10) = (2) X (9)  
 (11) Appendix C, Table 3, Column (11)  
 (12) = (10) + (11), rounded

**City of Long Beach  
Workers Compensation  
Estimated Ultimate Losses  
Method 5: Frequency-Severity Method**

Report Year	Preliminary Selected Estimated Ultimate Losses Limited to \$250K	Factor to Adjust Losses to 7/1/02-03 Cost and Benefit Levels	Trended Ultimate Losses to 7/1/02-03 Cost and Benefit Levels	Reported Claim Counts	Trended Average Loss	ILF	Select Preliminary Severity	Estimated Ultimate Losses
(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)	(11)
7/1/93-94	10,850,000	1.804	19,570,674	1,105	17,711			
7/1/94-95	8,930,000	1.753	15,653,675	1,147	13,647			
7/1/95-96	8,940,000	1.623	14,510,837	1,058	13,715			
7/1/96-97	9,080,000	1.499	13,611,117	856	15,901			
7/1/97-98	14,360,000	1.394	20,020,123	893	22,419			
7/1/98-99	16,030,000	1.304	20,900,485	922	22,669	1.113	20,100	18,530,000
7/1/99-00	21,310,000	1.220	25,993,417	1,033	25,163	1.113	21,400	22,110,000
7/1/00-01	19,910,000	1.148	22,847,381	968	23,603	1.137	23,300	22,550,000
7/1/01-02	23,000,000	1.082	24,894,726	1,029	24,193	1.139	24,700	25,420,000
7/1/02-03	23,760,000	1.002		1,063		1.150	27,000	28,700,000
(7) Average:					19,891			
Weighted Avg:					19,754			
5-Year WA:					23,665			
2-Year WA:					23,907			
(8) Selected Trended Average loss Limited to 250K					23,500			

Notes: (2) Appendix C, Table 7, Column (3)  
 (3) [ Appendix C, Table 7, Column (4) ] x [ Appendix C, Table 7, Column (6) ]  
 (4) = (2) x (3)  
 (5) All Policy Years Valued as of 06/30/2003  
 (6) = (4) / (5)  
 (7) Averages based on column (6)  
 (8) Based on Column (6) and Item (7)  
 (9) Appendix C, Table 7, Column (10)  
 (10) = [ (8) x (9) ] / (3)  
 (11) = (5) X (10)

**City of Long Beach  
Workers Compensation**

**Estimated Ultimate Losses  
Methods 1 and 2: Loss Development Methods  
(Losses Limited to \$250,000 per Occurrence)**

**A. Incurred Loss Development Method**

Report Year	Unlimited Incurred Losses @ 06/30/2003	Number of Claims with Incurred Loss in Excess of 250,000	Incurred Losses in Excess of 250,000	Limited Incurred Losses @ 06/30/2003	Incurred Loss Development Factor	Indicated Ultimate Losses
(1)	(2)	(3)	(4)	(5)	(6)	(7)
7/1/90-91	11,364,318	2	977,310	10,387,008	1.023	10,630,000
7/1/91-92	8,364,189	1	56,480	8,307,709	1.029	8,550,000
7/1/92-93	9,787,267	6	1,214,768	8,572,499	1.070	9,170,000
7/1/93-94	11,377,774	6	1,447,219	9,930,555	1.079	10,720,000
7/1/94-95	8,111,144	1	119,667	7,991,477	1.092	8,730,000
7/1/95-96	8,363,708	2	227,192	8,136,516	1.108	9,020,000
7/1/96-97	8,467,299	3	470,246	7,997,053	1.130	9,040,000
7/1/97-98	12,985,165	4	612,060	12,373,105	1.158	14,330,000
7/1/98-99	13,707,475	6	405,462	13,302,013	1.216	16,180,000
7/1/99-00	18,661,093	13	2,051,993	16,609,100	1.301	21,610,000
7/1/00-01	14,153,365	2	155,803	13,997,562	1.483	20,760,000
7/1/01-02	13,080,853	1	69,516	13,011,337	1.780	23,160,000
7/1/02-03	9,236,940	0	0	9,236,940	2.580	23,830,000

**B. Paid Loss Development Method**

Report Year	Unlimited Paid Losses @ 06/30/2003	Number of Claims with Paid Loss in Excess of 250,000	Paid Losses in Excess of 250,000	Limited Paid Losses @ 06/30/2003	Paid Loss Development Factor	Indicated Ultimate Losses
(1)	(8)	(9)	(10)	(11)	(12)	(13)
7/1/90-91	10,446,827	1	447,885	9,998,942	1.080	10,800,000
7/1/91-92	8,161,688	1	6,066	8,155,622	1.091	8,900,000
7/1/92-93	8,941,457	6	369,880	8,571,577	1.177	10,090,000
7/1/93-94	9,976,300	5	731,234	9,245,066	1.189	10,990,000
7/1/94-95	7,615,336	1	41,136	7,574,201	1.208	9,150,000
7/1/95-96	7,158,155	0	0	7,158,155	1.238	8,860,000
7/1/96-97	7,346,372	1	205,301	7,141,071	1.279	9,130,000
7/1/97-98	10,918,949	3	248,399	10,670,551	1.349	14,390,000
7/1/98-99	10,900,736	1	74,608	10,826,128	1.464	15,850,000
7/1/99-00	12,973,274	3	439,799	12,533,475	1.669	20,920,000
7/1/00-01	9,003,796	1	26,547	8,977,249	2.086	18,730,000
7/1/01-02	7,256,614	0	0	7,256,614	3.129	22,710,000
7/1/02-03	3,377,061	0	0	3,377,061	6.980	23,570,000

Notes: (2) - (4) Provided by Client  
 (5) = (2) - (4)  
 (6) Appendix C, Table 8  
 (7) = (5) x (6), rounded  
 (8) - (10) Provided by Client  
 (11) = (8) - (10)  
 (12) Appendix C, Table 9  
 (13) = (11) x (12), rounded

**City of Long Beach  
Workers Compensation  
Loss Rate Selection  
(Losses Limited to \$250,000 per Occurrence)**

Report Year	Payroll (00000) @ 06/30/2003	Preliminary Selected Estimated Ultimate Losses Limited to \$250K	Benefit Adjustment Level	Untrended Limited Loss Rate	Loss Rate Trend Factor	Trended Limited Loss Rate	ILF from \$250 K to Retention	Select Preliminary Loss Rate Limited to 250K	Estimated Ultimate Loss
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(10)	(11)	(12)
7/1/93-94	1,956	10,850,000	1.068	5.92	1.293	7.66	1.139	6.52	
7/1/94-95	2,078	8,930,000	1.100	4.73	1.257	5.94	1.139	6.51	
7/1/95-96	2,209	8,940,000	1.079	4.37	1.222	5.34	1.134	6.80	
7/1/96-97	2,212	9,080,000	1.057	4.34	1.187	5.15	1.115	7.02	
7/1/97-98	2,384	14,360,000	1.042	6.27	1.154	7.24	1.113	7.32	
7/1/98-99	2,524	16,030,000	1.033	6.56	1.121	7.35	1.113	7.59	19,170,000
7/1/99-00	2,678	21,310,000	1.024	8.15	1.090	8.88	1.113	7.88	21,100,000
7/1/00-01	2,774	19,910,000	1.021	7.33	1.059	7.76	1.137	8.31	23,040,000
7/1/01-02	3,037	23,000,000	1.021	7.73	1.029	7.96	1.139	8.56	26,010,000
7/1/02-03	3,114	23,760,000	1.002		1.000		1.150	9.07	28,240,000

(8) Average: 7.03  
5-Year WA: 7.86  
3-Year WA: 8.18  
2-Year WA: 7.86

(9) Selected Trended Loss Rate Limited to 250K: 7.90

Notes: (2) Provided by Client  
(3) Selected based on results from Table 6  
(4) Based on statistics published by the WCIRB  
(5) = (3) X (4) / [ (2) x 1,000 ]  
(6) Based on 3.5% Rate  
(7) = (5) X (6)  
(8) Averages based on column (7)  
(9) Based on Column (7) and Item (8)  
(10) Based on statistics published by the WCIRB  
(11) = (9) X (10) / [ (4) x (6) ]  
(12) = (2) X (11) X 1,000

City of Long Beach  
Workers Compensation

Calculation of Incurred Loss Development Factors

Historical Reported Incurred Losses

Report Year	12	24	36	48	60	72	84	96	108	120	132
7/1/91-92	6,141,139	7,937,742	8,345,359	8,379,916	8,196,312	8,432,254	8,384,253	8,437,948	8,440,908	8,428,689	8,448,476
7/1/92-93	6,213,840	7,110,225	7,830,738	7,940,217	8,087,809	8,491,890	8,772,129	8,926,635	9,001,943	9,241,598	9,784,933
7/1/93-94	7,278,981	8,562,519	8,632,694	10,000,264	10,051,354	10,594,739	10,501,647	10,721,440	10,909,824	11,372,767	
7/1/94-95	5,007,191	6,174,220	7,065,866	7,279,278	8,000,114	7,595,511	7,691,696	8,048,766	8,104,443		
7/1/95-96	5,705,985	6,182,788	6,913,539	7,556,193	8,153,885	8,125,537	8,200,873	8,363,693			
7/1/96-97	4,910,313	6,468,828	7,186,291	7,400,992	7,677,486	8,315,497	8,486,603				
7/1/97-98	6,639,334	9,551,691	10,317,408	11,279,080	11,999,550	12,989,984					
7/1/98-99	5,989,890	8,808,946	10,845,969	12,531,064	13,757,475						
7/1/99-00	8,867,202	12,961,310	16,015,939	18,702,531							
7/1/00-01	8,399,518	11,907,444	14,178,564								
7/1/01-02	10,258,146	13,095,196									
7/1/02-03	9,209,684										

Age-to-Age Development Factors

Report Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-Ult
7/1/91-92	1.293	1.051	1.004	0.978	1.029	0.994	1.006	1.000	0.999	1.002	
7/1/92-93	1.144	1.101	1.014	1.019	1.050	1.033	1.018	1.008	1.027	1.059	
7/1/93-94	1.176	1.008	1.158	1.005	1.054	0.991	1.021	1.018	1.042		
7/1/94-95	1.233	1.144	1.030	1.099	0.949	1.013	1.046	1.007			
7/1/95-96	1.084	1.118	1.093	1.079	0.997	1.009	1.020				
7/1/96-97	1.317	1.111	1.030	1.037	1.083	1.021					
7/1/97-98	1.439	1.080	1.093	1.064	1.083						
7/1/98-99	1.471	1.231	1.155	1.098							
7/1/99-00	1.462	1.236	1.168								
7/1/00-01	1.418	1.191									
7/1/01-02	1.277										
Arithmetic Avg:	1.301	1.127	1.083	1.047	1.035	1.010	1.022	1.008	1.023	1.031	
Weighted Avg:	1.310	1.136	1.095	1.049	1.038	1.009	1.022	1.009	1.024	1.032	
3 Yr Wghd Avg:	1.379	1.219	1.143	1.071	1.057	1.014	1.028	1.012	1.024		
2 Yr Wghd Avg:	1.340	1.214	1.163	1.082	1.083	1.015	1.033	1.013	1.035	1.032	
Comparative I:	1.401	1.125	1.055	1.036	1.023	1.011	1.010	1.007	1.006	1.004	1.014
Comparative II:		1.273	1.127	1.081	1.056	1.037	1.027	1.021	1.014	1.008	1.100
Comparative III:	1.410	1.161	1.071	1.042	1.029	1.022	1.015	1.014	1.011	1.007	1.036
Selected:	1.447	1.200	1.140	1.070	1.050	1.025	1.020	1.015	1.012	1.008	1.070
	12-Ult	24-Ult	36-Ult	48-Ult	60-Ult	72-Ult	84-Ult	96-Ult	108-Ult	120-Ult	132-Ult
Cumulative:	2.580	1.780	1.483	1.301	1.216	1.158	1.130	1.108	1.092	1.079	1.070

City of Long Beach  
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Calculation of Paid Loss Development Factors

Historical Reported Paid Losses

Report Year	12	24	36	48	60	72	84	96	108	120	132
7/1/91-92											
7/1/92-93											
7/1/93-94											
7/1/94-95											
7/1/95-96											
7/1/96-97	1,495,314	3,463,227	4,534,976	5,545,368	6,319,084	7,031,439	7,459,336				
7/1/97-98	2,678,650	5,895,088	7,951,500	9,438,642	10,493,884	11,532,900					
7/1/98-99	2,445,244	5,737,955	7,804,351	9,682,313	11,297,702						
7/1/99-00	3,189,667	7,936,056	11,113,652	13,818,937							
7/1/00-01	2,880,079	6,921,452	9,483,680								
7/1/01-02	3,482,747	7,675,177									
7/1/02-03	3,629,180										

Age-to-Age Development Factors

Report Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-Ult
7/1/91-92											
7/1/92-93											
7/1/93-94											
7/1/94-95											
7/1/95-96											
7/1/96-97	2.316	1.309	1.223	1.140	1.113	1.061					
7/1/97-98	2.201	1.349	1.187	1.112	1.099						
7/1/98-99	2.347	1.360	1.241	1.167							
7/1/99-00	2.488	1.400	1.243								
7/1/00-01	2.403	1.370									
7/1/01-02	2.204										
Arithmetic Avg:											
Weighted Avg:											
3 Yr Wghd Avg:											
2 Yr Wghd Avg:											
Comparative I:	2.230	1.315	1.140	1.080	1.048	1.034	1.025	1.016	1.012	1.009	1.090
Comparative II:		1.573	1.254	1.141	1.085	1.057	1.034	1.025	1.016	1.009	1.144
Comparative II:	2.223	1.291	1.146	1.076	1.056	1.034	1.026	1.021	1.017	1.007	1.107
Selected:	2.230	1.500	1.250	1.140	1.085	1.055	1.033	1.025	1.016	1.010	1.177
Cumulative:	6.980	3.129	2.086	1.669	1.464	1.349	1.279	1.238	1.208	1.189	1.177

City of Long Beach  
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Estimated Number of IBNR Claims as of June 30, 2003

Reported Claim Counts By Lag year										
	0	1	2	3	4	5	6	7	8	9+
AY										
Prior	12,030	1,189	151	95	83	48	37	29	15	131
1994	1,030	104	7	2	1	1	0	0	0	0
1995	1,035	92	5	3	0	3	1	0	0	
1996	942	69	4	5	1	2	1	0		
1997	765	72	13	6	1	0	0			
1998	805	76	6	4	3	1				
1999	822	83	8	3	3					
2000	933	75	9	11						
2001	879	90	9							
2002	911	124								
2003	913									

Reported Claim Frequency By Lag Year										
	0	1	2	3	4	5	6	7	8	9+
AY										
Prior										
1994	0.404	0.041	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000
1995	0.393	0.035	0.002	0.001	0.000	0.001	0.000	0.000	0.000	
1996	0.347	0.025	0.001	0.002	0.000	0.001	0.000	0.000		
1997	0.290	0.027	0.005	0.002	0.000	0.000	0.000			
1998	0.291	0.027	0.002	0.001	0.001	0.000				
1999	0.289	0.029	0.003	0.001	0.001					
2000	0.319	0.026	0.003	0.004						
2001	0.299	0.031	0.003							
2002	0.291	0.040								
2003	0.293									
Average	0.322	0.031	0.003	0.002	0.001	0.001	0.000	0.000	0.000	0.000
4-yr Avg	0.300	0.031	0.003	0.002	0.001	0.001	0.000	0.000		
Selected	0.300	0.034	0.003	0.002	0.001	0.001	0.000	0.000	0.000	0.000

Projected IBNR Claim Counts By Lag year										
	0	1	2	3	4	5	6	7	8	9+
AY										
Prior										
1994										
1995										0
1996									0	0
1997								0	0	0
1998							0	0	0	0
1999						1	0	0	0	0
2000					3	1	0	0	0	0
2001				6	3	1	0	0	0	0
2002			9	6	3	2	0	0	0	0
2003		106	9	6	3	2	0	0	0	0

**City of Long Beach  
Workers Compensation**

**Expected Ultimate IBNR Losses as of 6/30/03**

Fiscal Year	Estimated Ultimate Claim Counts	Expected Claim Severity	Expected Ultimate Losses
(1)	(2)	(3)	(4)
7/1/03-04	125	28,600	3,590,000
7/1/04-05	20	30,300	610,000
7/1/05-06	11	32,100	350,000
7/1/06-07	5	34,000	160,000
7/1/07-08	2	36,000	60,000
7/1/08-09	0	38,200	0
Total	163		4,770,000

Notes: (2) From Appendix C, Table 10

(3) 7/1/02-03 expected claim severity from Appendix C, Table 5, Column (10), adjusted for 6% annual loss inflation.

(4) = (2) x (3), rounded.



**City of Long Beach  
Workers Compensation**

**Expected Ultimate Losses to be Incurred During Next Two Fiscal Years**

Fiscal Year	Estimated Payroll (in \$00,000s)	Estimated Claim Frequency	Estimated Ultimate Claim Counts	Expected Claim Severity	Expected Ultimate Losses
(1)	(2)	(3)	(4)	(5)	(6)
7/1/03-04	3,207	0.331	1,060	28,900	30,630,000
7/1/04-05	3,303	0.321	1,060	30,900	32,750,000